

EUWID

Special: Wood-Based Panels

EUWID Wood Products and Panels – Special issue 13.10.2017



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EUWID Special goes international

Our very first English-language special edition, **EUWID Special: Wood-Based Panels**, will focus on recent developments in machine and plant construction, the wood-based panel industry and its suppliers. With this special issue, EUWID is tackling the latest news that we report on exclusively in many cases in our weekly publications EUWID Holz und Holzwerkstoffe and EUWID Wood Products and Panels.

More information

Publications of EUWID
print and online



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

This magazine will scale up our EUWID Holz special concept, which has been established for over 20 years, to a global audience. EUWID special issues, which until now have only been published in German, deliver a longer-term overview of developments and changes in the wood-based panel industry and related segments with background reports and special articles. On the other hand, our weekly newsletters EUWID Holz und Holzwerkstoffe and EUWID Wood Products and Panels track the latest developments in the industry as printed editions and in an e-version. Our websites www.euwid-holz.de and www.euwid-wood-products.com also provide quick news online.

The first issue of **EUWID Special: Wood-Based Panels** will cast a spotlight on investment projects and mergers and acquisitions in the wood-based panel industry, recent developments on international wood-based panel markets, the situation for upstream products, the formaldehyde debate, an overview of global decor paper markets and changes in the surface sector. An outlook on topics facing the flooring and furniture sector complement this range of information.

The wood-based panel section of **EUWID Special: Wood-Based Panels** includes articles on the ongoing process of selling large parts of the Masisa group, Egger's international expansion, investment projects by Kronospan, Homanit and Kastamonu as well as plans to sell Dongwha New Zealand to Daiken. Investments planned by Schattdecor, Slotex's decision to enter the decor printing business, the acquisition of a Shaw impregnating site by BMK and the integration of the edging manufacturer Probos into Surteco are all detailed in the surfaces section.

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

Yours sincerely
Andreas Ruf
Publisher

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*Cover image: At the end of September, the Egger group completed its acquisition of a plant in Concordia, Argentina from Masisa.
 (Photo credit: Egger)*

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 Fax: +49-7224/9397-910
 Email: service@euwid.de
 www.euwid.de
 www.euwid-holz.de
 (German website)
 www.euwid-wood-products.com
 (English website)

Advertising sales manager
 Florian Mai
 Tel.: +49-7224/9397-169
 Fax: +49-7224/9397-908
 Email: fmai@euwid.de

Ad production coordinator
 Alexandra Merkel

Production manager/Art Director
 Jörg Schumacher

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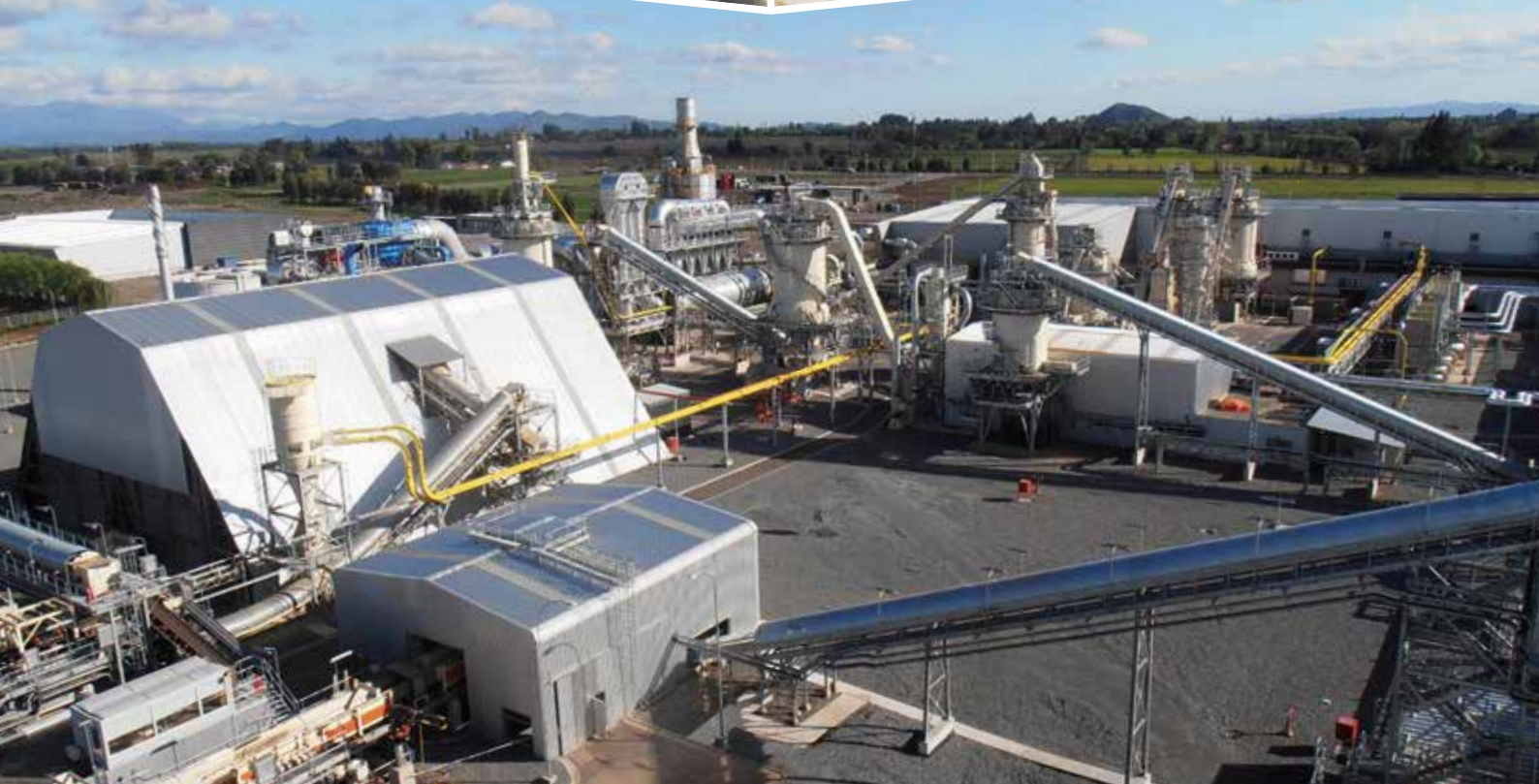
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Kadant acquires Nicholson and Valon Kone



(Photo credit: Kadant)

The US plant manufacturer Kadant, based in Westford, Massachusetts, completed its acquisition of the Forest Products division from NII FPG, headquartered in Seattle, on 5 July 2017. The transaction, which was agreed on 24 May, has a total volume of US\$173m in cash, subject to an adjustment to the purchase price after closing. About US\$170.0m of the purchase price is to be raised through a revolving line of credit, with the remainder coming from existing cash.

Kadant acquired all of the shares in the Canadian firm Nicholson Manufacturing, based in Sidney, British Columbia, and in Valon Kone, headquartered in Lohja, Finland, as part of the transaction. Both companies specialise in developing and making rotary debarking technology, including for use in the sawmill, veneer and OSB industry. Since acquiring Madill Equipment in 2011, Nicholson has also offered wood harvesting machinery. Kadant said that the two companies operate two main production facilities with a total of 275 workers. They generated revenues of about US\$81m in the 2016 financial year.

Both companies will become part of Kadant's Wood Processing Systems division in future, which has so far comprised the activities of Carmanah Design and Manufacturing, headquartered in Surrey, British Columbia, which it acquired at the start of 2014. Besides offering stranders for the OSB industry and the associated feeding systems, it also supplies chippers and screening machinery. Debarking technology is also part of its portfolio, which is sold under the Fuji-King name. The division generated revenues of US\$36.9m (2015: 36.4m) and recurring pre-tax profits of US\$8.3m (10.9m) in the 2016 financial year. □

Vyncke: Turnover more than doubles since 2010

The Belgian energy-plant producer Vyncke, based in Harelbeke, again increased turnover in the 2016 financial year compared to the preceding year. However, the growth rate was slightly lower than in preceding years. Indeed, order receipts were down year on year for the first time for a longer period, by 21.5% to €74.0m (2015: 94.3m). In contrast, from 2010 (€51.9m) to 2015, order receipts have shown a steady increase.

In terms of turnover, the positive trend has continued at a slightly slower rate. In 2016, revenues totalled €96.5m (92.5m), representing year-on-year growth of 4.3%. Of that sum, 6% were generated in Belgium, 32% in the rest of the EU and 62% outside the EU.



(Photo credit: Vyncke)

Since 2010 (€40.6m), Vyncke's consolidated turnover has more than doubled, with the highest rates of growth achieved in 2014 and 2015 (2011: €47.1m, 2012: €53.4m, 2013: €58.5m, 2014: €70.5m). The number of employees increased again slightly in 2016 to 335 (Belgium 129, Germany 3, Czech Republic 118, Malaysia 21, Thailand 9, China 46 and Brazil 9). The Vyncke group comprises a total of eleven companies, with five in Europe, five in Asia and one in South America. □

Dieffenbacher completes two short-cycle projects

The short-cycle press and handling technology specialist Dieffenbacher Maschinenfabrik, based in Zaisenhausen, Germany, commissioned a short-cycle press used to make wood powder coatings towards the middle of April 2017. It had delivered this technology to Vålänge



(Photo credit: Dieffenbacher Zaisenhausen)

Innovation, headquartered in Viken, Sweden. The contract awarded by Vålänge Innovation at the start of 2016 comprised a short-cycle press with a designed pressing force of 100 bar and 180 press cycles per hour as well as upstream and downstream technology. Dieffenbacher Zaisenhausen installed powder material coating systems upstream of the short-cycle press. Dieffenbacher Zaisenhausen will also supply application technology for the wood-powder flooring production line that Pervanovo Invest is planning in the direct vicinity of the Vålänge Innovation facility. However Pervanovo Invest will use a double-belt press supplied by Hymmen for pressing in the project.

At the start of April, Dieffenbacher Zaisenhausen also received acceptance of a short-cycle press that it shipped to the US. The technology delivered to a laminate producer will be used for HPL production with a maximum press force of 100 bar. In spring, Dieffenbacher Zaisenhausen already sold a short-cycle press to the Spanish particleboard producer Tableros Hispanos, based in Nadela. This business was created in July 2013 when its predecessor Tablicia was acquired by the Peruvian firm Grupo Martín. □

Mixed trends in Siempelkamp financials

G. Siempelkamp GmbH & Co. KG has reported diverging trends in financials from its Machine and Plant Engineering business last year. Order intake rose 7.9% to €500.8m (2015: 464.0m), well above the target of €350m that was set based on cautious forecasts.

Its much better performance was mainly driven by orders from the wood-based panel industry, according to Siempelkamp's annual report, which was published in

late June. Siempelkamp sold a total of ten partial or complete lines with a continuous press and one multi-opening line in the 2016 financial year. CMC Texpan landed more than 30 orders for complete front ends or process machines via Siempelkamp; another 20 orders for individual front end components were placed directly with CMC Texpan. Büttner sold four combinations of dryers and power plants; in addition, separate orders for six dryers and three power plants were completed. Five of the 13 total orders were part of Siempelkamp projects, with the other eight landed directly by Büttner. Siempelkamp booked six orders for the Ecoresinator MDF gluing system, meaning that the number of units sold since market launch in 2011 has climbed to 35. In the short-cycle sector Siempelkamp landed one order for the intralogistics of a laminating plant, it also sold one short-cycle press.



