

**PITA
ANNUAL
REVIEW**

2020-2021



Paper Industry Technical Association

5 Frecheville Court,
Bury, Lancashire
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PITA Training & Conferences



Association

Kate Leach presents

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24th & 25th February 2021



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For further details & to book your place on this course, contact Helen in the PITA Office (0300 3020 150 / helen@pita.org.uk)



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Compiled by the PITA Office

P I T A

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The company has over 200 years of industrial history and was re-born through the demerger of the pulp, paper and power businesses from Metso Group in December 2013. Valmet's net sales in 2019 were approximately EUR 3.5 billion. Valmet's shares are listed on the Nasdaq Helsinki and the head office is located in Espoo, Finland at Keilasatama 5, 02150 ESPOO with a switchboard phone number +358 10 672 0000.

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Paper Industry Technical Association

Annual Review

2020-2021



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We would like to thank all our members for their continuing support during this difficult year and wish you all the best for 2021.

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Chairman's Message



No one would have believed that the twentieth year of the second millennium would be a year of such unprecedented change in nearly every area of life. The concept of 'Social Distancing' and 'bubbles' were introduced into everyday conversation as families, friends and co-workers were separated by the 'SARS-CoV-2' virus which arrived in the UK towards the end of January and has subsequently had a profound effect on the way we live our lives, go about our business and travel. It is an immense relief that the first viable vaccines to arrest this terrible plague are starting to be circulated and those most vulnerable are being vaccinated.

In the face of such unprecedented change, your Association has resolutely continued to do what it is good at and, although the obstacles have been 'challenging', the PITA Office Team has carried on undaunted. As National Chairman, I would like to publicly thank Helen, Daven and Barry, for the resilience they have shown during 2020.

For PITA, one the biggest disappointments was that COVID-19 restrictions marred our centenary year and we were unable to mark the momentous anniversary with a special conference and share the celebrations with our members. One hundred years of serving members is certainly something not to be forgotten and I am sure that as soon as conditions permit we will find a way to join together in physical meetings as we look forward to the next century.

When I sat down to prepare this year's report, I decided to look again at our vision for the association which is

"The Dissemination of Information and Research for the Benefit of the Paper Industry and Associated Industry's at large, to the General Public (in particular Younger People) through Training Courses, Seminars, Conferences, and the Journal Paper Technology"

I asked myself if the statement is still relevant and, if so, what are we doing to achieve results through our activities?

Whilst much can be learnt from our historical experiences, constantly looking back can have a negative effect as change can be resisted, leading to inertia as we seek to adapt to the new needs of our members. I am pleased to say that this has not been the case with your Association and throughout all this time we have quietly gone about our business, working to minimise operating costs, focussing to prevent a serious erosion of Association funds and, most importantly, underpinning the confidence in the future of Papermaking in the UK, Europe and even further afield.

It is fair to say that not every member of the Board of Directors shared the belief that PITA could lead an international research and development project to explore the benefits of 'Digitally Twinning' a modern paper machine in order to reduce Steam Consumption and, hence, production costs. Yet, here we are nearly twelve months into a three-quarter of a million-pound project (twelve months made all the more challenging by the ever-present virus), with a team of technicians spanning industrial, international and generational borders doing just that. PITA is no longer merely disseminating information and research, your Association is proactively contributing to that pool of information.

In 2020's financial performance, we can already see the benefit of diversifying our activities, albeit lessened by the distress caused by COVID-19. Your Association will be proactively seeking out future opportunities for collaborative R&D projects and where necessary will increase our resources as more projects are identified and secured. Innovation is totally in keeping with PITA's Mission Statement and has the potential to provide a genuine benefit to our industry.

We should not forget PITA's 'traditional' activities and in, 2020, we have:

- Published seven magazines, containing over 550 pages packed with the latest technology, news and developments in the industry continues to punch well above its weight internationally. *Paper Technology International* plays a vital role in communicating with our members and through paid subscriptions contributes to the finances of the Association using the medium which is at the centre of everything we do, i.e. Paper!
- Published twenty-three Newsletters, packed with local news and shorter articles relevant to our membership, including over eighty health and wellbeing articles to help members through the lockdown.
- Over one hundred industry related news stories have featured on the PITA website and we have supported the efforts of our Corporate Members by highlighting their activities.
- Corporate Membership of the Association has increased as organisations recognise the importance of PITA as a conduit to market.
- We have started and will continue to transition our training offering to an online digital format, which has already widened the audience significantly (our last course was joined by delegates from France and Belgium).

Over the past few years, we have seen associations similar to PITA fall by the wayside and be lost forever, whereas our small office team has responded to the challenges, developed solutions and kept life in the Association, whilst moving into a virtual workplace and embracing the Digital Revolution

I hope that you will appreciate the efforts of the Board of Directors and small team in the PITA (Virtual) Office who have addressed the numerous challenges that have been presented, and strengthened the business as we move into the next hundred years.

I can only conclude this report by reiterating my praise for the individuals involved in PITA, their enthusiasm and innovative thinking, and by thanking you, our members, who continue to believe in and support the principles that PITA stands for, by wishing you all a very Merry Christmas and looking forward to the New Year and the inevitable return to normality.

John Kirby (PITA National Chairman)

PITA Board

2020-2021

John Kirby *National Chairman*
 Graham Moore *Immediate Past Chairman*
 Stephen Hutt *Financial Director*
 Helen Dolan *Company Secretary*
 Martin Wroe
 Tim Klemz

2019-2020

John Kirby *National Chairman*
 Graham Moore *Immediate Past Chairman*
 Stephen Hutt *Financial Director*
 Helen Dolan *Company Secretary*
 Martin Wroe
 Tim Klemz

PITA Office/Paper Technology



Barry Read
 Chief Executive
 PITA Office



Helen Dolan
 Company Secretary
 PITA Office



Daven Chamberlain
 Editor
 Paper Technology



Nicolas Pelletier
 European Representative
 Paper Technology



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Graduate / Trainee Opportunity
 See page 12

Newsprint Review 2020

Gustav Ek
Consultant

AFRY Management Consulting



2020 has been a challenging year all round for everyone. COVID-19 has caused many industries to suffer and the paper industry is no exception. The already declining newsprint sector has seen falling demand exacerbated by the pandemic. European demand is estimated to decrease by 22% in 2020 from 2019 levels leading to several restructuring announcements.

Newsprint demand is driven by circulation and pagination, the latter very much determined by advertising. It is very clear that the pagination of newspapers decreased earlier this year. The pandemic has certainly had a negative effect on newspaper advertising although the shift to online digital marketing and away from printed publications was already very apparent pre-COVID. As regards circulation, this has been massively impacted by travel restrictions and the decline in the consumption of free newspapers this has caused. Taking the UK as an example, free newspapers, mainly consumed by commuters, accounted for over a third of daily circulations pre-COVID. These have been hit hardest.

As *Figure 1* shows, the decline in demand for newsprint in the UK & Ireland in 2020 is forecast to be much more severe than in previous years. The reduction in demand together with a continuing weak pound against the Euro has meant that net imports continued to fall in 2020.

Capacity and production have remained stable in the UK for a few years. However, in August, UPM announced that its Shotton mill which produces in the region of 250,000 tonnes of newsprint per annum was to be put up for sale. The reason behind this is the continued long term decline in newsprint demand in the UK. The future of the mill and the deinking plant is likely going to be away from newsprint production. Conversion to containerboard production could potentially be technically feasible and one of the options available to any interested parties. If the Shotton mill ceases to produce newsprint then it would leave Palm paper as the

only newsprint manufacturer in the UK with a capacity of 400,000 tonnes p.a.

In Europe capacity reduction plans which were highlighted in this article last year were completed during 2020: UPM permanently closed its Chapelle Darblay newsprint mill in France which had a capacity of 240,000 tonnes p.a. and International Paper ceased production of newsprint on PM3 at its Kwidzyn mill in Poland reducing European capacity by a further 55,000 tonnes p.a.

The effects of COVID-19 and the continued long term decline forecasts in newsprint demand has also led several European producers to announce further closures or conversions away from newsprint production in the future: UPM has announced the closure of its Kaipola mill in Finland and Stora Enso is to shut PM3 at its Hylte mill in Sweden. This will reduce newsprint European capacity by more than 400,000 tonnes by early 2021.

Furthermore, Norske Skog is planning conversion at Golbey in France and Bruck in Austria of two paper machines from newsprint to recycled containerboard by 2023 and Papresa in Spain is planning on converting part of its newsprint capacity also to containerboard production by 2023.

The completed capacity reductions in 2020 and the planned further shut downs and conversions planned in the next few years means that currently over one million tonnes of newsprint capacity could be taken out of the European market by 2023.

Newsprint prices as shown in *Figure 2* have been in decline since early 2019. In Europe the price decrease has been in the region of 15-20%. This is due to, as already mentioned, the continuing fall in demand and overcapacity in the market but also due to a fall in RCP news and pams prices during this period.

So, will the capacity closures and conversions that have recently taken place or planned for next year be enough to prevent further price reductions? The general consensus is that the market is still very weak and uncertainty is extremely high. Predicting the future is challenging but it is likely that there is more downside risk with regards to S:D balance developments, in which case further capacity reductions could be necessary to rebalance the market.

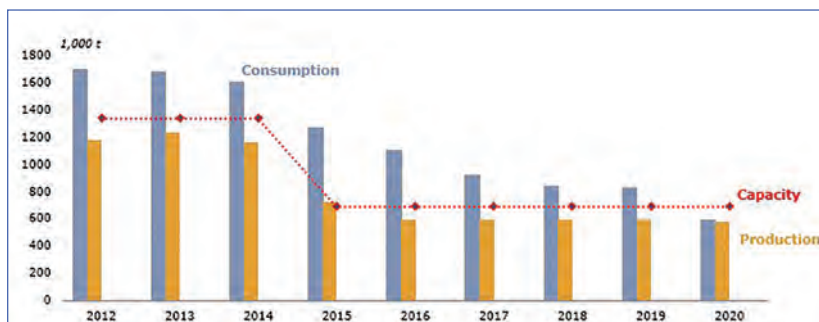


Figure 1. The UK & Ireland Newsprint demand, capacity and production

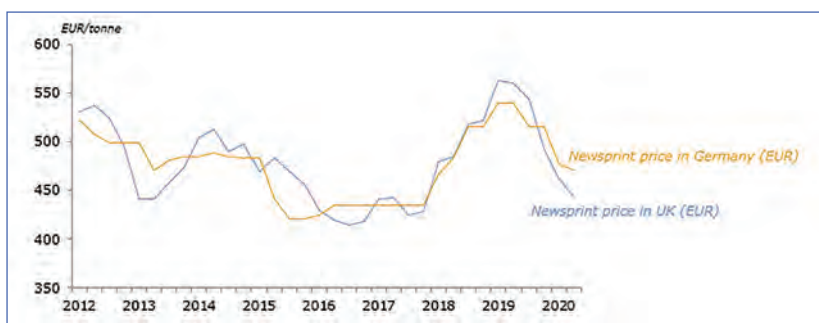


Figure 2. Newsprint price development in Europe



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Tissue Review 2020

Pirkko Petäjä

Principal Consultant,

AFRY Management Consulting



2020 has been an exceptional year that has had short and long term impacts on tissue

Year 2020 will be remembered as a truly exceptional year; in January nobody could foresee what was facing us a couple of months ahead. Since March the COVID-19 pandemic has been on everybody's lips and multitudes of articles and assessments of the impacts have been written.

