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# International edition of EUWID Special

The first two issues of our English-language special publication "EUWID Special: Wood-Based Panels" focused on changes in the international wood-based panel industry. With this third issue, we now cast the spotlight on surfaces a little more. Two new decor paper machines will soon start operating, with the third in the pipeline. Schattdecor AG has advanced and fleshed out its programme of investments announced in spring 2017. The laminates industry is seeing more movement again with two large transactions. The New Zealand building product group Fletcher Building intends to divest the Formica Group, which it acquired in 2007, and has launched the process of finding a new buyer. Broadview Holding has made a step forward: having held stakes in Trespa and Arpa for several years, the investment firm is to acquire the majority stake in Westag & Getalit from the Gethalia Foundation and to submit an offer for the remaining shares.

### More information

Publications of EUWID print and online



https://download.euwid-holz.de/euwid-special.pdf

The wood-based panel industry is boosting its structural panel and composite panel capacity amidst the backdrop of favourable economic conditions in many markets. In the OSB sector, several OSB

mills are to be commissioned in rapid succession in North America. Asia's wood-based panel industry, which has so far focused on plywood, particleboard and MDF, also has more OSB projects under way. Brazil will see several wood-based panel lines start up in the coming months despite the rather subdued state of the market.

An overview of growing investments by Chinese companies in the European furniture industry and two examples of how Central European parquet manufacturers are securing the raw materials they need by investing in Eastern Europe round off the range of topics covered by this issue of EUWID Special.

Like the first two issues, the current edition of EUWID Special: Wood-Based Panels delivers a longer-term overview of developments and changes in the wood-based panel industry and adjacent sectors with background reports and special articles. The next English-language issue of EUWID Special will be published in September.

I look forward to your feedback and suggestions. You can contact me by emailing aruf@euwid.de.

Yours sincerely **Andreas Ruf** Publisher Machinery 6-11

Woodworking machinery manufacturers deliver double-digit growth in production Dieffenbacher and SWPM have sold ten wood-based panel plants by end of April Five plants sold by Siempelkamp during the first four months of 2018

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The laminate industry is facing major changes with the decision by Trespa and Arpa's owner Broadview Holding to buy a stake in Westag & Getalit AG and Fletcher Building's plans to sell the Formica group.

(Photo credit: Westag & Getalit)

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### Siempelkamp replacing ContiRoll at Technikum



(Photo credit: Siembelkamb)

Within the next few months, Siempelkamp Maschinen- und Anlagenbau GmbH will be dismantling the continuous press used for test series at the Technikum in Krefeld to replace it with a new ninth-generation ContiRoll system. The old plant had been supplied to the Coshocton works in Ohio of the US General Electric group (GE) at the end of the 80s as a production line for industrial laminates and was later taken back by Siempelkamp. Siempelkamp subsequently rebuilt the press at the Technikum and integrated it into a forming and pressing line.

Like the old machine and the upstream forming conveyor, the new press will have a width of 4 ft but will be considerably longer at 27 m. The 4 m-long GE press will be disassembled in the coming months. The new machine is expected to be ready for production by the end of this year. Siempelkamp intends to use this plant for further developing press technology and for production trials, including new materials such as fibre-reinforced plastics. Customer trials are also planned to be possible on the new machine to a greater extent than in the past.

### Raute: Order intake increased again

The Finnish plant and machinery manufacturer Raute Oyj landed orders with a total value of €68m (Jan.-March 2017: 24m) during the first quarter of 2018. This sum includes €53m (14m) for new plants and €15m (10m) for technology services. The expansion of a Finnish LVL mill in Punkaharju, which Metsä had ordered at the end of January, was the single-biggest order with a value of

€23m. What is more, a customer from North-East Asia spent €20m on the core components for an LVL line. Order intake had therefore climbed for the fourth time in a row. After landing orders valued at €24m in the first quarter of 2017 and €29m in the second quarter of 2017, Raute enjoyed much stronger ordering in the third (€42m) and fourth (€60m) quarters.

In terms of the different sales markets, a big order in Asia helped to boost the Asia-Pacific region's share of total order intake to 29 (1) %. Europe accounted for 55 (52) % of all orders. By contrast, other sales regions lost market share: North America was responsible for 11 (19) %, Russia for 4 (18) % and South America for just 1 (10) % of total order intake in the first quarter.

The order backlog increased to €142m (93m) at the end of the first quarter. This was over half more than the figure recorded one year earlier. The order cushion ballooned by almost a third compared with the end of 2017 when a new record of €110m was set.

### Dürr completes purchase of Homag shareholding



(Photo credit: EUWID)

Dürr AG purchased 1.255m shares in Homag Group AG via Dürr Technologies GmbH from the Schuler/Klessmann shareholder group by the start of May 2018. It did so by exercising a call option agreed in July 2014, thus boosting its stake in the woodworking machinery manufacturer by 8% to 63.9%. A 7.05% shareholding in Homag was transferred by exercising the call option. In addition, another purchase agreement was reached for almost 1%. Dürr paid a total of €34.8m for the 1.255m shares, translating into an average purchase price of €27.73 per share.

Dürr had paid €228.1m for a 55.9% stake in Homag in October 2014. The Schuler-Klessmann group had recently held 22.1% of the shares. With its sale of the 8% package its shareholding had been trimmed to 14.1%. Dürr and the Schuler/Klessmann shareholder group have had a pool agreement since July 2014.

Under the terms of this agreement, they vote together at Homag Group's annual general meetings and thus account for 78% of voting rights. In another agreement, Dürr Technologies and the Schuler/Klessmann group had granted each other a put-and-call option for shares in Homag Group. At the start of February, Dürr Technologies had informed the Schuler/Klessmann shareholder group that it intended to exercise the call option.

### Forte orders technology for Suwalki mill from Homag

The Polish furniture producer Fabryki Mebli Forte S.A., based in Ostrów Mazowiecka, ordered a complete production line for cupboard furniture from Homag Group AG during the first quarter of 2018. The contract was valued at about €60m. The entire line consists of several production lines with about 20 cells and more than 80 individual pieces of machinery. It will have a high degree of automation with the use of robots and driverless transport systems.

The technology concept developed jointly by Forte and Homag allows series production and batch-size 1 to be combined. The complete line will be installed at a new furniture plant in Suwalki planned by Forte in three phases. The first lines are to start operating during the second quarter of 2019. Work on the new plant is slated for completion by 2021.

The construction of its fifth furniture plant is part of a major investment plan adopted in October 2015, which includes an increase in furniture production and a now-complete investment in its own particleboard mill and raising logistics capacity. The investment plan was said to have a total value of €140m at that time.

### Increase in revenues at Homag China Golden Field



(Photo credit: EUWID)

Homag China Golden Field Ltd., a Hong Kong-based joint venture that was founded in 2000, boosted its revenues by nearly 63% in the 2017 financial year. According to the annual report of Dürr AG, which was published on 22 March, the joint venture booked revenues of €291.7m (2016: 179.0m) and profit after taxes of €9.1m (6.0m). Cashflow from continuing activities slipped to €22.8m (37.1m). Cashflow from investment activity totalled -€16.2m (-0.1m), while cashflow from financing activity reached +€8.0m (-5.1m). The

joint venture transferred a dividend twice as large as the previous year of €1.1m (0.5m) to Dürr with the improvement in earnings recorded in the 2017 financial year.

Homag China Golden Field serves as a sales and service entity for the Chinese market. The company sells machines and plants made by entities of Homag Group, which is majority owned by Dürr, and by other machinery producers. The company also organises service in China. Dürr owns a 25% stake in Homag China Golden Field through Homag Group; the other 75% is in the hands of the Chinese partner. In its annual report for 2017, Dürr listed the Homag China Golden Field stake as having a book value of €12.6m (2016: 12.3m) under the at equity consolidation method. Through distribution via Homag China Golden Field, Homag Group claims to have only limited contact with end customers in China; however, this shortcoming is to be minimised by systematically stepping up cooperation between the companies.

### GreCon introduces new business unit structure

Fagus GreCon Greten GmbH & Co. KG put in place a new business unit structure at the beginning of this year. The company's activities were grouped into four productbased areas: fire protection, measuring technology, inspection and shoe lasts and moulds as well as an additional unit called world heritage. These business units will be supported by cross-cutting service units, including purchase, manufacturing, quality assurance, shipping, controlling, marketing, IT and human resources. The largest business unit in revenue terms, fire protection, which is subdivided into the spark extinguishing systems and property protection units, is managed by GreCon's managing director Uwe Kahmann. The measuring technology unit is overseen by Jörg Hasener, while Bernd Bergmann is responsible for the inspection business unit with the Dieffensor product area and SuperScan surface scanners. Managing partner Kai Greten has taken over management of the shoe lasts and moulds business unit. Fabienne Gohres heads up

the world heritage unit, which manages the Fagus factory, which has been designated as a UNESCO world heritage centre.

Besides reorganising its corporate structure, GreCon also established several international sales entities at the start of the year. Its old French sales office was turned into an independent sales entity known as GreCon S.à.r.l. in Entzheim, Alsace. In the US, the company is creating a new branch on the east coast in Charlotte, North Carolina alongside its existing location in Tigard, Oregon. The South American market will be served in future through GreCon América Latina Ltda., a joint venture in the Brazilian town of Curitiba, Paraná that it is creating with its existing sales partner Siebert & Cia. Ltda.



(Photo credit: GreCon)

### Altendorf Group completes Hebrock take-over

The panel saw manufacturer Wilhelm Altendorf GmbH & Co. KG, based in Minden, Germany, completed its purchase of the affiliates Maschinenbau Hebrock GmbH, based in Bünde, and EBM Maschinenbau GmbH on 25 April, thus adding edgebanding machines to its portfolio. The deal was struck during the first quarter of 2018. The German Federal Cartel Office had given the green light to the transaction, which was notified on 9 March and carried out by the parent firm Altendorf Group Holding GmbH, back on 21 March.

This deal marks another step in Altendorf Group's growth strategy, which it unveiled after the Dutch private equity company Avedon Capital Partners B.V., based in Amsterdam, came on board. The integration of Hebrock should unlock synergy effects in purchasing and distributing to their largely identical target groups.

Altendorf had been acquired by Avedon Capital Partners and two managing directors Jörg Mayer and Wolfgang Ruhnau in early October 2017 as part of a succession solution. Following the change in ownership, the company had announced investments in the tens of millions of euros, which also sought to widen its product spectrum. This target was to be reached through acquisitions, among others. Altendorf currently operates two production sites at its Minden headquarters and in Qinhuangdao in China's Hebei Province.

# Biesse sets new order backlog record

Biesse S.p.A., based in Pesaro, ended the first quarter of 2018 with a 10.5% increase in order intake compared with the prior-year period. No specific figures were included in the quarterly report, which was published on 14 May. Biesse had landed orders with a total value of €139m in the first three months of last year. The order backlog rose by almost a quarter to €234m (Jan.-March 2017: 188.5m), the highest level in company history. Consolidated group revenues stood at €162.3m (161.4m), a rise of 0.5%.

Two biggest export markets US and China further strengthen their positions

# Woodworking machinery manufacturers deliver double-digit growth in production

The German woodworking machinery industry ended last year with a double-digit growth in production; the growth was triple what it was in 2016.

According to figures from the German Federal Statistical Office compiled by the Woodworking Machinery Association within the German Mechanical Engineering Industry Association (VDMA), based in Frankfurt,

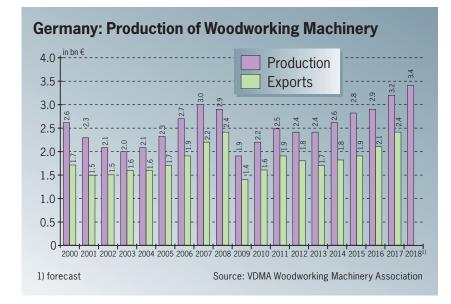
Germany, German woodworking machinery producers boosted their output by 10.4% to €3.18bn (2016: 2.87bn) in 2017 as a whole. This figure exceeded the recent forecast of 5% and the current record set in 2007 (€3.0bn).

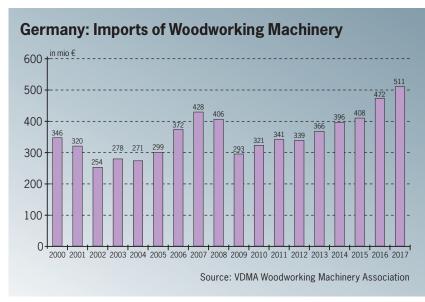
Based on the trend in sales revenues booked by its members, the VDMA association had already raised the prospect of a 14% leap in production to about €3.2bn in 2016. However, this assessment made in February 2017 had to be revised downward with April's publication of final figures by the German Federal Statistical Office. In actual fact, the value of production increased by just 3.2%.

After setting a record in 2007, the German woodworking machinery industry initially saw its output dip to €2.9bn in 2008 before it plunged to €1.9bn in 2009. Production has risen almost consistently since then, falling only slightly in 2012. Production increased by a good two thirds from 2009 to 2017 combined, translating into a compound annual growth rate (CAGR) of 6.7%.

A monthly survey carried out among VDMA members reached similar conclusions to the German Federal Statistical Office with a 10% price-adjusted increase in output. With a 12% growth, the secondary woodworking segment (e.g. machinery and plants to manufacture furniture, interior remodelling and building elements) fared a little better than primary woodworking segment (e.g. machinery and plants to make lumber, wood-based panels and veneers), which saw an 8% rise in production revenues. German woodworking machinery manufacturers' order intake climbed 16% altogether last year, according to the VDMA survey. Secondary woodworking (+18%) fared better than primary woodworking (+10%) here too.

Order intake jumped as much as 32% compared with the prior-year period from January to March, according to preliminary figures available from the VDMA so far. Unlike in 2017, this growth was primarily fuelled by the primary woodworking business, which enjoyed disproportionately strong growth especially in the wood-based panel technology business. On the other hand, the woodworking machinery industry's production revenues dipped 2% compared with the previous year. The VDMA associ-





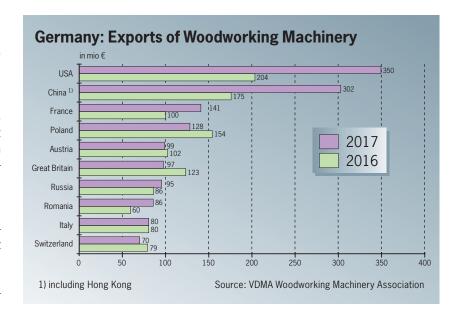
ation still anticipates a marked growth in production to the tune of 8% in 2018 as a whole amidst sustained high order intake and the resulting order cushion. Production should thus reach approximately €3.4bn.

German woodworking machinery exports jumped even more than production last year with a 12.8% upturn to €2.35bn (2.1bn). The export rate based on a production volume of €3.2bn thus increased to 74%. The upward trend in exports seen in years past intensified last year, bringing exports almost back to 2008's level. Following a collapse in 2009, exports first increased until 2011, before slipping a little in 2012 and 2013. They have risen more and more since then. Like production, exports climbed by a good two-thirds between 2009 and 2017.

All major regions played a part in last year's growth in exports. Exports to North America showed the biggest jump with a 69% surge to €383m (227m). Shipments to Asia edged 24% higher to €504m (405m); a 5% upswing in exports to €1.330bn (1.263bn) was booked within Europe. A 4% improvement to €39m (37m) was recorded in Oceania. Exports to Latin America plunged 33% to €79m (118m), though, while shipments to Africa were more than halved to €15m (34m). Consequently, 57% of German woodworking machinery exports ended up in Europe. Asia's share climbed to 21% and North America's to 16%. South America was the destination for 3.4%, Oceania received 1.7% and Africa the remaining 0.6%.

The two biggest markets – the US and China – managed to strengthen their footholds last year. Both countries experienced a 72% leap in a year-on-year comparison. German woodworking machinery exports to the US soared to €350m (204m). Shipments to China reached €302m (175m). A very large growth was also booked in exports to France (+42% to €141m) and Romania (+43% to €86m).

German woodworking machinery exports then fell 2.7% to €482m in the first three months of 2018. The VDMA believes that this turn of events was primarily connected to strong growth in the prior-year period and the associated underlying effects.





In addition, momentum in the woodworking machinery business appears to be slowing a little. Major sales markets in China (+31% to €76m) and the US (+49% to €65m) enjoyed continued growth, with China ahead of the US. Poland, which took third place, reversed the downward trend in the previous year with an 11% jump to €30m. Larger downturns were registered in shipments to France (-32% to €25m) and the UK (-53% to €19m).

Figures from the German Federal Statistical Office compiled by the VDMA show that Germany imported 8.3% more woodworking machinery with €511m (472m) last year. 2007's level of €428m had already been surpassed in 2016. Following a slight

downturn in 2008, imports tumbled to €293m in 2009. They had risen consistently since then with the exception of 2012. Imports had thus jumped by almost three quarters between 2009 and 2017.

The biggest growth in imports came from Poland and the Czech Republic last year. The VDMA said that this increase was fuelled by a considerable increase in shipments from German woodworking machinery manufacturers' production sites located in these countries. Imports from Poland had thus leapt 39% to €82m (59m), while deliveries from the Czech Republic were up 20% at €48m (40m). Growth was also registered in most other countries that were listed separately.

Group's sales revenue to be boosted to 440-450m € this year

# Dieffenbacher and SWPM have sold ten wood-based panel plants by end of April

Dieffenbacher GmbH Maschinen- und Anlagenbau had already sold ten partial or complete wood-based panel production plants by the end of April this year.

Six of these orders are being handled by the main works in Eppingen and four by Shanghai Wood-Based Panel Machinery Co. Ltd. (SWPM) of Shanghai in which Dieffenbacher has a majority shareholding. Five of the six orders received by the main works involved the CPS+. A total of 20 orders for the CPS+ has been booked since its presentation at Ligna 2015. Five of the CPS+ sold to date are meanwhile in operation; six other CPS+ are scheduled to commence production by the end of this year.

The orders concluded to date include two continuous OSB plants as well as two plants for manufacturing chipboard from rice straw. The customers for the OSB plants are from a variety of regions but Dieffenbacher is not disclosing their names yet. The two straw-based chipboard plants are being supplied to the Chinese

company Wanhua Ecoboard Co. Ltd. of Peking, which has already ordered four similar plants from Dieffenbacher in the last three years. Another Chinese woodbased panel manufacturer has placed an order with Dieffenbacher for a THDF line with CPS+. The sixth order for Eppingen involves a chipboard line; Dieffenbacher has not announced any further details about this order yet. So far this year, SWPM has sold three chipboard plants with ContiPlus presses to Chinese companies; the fourth order involves a continuous MDF line for a wood-based panel manufacturer outside China.

Dieffenbacher will be supplying its second wood recycling plant following the contract awarded by Nolte Holzwerkstoff GmbH & Co. KG of Germersheim in April; the first unit had started up at the chipboard works of Pfleiderer Neumarkt GmbH in January. Besides the wood-based panel industry, Dieffenbacher wants to supply more recycling plants to other sectors of industry, too, in future. The Dieffenbacher subsidiary B. Maier Zerkleinerungstechnik

GmbH of Bielefeld has sold a total of 20 knife-ring flakers, some of which are fitted with the "FlowOptimizer". Dieffenbacher has meanwhile sold 21 units of the FlowOptimizer presented at Ligna 2017.

The present backlog of orders enables the Dieffenbacher group to utilise the full capacity of the production facilities concerned until spring 2019. Sales revenues are to continue to rise parallel to this in 2018. In their business year 2017, Dieffenbacher and SWPM sold a total of 14 wood-based panel plants, nine of them through Eppingen and five through SWPM, generating sales revenue of around €420m. Dieffenbacher is aiming to reach €440-450m in 2018; sights have been set on generating sales revenue of around €500m by 2020.

According to the figures published in the German Federal Gazette, the superordinate company Dieffenbacher Holding GmbH & Co. KG generated consolidated sales of €400.0m in its business year 2016, €354.5m of which was accounted for by the business unit "Wood", €41.8m by "Composites", and €3.7m by other activities. €38.4m was generated from sales on the domestic market, and €362.6m from abroad. The Dieffenbacher group had achieved higher sales revenues in the two preceding years. According to information from the company, however, third-party plants had been bought in on a larger scale in both years. This foreign share has since been reduced to the benefit of a greater proportion of plants made with Dieffenbacher's own resources. Dieffenbacher Holding had generated €488.5m (2014: €469.7m) in sales revenue in its business year 2015. Domestic sales revenue was given as €80.9m (€54.7m). Sales revenue generated abroad was above the €400m mark in both years at €407.6m (€415.0m). €431.7m (€433.7m) was generated by the business unit Wood, €52.6m (€33.7m ) by composites, and €4.3m (€2.5m) by other activities.



Five CPS+ are meanwhile in operation.

(Photo credit: Dieffenbacher)

Siempelkamp sold twelve partial or complete plants in its business year 2017

# Five plants sold by Siempelkamp during the first four months of 2018

Siempelkamp Maschinen- und Anlagenbau GmbH received four orders for partial or complete wood-based panel production plants in the first quarter of 2018. Another order was signed during April.