(Photo credit: EUWID)

Even though its order intake improved, Siempelkamp Maschinen- und Anlagenbau saw its order backlog dwindle 13.9% compared with the previous year to €576.1m (669.0m) at the end of 2016. This downturn is connected to the large number of projects that had been completed. Some 22 wood-based panel lines were assembled, 15 were commissioned and 9 were handed over during 2016. Turnover thus soared 67.4% to €593.7m (354.6m). However, its gross performance slipped 5.0% to €450.9m (474.6m). □

Homag sees increase in order receipts

Following the growth achieved in the first quarter of 2017 by 31.2% to €400.9m, order receipts at Homag Group increased year on year in the second quarter by 35.3% to €332.6m (April-June 2016:

Sandvik disposes of Process Systems to FAM

As part of on-going consolidation of its business divisions, which has been in progress since spring 2016, the Swedish conglomerate Sandvik is to sell its sub-division Process Systems to the Swedish holding company Foundation Asset Management (FAM). The associated contractual agreement was signed at the end of May 2017. The purchase price was set at SKR5.0bn, which is the equivalent of roughly €510m. Following the meeting of suspensory conditions, the transaction is to be concluded at the latest by the beginning of 2018.

Sandvik had designated the sub-division Sandvik Process Systems as a non-strategic activity in a notice published on 3 May 2016. Sandvik Process Systems, which had originally been part of the Sandvik Ventures division, is now consolidated under Other Operations, which in the 2016 financial year generated turnover of roughly SKR4.7bn, representing 6% of the concern's revenues. Of that sum, Sandvik Process Systems turned over roughly SKR1.7bn, which is equivalent to almost €180m, with a work force of roughly 600. Turnover achieved by the second sub-division, Hyperion, which supplies hard and super-

hard materials, was quoted at roughly SKR3.0bn. For the first quarter of 2017, the Other Operations division showed order receipts worth SKR1.473bn, turnover of SKR1.206bn and an EBIT of SKR126m.

Following termination at the end of September 2016 of the business with structured belts and caul plates merged in the Sandvik Surface Solutions (SSS) division, Sandvik Process Systems still comprises the product sectors Steel Belts, Processing Systems and Conveyors, and Composite Solutions.

All product sectors supply components for industrial production processes. The Steel Belts section is one of the world's two largest suppliers of press belts for continuous wood-based-panel presses. The sector of Processing Systems and Conveyors is primarily engaged in the chemicals and foodstuffs industries.

In the sector of Composite Solutions, Sandvik Process Systems mainly produces double-belt presses for various application areas, including for elastic floor coverings, WPC products and mineral materials, as well as components for use upstream and downstream of those presses. □

245.9m). However, order receipts declined from the first to the second quarter by 17.0%. In contrast, turnover generated by the Homag Group showed both quarter-on-quarter and year-on-year growth. Turnover was up year on year by 12.6% to €300.6m (267.0m), while first-quarter turnover, which had shown a plus of 14.1% to €296.1m, was at least marginally exceeded in the second quarter.



(Photo credit: EUWID)

Over the whole of the first six months of 2017, order receipts taken by the Homag

Group increased by 33.0% to €733.5m (Jan.-June 2016: 551.5m). The Chinese market showed a particularly strong trend, with the number of orders more than doubling year on year. In terms of product segments, complete production lines for the furniture industry with high levels of automation and batch-size-1 capability achieved over-proportional growth.

The order book at mid-year had therefore risen by more than half to roughly €542m (354m). Turnover was up by 13.3% to €596.7m (526.6m). Of the total higher EBITDA of €61.1m (47.7m), €30.4m were generated in the first and €30.7m in the second quarter. The EBIT, at €42.5m (27.5m), improved year on year by 54.8%, and was also evenly distributed across both quarters, at €21.0m and €21.5m respectively. The operating EBIT increased by 47.0% to €46.9m (31.9m). □

Acimall: Six biggest supplier countries exported products worth more than €6bn

In 2016 woodworking machinery exports increased in most countries

The largest export nations for woodworking machinery increased their international shipments again last year.

The Italian industry association Acimall analysed the export streams from the six biggest supplier countries (excluding tools) in its annual report, which it published at the end of July. German woodworking machinery exports reportedly jumped 5% compared with 2015 to €2.050bn. An even larger growth of 6% to €1.407bn was recorded for Italy. Exports from China and Taiwan both rose by 3%. Chinese woodworking machinery manufacturers thus exported products valued at €1.345bn. A figure of €461.9m was reported for Taiwan. Austria was ahead of Taiwan with €552.9m, but did not increase its shipments compared with 2015. On the other hand, US exports dropped 4% to €327.9m.

The Acimall analysis shows that all countries, apart from the US, booked a consistent growth in exports during the course of the year. China's foreign shipments rose from one quarter to the next, although the upward trend levelled off a little as the year ended. Taiwan experienced somewhat slower but steady growth. The third quarter was the only

period when Germany, Italy and Austria encountered a period of minor weakness. All other quarters ended with an increase in exports compared with the previous three-month stretch. US exports tumbled more in the second quarter before staging a slight recovery.

The Acimall figures show that these six countries booked combined exports of approximately €6.145bn. The biggest product groups were sawmilling machinery (commodity tariff number 84 65 91) with €1.346bn and machinery parts and accessories (84 66 92) with €1.080bn. Woodworking machinery with and without tool change (84 65 10) took the next place with €877.5m, followed by presses for making wood-based panels (84 79 30) with €601.9m, planing, milling and moulding machines (84 65 92) with €443.2m and drilling and morticing machines (84 65 95) with €431.1m.

Export revenues from the three other separately listed product groups stood at €244.1m, €247.9m and €303.6m. Exports of other woodworking machines were listed at €473.6m. The biggest export from Germany was woodworking machines with and without tool change (€645.5m) and wood-based panel presses (€333.7m). Italy's biggest exports were machinery parts and accessories

(€450.8m) and drilling and morticing machines (€238.0m).

Background

Annual report of Acimall with export figures worldwide

<http://download.euwid-holz.de/hs17021.html>



Acimall also depicted exports to the different regions and the biggest countries in its analysis. The six biggest supplier countries exported a total of €2.470bn to the EU, representing about 40% of their total global exports. The rest of Europe accounted for €490.7m. North America was the destination for €1.811bn and Latin America for €213.4m. Acimall reported that exports to the tune of €1.494bn had ended up in Asia. These six nations delivered €161.3m to Australia/Oceania and €120.9m to Africa.

Germany was the biggest supplier to the EU, the rest of Europe and Latin America. Italy was Africa's largest provider of woodworking machinery. Chinese manufacturers dominated exports to Asia, North America and Australia/Oceania. However, the export data added up for the different regions and product groups in the Acimall analysis does not always tally with the exports from individual supplier countries. □

World: Development of woodworking machinery exports 2016

in m €	World	EU	other Europe	Africa	North America	Latin America	Asia	Oceania
Germany	2,050.2	983.4	242.3	33.7	240.9	106.2	439.1	37.4
Italy	1,407.2	730.0	137.6	39.6	196.6	38.9	269.6	35.9
China	1,345.2	312.9	53.7	38.7	401.5	28.7	475.3	41.0
Austria	552.9	53.8	9.4	3.4	261.2	5.5	207.8	13.7
Taiwan	461.9	318.1	44.1	2.3	47.9	4.5	36.4	11.9
USA	327.9	31.4	3.6	3.2	172.3	29.6	65.8	21.4

Source: Acimall

Plant manufacturers land several orders in Europe and North America

Wood-based panel technology suppliers seeing similar order intake to last year

Wood-based panel technology suppliers have won more orders from Europe, Africa and North America since spring 2017, after order intake initially shifted more to Asia during the first four months of this year.

At the start of June, Kronospan placed an order with Dieffenbacher to deliver the forming and press line for a replacement project planned at its OSB mill in Sanem, Luxembourg. Its manufacturing capacity is to roughly double with the replacement of a multi-opening press in operation since 1996. In July, the Algerian company Pan-neaux d'Algérie ordered a complete MDF line with a 6 ft x 14.5 m CPS+ press from Dieffenbacher. Technology upstream and downstream of the press will be delivered by Shanghai Wood-Based Panel Machinery (SWPM), which has been majority owned by Dieffenbacher since the middle of 2009. Dieffenbacher announced that the order placed by the Bigstar subsidiary will be the first continuous press that it has delivered to northern Africa.

Siempelkamp also landed a contract over the summer from the joint venture Sonae Arauco to deliver a forming and press line to an MDF mill in Mangualde, Portugal. The deal includes an 8 ft x 28.8 m ContiRoll press that will replace the existing multi-opening press. Sonae Arauco will thus operate two continuous MDF lines at the mill in future; the existing line with an 8 ft x 28.5 m press had also been delivered by Siempelkamp in 1995.

Siempelkamp will supply a complete MDF line to process rice straw to North America. The customer is the CalAg LCC subsidiary CalPlant I LLC, based in Willows, California. The line is to come with a 10 ft x 35.4 m ContiRoll with an annual capacity of about 250,000 m³ and start operating at the end of 2018. In North America, Dieffenbacher will install a continuous press at a new LVL mill that Roseburg Forest Products is plan-

ning in Chester, South Carolina next year. Besides the 4 ft-wide and 65 m-long CPS press, the contract also includes a microwave pre-heating unit. Commissioning of the line, which will have an annual capacity of 280,000 m³, is set to happen in 2019.

Unconfirmed reports suggest that Siempelkamp and Dieffenbacher had each sold a line in Europe in the first quarter. Kronospan had ordered a thin MDF/HDF line from Siempelkamp for its site in Smorgon, Belarus where it presently uses two production lines transferred from Central Europe to make particleboard and MDF/HDF. Dieffenbacher had been tasked with supplying a particleboard line to the Spanish company Tableros Hispanos. This line is to replace existing technology. A contract awarded by the Egger Group to Siempelkamp for a new particleboard mill planned in Biskupiec, Poland has not been confirmed yet, either. Egger stated that the line with a 2.80 m-wide continuous press will initially have an annual capacity of approximately 650,000 m³. The firm started construction work during September after receiving the building permit. Work to assemble technology is to get under way at the start of 2018.

Dieffenbacher has landed two more orders in Asia over the past few months. Guangxi Hengxian Xin Weilin Panel Industry has ordered an OSB line, which is designed to have a capacity of 220,000 m³ with a CPS press in dimensions of 8.5 ft x 22.5 m. Production is slated to begin in April 2018. Dieffenbacher will provide Wanhua Ecoboard with another continuous press to make straw particleboard. With an 8.5 ft x 28 m CPS press, the line is to be installed in Jingmen, Hubei and start operating towards the middle of 2018. Siempelkamp won a contract from the Chinese company Nanning Shuixin Ketien (SciSky) in the third quarter. The firm intends to enter the wood-based panel manufacturing business with a particleboard line, which includes an

8 ft x 30.5 m ContiRoll that will be built in Wuming in Guangxi province.

Dieffenbacher had announced a total of five orders by the middle of May. Beside the particleboard line for Tableros Hispanos, a THDF line with an 8 ft x 28 m CPS+ press has been sold to the Thai company S. Kijchai MDF and two wide lines for Chinese buyers. The contracts to deliver a complete MDF line with an 8 ft x 20 m CPS+ to the Vietnamese firm Thien Lam Dat were signed during the Ligna trade fair. SWPM had wrapped up three contracts for 4 ft-wide lines by May, including two particleboard lines and an MDF line. Two more particleboard orders for SWPM were added by the end of September.