The tissue industry has experienced fairly visible impacts in the short term and some of the changes are there to stay.

In the first quarter of the year hoarding caused a demand peak that multiplied the sales volumes in a few weeks. After a short decline due to de-stocking consumer segment demand started to normalise and actually enjoyed some positive drivers as people spent time at home, hygienic awareness increased etc. The AfH segment on the contrary suffered severe decline of demand that still continues, as people work from home, travel is limited, hotels and restaurants have low occupancy rate etc. Part of the AfH demand moved to consumer segment, and a positive driver in all tissue is the increased hand hygiene: people wash hands more frequently and use paper instead of air dryers or cloth. Even in consumer side a folded hand/kitchen towel has become popular as a hygienic way of drying hands.

The economic downturn due to unemployment and shut down of businesses will continue even after the rebound from the worst. Low economy will have an impact on the tissue demand and demand growth. AfH will continue to be suffering the most; recovery will be slow and some of the impacts will be more or less permanent. By contrast, the consumer segment will return to more normal levels after the pandemic will gradually release its hold.

However, total tissue will also in the long run continue in fairly strong demand. The hygienic awareness increases the

disposable use of hankies, towels and napkins. Clearly increased hand hygiene and other cleaning and wiping habits will remain.

There has been only limited number of meaningful lock-downs or disruptions in the producing mills; in the beginning in some Chinese mills and shorter periods elsewhere. Some financial challenges have been met due to safety costs and inefficiencies in the supply chain in the changing environment. Some investment projects have been delayed or disturbed as machine suppliers have not been able to work on site, but in principle operations and investments will continue rather undisturbed. There has been significant changes in the supply chain as e.g. the e-commerce has rapidly increased and the supply chain has not been adjusted. The new requirements are there to stay.

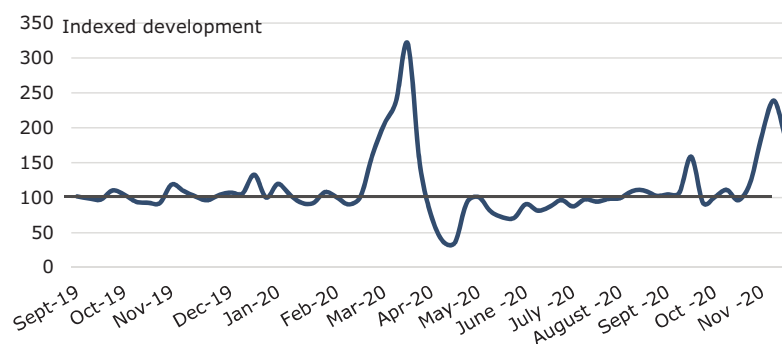
The low pulp price, that is also a consequence of the COVID-19 (printing and writing paper accelerated sun-set, low economy, low pulp demand, stagnant prices) is resulting in good economic results for most tissue companies.

In these circumstances the financial situation of the producers is rather good and the investment activity has not been slowing down. Planned investments typically continue, maybe slightly delayed, but are still taking place.

Brexit is an additional driver for the investments. Clearly there is an interest in barricading oneself in Britain, preparing for the new era. There are several projects going on in the UK: some, like WEPA, have published their plans, while some other even far developed projects are not announced. It is clear that new capacity increases will be seen in the UK, and there is room for that as the UK has long been a net importer of tissue paper and tissue products. A fair share of the imports have come from the EU.

The effects of the COVID-19 on tissue are all in all more positive than negative. Globally the impacts vary somewhat; in North America the impacts are very similar as described for Europe, as AfH has over 30 % share the disturbance is clear especially for the dedicated producers. The virus has had varying effects on countries in Asia, in China the life has normalised and the impact of the virus was rather short and local, while in some other countries like India lock-downs have been severe.

Retail sales development of toilet tissue in Germany



Toilet tissue sales peak in week 12, 2020...

... followed by a relatively quick drop and return to normal in August. Now the second wave seems to be reflecting in the demand as well

Source: Destatis; German statistics of weekly consumer products sales

Retail sales development of toilet tissue in Germany

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European Containerboard and Corrugated Board Review 2020

Outi Juntti,

Partner,

Jay Partners oy



Corrugated board – a critical component for the retail and e-commerce at all the times

Whilst the global COVID-19 pandemic has had drastic and even potentially permanent negative impacts on many of the paper industry sectors, particularly on the printing and writing companies, containerboard and corrugated board belong to the winners when looking at the year as a whole. The beginning of the year was rather bumpy, some companies reported box volume decline by 1 to 2 per cent during H1 whilst others managed to keep the volumes flat. However, as the year advanced the market began to look more and more encouraging. The third quarter results already exceeded the expectations of many players. When writing this article, we are in the middle of Christmas preparations, and the fourth quarter figures are still in the making; however, October and November indicated that this exceptional year is going to end well for the European containerboard and corrugated industry. At least, some companies have reported up 5 per cent growth vis-à-vis the previous year.

During these challenging times, corrugated board has proven that it has a crucial role in the global trade and eventually in enabling the society to function. The global retail patterns and consumer behaviour has changed significantly since outbreak of the pandemic. E-commerce growth has been tremendous globally. Even in the leading retail markets like the UK, where the share of e-commerce is expected to exceed 30 per cent and corresponding to annual growth of impressive 35 per cent compared to 2019. Corrugated board is by far the most significant packaging format for e-commerce estimated to account for over 80 per cent packaging consumption. Besides e-commerce the box demand has been boosted by changing consumer purchasing patterns, like on-line grocery sales and home deliveries.

The industry leaders continue to invest and expand

The capacity build-up in the European containerboard industry has now been on-going for nearly two decades: first in recycled grades and then lately also in kraftliner. Year 2020

was no exception, and interestingly a new company is going to enter the business as Norske Skog announced its massive investment in June. The company's plans are substantial; between 2021 and 2023 it will convert two newsprint machines at its Golbey mill in France and Bruck an der Mur mill in Austria to testliner and fluting. The total containerboard capacity addition will be 765,000 tonnes making Norske Skog a sizeable player in the Western European markets. Otherwise, the companies' investment activity has been focusing on the on-going projects. Whilst the industry has mostly been able to maintain normal operations otherwise, the COVID-19 pandemic has slightly prolonged some projects including Mondi's kraft-top machine in Slovakia and Hamburger Spremberg's recycled containerboard machine in Germany. However, Europe's largest containerboard machine, Propapier PM3, 750,000 tonnes capacity supplied by Voith, in Saxony-Anhalt Germany, managed to commence production in August.

The leading producers continue to fortify their position and operations. Smurfit Kappa is in the process of carrying out a large capital expenditure program, which includes a EUR 134 million carbon reduction project in the Nettingsdorfer kraftliner mill in Austria, a new box plant in Burgos Spain and an expansion in the French Facture mill. DS Smith has been active in corrugated board opening a new plant in Indiana the US. In December the company announced that it is going to open two new corrugated plants in Poland and Northern Italy during 2022. Spanish SAICA on its turn made an entry to a completely new continent and published its decision to build a corrugated converting plant in Ohio. With this investment SAICA joins now Smurfit Kappa and DS Smith who have expanded their operations over the Atlantic earlier. Along with Australian Pratt Industries these companies have fairly rapidly achieved a robust position in the North American corrugated markets.

In 2020 we have seen interesting movements in the UK corrugated industry as well. In March, Pitreavie Group opened a new state-of-the-art plant near Glasgow. This expansion is a continuation of the company's strategic actions to strengthen its position and service in Scotland. Belgium's VPK is another player growing in the UK. In May VPK increased its stake to 50% in corrugated sheet manufacturer CorrBoard and in October it acquired Encase. The latter operates two integrated corrugated packaging plants in England and one sheet plant in Scotland.



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We would like to invite **PITA Members** to join and contribute to our very own LinkedIn Group and hope you will use this as an opportunity to 'stay in touch' with friends and colleagues and, perhaps, renew contact with some of those who you have lost contact with.

To join the PITA LinkedIn Group, please contact the PITA Office for an invitation (info@pita.co.uk)

Energy Review 2020

Steve Freeman

Director of Environmental
& Energy Affairs,

CPI



As with other aspects of daily life, demand and production were hugely affected by COVID-19. While the impact on individual companies and sites varied, in general our industry responded magnificently with essential supplies continuing to flow direct to retailers and underpinning other supply chains. Indeed, the importance of having a domestic manufacturing base capable of response during a crisis was brought home to policy makers.

Energy markets also continued to function as the rounds of infection rebounded around the world. Reduced demand had a short-term disruptive effect on wholesale prices, though (increasingly) the impact was minimised by long-term supply contracts and the fact that actual energy content is generally a smaller component of energy bills, being overshadowed by supply and distribution costs and the pass through of the cost of government policies to consumers. With much of the energy supply industry underpinned by guaranteed returns, Regulators are struggling to reconcile recovering their costs with disruptions to demand patterns. The result is a focus on the recovery of these costs and how this is shared between different sectors of the economy.

While 2020 was dominated by these COVID-19 issues, the policy changes required to reduce emissions linked to Climate Change continued to be developed by policy makers, cumulating in the release of some major policy documents during December – with the implications likely to have a huge impact on the future of Energy Intensive manufacturing in the UK.

The most important set of policies are linked to the legally binding target that by 2050, UK domestic emissions will be net-zero, with a Government Energy White Paper released just before Christmas and the Committee on Climate Change (CCC) releasing details of its 6th Carbon Budget (covering the period 2033-37) the preceding week.

Impacting on both of these documents is the UK hosting the UN Climate Change summit (COP 26) in Glasgow during November – a platform for the UK to provide a global lead in efforts to curtail the release of climate change emissions. Within Europe, both the UK and the European Union now have 2050 net-zero targets; the US is re-joining the Paris Agreement under the Biden administration; and China has committed to net zero by 2060 – all measures giving a huge boost to the forthcoming talks, and a major push for individual countries to increase the ambition of their Paris pledges made five years ago.

The CCC 6th Carbon Budget is the first issued under the new net-zero national target and as such is intended to advise government on a phased plan to reach the 2050 target. Notwithstanding that the UK is expected to miss the forthcoming carbon budgets, the document is hugely ambitious, and based on an expected fall in the cost of renewably generated electricity, brings forward a set of new policies expected to have a major impact on life in the UK. The scope covers almost all aspects of society – not just energy use – as well as huge reductions in the use of fossil fuels, there's

major changes to land use, diet and transport.

For papermaking, the biggest impact is that by 2035, assuming the proposals are implemented then the use of natural gas will be hugely reduced, with no new investments in gas-fired equipment expected by 2030 (unless powered by bio-gas or in an area where hydrogen is expected to be rolled-out). When questioned on alternatives, Committee staff point to bio-gas and hydrogen as gradually replacing natural gas, with electrification seen as the key alternative technology with offshore wind providing the bulk of power. There's an acceptance that there is a cost and international competition issue for industry with support being required through the forthcoming energy transition away from fossil fuels.

While BEIS does not have to follow the CCC proposals, in reality it is very influential and signals future policy direction. Indeed the Energy White Paper takes forward many of the proposals in the carbon budget, with offshore wind and nuclear seen as key technologies.

The challenge for the next few years is to keep the cost of industrial energy in the UK competitive through this transition and until other competitor countries also move their policy in the same direction – likely at a slower rate. In anticipation of these policy changes, CPI and PITA have been working closely with officials to build their understanding of the impact on manufacturing of these policy changes, and to work together in developing policy measures to support industry.