The Russian plywood and chipboard manufacturer ZAO Murom of Murom, Vladimir oblast, intends to make its debut in OSB production with a full plant made by Siempelkamp. For this project, Siempelkamp is supplying all the key components from the wood-preparation system to final manufacturing including an 8.5 ft x 30.4 m ContiRoll 9. At a cost of around €100m, the Murom project is the biggest single order received so far this year.

The Turkish company AGT Agac San. ve. Tic. A.S. of Antalya has placed an order with Siempelkamp for the forming and pressing line with an 7 ft x 55.3 m Conti-Roll for the installation of a second MDF line. Siempelkamp will also deliver gluing technology, including the Ecoresinator MDF system, an EcoSifter, cooling and stacking technology, the sanding and partition saw for master boards and intralogistics for downstream panel refining. Büttner Energie- und Trocknungstechnik GmbH is providing the fibre dryer and a power plant.

The third order booked by Siempelkamp upon receipt of payment in the first quarter of this year was placed by the Kronospan group in the fourth quarter for the forming and pressing line for the chipboard plant planned for Eastaboga, Alabama. The plant will incorporate a 10 ft x 44 m ContiRoll. The orders from AGT and Kronospan are both being handled by GIM Export Group GmbH & Co. KG of Göttingen.

The fourth order, an MDF line with a 4 ft x 42 m continuous press for a Chinese wood-based panel manufacturer, is being handled by the Siempelkamp works in



Infeed drum production in Krefeld.

(Photo credit: EUWID)

Quingdao. This is meanwhile the third direct contract concluded by this works.

At the start of the second quarter, the Lithuanian firm UAB Vakaru Medienos Grupe (VMG), based in Klaipeda, ordered a complete particleboard line from Siempelkamp. This line is to be installed at a site in Akmene in northern Lithuania by 2020 and be equipped with a ContiRoll in dimensions of 8 ft x 45.5 m. It will have a designed production capacity of 2,000 m³ per day or about 660,000 m³ per year.

The Siempelkamp group sold a total of twelve partial or complete wood-based panel production plants in its business year 2017. The Kronospan order for the Eastaboga works had been assigned to 2017 in the EUWID overview on the basis of information received by the company. Siempelkamp only took a firm booking for this order, however, after receiving a down payment in the first quarter of 2018. In December 2017, the Egger group of St. Johann, Austria, ordered the main components for its "Columbus" chipboard project

underway in Lexington, North Carolina. This order includes a 10 ft wide press. Büttner is supplying two drum dryers and the power plant for the project.

The orders from the Middle East otherwise unspecified in the overview involve two MDF plants for Arian Saeed Industrial Group of Teheran. Siempelkamp is supplying a 7 ft x 38.7 m continuous press for each of these projects; in both cases, the refiners are being supplied by Pallmann Maschinenfabrik GmbH & Co. KG.

According to provisional figures provided to date, the value of the orders received by the "Machine and plant engineering" division of G. Siempelkamp GmbH & Co. KG in 2017 amounts to approximately €600m (2016: €500.8m). Roughly €70m of this was contributed by Pallmann Maschinenfabrik, consolidated in full for the first time after the conclusion of the complete takeover on 1 April. The division's sales revenue, on the other hand, fell below the previous year's level at around €563m (€593.7m).

### Roy O. Martin starts up OSB facility in Texas



(Photo credit: Dieffenbacher)

The US OSB and plywood producer Roy O. Martin Lumber Management LLC, based in Alexandria, Louisiana, made the first board at an OSB mill in Corrigan, Texas, which was built via Corrigan OSB LLC, on 24 April 2018. Start-up was thus about six months later than originally planned. When construction work began, the mill was slated to start operating in autumn 2017. Production is to gradually ramp up over the next few weeks.

With about 165 workers, the mill is to have a similar portfolio to Roy O. Martin's OSB site in Oakdale, Louisiana that does business as Martco LLC and started operating in February 2007. Both mills are equipped with a 14-opening press in a format of 12 x 26 ft that was supplied by Dieffenbacher GmbH Maschinen- und Anlagenbau. They have an annual capacity of about 850m sqft (3/8" basis) or roughly 750,000 m³.

# Forex makes the first board at new OSB mill in Amos

The Canadian LVL manufacturer Forex Amos Inc. has commissioned a new OSB mill at its Amos, Quebec headquarters. The production line, which is designed to have an annual capacity of 410,000 m³ using a second-hand, 8 x 24 ft 12-opening Dieffenbacher press, made its first board on 8 April 2018.

Forex had made strands at the site for the first time at the end of September 2017 and sought to make the first OSB in November. The local newspaper L'Écho Abitibien reported that the entire line was not ready to operate until the middle of March.

The timetable had previously been pushed back. When the plans were unveiled

at the end of 2015, Forex had anticipated that production would get going in 2017. The company did report though that the US\$60m budget for construction of the OSB mill was adhered to.

### Vanachai switching project from particleboard to OSB

The Thai wood-based panel manufacturer Vanachai Group Public Company Ltd., headquartered in Bangkok, is to install an OSB line rather than a particleboard line, which it had planned. During the first guarter of 2018, the firm switched the order for a forming and press line with a 4 ft x 48.7 m continuous press that it had placed directly with the Chinese group Siempelkamp (Qingdao) Machinery Co. Ltd., based in Qingdao, Shandong Province, in October 2017. Siempelkamp will also deliver the final assembly system with cooling and stacking systems, fully automated board warehouse and sanding line. Vanachai will purchase upstream and downstream components directly.

The project will be carried out at what is now the group's biggest site in the province of Surat Thani, as planned. Vanachai is currently installing an 8ft-wide MDF line there, which had been ordered from Siempelkamp in November 2016. Following the start-up of the two new lines, Vanachai will run five particleboard and MDF lines and one OSB line at this location.

# Murom orders complete OSB line from Siempelkamp

The Russian plywood and particleboard manufacturer ZAO Murom, based in Murom in Vladimir oblast, intends to add OSB to its range of products. The company has ordered a complete line from Siempelkamp Maschinen- und Anlagenbau GmbH for this project. The centrepiece of this order is a ninth-generation ContiRoll in dimensions of 8.5 ft x 30.4 m, Siempelkamp said. The project also involves other Siempelkamp group entities.

According to Siempelkamp, Pallmann Maschinenfabrik GmbH & Co. KG will de-

liver all of the raw material processing systems from roundwood thinning and debarking to production of top and midlayer fractions. CMC Texpan s.r.l. will provide all of the material processing systems including filtering, gluing and sprinkling technology. The order for the power plant with a total combustion capacity of 40 MW went to Büttner Energie- und Trocknungstechnik GmbH. Some 16 MW of this capacity will be used to heat thermal oil; the 5.6 x 30 R drum dryer will also be supplied with flue gas. Siempelkamp said that the contract also includes the finishing line, including an automated warehouse system. Sicoplan N.V. will conduct planning engineering.

Work to assemble this technology is set to take place towards the end of this year. Start-up is slated for the end of 2019, with regular production set to take place in spring 2020. Siempelkamp reported that Murom's total capacity will be more than doubled to 550,000 m³ per year. Based on Murom's reported capacity of plywood (150,000 m³) and particleboard (120,000 m³) the OSB line will then have an annual capacity of about 280,000 m³.



(Photo credit: Murom,

Siempelkamp said that leftover timber from existing plywood production is to be recycled in full in the manufacturing process. Both companies have jointly developed the required production and process technologies as part of a partnership lasting several years. The board, which Siempelkamp refers to as OSB Advanced, will be made with a particleboard core. The power plant will supply the dryer with flue gas by incinerating waste wood that cannot be used in the manufacturing process. The required process heat for the continuous press and heating of the roundwood thinning systems and production buildings will be provided using the thermal oil heater.

### Steico puts further plants into operation in Poland

At the end of March 2018, the insulation board manufacturer Steico SE of Feldkirchen put two more production lines into operation at the Czarnków facility in Poland. The optimisation phase underway on both lines since then is expected to be concluded in the third quarter. Both of the new lines operate dry. One line produces rigid wood-fibre insulation boards for use in building envelopes; the second line enlarges production capacity for flexible wood-fibre mats.

The new insulation board line is geared to produce lightweight but nevertheless very pressure resistant boards, which can also be used as a base board for thermal insulation systems. The intention is to achieve an annual capacity of around 300,000 m<sup>3</sup> with board thicknesses of up to 300 mm. In setting up the insulation matting line, Steico has used various components of the facilities acquired at the end of April 2017 from the insolvent estate of Homatherm France S.A.S. of Chamouilley/St. Dizier. Following the reassembly in Czarnków, the plant is said to achieve an annual capacity of around 80,000 m<sup>3</sup>. When the project was launched, Steico had quoted a target capacity of 130,000 m<sup>3</sup>, however. The fabricated insulation mats are to be used above all as thin, rollable footfall sound insulation, as insulation strips, and as l-joist insulation in Steico I-joists.

Steico produced the first panel on the second laminated veneer lumber (LVL) line at the Czarna Woda plant on 12 September

2017. The 80 % performance test was completed on 7 November, enabling regular operation to commence. The 100 % performance test required for final approval is due to be completed before the end of the second quarter. A wet-laid wood-fibre board plant from the Casteljaloux works in France is currently being moved to Czarna Woda. Steico's supervisory committee had approved this relocation in mid-September 2017. The options for setting up another production facility were discussed at the same meeting.



(Photo credit: Steico)

Steico currently operates three production facilities. Following the start-up of the two additional lines, four wet-laid wood-fibre board plants are operating in Czarnków, two production lines for rigid insulation using a dry process, three similarly dry lines for flexible insulation mats and wood-fibre blow-in cavity insulation, two lines for cellulose blow-in cavity insulation, and the l-joist production line. In Czarna Woda, Steico operates two wet-laid lines for insulation board, two hardboard lines, and the two LVL lines; the next expansion step involves the wet-laid line from the Casteljaloux works. Insulation mats are meanwhile being produced on one line there.

# Büttner completes dryer assembly at Hunton

Büttner Energie- und Trocknungstechnik GmbH finished assembling an electrically heated fibre dryer at the Norwegian insulating panel producer Hunton Fiber AS, headquartered in Gjøvik, in February 2018. This work, which entailed all mechanical installation including the steel structure and insulation, commenced at the start of December 2017. The flash tube dryer is being integrated into a line to make flexible wood-fibre mats. Hunton Fiber had announced the project in June

2016 and ordered the main technology in the next few months. A variety of pieces of new technology were combined with second-hand components. Assembly work should be completed by summer, meaning that the plant can be commissioned in the second half of the year as planned.

The new facility is being built in the Skjerven Næringspark industrial park. When the plans were unveiled, Hunton Fiber had put the total investments in the greenfield project at NOK100m-120m or €11m-13m but had listed this sum at NOK220m at the end of last year.

#### Louisiana-Pacific investing US\$45m in Entekra

The US company Louisiana-Pacific Corp., headquartered in Nashville, Tennessee, bought a 50% stake in Entekra Inc., a firm based in Ripon. California that specialises in designing and making pre-fabricated home construction parts at the start of May. The purchase price was put at US\$45m. The other 50% is in the hands of Entekra's management team led by CEO Gerard McCaughey. McCaughey was the joint owner of the timber frame construction system manufacturer Century Homes, based in Monaghan, Ireland, which he sold to the Irish Kingspan Group plc, based in Kingscourt, Ireland, for about €100m at the end of 2005.

Entekra has made timber frame construction parts sold under the fully integrated off-site solution (FIOSS) name at its Rippon headquarters since the end of 2016. W. Bradley Southern, Louisiana-Pacific's CEO, said that its existing manufacturing capacity is to be raised significantly and a second plant will be built near Modesto. The company feels that both projects will involve costs of US\$15m-25m. Additional amounts of capacity should be available from the end of 2019 onwards. The Builderonline news service reported that Entekra had aimed to rapidly increase its manufacturing capacity a short time after the Ripon plant started operating. The Ripon facility was to reach an output of about 500 units per year during the course of 2018. A second facility with an annual capacity of 3,000 units is to be built in northern California by 2019. A similarly sized location in southern California was scheduled for 2020.

### Norbord set to raise capacity at its Grande Prairie mill

Norbord Inc., based in Toronto, Ontario, intends to raise the annual capacity of its mill in Grande Prairie, Alberta by about 100m sqft by the end of 2018 through debottlenecking measures in parts of the plant upstream of the forming and press line. The site's capacity currently stands at 730m sqft (3/8") or 645,000 m<sup>3</sup>. The

company will use a variety of components from a continuous production line at the site, which was largely installed by the start of 2008 but was not commissioned. Originally delivered by Dieffenbacher GmbH Maschinen- und Anlagenbau, the forming and press line from the second line was moved to Inverness, Scotland in the past year. Wood handling, energy generation and drying components are to be integrated into the existing line for the de-bottlenecking project. Norbord put the total investment at about US\$55m, including US\$23m that had already been spent in the first quarter. Another US\$4m was spent on finalising work at its Inverness plant.

### New OSB line in Inverness running at 60% capacity



(Photo credit: Norbord)

A continuous production line installed by Norbord Europe Ltd., based in Cowie, UK, to replace two multi-opening lines at its OSB mill in Inverness, Scotland has now reached about 60% of its capacity. The new line, which made its first board at the end of September 2017, has a designed annual capacity of about 640,000 m<sup>3</sup>. Dismantling of the two multi-opening lines, which have a combined annual capacity of roughly 350,000 m<sup>3</sup>, has now begun and should be completed by the end of the second quarter, the firm said. At the same time, work to assemble the new final assembly systems is continuing, with start-up slated to happen by the year's end.

Information from Norbord's latest quarterly report indicates that the total investment in this replacement project has now climbed to about US\$145m. The company said that the increase compared with the original sum of US\$135m was mainly due to exchange rate changes during the two-year project. About US\$138m had been spent in Inverness by the end of March.

### Losán planning to take up poplar plywood production

Grupo Losán of La Coruña, Spain, began building a poplar plywood works at the beginning of May 2018. The new facility is located in Villabrázaro in the Spanish province of Zamora. Losán estimates the cost of the greenfield investment project at around €30m. The project involves constructing a complex comprising five buildings; sights have been set on starting up the facility in April 2019. The machine engineering companies Raute Oyi and Biele S.A. are among the technical equipment suppliers. The works is to have an annual capacity of around 50,000 m<sup>3</sup> of poplar plywood to start with. Although no specific schedule has been disclosed yet, plans have already been made for a second expansion phase in which the scope of production is to be widened to include plywood made from other wood species.

The start-up of the new works will mark Losán's debut in poplar plywood production. At the moment, the company only has plywood in its product range as a commercial commodity, limited mainly to birch plywood. Villabrázaro near the town of Benavente was selected as the site for the new facility on the strength of the regional abundance of high-quality poplar logs. 90-95 % of the output of poplar plywood boards is earmarked for export where it will be used predominantly in the leisure vehicle industry. The target markets are said to include the Netherlands, Belgium, Germany, France, and the UK.

Losán currently covers a comparatively wide range of products including chipboard, melamine laminated boards, veneer, veneered boards, gluelam boards, pine timber, and plywood. At present, the company has ten works, each with a different production focus. Six of these plants are located in Spain: Industrias Losán in Curtis (melamine laminated and veneered boards), Aserpal in Vilasantar (veneer), Tableros Losán in Soria (raw and laminated chipboard), Losán Solid Wood in Soria (timber), Pina S.A. in Cuenca (raw and laminated chipboard), and Componentes Losán in Ciudad Real (furniture components). The company operates another four works outside Spain: Losán Benelux in Emmen, Netherlands, produces veneer panels, Losán Romania in Brasov, Romania, and the US subsidiary Oak Hill Veneers in Troy, Pennsylvania produce veneer, and Manufacturas Timberni in Los Ángeles, Chile, manufactures gluelam and timber. The company also has a warehousing facility in Ilfov, Romania.

### Resin manufacturer Prefere being sold to Silverfleet

The British private-equity company Silverfleet Capital Partners LLP is aiming to acquire the majority holding in the phenolic resin manufacturer Prefere Resins Holding GmbH based in Erkner in Brandenburg, Germany. The company signed a corresponding agreement with the present majority owner Capiton AG of Berlin and the similarly participating Intermediate Capital Group plc (ICG) of London at the beginning of May 2018. There will be no change in the shares held by the management of Prefere Resins, however.

The Prefere Resins group had belonged to the Finnish company Dynea Chemicals Oy of Helsinki until the beginning of 2014. Dynea had previously amalgamated the phenolic-resin activities of Neste Chemicals Oy it had absorbed with the phenolic-resin business of Sydsvenska Kemi AB which had arisen from the spin-off of the chemical activities of Perstorp AB of Telleborg, Sweden. The sale of Prefere Resins to Capiton marked the conclusion of the divestment process that Dynea had launched in 2012.

Prefere Resins operates a total of seven production facilities in Erkner, Germany, in Krems, Austria, in Hamina, Finland, in Newton Aycliffe, UK, in Brebières, France, in Trzemeszno, Poland, and in Rasnov, Romania, along with three research and development facilities and four regional sales offices. In the release about the company sale, the most recent sales volume is given as approximately 320,000 t of phenolic and amino resins. The products are sold mainly to the construction sector (OSB, hardboard, chipboard, plywood, laminated veneer lumber, and ULE adhesives), the insulation sector (fibreglass matting, rockwool), and to the industrial sector (abrasives, binders for brake pads, fireproof materials, oil and air filters).

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BÜTTNER Energie- und Trocknungstechnik GmbH

Four OSB mills resuming operations/Two new lines up and running

# North American OSB capacity poised for gradual growth in the years ahead

Rising demand on North American OSB markets has now created scope for idled lines to resume operations and new capacity to be installed.

Three more reactivated lines have made their first boards in recent months after seven previously idled OSB mills started operating again in 2012 and 2013. Another site is preparing to resume operations. Moreover, two new investment projects are in the pipeline again after a lengthy break.

In September 2017, Norbord Inc., based in Toronto, Ontario, made the first board at an OSB mill in Huguley, Alabama that was shut down indefinitely in January 2009. The decision to restart the line, which is equipped with a continuous press, had been made back in November 2013. The company had set its sights on resuming operations in the first half of 2015, but a final decision was not supposed to be made until a lasting recovery in demand for OSB emerged. The project had subsequently encountered multiple delays. Modernisation work was ultimately wrapped up during the first half of 2017.

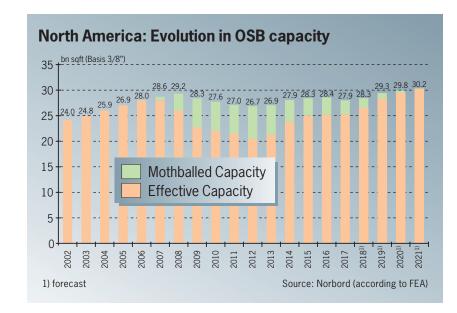
Two restart projects are currently in progress with a facility in Spring City, Tennessee run by Huber Engineered Woods LLC, based in Charlotte, North Carolina, and a plant in High Prairie, Alberta operated by Tolko Industries Ltd., headquartered in Vernon, British Columbia. Huber had announced a decision to this effect in November 2016. Commissioned in 1997, the OSB line in Spring City was the first in North America and the second in the world to use a continuous press. However, Huber had scaled back production significantly in 2008 against a backdrop of the plunge on North American OSB markets; production in Spring City permanently ceased in December 2011. Tolko had idled its mill in High Prairie in February 2008. Restart plans were fleshed out during the first half of 2017. Norbord is also preparing to modernise a plant in Chambord, Quebec that it acquired in November 2016 through a plant swap with Louisiana-Pacific Corp., based in Nashville, Tennessee. A short time after the deal, the company announced that it intends to restart the mill in the medium term in the event of a lasting recovery in the market. However, an exact date was not set.

The two new mills started operating in rapid succession in April 2018. The Canadian LVL manufacturer Forex Amos Inc. made the first board at a production line installed at its Amos, Quebec headquarters using second-hand technology on 8 April and thus entered the OSB production business. An OSB mill in Corrigan, Texas that was built by the US OSB and plywood producer Roy O. Martin Lumber Management LLC, based in Alexandria, Louisiana, via Corrigan OSB LLC followed on 24 April.

Both projects thus lagged a few months behind the original schedule. When the investment plans were unveiled at the end of 2015. Forex had anticipated that production could begin at the start of 2017. Towards the end of September 2017, the firm had made its first strands and envisaged commencing OSB production in November. However, the entire line with a multi-opening press transferred from Venezuela to Canada was not ready to operate until mid-March. Corrigan OSB had originally eyed a commissioning date during 2017; the date was firmed up as in autumn 2017 when work to install technology got under way.