Siempelkamp had released information about five orders for partial and complete lines by May. The MDF/HDF line sold to Altailes, based in Pavlovsk, Russia, was booked in its list of orders for the first quarter after receipt of a down-payment, even though the two sides put pen to paper at the end of November. Two unspecified orders have also been placed from the Middle East. Siempelkamp said that the clients for the two remaining orders could not be named. One of these lines was likely the thin board line for Kronospan's site in Smorgon, with the second order possibly Egger's particleboard line for Biskupiec. During the first half of the year, Siempelkamp was also in talks about delivering a continuous line for bamboo particleboard to the Indian company Artison Agrotech. No information is available yet about the sides inking the deal.

The Italian company Imal-Pal sold another MDF line with a Dynasteam continuous press to Vietnam during the first half of the year. The company, which entered into a Panel Alliance with other plant and machinery producers in 2010, will thus deliver its seventh partial and complete line. □

Just a few orders placed in other regions over the past few months

Refiner business has shifted towards Asia even more so far this year

The business of selling refiners to the MDF/HDF industry has shifted towards Asia even more so far this year. However, other regions have tended to be rather lacklustre. At least a few orders have been placed on markets in Europe, Russia and North America. In South America, three older projects are currently being wrapped up, and no new orders have been awarded to date. On the other hand, one refiner has been sold to Africa for the first time in a while this year.

The number of orders for refiners placed by Chinese companies has continued to decline because of the shift towards particleboard lines. Nonetheless, more refiners are still being sold there than in other markets. More MDF/HDF projects have also been firmed up in South-East Asia, with investments focused in Thailand and Vietnam. Two recent orders from Thailand were awarded by Vanachai group and by S. Kijchai Enterprise. Vanachai will use a refiner from Valmet in its MDF 5 project. Kijchai ordered the refiner for a second MDF/HDF line planned for its Rayong site from Andritz. In Vietnam, Andritz is to supply a refiner to another MDF manufacturer; the production line for this project will come from Imal-Pal. Over the next two years, another Vietnamese firm, Thien Lam Dat, will start making MDF. The contract for this production line was awarded to Dieffenbacher in May; the refiner has yet to be ordered.

China is represented on Andritz's order list with four refiners sold so far this year. Valmet has sold a refiner to Chiping Senqiang MDF. Pallmann, which has been fully owned by Siempelkamp since April 2017, wrapped up two orders in Asia in the first half of the year.

The first of three new MDF lines in India started operating at the end of July. Cen-

tury Plyboards has made the first board at an MDF mill in Hoshiarpur, Punjab. Andritz delivered this refiner. Balaji Action Buildwell (Action Tesa) and Greenply Industries intend to complete their MDF investments during the second and third quarters of 2018 respectively. Valmet is to supply both of these refiners.

Two orders in Eastern Europe and Russia have been revealed so far this year. Kronospan has ordered a refiner from Andritz for its thin board plant at Kronospan FLLC in Smorgon, Belarus. In Russia, Andritz will supply a refiner and the related wood chip handling systems to the Altailes subsidiary Pavlovskiy DOK, which will start making MDF/HDF by building a new mill. Egger group wants to raise its manufacturing capacity at the MDF/HDF mill in Gagarin, Russia, which started operating in April 2016, in the medium term by installing a second refiner; this project has yet to be fleshed out.

The Norwegian company Hunton Fiber is to use an Andritz refiner in its insulating board project. An order placed in the first quarter also includes other front end systems, such as wood chip intake technology. In the MDF/HDF sector, the Spanish firm Finsa ordered a refiner from Valmet for a particleboard and MDF mill in Nelas, Portugal doing business as Luso-Finsa during the fourth quarter of 2016. No new orders for MDF/HDF refiners have been placed in Europe so far this year. However, a new MDF/HDF project may be in the offing in Central Europe with plans firmed up over the past few months by Classen to add a second production line in Baruth.

A new investment project is currently in progress in North America and another project has been awarded. Swiss Krono Group has started construction work on an MDF/HDF line Barnwell, South Caroli-

na, which has been planned for some time now and was firmed up last year. Siempelkamp will deliver the entire production line, including a Pallmann refiner, for the project. Siempelkamp landed another order for an MDF production line in the US in the second quarter. The Californian firm CalAg LCC intends to build an MDF line through its subsidiary CalPlant I LLC in Willows, California by the end of 2018; this line will solely process rice straw. The entire order includes two Pallmann refiners.

Investment activity in Central and South America has been shaped by the completion of existing projects for some time now. Now that new MDF lines in Mexico have started operating, the start-up of three new mills is on the cards in Brazil. The Brazilian plywood and MDF producer Florapac wants to undertake a significant expansion of MDF operations that it launched in 2010 with a new investment project. The Brazilian conglomerate Asperbras and Placas do Brasil will start making MDF by building new mills. Andritz will supply the refiners for all three orders. The Asperbras order is being handled by the total system supplier Siempelkamp.

A refiner has been sold to Africa for the first time in a while this year with an order placed by a new firm from Algeria. Panneaux d'Algérie has ordered a small MDF line from Dieffenbacher. The refiner for this project will be delivered by Shanghai Wood-Based Panel Machinery (SWPM), in which Dieffenbacher holds a majority stake.

Information indicates that 15 new orders for refiners have been placed around the globe so far this year. Andritz said that it had sold eight refiners. Pallmann has announced four orders and two have gone to Valmet. SWPM has wrapped up one order outside China. □

First sanding machine is to be installed in a particleboard line in spring 2018

Steinemann focusses sanding machine range on newly developed Satos TSQ

By 2019, Swiss Steinemann Technology is to convert a large proportion of its sanding machine range to the Satos TSQ (total surface quality) product line presented this year.

A major part of the development work for Satos TSQ, which commenced in spring 2016, had already been completed by summer 2017. During the first half of 2017 a pilot plant with two calibration heads as well as two fine sanding heads was installed at the Steinemann headquarters in St. Gallen.

In a first stage only a few machines are initially to be supplied to selected pilot customers. In the third quarter Steinemann reached an agreement with an European wood-based panels manufacturer concerning the supply of a prototype machine. This machine is expected to be installed in a particleboard line in May or June 2018, and commissioning is scheduled for summer 2018. Currently Steinemann is negotiating with two wood-based panels manufacturers concerning supply of two further machines, also to be started up over the course of 2018.

If these preparations for industrial production are successful, Steinemann also intends to market the new series more widely from summer 2018 onwards. Over the course of 2019 Satos TSQ is intended largely to replace the current Satos production lines. The core business of sanding machines for particleboard and MDF/HDF production with widths between 6ft and 10ft, so far serviced by the Satos, Satos plus and Satos Eco series, is then to be processed exclusively with Satos TSQ.

Steinemann launched the Satos sanding machines on the market in 2001, and supplied some 145 machines with approximately 1,250 sanding heads during the first ten years. Meanwhile, the number of installed Satos sanding heads has doubled to some 2,500. Turkey is one of the largest individual markets with approximately 250 Satos sanding heads.

The Satos Plus high end sanding machine was launched on the market in 2010 and, according to original plans, was intended to become part of Steinemann's standard machinery for the higher performance sector over the course of 2012. The

Satos series, by way of contrast, was to be gradually reduced. Distinguishing features of the Satos Plus series vis à vis the Satos sanding machines are an even more robust design and a significantly higher level of automation enabling a quicker change of the production range as well as the sanding belt. The equipment details incorporated in the machine, however, led to a higher purchase price as well as additional demands on the operating personnel. Consequently, it has ultimately not been possible, as intended, to achieve the larger quantities required to reduce the difference in price between the Satos and Satos plus series. Some ten Satos Plus machines in total have been supplied, four of which were delivered to Brazil. The first six machines were sold in 2010 and 2011. Subsequently, Steinemann's sanding machine business largely focussed back again on the Satos series.

As a more simple alternative, Steinemann developed the Satos Eco series, which had initially only been manufactured at the plant in Jiading, Shanghai, and which was initially only supplied with a 4ft working width. The range of widths was then later expanded to 6ft and above. This production concept did not catch on, however, as the Steinemann customers insisted on production in Switzerland. For this reason only two of the five Satos Eco machines ever delivered were manufactured in China. The lower quantity meant that the actual cost benefits strived for, compared to the Satos series, were not achievable, which is why manufacture of the Satos Eco sanding machines was completely terminated in spring 2017.

By launching the Satos TSQ, Steinemann intends to focus on a series with a relatively broad performance spectrum. From a price point of view, however, the Satos TSQ is to be in line with that of the Satos series. □



Satos TSQ

(Photo credit: Steinemann)

Order intake from North America much stronger in the past two years

European short-cycle press manufacturers still delivering about 20 lines each year

Major shifts have emerged among suppliers of short-cycle presses to laminate particleboard and MDF/HDF in recent years.

Wemhöner Surface Technologies has increased its share of global market for high-performance systems. The group has also delivered up to 15 short-cycle presses from its Herford headquarters in recent years amidst a market that is experiencing a slight downturn on the whole. Up to 10 presses come each year from a factory in Changzhou in China's Jiangsu Province, which was built in 2006. The Chinese firm Wemhöner Changzhou Machinery is to deliver a further growth in sales with the planned expansion of its facility.

On the other hand, Siempelkamp has gradually scaled back its short-cycle press activities in recent years. The company, which also used to book double-digit sales figures annually from time to time in the past, is focusing more and more on the wood-based panel technology business and is trying to complete its portfolio of products there. Short-cycle presses had repeatedly been sold as part of a complete line in recent years, for instance in a contract placed at the start of 2014 by the Brazilian company Asperbras for an MDF mill planned in Água Clara in Mato Grosso do Sul. Besides its standard short-cycle presses sold in conjunction with wood-based panel lines, Siempelkamp wants to focus on high-performance systems sold under the KT 700 name. Information from respective annual reports shows that Siempelkamp sold just a few short-cycle presses in 2015 and 2016.

Dieffenbacher Maschinenfabrik is similarly able to benefit from its ties to Dieffenbacher group since 2003 although the two are separate entities under corporate law. At the start of 2017, both companies landed a combined

order from the Spanish particleboard manufacturer Tableros Hispanos for instance. In recent years, Dieffenbacher Zaisenhausen has also repeatedly completed short-cycle presses for special applications, for instance for wood fibre floors (WFF) made by the Swedish firm Välinge Innovation or for an unnamed North American laminate producer. The company has sold an average of three to four presses in recent years with this order structure.

The Italian company Pagnoni sold a short-cycle press to Gruppo Mauro Saviola last year. On the other hand, Hymmen Industrieanlagen GmbH exited the short-cycle press business when it went insolvent in December 2015. Hymmen GmbH Maschinen- und Anlagenbau (HMA), founded in February 2016 as its successor, focuses its press operations on continuous units. It specialises in CPL presses; the last order for an MFC double-belt press was placed by the Australian firm Borg Group Holdings at the start of 2011.

The short-cycle press business in Asia and a few emerging markets has been dominated by Chinese producers for some time. In addition, Indian suppliers with simpler plant concepts are increasingly surfacing on these markets. Amidst this backdrop, European press producers have gradually withdrawn from Asian markets. Wemhöner now serves customers there from its Chinese location. Siempelkamp had forged a partnership with the Chinese machinery manufacturer Hapco Machinery to serve this segment of the market in autumn 2010. However, only a few presses were sold in this partnership, meaning that it has since been terminated. As an alternative, Siempelkamp had also reviewed the construction of short-cycle presses at a new facility that it built in Qingdao in 2015, but then ditched this idea.