One of the consistent themes is energy efficiency and it's great to see the progress that has been made over recent years. BEIS is keen to see continued progress and view its Energy Efficiency Transformation Fund as a key support measure. A number of mills applied for support from the scheme in the first round, and BEIS is keen to see a large number of applications for the second round in spring!

NEW BOOKS FOR 2020

Biorefinery Production Technologies for Chemicals and Energy, (Eds) A. Kuila & M. Mukhopadhyay, Wiley.

Handbook of Microalgae-Based Processes and Products, (Eds) E. Jacob-Lopes, M. Manzoni, M.I. Queiroz & L.Q. Zepka, Elsevier.

Macroalgal Biorefineries for the Blue Economy, A. Golberg, A.N. Robin, M. Zollmann, H. Traugott, R.R. Palatnik & A. Israel, World Scientific Publishing.

Nanocellulose and Sustainability: Production, Properties, Applications, and Case Studies, (Ed.) K.-Y. Lee, CRC Press.

Nanocelluloses: Synthesis, Modification and Applications, E. Vismara, MDPI AG.

Nanocellulose: Synthesis, Structure, Properties And Applications, (Eds.) G. Yang, M.W. Ullah & S. Zhijun, World Scientific Europe.

Papermaking in the 18th Century: A Sourcebook of UK Sites and Stories, D. Chamberlain, BAPH.

"Papermaking" in The Times 1801-1850, D. Chamberlain, BAPH.

Sustainable Bioeconomy: Pathways to Sustainable Development Goals, (Eds.) V. Venkatramanan, S. Shah & R. Prasad, Springer.

Sustainable Food Packaging Technology, A. Athanassiou, Wiley.

The Pulp and Paper Industry: Production, Management and Technology, (Ed.) M.P. Kristensen, Nova Science Publishers.

Treatment of Agroindustrial Biomass Residues: A Sustainable Approach, S. Vaz Jr., Springer.

Waste Biorefinery: Integrating Biorefineries for Waste Valorisation, (Eds.) T. Bhaskar, A. Pandey, E.R. Rene & D.C.W. Tsang, Elsevier.

Wood-Based Panels Industry Review 2020

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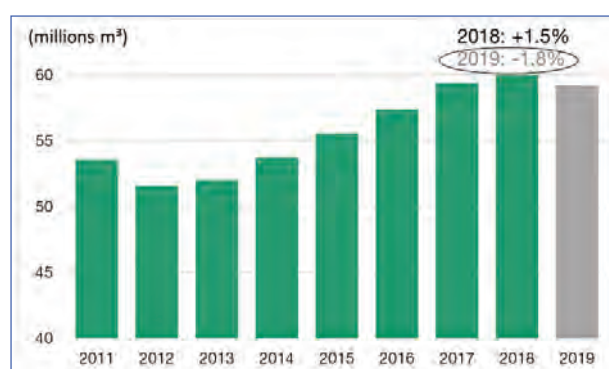
Economic Adviser,

European Panel Federation



Summary

According to the figures drawn from the EPF Annual Report published at the end of June 2020, an extensive compilation of industry statistics collected by the federation drawing on the direct input of member companies, the production of wood-based panels (WBP) in the EU-28 (+EFTA) contracted in 2019 by 1.8% to nearly 59.2 million m³, posting the first contraction in the last five years.



Developments by sector (Table 1)

Despite a mild contraction for the whole wood-based panel production, a positive year-on-year production result (+0.5% to 32.1 million m³) was posted for our largest product category, namely particleboard. As particleboard represented more than half (53%) of total WBP production, its increase partially offset the production drop in other sectors. With 10% of share in total WBP production, European softboard industry posted the largest relative decrease in production at -8.6% due to announced capacity closures. The next largest relative drop took place in the plywood industry (-7.8%), which had a share of 5% in 2019. Although being the smallest WBP sector in Europe (1% of share), hardboard production weakened by 7.3%. As the second most important WBP sector in EPF countries, MDF production (21%) contracted to a lesser extent at 3.7% due to announced capacity closures. Finally, OSB production moved down mildly by 0.8% and had a share of 11% in 2019.

Production (million m ³)	Countries	2019	2018	19/18	18/17
Particleboard	EU28 + EFTA	32.1	31.9	0.5%	1.9%
MDF	EU28 + EFTA	12.1	12.6	-3.7%	0.3%
OSB	EU28 + EFTA	6.8	6.8	-0.8%	-1.1%
Hardboard	EU28 + EFTA	0.5	0.5	-7.3%	0.8%
Softboard	EU28 + EFTA	4.7	5.2	-8.6%	5.9%
Plywood	EU28	3.0	3.2	-7.8%	1.8%
TOTAL Wood-Based Panels		59.2	60.3	-1.8%	1.5%

Table 1: Wood-based panels production in EPF countries in 2018 and 2019

Applications (Table 2)

The furniture industry is the largest end-user of wood-based panels in EPF countries. In 2019, a stable share of 49% of the overall wood-based panels in Europe went to the furniture sector. The building industry, including doors and flooring applications, accounted for a share of 38% of the overall wood-based panels production (34% in 2018). The remaining 3% and 10% of the wood-based panels production went respectively to the packaging sector and other applications.

Particleboard is the largest wood-based panels sector in both absolute and relative terms (67% of all particleboard) supplying the European furniture industry, followed by the MDF sector delivering more than half of its production to this end-use. The next two sectors, plywood and hardboard supply 30% and 15% respectively of their output to the furniture industry.

Given its size, the particleboard remains the largest WBP sector supplying to the European construction sector in absolute terms, with a little over a quarter of its output is used in this end-use. On the other hand, at least 80% of the OSB and softboard outputs were used in the construction sector in Europe in 2019 with OSB being the second largest supplier after particleboard in absolute terms. At the same time, 40% of the plywood production and more than 30% of the MDF output were used in the European construction industry in 2019. Finally, with 8% of its output going to the building industry, hardboard was the smallest panel supplier.

Product	Total production	Furniture	Construction *	Packaging	Other **
Particleboard	32.1	67%	26%	2%	5%
MDF	12.1	51%	31%	3%	15%
OSB	6.8	3%	82%	6%	9%
Hardboard	0.5	15%	8%	26%	51%
Softboard	4.7	0%	80%	0%	20%
Plywood	3.0	30%	40%	9%	21%
Total wood-based panels	59.2	49%	38%	3%	10%

* Includes doors and flooring

** DIY, extra-EU exports, not specified, mouldings, other end-uses

Table 2: Wood-based panels end-uses in EPF countries in 2019

Packaging end-uses in Europe received wood-based panels from particleboard, MDF, OSB, plywood and hardboard sectors in decreasing order of importance in absolute terms, although less than 10% of their output was used in this end-use. However, in relative terms hardboard supplied more than quarter of its output to the packaging sector in 2019 (23% in 2018).



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COVID-19 Review 2020

Daven Chamberlain

PITA Publications Editor



The pandemic has caused major disruption to all aspects of life, some of which is probably permanent; in addition it has sped-up changes that were occurring naturally. For instance, in the paper sector the downturn in graphic papers has gained pace – figures from Bloomberg suggest the demand in Western Europe during 2019 was 15.5Mt, and to August 2020 was just 8.2Mt.

Throughout the pandemic we have seen mills closing; most temporarily as they instigate ‘COVID-secure’ working practices, but some have gone permanently. Staying with the graphical sector, in Europe permanent closure or repurposing of machines is reported for SCA Ortviken, UPM Kaipola, and Stora Enso Oulu and Hylte mills, and has been repeated across North America (e.g. Ponderay Newsprint Co. and Kruger Brompton), and elsewhere. The UK has seen no permanent closures, though there have been redundancies (see Page 18).

Packaging mills have not been insulated entirely, though those that have closed were old and small, such as Graphic Packaging White Pigeon and West Monroe PM1, and Hamburger Trostberg PM1. Several corrugating plants have also shut as companies consolidate sites.

Another casualty has been the market pulp sector. Traditionally their mills feed the graphical and tissue manufacturers; with the marked reduction in graphical output, tissue mills have been mopping up fibre at reasonably low prices, and several pulp mills announced downtime (e.g. Paper Excellence Canada Northern Pulp and Mackenzie Mills, Kruger Brompton, and Columbia Pulp). Also, Pixelle Specialty Solutions Jay Mill will not rebuild its damaged pulp production, and will instead rely upon market pulp going forwards.

Recovered fibre collection has also been hit, as many recovery facilities across the world closed at the start of the pandemic. Going forwards this has impacted collection rates, producing shortages. Since PFR is a major commodity traded

worldwide, customers across the world are taking downtime due to lack of fibre, including, most recently, mills in Uttar Pradesh, India.

Closer to home, although production has in the main held up well in the UK, it has been at the expense of maintenance; mills, especially those in the packaging and hygiene sectors, have maximised capacity to maintain supply, but at some point shutdowns are inevitable to allow remedial work to be performed. It is assumed this experience has been mirrored around the world. This situation cannot last long term, and extended maintenance shuts are likely to be required to catch up on issues. In the meantime, it is noticeable that some major supply companies, most recently Valmet, have laid-off staff on a temporary basis in order to weather the storm due to short-term business uncertainty.

But as always, there is light within the darkness. In this case, the increased interest in ‘hygiene’ has resulted in more awareness of packaging safety by the public. Companies as diverse as DS Smith and James Cropper have surveyed public attitudes to packaging, and on the back of results have launched products with antibacterial and antiviral additives. The public has become sensitised to how different materials can act as vectors of infection; a finding that is likely to outlast the current pandemic.

Speciality producers are another beneficiary. Two examples are ultrapure cellulose (of the sort that Whatman used to make at Springfield Mill) being used as a basis for lateral flow analysis kits; and facemasks produced from wood pulp following collaboration between Pulp Moulded Products and Kruger. With the nonwoven disposable masks becoming a common piece of litter along highways and byways, biodegradable wood-based versions might gain popularity from environmentally-aware consumers if mask-wearing persists.

Finally, mills worldwide have had to instigate official COVID-19 protocols, segregating shifts, and production staff from office staff, for the last few months. Many have also limited access to sites for outside suppliers. This is all likely to continue for several more months until the various vaccines have been rolled out successfully; so don’t expect a rapid change of working practices for some time to come!

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The General Secretariat remains in Paris primarily for legal reasons as EUCEPA is a French registered body.