According to an investor presentation published by Norbord in May 2018, the four previously idled mills that have restarted or will restart production have a combined capacity of roughly 2.0 billion sqft (3/8" basis) or almost 1.8 million m³. Another 1.2 billion sqft or 1.1 million m³ will be added when the new investment projects are taken into account. Based on assumed North American OSB production of 22.1 billion sqft or about 20 million m³ in 2017, the additional 3.2 billion sqft brought online with the six mills will raise capacity by 14%. Norbord notes that the impact of





mills restarted in 2012 and 2013 was roughly twice as big. Based on 2012's output of 16.2 billion sqft, the additional capacity of 4.4 billion sqft brought about a 27% growth.

In recent years, 37 mills have operated in North America's OSB industry without major disruption. Twenty-four of them are located in the US and 13 in Canada. Three mills were added in the US and four in Canada with restarts in 2012 and 2013, meaning that a total of 44 OSB mills were in operation in North America in mid-2017. This figure now stands at 49.

Norbord estimates that the North American OSB industry's total capacity had reached about 27.9 billion sqft or 24.7 million m<sup>3</sup> at the end of 2017; both mills in operation and mothballed sites at that time were taken into consideration. Norbord claimed to be the largest manufacturer with a 29% share of capacity, followed by Louisiana-Pacific with 19% and Georgia-Pacific LLC, based in Atlanta, Georgia, with 15%. However, Louisiana-Pacific's figure did not include OSB capacity at its siding mills. Altogether, the three largest North American OSB producers account for 63% of capacity. The next places were taken by Weyerhaeuser Co., based in Seattle, Washington (11%), Tolko and Huber (8% each) and Martco (6%). Other producers account for the remaining 6%.

The Norbord overview shows that North American OSB capacity had increased to 29.2 billion sqft by 2008. The first OSB lines were closed or taken out of service starting in 2006 amidst the growing economic crisis. Total capacity had thus declined again starting in 2009. At the same time, mothballed plants' share of capacity had risen more and more. Rock bottom was reached in 2012 with 26.7 billion sqft; however, mills in operation accounted

for just three quarters of this amount. In subsequent years, total capacity had increased to 28.4 billion sqft in 2016.

North American OSB capacity is poised for a gradual increase in the years ahead after a slight downturn to 27.9 billion sqft forecast by Norbord for 2017, reaching the 30 billion sqft mark for the first time in 2021. At the same time, the share of unused capacity is set to continue on a downward path. The capacity increase is to be fuelled by modernisation and expansion projects that have been implemented at a number of mills or that are in the pipeline. Recent examples include the replacement of a multi-opening press at Weyerhaeuser's site in Grayling, Michigan and debottlenecking work planned by Norbord in Grande Prairie. The new press in Grayling started operating in November 2017. Norbord intends to raise the capacity of its OSB line in Grande Prairie by almost 15% by the end of 2018 by expanding sections of the line upstream of the forming and press line. However, the two new investment projects planned by Corrigan OSB and Forex are hard to place in the capacity trends shown in the Norbord presentation.



Corrigan OSB made the first board on 24 April.

(Photo credit: Dieffenbacher)

Five lines operating in China and Malaysia / Three projects in China, Thailand

# Asia to become the next growth market for OSB after North America and Europe

More OSB projects are now being undertaken in Asia too following a long period of rather subdued business there. The first major line started operating in 2010.

Three more OSB lines with continuous presses have since started operating in China. Two new orders are currently being processed. Outside China, only one line in Malaysia has been installed to date. The first OSB line in Thailand is set to start operating next year. Therefore, five OSB lines with continuous presses are located in Asia at present. The projects that are known about to date will boost this number to eight lines.

Machinery and plant builders and the OSB industry feel that Asia might become the next growth market for OSB after North America and Europe. North America is currently home to almost 50 OSB sites. Just a few new mills have been added in recent years. After a lengthy break, Forex Amos Inc., based in Amos, Quebec, and Corrigan OSB LLC, headquartered in Cor-

rigan, Texas, each commissioned a new OSB line in April 2018. Louisiana-Pacific Corp., based in Nashville, Tennessee, has expanded its operations to South America too. The company runs a mill in Brazil and two locations in Chile. A second production line is presently being added to its facility in Panguipulli, Chile.

Much more action is afoot in Europe's OSB industry. Several lines have been added in recent years. The Kronospan group wrapped up investments in three new major projects in Egorievsk (Russia), Mogilev (Belarus) and Strzelce-Opolskie (Poland) between 2013 and 2015. The company has added an OSB line to its particleboard mill in Ufa in the Russian republic of Bashkortostan over the past few months. Replacement projects under way at Kronospan's facility in Sanem (Luxembourg) should be completed by the fourth quarter of 2018. Swiss Krono Group commissioned a new OSB mill in Vásárosnaményi (Hungary) at the start of June 2016. The Russian LVL producer Modern Lumber Technologies LLC (MLT), based in St. Petersburg, Russia, entered the OSB manufacturing business in July 2016 with the start-up of a mill in Torzhok in Tver oblast. What is more, continuous production lines installed to replace multi-opening presses by Smartply Europe Ltd., based in Waterford, Ireland, and Norbord Europe Ltd., headquartered in Cowie, UK, have started operating over the past two years.

Europe and its neighbouring countries of Russia and Turkey are thus home to 24 OSB sites, including the Kronospan line in Ufa that is currently starting operations. Moreover, several firm investment projects are in the planning. The Kronospan group announced an OSB project for its British mill in Chirk in October 2017. Swiss Krono Group intends to install at least one more OSB line in the foreseeable future. MLT is set to build a new mill in Sverdlovsk oblast. which is located on the eastern fringes of Ural mountains, in the medium term. There is another newcomer in Russia with the plywood and particleboard manufacturer ZAO Murom, based in Murom, Vladimir oblast.

The different regions vary not only in terms of their number of OSB lines, but also in terms of OSB's share of total wood-based panel consumption. According to an investor presentation published by Norbord Inc., headquartered in Toronto, Ontario, in May 2018, OSB is the leading type of wood-based panel in North America with a 42% share. OSB's share of the European wood-based panel market is put at about 10% in the Norbord presentation. OSB has a market share of just 8% in South America, which is just one fifth of the size of the European market and a good quarter of the North American market.

However, OSB has a market share of less than one per cent in Asia, a market that is more than four-and-a-half times bigger than the European market. The single-largest markets – Japan, South Korea and China – have long mainly been served with



Pioneer OSB mill in Alor Sertar.

(Photo credit: Dieffenbacher)

OSB through imports from North America and Europe. However, market growth has accelerated with the installation of local production capacity. Asia's first OSB projects were mainly carried out by plywood producers. Particleboard and MDF/HDF manufacturers now appear to be tackling this issue more, including Osborn Decoration Material Co. Ltd., based in Rizhao in Shandong Province, and Vanachai Group Public Company Ltd., headquartered in Bangkok, Thailand.

The particleboard manufacturer Osborne, a subsidiary of Treezo New Material Science and Technology Group Co. Ltd., ordered a complete OSB line with a continuous press in dimensions of 8.5 ft x 30.4 m from Siempelkamp Maschinen- und Anlagenbau GmbH, based in Krefeld, Germany, in September 2017. During the first quarter of 2018, Vanachai Group, a company that specialises in particleboard, MDF/HDF and refined products such as laminate flooring and door skins, switched an order for a forming and press line to make particleboard placed in October 2017 directly with the Chinese firm Siempelkamp (Qingdao) Machinery Co. Ltd., based in Qingdao, Shandong Province, to OSB production. This contract includes the forming station, a continuous press in dimensions of 4 ft x 48.7 m and finishing systems. Upstream and downstream components will be purchased directly from Vanachai. The project should be implemented at what is now the group's biggest site in the province of Surat Thani, as planned. Once the two new lines are up and running, Vanachai will operate a total of five particleboard and MDF lines and one OSB line at this complex.

Dieffenbacher GmbH Maschinen- und Anlagenbau, based in Eppingen, Germany, and its majority owned subsidiary Shanghai Wood Based Panels Machinery Co. Ltd. (SWPM), headquartered in Shanghai, delivered the majority of the other continuous OSB lines in Asia. The first line was commissioned in October 2010 at the Chinese wood-based panel producer Hubei Baoyuan Group Co. Ltd., based in Jingmen in Hubei Province. Hubei Baoyuan had installed the line, which was equipped with a continuous press in dimensions of 8 ft x 30 m and an annual capacity of approximately 220,000 m³, directly next to a continuous MDF line



Kangxin's OSB line started operating in April 2015.

(Photo credit: Dieffenbacher)

delivered by Dieffenbacher in 2005. Both production lines are served by a joint lumberyard, meaning that the fine material screened out during OSB production can be sent for use in MDF manufacturing.

Leenderson Panel Board Manufacturing Yangling Co. Ltd., which is owned by the Dutch group Panelboard Holding B.V., based in The Hague, had installed a line to make straw OSB in Yangling, Shaanxi Province, during 2009, as well. In 2002, Panelboard Holding had secured a licence from the Alberta Research Council (ARC) in Edmonton for technologies needed to make oriented structural straw board (OSSB) for this project. A 4 ft x 33 m continuous press delivered by SWPM was used for this line; the annual capacity was listed at about 60,000 m3. The mill, which has now been renamed Novofibre Panel Board Yangling Co. Ltd., was heavily damaged in fire that destroyed the ContiPlus press towards the middle of June 2016.

The next major OSB project in China was carried out by the plywood producer Kangxin New Material Science & Technology Co. Ltd., based in Hanchuan City, Hubei Province. The complete line delivered by Dieffenbacher with a 8.5 ft x 40.4 m CPS started operating in April 2015. With an annual poplar converting capacity of 230,000 m<sup>3</sup>, the line makes multi-layer and high-density OSB to which top layer veneers are subsequently added and then used in container floors. The OSB line delivered by Dieffenbacher to Shouguang Luli Wood Co. Ltd., based in Shouguang, Shandong Province, started operating in September 2015. With a continuous press in dimensions of  $8.5~\rm ft~x~39.5~m$ , the line will have an annual capacity of  $300,000~\rm m^3$ . The OSB line installed at Guizhou Yuanfang Forestry Investment and Development Co. Ltd. started operating just a few months later. The company had initially ordered a particleboard line from Dieffenbacher, before converting this order into an OSB line. With a continuous press in dimensions of  $8.5~\rm ft~x~30~m$ , this line had a designed annual capacity of about  $220,000~\rm m^3$ .

The first continuous OSB line outside China was installed by the Malaysian plywood manufacturer Besgrade Sdn. Bhd.'s subsidiary Pioneer OSB Sdn. Bhd. in Alor Setar, Kedah at the start of 2014. The company had made single-layer OSB there from rubber trees using a second-hand single-opening line since 2012 and implemented the lessons learned in the process when installing the large line. Its portfolio was to include both standard OSB and phenol-coated OSB for concrete formwork as well as combined board with an OSB core and particleboard, MDF or veneer faces. However, the line, which featured a continuous press in dimensions of 8.5 ft x 30 m with an annual capacity of some 150,000 m<sup>3</sup>, started operating during the summer of 2016 after a few delays.

Dieffenbacher landed another contract from China during the third quarter of 2017. Guangxi Hengxian Xin Weilin Panel Industry Co. Ltd., based in Nanning in Shandong Province, ordered an OSB line, which is equipped with a CPS press in dimensions of 8.5 ft x 22.5 m and has a capacity of 220,000 m³. Commissioning is slated for some time in 2018. □

Similar growth rates in shipments to Europe and North America in the first quarter

# Elliotis pine plywood exports rising more than in 2017

The upward trend in Brazilian elliotis pine plywood exports intensified in the first quarter of 2018.

Exports had risen 14% in the same stretch last year. 2017 ended with a 19% improvement considering all twelve months. Export statistics from Associação Brasileira da Indústria de Madeira Processada Mecanicamente (Abimci). based in Curitiba/Paraná, showed a 25% growth in shipments to 582,292 (Jan.-March 2017: 464,757) m<sup>3</sup> for the first three months of the year. Exports had risen by 27% to 182,915 m<sup>3</sup> in January and by the same percentage to 189,220 m<sup>3</sup> in February. Compared with the past two months exports had jumped in March by a good 20,000  $m^3$  to 210,157  $m^3$ . This figure was 22% higher than in the same month last year.

The two biggest sales regions, Europe and North America, sparked the growth seen in the first quarter with comparable growth rates in this period. Shipments to Europe leapt 27.5% to 289,337

(226,904) m³. Exports to North America were 27.4% higher at 231,875 (182,073) m³. Oceania sourced four times as much as last year with 12,406 (3,041) m³, with Australia being the biggest sales market. Shipments to other South American countries improved to 9,040 (7,301) m³. Central America was barely lower than last year at 24,979 (25,044) m³. Exports to Africa fell to 11,049 (15,605) m³ and deliveries to Asia tumbled to 3,607 (4,788) m³.

Europe thus accounted for 49.7 (48.8) % of total exports and North America for 39.8 (39.2) %. Central America lost market share to 4.3 (5.4) %, as did Africa to 1.9 (3.4) %. South America's share stayed at 1.6 (1.6) %, while Oceania's slice of the pie tripled to 2.1 (0.7) %. Asia had a share of just 0.6 (1.0) % in the first quarter. When comparing figures with last year, it should be noted that some of the data reported after the first quarter of 2017 had to be revised later on in the year.

While last year saw greater variations from one sales market to another, exports had increased almost across the board during the first quarter. Out of the major sales markets, Brazil only exported less to the Netherlands (-13%), Jamaica (-19%) and South Africa (-19%). Shipments to Puerto Rico more than quadrupled in the wake of rebuilding efforts after last year's hurricane season. Similarly high growth rates were booked for Australia. The increase in exports to the US slowed again to 17%. Deliveries to the US had jumped 27% in 2017 as a whole.

Within Europe, the biggest growth rates were booked in Denmark (+77%), Germany (+46%), Ireland (+45%) and the UK (+34%). Germany strengthened its position as Europe's biggest sales market, which it had barely reached last year. Elliotis pine plywood exports to Germany had fallen by almost a third in the first quarter of 2016 compared with the prior-year period; they had since doubled from this level for the first quarter. However, the Abimci statistics show that shipments to the UK had fallen by almost a third in the first quarter of 2017 but soared this year. Exports to Belgium (+16%) and Italy (+14%) climbed by similar amounts.

# Brazil exported 2m m<sup>3</sup> in the full year 2017

Brazil exported more than 2m m³ of elliotis pine plywood last year, passing this mark for the first time. The country shipped 19.4% more abroad than in 2016 with a total of 2.060m (2016: 1.730m) m³. Abimci had previously reported a similar growth for 2016. While the first six months of that year had been better, growth rates were stronger in the second half of last year. By mid-year, the country had exported 11.2% more elliotis pine plywood with a total of 929,417



Plywood production in Brazil.

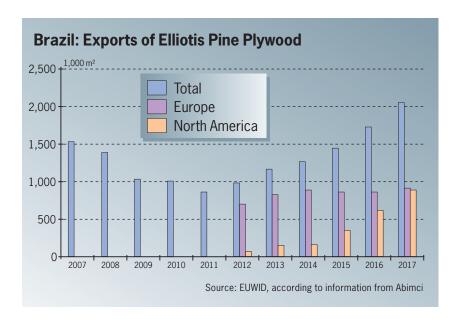
(Photo credit: Repinho)

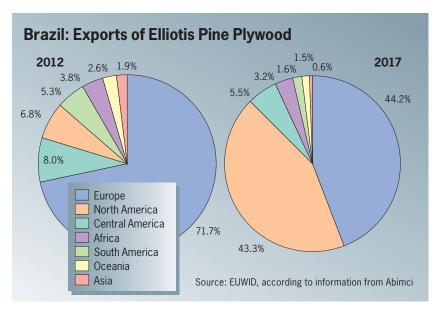
(Jan.-June 2016: 835,841) m³. The second half produced a 26.4% surge to 1.131m (July-Dec. 2016: 894,626) m³. Ten out of 12 months had produced double-digit growth rates. November (+36%), July and October (both +33%) were the best months. January (+29%), August (+20%) and September (+24%) delivered improvements of more than 20%. Growth rates were between 10% and 20% in March (+12%), April (+13%), May (+17%) and December (+15%). February produced a small increase of 4%, with exports only falling in June (-4%).

Brazilian elliotis pine exports have surged 140.0% since bottoming out at 865,639 m³ in 2011. The biggest growth rates were booked in the past two years. 2013 followed close behind (+18.4% to 1.164m m³). Exports also improved by a double-digit percentage in 2012 (+13.6% to 983,619 m³) and 2015 (+13.9% to 1.449m m³). A 9.3% increase to 1.272m m³ was booked in 2014.

Europe maintained its position as the biggest sales region last year. However, the gap to North America has narrowed to almost 19,000 m<sup>3</sup>. Brazil exported more to Europe than in 2016 (+1.5%) with a 4.8% rise to 911,370 (2016: 869,599) m<sup>2</sup>. The growth rates booked in North America have slowed, though; exports were 43.3% higher than 2016 at 892,602 (622,897) m<sup>3</sup>. Shipments to Central America increased 14.5% to 113,342 (99,027) m<sup>3</sup>. Africa was the destination for 66,851 (67,127) m<sup>3</sup>, roughly the same amount as the previous year. Exports to South America have continued on a downward slide; the downturn was only half as big as in 2016 with a 8.1% decline to 33,576 (36,540) m<sup>3</sup>. Deliveries to Oceania more than doubled to 30,334 (12,989) m<sup>3</sup> after decreasing in the past two years. This region has overtaken Asia, which booked a 45.7% downturn to 12,092 (22,288) m<sup>3</sup>.

Last year, 44.2 (50.3) % of Brazilian elliotis pine plywood exports went to Europe, with North America now hot on its heels with 43.3 (36.0) %. Central America accounted for 5.5%, Africa for 3.2%, Oceania for 1.5% and Asia for





0.6%. Europe had received more than 70% of total exports in 2012 and 2013. Europe's slice of the pie was then just below the 70% mark in 2014 before dropping below the 60% mark in 2015. North America had been just behind Central America with a 6.8% share in 2012. This share jumped to 13.2% in 2013, before dipping to 12.4% to 2014. It then doubled to 24.6% in 2015.

Last year, exports jumped another 26.9% to 621,424 (489,686) m<sup>3</sup> in the US, which has been the biggest sales market since 2016. Some of the trends seen in the biggest European sales markets in 2016 reversed course. Brazil

had exported 14.2% more elliotis pine plywood to the UK in 2016, before reaching an increase of another 2.6% to 282,610 (275,416) m<sup>3</sup> in 2017. With a 9.4% slump to 173,519 (191,604) m<sup>3</sup>, Belgium slipped behind Germany, which was almost able to offset 2016's sharp downturn with a 24.9% jump to 208,961 (167,254) m<sup>3</sup>. A similar increase had been booked in exports to Italy, which jumped 22.5% to 97,390 (79,489) m<sup>3</sup>. Puerto Rico (+139.2%), Australia (+134.9%) and Mexico (+99.1%) recorded the biggest jumps in deliveries from Brazil last year. Double-digit decreases had been reported for Denmark (-24.7%), Egypt (-17.9%) and Ireland (-18.2%), among others.

### Egger orders particleboard line for USA

The Egger group, headquartered in St. Johann, Austria, has awarded the first contracts for a particleboard mill planned in Lexington, North Carolina over the past few months. As is Egger's custom, com-



(Photo credit: Egger)

ponents will come from machinery and plant manufacturers that it has worked together with on earlier projects. The firm ordered the forming and press line with a 10 ft x 43 m continuous press from Siempelkamp Maschinen- und Anlagenbau GmbH in mid-December 2017. Current

plans provide for production to commence with an annual capacity of some 400,000 m³. Installation work should begin at the end of 2018. Start-up is slated for some time in 2020. Egger had unveiled the US investment project on 24 July 2017 and at that time envisaged that the first phase − lasting six years and involving the installation and expansion of the particleboard mill with laminating capacity − would entail an investment of about €260m.

The last major order that Egger placed with Siempelkamp was for the forming and press line for its new particleboard mill in Biskupiec, Poland. The delivery contract negotiated during 2016 was activated after the required permits were granted in the first half of 2017. With a 2.80 x 38.4 m continuous press and an annual manufacturing capacity of about 650,000 m³, the line is to start operating

in December 2018. In the fourth quarter of 2013, Egger ordered an MDF/HDF production line to expand a mill in Gagarin, Russia that it had acquired in July 2011. The line, which features a 9 ft x 48.7 m continuous press and a designed annual capacity of about 350,000 m³ in the first phase, started operating in April 2016. Büttner Energie- und Trocknungstechnik GmbH had delivered the fibre dryer and the power plant with a total combustion capacity of 61 MW for the Gagarin project.

Egger also ordered two KT-700 short-cycle presses from Siempelkamp during the fourth quarter of 2017. Until now, only the order for a press for its St. Johann headquarters had been made public. The second press is to be installed at Egger's facility in Rambersvillers, France. Egger uses one KT-700 press for lamination in each of the two mills. The press in Rambersvillers started operating in May 2012, while the one in St. Johann has been up and running since December 2013.