The number of orders for western-type short-cycle presses placed around the globe has fallen slightly over the past two years, but remains relatively high at about 20 units. In the 1990s and 2000s, up to 40 presses had been sold each year at the peak. Besides the economic slowdown that has emerged in a number of markets and regions and ongoing consolidation within the wood-based panel industry, technical developments have also played a part in the reduction in order numbers. The performance of modern short-cycle presses is much better than older units, meaning that fewer presses are needed to achieve the same output. At the same time, the press concepts and formats have also become more harmonised across the different regions and areas of applications. Examples include greater automation of short-cycle presses, which is to pave the way for a further increase in cycle times. More presses are being fitted with star coolers, which had long only been used in the laminate flooring industry. The dimensions of short-cycle presses used in a variety of markets have evolved towards the formats long used in Central Europe and sometimes in South America in recent years.

The further development of short-cycle press technology has also opened up new applications. Initially only used in laminate flooring, synchronised textures are now used more for laminating furniture board on both sides. More even press distribution is achieved by an increased number of press cylinders. The increase in pressing pressure also allows deep structures to be pressed. Modern units are now designed to have a specific pressure of 400-600 N/cm². High-performance presses already have a capacity of more than 700 N/cm². During the last years even several presses with a pressure of 1,000 N/cm² have been completed. A variety of companies use specially equipped

Former Hymmen Industrieanlagen GmbH exited the short-cycle press business. Hymmen GmbH Maschinen- und Anlagenbau (HMA), founded in February 2016, focuses its press operations on continuous units. (Photo credit: Hymmen)

short-cycle presses to make laminates and compact board too.

Investments in replacing or expanding presses have dominated the European short-cycle press business for some time now. Suppliers believe that a larger number of presses delivered in the 1980s and 1990s might be replaced with more modern short-cycle presses in the years ahead. However, these modernisation projects are tending to go rather slowly in a variety of markets, such as southern Europe. Moreover, there are relatively major variations from one company to another. While for instance Kronospan and Egger have regularly invested in new short-cycle presses, other major wood-based panel manufacturers made their last investments in new technology years ago. Kronospan last commissioned two presses in Chirk in the UK. Egger replaced one short-cycle press each in Rambersvillers, France and in Hexham in the UK; presses have already been ordered for the next investments in new and replacement projects in St. Johann and in Rion de Landes, France. Unilin's Flooring Division will commission a new short-cycle press at its laminate flooring plant in Wielsbeke, Belgium during the autumn.

A few greenfield projects are also in the pipeline in Eastern Europe. Yildiz Entegre has invested in two short-cycle presses in its project to build a new MDF/HDF mill in Pitesti, Romania. Egger will also install two short-cycle presses at the planned particleboard mill in Biskupiec, Poland. On the other hand, markets in Russia and Turkey have been rather subdued for European technology suppliers for some time for financing and economic reasons.

In addition to the new press business, the European market is also seeing technology transfers time and again, many that are connected to modernisation projects. Kronospan has transferred presses of its own or ones that it has bought from other



firms to Eastern Europe in recent years, for instance to Smorgon, Belarus and to Ufa in Russia's Bashkortostan Republic. Unilin had moved one short-cycle press each from its laminating and laminate flooring mill in Wielsbeke to the Bospan particleboard mill over the summer of 2013 and 2014. The Spano particleboard mill in Oostrozebeke installed a second-hand press from the Wielsbeke-Ooigem facility in summer 2016. The Italian company Fantoni acquired three short-cycle presses from the insolvent company Gruppo Trombini at the start of 2016 and restarted one of them in Osoppo during the first half of 2017. Next year, the Turkish group Kastamonu Entegre wants to transfer technology purchased from the insolvency assets of the south-western French particleboard producer Darbo in March 2017, including a short-cycle press, to Kastamonu Bulgaria A.D., based in Gorno Sahrane, Bulgaria.

The North American short-cycle press business has experienced a significant upswing over the past two years. For instance, Clarion Laminates which was acquired by Kronospan a short time later, installed a new short-cycle press in 2015. Three short-cycle presses started operating in rapid succession in the second and third quarters of 2016 at Tafisa Canada, at a particleboard mill in Bennettsville, South Carolina run by Arauco North America and at a particleboard mill in Sayabec,

Quebec operated by Uniboard Canada. In Mexico, Pro MDF and Masisa de México invested in new short-cycle presses as part of MDF projects also completed during 2016. Kronospan commissioned two short-cycle presses set up to laminate laminate flooring in Eastaboga, Alabama during the first quarter of 2017. Unilin installed a new press at its laminate flooring facility in Thomasville, North Carolina in the first half of the year.

Arauco North America will initially invest in two short-cycle presses at its new particleboard facility in Grayling, Michigan. A similar investment has been earmarked by Egger for a particleboard mill planned in Lexington, North Carolina. Funder America ordered a new short-cycle press towards the end of 2016. Over the past few months, two more North American laminating companies have placed similar orders.

Hardly any new projects are in the offing in South America, as is the case for raw board. The last new presses for now were installed during 2015 at facilities in Curitiba, Santa Catarina run by Berneck and at a plant in Uberaba, Minas Gerais operated by Duratex. Three companies – Floraplaç, Asperbras and Placas do Brasil – will each also install a short-cycle press as part of greenfield investments currently in progress. This technology will be delivered by Dieffenbacher, Siempelkamp and Wernhöner. □

Sadara starts PMDI production in Jubail

The joint-venture Sadara Chemical Company commenced commercial production of polymeric methylene di-phenylene diisocyanate (PMDI) at the chemical complex at its site in Jubail Industria City, Saudi Arabia, at the end of May 2017. Sadara claims that Jubail is the first PMDI-production site worldwide which integrates all partial production stages. Production capacity of Sadara's PMDI plant, which was erected as part of the Asset Delivery Group Chemicals II, totals roughly 400,000 t/year. At a later date, a TDI plant with annual capacity of roughly 200,000 t is to be commissioned at the same site. ADG Chemicals II covers not only PMDI and TDI but also various upstream products, including nitric acid (400,000 t/year), mono-nitrobenzene (416,000 t), aniline (316,000 t), dinitrotoluene (250,000 t), TDA (153,000 t) and formalin/formaldehyde (132,000 t). The methanol required for formaldehyde production is sourced from a third-party company at the same site. Licensor of the formaldehyde technology used is Formox, based in Perstorp, Sweden.

In contrast, the PMDI and TDI technology used comes from the joint-venture partner DOW Chemical Company. DOW has until now run three PMDI plants with cumulative capacity of 550,000 t/year and estimates that it is the fourth largest manufacturer worldwide. The Worldsca- le plant in Freeport (Texas, USA), which had been commissioned at the end of 2005, had replaced an existing plant at its site in LaPorte (Texas). DOW's PMDI products are marketed under the brand name, inter alia, isonates. □

Adhesive-resin plant put into operation by Pro MDF

The MDF manufacturer Pro MDF, based in Huimanguillo, Tabasco, belonging to the Mexican company Proteak Uno, put the adhesive-resin plant into operation in the first quarter of 2017. Production has been stepped up gradually since then. The plant was supplied by IFA

Technology of Rain, Germany, which is part of Deurotech Group. The order was placed in November 2013 through Dieffenbacher group as supplier of the total facility. The completion of both the MDF plant and the adhesive-resin plant was subsequently delayed several times. The first board was ultimately produced by Pro MDF in February 2016. In the first quarter, Pro MDF also put a gas turbine for cogeneration into service in Huimanguillo with an electrical output of 9 MW. □

H.I.G. to sell melamine producer Cornerstone



(Photo credit: Cornerstone)

The US private equity company H.I.G. Capital intends to sell the shares held in the US chemical company Cornerstone Chemical Co. of Waggaman, Louisiana, to a company of Littlejohn & Co., which also operates in the private equity sector. Both companies announced on 20 July 2017 that they had signed an appropriate agreement. The transaction has been scheduled to be concluded before the end of August upon fulfilment of the specified conditions precedent. Cornerstone's output at the Avondale-Fortier facility in Louisiana includes melamine, acrylonitrile, and sulphuric acid. Last year, the company which has a total of 460 employees in North America and Europe, also put an ammoniac plant into service with a cooperation partner. Cornerstone Chemical Company B.V., based in Rotterdam, Netherlands, was established some time ago for working the European markets. Buyers in Europe and Russia have been supplied since then either directly from the works in Louisiana or through a distribution warehouse in Newcastle, UK, trading under the name of Cornerstone Chemical Company Ltd,

which was set up at the same time the European distribution company was founded.

H.I.G. Capital had purchased the Building Block Chemicals division of Cytec Industries through Television Acquisition at the end of February 2011, subsequently renaming the activities into Cornerstone Chemical Co. At that time, the purchase price for the activities, which had generated sales revenue of around US\$600m with 445 employees in the business year 2010, was quoted as totalling US\$180m. The melamine plant currently operated by Cornerstone at the Avondale-Fortier facility and geared to an annual capacity of 40,000 t had been run as a joint venture between Cytec and the Dutch chemical group DSM until 1 August 2006. □

IFA Technology expands plant for Kronospan LLC

IFA Technology, based in Rain, Germany, has expanded an adhesive resin production plant run by Kronospan's subsidiary Kronospan LLC in Eastaboga, Alabama and installed a new impregnating resin unit. This contract had been placed last year. As part of the overall project, IFA Technology integrated an existing adhesive resin reaction tank with a volume of about 70 m³ into the complex. Two reaction tanks each with a volume of 30 m³ were added to make impregnating resin. IFA Technology said that the first batch of impregnating resin was made at the start of March.

Two treating lines commissioned by Kronospan LLC in Eastaboga in February 2017 will be served by the new impregnating resin lines. Both of the lines were supplied by Vits Technology. □



(Photo credit: Kronospan)

Arclin sold again to private equity-investor

Private equity company Lone Star Global Acquisitions took over North American resin manufacturer and impregnator Arclin during the course of the first quarter of 2017. This transaction, agreed in mid-January and concluded on 14 February, was handled via LSF 10 Cedar Investments which was founded for this purpose. The sellers were US investment companies Black Diamond Capital Management LLC and Silver Point Capital LP. In the course of reorganisation launched in July 2009 in accordance with the Canadian Companies' Creditors Arrangement Act (CCAA) as well as Chapter 11 of USA Bankruptcy Act, both companies acquired a majority share in Arclin via a debt to equity swap in January 2010. Arclin ensued in July 2007 from the spin-off of the Dynea North America business division from Dynea Chemicals. In mid-July 2012, Arclin also took over the North American companies of Coveright Surfaces Holding. As a consequence, the Arclin

group headquarters were relocated from Mississauga, Ontario, to Roswell/Georgia. In parallel, restructuring measures were also implemented at various Arclin production locations. The company meanwhile operates eleven production locations in the USA and Canada, and the number of employees totals approximately 600.

According to Moody's rating agency, in the twelve months up to the end of September 2016 Arclin generated turnover of some US\$550m. Approximately 60% of group turnover was generated through the ten largest customers, and the three largest customers generated approximately one third of turnover. Supply to these customers is conducted partially via long-term contracts, which are linked to the development of raw material costs through price variation clauses. Some of these contracts expire this year but are to be extended via new negotiations, according to a statement by Arclin. □

OCI Nitrogen's volume of melamine sales up

Following the return of normality to production at the Geleen works last year, the Dutch company OCI Nitrogen raised the volume of its melamine sales in each of the last few quarters quite considerably above those of last year. An interruption occurred in the transition from the fourth to the first quarter, however. The 44,900 t delivered from October to December 2016 was by far the highest volume of quarterly sales achieved by OCI Nitrogen last year. This resulted in a slight increase of 4.9% for the year as a whole to 149,100 t (2015: 142,100 t). 38,400 t (Jan.-March 2016: 31,300 t) were delivered in the first quarter. This equated to a reduction of 14.6% against the fourth quarter but an increase of 22.5% against the same period of last year. This trend persisted in the second quarter; the volume of sales rose by 21.6% to 45,100 t (April-June 2016: 37,100 t). The volume of melamine sales over the whole of the first half-year thus increased

22.0% to 83,500 t (Jan.-June 2016: 68,400 t).