*NB to dial any European telephone number from the UK, replace (+) by (00);
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Year of Foundation: 1969

Finland - PI

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Year of Foundation: 1947

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Year of Foundation: 1905

Great Britain - PITA

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Year of Foundation: 1920

Italy - ATICELCA

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Year of Foundation: 1971

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World Paper Industry Technical Associations



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 Website: www.smurfitkappa.com

SOFIDEL GROUP UK

Tissue production and distribution
 Brunel Way, Baglan Energy Park, Briton Ferry
 Neath, SA11 5FP
 Tel: +44 01639 825 380
 Fax: +44 01639 825 381
 Website: www.sofidel.com
 Contact: Giuseppe Munari

SONOCO ALCORE

Paper Manufacturer
 Stainland Board Mills, Holywell Green, Halifax,
 Yorkshire, HX4 9PY
 Tel: 01422 37 77 91 Fax: 01422 31 17 25
 Website: www.sonocoalcore.com
 Contact: Andrew Furness

SPRAYING SYSTEMS LTD

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 Tel: 07711 972830
 Email: david.yates@spray.com
 Website: www.spray.com
 Contact: David Yates



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T**TEST-TECH**

Testing and Development Service for the Paper Industry
 Website: www.test-tech.co.uk
 Contact: Ken Holroyd (Process Analysis and Materials Testing)
 Mobile: 07780 667174 Email: ken.holroyd@test-tech.co.uk
 Contact: Robert Langley (Fibre Consultant)
 Mobile: 07786 136601 Email: robert.langley@test-tech.co.uk
 Contact: Richard Saunders (Paper and Print Consultant)
 Mobile: 07986 044134 Email: richard.saunders@test-tech.co.uk

**TOSCOTEC S.P.A.**

Supplier of tissue and paper machinery.
 Viale Europa 317/F, 55012 Marlia, Lucca, Italy
 Tel: +39 0583 40 871 Fax: +39 0583 408 7800
 Email: info@toscotec.com
 Website: www.toscotec.com

TRONOX PIGMENT (UK) LTD

Titanium dioxide pigment manufacture.
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 Tel: 01469 571000
 Website: www.tronox.com
 Contact: Barry Millson

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 Website: www.tullisrussell.com
 Contact: Jon Foulkes

U**UPM-KYMMENE (UK) LTD**

Newsprint Manufacturer
 Shotton Paper, Weighbridge Road, Shotton,
 Deeside, Flintshire, CH5 2LL
 Tel: 01244 280000 Fax: 01244 280363
 Website: www.upm.com
 Contact: Andrew Bronnert

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Manufacturing and Refurbishment Engineers for the Paper Industry
 Waterside Business Park, Johnson Road, Eccleshill, Darwen,
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 Tel: 01254 819078
 Website: www.valmet.com

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Intelligent Automation Solutions for the Pulp and Paper Industry.
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 RG24 8QY
 Tel: 01256 376200
 Website: www.valmet.com

**VERNACARE LTD**

Manufacturer and supplier of medical use disposable pulp products, disposal units and cellulose based patient cleansing wipes.
 Folds Road, Bolton, Lancashire, BL1 2TX
 Tel: 01204 537907 Fax: 01204 521862
 Email: steve.birch@vernagroup.com
 Website: www.vernacare.com
 Contact: Steve Birch

W**WOOLLARD & HENRY LTD**

Engineering services company and manufacturer of Dandy Rolls.
 Stonewood Park, Dyce, Aberdeen, AB21 7DZ, Scotland
 Tel: 01224 771100
 Fax: 01224 771277
 Email: stuart.robertson@woollardandhenry.com
 Website: www.woollardandhenry.com
 Contact: Stuart Robertson

Information supplied courtesy of CEPI, and HM Revenue and Customs



2019 – Summary

CPI figures show relatively stable production throughout the year, with a 1.1% reduction in overall tonnage; in essence, a quite year! One mill sale occurred that was not noted last year: Northwood Paper purchased the assets of Sidcot Group, including Chesterfield Mill.

2020 – Preliminary Assessment

The dominant influence throughout 2020 has been the pandemic. It caused temporary closures at Arjowiggins, James Cropper, and UPM Caledonian, to name but three; by contrast, tissue and packaging mills run at full pelt because market requirements were so high, due to stockpiling and panic buying of hygiene products, and increased online shopping. Production by both sectors is likely to be high when the final numbers are crunched.

Upgrades were made at DS Smith Kemsley, with a new moisture sensor at raw material delivery; Glatfelter Lydney Mill upgraded PM8 dry end; both Northwood Paper (Chesterfield Mill) and Sonoco (Stainland Mill) upgraded machine drives; and at Two Rivers Pitt Mill the waterwheel was re-hung to power a beater. Also, Portals Paper Overton Mill PM1 took downtime from late 2019 until September, due to a major rebuild.

New capacity was added at what was the smallest mill in the country, Pitt Mill run by Two Rivers Paper Company, where, due to COVID-19, a second vat room was opened to allow the two main papermakers, Neil and Zoe, to work separately. Then, an even smaller mill was opened by Mark Cropper at his Paper Foundation; this is a single-vat hand mill which will specialise in producing conservation grades. Also, in October, WEPA Bridgend awarded the contract for a 65,000tpy tissue line to Valmet, which will come online early 2022.

No mill sales took place during the year, but UPM placed Shotton Paper on the market, with the proviso that any purchaser does not use it for newsprint; a deal is expected by 2022. Also, Leicester Tissue Company, a converting operation that had announced plans to go into production and build a new mill, was purchased by Accrol Group; the latter has never expressed intentions to move into production, so the likelihood of a new tissue mill has now receded.

Finally, there have been inevitable reductions in manning levels: Weidmann Whiteley announced redundancies in its components workshop in February; Portals Paper considered redundancies in May, although whether any were made remains unreported; James Cropper PLC restructured the paper division in July; and Arjowiggins announced 70 redundancies in November. In addition we are aware of reductions in headcount at other mills, which have not been publicised.

2021 – Preview

One way or another, the ramifications of Brexit will become apparent from the start of 2021. As regards our sector, the direct effect could be the imposition of tariffs on imports and exports, and logistical delays due to transport issues; indirectly, any effect that Brexit has on the general economy and manufacturing sector will have a knock-on effect to the downstream industry, such as packaging and converting. Brexit aside, no new capacity is forecast for the year, but the new 75MW CHP at DS Smith Kemsley Mill is due to come online, which will reduce CO2 emissions by 36,000tpy.

Daven Chamberlain,
Editor, Paper Technology International

UK Data (CPI/HM Revenue & Customs)

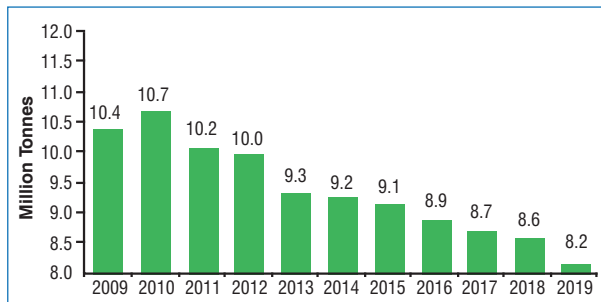
UK Paper and Board Facts & Figures 2019

KEY FIGURES OF THE UK'S PAPER-BASED INDUSTRIES

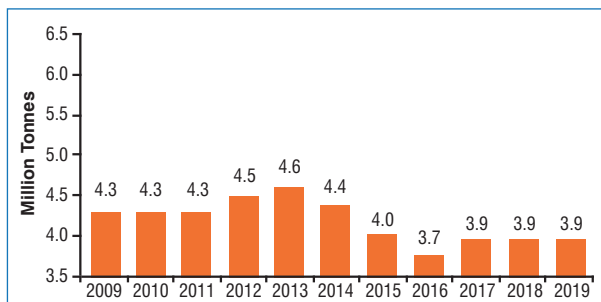
62,000	62,000 people are employed in the UK manufacturing paper and paper products	Jobs
1,417	1,417 UK enterprises are engaged in the manufacture of paper products	Companies
£12 billion	UK companies manufacturing paper have a turnover of £12,149 million	Turnover
£3.4 billion	UK manufacture of paper has a Gross Value Added of £3,375 million	GVA

Source: ONS, Annual Business Survey 2019, SIC 17

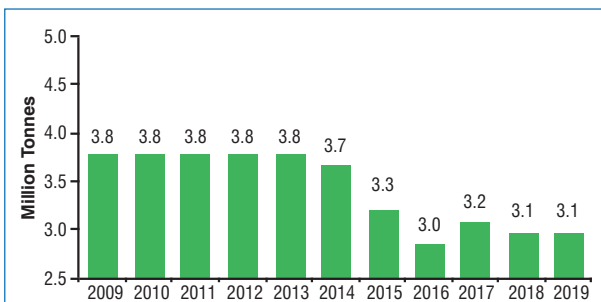
UK Consumption of Paper and Board 2009-2019



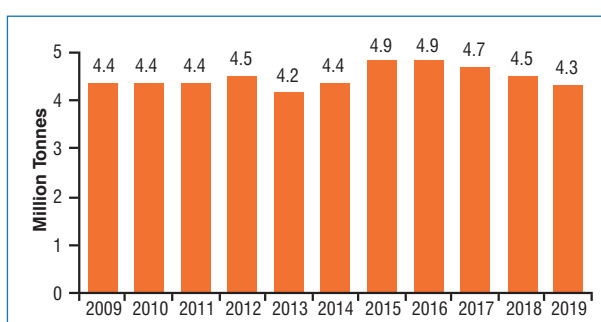
UK Production of Paper and Board 2009-2019



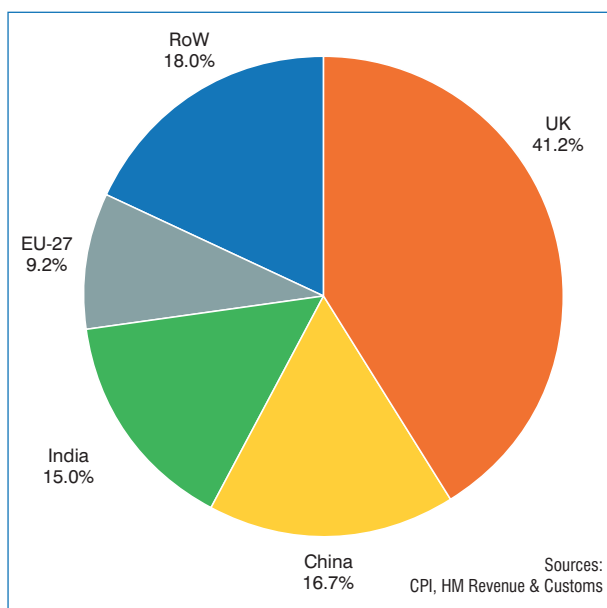
Recovered Paper Usage in UK Papermaking 2009-2019



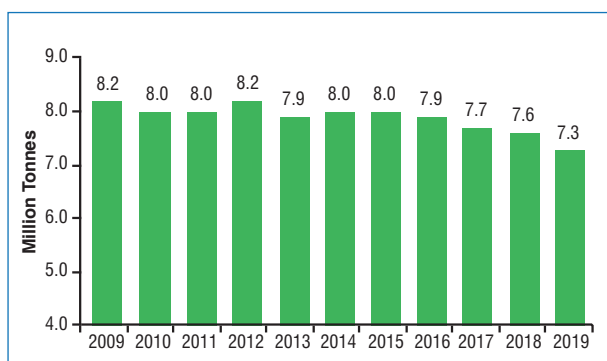
Recovered Paper Exports 2009-2019



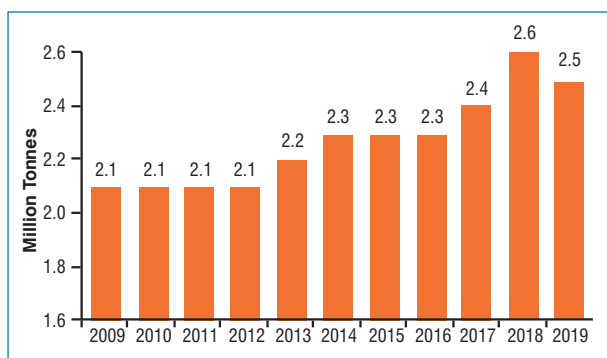
Recovered Paper Markets 2019



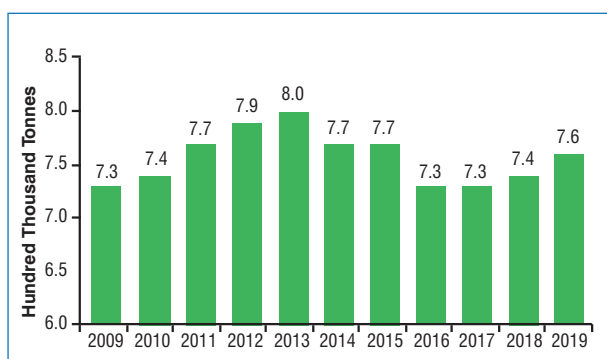
Recovered Paper Collection 2009-2019



Consumption of Paper by Corrugators 2009-2019



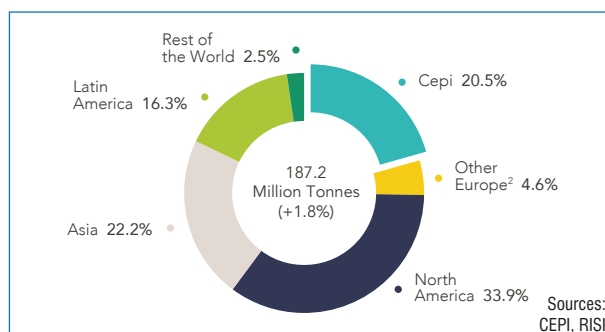
Production of Tissue Parent Reels 2009-2019