### Homann sticking to plans to invest in the Baltics

Homann Holzwerkstoffe GmbH, based in Herzberg, Germany, wants to raise its manufacturing capacity again in order to meet rising demand for thin MDF/HDF and refined products. According to its annual report, which was published on 30 April 2018, this capacity increase may take the form of both acquiring an existing facility and a new investment project. The firm, which presently operates three plants in Losheim (Germany), Karlino and Krosno (Poland), is currently exploring its options to expand into the Baltics. This review includes the hunt for a site and project financing opportunities.

In September 2017, the Homann Holz-werkstoffe subsidiary Homanit Holding GmbH inked a letter of intent to acquire the hard fireboard producer UAB Grigeo Balt-wood from the Lithuanian group AB Grigeo, headquartered in Grigiškes near Vilnius. However, this letter of intent was revoked at the start of February. Griego said that due diligence carried out by Homanit had revealed that the plant premises and infrastructure conditions for the investments

planned in Grigiškes were not adequate. Homanit originally wanted to wrap up the take-over, rename the company Homanit Lithuania and install a new thin MDF/HDF line and a variety of downstream refining systems by the end of 2019.

Homann Holzwerkstoffe invested €10.3m in tangible assets in the 2017 financial year, primarily in expanding hall space, steps to improve infrastructure and internal logistics, to improve product quality and in additional downstream refining technology. Investments had been much higher in previous years: Homann Holzwerkstoffe had invested €20.2m in 2013, €61.9m in 2014 and €29.8m in 2015. This money was primarily used to install a thin board line in Krosno that was commissioned at the end of March 2015. Investment activity to upgrade refining capacity had been concentrated at all three sites. Homann Holzwerkstoffe had listed investments at €21.4m in 2016. The firm had announced plans to grow in future through strategic acquisitions too following its 1 March 2017 acquisition of assets from the insolvent insulating panel producer Homatherm GmbH, based in Berga, Germany.

# Siempelkamp delivering more components to AGT



(Photo credit: Siempelkamp

GIM Export Group GmbH & Co. KG of Göttingen has ordered additional components for the second MDF/HDF line run by the Turkish wood-based panel manufacturer AGT Agac San. ve. Tic. A.S., based in Antalya, from Siempelkamp Maschinenund Anlagenbau GmbH. The company had ordered the forming and press line with a ninth-generation ContiRoll press in dimensions of 7 ft x 55.3m during the first quarter of 2018. The technology is equipped with a light panel package and Prod-IQ next process control equipment and is supposed to have a capacity of 1,200 m³ per day or 400,000 m³ per year.

Gluing technology, including the Ecoresinator MDF system, and an Eco sifter

have been added to the order placed with Siempelkamp. In the final assembly area, Siempelkamp will also deliver cooling and stacking technology, the sanding and partition saw for master boards and intralogistics for downstream panel refining.

Büttner Energie- und Trocknungstechnik GmbH won the contract to supply the fibre dryer, which has designed fibre throughput of 42 bone-dry tonnes per hour. Büttner is providing a power plant with a total combustion capacity of about 64 MW and a BLB surface burner to heat the dryer. Exhaust gas from the two steam turbines should also be used to dry fibres. Siempelkamp said that these turbines are to run completely on thermal oil as part of a new ORC power generation plant ordered by the customer. The power plant order thus includes both the grate furnace with a variety of burners as well as the thermal oil heater and the process steam generator. Büttner will also supply two electric filters to clean flue gas, one of which will replace the existing plant's flue gas cyclone. Sicoplan N.V., based in Lauwe, Belgium, is responsible for engineering the entire plant.

The new MDF/HDF line is to be installed alongside a line that started operating in March 2014. AGT had set aside additional space in the hall built at that time. The new dryer will also be placed in the existing steel structure above the existing dryer. Also delivered by Siempelkamp, the first line was equipped with an 8 ft x 55.3 m continuous press and originally had a designed annual capacity of about 430,000 m<sup>3</sup>. Siempelkamp stated that AGT had recently made 500,000 m<sup>3</sup> of MDF/HDF per year using this line, some of which undergoes downstream processing at a laminate flooring mill that has also been open since 2014. 

# Yildiz Entegre produces first panel in Pitesti

The Turkish wood-based panel and laminate-flooring manufacturer Yildiz Entegre Agac Sanayi Ve Ticaret A.S. of Kocaeli put the MDF/HDF and laminate-flooring works set up in Pitesti, Romania, into operation in mid-April 2018. The first of two shortcycle presses started up on 12 April. A

production line for laminate-flooring was also put into service shortly afterwards. One of the two impregnating channels is already up and running as well. The MDF/ HDF rough board line with an eighth-generation 8 ft x 55.5 m ContiRoll supplied by Siempelkamp Maschinen- und Anlagenbau GmbH produced its first panel on 14 April. The short-cycle presses were supplied by Wemhöner Surface Technologies GmbH & Co. KG. The impregnating channels come from Vits Technology GmbH and the flooring line from Homag GmbH. Yildiz Entegre had announced the plans for Pitesti in summer 2015. The company had announced a similar project for a new site in Vladimir, Russia, at the same time but had had to be shelved due to the sanctions Russia had imposed on Turkish companies in the second half of 2015. At this time, Yildiz Entegre had already completed the orders for the components of the plant. Whereas the orders for the Russia project had to be suspended, the company has been able to go ahead with the construction of the Romanian works largely as planned in the last two years.

# VMG orders third complete line from Siempelkamp



(Photo credit: Siempelkamp)

The Lithuanian firm UAB Vakaru Medienos Grupe (VMG), based in Klaipeda, ordered a complete particleboard line from Siempelkamp Maschinen- und Anlagenbau GmbH & Co. KG at the start of the second quarter of 2018. This line is to be installed at a site in Akmene in northern Lithuania by 2020 and be equipped with a ninth-generation ContiRoll in dimensions of 8 ft x 45.5 m. It will have a designed production capacity of 2,000 m³ per day or about 660,000 m³ per year.

According to Siempelkamp the contract involves several group companies. Engi-

neering for the entire line will be handled by Sicoplan N.V., headquartered in Lauwe, Belgium. Pallmann Maschinenfabrik GmbH & Co. KG is providing chip preparation systems. Büttner Energie- und Trocknungstechnik GmbH will supply the dryer, while CMC Texpan s.r.l. will deliver gluing and mat former technology. The Siempelkamp contract also includes final assembly systems, the sanding line and the Prod-IQ next control system. VMG purchased a filter from EWK Umwelttechnik GmbH to clean exhaust air from the dryer.

The new contract is the third order for a particleboard line that VMG has placed with Siempelkamp since 2005. The first line, which was built by VMG's subsidiary UAB Giriu Bizonas at its headquarters in Kazlu Ruda, started operating at the beginning of 2007. VMG had then sold this mill to the Ikea Industry Group in December 2008. The particleboard line installed under the terms of a contract placed in June 2010 has been up and running at VMG Industries Ltd. in Mogilev, Belarus since the end of 2011. With a 7 ft x 15.5 m continuous press, this line has a designed annual capacity of 165,000 m<sup>3</sup>. Besides the particleboard mill, VMG also operates a furniture production facility in Mogilev.

### Uniboard expands laminating capacity

Wood-based panel and laminate flooring manufacturer Uniboard Canada Inc., Laval/Québec, plans to install another shortcycle press at its particleboard plant in Sayabec/Québec. The new press, called TFL 7, will cover a similar production programme like the existing TFL 6 press at the plant which was commissioned in July 2016. The new press supplied by Wemhöner Surface Technologies GmbH & Co. KG is identical in design to TFL 6 and will mainly laminate furniture panels synchronised two-sided structures as well as panels with deep embossed structures. Commissioning of the press is scheduled for the end of 2019. Uniboard says it will invest roughly CAD17m for the new short-cycle press.

Aside from TFL 6 Uniboard operates four other short-cycle presses at the Sa-

yabec plant, three of which have been supplied by Dieffenbacher GmbH Maschinen- und Anlagenbau and one by Siempelkamp Maschinen- und Anlagenbau GmbH. When the new press is commissioned, the company will probably idle the two oldest presses which date back to the 80s. Laminating capacity of the Sayabec plant will increase by around 10% when the new press is added. Until now, around half of the raw particleboard panels produced in Sayabec are laminated; the share will exceed 50% when capacity is expanded. The company's Val-d'Or particleboard plant has one short-cycle press while two more are installed at the Laval laminate flooring plant. Wemhöner has supplied all three presses.

The Sayabec particleboard plant has a single-opening and a continuous production line with an annual capacity of around 660,000 m³. The multi-opening line in Val-d'Or can produce 360,000 m³ per year. The continuous production line at the MDF/HDF plant in Mont-Laurier is designed to produce 160,000 m³/year. Uniboard has invested in modernisation and capacity expansion measures at all three plants in recent years.

#### Roseburg wraps up Pembroke MDF deal

The US wood-based panel manufacturer Roseburg Forest Products Inc. of Roseburg, Oregon, completed its early March acquisition of the Canadian MDF/HDF manufacturer Pembroke MDF Inc., headquartered in Pembroke, Ontario, on 9 April, as planned. Primarily active in the north-west and south-west of the US to date, the company has made its first acquisition of a foreign site with this deal. The Pembroke MDF mill is designed to have an annual capacity of about



(Photo credit: Pembroke MDF)

280,000 m<sup>3</sup> with a continuous production line commissioned in 1996.

Some of the raw particleboard made at the mill is turned into mouldings using downstream technology. Roseburg currently operates an MDF facility in Medford, Oregon, which it acquired from Sierra Pine Ltd., based in Roseville, California, in August 2015. This mill can produce about 250,000 m<sup>3</sup> per year with a 20-opening press. The acquisition of Pembroke will boost Roseburg's MDF capacity to about 530,000 m<sup>3</sup> per year. The capacity of its four particleboard mills in Dillard (Oregon), Missoula (Montana), Taylorsville (Mississippi) and Simsboro (Louisiana) is listed at about 1.3bn sqft (3/4" basis) or approximately 2.3m m<sup>3</sup>. The company can produce about 500m sqft or about 46m m<sup>2</sup> per year at its three laminating facilities in Dillard, Missoula and Simsboro.

# Duratex resumes operation at Itapetininga



(Photo credit: Duratex)

In April 2018, the Brazilian wood-based panel manufacturer Duratex S.A. of São Paulo resumed operation at the Itapetininga chipboard and MDF/HDF plant in São Paulo that had been shut down indefinitely in December 2015. The plant, geared to a production capacity of around 500,000 m<sup>3</sup> of MDF/HDF and 400,000 m<sup>3</sup> of chipboard, will be operating alternately to start with. Production is to be ramped up gradually if the market develops positively. Duratex had responded to unsatisfactory development in sales on the Brazilian market by temporarily shutting down the two raw board lines in December 2015. The laminating plants at the facility were kept running initially.

The chipboard plant in Itapetininga, equipped with a 7 ft x 35.4 m continuous press, was put into service in 2000. The plans announced in spring 2008 to build

a second chipboard line, which was to produce roughly 1m m³ per year with a 9 ft x 60.3 m continuous press, were postponed indefinitely in April 2009. Instead, Duratex had initiated an MDF/HDF project for the Itapetininga facility in April 2011. The plant, with a 9 ft x 58.7 m continuous press, was then started up in the third quarter of 2013. In both cases, the forming and pressing lines were supplied by Siempelkamp Maschinen- und Anlagenbau GmbH, which had also been awarded the contract for the chipboard project that was later withdrawn.

# Indian Greenply made first piece of MDF in April

The Indian wood-based panel manufacturer Greenply Industries Ltd., headquartered in Tinsukia, Assam, has commissioned its new MDF mill in Routhu Suramala, Andhra Pradesh. The production line delivered by Dieffenbacher GmbH Maschinen- und Anlagenbau made its first board on 1 April 2018. This 56-metre-long continuous press has a daily capacity of 1,400 m³. The greenfield project was wrapped up earlier than Greenply had recently planned. At the presentation of its earnings for the third quarter of its 2017/2018 financial year, the company had set a goal of commissioning the mill by July.

Greenply had ordered the main components from Dieffenbacher in December 2015. Besides the forming and press line, this contract includes a fibre dryer, two SGF sifters, gluing technology, the forming station including a scalper with a correction module and final assembly systems with two Lukki storage systems, diagonal and edging technology, the sanding line and an extraction unit. The delivery of wood yard and refining technology ordered from Valmet Oyj was also handled via Dieffenbacher.

Greenply thinks that it will take up to two years to ramp up the line. About 30-40% of total output will be sold on export markets, heading in particular to the Middle East.

In summer 2016, the company also announced plans to add an adhesive resin plant to the site. Based on the environmental impact assessment drawn



(Photo credit: Dieffenbacher)

up in May 2017, the site will make about 60,000 tonnes of urea-formaldehyde (UF) resin and 40,000 tonnes of melamine-reinforced urea formaldehyde (MUF) resin for in-house MDF production.

Greenply has run an MDF mill in Pantnagar, Uttarakhand since 2010. The Dieffenbacher group had supplied both the forming and press line, and the dryer and raw board handling system for this project. With a 28-metre-long continuous press, this line has a designed annual capacity of about 180,000 m<sup>3</sup>.

### Sale of Dongwha New Zealand rubberstamped

On 28 March 2018, the New Zealand Commerce Commission (NZCC) gave the green light to the September 2017 deal for the Japanese company Daiken Corp., headquartered in Tokyo to acquire Dongwha New Zealand Ltd., based in Mataura, Southland. Daiken New Zealand Ltd. had notified the deal on 3 October 2017. Daiken and Dongwha had provided additional information about the planned transaction on several occasions over the next few months. In addition, the Australian woodbased panel producer Laminex Group Pty. Ltd., based in Doncaster, Victoria, which has a delivery contract with Daiken New Zealand, submitted comments.

Dongwha Holdings Group, headquartered in Seoul, South Korea, which held a



(Photo credit: Dongwha)

majority stake in Dongwha New Zealand through Dongwha Hong Kong International Ltd., will exit the Oceania region with the sale of the Mataura mill.

It had acquired this location from the US firm Rayonier Inc., based in Jacksonville, Florida, in August 2005. With an 8ft x 28.1m continuous press delivered by Küsters Maschinenfabrik GmbH & Co. KG in 1997, the line has an annual capacity of about 180,000 m<sup>3</sup>. Daiken New Zealand is already active in New Zealand with an MDF mill in Rangiora, North Canterbury, which can reach a capacity of about 220,000 m<sup>3</sup> per year with two production lines. New Zealand has a third MDF producer: Nelson Pine Industries Ltd., based in Richmond, which operates three lines with a combined capacity of about 350,000 m<sup>3</sup> in Nelson.

### Mieco closes deal to buy Great Platform

The Malaysian particleboard producer Mieco Chipboard Bhd., based in Kuala Lumpur, entered the MDF manufacturing business by acquiring the woodbased panel producer Great Platform Sdn. Bhd. in a deal that closed on 27 February 2018. Besides an MDF mill in Simpang Pertang, Negeri Sembilan with a designed annual capacity of 100,000 m<sup>3</sup>, the transaction included a particleboard site in Gemas, Negeri Sembilan with an annual capacity of 80,000 m<sup>3</sup>. Both lines had been delivered by the Chinese firm Linyi Xingteng Wood-Based Panel Machinery Co, Ltd., based in Linyi, Shandong Province. The seller was the holding company SYF Resources Bhd., headquartered in Kuala Lumpur, which Mieco had paid MYR58.59m or about €12.2m in cash. This figure includes Great Platform's liabilities to SYF of MYR51.53m.

Mieco also runs two other particleboard mills whose total capacity is listed at 900,000 m³ per year. In February 2005, the company had commissioned a continuous production line at its site in Kechau Tui, Pahang. The 2.65 x 41.6 m press delivered by Dieffenbacher GmbH Maschinen- und Anlagenbau has a daily capacity of about 2,000 m³.

### Accsys awards Tricoya licence to Spain's Finsa

The Spanish wood-based panel producer Financiera Madereira S.A. (Finsa), based in Santiago de Compostela, intends to start making Tricoya MDF. The company has signed a licence agreement with Accsys Technologies plc, headquartered in London, to this end. This agreement gives Finsa exclusive rights to manufacture Tricoya products in Spain and Portugal as well as non-exclusive distribution rights for other sales markets. The licensor is Accsys' subsidiary Tricoya Technologies Ltd. (TTL).

Accsys reported that Finsa will initially be supplied with acetylated wood products from the existing Accoya facility in Arnheim, the Netherlands. Starting in 2019, the wood chips required by Finsa will then be provided by the Tricoya plant in Hull, the UK, which is currently under construction. Accesys said that the new site will be able to run at high capacity utilisation immediately after commissioning with Finsa's expected demand for wood chips. As the sole Tricoya licensee to date, the Irish MDF producer Medite Europe Ltd., based in Clonmel, had committed to buying 20% of total production in the first year of operation. This share is to gradually increase to 40% in the fourth year of operation.

Medite has had exclusive distribution rights for Tricoya MDF in Ireland, the Netherlands and the UK since 2011. Like Finsa, the firm may sell products on other markets too, albeit not exclusively. Medite sold a total of about 21,000 m³ durable MDF between the market launch in 2012 and the end of September 2017. This MDF can be used outdoors too and is sold under the Medite Tricoya Extreme name.

In April 2012, Accsys also agreed on a licence option with the Chilean woodbased panel manufacturer Maderas y Sinteticos S.A. (Masisa), headquartered in Santiago de Chile. Under this option, which was extended by two years in June 2014, Medite supplied Tricoya MDF that Masisa sells under the Masisa Tricoya Super MDF and Masisa Tricoya XB names. With this deal, Masisa had explored sales opportunities for Tricoya MDF in South America.

# Pfleiderer commissions wood recycling technology

Pfleiderer Neumarkt GmbH commissioned a waste wood recycling line installed at its Neumarkt particleboard mill on schedule in January 2018. Optimisation work has since been in progress. With a designed hourly capacity of 25 tonnes, the technology delivered by Dieffenbacher GmbH Maschinen- und Anlagenbau has been handed-over by the end of April. Dieffenbacher stated that both mineral and metal impurities and lightweight fractions, such as plastic and textiles, can be rejected using the selected plant concept, which comprises a variety of screen and sifter technology together with a sensor-based x-ray sorting process.

The project to install the new line integrated waste wood recycling technology in use since 2007, which Pfleiderer had installed on its own and has a capacity of about 20 tonnes per hour. Therefore, Pfleiderer intends to reach a waste wood recycling capacity of up to 50 tonnes per hour in Neumarkt in the medium term. The line has a reported annual capacity of about 230,000 tonnes, which is to achieve an average waste wood utilisation rate of about 40% using the two particleboard lines. In future, individual products will use up to 50% recycled wood shavings. Other



(Photo credit: EUWID)

items are still made out of fresh timber.

Besides installing the waste wood recycling line, Pfleiderer also upgraded wood intake system and subsequent chip preparation systems. Pfleiderer can thus use five intake lines for wood chips and shavings from the sawmilling industry and for waste wood chips. Pfleiderer has also installed another knife ring flaker to prepare waste wood chips. The line delivered by the Dieffenbacher subsidiary B. Maier Zerkleinerungstechnik GmbH started operating in January. Pfleiderer thus operates a total of eight knife ring flakers in Neumarkt, five of which are used to make fresh wood chips and three for wood chips made out of waste wood. Pfleiderer can also use two hammer mills to recycle waste wood. Pfleiderer reported having invested about €9.5m in the new waste wood recycling technology and parallel investments in upgrading wood intake systems and chip preparation.

# Nolte Holzwerkstoff ordered recycling technology

Nolte Holzwerkstoff GmbH & Co. KG. based in Germersheim, Germany, awarded a contract for long-planned waste wood recycling technology to Dieffenbacher GmbH Maschinen- und Anlagenbau. Both companies reached an agreement in principle in the second week of April 2018. The technology is to be installed over the coming months. Start-up is slated to happen by mid-2019, depending on how the permit process goes. Dieffenbacher will deliver the complete line, including the associated steel structure and assembly services. The core components are an intake system for waste wood chips, a disc screen to remove larger impurities, a cylinder screen to separate fine fractions, a sensor-based x-ray sorting system, technology to extract oversize fractions for secondary crushing in the existing chipper and a fine good sorting system using separating tables

The new waste wood recycling technology has a designed capacity of about 28 tonnes per hour. The existing cleaning system, which was able to clean about 10-15 tonnes per hour using a relatively simple concept, will be replaced by the new technology. Nolte currently has a waste wood utilisation rate of 20-25% using the existing systems, depending on the product range. The new plant is to boost the rate for certain products to up to 60%. However, the company will also continue making a few products, especially those used in construction, solely out of fresh timber. Nolte will invest about €10m in installing the new waste wood recycling technology.

# Pfleiderer Group: Decline in shipments of MFC

Following the increases achieved in all main product groups in 2017, production and deliveries of Pfleiderer Group S.A., based in Wroclaw, Poland, took a different turn in the first quarter of 2018. Compared to the previous year, production of raw particleboard and laminated boards fell by 2% and 5%, respectively, while production of raw MDF/HDF increased by 8%.