The ongoing positive market development from the point of view of manufacturers also entailed further growth in melamine prices. According to the half-year report published by the OCI on 6 September, the European contractual prices in the second quarter were 8% higher than a year earlier at 1,500 €/t (April-June 2016: 1,390 €/t). The 1,450 € agreed for the first quarter was surpassed by 3%. OCI is working from the assumption that the European melamine market is likely to remain rather tense due to the persisting brisk demand and the downtime for maintenance performed or planned by a variety of manufacturers in the second half-year. OCI believes the extension of the antidumping duty applicable for melamine deliveries from China since 11 May 2011, which came into force on 1 July 2017, will contribute to further stabilisation. □

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Rules to be published in Federal Register before the end of September

Formaldehyde: EPA to extend compliance date by a year until December 2018

The US Environmental Protection Agency (EPA) wants to postpone the deadlines for new rules governing formaldehyde emissions from particleboard, MDF/HDF and hardwood plywood planned in the US by up to a year from the original date, according to a pre-publication notice published on 30 August 2017.

This delay is to take effect upon publication in the Federal Register, which has been slated to take place in the first half of September. Actually slated for 12 December 2017, the date for compli-

The compliance date was originally supposed to be amended to 22 March 2018, under this proposal. With the new rules, the EPA wants to give wood-based panel manufacturers and converters almost nine months' more time.

The transition period for third-party certifiers (TPC) accredited by the California Air Resources Board (CARB), based in Sacramento, California, should run until 22 March 2019 under the dates proposed by the EPA. During this period, testing institutes accredited by the CARB may also provide certifications for the formaldehyde

After several years of preparatory work, the EPA published the final version of the Formaldehyde Emission Standards for Composite Wood Products in the Federal Register on 12 December 2016. Under plans unveiled at that time, the rules, which were to be added as a new Section VI to the Toxic Substance Control Act (TSCA), were supposed to become law on 10 February 2017. This date had to first be postponed to 21 March and then again to 22 May due to an executive order issued by US President Donald Trump a short time after his inauguration. The deadlines for the entry into force of the new emission limits had been left unchanged until that time. On 24 May, the EPA published a direct final rule, which was to push back all of the deadlines by three months. The direct final rule was supposed to take effect on 10 July. However, a fundamental objection was raised during the two-week appeal period so the EPA had to drop the direct final rule and push back to the compliance date to the original timetable.

The limit values for formaldehyde emissions from particleboard, MDF, thin MDF and hardwood plywood as well as semi-finished and finished products made out of these materials, which are manufactured, sold or imported into the US, comply with CARB 2 rules that have applied in California since the start of 2011. From the compliance date onwards, emission thresholds stand at 0.09 ppm for particleboard, 0.11 ppm for MDF, 0.13 ppm for thin MDF and 0.05 ppm for hardwood plywood. Converters may only process wood-based panels adhering to fixed limit values from the compliance date onwards. □



EPA headquarters in Washington D.C.

(Photo credit: EUWID)

ance, documentation and labelling of new formaldehyde emission limits (compliance date) is to be delayed by a year to 12 December 2018. The date for the certification scheme for imported wood-based panels and refined products will move back from 12 December 2018 to 22 March 2019. Special rules for veneered wood-based panels must be complied with from 22 March 2024 rather than 12 December 2023 up until now.

The EPA has thus returned to the dates outlined in a delay announced in the second half of May, which was not implemented after all, for import certification and the rules for veneered wood-based panels.

de emission rules planned nationwide. Once the transition period is over, only testing institutes accredited by the EPA can perform certifications.

In the pre-publication notice, the EPA said that it had decided to push back the dates due to delays that have occurred in recent months that left only a short amount of time to prepare. By setting new dates, government bodies should be given extra time and possible disruptions in the supply chain should be avoided. Nonetheless, the EPA feels that it will be ensured that wood-based panel shipments in the US will switch to products with lower formaldehyde emissions in the foreseeable future.

Background

EPA: Prepublication Notice for Compliance Date Extension

<http://download.euwid-holz.de/173601.pdf>



Wood-based panel industry repeatedly facing shortages in recent months

Higher adhesive resin and PMDI costs making a dent into earnings

Sourcing adhesive and impregnating resin and PMDI adhesive has repeatedly been a source of problems for the wood-based panel industry in the fourth quarter of 2016 and so far in 2017.

Major fluctuations in methanol prices have materialised, which had left their mark on amino resin prices through the sliding-price clauses found in many contracts. Melamine prices, which had not altered much beforehand, have risen almost consistently in the past few quarters. On the other hand, urea prices have been on a downward slide before stabilising at that low level over the summer. Prices then bounced back slightly in the third quarter. Urea-formaldehyde (UF) resin prices have also dipped slightly of late as a result; however, they are still cheaper than in the first and second quarters. The upward trend in PMDI adhesive prices seen since the autumn of 2016 is continuing, although it has slowed of late. Nonetheless, PMDI prices have more than doubled within the span of a year.

Availability was an even bigger issue than the changes in raw material and adhesive costs. The wood-based panel industry had repeatedly faced problems sourcing both amino resins and PMDI adhesive since the autumn of 2016. Major shortages had also occurred at times, especially for PMDI. These supply problems have also trickled down to wood-based panel production through productivity losses and changes in the spectrum of grades.

Production restrictions at BASF that first occurred in autumn 2016 and then re-emerged in January 2017 had led to delivery delays. An explosion in the north harbour meant that the firm had to set up an alternative methanol supply route starting in the middle of October 2016. Additional problems then occurred in December and January because of the unusually low level of the River Rhine, meaning that BASF had

to scale back production significantly at the start of January and then had to declare force majeure for its adhesive and impregnating resin production facility.

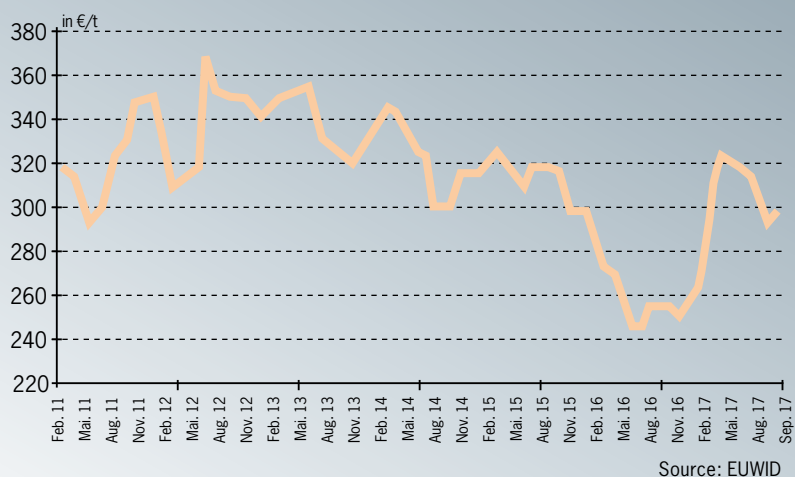
At the same time, other resin manufacturers experienced technical troubles. Particleboard and MDF/HDF manufacturers were thus forced to source some of the amounts they needed from other suppliers and also accepted bigger transport distances in the process. Higher prices charged, especially for spot lots, and additional logistics costs have trimmed earnings in the wood-based panel industry since cost hikes in the first quarter were hardly passed on to selling prices. The supply situation for amino resins has largely returned to normal by the start of the second quarter after BASF lifted the force majeure declaration at the start of February and production problems were resolved at other manufacturers.

On the other hand, PMDI adhesive problems have persisted for almost a year. The first major bottlenecks occurred in October 2016 after several PMDI suppliers experienced major shortages after stoppages in rapid succession. Covestro had decla-

red force majeure for the polyurethane raw materials MDI and TDI on 6 October 2016 after a nitric acid supplier ceased operations. In the same period, Wanhua Industrial Group had several lines go out of service. The restart of these lines and the lifting of force majeure at Covestro in late December had resulted in the situation easing slightly again.

However, relief did not last long. In March and April, several European PMDI manufacturers holding scheduled stoppages for maintenance and another force majeure declaration for shipments from Covestro's Brunsbüttel facility led to more restrictions. Over the summer months, previous technical troubles had been largely resolved, so that PMDI manufacturers are now experiencing more stable output again. Sadara Chemical Company, which commissioned a new PMDI line in Jubail Industrial City, Saudi-Arabia at the end of May, has completed its first test deliveries. Conversely, additional stoppages for maintenance have occurred in the PMDI industry during the third quarter. Insiders in the wood-based panel industry said that the supply situation remains rather challenging. □

EUWID Price watch: UF resins



Sizeable leap in melamine imports from non-EU countries in recent years

Melamine manufacturers see output grow slower than consumption

Melamine consumption has risen by more than 10% in the EU over the past few years.

The five manufacturers based in the EU – Borealis Agrolinz Melamine, OCI Nitrogen, Grupa Azoty Zakłady Azotowe Pulawy, BASF and Azomures – experienced a 2.5% increase in their output over the same period. These companies' sales on EU markets saw a similar growth of 2.3%. On the other hand, imports from non-EU countries surged 55%.

This market data was compiled by the European Commission in Implementing Regulation 2017/1171 imposing a definitive anti-dumping duty on melamine imports from China, which was published on 30 June 2017. In the preceding anti-dumping investigation, the authority analysed production, consumption and

foreign trade data as well as price trends and the impact of Chinese imports on the EU market. The findings of this investigation and the rationale for the decision to maintain anti-dumping duties, which have been in effect since 11 May 2011, were compiled in a 25-page document.

Background

EU-Report on imposing definitive anti-dumping duties

<http://download.euwid-holz.de/172702.html>



EU melamine consumption was calculated by adding up the EU sales of the five manufacturers based in the EU and imports from China and third countries captured in Eurostat data. During the review investigation period (RIP) for the anti-dumping probe, which ran from 1 April 2015 to 31 March 2016, some 392,776 tonnes of

melamine were consumed in the EU, 12% more than 2012's total of 349,464 tonnes.

EU manufacturers have had relatively stable output in recent years amidst unchanged overall capacity of 479,120 tonnes per year. Output was at its highest in 2014 with 391,761 tonnes. EU melamine production dipped slightly in 2015 and during the RIP, something that the European Commission blamed on stoppages for maintenance and the shutdown at OCI after a fire. Nonetheless, a slight increase in production has materialised over the past few years. Capacity utilisation hovered between 76% and 82%. EU manufacturers' sales within the EU had dropped slightly in 2013, but have since staged a gradual recovery. However, the upswing in sales was much smaller than market growth, meaning that EU producers' share of the overall market fell from 81% in 2012 to 73% during the RIP.