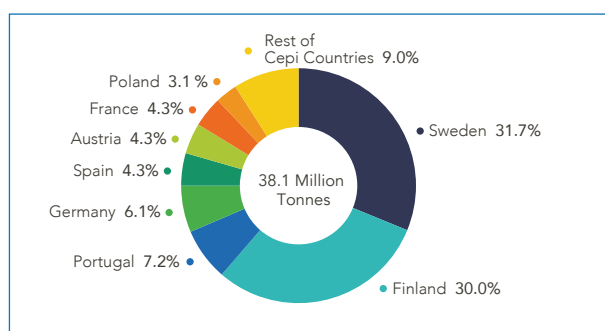
European Data (CEPI)

Pulp – Global View

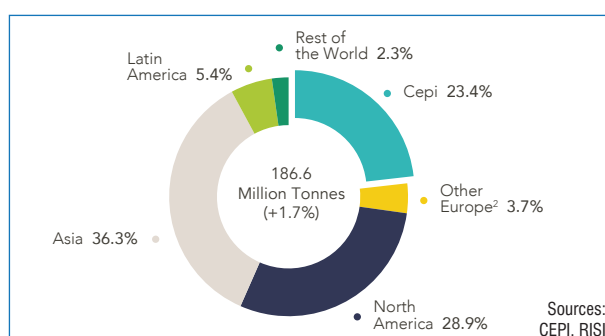
Pulp Production by Region in 2018



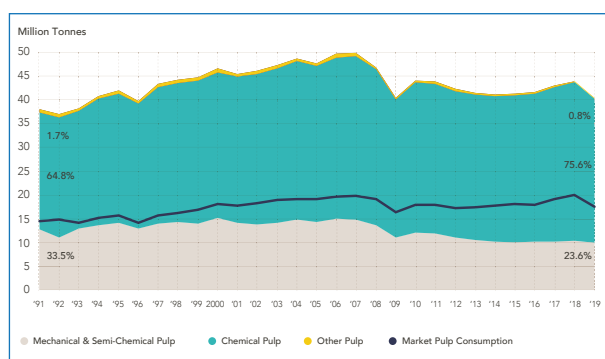
Pulp Production by CEPI Country in 2019



Pulp Consumption by Region in 2018



Pulp Consumption by Grade CEPI Countries in 1991-2019



Pulp

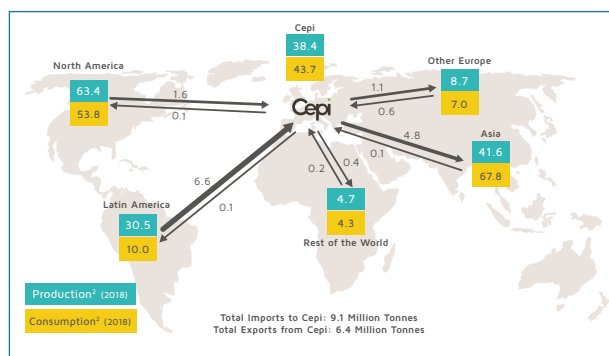
CEPI Exports of Pulp to Other Regions 2000-2019

000 Tonnes	2000	2010	2015	2018	2019	% Share of Total	% Change 2019/2018
Other Europe	724	719	768	922	1,100	17.1	19.4
North America	104	62	59	58	137	2.1	137.3
Latin America	6	49	69	61	58	0.9	-5.3
Asia	412	1,595	2,156	2,982	4,751	74.0	59.3
Rest of the World	86	142	187	298	371	5.8	24.5
Total	1,332	2,567	3,240	4,320	6,417	100.0	48.5

CEPI Imports of Pulp from Other Regions 2000-2019

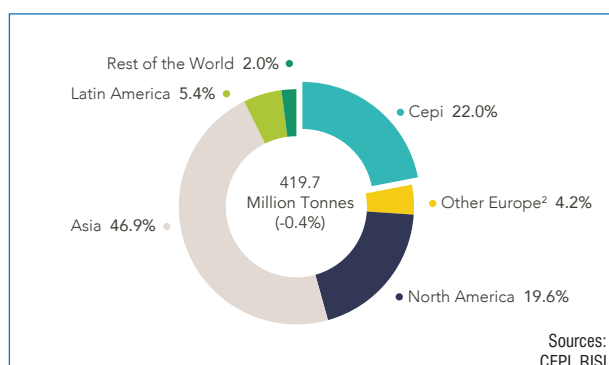
000 Tonnes	2000	2010	2015	2018	2019	% Share of Total	% Change 2019/2018
Other Europe	657	480	663	646	611	6.7	-5.5
North America	4,623	2,292	1,415	1,434	1,559	17.2	8.7
Latin America	1,916	4,733	5,657	7,222	6,643	73.2	-8.0
Asia	272	134	220	82	54	0.6	-34.5
Rest of the World	456	81	135	230	214	2.4	-7.1
Total	7,924	7,721	8,091	9,615	9,081	100.0	-5.6

Trade Flows of Pulp to and from CEPI Countries in 2019

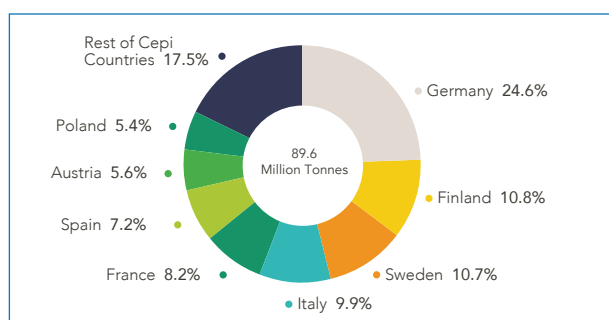


Paper – Global View

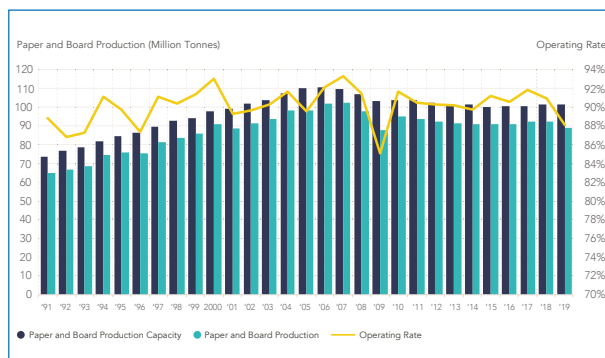
Paper & Board Production by Region in 2018



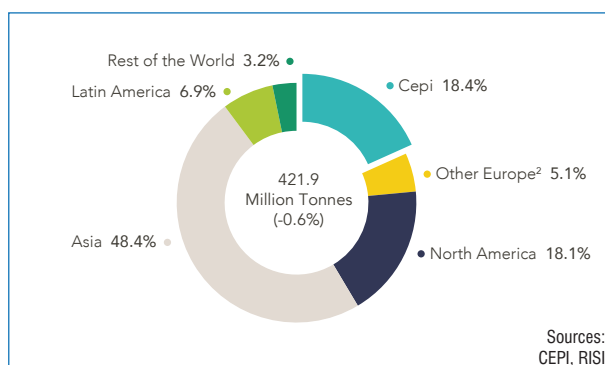
Paper & Board Production by CEPI Country in 2019



Paper & Board Production and Consumption in CEPI Countries 1991-2019



Paper & Board Consumption by Region in 2018



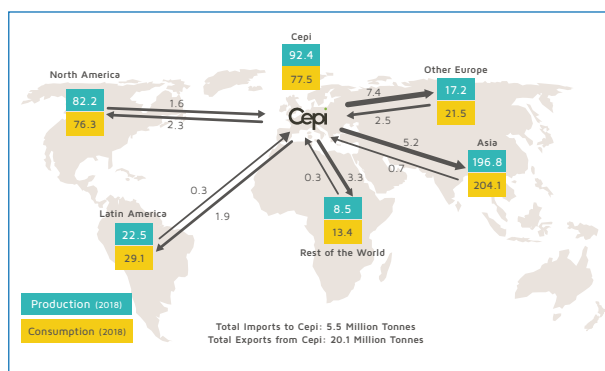
CEPI Exports of Paper & Board to Other Regions 2000-2019

000 Tonnes	2000	2010	2015	2018	2019	% Share of Total	% Change 2019/2018
Other Europe	6,090	7,349	7,288	7,407	7,417	36.8	0.1
North America	2,283	2,055	2,069	2,611	2,348	11.7	-10.1
Latin America	874	1,879	1,794	2,028	1,874	9.3	-7.6
Asia	2,933	5,099	4,980	5,252	5,155	25.6	-1.8
Rest of the World	1,707	2,783	3,063	3,212	3,349	16.6	4.3
Total	13,887	19,164	19,194	20,510	20,145	100.0	-1.8

CEPI Imports of Paper & Board from Other Regions 2000-2019

000 Tonnes	2000	2010	2015	2018	2019	% Share of Total	% Change 2019/2018
Other Europe	3,318	2,525	2,544	2,668	2,539	46.6	-4.8
North America	2,191	1,829	1,608	1,719	1,578	28.9	-8.2
Latin America	198	498	363	362	336	6.2	-7.1
Asia	332	625	581	628	737	13.5	17.3
Rest of the World	344	307	270	206	264	4.8	28.4
Total	6,383	5,783	5,367	5,583	5,455	100.0	-2.3

Trade Flows of Paper & Board to and from CEPI Countries in 2019



Mills in the United Kingdom and Ireland

ENGLAND

AHLSTROM MOUNT SION WORKS (pulp mill)

Sion Street, Manchester, M26 3SB
www.ahlstrom-munksjo.com

ARJOWIGGINS CHARTHAM MILL LTD

Station Road, Chartham, Canterbury, CT4 7JA
www.arjowiggins-translucentpapers.com

BILLERUDKORSNÄS BEETHAM LTD

Waterhouse Mills, Milnthorpe, Cumbria, LA7 7AR
www.billerudkorsnas.com

DS SMITH PAPER LTD

Kemsley Mill, Sittingbourne, Kent, ME10 2TD
www.dssmith.com

EGGER (UK) LTD (particle)

Anick Grange Road, Hexham, NE46 4JS
www.egger.com

ENKEV (UK) LTD (moulded fibre)

Silloth, Cumbria CA7 4NS
www.enkev.com

ESSITY - PRUDHOE MILL

Prudhoe, Northumberland, NE42 6HE
www.essity.com

ESSITY - STUBBINS MILL

Stubbins Lane, Ramsbottom, Bury, BL0 0NH
www.essity.com

ESSITY - TAWD MILL

Paddock Road, Skelmersdale, WN8 9PD
www.essity.com

ESSITY - TRAFFORD MILL

Trafford Park, Manchester, M17 1EQ
www.essity.com

FILTROX CARLSON LTD

Butts Mill, Barnoldswick, Lancs, BB18 5HP
www.carlson.co.uk

FOURSTONES PAPERMILL CO. LTD.