Of the raw particleboard production of 821,000 m³ (January to March 2017: 834,000 m³), 490,000 m³ is produced in plants in Germany and 331,000 m³ is produced in plants in Poland. MDF/HDF production of 153,000 m³ (142,000 m³) was spread over 92,000 m³ from the Baruth plant and 61,000 m³ from the thin board plant in Grajewo. Production of laminated board was reported at 27.3 million m² (28.9 million m²). The Core West division accounted for 17.4 million m² and the Core East division for 9.9 million m² of this total.

The decline in raw particleboard production was primarily due to lower internal conversion. In contrast, external deliveries increased by 6.8% to 290,499 m³ (271,959 m³). External deliveries of raw MDF/HDF actually increased by 15.3% to 111,662 m³ (96,848 m³). By contrast, deliveries of laminated particleboard fell by 6.6% to 25.3 million m² (27.1 million m²). Deliveries of laminated MDF/HDF fell by 16.3% to 672,416 m² (803,214 m²).



(Photo credit: EUWID)

Throughout 2017, both production of raw particleboard and raw MDF/HDF increased by 5.0%. Production growth of 1.9% in the laminate sector was more than halved year-on-year. The largest increase in deliveries was achieved for raw particleboard (+9.1%), the volume of raw MDF/HDF panels increased by 3.6%. Deliveries of laminated particleboard increased by 1.7% and of laminated MDF/HDF by 1.4%.



Impacts of road blockades on production and logistics will be palpable for even longer

# Brazil: Lorry strike lasting several days curtails production in many sectors

A strike staged by Brazilian lorry drivers led to major production curtailments in many sectors of industry in the second half of May.

The industrial action that began on 21 May and the associated road blockades paralysed freight transport in Brazil's industrial regions in particular. Striking lorry drivers also blocked access to oil refineries, ports and manufacturing facilities. This made it hard for industrial firms to receive deliveries of raw materials and to ship their own products. Production workers had a hard time getting to their jobs. As the strike went on, major fuel supply problems also materialised, which had an impact on energy supply and road traffic. Many companies in the pulp and paper industry, wood-based panel and plywood sectors and surfacing business had to scale back or temporarily idle production as a result. These production curtailments sometimes lasted for more than a week. Production had to be suspended for up to ten days in individual cases. In the final week of May, several companies in the pulp industry issued ad-hoc statements detailing the impact of the strike on production activity and sales. On 25 May, Brazil's biggest pulp manufacturer Fibria Celulose S.A., based in São Paulo, announced that the strike was impairing production and deliveries. However, these impairments were not set out in detail. The pulp and paper manufacturer Suzano Papel e Celulose S.A., based in Salvador de Bahia, Bahia, had to temporarily cease operations, according to a statement published on 28 May. The pulp manufacturer Eldorado Brasil Celulose S.A., based in São Paulo, scaled back output at its mill in Três Lagoas. Empresas CMPC S.A., headquartered in Santiago de Chile, temporarily idled the smaller of two production lines at its pulp mill in Guaíba, Brazil; the second line initially suspended production for three days. Similar restrictions were taking place in the Brazilian particleboard, MDF/HDF, hard fibreboard and plywood industry. Many mills were unable to operate for several days. Decor paper producers, decor printers and treater operations based in Brazil were also affected. However, more precise information about the scale of these production curtailments is not available.

Some additional delays have emerged in the restart of production lines that has begun since the end of May after the lorry strike ended as raw material stocks first have to be replenished. It will likely be a while until trans-regional freight traffic and deliveries to ports return to normal too. The industry association IBÁ estimates that the stoppages at pulp mills trimmed output by about 280,000 tonnes. The loss of paper manufacturing is estimated at about 310,000 tonnes. The IBÁ reported that the loss of production in the particleboard and MDF/HDF industry stood at about 25,000 m³.

Lorry drivers had staged the strike mainly to protest the recent surge in fuel prices. This increase was due in part to the stateowned oil company Petroleos Brasileiros S.A. (Petrobras), based in Rio de Janeiro, having been operated with profitability more in mind over the past two years. In the past, the Brazilian Government's economic policy considerations had partly influenced Petrobras's pricing policy. According to an overview of the strike drawn up by the economic information service Bloomberg, Petrobras had cut diesel prices by 15% for a ten-day period two days after the strike began. On 24 May, the Brazilian Government extended the diesel price discount for 30 days. At the same time, tax cuts on diesel fuels were adopted. Following these concessions, lorry driver representatives raised the prospect of the strike ending on 25 May. Despite this deal, individual strike actions and road blockades continued for a few more days. The Brazilian Government then lowered diesel prices by another BRL0.46 per litre or about 13% on 27 May. The news agency Reuters reported that these lower prices are to be guaranteed for an initial period of 60 days. Changes in diesel prices should only be permitted on a monthly basis after that.



A lorry driver strike paralysed freight transport in Brazil.

(Photo credit: VOA)

Strong increase in particleboard and MDF/HDF exports in recent years

# Brazil's wood-based panel markets weakened in February and March

Following the initial continuation of the upward trend in January 2018, Brazilian wood-based panels markets developed along slightly negative lines again in February and March vis à vis last year's comparative figures.

According to the monthly statistics published by the sector association Indústria brasileira de árvores (IBÁ), based in Brasilia and São Paulo, domestic sales increased

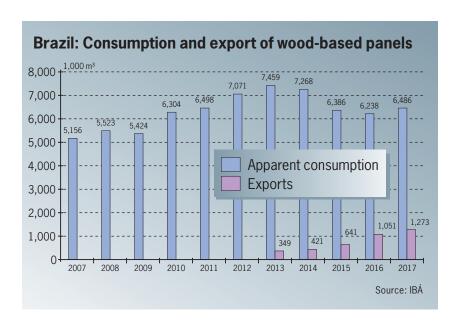
ness as the quarter progressed. Domestic sales increased by 3.0% to 1.638m m³ (Jan.-March 2017: 1.590m m³). Exports, at 8.5% to 308,000 m³ (284,000m³), increased at an even higher rate. Imports, according to IBÁ, amount to 2,000 m³ (1.000 m³). Apparent consumption increased by 3.1% to 1.640m m³ (1.591m m³).

Over the entire period of 2017 domestic turnover, according to the IBÁ figures pub-

last year, although at a slower pace. Exports have almost quadrupled since 2013. Imports, on the other hand, only achieved a fraction of previous volumes. According to the IBÁ, a volume of 112,000 m³ woodbased panels had still been imported to Brazil in 2013.

In the monthly IBÁ statistics, sales, export and consumption figures for wood-based panels are indicated on an overall basis. There is no further classification into the product groups recorded, which consist of particleboard (MDP), MDF/HDF and hardboard. Duratex S.A., São Paulo, in its presentations relating to quarterly reports, whilst making reference to the IBÁ statistics, on the other hand gives individual figures in each case for particleboard and MDF/HDF. In the first quarter of 2018, according to the above report, a total particleboard volume of 0.7m m<sup>3</sup> was sold on the domestic market. Exports increased to 0.2m m<sup>3</sup> and have thus reached almost half of the volume exported throughout the entire period of 2017. According to the IBA figures quoted by Duratex, in 2014 Brazilian particleboard manufacturers exported virtually nothing, in the following years the volumes increased gradually (2015: 0.1m m<sup>3</sup>, 2016: 0.3m m<sup>3</sup>, 2017: 0.4m m<sup>3</sup>). Domestic turnover decreased relatively significantly from 2014 (3.0m m<sup>3</sup>) to 2015 (2.5m m<sup>3</sup>) and in 2016 had then stabilised at this level. Last year it increased slightly again to 2.6m m<sup>3</sup>.

In the case of MDF/HDF, for the first quarter of 2018 the IBÁ records domestic sales of 0.7m m³ and an export volume of 0.2m m³. In 2014 a volume of 4.0m m³ MDF/HDF was sold in Brazil, for 2015 and 2016 the IBÁ recorded sales of 3.6m m³ and 3.5m m³ respectively. In 2017 domestic turnover increased slightly again to 3.7m m³. MDF/HDF exports have risen consistently in recent years (2014: 0.3m m³, 2015: 0.4m m³, 2016: 0.6m m³, 2017: 0.7m m³).



by 15.4% to 583,000 m³ in January. In February, however, they declined again by 2.3% to 511,000 m³ and therefore fell short of the January figure by 12.3%. March figures, at 544,000 m³ (March 2017: 562,000 m³), increased slightly compared to February. In comparison to the preceding year's figures, however, sales fell by 3.2%.

Viewed over the entire first quarter, the double-digit increase achieved in January more than compensated the declines in February and March. The accumulated figures, therefore, still remain above the figures of the comparative quarter last year, despite the slackening off of busi-

lished at the end of January, increased by 4.0% to 6.480m m<sup>3</sup> (2016: 6.233m m<sup>3</sup>). Exports increased by 21.1% to 1.273m m<sup>3</sup> (1.051m m<sup>3</sup>) whilst imports declined to 4,000 m<sup>3</sup> (5,000 m<sup>3</sup>). This meant an improvement in apparent consumption by 3.9% to 6.486m m<sup>3</sup> (6.238m m<sup>3</sup>). In preceding years domestic sales and apparent consumption had been in gradual decline since achieving record levels in 2013. Until 2016 domestic turnover, therefore, had declined in accumulated terms by 15.2% with apparent consumption plummeting by 19.6% in the same period. Brazilian woodbased panel exports, by contrast, have been consistently on the rise over recent years. This upward trend also continued

Another greenfield investment project on the cards at the new Berneck site in Lages

# Four lines for wood-based panels to start operating in Brazil in the coming months

The ramp-up of three new MDF/HDF lines and the restart of a closed particleboard and MDF/HDF mill will lead to a significant increase in capacity within Brazil's wood-based panel industry over the coming months after a lengthy period of quiet.

The conglomerate Asperbras, based in São Paulo, made the first board at its MDF/HDF mill known as GreenPlac that was built in Água Clara, Mato Grosso do Sul, during the first quarter of 2018. MDF lines run by Placas do Brasil S.A., headquartered in Pinheiros, Espririto Santo, and Floraplac Industrial MDF Ltda., based in Paragominas, Pará, will be commissioned over the summer. Placas do Parana is expected to make its first board by June; start-up of the new Floraplac facility will likely drag on into August. Back in April, Duratex S.A., headquartered in São Paulo, restarted a particleboard and MDF/ HDF facility in Itapetininga, São Paulo, which it closed indefinitely in December 2015. The two lines will initially only run in alternate.

The three new investment projects have thus encountered delays compared with the original timetables. The plywood producer Floraplac, which started making MDF using a multi-opening press delivered by Shanghai Wood Based Panels Machinery Co. Ltd. (SWPM) in October 2010, had originally placed orders for the second MDF/HDF line with Dieffenbacher GmbH Maschinen- und Anlagenbau in May 2013. Delays then ensued due to financing problems. The order was reactivated in May 2015 upon receipt of the down-payment. Floraplac had changed a few order details, such as the press length, as part of the reactivation. The line that was subsequently installed is to have an annual capacity of 425,000 m<sup>3</sup>. Asperbras, a newcomer to the MDF business, had still anticipated that the line would be commissioned in the first half of 2017 when the order was placed with Siempelkamp Maschinen- und Anlagenbau GmbH in the first quarter of 2014. Last year, the company then raised the prospect of production getting under way at the start of 2018. The GreenPlac mill will have a listed capacity of about 250,000 m<sup>3</sup>. Placas do Brasil, which was founded to build the MDF/HDF mill with a designed annual capacity of 340,000 m<sup>3</sup>, had ordered the main machinery for the areas from fibre drying to final assembly from Dieffenbacher in the second quarter of 2016. At that time, it had set its sights on commissioning by the start of 2018.

Investment activity in the Brazilian woodbased panel industry has cooled after the decisions were made to undertake these largely finalised projects. Several of the new investment projects that had already been announced were shelved or ditched altogether in previous years. For instance, Duratex had raised the prospect of building a new particleboard and MDF/HDF mill in the Triangulo Mineiro region in the state of Minas Gerais in March 2014. However, the company put all major investment projects on hold at the start of the second half of 2014 owing to the weak state of Brazil's overall economy. Despite this investment freeze, Duratex unveiled medium-term plans to create a new site in north-eastern Brazil at the end of 2014. Duratex has not commented further on the project's status of late; its completion in the near term is thus considered rather unlikely.

Insiders in the plant construction industry feel that there is one concrete investment project under way in the Brazilian woodbased panel industry with plans by Berneck S.A. Painéis e Serrados, based in Araucária, Paraná, to build a new mill in Lages, Santa Catarina. The company intends to spend about BRL800m to build a sawmill, an MDF/HDF production line and a power plant in a first phase. An investment agreement to this effect was inked with the Government of the State of Santa Catarina at the start of February 2018. The orders for key manufacturing systems have been under negotiation for some time and are to be placed during the second half of the



Asperbras is now in the ramp-up phase.

(Photo credit: Asperbras)

Formaldebyde limits in TSCA Title VI must be complied with since beginning of June

# Deadlines for new US formaldehyde rules brought forward after all

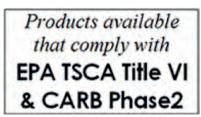
New US rules governing formaldehyde emissions from particleboard, MDF/HDF and hardwood plywood has now taken effect almost six months earlier than last planned after all.

With a final rule published in the Federal Register on 25 September 2017, the Environmental Protection Agency (EPA) had stipulated that the new formaldehyde emission limits must be adhered to from 12 December 2018. This meant that the original deadline of 12 December 2017, which had been envisaged when the Formaldehyde Emission Standards for Composite Wood Products were published on 12 December 2016, had been pushed back by a year. However, the non-governmental organisations (NGOs) Sierra Club, based in Oakland, California, and A Community Voice-Louisiana (ACV) had filed a suit to stop this renewed delay with the District Court for the Northern District of California in San Francisco on 31 October, This case also called for the lifting of the Formaldehyde Delay Rule.

The District Court in large part sided with the plaintiffs on 13 March and redetermined some of the deadlines set by the EPA. Wood-based panels and semifinished and finished products made in the US or imported into the US must hence comply with the emissions limits contained in Title VI of the Toxic Substances Control Act (TSCA) adopted by the EPA with effect from 1 June 2018. EPA has published the new compliance dates in the Federal Register on 4 April.

The emission limits set by the EPA for the entirety of the US are identical to Airborne Toxic Control Measures (ATCM) Phase 2 of the California Air Resources Board (CARB), based in Sacramento, which have been mandatory in California since January 2011. They stipulate an emission limit of 0.09 ppm for particleboard, 0.11

ppm for MDF and 0.13 ppm for thin MDF. Hardwood plywood is subject to the most stringent limits of 0.05 ppm. Compliance with the rules must be confirmed by a third-party certifier (TPC) accredited by the CARB and recognised by the EPA.



(Photo credit: Dongwha)

In a transition period running to 22 March 2019, wood-based panels and products made out of these materials that comply with the emission rules set forth in California's CARB ATCM Phase 2 may be labelled in accordance with either CARB ATCM Phase 2 or TSCA Title VI. After 22 March, they must be certified and labelled in accordance with TSCA Title VI. Making or importing wood-based panels meeting CARB ATCM Phase 2 will no longer be possible from this date onwards.

The District Court left all other deadlines unchanged. Therefore, they will apply as set forth in the final rule adopted by the EPA on 25 September. The transition period for TPCs accredited by the CARB will thus run until 22 March 2019. The certification system for imported woodbased panels and refined products will enter into force on the same date. Special rules for laminated wood-based panels will apply from 22 March 2024. Laminated wood-based panels made using urea-formaldehyde (UF) resins will have to adhere with emission rules for hardwood plywood from this date onwards. The use of NAF (no added formaldehyde) or phenol formaldehyde (PF) resins must also be documented.

EPA, CARB and the Composite Panel Association (CPA), headquartered in

Leesburg, Virginia, have provided an overview of the new deadlines for the new formaldehyde emissions rules and the timetable to date on their websites. The EPA website makes reference to the Formaldehyde Standards for Composite Wood Products Act, which was adopted on 7 July 2010 after decisions by the US Congress, which is made up of the House of Senate and Representatives.

The CARB update contains links to the Formaldehyde Emission Standards for Composite Wood Products published by the EPA on 12 December 2016 and to the changed compliance dates made as a result of the District Court ruling. In a separate document, the CARB also contrasts the key data for the CARB's ATCM rules and the EPA's Formaldehyde **Emission Standards for Composite Wood** Products. An eight-page table compares 18 different points. The review shows which of the two contains stricter requirements. The CPA overview also includes a compilation of the new requirements, links to the underlying legislation and a list of key developments since December 2016.

#### More information

Information of EPA on TSCA Title VI



http://download.euwid-holz.de/181302.html

#### More information

Information of CARB on TSCA Title VI



http://download.euwid-holz.de/181401.html

### More information

Information of Composite Panel Association on TSCA Title VI



http://download.euwid-holz.de/181303.html

No growth in North American thermally-fused laminate sales in 2017 and in Q1 2018

# CPA: North American laminating capacity decreased slightly last year

North American laminating capacity decreased slightly to 3.018bn (2016: 3.034bn) sqft or 280.4m (281.9m) m² last year. Conversely, in 2016 investments that several companies made in replacing and adding capacity had paved the way for a 2.2% growth.

The 2017 Thermally Fused Laminate Shipments Report published by the Composite Panel Association (CPA), based in Leesburg, Virginia, in April shows that the number of laminating companies did not change in a year-on-year comparison. The US was home to 15 companies with 23 locations and a total capacity of 1.665m (1.680m) sqft or 154.7m (156.1m) m<sup>2</sup>, the report stated. The closure of a plant in Oshkosh, Wisconsin, by Panolam Industries International Inc., headquartered in Shelton, Connecticut, was not fully offset by an increase in US laminating capacity at Arauco North America, based in Atlanta, Georgia. As in the previous year, Canada had six firms with eight locations and a combined capacity of 1.354m (1.354m) sqft or 125.8m m<sup>2</sup>. Canada thus accounted for 44.9 (44.6) % of total North American laminating capacity and the US for 55.1 (55.4) %. Eleven of the 21 companies listed in the CPA report reported their capacity to the association, as in the previous year. These companies made up 2.634bn sqft or 87.3% of total capacity. The CPA estimated the capacity of the other laminating firms, most of which are rather small in size.

The CPA report indicates that the Canadian firm Uniboard Canada Inc., based in Laval, Quebec, was North America's biggest laminating firm again last year with 609m (609m) sqft. Arauco North America has now almost caught up with Uniboard with a capacity increase to 576m (472m) sqft. Arauco North America is set to overtake Uniboard with its planned start-up of a new particleboard mill in Grayling, Michigan, in the second half of the year, which will also involve two short-cycle presses in the first phase. Funder America Inc., which is headquartered in Mocksville, North Carolina and held on to third place with 454m (454m) sqft, will also commission a new short-cycle press. Panolam, which the CPA statistics indicate was North America's biggest laminating firm in 2015 with 528m sqft, has a capacity of 270m (390m) sqft after the closure of the Oshkosh facility. The report puts the capacity of Roseburg Forest Products Inc., headquartered in Roseburg, Oregon, at 351m (374m) sqft; Tafisa Canada Inc., based in Lac-Megantic, Quebec, can reportedly make 265m (199m) sqft.

The first three months of 2018 did not bring a reverse in fortunes on North American thermally fused laminate (TFL) markets after they nosedived in 2016 and fell a little last year. According to CPA data, Canadian TFL sales did increase 4.7% to 15.09m (Jan.-March 2017: 14.41m) m<sup>2</sup>. However, US laminating firms' sales were down 5.5% at 14.09m (14.91m) m<sup>2</sup>. North America as a whole ended the first quarter with a 0.5% decline in sales to 29.18m (29.32m) m<sup>2</sup>. Sales were 3.7% higher than the fourth quarter of 2017's sum of 28.15m m<sup>2</sup>. Both regions contributed to this growth, with Canada performing better again.

Last year, three out of four quarters were weaker than the previous year, with only the fourth quarter bringing a slight improvement, according to the CPA statistics. North American TFL sales had decreased 1.6% to 28.71m m² in the first quarter and were down 0.4% at 31.09m m² in the second quarter. The third quarter was the weakest stretch with a 3.6% fall to 29.20m m². On the other hand, the fourth quarter had produced a 1.7% improvement to 28.15m m². TFL sales had thus slipped 0.5% to 117.75m m² looking at the year as a whole.

The CPA statistics had shown higher sales figures almost across the board for the US than for Canada up until the first quarter of 2016. Canada has been ahead again since the second quarter of 2016; the US had only performed better again in the first three months of 2017.



Replacement of the multi-opening line in Mangualde continued without restrictions

# Sonae Arauco has restarted its mills in Mangualde and Oliveira do Hospital

During the first quarter of 2018, the joint venture Sonae Arauco S.A., based in Madrid, resumed operations at three raw board lines at its two Portuguese facilities in Oliveira do Hospital and Mangualde, which temporarily shut down on 16 October 2017 after forest fires.