EU: Development of melamine market

in tonnes	2012	2013	2014	2015	RIP ¹⁾
EU manufacturers					
Capacity	479,120	479,120	479,120	479,120	479,120
Production	365,245	383,215	391,761	377,539	374,540
Sales within the EU	269,154	265,738	270,175	271,581	275,365
Stocks ²⁾	23,194	26,792	26,470	14,924	12,995
Imports	67,710	77,009	79,728	94,002	105,008
Qatar	24,142	21,116	29,195	23,516	29,929
Russia	461	10,830	15,573	15,902	15,951
USA	10,870	15,031	15,037	15,496	11,636
Trinidad & Tobago	26,283	3,925	3,940	8,308	9,368
Japan	282	241	1,637	4,349	8,292
Others	4,360	17,105	7,761	17,447	21,894
Total (without China)	66,397	68,247	73,142	85,018	97,070
China	1,313	8,762	6,586	8,984	7,938
Consumption	349,464	356,552	365,684	381,141	392,776

1) 1 April 2015-31 March 2016 2) At the end of the period under review

Source: EUWID according to data provided by the EU Commission

Imports from China had collapsed to 1,313 tonnes in 2012 after anti-dumping duties were imposed in 2011. They then evened out at a much higher level from 2013 onwards. Some 7,938 tonnes was shipped from China to the EU during the RIP; the market share had fallen to 0.4% in 2012, but improved to 2.0%. Imports from third countries soared 46% from 2012 to the RIP to land at 97,070 tonnes, while their share of the total EU market improved from 19% to 25% in the same period. Overall imports thus leapt 55%. Qatar has been the biggest supplier since 2013; 29,929 tonnes was shipped to the EU from this country during the RIP. Trinidad & Tobago, which led the way in 2012 with 26,283 tonnes, dropped to fourth place with 9,368 tonnes. Russia hardly played a role in 2012, but passed the 10,000 tonnes mark in 2013 and exceeded 15,000 tonnes in 2014. Imports from Russia have not altered much since then. The EU sourced 11,636 tonnes from the US and 8,292 tonnes from Japan. □



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Norbord has so far invested US\$88m in Inverness

By the end of the second quarter of 2017, Norbord had spent a total of US\$88m of the budgeted US\$135m for the OSB replacement investment project planned for the Inverness-Morayhill facility. US\$33m is allotted to last year and US\$55m to the current year. US\$31m of this year's investment budget was used in the first quarter and US\$24m in the second. The bulk of the remaining US\$47m is to be invested by the end of the year. The company says the entire investment is being funded with existing cash resources, the current cash flow, and existing lines of credit.

The main items of plant and machinery have been installed until summer. The company had last been aiming for a start-up in the second half of the year. During the telephone conference for presenting the business figures for the second quarter, CEO Peter Wijnbergen described a production start by October as possible. According to branch information, the first board has been produced on September 16.



(Photo credit: Dieffenbacher)

In addition to the Inverness project, Norbord also wants to invest a total of US\$120m this year. At US\$63m, a little over half of this had been spent by the middle of the year. US\$29m was allotted to the first quarter and US\$34m to the second. The biggest individual project is the preparatory work for resuming operation at the OSB plant in Huguley, Alabama. The board of directors had already approved a total of US\$45m for this project in November 2013. Around US\$15m had been invested in Huguley by the end of 2016; the remaining US\$30m is included in this year's budget. US\$23m of this had been spent by the end of June. The progress achieved in the project to date could enable the Huguley works to be put into service during the course of the fourth quarter and be gradually run up to speed in the first quarter of 2018. □

LP to acquire International Barrier Technology

The US-American OSB producer Louisiana-Pacific aims to take over all shares in International Barrier Technology, a manufacturer of fire-resistant surface coatings headquartered in Watkins, Minnesota. The technology developed by Barrier involve a Pyrotite coating applied as a liquid on OSB surfaces and is used exclusively by the Kronospan Group in the EU and in Russia on the basis of a licence agreement concluded in 2013. Kronospan applies the Barrier technology to fire-resistant OSB marketed under the brand name OSB Firestop ECO. Louisiana-Pacific had already concluded an exclusive agreement for the North American market with Barrier in 2010. Products manufactured using the Barrier technology are sold under the brand name LP FlameBlock. In the initial phase, Barrier had coated OSB supplied by Louisiana-Pacific at its site in Watkins. With the commissioning of a coating line in the OSB plant in Thomasville, Alabama, Louisiana-Pacific itself entered into production in 2016. Parallel to that, the company also started to use the technology on I-joists. This means that more than 75% of Barrier's turnover are now accounted for by Louisiana-Pacific.

According to the agreement signed at the end of July, Louisiana-Pacific will take over all shares in Barrier. The purchase price was set at US\$22m. Following receipt of all approvals, the transaction is to be completed by the end of the year. Barrier will subsequently be managed as a 100%-subsidiary of Louisiana-Pacific and become part of the OSB division. Supply agreements already concluded by Barrier are to remain in place after the change of ownership. □

Russian firm MLT to invest in second OSB plant

With the building of a new plant in Oblast Sverdlovsk on the eastern perimeter of the Urals, Modern Lumber Technologies (MLT) plans to further expand OSB production capacity in the medium term.

In mid-April 2017, MLT CEO Iosifovich Ebralidze and the governor of Oblast Sverdlovsk, Evgeny Vladimirovich Kuyvashev, had signed a statement of intent to build a new timber-industry complex. In a first investment phase, an OSB plant with annual capacity of roughly 300,000 m³ is to be built at the site.



(Photo credit: Dieffenbacher)

MLT entered OSB production for the first time with the commissioning in July 2016 of a plant erected at the Torzhok site in Oblast Tver. MLT claims that the production line currently boasts annual capacity of roughly 500,000 m³. OSB production at MLT has been allocated to the Taleon Arbor business division, which had been newly created for that purpose. The Taleon Terra division has been running a continuous LVL line at the Torzhok site since 2008. Production capacity is quoted so far at 150,000 m³/year, but in the medium term is to be increased to roughly 250,000 m³/year.

For the Urals region, OSB projects had already been presented on numerous occasions in recent years. At its site in Ufa, Republic of Bashkortostan, the Kronospan Group is currently erecting an OSB plant which is to be commissioned at the beginning of 2018. In the spring of 2013, the Swiss Krono Group had announced an OSB project for Russia and in September 2013 selected a site in Krasnokamsk, Perm region. At that time, commissioning had been scheduled for mid-2015. However, the project was subsequently postponed and has never been revived. □

Forex wants to commission Amos OSB mill in summer

The Canadian LVL producer Forex Amos, based in Amos, Québec, has installed a new OSB production line at its head-

quarters. The company had acquired the old Amos LVL mill in January 2015 and restarted operations there in September 2015. Preparatory work to add an OSB production line to the mill then began. Assembly work using several second-hand plants commenced in the first half of 2016. Forex had purchased a multi-opening press with an annual capacity of 410,000 m³ during 2014. Dieffenbacher had delivered this technology to Venezuela in 2001. However, the project was ditched before the plant started operating because of a lack of funding. The stranders came from an old OSB mill in Wawa, Ontario that had been run by Weyerhaeuser. This mill had been closed in December 2007 and was sold to the pellet producer Rentech in 2013. In some cases, new systems complemented some of the second-hand technology that Forex acquired for the OSB project. For example, the firm ordered two drum dryers from the Siempelkamp subsidiary Büttner in the second quarter of 2016. □

Hess France has been taken over by G Group X

In the second quarter of 2017, the French company G Group X, headed by the French industrialist Christophe Février, completed the takeover of the plywood producer Hess France, based in Châtillon-sur-Seine, Côte-d'Or. Three independent French companies have until now operated under the umbrella of the Hess holding company. These were Regnier S.A.S. in Clairvaux, Aube, and Cardineau S.A.S. in Bouillé-Courdault, Vendée, which both produce moulded-plywood parts for the furniture industry, and Etablissements Fernand Brugère, which manufactures peeled-beech veneer and beech plywood at its site in Châtillon-sur-Seine.

According to information from the French information service Societe, management at Cardineau and Regnier had already been transferred from the former CEO Franz Hess to Février on 22 April, while the change at Brugère and Hess France was carried out on 10 May. In the 2016 financial year, Hess

France's three companies generated cumulative turnover of €18.0m (2015: 17.3m).

In the wood sector, through its own subsidiary Leroy Industries Magenta, Février had already taken over the poplar-plywood plant of the insolvent Plysol International in Épernay, Marne, in June 2013. Following investments totalling €2.6m, production of peeled veneer there had been started up again in January 2014. □

Thébault and Drouin investing in veneer works



(Photo credit: Raute)

The two French plywood manufacturers Groupe Thébault of Magné and R. Drouin S.A. of Mézières-sur-Ponthouin are currently investing in the construction of a joint poplar-veneer production line in Marigny-le-Châtel in the western Champagne region. Thébault holds a 70% share in the joint venture and Drouin the remaining 30%. The new company trades under the name of Bois Deroules de Champagne (BDC). As the planning stands at the moment, the works is scheduled to begin operation in the second quarter of 2018. The estimated cost of the investment amounts to around €8m. In a first step, Thébault purchased a roughly 4 ha plot of land including 7,000 m² of roofed buildings last February. Major building work was not required at the site. Delivery of the required machines is scheduled from October 2017. These include a debarking unit made by Holtec and a rotary cutter from the Finnish machine-engineering company Raute. A used conveyor dryer from Grenzbach BSH is apparently being installed as well. The works in Marigny-le-Châtel will have a processing capacity of up to 75,000 m³ of poplar logs; this equates to an annual

production capacity of some 30,000 m³ of veneer. The dried poplar veneers will be processed into plywood at the two joint-venture partners' main facilities in Magné and Mézières-sur-Ponthouin. □

Metsä begins building work for plywood plant

The „Metsä Wood“ division of Metsä Group began building its new birch plywood works in Pärnu, Estonia, in late August. The contract for setting up the roughly 29,000 m² production complex and an administrative building has been awarded to the Estonian construction company Nordecon of Tallinn. The works, geared to an annual capacity of around 50,000 m² is scheduled to commence operation at the end of 2018. The investment is estimated to a total cost of around €55m.

Metsä Wood has been planning to build a plywood plant in Estonia since the middle of 2016. The company had secured an option to buy a 10 ha plot of industrial land in Pärnu in October 2016. The final acquisition of the land was announced in mid-April 2017. The order for the production facilities required for the project was placed with Raute at the beginning of November 2016. The investment project in Estonia is part of a more broadly spread investment programme costing a total of around €100m, which also provides for measures such as updating the LVL production plant in Lohja, Finland, and the construction of a veneer facility in Äänekoski, Finland. The veneer produced in Äänekoski is to be processed into plywood in Pärnu in future. Metsä Wood intends to relocate a plant from the Finnish plywood plant in Suolahti to Pärnu for this purpose. □



(Photo credit: Metsä Wood)

European manufacturers eyeing additional price increases in the fourth quarter

Strong demand and production stoppages creating shortages on the OSB market

The upward trend seen on Central European OSB markets since March has tended to pick up the pace over the course of the third quarter.

Demand has strengthened further in all relevant sales markets. Several OSB manufacturers noted that both specialist merchants and DIY chains had ordered extra amounts to safeguard supply. Demand from the pre-fabricated building industry remains brisk, although growth rates are not quite as high as in business with retailers because capacities have long been running close to full speed. Business with the packaging industry is also faring well.

OSB producers have seized upon improving workloads to optimise how they serve different sales segments based on their respective profitability. In particular, manufacturing of specialty packaging grades and of OSB/2 was scaled back to provide additional amounts of OSB/3, which is selling at better prices. Similar restrictions have been put in place for OSB/4.