South Tyne Mill, Fourstones, Hexham, NE46 3SD
www.fourstonespapermill.co.uk

FROGMORE PAPER MILL

Fourdrinier Way, Apsley, Herts, HP3 9RY
www.frogmorepapermill.org.uk

FUTAMURA CHEMICAL UK LTD (rayon)

Station Road, Wigton, Cumbria, CA7 9BG
www.futamuragroup.com

GLATFELTER UK LTD

Lydney Paper Mill, Gloucestershire, GL15 5EJ
www.glatfelter.com

HIGHER KINGS MILL LTD

Higher Kings Mill, Cullompton, Devon, EX15 1QJ
<https://higherkings.co.uk>

HOLLINGSWORTH & VOSE COMPANY LTD

Postlip Mills, Winchcombe, Glos., GL54 5BB
www.hollingsworth-vose.com

IGGESUND PAPERBOARD (WORKINGTON) LTD

Siddick, Workington, Cumbria, CA14 1JX
www.iggesund.com

JAMES CROPPER PLC

Burneside Mills, Kendal, Cumbria, LA9 6PZ
www.jamescropper.com

JAMES CROPPER 3D PRODUCTS (moulded pulp)

Burneside Mills, Kendal, Cumbria, LA9 6PZ
www.jamescropper.com

KIMBERLY CLARK LTD - BARROW MILL

Barrow-in-Furness, Cumbria, LA14 4QS
www.kimberly-clark.com

KIMBERLY CLARK LTD - NORTHFLEET MILL

Crete Hall Road, Gravesend, DA11 9AD
www.kimberly-clark.com

LENZING FIBERS GRIMSBY LTD (rayon)

Energy Park Way, Grimsby, DN31 2TT
www.lenzing.com

MOULDED FIBRE PRODUCTS LTD (moulded pulp)

Flixborough Ind. Est., Scunthorpe, DN15 8SD
www.mouldedfibreproductsltd.co.uk

NORBORD EUROPE LTD (particle)

South Molton, Devon, EX36 4HP
www.norbord.co.uk

NORTHWOOD TISSUE (CHESTERFIELD) LTD

Goytside Road, Chesterfield, S40 2PH
www.northwood.co.uk

NORTHWOOD TISSUE (DISLEY) LTD

Waterside, Disley, Cheshire, SK12 2HW
www.northwood.co.uk

NORTHWOOD TISSUE (LANCASTER) LTD

Lansil Way, Caton Road, Lancaster, LA1 3PQ
www.northwood.co.uk

PALM PAPER LTD

Poplar Avenue, King's Lynn, Norfolk, PE34 3AL
www.palm.de

PAPER FOUNDATION

Ellergreen Estate Office, Burneside, Cumbria, LA9 5SD

PORTALS DE LA RUE LTD

Bathford Paper Mill, Bath, BA1 7QG
<https://portalspaper.com>

PORTALS DE LA RUE LTD

Overton Paper Mill, Hampshire, RG25 3SE
<https://portalspaper.com>

PRESTON BOARD & PACKAGING LTD

Romiley Board Mill, Cheshire, SK6 4DZ
www.romileyboard.co.uk

PURICO GROUP - DEVON VALLEY LTD

Hele, Exeter, Devon, EX5 4PL
www.devonvalleymill.com

PURICO GROUP - UNION PAPERTECH LTD

Simpson Clough Mill, Heywood, OL10 4BE
www.unionpapertech.com

SAICA CONTAINERBOARD

Carrington, Manchester, M31 4QN
www.saica.com

SMURFIT KAPPA SSK

Mount Street, Nechells, Birmingham, B7 5RE
www.smurfitkappa.com

SMURFIT KAPPA TOWNSEND HOOK

Mill Street, Snodland, Kent, ME6 5AX
www.smurfitkappa.com

SOFIDEL UK - BAGLAN

Brunel Way, Neath, SA11 2FP
www.sofidel.com

SOFIDEL UK - LANCASTER

Lansil Way, Lancaster, LA1 3QY
www.sofidel.com

SOFIDEL UK - LEICESTER

Hamilton Industrial Park, Leicester, LE5 1TZ
www.sofidel.com

SONOCO BOARD MILLS LTD

Stainland Mills, Halifax, West Yorkshire, HX4 9PY
www.sonocoalcore.com

ST CUTHBERTS MILL LTD

Wells, Somerset, BA5 1AG
www.stcuthbertsmill.com

SUNDEALA LTD (softboard)

Middle Mill, Cam, Dursley, Glous., GL11 5LQ
www.sundeala.co.uk

TULLIS RUSSELL COATERS LTD (coating site)

Bollington, Macclesfield, Cheshire, SK10 5QF
www.tullisrussell.com

TWO RIVERS PAPER

Pitt Mill, Roadwater, Somerset, TA23 0QS
www.tworiverspaper.com

WEIDMANN WHITELEY LTD.

Pool Paper Mills, Otley, West Yorks., LS21 1RP
www.weidmann-electrical.com

VERNACARE LTD (moulded pulp)

Folds Road, Bolton, Lancashire, BL1 2TX
www.vernacare.com

SCOTLAND

AHLSTROM CHIRNSIDE LTD

Chirnside, Duns, Berwickshire, TD11 3JW
www.ahlstrom-munksjo.com

ARJOWIGGINS CREATIVE PAPERS LTD

Stoneywood Mill, Aberdeen, AB21 9AB
<https://arjowigginscreativepapers.com>

EGGER BARONY LTD (particle)

Barony Road, Auchinleck, KA18 2LL
www.egger.com

FOURSTONES PAPER MILL CO LTD

Sapphire Mill, Leslie, Fife, KY6 3AB
www.fourstonespapermill.co.uk

NORBORD EUROPE LTD (OSB)

Morayhill, Dalcross, Inverness, IV2 7JQ
www.norbord.co.uk

NORBORD EUROPE LTD (particle & MDF)

Station Road, Cowie, Stirlingshire, FK7 7BQ
www.norbord.co.uk

PULP-TEC LTD (moulded pulp)

8 Grayshill Road, Glasgow, G68 9HQ
www.pulp-tec.com

ROBERT CULLEN LTD (moulded pulp)

Dawsholm Industrial Estate, Glasgow, G20 0TS
www.cullen.co.uk

UPM KYMMENE (UK) LTD - CALEDONIAN

Meadowhead Road, Shewalton, Irvine, KA11 5AT
www.upmpaper.com

WALES

ESSITY - OAKENHOLT MILL

Oakenholt, Nr Flint, Flintshire, CH6 5PU
www.essity.com

KIMBERLY CLARK LTD - COLESHILL MILL

Aber Road, Flint, Flintshire, CH6 5EX
www.kimberly-clark.com

KIMBERLY CLARK LTD - DELYN MILL

Aber Road, Flint, Flintshire, CH6 5EX
www.kimberly-clark.com

KRONOSPAN LTD (particle & MDF)

Holyhead Road, Chirk, Wrexham, LL14 5NT
www.kronospan-worldwide.com

UPM KYMMENE (UK) LTD - SHOTTON PAPER

Shotton, Deeside, Flintshire, CH5 2LL
www.upmpaper.com

WEPA UK

Bridgend Paper Mills, Bridgend, Mid-Glamorgan, CF34 9RS
www.wepa.eu

NORTHERN IRELAND / IRELAND

HUHTAMAKI (LURGAN) LTD (moulded pulp)
41 Inn Road, Lurgan, Co. Armagh, BT66 7JN
www.huhtamaki.com

MEDITE EUROPE LTD (MDF)
Redmondstown, Clonmel, Co. Tipperary, Ireland
<https://mdfosb.com>

SMARTPLY EUROPE LTD (OSB)
Belview, Slieverue, Waterford, Ireland
<https://mdfosb.com>

CONTACT DETAILS FOR RELEVANT NATIONAL GROUPS / ASSOCIATIONS

Alliance for Beverage Cartons and the Environment (ACE) UK	www.ace-uk.co.uk
British Association of Paper Historians (BAPH)	www.baph.org.uk
British Paper Machinery Suppliers Association (BPMSA)	https://picon.com
British Printing Industries Federation – Cartons (BPIF Cartons)	www.bpifcartons.org.uk
British & World Pulp Association (BWPA)	www.bwpa.org.uk
Confederation of Paper Industries (CPI)	https://paper.org.uk
Forest Stewardship Council (FSC) UK	www.fsc-uk.org
Packaging Federation	www.packagingfedn.co.uk
Paper and Board Association (P&BA)	http://paperandboard.org.uk
The Paper Gold Medal Association	https://papergoldmedal.org.uk
Programme for the Endorsement of Forest Certification (PEFC) UK	www.pefc.co.uk
Recycling Association	www.therecyclingassociation.com
Sheet Plant Association (SPA)	www.sheetplantassociation.com
Two Sides	www.twosides.info
The Wood Panel Industry Federation (WPIF)	www.wpif.org.uk
The Worshipful Company of Stationers and Newspaper Makers	www.stationers.org



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Paper, packaging and tissue mills look to Spraying Systems Co. for technology to optimise spray operations throughout the manufacturing process.

Spraying Systems Co. has invested heavily at their factory in Witten near Dortmund, Germany, to make the site the European Centre of Excellence for the Paper Industry.



Full details can be found on our website:
www.uk.spray.com

For further details contact David Yates, Paper Specialist, Spraying Systems Ltd, UK
T: +44 1252 727200 M: +44 7711 972830 E: david.yates@spray.com

Mills in the Benelux Region

BELGIUM

AHLSTROM-MUNKSJO S.A.

Av. Du Pont de Warche, B-4960 Malmedy
www.ahlstrom-munksjo.com

BURGO ARDENNES S.A.

Rue de la Papeterie, B-6760 Virton
www.burgo.com

ECOPLA BOOMPLATEN

Vaucampsiaan 84, B-1654 Huizingen
www.boomplaten.be

ESSITY S.A.

Rue de la Papeterie 2, BE-4801 Stembert
www.essity.nl

NORBORD N.V. (OSB)

Eikelaarstraat 33, 3600 Genk
www.norbord.nl

PAPER MILL HERISEM (museum)

Fabriekstraat 20, B-1652 Alsemberg, Brussels
www.herisem.be

SAPPI LANAKEN N.V.

Montaigneweg 2, 3620 Lanaken
www.sappi.com

SOFIDEL BENELUX N.V.

Adolf Stocletlaan 3, 2570 Duffel
www.sofidel.com

STORA ENSO LANGERBRUGGE PAPER

Wondelgemkaai 200, 9000 Gent
www.storaenso.com

UNILIN (MDF)

Rue de la Forêt 2, 6690 Vielsalm
www.unilinpanels.com

UNILIN (particle)

Ingelmunstersteenweg 229, 8780 Oostrozebeke
www.unilinpanels.com

UNILIN (particle)

Breestraat 4, 8710 Wielsbeke
www.unilinpanels.com

VPK PAPER N.V.