The multi-opening MDF line in Mangualde restarted operations in January; the continuous line went back up and running in March. Both lines, which have a combined capacity of about 370,000 m<sup>3</sup> per year, are now running as normal, according to the firm. Repairs to the Oliveira do Hospital particleboard mill were also wrapped up by the start of April. These repairs focused on wood yard systems damaged by the fires and included replacing the entire plant control system. At the same time, Sonae Arauco carried out a variety of optimisation projects to parts of the mill not directly affected by the forest fires and made smaller investments. The first board was made at the particleboard line during the second week in April. The line, which has a designed annual capacity of 456,000 m<sup>3</sup>, has resumed normal operations during May. According to Sonae Arauco all three lines are now fully operational.

Conversely, raw particleboard deliveries from the group's other mills, including the plant in Nettgau run by Sonae Arauco Deutschland GmbH, and by other companies, has been gradually scaled back. These deliveries served to supply raw particleboard to laminating technology operated in Oliveira do Hospital, which had restarted operations at reduced capacity during December. Replacement MDF deliveries have also been ceased after the two lines ramped up operations.

Sonae Arauco reported that the replacement project planned in Mangualde has continued without restrictions despite



 ${\it The two MDF lines restarted operations during the first quarter.}$ 

(Photo credit: ACSystems)

production being offline. The investment in the new thin MDF line remained on schedule. Therefore the continuous forming and press line, which will replace the existing multi-opening line, should start operations at the end of the third guarter of 2018 as planned. Sonae Arauco will thus operate two continuous MDF lines in Mangualde in future. The new line is to focus on making board 3-16 mm thick after commissioning, while the existing continuous line will primarily make board 16 mm thick or bigger. The new forming and press line, including an 8 ft x 28.8 m continuous press, has been supplied by Siempelkamp Maschinenund Anlagenbau GmbH. The front end has been taken over from the existing line. The existing continuous MDF line in Mangualde with an 8 ft x 28.5 m press had also been supplied by Siempelkamp in 1995.

Sonae Arauco had shut down the Mangualde MDF mill and the particleboard mill in Oliveira do Hospital on 16 October after forest fires reached both mills' wood

yards. The wood yard and equipment there were primarily affected. Its stocks of pulpwood largely fell victim to the fire. Electrical systems and wiring at the wood yard area were mainly destroyed. On the other hand, Sonae Arauco said that mechanical damage to debarking systems and chippers was limited. The production lines themselves were untouched by the fires so they did not suffer any significant damage.

The Oliveira do Hospital and Mangualde facilities are about 30 km apart in the districts of Coimbra and Viseu in central Portugal, which were severely affected by forest fires. The fires broke out in the second week of October in the wake of a long period of drought, unusually high temperatures for the time of year and the effects of Hurricane Ophelia passing the Iberian peninsula. Shortly after the stoppage of the production lines in Oliveira do Hospital and Mangualde, Sonae Arauco estimated that the main production machinery at the two sites would be offline for about four months.

### Surteco eyeing revenues in excess of €700m

Surteco SE, based in Buttenwiesen-Pfaffenhofen, Germany, intends to book revenues of €725m-750m this year on the back of additional organic growth and the full-year consolidation of Probos Plasticos S.A., based in Mindelo, Portugal, with effect from 1 July 2017. EBIT should leap to €49m-53m. The company raised its group revenues by 8% to €689.7m (2016: 639.8m) in 2017. Its two divisions delivered mixed performances. While turnover from the Paper division slipped 5% to €368.0m (385.4m), the Plastic division recorded a 26% jump in revenues to €321.7m (254.4m). More than half of this growth in revenues came from Probos. which generated revenues of €36.9m in the second half of 2017. Some €19.5m came from Nenplas group, headquartered in Ashbourne, England, which it acquired with effect from 1 December 2016. The impact on revenues from these two acquisitions added up to €56.4m; the Plastic division registered an organic increase of €12.2m last year. This organic growth generated by the Plastic division was more than erased by a downturn in its Paper division. Group turnover fell 1.1% when adjusted for acquisitions.

The two take-overs mean that the Plastic division's share of group revenues increased to 47 (40) %. At the same time, major shifts occurred in the breakdown of revenues by individual product groups. Plastic and paper edgebanding were the biggest product group by some margin with a 35% share. Film was responsible for 20% of group revenues, with printed decor paper contributing 14%, impregnated products 12%, skirting boards 7%, technical profiles 5%, release paper 4% and

other items 3%. Broken down by regions, 71% of group turnover was generated in Europe, including 25% in Germany and 46% in other European countries. North and South America contributed 20% of group turnover, Australia 5 % and Asia and other regions 4 %.



(Photo credit: Surteco Decor)

Surteco said that the downturn in revenues booked by the Paper division was mainly connected to the after-effects of European decor printing activities being concentrated at the Buttenwiesen-Pfaffenhofen site and to the ongoing decision not to enter into low-margin orders for pre-impregnated finish foils. Revenues from printed decor paper tumbled 18% and pre-impregnated paper turnover dropped 5% as a result. Impregnated product (-5%) and melamine edging (-2%) revenues were also lower than one year earlier, while turnover from post-impregnated foil was up 8% and revenues from release paper soared 38%. The Plastic division saw a 30% rise in edging revenues from the Probos acquisition. Turnover from technical profiles skyrocketed 138% because of the Nenplas deal. Skirting board revenues improved 1%, while turnover from plastic foil (-4%) and roller shutter systems (-8%) declined.

### Surteco wants to repay last USPP portion in August 2019

Surteco SE, headquartered in Buttenwiesen-Pfaffenhofen, Germany, intends to complete the refinancing of a US private placement (USPP) issued in the 2007 financial year in August 2019. The first instalment had been repaid in August 2014. In August 2017, the company had reimbursed a second US\$70m in-

stalment with a 5.7% interest rate. This refinancing took place through a  $\leq$ 200m promissory note issued in October 2017 with an interest rate of 1.4%.

The funds generated from this note are to be used to repay the €60m third instalment, too, which has an interest rate of 5.8%. The US private placement had a total volume of about €150m. The individual instalments were concluded in US dollars or euros.

### Interprint: Double-digit growth in revenues 2017

The Interprint group enjoyed a doubledigit increase in revenues in the 2017 financial year, the first time that it had done so in several years. On 16 March. its parent company Wrede Industrieholding GmbH & Co. KG, headquartered in Arnsberg, Germany, reported a 12 per cent growth in Interprint's turnover to €353m (2016: 314m). Delieveries of printed decor paper, finish foils and melamine foils were up 10% at about 1.1bn m<sup>2</sup>. Wrede Industrieholding reported that last year's increase was primarily fuelled by the Xelio finish foils business at its site in Ozorków. Poland and the expansion of treating volumes at its sites in Samara, Russia and São José dos Pinhais (Paraná, Brazil).

In previous years, Interprint had typically booked increases in the middle single-digit percentage range. Revenues had jumped 8% to €288m in 2014. 2015 had been a little weaker with a 2% rise to €295m. The company had booked a 7% upturn to €314m in 2016. Following a collapse in 2009, Interprint had registered double-digit growth rates in the next three years. Revenues had leapt 30% in 2010, 18% in 2011 and 10% in 2012. 2013 had ended with a 3% improvement.

The Interprint group makes up the Decorative Surfaces division within Wrede Industrieholding. Its second division, Household Products, which has been active on the market under the "keeeper" name since last year, suffered a 7% downturn in revenues to €66m in 2017, due in part to streamlining its portfolio. This division generated revenues of more than €70m in 2016. Contrasting fortunes of its two divisions meant that Wrede Industrieholding's total revenues rose 8% to €434m (401m) last year.



(Photo credit: EUWID)

This was the eighth time in a row that the group raised its turnover.

Investments were barely higher than in 2016 at €29m (28m) in 2017. The single-largest projects were the installation of a new rotogravure machine at Interprint's headquarters in Arnsberg, a new cylinder engraving unit at its Russian decor printing site in Egorievsk and the addition of a new treating line to its treating site in Samara. Wrede Industrieholding intends to invest €36m this year and thus come close to 2015's total again (€43m). Interprint plans to install new printing machines at its sites in Pittsfield, Egorievsk and Changzhou this year. The additional line in Pittsfield will primary print oriented polypropylene (OPP) foil laminated with electron beam curing, which Interprint has sold under the Premeer name since mid-2012. Interprint started construction work on two new halls in Arnsberg in September 2017 in a project that is to be completed by the summer.

### Lamigraf do Brasil opens new production site



(Photo credit: Lamigraf)

The Spanish decor printer Lamigraf S.A., based in L'Amettla del Vallès, officially opened a new site in São Jose dos Pinhais, Paraná run by its Brazilian subsidiary Lamigraf do Brasil Comércio de Papéis Decorativo Ltda., headquartered in Curitiba, Paraná, on 20 March 2018. The company now operates two fourcolour printing machines there, which had been transferred to São Jose dos Pinhais from its Spanish headquarters and its existing Brazilian facility. In a next phase, Lamigraf wants to install a cylinder engraving machine at the new facility between now and the year's end. The company will add an engraving machine previously used in L'Amettla del Vallès, which was replaced by a new machine with a higher capacity that was commissioned in March. Lamigraf intends to boost engraving capacity in L'Amettla del Vàlles by about 35% by mid-2018 by installing a K5 Smart XXL supplied by Hell Gravure Systems GmbH & Co. KG, based in Kiel, Germany, and work to modernise existing machines. Its galvanising capacity is also set to be boosted by about 20% by the end of 2018.

# Kotkamills exploring investing in base kraft

The Finnish company Kotkamills Group Oyj, based in Kotka, intends to look into the options to build a new paper machine to make saturating base kraft in Kotka through a pre-feasibility study. The study is to review engineering, manufacturing capacity and the timetable for the investment. The firm intends to make a final investment decision by the end of 2018.

Construction of the new paper machine (PM 3) would provide the capacity needed for further market growth and to compensate for PM 7, which will go out of service in Tainionkoski Mill in Imatra at the end of 2018. Kotkamills Absorbex can use this machine under the terms of a leasing agreement in place since 2010. The owner Stora Enso Oyj, based in Helsinki, terminated this leasing agreement in June 2017. Kotkamills Absorbex previously wanted to offset the production volume lost by the termination of this agreement, which had reportedly recently stood at 25,000 tonnes per year, by raising capacity at PM 1 in Kotka and through contract manufacturing at other producers. Contract manufacturing has now commenced.

Kotkamills last put its total capacity for saturating base kraft, which has so far been made at PM 1 in Kotka and PM 7 in Imatra, at roughly 185,000 tonnes per year. Some of this saturating base kraft is turned into phenolic film by Kotkamills Imprex Oy. Kotkamills Imprex Oy was sold to the South Korean group Dongwha Enterprise Co. Ltd., based in Seoul, with effect from 31 October 2017 as part of a strategic review of Finnish Imprex activities launched in December 2016.

### Ahlstrom-Munksjö to install new headbox



(Photo credit: EUWID)

The speciality-paper manufacturer Ahlstrom-Munksjö Oyj of Helsinki wants to invest a total of around 5m € in the Dettingen mill, geared mainly to producing pre-impregnates, by the end of 2018. The measures are concentrated on the PM 34, which can produce around 25,000 tpy of pre-impregnates with a working width of 2.70 m. A new "OptiFlo" headbox from Valmet Oyj of Espoo, Finland, is to be installed on this machine during downtime of roughly ten days in the fourth quarter; a new design of the PM approach system is planned at the same time. The main purpose of the project is to improve the quality of the pre-impregnates produced on the paper machine. Production capacity will remain unchanged, however.

The PM 34 is used almost exclusively for producing pre-impregnates. Besides pre-impregnates, standard décor paper and lightweight printing paper is also manufactured on the 3.9 m-wide PM 31, which is geared to an annual capacity of around 35,000 t.

Ahlstrom-Munksjö had already updated the two paper machines at the Aalen-Unterkochen facility at the turn of the year 2017/2018. A new headbox supplied by Voith Paper, Heidenheim, was installed in the PM 1. During the fortnight-long stoppage for rebuilding work Voith Paper modernized the quality control system, too. Bellmer GmbH Maschinenfabrik of Niefern-Öschelbronn had installed a new dandy roll in the PM 3. With a working width of 2.24 m, PM 1 specialises in making coloured LPL and printing base paper. The 2.83 m-wide PM 3 mainly makes white and light-coloured LPL and printing base paper. Both machines have an annual output of about 75,000 tonnes.

Ahlstrom-Munksjö set to acquire Caieiras facility / Another possible sale in China

# New MTC, Kingdecor decor paper machines to be commissioned before year end

The decor paper industry has encountered more changes in recent months after a lengthy period of comparative stability.

Relatively advanced new investment projects undertaken by the joint ventures 000 Mayak-Technocell (MTC), based in Penza, Russia, and Kingdecor Co. Ltd., headquartered in Quzhou, Zhejiang Province, mean that two paper machines will start manufacturing before the year's end. Due to delays that have emerged, the PM 6 built at MTC's Penza site will likely be commissioned at the start of the third quarter and make decor paper at first. At a later point in time, its portfolio will be upgraded to include coated non-woven wallpaper. The new paper machine, whose output is said to be roughly split evenly between decor paper and wallpaper, should also allow MTC greater flexibility to deliver decor paper. MTC had announced the project to build a second decor paper machine back in September 2014. At that time, start-up of the paper machine, which has a designed capacity of about 30,000 tonnes per year, was slated to happen in the first quarter of 2017. However, talks about project financing dragged on until the second quarter of 2016, meaning that the commissioning date initially had to be pushed back until the fourth quarter of 2017. PM 5, which had been used to make decor paper to date and also had a listed production capacity of 30,000 tonnes per year, started operating in March 2009.

Kingdecor thinks that the fourth paper machine at its joint venture site will still be commissioned in the fourth quarter of 2018. Following completion of the production hall, work to install the machinery is now in progress. The site presently houses three decor paper machines. The company can make the 4 ft widths that dominate in China in triple widths using PM 3, which started operating in February 2015; other formats can also be made in double widths. Moreover, PM 13 - the machine with which Kingdecor entered the decor paper manufacturing business at the start of 2006 - is located at a mill operated by the joint venture partner Zhejiang Xian He Special Paper Co. in the town of Quzhou.

Kronospan's subsidiary Malta-Decor S.A., based in Poznan, Poland, has revived a project to build another paper machine in Rudawa, Poland, that has been in the works for several years. Unconfirmed reports suggest that the main technical components are to be purchased over the coming months. The new paper machine is to be fitted with a glue press so that both decor paper and pre-impregnated paper can be made at a later point in time. Malta-Decor had launched plans for the sixth paper machine in the first half of 2010, but then put the project on ice. The company presently operates three paper machines in Poznan and two machines in Rudawa: its total capacity was previously put at about 120,000 tonnes per year.

By contrast, the decor paper machine installed by the Belarusian firm Bellesbumprom, based in Minsk, at the newsprint manufacturer Zavod Gazetnoy Bumagi, headquartered in Shklov, which started operating in the first quarter of 2016, appears to have been idled for the indefinite future. The paper machine made both decor paper and other paper grades. Customers said that the company had not gone beyond making test deliveries of decor paper. Decor paper that was principally delivered to Central European wood-based panel producers and decor printers in the past year did not live up to expectations. Speculation about a possible sale followed by relo-



PM 6 under construction at MTC's Penza site will likely be commissioned at the start of the third quarter. (Photo credit: Felix Schoeller)

cation of the Bellesbumprom machine had been rife within the decor paper sector in recent months. Malta-Decor had been named as a potential investor on several occasions. However, the sale plans were not fleshed out after all.

On the other hand, companies in Asia and South America have been sold in recent months. In China, a 50/50 joint venture Winbon Schoeller New Materials Co. Ltd. (Longyou, Zhejiang Province), which was founded in January 2017 by Felix Schoeller Holding GmbH & Co. KG (Osnabrück, Germany) and the Chinese pulp merchant and speciality paper manufacturer Zhejiang Welbon Pulp & Paper Group Co. Ltd. (Hangzhou, Zhejiang Province), has reportedly acquired a production site run by a Chinese decor paper manufacturer in an asset deal. Some of the production machinery at the site has now resumed operations. The joint venture partner Zhejiang Welbon Pulp & Paper subsequently sold its first decor paper in Asia. However, an official confirmation has not come yet.

The acquisition by Ahlstrom-Munksjö Oyj, based in Helsinki, of a plant in Caieiras, São Paulo, from the Brazilian firm MD Papéis Ltda. in a deal struck on 24 April is to close during the third quarter. The purchase price was set at about €100m on a debt-free basis. The seller is Grupo Formitex, which is exiting the decor paper production business with this sale. Four paper machines with a total capacity of about 70,000 tonnes per year operate in Caieiras; PM 4 and PM 8 make decor paper. With an annual capacity of roughly 10,000 tonnes, PM 4 started operating back in 1979. With a designed capacity of approximately 20,000 tonnes, PM 8 was commissioned in July 2002. MD Papéis announced two projects to further expand decor paper production in 2010 and 2013, but then ditched them at a later date.

Both Ahlstrom-Munksjö and Felix Schoeller Holding had previously reviewed opportunities to expand to Asia and South America for a long period of time. Felix

Schoeller Holding's subsidiary Technocell Dekor GmbH & Co. KG, based in Osnabrück, Germany, had cooperated with MD Papéis in 2001 and 2002 and was also involved in installing the second decor paper machine as part of this deal. This partnership was dissolved a short time later. A joint venture forged with Zhejiang Welbon in January 2017 also aimed to enter the decor paper production business. Under the original plans, an existing or new paper machine was supposed to be used in one of Zhejiang Welbon's mills. Ahlstrom-Munksjö had repeatedly sounded out possible acquisition targets in Asia in recent years. Following the integration of the old Ahlstrom Label & Processing (LP) division in November 2013, the previous incarnation Munksjö AB had also looked at testing a paper machine running at its mill in Jacareí, São Paulo, but did not move forward with this project. At that time, the firm had already been in contact with MD Papéis's owner Formitex, which ultimately led to the deal to acquire the Caieiras mill.





#### Investment programme unveiled in spring 2017 has since been fleshed out

# Schattdecor set to install three treating lines in Chekhov by 2019

Schattdecor AG, based in Thansau, Germany, has partly expanded a programme of investments announced in spring 2017, which was to involve investing about €120m in increasing production capacity by the end of 2018 under plans at that time.

The company intends to invest another €40m in additional projects launched in the second half of 2017 and so far in 2018 that involve work to optimise existing production technology. In particular, the company has expanded plans to start treating operations at its printing site in Chekhov, Russia, and to create a second Chinese printing site in Quzhou, Zhejiang Province.

Schattdecor will install a total of three treating lines in a new 10,700 m² production hall in Chekhov by the end of 2019. Under plans disclosed last year, the company actually intended to start up two lines. In a first phase, a new treater ordered from Rotodecor GmbH Maschinen- und Anlagenbau, headquartered in

Lage, Germany, in the third quarter of 2017 is to be installed. Work to install a 2,800 mm-wide treating line produced by Rotodecor in China is to begin soon; start-up is slated to happen in the third guarter. Relocation of the newest of three treating lines from its plant in Shatura to Chekhov will then follow. This 2,300 mm-wide line, which Vits Technology GmbH. headquartered in Langenfeld. Germany, delivered to Shatura during 2007 and which has operated as PMI 5 there since the start of 2008, should be commissioned in Chekhov in the first guarter of 2019. Schattdecor will install a treating/lacquering line at this location later on in the year. The company will use a lacquering line installed in Shanghai in 2006 that was not run in recent years for this project. Delivered by Rotecor and equipped with Vits drying technology, this 2,250 mm-wide lacquering line should be dismantled in the coming months and turned into a treating/lacquering line. In Shanghai, PML 4 had primarily produced melamine edging and, to a smaller extent, post-impregnated finish foils. During the rebuilding project, an additional treating facility, drying systems and an anilox roll coater will be integrated into the line.

Upgrading the Chekhov site, which has opened in 2008 and currently runs four printing machines, will involve ending treating operations at the Shatura plant, which Schattdecor acquired in 2000. The two older treating lines, which were originally delivered by Babcock and Vits, are to be scrapped after they are taken out of service. The three lines have primarily made melamine films to date. One of the two older lines also made post-impregnated finish foils and, to a lesser extent, melamine edging. With the plant configuration planned in Chekhov Schattdecor intends to raise capacity by about 40% compared with the existing set-up in Shatura.

Schattdecor has also carried out investments at its other impregnating sites in recent months. The fifth treating line is now being installed in a new hall in Rosate, Italy. The 2,800 mm-wide line is being supplied by Tocchio International s.r.l., headquartered in Vigevano, Italy. Commissioning is to take place at the start of the third quarter. Work to optimise infrastructure at its Brazilian site in São José dos Pinhais. Paraná, was completed at the end of Mav. The plant was connected more with the Schattdecor printing unit, which has been open since 1999 and is located just 200 m away, meaning that both facilities are now fully integrated. The treating facility was acquired from Coveright Surfaces Holding GmbH, based in Mülheim an der Ruhr, Germany, in January 2013 and was last expanded in March 2015 with the addition of a 2,800 mm-wide Vits treating line. Over the past few months, an additional warehouse and a new office building were opened where employees distributed over several locations now work together. Energy supply systems were also modernised as part of the project. A new rewinder is to be installed there later on



Schattdecor's main production site in Thansau.