The supply situation on Central European OSB markets, which has already been

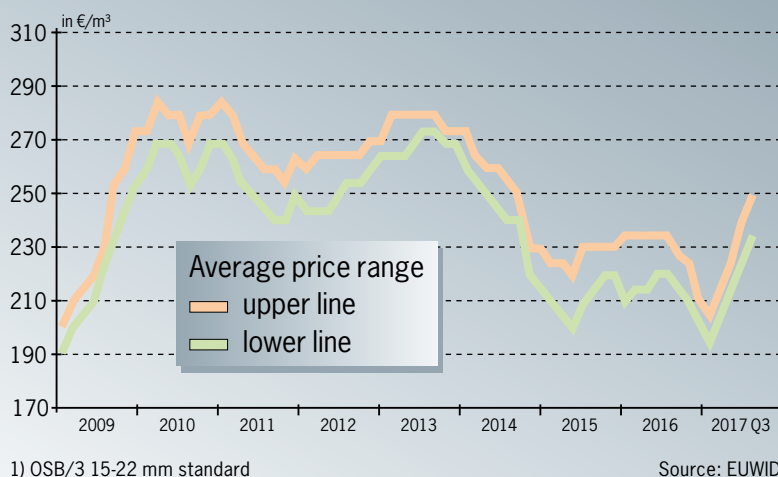
strained for some time, has deteriorated during August and September after two mills had to shut down production after a fire. Another OSB mill did resume production in the second half of August after a stoppage lasting almost four weeks. The company held this stoppage in response to ongoing supply problems for PMDI adhesive. PMDI shortages and production changeovers undertaken in response by many European OSB producers are also leading to a decline in output. The supply situation for PMDI adhesives has only eased in places during August and September. The OSB industry believes that a fundamental improvement has not emerged to date. Mixed gluing, which has been practiced by a number of mills for some of their output since the second quarter, with PMDI in the core and MUF adhesive in the outer faces is thus continuing. At the same time, portfolio restrictions are continuing. Several producers have also scaled back OSB/4 production or have even ceased manufacturing of this product altogether since the second quarter. The availability of OSB/4 has deteriorated as a result.

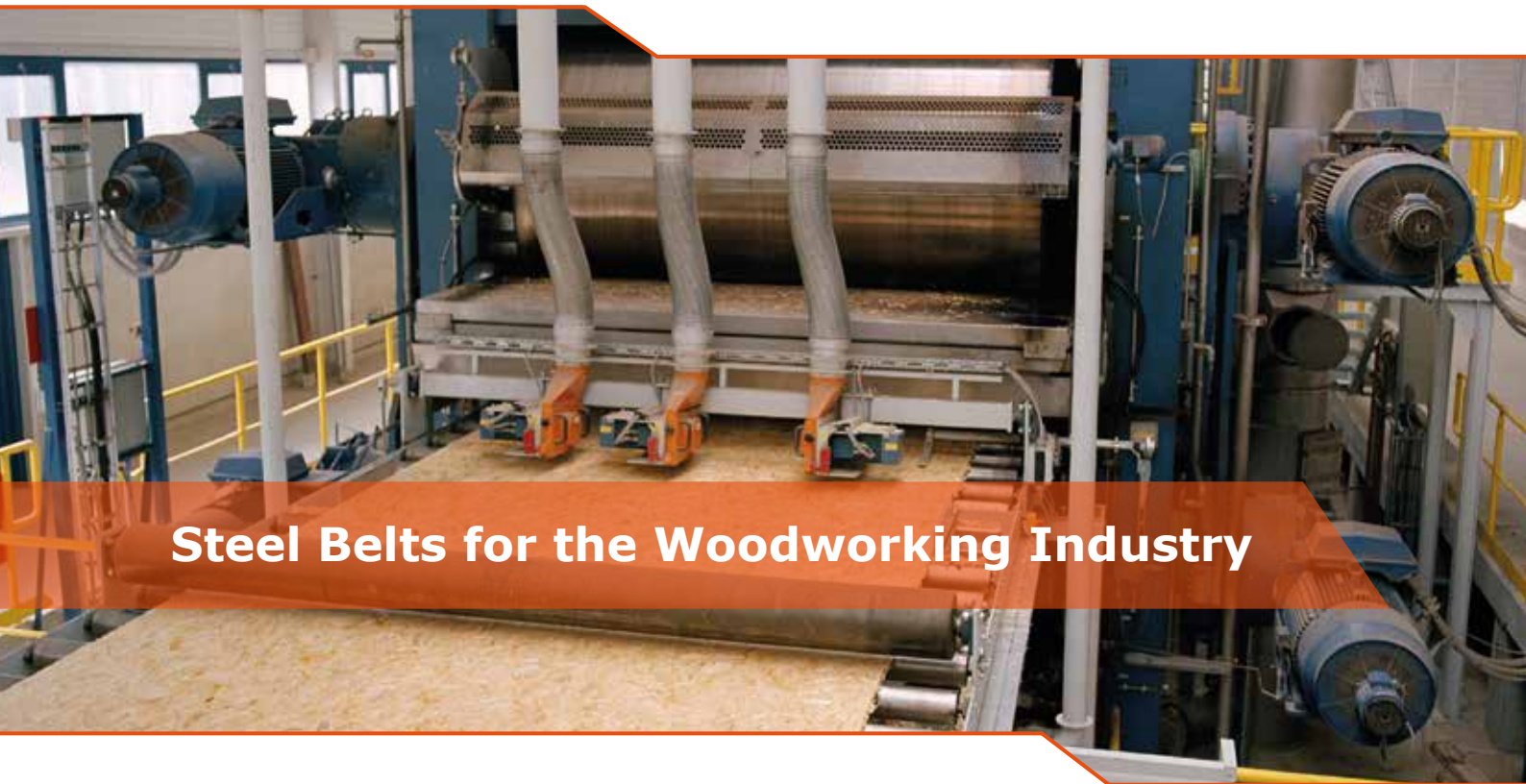
The unscheduled stoppages have combined with seasonally stronger demand after the holidays to create supply bottlenecks within a short amount of time due to relatively lengthy order backlogs in the Central European OSB industry over the past few months. Most producers are relatively busy, meaning that they are focusing on supplying existing customers.

Major merchants are also reporting virtually no opportunities to source extra amounts of OSB outside Central Europe. The start-up of a continuous production line at the plant in Inverness-Morayhill run by Norbord Europe, based in Cowie, UK, in September will mean that additional OSB will enter the market in the medium term. What is more, Eastern European OSB manufacturers want to ship more to Central and Western European markets. Manufacturers cautioned that these extra amounts will not be available for a few months at the earliest. The situation is thus not expected to ease any time soon, especially as buyers affected by the bottlenecks will likely make covering purchases in the weeks ahead. The extra enquiries are overlapping with already good demand in Germany, Austria and Switzerland and on export markets. Several OSB manufacturers have now scaled back exports a little to provide extra amounts to serve buyers in Central Europe. However, businesses have made it clear that these reallocations are only being performed depending on margins. Lucrative exports continue to be undertaken in full.

At the same time, OSB producers want to use the strained supply situation in Central Europe to improve their margins. After raising prices at the start of the third quarter several companies have announced and partly implemented additional hikes for deliveries from September or October onwards. Buyers also said that there is little scope for negotiation due to the strained supply situation. □

EUWID Pricewatch: OSB Germany ¹⁾





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Start-up of Metsä and Steico production lines / Large greenfield project at Roseburg

LVL production capacities to be further expanded in Europe and North America

Expansion of production capacities for laminated veneer lumber (LVL) is continuing in Europe and also in North America.

In Europe the companies Pollmeier Furnierwerkstoffe, Steico and Stora Enso commissioned and gradually started up new LVL plants from 2014 to 2016. The Pollmeier plant in Creuzburg, which focusses on processing of beech timber, was started up in March 2014. When the continuous production line was put into operation, however, there were then several delays, and the stated capacity of 160,000 m³/year has not been achieved so far. At the beginning of July 2015, Steico produced the first board on its multi-opening press line at the Czarna Woda plant, which has a capacity of 80,000 m³. Following completion of the optimisation phase, it went into regular operation at the beginning of 2016. By the end of 2016 Steico had increased LVL production to 68,976 m³ (2015: 6,360 m³).

Stora Enso commenced LVL production with the commissioning of a multi-opening press line in Varkaus, Finland, in

June 2016. The full production capacity of some 100,000 m³/year is expected to be reached by June 2018, according to the company.

Over the course of the last two years, Russian Modern Lumber Technologies (MLT) has increased the capacity of its continuous LVL line, which was commissioned at the Torzhok, Tver plant over the course of 2008, from a previous 120,000 m³/year to some 150,000 m³. On the medium term, the company is maintaining its expansion plans of some 250,000 m³/year, which were announced a few years ago but have meanwhile been postponed.

By means of the three new investments and the expansion at MLT, European LVL capacities increased by a total of some 370,000 m³/year by the end of 2016. These capacities are gradually being introduced to the market over a longer period of time through the start-up of the plants, which in some cases remains significantly behind the original schedule. Over the course of the third quarter of 2017, two further projects

were concluded in Europe via which a further 100,000 m³/year will be introduced to the market in the medium term.

The Metsä Wood business division of Finnish Metsä Group set up a new LVL production line at its Lohja plant over the course of the first half of the year. The installation work was largely completely by the end of May. Pilot operation commenced in June, and regular production has been running since August. The new production line is to replace two of the three former lines. The oldest line had been decommissioned and dismantled at the end of November 2016. Production continued on the other two lines during the construction phase. When the new production line has reached full capacity, the second-oldest line is also to be decommissioned. In future, Metsä Wood will therefore operate just two production lines for Kerto-LVL in Lohja. Production capacity, nevertheless, is to increase by some 20,000 m³/year to some 120,000 m³.

In addition to the replacement investment in Lohja, Metsä Wood is currently investigating whether to construct a new production line for the LVL sold under the name Kerto at the Punkaharju plant. The company intends to make a final decision on the investment this year. The current plans expect an annual capacity of some 65,000 m³. If the decision is made to invest in the production line, it would be commissioned over the course of the first half of 2019.

Steico produced the first board on its second LVL line constructed at the Czarna Woda plant in mid-September. Commis-



In 2006, Dieffenbacher supplied a continuous LVL-line to Pacific Woodtech. This year Roseburg Forest Products placed an order for the world's largest continuous LVL press. (Photo credit: Dieffenbacher)

sioning has therefore taken place two months earlier than originally planned. Regular operation is to commence over the course of the first half of 2018. The LVL capacity of the plant is to be doubled to 160,000 m³ through the new production line.

North American LVL capacities over the course of the last two years have predominantly increased due to the re-commissioning of production lines, which had previously been decommissioned for an indefinite period. At the end of March 2016, Boise Cascade took over from Georgia-Pacific two plants which focus, for example, on LVL production - Thorsby, Alabama, and Roxboro, North Carolina. Subsequently, the company re-commissioned the first of two LVL lines in the Roxboro plant, which had been decommissioned by Georgia-Pacific in November 2008 for an indefinite period. The second line is to be re-commissioned over the course of the second half of 2017. According to Boise Cascade, the plant has an LVL capacity of 5m ft³/

annum, or 140,000 m³/year. A further 4m ft³ (110,000 m³) can be produced in Thorsby.

In the second half of 2015, Canadian Forex recommissioned LVL production at the Amos plant in Quebec, which was taken over in the course of bankruptcy proceedings. Commercial production was commenced at the end of January 2016. The company intends to produce some 2 m ft³ (55,000 m³) LVL at the plant in future.