Oude Baan 120, B-9200 Dendermonde
www.vpkgroup.com

LUXEMBURG

KRONOSPAN LUXEMBOURG S.A. (OSB, MDF)

Z.I. Gadderscheier, B.P. 109, L - 4902 Sanem
www.kronospan-worldwide.com

THE NETHERLANDS

CROWN VAN GELDER B.V.

Postbus 30, 1950 AA Velsen-Noord
www.cvg.nl

DE SCHOOLMEESTER PAPIERMOLEN (museum)

Guispad 3, NL-1551 SX Westzaan
<https://zaanschemolen.nl>

DS SMITH PACKAGING NETHERLANDS B.V.

De Hoop Mill, Harderwijkerweg 41, 6961 GH Eerbeek
www.dssmith.com

ENKEV B.V.

De Toek 2, P.O. Box 3, 1130 AA Volendam
www.enkev.com

ESKA B.V.

Noorderstraat 394, 9611 AW Sappemeer
www.eska.com

ESKA B.V.

M. Veningastraat 114-116, 9601 KJ Hoogezand
www.eska.com

ESSITY CUIJ

Lange Linden 22, 5433 NC Katwijk NB
www.essity.nl

ESSITY SUAMEER (nonwovens)

Solcamastraat 24, 9262 ND Suameer
www.essity.nl

HUHTAMAKI NEDERLAND B.V.

Zuidelijke Industrieweg 7, 8801 JB Franeker,
www.huhtamaki.com

MAYR-MELNHOF EERBEEK B.V.

Coldenhovenseweg 12, 6961 ED Eerbeek
www.mm-karton.com

MEERSSEN PAPIER B.V.

Weert 78, 6231 SB Meerssen
www.meerssen-papier.com

NEDERLANDS OPENLUCHTMUSEUM

(The Netherlands Open Air Museum)
Hoferlaan 4, 6816 SG Arnhem
www.openluchtmuseum.nl

NEENAH COLDENHOVE

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www.coldenhove.com

PAPERFOAM NETHERLANDS

Hermesweg 22, 3771 ND Barneveld
www.paperfoam.com

PAPIERFABRIEK DE MIDDELSTE MOLEN

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www.demiddelstemolen.nl

PAPIERFABRIEK DOETINCHEM B.V.

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www.papierfabriekdoetinchem.nl

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Lokhorstweg 13A, 3851 SE Ermelo
www.presswood.nl

SAPPI MAASTRICHT B.V.

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www.sappi.com

SCHUT PAPIER

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www.schutpapier.nl

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www.smart-packaging-solutions.com

SMURFIT KAPPA PARENCO

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www.smurfitkappa.com

SMURFIT KAPPA ROERMOND PAPIER B.V.

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www.smurfitkappa.com

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<https://solidus-solutions.com>

SOLIDUS SOLUTIONS BOARD B.V.

Robertweg 2, 7741 KX Coevorden
<https://solidus-solutions.com>

SOLIDUS SOLUTIONS BOARD B.V.

Halmstraat 1-3, 9745 BC Groningen-Hoogkerk
<https://solidus-solutions.com>

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W.H. Bosgrastraat 82, 9665 PH Oude-Pekela
<https://solidus-solutions.com>

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www.trespa.com

VHP SECURITY PAPER

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www.vhpsp.com

WEPA NEDERLAND B.V.

Boutestraat 125, 6071 JR Swalmen
www.wepa.eu/nl

CONTACT DETAILS FOR SELECTED EUROPEAN GROUPS / ASSOCIATIONS

Alliance for Beverage Cartons and the Environment (ACE)	www.ace.be
Association of the Belgian Pulp, Paper and Board Producers (COBELPA)	www.cobelpa.be
Bureau of International Recycling (BIR)	www.bir.org
Confederation of European Paper Industries (CEPI)	www.cepi.org
European Carton Makers Association (ECMA)	www.ecma.org
European Federation of Corrugated Board Manufacturers (FEFCO)	www.fefco.org
European Liaison Committee for Pulp & Paper (EUCEPA)	www.eucepa.eu
European Panel Federation (EPF)	https://europanel.org
European Paper Recycling Council (EPRC)	www.paperforrecycling.eu
European Recycling Industries' Confederation (EuRIC)	www.euric-aisbl.eu
European Tissue Symposium (ETS)	https://europeantissue.com
International Association of the Deinking Industry (INGEDE)	www.ingede.org
Royal Dutch Timber Trade Association (VVNH)	www.vvnh.nl
Royal Netherlands' Paper and Board Association (VNP)	https://vnp.nl
Waste Paper Trade C.V. (WPT)	www.wpt-nl.com

Mills in Norway

ARBOR-HATTFJELLDAL AS (particle)

8690 Hattfjelldal, Norway
 Website: <https://www.arbor.no>

BORREGAARD (pulp mill)

Hjalmar Wessels vei 6, 1701 Sarpsborg, Norway
 Website: www.borregaard.com

FORESTIA AS (particle)

Damvegen 31, 2435 Braskereidfoss, Norway
 Website: <https://forestia.com>

HELLEFOSS PAPER AS

Hellefossveien 113, N-3300 Hokksund, Norway
 Website: www.hellefoss.com

HUNTON FIBER AS (softboard)

Niels Ødegaards gate 8, 2810 Gjøvik, Norway
 Website: www.hunton.no

MMK FOLLACELL AS (pulp mill)

Industriveien 11, 7796 Follafoss, Norway
 Website: www.mm-karton.com

NORDIC PAPER GREÅKER

P.O. Box 155, NO-1720 Greåker, Norway
 Website: www.nordic-paper.com

NORSKE SKOG SAUGBRUGS

N-1772 Halden, Norway
 Website: www.norskeskog.com

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N-7620 Skogn, Norway
 Website: www.norskeskog.com

RANHEIM PAPER & BOARD

Peder Myhres veg 19, 7055 Ranheim, Norway
 Website: <https://ranheim-pb.com>

RYGENE-SMITH & THOMMESEN A/S (pulp mill)

Sandbergveien 3, N-4821 Rykene, Norway
 Website: <https://rygene.no>

VAJDA-PAPIR SCANDINAVIA AS

Nedre Eiker vei 48, N-3045 Drammen, Norway
 Website: <https://vajdapapir.hu>

Mills in the Middle East Region

BAHRAIN

OLAYAN KIMBERLY-CLARK (OKC)

Askar, www.oshco.com

IRAN

AMIRABAD'S PAPER MILL

Behshahr

ARIAN SINA INC. (wood panel)

Sari, www.ariansina.com

ARYAN CELLULOSE SANA'AT

Alborz, www.golrang.com

ARTAPAN (wood panel)

Ardebil, www.artagroup.com

ATRAK PULP & PAPER INDUSTRIES

Foulad Industrial City, <https://atrak-p-p.com>

AZERBAIJAN NARMEH PAPER INDUSTRIES

Tabriz

CASPIAN MDF (wood panel)

Tehran

CHOUKA IRAN WOOD & PAPER INDUSTRIES INC.

Gilan, www.chouka.com

GOLPOUNEH PARS INDUSTRIAL CO

Tehran, www.pskcompany.com

HARIR KHUZESTAN CO.

Shush

HOMAYOUN DUPLEX BOARD

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IRAN OSB (wood panel)

Tehran, www.iranosb.com

IRAN PAPYRUS CO. LTD.

Saveh

ISOFAM, (wood panel)

Tehran, www.isofam.ir

KPM KAHRIZAK PAPER MILLS

Tehrán, www.kmppaper.com

LATIF PAPER CO.

Hashtgerd, www.latifpaper.ir

MAZANDARAN WOOD AND PAPER INDUSTRIES

Sair, <http://mazpaper.com>

NEKA CHOUB CO (wood panel)

Sari

NOGHTEH COMPANY (wood panel)

Semnan Province, <http://noghteh-co.com>

PARS HAYAT PRODUCTION CO.

Zanjan, <http://parshayat.ir>

PARS NEOPAN (wood panel)

Boshehr, <http://parsneopan.com>

PARS NEOPAN (wood panel)

Kazeroon, <http://parsneopan.com>

PARS NEOPAN (wood panel)

Nashtaroud, <http://parsneopan.com>

PARS NEOPAN (wood panel)

Soumeasara, <http://parsneopan.com>

PARS PAPER INDUSTRIAL GROUP

Haft Tappeh, <http://parspaper.ir>

PISHGAMAN PAPER INDUSTRY

Hakimabad, www.pskcompany.com

RAHAN TAVAN CO. (wood panel)

Tehran, www.rahantavan.com

RASHA CASPIAN PAPER INDUSTRIES

Zanjan City, <https://caspian-paper.com>

SANAYE CHOOBE KHAZAR CO. (wood panel)

Amol City, www.khazarchoob.ir

SUGARCANE BY-PRODUCTS (wood panel)

Shoeybieh, www.iran-sugar.com

ZARRIN BARG PERSIA CO

Kaveh, www.zbpco.com

IRAQ

Investment is currently being sought to rehabilitate the Basrah Paper Mill and Missan Paper Mill.

ISRAEL

HADERA PAPER

Hadera, www.hadera-paper.co.il/en

HARTMANN-MAI LTD.

Netanya, www.hartmann-packaging.com

SHANIV PAPER INDUSTRIES LTD.

Ofakim, www.shaniv.com

TUT NEYAR

Zichron-Ya'akov, www.tutneyar.co.il

JORDAN

AL-KEENA HYGIENIC PAPER MILL CO. LTD.

Amman, www.finehh.com

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Amman, www.finehh.com

JORDAN PAPER AND CARDBOARD FACTORIES CO. LTD.

Awajan-Zarqa, www.jordanpaper.com

KARAK STAR RECYCLING

Karak, <https://karakstar.com>

KUWAIT

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Shuaiba

GULF PAPER MANUFACTURING
Fahaheel, www.gulfpaper.com

UNITED PAPER INDUSTRIES CO.
Shuaiba, www.upi.com.kw

LEBANON

SANITARY PAPER COMPANY - MIMOSA
Kaa El Rim, www.mimosa.com.lb

SICOMO
Kab-Elias, www.sicomo.com.lb

**SIPCO GANDOUR STE. INDUSTRIELLE
DE PAPIER ET DE CARTON ONDULE**
Kafarshima

SOLICAR SOCIÉTÉ LIBANAISE DE CARTON
Sin El Fil, www.solicar.com

UNIPAK TISSUE MILL
Halat, <https://news.indevcogroup.com>

QATAR

AL SUWAIDI PAPER FACTORY
Doha, www.alsuwaidipaper.com

ELITE PAPER RECYCLING
Doha, www.epr.qa

SAUDI ARABIA

AL-FARIS PAPER MILL
Jeddah, www.fpm.sa

ARAB PAPER MANUFACTURING (WARAQ)
Dammam, www.waraq.com

GULF PAPER INDUSTRIES FACTORY CO.
Riyadh, www.alrajhigroup.com

MIDDLE EAST PAPER CO. (MEPCO)
Jeddah, www.mepco.biz

OBEIKAN PAPER INDUSTRIES
Riyadh, www.obaikan.com.sa

SAUDI PAPER MANUFACTURING CO.
Dammam, www.saudipaper.com

SYRIA

**ARAB COMPANY FOR PAPER PRODUCTS
J.S.C. (ARAPEPCO)**
Aleppo, www.arapeco.com

DINATEX PAPER MANUFACTURING
Damascus

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Damascus

MEDITERRANEAN PAPER MILL
Jableh

UNITED ARAB EMIRATES

ABU DHABI NATIONAL PAPER MILL (ADNIB)
Abu Dhabi, www.adnpm.ae

AL NAKHEEL HYGIENIC PAPER MILL
Abu Dhabi, www.finehh.com

AR RAGI PAPER IND.
Abu Dhabi

CROWN PAPER MILL LLC.
ICAD, www.ittihadinvestment.ae

GULF PAPER MANUFACTURING CO. K.S.C
Jebel Ali, www.gulfpaper.com

ITTIHAD PAPER MILL LLC
ICAD, www.ittihadinvestment.ae

QUEENEX HYGIENE PAPER MFG L.L.C.
Abu Dhabi, <http://qhpm.ae>

STAR PAPER MILL LTD.
Abu Dhabi, <http://starpapermill.com>

UMM AL QUWAIN PAPER PRODUCTS
Umm Al Qwain, www.uaqpaper.ae

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AKKIK

Sumgayit, www.akkik.az

BELARUS

DOBRUSH PAPER FACTORY GEROY TRUDA

Dobrush, www.bellesbumprom.by

JSC BORISOVDREV

Minsk, www.borisovdrev.by

JSC GOMELDREV

Gomel, <http://bellesbumprom.by>

JSC MOSTOVDREV

Mosty, www.mostovdrev.com

JSC PAPER MILL "KRASNAYA ZVEZDA"