(Photo credit: EUWID)

this year. Otherwise, no additional work on manufacturing systems is planned for the time being.

Founded at the end of March 2017, the treating joint venture Saintdecor in Wuhan, China, commissioned its first treating line during the second half of 2017. A second treater will be started up this year. Imaco Technology Development Co. Ltd., based in Suzhou, Jiangsu Province, delivered these 4 ft-wide lines. Schattdecor holds a 50% share in the joint venture.

When it comes to decor printing, Schattdecor commissioned two more 4 ft printing machines in Shanghai and one 2,250 mm-wide printing machine each in Maryland Heights near St. Louis, Missouri, and Gebze, Turkey, in recent months and fleshed out the project to install a second Chinese printing site. The startup of two printing machines supplied by Rotodecor's Chinese subsidiary in August and September 2017 completed the upgrading of its complex in Shanghai that has been open since 2002; no further investments in manufacturing are possible there for permit reasons despite space reserves being available. Four narrow and four 2,250 mm-wide printing machines operate there. Schattdecor acquired a piece of land about 100,000 m<sup>2</sup> in size in Quzhou during the second half of 2017. In terms of area, the plant is the group's second-largest location after its Thansau headquarters. In a first phase, an office building, a production hall and logistics area for a later larger warehouse is being built in Quzhou; construction work is already in progress. Starting in early 2019, two 4 ft-wide printing machines will be installed at the facility, which had already been ordered from Rotodecor. Commissioning is slated for the start of the second quarter of 2019. In later investment phases, the plant can be expanded in a variety of directions. Besides increasing manufacturing capacity, Schattdecor feels that entering the treating and lacquering business is also conceivable. The Quzhou plant serves to raise its existing production capacity in China; Schattdecor also said that it does not plan to abandon its site in Shanghai. Schattdecor has also delivered printing machines for expanding sites in the US and Turkey. The second printing



Schattdecor will start treating operations at its Chekhov site.

(Photo credit: Schattdecor)

machine in Maryland Heights printed its first reel at the end of November 2017. Rotodecor designed this line in such a way that a lacquering station can be added at a later point in time. Alternatively, installing separate lacquering technology is also possible, Schattdecor said. A third printing machine in Gebze started operating at the start of April.

Schattdecor currently has enough production capacity for finish foils after making investments in lacquering lines at its two Polish locations in Glucholazy and Tarnowo Podgorne in recent years. However, a second laboratory lacquering unit is to be added at its Thansau headquarters by the year's end that will allow developments in EBC surfaces in future. Up until now, technology development in this field must take place at PMD 42 in Tarnowo Podgorne. The first laboratory lacquering unit commissioned in Thansau at a newly built foil development lab in January 2008 can only process acid-cured lacquering systems.

Optimisation work is also ongoing at a digital printing line that was installed and commissioned in summer 2016 at the Thansau headquarters by PadaLuma Ink-Jet-Solutions GmbH & Co. KG (Palis), based in Markt Erlbach, Germany, in partnership with Rotodecor. Mechanical handover has already been completed.

Printing quality and quality consistency need to be improved for handover of the printing technology later on in the year. Schattdecor said that the line is already being used for production orders at a speed of up to 162 m/min, especially for small batches and decors for which no printing cylinders exist yet. In addition, special digital decors are also printed.

A decor paper machine planned by the decor paper joint venture Kingdecor Co. Ltd., based in Quzhou, is to start operating in the fourth quarter, as planned. Now that the production hall has been completed, work to install machinery is under way. The plant parts come from China and Europe. Technology components were purchased from European machinery producers. The enlargement of its storage area has already been completed. The start-up of the new paper machine, which has a working width of 3,900 mm like PM 3 commissioned in February 2015, will boost Kingdecor's total capacity to about 250,000 tonnes per year. The Kingdecor plant presently operates three decor paper machines. PM 13, which is operated at a plant run by the joint venture partner, also makes decor paper. The printing ink joint venture Arcolor AG, based in Waldstatt, Switzerland, also intends to invest in expansion. A project running until mid-2019 is to improve its capacity to make digital printing inks.

Formica increased revenues and boosted its adjusted EBIT in the last financial year

# Fletcher Building is looking for a buyer for laminate producer Formica

The New Zealand building products group Fletcher Building Ltd., head-quartered in Auckland, intends to focus on its operations in Australia and New Zealand and part ways with the laminate producer Formica Corp., based in Cincinnati, Ohio, which is part of the International division and has activities in North America, Europe and Asia.

The proposed sale of Formica will be handled through the Macquarie Capital arm of Australian Macquarie Group Ltd., Sydney. Macquarie Capital, active in investment banking and securities trading bagged the contract beating Goldman Sachs and Credit Suisse, reported financial newspaper The Australian. In the report published on 20 May 2018, The Australian notes several potential outcomes, for example a management buyout, sale to a private equity company or entry of a strategic investor probably from China. When the Formica group is disbanded, Wilsonart International Holding LLC, Temple/Texas, might be a potential buyer of Formica's activities in Australia, according to the newspaper report.

The Roof Tile Group, which has operations in North and South America, Europe, Asia and Oceania, will also be spun off. By contrast, the third company in the International division – the wood-based panel manufacturer Laminex Group Pty. Ltd., based in Doncaster, Victoria – will remain part of the group at least for the time being. The funds raised by selling Formica and The Roof Tile Group will be used to improve the group's financial situation.

Last year, Fletcher Building had to undertake significant write-downs in its Building+Interiors business unit, which is part of the Construction division, which put the entire group in a dire profit and financing situation. Fletcher Building announced a capital increase on 17 April in order to provide the funds needed to overcome this situation. Fletcher Building shareholders based in New Zealand and Australia were able to buy one new share for 4.46 existing shares

for NZ\$4.80 starting on 19 April as part of the capital increase. Subscription rights not exercised by shareholders were offered to institutional investors in a book-building process. Fletcher Building put the capital increase's total volume at about NZ\$750m or almost US\$530m. The transaction closed by 11 May, with 156.3m extra shares issued on top of the current 697.0m shares. The proceeds are being used to cut liabilities. Net debts were slashed from NZ\$2.260bn to NZ\$1.535bn as a result, with the net debt to EBITDA ratio improving from 2.4 to 1.6. Fletcher Building has entered into a new NZ\$500m standby facility with the Australia and New Zealand Banking Group (ANZ), Mitsubishi UFJ Financial Group (MUFG) and Westpac Banking Corp. in connection with the capital increase that can be called off until January 2020. This facility is to be used to repay an existing NZ\$1.119bn US private placement (USPP). An agreement in principle for a syndicated facility agreement (SFA) had also been reached with these three banks and HSBC, although its covenants had been breached by the losses incurred by the B+I business unit.

The decision to carry out a capital increase followed a review of its corporate strategy that has been under way for some time now and should be completed by June. The basic features of this strategic reorganisation, in particular the decision to focus on its activities in



Formica opened the second HPL plant in China in Jiujiang, Jiangxi Province, in November 2013. (Photo credit: Formica)

New Zealand and Australia, have already been determined and approved by the board of directors. The plans to sell Formica and RTG were first officially announced in documents relating to the capital increase that were published on 17 April. Unconfirmed reports suggest that Fletcher Building has forged initial contacts with potential investors in the past few weeks, reaching out to companies in the wood-based panel and surfaces industry. The divestment process should be completed over the next 12 to 18 months. Formica and RTG's activities are to continue without any changes between now and then. Investment projects, including those under way at Formica Ltd.'s site in North Shields in the UK, are to continue as planned, too.

Fletcher Building had spent US\$700m to acquire Formica from the investment firms Cerberus Capital Management LP and Oaktree Capital Management LLC with effect from 2 July 2007. Formica's activities were subsequently expanded by making targeted investments and smaller acquisitions. The single-largest projects were the creation of a second Chinese facility in Jiujiang, Jiangxi Province, which was completed during 2013, the acquisition of an HPL plant in Ahmedabad in the Indian state of Gujarat in December 2012 and the early 2012 purchase of a 50% stake that Homann Holzwerkstoffe GmbH, based in Herzberg, Germany, held in the joint venture Homapal GmbH, also headquartered in Herzberg. On the other hand, the company also had to undertake a variety of restructuring measures, especially in North America and Europe. Formica had closed its facility in Bilbao, Spain, at the end of 2012. Formica and Laminex, which had previously pooled the Laminates & Panels division, were integrated into the new International division with RTG as part of an organisational change carried out in the first quarter of 2016.

The International division's consolidated revenues slipped 5% to NZ\$1.999bn (2015/2016: 2.106bn) during its last full financial year in 2016/2017 (30 June). Stronger earnings delivered

by Formica and Laminex sent adjusted EBITDA 17% higher to NZ\$234m (200m) and adjusted EBIT 27% higher to NZ\$169m (133m). Based on total revenues of NZ\$2.017bn (2.128bn), the EBITDA margin stood at 12 (9) % and the EBIT margin at 8 (5) %. Fletcher Building did not publish separate revenues or EBITDA figures for companies pooled in this division, just adjusted EBIT. Formica boosted its adjusted EBIT by 42% to NZ\$88m (62m); Laminex delivered a 13% improvement to NZ\$90m (80m). RTG's adjusted EBIT fell 7%.

Formica raised its adjusted EBIT by another 24% to NZ\$42m (July-Dec. 2016: 34m) in the first half of its 2017/2018 financial year amidst an 8% growth in revenues. Laminex saw mixed trends in revenues (+4%) and adjusted EBIT (-4%), primarily because costs had not been fully passed on. However, RTG suffered a 17% decline in revenues and posted negative EBIT.

In the first half of the ongoing 2017/2018 financial year Formica achieved sales growth in all regions in the respective local currencies. Growth was more pronounced in North America and Asia while results stagnated in Europe. Formica's North American sales were 3% higher year-on-year while EBIT increased by 4% thanks, amongst others, to an improved product mix. Sales in Asia increased by 11% year-on-year. Growth was highest at 36% for sales in China while sales growth in Thailand and Taiwan inched higher by 5% and 1% respectively. EBIT from activities in Asia improved by 28%. A key reason for the surge was because production from the Chinese HPL plant in Jiujiang, Jiangxi province, commissioned in November 2013 has meanwhile reached stable levels. The 4% growth which the company posted for Europe was mainly achieved in the UK, Spain and Germany. Earnings, in contrast, remained at the level of last year.

Prior to its acquisition by Fletcher Building, Formica had generated group revenues of US\$737m in 2006 (2005: 694m) and EBITDA of US\$75m (70m) based on information available at that time.



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Company to continue to operate with existing structure when deal concluded

#### Broadview Industries set to become Westag & Getalit's majority shareholder

After the acquisition of the shares in Westag & Getalit AG of Rheda-Wiedenbrück, active in interior door, laminates/elements, and formwork plywood segments, previously held by the majority shareholder Gethalia Foundation of Vaduz, Liechtenstein, Broadview Industries AG will be submitting a public takeover offer to the remaining Westag & Getalit shareholders.

According to a release published on 23 May, Broadview's intention behind the move is to become the majority shareholder of Westag & Getalit AG. The required transactions are to be concluded during the course of the next few months. Both the purchase of the shares currently held by Gethalia and the voluntary public takeover offer are subject to approval from the competition authorities; there are no other conditions. Upon conclusion of the deal, Westag & Getalit AG is to be run alongside the companies Trespa International B.V. of Weert, Netherlands, and Arpa Industriale S.p.A. of Bra, Italy, in future, both of which are already controlled by the superordinate Broadview Holding B.V. of s'Hertogenbosch, Netherlands. Owing to the only small overlaps in the product ranges and sales markets, the companies involved believe that substantial synergy effects can be generated if Westag & Getalit works jointly with Trespa, which is geared above all to composite panels for building facades and laboratory facilities, and the laminates manufacturer Arpa.

In an agreement signed early in the morning of 23 May, Gethalia Foundation and Broadview Industries have arranged for the transfer of the ordinary shares currently held by Gethalia. Initial contact arose on the initiative of Broadview last year. In the course of the negotiations held in the following months, Pedro Holzer, representing the family foundation, says Gethalia took the view that Broadview could be a suitable partner for the successor solution required at Westag & Getalit.

The ordinary shares held by Gethalia currently give it 75.5 % of the voting rights.

The foundation had taken over these shares from its subsidiary Syntalit AG of Zug, Switzerland, in 2013. If all the ordinary shares and non-voting preference shares are taken into account, Gethalia's share of the total of 5.720m issued shares amounts to 37.75 %. These comprise 2.860m ordinary shares and 2.860 preference shares. The proportion of free-floating ordinary shares amounts to 24.5 % whereas all of the preference shares are in free trade. 365,066 of these shares are currently held directly by Westag & Getalit. The price of the Westag & Getalit share rose sharply following the announcement of the agreement between Gethalia and Broadview and the subsequent public takeover offer. The ordinary share closed at 21.20 € on the Frankfurt stock exchange on 22 May: from this level, the share rose by 9.20 € or 43.4 % on 23 May to 30.40 €. The price of the preference share rose from 21.80 € to 30.20 € in the same period. The market capitalisation was increased to a total of 173.3m € by the development in the prices of the ordinary and preference shares.

The public takeover offer planned by Broadview provides for a total offer value of 31.00 € in cash per ordinary and preference share. The annual general meeting that Westag & Getalit had actually called for 26 June has been postponed to 31 August due to the agreement signed between Broadview and Gethalia and the planned public takeover offer. If the transaction goes through before the AGM, the cash consideration of 30.26



Westag & Getalit commissioned two continuous presses for laminate production in January 2007 and in October 2014. (Photo credit: Westag & Getalit)

€ per ordinary share and 30.20 € per preference share will be raised by an additional payment of 0.74 € per ordinary share and 0.80 € per preference share, giving a total offer value of 31.00 € in each case. If the deal is concluded after the AGM, the existing shareholders are to receive the cash consideration of 30.26 € per ordinary share and 30.20 € per preference share plus the dividend of 0.74 € per preference share and 0.80 € per preference share proposed in March. If the shareholders at the AGM vote for a lower dividend than the proposed one, Broadview intends to make up for the difference. The total number of shares and Broadview's total offer value of 31.00 € give a maximum possible transaction volume or a company value of 177.3m €.

Broadview Industries AG was founded only recently and entered in the Commercial Register on 9 May by the Broadview holding company for the purpose of the planned Westag & Getalit takeover. The business address was given as that of the Düsseldorf lawyer firm Hengeler Müller. The object of the company is holding and managing stakes in companies in the wood and plastics processing sectors. Matthijs Schoten, who had already held similar posts in various enterprises of the investment company Hal Holding N.V. of Curação, Dutch Antilles, has been appointed board chairman. Hal Holding, which holds 97.4 % of the shares in the Broadview holding company, had acquired Trespa from Höchst AG of Frankfurt in 1997. The Trespa shares were

transferred to the Broadview holding company, which had just been founded at that time, at the beginning of 2008. The Broadview holding company signed an agreement only shortly afterwards in February 2008 for taking over Arpa, which was completed in early July of the same year. The Broadview holding company had made it clear only shortly after the Arpa takeover that Trespa and Arpa were to remain independent; there were never any plans to merge the two companies.

A similar approach is planned for the Westag & Getalit holding as well. The company is to continue to be run with the existing structures and product segments. In doing so, Broadview intends to work with the current management. Westag & Getalit's board of directors currently comprises Wilhelm Beckers as chairman and head of the "Doors/ Doorframes" division and Christopher Stenzel as financial director; Rainer Zumholte is due to join the board as the new head of the "Surfaces/Elements" division on 1 July. Holzinger, who had been a member of the Westag & Getalit board from 1979 to 2006 and then switched to the supervisory committee, wants to remain on this committee after the planned shifts in shares and is therefore planning to stand as a candidate for the supervisory committee again at the next annual general meeting. He had been chairman of the supervisory committee from 2007 to 2016 and has been vice chairman since then. The present chairman is Klaus Pampel.

Westag & Getalit AG had been split into three divisions until the end of 2013. The former "Laminates/Elements" and "Plywood/Formwork" divisions were then merged with effect from 1 January 2014 to form the new division "Surfaces/ Elements". Since then, however, this division's development has been somewhat more restrained than that of Doors/ Doorframes, which recorded consistent growth for several years. Sales revenue only fell again slightly to 126.9m € (2016: 127.0m €) in the business year 2017. Sales revenue generated by the Surfaces/Elements division, on the other hand, took more of a downturn for the worse from 2013 to 2016. Last year, the figure rose above the 100m € mark again for the first time in four years at 100.5m € (98.4m €). This positive trend in the Surfaces/Elements division became more pronounced in the fourth quarter whereas revenue generated by Doors/Doorframes fell slightly short of the figure for a year earlier again.

Westag & Getalit's total sales revenue showed only little change from 2011 to 2015. It has only picked up again in the last two years, surpassing the levels recorded for 2007 and 2008. At that time, however, Westag & Getalit had recorded considerably higher key performance figures. Westag & Getalit has been registering relatively consistent development in its results at a lower again since 2013. An exception was 2016, in which the company's performance was better than in the preceding and the following year.

Westag & Getalit: Development of Financial Results											
in m€	2007	2008	2009	2010	2011	2012	2013	2014	<b>2015</b> 1)	<b>2016</b> 1)	<b>2017</b> 1)
Sales	225.3	226.2	201.4	216.6	227.1	227.4	224.2	223.1	226.7	233.0	234.4
Domestic	168.5	170.8	162.2	173.8	178.4	178.5	178.0	178.4	179.7	182.8	179.8
Abroad	56.8	55.4	39.2	42.8	48.7	48.9	46.2	44.7	47.0	50.2	54.6
EBITDA	25.5	23.9	23.9	24.2	20.9	20.1	18.9	18.5	18.4	20.0	18.1
EBIT	15.9	14.9	14.5	14.7	11.5	10.3	8.8	8.6	7.9	9.9	8.3
Pre-tax result	16.6	15.3	14.9	15.1	11.8	10.8	9.1	8.9	8.6	10.5	9.1
Net income	9.5	10.8	10.5	10.7	8.2	7.5	6.4	6.4	6.3	7.6	6.5
Investments	14.7	20.1	9.8	9.4	11.1	10.5	12.4	15.9	12.3	8.0	13.8

1) from 2015 onwards the values were stated on a Group basis

Source: EUWID, according to information from financial reports of Westag & Getalit

Stake in Chilean joint venture Canplast Sud had been spun off in December

# Probos enjoys a 16.8% EBIT margin after its integration into Surteco

The Portuguese company Probos Plasticos S.A., based in Mindelo, delivered an improvement in its earnings after its integration into Surteco SE, headquartered in Buttenwiesen-Pfaffenhofen, Germany, with effect from 1 July 2017.

The plastic edging producer, which operates two plants in Porto, Portugal, and São José dos Pinhais in the Brazilian Paraná state generated revenues of €36.9m and EBIT of €4.0m in the second half of 2017. However, EBIT includes €2.2m in expenses from the purchase price allocation. Excluding these charges, EBIT stood at €6.2m and the EBIT margin at 16.8%. Its contribution to group earnings was listed at €2.5m in Surteco's annual report, which was published on 27 April. On a pro forma basis, the Probos group generated revenues of €74.2m and contributed €4.2m to Surteco's group income during 2017 as a whole. Prior to the acquisition, Probos booked a turnover of €66m and EBITDA of €11m in the 2016 financial year, translating into an EBITDA margin of 16.6%.

Surteco had spent €82.8m to acquire all shares in Probos' Spanish parent firm Global Abassi S.L., based in Madrid, through Döllken Kunststoffverarbeitung GmbH, headquartered in Gladbeck, Germany, with effect from 23 June. The shares were sold by Alantra Private Equity and, to a smaller degree, by Probos's management team. The transaction, which Surteco listed at a total of €99m, was entirely financed using borrowed capital. After a few months, the bridging loan that was initially set up was replaced by funds from promissory notes issued in mid-October. At the time of the acquisition, the purchased assets were valued at a total of €90.6m. Once liabilities of €53.1m were deducted, the acquired net assets totalled €37.5m. The difference to the purchase price of €45.4m was recognised as goodwill.