Chashniki, <https://1886red-star.by>

JSC RECHITSADREV

Rechitsa, <http://rechdrev.by>

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Svetlogorsk, www.sckk.by

KRONOSPAN (wood panel)

Smorgon; & Mogilev,
www.kronospan-worldwide.com

LLC "EXCLUSIVE"

Grondo, www.excl.by

MOZYRSKY DOK (wood panel)

Mozyr, <http://bellesprom.com>

OJSC IVATSEVICH DREV (wood panel)

Ivatsevichdrev, <http://span.by>

OSJC RETCHIZADREV

Retchiza

OJSC SCPM "ALBERTIN"

Slonim, <http://albertin.by>

OJSC ZELENOBORSKIY

Zeleny Bor, www.bellesbumprom.by

PAPER MILL OF GOZNAK

Borisov, www.goznakpaper.by

RUE ZAVOD GAZETNOY BUMAGI

Shklov, <https://asnova.by>

SPARTAK PAPER MILL JSC

Shklov, www.bfs.by

VITEBSKDREV JSC (wood panel)

Vitebsk, <https://vitebskdrev.com>

VMG INDUSTRY FLLC (wood panel)

Mogilev, <https://vmg.eu>

BOSNIA AND HERZEGOVINA

NATRON-HAYAT D.O.O. (pulp mill)

Maglaj, www.natron-hayat.ba

SHP CELEX A.D.

Banja Luka, www.shpgroup.eu

BULGARIA

BELOVO PAPER MILL

Belovo, www.zeritisgroup.com

DS SMITH BULGARIA S.A.

Pazardzhik, www.dssmith.com

FAZERLES A.D.

Silistra, www.fazerles.com

KASTAMONU BULGARIA A.D. (wood panel)

Pavel Banya, www.kastamonuentegre.com.tr

KOSTENETS-HHI S.A.

Kostenets, www.hhi-bg.eu

KRONOSPAN BULGARIA EOOD (wood panel)

Burgas; & Veliko Tarnovo,
www.kronospan-worldwide.com

MONDI STAMBOLIJSKI EAD

Stambolijski, www.mondigroup.com

NOVA KNIZHNA FABRIKA

Sofia, www.nkfabrika.com

SVILOCELL EAD (wood pulp)

Svishtov, www.svilosa.bg

WELDE BULGARIA AD (wood panel)

Troyan, <http://welde.bg>

CROATIA

CARDBOARD S.R.O.

Otrokovice, www.cardboard.cz

DS SMITH BELIŠĆE CROATIA D.O.O.

Belišće, www.dssmith.com

HARTMANN PAPIRNA AMBALAZA D.O.O.Koprivnica, www.hartmann-packaging.com**KRONOSPAN CRO LTD. (wood panel)**Bjelovar, www.kronospan-worldwide.com**CZECH REPUBLIC****CEREPA A.S.**Červená Řečice, www.cerepa.cz**EMBA S.R.O.**Paseky nad Jizerou, www.emba.cz**HUHTAMAKI CESKA REPUBLIKA A.S.**Okříšky, www.huhtamaki.com**JIP-PAPIRNY VETRNI A.S.**Větrní, www.jip.cz**KAVALIERGLASS A.S.**Bělá pod Bezdězem, www.papirny-bela.cz**KORONA CZ S.R.O.**Lochovice, www.korona.cz**KRONOSPAN CR SPOL. S.R.O (wood panel)**Jihlava, www.kronospan-worldwide.com**KRPA HOLDING CZ, A.S.**Hostinné, www.krpa.cz**LENZING BIOCEL PASKOV A.S. (pulp mill)**Paskov, www.lenzing.com**MONDI STETI A.S.**Štětí, www.mondigroup.com**MUZEUM PAPIRU (museum)**Velké Losiny, <https://rpvl.cz>**OP PAPIRNA S.R.O.**Olšany, www.delfortgroup.com**PAPOS V.O.S.**Ostrov, www.papos.cz**SEVEROCESKA PAPIRNA S.R.O.**Novosedlice, www.sevpap.cz**SMURFIT KAPPA MORAVA PAPER**Zimrovice, www.smurfitkappa.com**SPM - SECURITY PAPER MILL INC.**Štětí, www.spm.cz**TRIDAS S.R.O.**Valasske Mezirici, www.molded-pulp-fiber.com**ESTONIA****AS REPO VABRIKUD (wood panel)**Püssi, www.repo.ee**ESTONIAN CELL AS**Kunda, www.estoniancell.ee**HORIZON PULP & PAPER LTD.**Kehra, www.horizon.ee**NORDIC FIBREBOARD LTD OÜ (wood panel)**Pärnu, <https://nordicfibreboard.com>**RÄPINA PABERIVABRIK AS**Räpina, www.rappin.ee**GEORGIA****STARWOOD ORMAN ÜRÜNLERİ (wood panel)**Batumi, www.starwood.com.tr**GREECE****AKRITAS S.A. (wood panel)**Tycho, www.akritas.gr**ALFA WOOD (wood panel)**Grevena, <https://alfawood.gr>**ELINA KOMOTINI PAPER MILL**Komotini, www.komotinipaper.gr**FTHIOTIS PAPER MILL S.A.**Damastas, www.elpack.gr**MAXI PAPER MILL**Thessaloniki, www.maxi.gr**MEL MACEDONIAN PAPER MILLS S.A.**Thessaloniki, www.melpaper.com**SOFIDEL GREECE S.A.**Katerini, www.sofidel.com**HUNGARY****ALBA PULP KFT.**Szekesfehervar, www.albapulp.com**DIPA ZRT.**Miskolc, www.dipa.hu**DUNAFIN ZRT.**Dunaújváros, www.delfortgroup.com**HAMBURGER HUNGARIA GMBH**Dunaújváros, www.hamburger-containerboard.com**HARTMANN HUNGARY KFT.**Ács, www.hartmann-packaging.com**KRONOSPAN MOFA (wood panel)**Mohács; & Szombathely,
www.kronospan-worldwide.com**SWISS KRONO KFT. (wood panel)**Vásárosnaményi, www.swisskrono.hu**VAJDA PAPIR KFT**Dunafoldvar, <https://vajdapapir.hu>

LATVIA

JELD-WEN (wood panel)

Aizkraukle, www.jeld-wen.lv

JUGLAS PAPIRS SIA

Riga, www.juglaspapirs.lv

KRONOSPAN RIGA (wood panel)

Riga, www.kronospan-worldwide.com

SIA V.L.T.

Valmiera, www.eggbox.lv

LITHUANIA

AB GRIGEO

Grigiškės, www.grigeo.lt

AB GRIGEO KLAIPĖDOS

Klaipėda, www.grigeo.lt

AB KLAIPĖDOS MEDIENA

Klaipėda, <https://vmg.eu>

PACK KLAIPEDA

Klaipėda, www.pack-klaipeda.lt

UAB GIRIU BIZONAS (wood panel)

Kazlu Ruda, <https://vmg.eu>

UAB GRIGEO BALWOOD (wood panel)

Grigiškės, www.grigeo.lt

VMG GROUP AKMENE (wood panel)

Akmenė, <https://vmg.eu>

YILDIZ ENTEGRE (wood panel)

Dravogradu, www.yildizentegre.com

POLAND

ARCTIC PAPER KOSTRZYN S.A.

Kostrzyn Odrzański, www.arcticpaper.com

BEMA FABRYKA TEKTURY

Wleń, www.bema.pl

EGGER BISKUPIEC SP. Z O.O.

Biskupiec, www.egger.com

FABRYKA PAPIERU I TEKTURY BESKIDY S.A.

Wadowice, www.paper.com.pl

FIBREPAK

Poznań, www.fibrepack.eu

GLUCHOLASKIE ZAKŁADY PAPIERNICZE

Głucholazy; & Niedomice, www.gzp.com.pl

HANKE TISSUE SP. Z O.O.

Kostrzyn Odrzański, <http://hanketissue.pl>

HOMANIT GMBH & CO. KG. (wood panel)

Karlino; & Krosno Odrzańskie, www.homanit.org

ICT POLAND SP. Z O.O.

Kostrzyn Odrzański, www.ictgroup.net

IKEA INDUSTRY POLAND (wood panel)

Bielsk Podlaski; & Orla, <http://inter.ikea.com>

INPOL-PAPIER LTD

Bardo, www.inpolpapier.pl

INTERNATIONAL PAPER SP. Z O.O.

Kwidzyn, www.internationalpaper.com

KRONOPOL SP. Z O.O. (wood panel)

Mielec; Strzelce Opolskie; & Szczecinek, www.kronospan-worldwide.com

MALTA-DECOR SP. Z O.O.

Poznań, www.maltadecor.pl

METSA TISSUE KRAPKOWICE SP. Z O.O.

Krapkowice, www.metsatissue.com

MONDI SWIECIE S.A.

Świecie n. Wisłą, www.mondigroup.com

PFLEIDERER GRAJEWÓ S.A. (wood panel)

Grajewo, www.pfleiderer.pl

PPHU ROLLS SP. Z O.O.

Włocławek, www.rollspap.com.pl

PWPW (SECURITY PRINT WORKS)

Warsaw, www.pwpw.pl

SCHUMACHER PACKAGING

Grudziądz, www.schumacher-packaging.com

SOFIDEL POLAND SP. Z O.O.

Ciechanów, www.sofidel.com

STEICO (wood panel)

Czarna Woda; & Czarnków, www.steico.com

STORA ENSO POLAND S.A.

Ostrołęka, www.storaenso.com

SWISS KRONO (wood panel)

Zary, www.swisskrono.pl

TEQ

Poznań, www.teqnow.eu

TOP S.A.

Tychy, www.topsa.pl

VELVET CARE SP. Z O.O.

Klucze, <http://velvetcare.pl>

WARTER SPÓŁKA JAWNA

Tarnowski młyn, <https://fabryka-tektury.pl>

WEPA PIECHOWICE SP. Z O.O.

Piechowice, www.wepa.de

ROMANIA

KASTAMONU ROMANIA S.A. (wood panel)

Reghin; Brasov; & Sebes Jud. Alba, www.kronospan-worldwide.com

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