Surteco was primarily able to expand its foothold in the Iberian Peninsular and in strategically important markets in South and Central America by integrating Probos. In terms of products, the transaction improved its portfolio of thin edging in particular, which plays a much bigger role at Probos than at Döllken entities. Unlike the acquisition of Süddekor, which closed at the end of November 2013, Probos was able to be integrated into Surteco without significant modifications or restructuring work. Two consolidation actions were required only in North and South America, Its 55% stake in the plastic edging joint venture Canplast Sud S.A., based in Santiago de Chile, which was founded in 2008, was sold to its partner De Vicente Plasticos (DVP), headquartered in Santiago de Chile, with effect from 26 December 2017. Operating as a subsidiary of Surteco Canada Ltd., based in Brampton, Ontario, the company had so far been part of the Plastics division and responsible for making and selling plastic edgebanding in South and Central America to date. A 50% stake in the Mexican sales entity Canplast Mexico S.A. de C.V., which is based in Chihuahua and also part of Surteco Canada Ltd., is to be retained since it serves different sales channels to Probos' subsidiary Chapacinta S.A. de C.V., based in San Pablo Tultitlán. By contrast, Probos' US sales arm Edging Plus Inc., based in Greensboro, North Carolina, was liquidated with effect from 28 December due to overlaps with Surteco's existing sales network in the US.

Surteco has seven plastic edging production sites in Gladbeck, Greensboro, Brampton, Sydney (Australia), Batam (Indonesia) as well as in Porto and São José dos Pinhais with the integration of Probos and the spin-off of the Chilean joint venture. Surteco has sales entities in Singapore, Beaucouzé (France), Madrid (Spain) and Istanbul (Turkey) and in partnership with the Paper division in Martellago (Italy) and Moscow (Russia). Probos runs three sales sites in Bad Oeynhausen, Greenhithe (UK) and in Mexico after the liquidation of Edging Plus.



The Brazilian plant of Probos in São José dos Pinhais.

(Photo credit: Probos)





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Brand policy and access to sales markets have been the focus to date

### Chinese investors expanding involvement in European furniture industry

Several transactions have occurred within the furniture industry in recent months alongside discussions in the economy as a whole about a significant upswing in investments by Chinese companies in Europe, especially in the world of technology.

Unlike other sectors of the economy where Chinese investors are primarily interested in technology transfer, the investments made in the furniture industry and neighbouring sectors to date focus on brand policy and access to the respective sales markets. Major Chinese interior design companies that are more active in project business are looking for well-known kitchen and upholstered furniture brands that can be positioned in the upper segment of the market for both project and retail business so as to round off their portfolios. However, Chinese companies are now seeing sales opportunities on European markets too that are to be tapped by investing in businesses based in Europe. Interest is geared primarily towards companies with established brands that are to allow for easier market access.

Chinese investments in the furniture industry have primarily focused on kitchen furniture industry up until now. However, two major transactions have recently been struck in the upholstered furniture business. In the middle of May 2018, the Chinese household furniture producer Jason Furniture Co. Ltd., based in Hangzhou, Zhejiang Province, completed its takeover of Rolf Benz AG & Co. KG. based in Nagold. Germany, in a deal that was inked in late February and approved by the German Federal Cartel Office at the start of April. This transaction was conducted via Jason Furniture's subsidiary Kuka Investment and Management Co. Ltd. Just a few weeks earlier, Kuka had forged a joint venture with the Italian upholstered furniture producer Natuzzi S.p.A., headguartered in Santeramo in Colle, at the end of March. This joint venture intends to strengthen cooperation in China. Kuka purchased 51% of the shares in Natuzzi Trading (Shanghai) Co. Ltd., which was previously wholly owned by Natuzzi; the other 49% remain in the hands of Natuzzi.

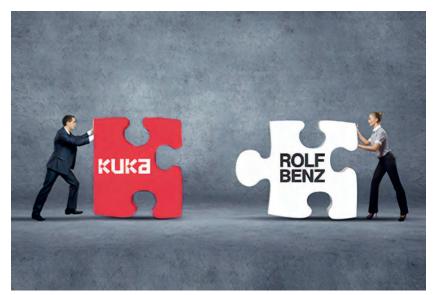
On 22 May, the Chinese furniture producer and merchant Qumei Home Furnishings

Group Co. Ltd., headquartered in Beijing, unveiled a take-over offer for all shares in the Norwegian upholstered furniture manufacturer Ekornes ASA, based in Ikornnes. Ekornes' majority shareholders have already indicated that they will accept this bid. Ekornes' board of directors has also recommended accepting the offer, which is to close during July once conditions have been met.

Back in November 2016, the Chinese upholstered furniture manufacturer and merchant Man Wah Holdings Ltd. (Hong Kong) had invested in the affiliates Home Group International Ltd. (HG International) and Home Group Ltd. (Cayman Islands) and five production facilities in Poland, the Baltic region and Ukraine run by Home Group UAB (Klaipéda, Lithuania) through Man Wah Group Limited, based in the British Virgin Islands. This partnership is to unlock synergies in purchasing, product development, manufacturing and distribution. Man Wah intended to convert some of its shipments to European customers including Ikea, Steinhoff International Holdings and Austria's XXXLutz group - that had previously been handled entirely by its Chinese facilities to Home Group's locations in Eastern Europe.

Insiders within the furniture industry are not ruling out the possibility of additional changes in ownership involving Chinese investors within the context of ongoing restructuring projects and divestments within Steinhoff. Unconfirmed reports suggest that one Chinese company had shown interest in Steinpol Central Services Sp. zo.o., which is based in Rzepin, Poland, and part of the Steinhoff Europe Upholstery division.

Chinese companies had repeatedly made attempts to venture into the kitchen furniture industry in recent years, only some of which were successful. Alno AG, headquartered in Pfullendorf, Germany, had



Rolf Benz is now being integrated into Kuka.

(Photo credit: Kuka)



During the fourth quarter the Nison group acquired a stake in SieMatic.

(Photo credit: EUWID)

contacted Chinese investors as part of its efforts to strengthen its foothold in China. Based on a distribution partnership forged in July 2013, Nature Home Holding Co. Ltd., a company active in furniture and flooring among others areas that is based in Foshan in Guangdong Province, acquired a 9.09% stake in Alno AG in spring 2015. After Alno filed for insolvency, Nature Home purchased the rights to the Wellmann brand made at the site in Enger up until October 2017 from the insolvency administrator Prof. Dr. Martin Hörmann in spring 2018. Nature Home had marketed this brand exclusively in China starting in 2013 as part of the distribution partnership.

Another Chinese investor – the property developer Country Garden Holdings based in Foshan - had been involved in negotiations about a transferred reorganisation for Alno, which was started in August 2017 by Alno's insolvency administrator. The company was the final remaining interested party in the final phase of talks, but then did not submit a bid after all by the deadline at the end of November. The administrator had then announced that Alno would be wound up, a step that was averted with the mid-December investment by the British company RiverRock European Capital Partners LLP, based in London. A short time later, Country Garden Holdings was reportedly also involved in talks about the sale of the Italian kitchen furniture producer

Snaidero, but then dropped out of the running in January.

Chinese companies had been more successful in their efforts to invest in medium-sized kitchen furniture producers. The Nison group, based in Suzhou in Jiangsu Province, acquired a stake in the premium brand manufacturer SieMatic Möbelwerke GmbH & Co. KG, headquartered in Löhne, Germany, during the fourth quarter of 2017. Its former sole owners in the Siekmann family still hold a minority stake in the firm. Boloni Home Decor (Beijing) Co. Ltd., one of China's biggest kitchen producers, acquired the insolvent firm RWK Einbauküchen R. & W. Kuhlmann GmbH (Enger, Germany) via Tellmach GmbH (Ludwigshafen, Germany) back in October 2014. Negotiations held in the second quarter of 2017 about a Chinese investor buying a stake in another insolvent firm, Nieburg Küchen GmbH, headquartered in Löhne, Germany, went nowhere so the firm was wound up at the end of July. However, a Chinese investor was at least able to purchase rights to the Nieburg Küchen brand during the sale of the insolvency assets.

The intertwining between European and Chinese businesses appears to be growing in areas adjacent to the kitchen furniture industry as well. The kitchen furniture manufacturer Warendorf – Die Küche GmbH, headquartered in Warendorf, Germany,

reached an agreement in October 2017 with Kohler China Investment Co. Ltd. ("Kohler Kitchens), which is owned by the US bathroom ceramics, kitchen and bathroom furniture producer Kohler Co., headquartered in Kohler, Wisconsin. Under the terms of this partnership, both companies intend to strengthen their footholds in the project and retail business in China. Its previous incarnation Warendorfer Küchen GmbH, which had been given its new name in a transferred reorganisation in March 2016, had inked a declaration of intent for a strategic kitchen partnership with the Chinese kitchen producer Xiamen Bright World Furnishings Co. Ltd., based in Xiamen, Fujian Province, in January 2015. However, deliberations at that time about selling Warendorf kitchens via Xiamen Bright World Furnishings' sales channel World view Kitchen did not come to fruition after all.

The household appliance sector was also caught up in this trend with changes in shares in the Slovenian firm Gorenje d.d., based in Velenje. Businesses owned by the Chinese electronics group Hisense Co. Ltd., based in Quingdao, Shandong, Province, purchased a 27.75% stake in Gorenje by 23 May and intend to raise this shareholding further to 50% by a public takeover offer that has now been published. Gorenje had also received a bid by the 8 May deadline from another Chinese company in a search launched in November 2017 for a strategic partner. Unconfirmed reports suggest that Haier Electronics Group Co. Ltd., based in Quingdao, wanted to advance its venture into the European household appliance market by purchasing a stake in Gorenje. However, Haier is still sticking to its expansion plans in Europe and wants to gain a stronger foothold in business with specialist merchant with a new range of built-in appliances this year.

On the other hand, the Swedish household appliance firm Electrolux AB, based in Stockholm, intends to strengthen its position in China with its AEG brand through a joint venture struck in May 2017 with the Chinese firm Midea Group Co. Ltd., headquartered in Foshan. The joint venture controlled by Midea Group unveiled its AEG programme for China in the first quarter of 2018.

Annual capacity of about 1.2 million m<sup>2</sup>, of wich 800,000 m<sup>2</sup> is envisaged for 2018

### Bauwerk Boen: Parquet production now up and running in Durdevac

Bauwerk Boen Group, headquartered in Wallisellen near Zurich, Switzerland, has gradually commissioned production lines installed to make three-ply parquet at a plant in Durdevac, Croatia, doing business as Bauwerk Boen d.o.o. over the past few weeks.

The multi-opening press delivered by Robert Bürkle GmbH, based in Freudenstadt, Germany, started operating in March 2018 and switched to three shifts in April. The line is now running two shifts again. The surface line delivered by the Superfici unit of Elmag S.p.A., based in Monza, Italy, commenced operations at the start of May. Only lacquered surfaces are made using this line in a first stage. Production is to be expanded to include oiled surfaces over the next year. The profiling line delivered by Homag Group AG's Chinese production subsidiary Homag Machinery Shanghai Co. Ltd. was commissioned in the first half of May. In its current configuration, the three-ply parquet production line installed in Durdevac has an annual capacity of approximately  $1.2 \, \text{million} \, \text{m}^2$ . This year Bauwerk Boen intends to make about  $800,000 \, \text{m}^2$  at the site. In the medium term, it plans to double capacity to nearly  $2.5 \, \text{m} \, \text{m}^2$ . When the project began, the plan was to double capacity as soon as 2019. Bauwerk Boen now tends to think that this will happen by 2021. However, it will have to secure enough timber for this to happen.

Bauwerk Boen had acquired the Durdevac facility that then did business as Haas Dom d.o.o. from the Haas group, based in Falkenberg, Germany, in December 2016. Bauwerk Boen only continued operating the drying chambers and making solid timber board and worktops. The sawmill and the multi-ply parquet production facility were completely replaced. The new technology was installed in existing production halls. These halls, which can still be expanded for subsequent investment phases, were renovated as part of the overall project. According to its annual report, which was published in late April, Bauwerk Boen invested about CHF13.3m in the Durdevac site in the 2017 financial year. The company had spent about CHF1m in 2016, including down-payments for a press line ordered from Bürkle in mid-2016. The installation of finishing systems and work to complete the project, which was largely wrapped up in the first quarter, required investments of about CHF4m this year.

The modernisation of the Durdevac plant and installation of new technology was carried out in several phases. The first major project was the replacement of two band saws with new technology delivered by Primultini s.r.l., based in Marano Vicentino, Italy. With a cutting capacity of about 25,000 m<sup>3</sup> per year, it will have a higher capacity than the two old saws that had a designed capacity of 20,000 m<sup>3</sup>. This year. Bauwerk Boen wants to cut about 16,000 m<sup>3</sup> using the band saw commissioned in early summer 2017, made up of 12,000 m<sup>3</sup> oak and 4,000 m<sup>3</sup> beech. New edging systems from Paul Maschinenfabrik GmbH & Co. KG, based in Dürmentingen, Germany, were installed downstream of the band saw. Half of the waste wood generated by the sawmill and downstream refining systems is used to make briquettes at the site and to generate energy. The remainder is delivered to a particleboard mill about 25 km away run by Kronospan CRO d.o.o., headquartered in Bjelovar. Lumber is dried using 40 drying chambers acquired from Haas Dom that can each handle 130 m<sup>3</sup>. Bauwerk Boen thus has a total chamber volume of about 5,200 m<sup>3</sup> in Durdevac. The drying chambers can dry both lumber made in-house and purchased from other companies.

The drying systems are followed by technology to produce facing materials, which is split into two halls. Small sizes are turned into facing materials for three-ply parquet using a planing line from Michael Weinig AG, based in Tauberbischofsheim, Germany, a slitting machine delivered by



Bauwerk Boen acquired the Durdevac site in December 2016.

(Photo credit: EUWID)

Raimann Holzoptimierung GmbH & Co. KG, headquartered in Freiburg, Germany, and a downstream Bürkle press. With a capacity of 2,500 m<sup>2</sup> per day or 500,000 m<sup>2</sup> per year in two shifts, the facing material press started operating in September 2017. Facing materials made there were first delivered to Bauwerk Boen's Lithuanian facility in Kietaviskes and to Bauwerk's headquarters in St. Margrethen, Switzerland. Since the final assembly systems have started operating, the majority of facing materials undergo further processing on-site. At the same time, facing materials continue to be shipped to the Lithuanian facility. A second hall turns larger-dimension sawn timber into rustic parquet using seven thin-cutting frame saws from Wintersteiger AG, based in Ried, Austria. Six frame saws were transferred from St. Margrethen to Durdevac; Wintersteiger also delivered a new line. Facing material production ceased in St. Margrethen by August 2017 with the relocation of the thin-cutting frame saws in several stages. The facing materials needed to make two-ply parquet have since been delivered from Durdevac.

The Bürkle multi-opening line commissioned in the first quarter of 2018 is designed to have a capacity of 3,200 m<sup>2</sup> per day or 720,000 m<sup>2</sup> per year in two shifts. The line presses facing materials with softwood cores and a spruce veneer backing to make three-ply parquet. The thick veneers used for this backing are primarily supplied by the Kalso mill in Vuohijärvi, Finland run by UPM-Kymmene Corp., based in Helsinki, Finland. Bauwerk Boen had ordered the press from Bürkle back in summer 2016. At that time, the line was earmarked for the expansion of the Lithuanian mill or for plans to build a new site in South-East Europe at that time.

Bauwerk Boen also commissioned finishing technology in Durdevac during the first quarter. In March, test operations began at the surfacing line. The optimisation phase was completed in April; products suitable for sale have been made since the start of May. The 140 m-long Elmag-Superfici line can run at a feed rate of up to 25 m/min. Sanding machines from Kündig AG, based in Wetzikon, Switzerland, are used to perform intermediate sanding. In a first phase, only UV-curing acrylic varnishes are



The finishing lines in Durdevac have been started up in spring 2018.

(Photo credit: EUWID)

being used. Additional brush rollers have to be integrated into the facility to make oiled surfaces, in a step that is planned at a later date. Bauwerk Boen said that, like the subsequent Homag China profiling line that can run at a feed rate of up to 100 m/min, the surfacing line has a designed capacity of about 5,500 m<sup>2</sup> per day or 1.250 million m<sup>2</sup> per year in two shifts. The profiling line that has been up and running since the start of May can make both traditional tongue and groove profiles and 5G profiles under licence with the Swedish firm Välinge Innovation AB, based in Viken, for glue-free installation. While surface processing systems were installed in a separate hall, the profiling line and subsequent packaging line are located in the same hall as the production machinery acquired by Haas Dom for solid timber board and work surface manufacturing.

Bauwerk Boen will initially only make products for its own Boen and Bauwerk brands at the multi-ply parquet facility in Durdevac. However, production of customer brands is conceivable at a later point in time. Its portfolio is mainly geared towards standard products right now. Its entire range of three-ply parquet products will continue to be covered using a much larger facility in Kietaviskes.

In the initial phase, the types of three-ply parquet made in Durdevac are being de-

livered to the Lithuanian facility and to a logistics centre in Baindt on Lake Constance that has been open since the end of 2014; detailed distribution then takes place from there. In the foreseeable future, though, direct deliveries are to take place from Durdevac too. The Durdevac site will also process export orders. Its proximity to the port of Trieste means that the site offers favourable conditions with regards to lead times and transport costs, especially for exporting to Asia.

The successive start-up of production machinery in Durdevac has also brought about changes at Bauwerk Boen's two other facilities. The cessation of facing material production in St. Margrethen freed up large amounts of space outdoors and inside production halls. The outdoor area used to dry wood to date, which encompasses more than 20,000 m<sup>2</sup> of the entire 70,000 m<sup>2</sup> site, was sold to the Swiss customs authority in December 2017. The customs authority will not use this space until 2020/2021. The burden on its Lithuanian facility in Kietaviskes is to be relieved by starting up and ramping up parquet production in Durdevac. Some areas have scaled back from the recent practice of four shifts to three shifts. Splitting manufacturing orders between sites in Kietaviskes and Durdevac also aims to boost Bauwerk Boen's productivity.

Joint venture to contribute to safeguarding supply of oak from Croatian state forest

#### Weitzer aiming to raise 50% stake in Croatian parquet manufacturer Pana

The Austrian company Weitzer Parkett GmbH & Co. KG of Weiz, Styria, has acquired a stake in the Croatian parquet manufacturer Pana d.o.o. of Turopolje.

The deal had been concluded at the end of February 2018, but the parties had initially agreed a period of non-disclosure. Weitzer has acquired half of the shares in Pana to start with. The remaining 50 % is currently held by the Sobocanec family, which is also the owner of the Croatian trading company Medimurjeplet of Cakovec. Weitzer has also taken over the operational management of Pana. The stake is to be increased to 74.99 % in the medium term. Management of the joint venture has been put in the hands of Miljenko Hrman, who thereby succeeds Davor Pripic.

The joint venture gives the Austrian manufacturer better access to sources of oak logs in Croatia as Pana has a long-term supply contract with the Croatian state forest office. Weitzer's intention behind this move is to give added assurance to its

supply of raw material. In return, Weitzer will provide technological expertise for the planned enlargement of the works. The companies' mutual objective is to tap into new fields of business and sales markets.

Pana was founded in 2002 as a subsidiary of the Medimurjeplet group but the works has existed since 1911. The parquet works including the adjoining sawmill currently covers an area of approximately 15,000 m<sup>2</sup>. The products manufactured here have so far been mostly solid-wood parquet, special floorboards with rustic finishes, and various auxiliary products. Pana's website state's its annual output as 450,000 m<sup>2</sup> of parquet. According to Weitzer, the sawmill has a theoretical processing capacity of around 30,000 m<sup>3</sup> per year, but the forthcoming expansion and conversion of the facility will significantly alter this capacity. The plans also provide for a switch in production; multilayer parquet is to be produced in Turopolje as well in future. No specific details have been disclosed yet regarding the planned investment projects and capacity. Roughly 150 people are employed in Turopolje at the moment. Weitzer says the expansion and conversion measures will raise the number of employees to 250.

The Turopolje works is Weitzer's fourth production facility in total and its second one abroad. Besides its main plant in Weiz, the second works the company operates in Austria is a three-ply parquet facility in Güssing. The Gyékényes facility in Hungary is for procuring raw material; Weitzer also has a sawmill here. The company has launched numerous modernisation measures at the two Austrian facilities in the last few months, the emphasis being on the Weiz plant. One of the first steps was to put a new coating station into service in September 2017. A variety of existing plant components have been updated as well. A new press line is to be put into operation as well in April. The start-up of a new filling and sizing line is also scheduled for the end of August. The investment projects, costing an estimated total of approximately 7m €, are scheduled for completion by the end of this summer.

Weitzer currently has a combined total of around 550 employees. Sales revenue amounted to approximately €75m in its business year 2017. The business year was recently switched to the calendar year. Weitzer had generated total sales revenue of €69m in its previous business year 2016/2017 (31 March). The company had produced a total of roughly 2m m<sup>2</sup> of parquet in 2017. The export year was over 50 %. Following the extensive reshuffling in the ownership and management, Josef Stoppacher and Martin Karner have been at the helm of Weitzer as commercial director and engineering director respectively since the third quarter of 2017. Weitzer, the owning family, withdrew from operational management at the beginning of last



With the investment in Croatia, Weitzer is securing its oak supply.

(Photo credit: EUWID)

### EUWID Special issues

























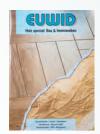


























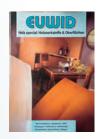


















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