The next largest new LVL investment in North America is being made by Roseburg Forest Products. The company intends to invest a total of US\$200m in the construction of a new LVL plant in Chester, South Carolina. According to the company, the world's largest continuous LVL press so far in terms of production capacity is to be installed at the plant. The plans were presented in July 2017, and a short time later the first orders for equipment were also placed. Raute is supplying a high-performance veneer lay-up line. The press

and stacking system areas have been awarded to Dieffenbacher. This order includes a microwave preheating system with an output of 660 kW, a 4 ft x 65 m CPS press with a capacity of 800 m³/day, as well as the stacking system. Construction of the new plant is currently scheduled for the beginning of 2018. After commissioning of the new line, which is planned for summer 2019, Roseburg intends to employ a total of 148 people at the new facility.

This investment means Roseburg will also expand the engineered wood products (EWP) division in the South-East of the USA for the first time. In addition to low raw material costs, sales logistics also played a role in deciding on a location according to the company. The EWP customers in the South-East of the USA have so far been supplied from the Riddle plant in Oregon. The LVL plant at this facility, which was started up in 2001, has an annual capacity of some 7.2m ft³, or 200,000 m³, according to Roseburg. □

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Chinese SciSky enters into particleboard production

Chinese company Nanning Shuixin Kietien (SciSky), which has so far predominantly worked in the areas of interior decoration and varnish/paints, intends to start up production of particleboard over the coming year, with a production line supplied by Siempelkamp. The contract, which was signed over the course of the third quarter of 2017, includes the front-end with size reduction technology, screening/sifting and resin blending system, a forming and press line with an 8 ft x 30.5 m ContiRoll press, a cooling and stacking line as well as a storage system. Siempelkamp subsidiary Pallmann is supplying five knife ring flakers, two surface layer mills, and one sanding robot for the project. CMC Texpan is supplying the screening machines for dry chips, two sifters for surface and core layers, and the resin blending system. SciSky intends to operate the particleboard production predominantly with formaldehyde-free resins, according to Siempelkamp. The new production line is to be constructed at the location in Wuming, Guangxi province, at which SciSky already produces furniture. Assembly is to commence in May 2018 and commissioning is scheduled for October 2018. □

Rauch Spanplatten line to move to the Middle East

An old line run by Rauch Spanplatten, headquartered in Markt Bibart, that closed permanently in January 2016 when a new production line was commissioned, is to be shipped to the Middle East over the coming months. The company had commissioned Modul



(Photo credit: Valmet)

Systeme Engineering, which is based in Laufen and part of the Andritz group, with finding a buyer back in 2015. The contract for the sale was inked by the end of 2016. SGS Industrial Services, headquartered in Dorf an der Pram, Austria, was then given the contract to dismantle the continuous press delivered in 1991 by Küsters and the associated peripheral technology. The parts are to be shipped before the end of the fourth quarter. □

Wilsonart TFM capacity further enlarged with KML



(Photo credit: Siempelkamp)

The US laminates manufacturer Wilsonart International Holding took over the laminating company Kustom Material Laminators (KML) of Tacoma, Washington, at the beginning of September 2017. At its headquarters in Tacoma and in Stockton, California, KML operates two production facilities with a total of roughly 100 employees. Under the „KML Design Finishes“ brand, the company currently produces and distributes a standard collection of laminated wood-based panels, which is also to be continued after the takeover. Wilsonart's intention is also to use KML's direct laminating resources to further extend the „Coordinated Surface Programme“ launched in 2014.

The takeover of KML is Wilsonart's third acquisition in the TFM sector since mid-2016. The Australian laminating company Kara Board of Somerton, Victoria, has belonged to Wilsonart since the end of July 2016. Wilsonart also invested in thermally-fused laminate capacity of its own in North America for the first time with the takeover of the laminating plant in Oxford, Mississippi, from Roseburg Forest Products in February 2017. This plant had been closed down indefinitely in December 2015. □

India: Centuryply's MDF production now underway

The Indian plywood and laminate manufacturer Century Plyboards (Centuryply) of Kolkata, West Bengal, produced the first panel at its new MDF works at the Hoshiarpur facility in Punjab on 29 July 2017. Since then, the company has been ramping up the output of the production line, geared to an annual capacity of almost 200,000 m³, according to plan. The continuous press for the facility was supplied by the Chinese company Dunhua Yalian. Andritz received the order for supplying the refiner. Centuryply is aiming to achieve a capacity utilisation rate of 60% at the plant over the whole of its 2017/2018 business year. Marketing of the boards has begun in September.

The company has so far spent INR3.183bn on building the new works. According to the investment planning presented by Centuryply at the presentation of its business figures for the first quarter, no further expenditure is planned before the end of the business year. This would put the total cost of the new production plant well below the originally budgeted figure of INR3.800bn. Centuryply says another stage in the investment project will involve adding processing capacity to the MDF line. □

CalAg to produce MDF from rice straw in California

Through its subsidiary CalPlant I LLC, the Californian company CalAg LCC intends by the end of 2018 to erect an MDF plant at the site in Willows, California, where exclusively rice straw will be processed. Financing of the quoted investment sum of US\$315m had been secured in the spring. Following conclusion of project financing, CalAg ordered a complete MDF production line from the Siempelkamp group. The contracts were signed on 14 June 2017. Siempelkamp reports that the order has a total worth of roughly €75m and covers all of the main line components.

Two refiners and lines for the treatment of rice-straw bales will be supplied by

Classen explores increasing its HDF capacity

The Classen group, based in Kaisersesch, Germany, wants to safeguard substrate supply to its laminate flooring mill in Baruth, Germany, which does business as Classen Industries GmbH. It intends to do so by increasing its MDF/HDF capacity in the medium term. The company has been exploring its options for some time. Besides expanding or modifying the existing MDF/HDF line, other options include building a second production line in Baruth or making a greenfield investment

line is already largely owned by Classen. The firm contacted potential technology suppliers during the second quarter. It will next award a planning contract for the project. Classen intends to submit the required permit applications based on this project planning information. It had already made initial contact with competent authorities over the past two years.

The group said that the Classen Industries' laminate flooring mill now has a ma-

2.0 design flooring over the past three years. Upstream products needed to produce Neo, especially Ceramin substrate, are made in Kaisersesch. Classen put its current manufacturing capacity at about 7m m² per year.

Classen's goal of making up to 90m m² per year at the Baruth laminate flooring mill in the medium term will require almost 700,000 m³ per year of substrate based on an average laminate flooring thickness of 7 mm and a wastage and reject rate of 8-10%. Commissioned in August 2007, the MDF/HDF mill run by Fibreboard Baruth GmbH (FBB) has an annual capacity of approximately 550,000 m³. According to the latest published figures, the company had an output of 537,500 m³ in 2015. Including additional production increases at the laminate flooring mill and potential changes in the spectrum of laminate flooring made, there will be demand for about another 150,000-200,000 m³ per year in the medium term.

Classen already has to meet a portion of its demand for substrate by making external purchases. All of the products made by its own MDF/HDF mill are used for in-house laminate flooring production. External deliveries come from other MDF/HDF producers and a plant run by its neighbour Pfleiderer Baruth GmbH, which was originally built in a partnership between Classen and former Kunz Holding, which Pfleiderer acquired in 2005. Classen has also recently purchased HDF outside Germany of late owing to the rather strained supply situation on Central European HDF markets over the past few months; the firm procured HDF from countries including Russia. □



HDF plant of Fibreboard Baruth

(Photo credit: Classen)

at a new location. There appears to be a fundamental preference for extending the Baruth complex. By opting for this solution, Classen could make use of existing infrastructure and reserve capacity, for instance in wood chip production. The land needed to install a second MDF/HDF

manufacturing capacity of about 85-90m m² per year with investments gradually made in expanding capacity in recent years, making it the world's biggest site integrated across all production stages, according to Classen. The Kaisersesch facility switched entirely to making Neo

Pallmann. The intermediate cleaning line, with which, inter alia, silica is to be ejected from the straw, has been developed by Siempelkamp. Büttner will deliver the energy plant and a gas-heated fibre dryer with drying capacity of 32 t a.d./hour. PMDI gluing and the forming station will be supplied by CMC Texpan. The press used will be a ninth-generation, 10 ft x 35.4 m ContiRoll press, which can produce panel widths of between 8 ft and 10 ft. Final

finishing includes a diagonal rip-cut saw, the sanding and stacking line and a fully automatic storage system.

The new plant is to be constructed on a 273-acre site in Willows, Glenn County, which had already been acquired by CalPlant in April 2008. The site is located in Sacramento Valley, which is the largest rice-growing region in California. The 275,000 t of rice straw required for planned annual production are to be supplied by rice farmers from

Sacramento Valley and stored at the plant after harvesting. For that purpose, CalPlant I will create storage facilities for up to 325,000 bales of rice straw. CalPlant and Siempelkamp state that the guaranteed capacity of the planned line is 112m sqft (basis ¾"), or roughly 200,000 m³ per year. In the medium term, the plant is to reach annual capacity of roughly 140m sqft, or 250,000 m³. Commissioning is scheduled for the end of 2018.

Pfleiderer: Growth in production and sales

Pfleiderer Group raised its production and sales across almost all product groups during the first half of 2017 compared to the prior-year period. Growth rates were even better than in the full 2016 financial year in most cases. At that time, raw particleboard production was 2.7%

In its first-half report Pfleiderer announced a 7.8% growth in raw particleboard production to 1.665m (Jan.-June 2016: 1.545m) m³. Out of this total, 991,000 m³ was produced in Core West and 674,000 m³ in Core East. Raw MDF/HDF production climbed 9.1% to 289,000 (265,000) m³,



Pfleiderer's particleboard mill in Neumarkt

(Photo credit: Dieffenbacher)

higher and laminated particleboard output had risen 4.2%. On the other hand, MDF/HDF production dropped 6.0%, mainly because of capacity utilisation problems at the thin particleboard mill in Grajewo, Poland. Sales volumes also headed in mixed directions in 2016; a growth in particleboard, laminate and element sales contrasted with a downturn in MDF/HDF sales.

broken down into 181,000 m³ in Baruth and 108,000 m³ at the Grajewo thin particleboard plant. Overall laminated board production increased by 6.2% to 56.421m (53.119m) m². Facilities in the Core West division laminated 35.170m m² of board. The Core East division produced 21.251m m² laminated boards.

The second quarter ended with a growth in sales volumes across all pro-

duct groups apart from laminated MDF/HDF, continuing the trend witnessed in the first quarter. Pfleiderer sold 551,202 (506,163) m³ of raw particleboard from January to June – an 8.9% improvement. Raw MDF/HDF sales were 9.6% higher at 198,312 (180,979) m³. Laminated particleboard sales improved 6.3% to 52.899m (49.780m) m², while laminated MDF/HDF sales were down 2.8% at 1.649m (1.697m) m². HPL sales climbed 3.4% to 6.064m (5.863m) m². The first-half report does not list sales figures for HPL elements and lacquered MDF/HDF.

The Pfleiderer Group invested a total of €20.6m in the first half of this year, up from €15.8m one year earlier. The company has budgeted for investments of about €60m for the 2017 financial year. The single-largest projects are a new sanding line and waste wood preparation systems at the Neumarkt particleboard mill and a HotCoating unit in Leutkirch. The sanding line, which involves an investment of €6.2m, was to be commissioned before the end of August. The €9.6m project to expand waste wood processing is to be completed by the year's end. Start-up of the HotCoating unit – the biggest single project with a budget of €12.6m – is scheduled for the first half of 2018. The expansion of its high-gloss and matte surface portfolio is to contribute €8.4m to annual EBITDA in the medium term. The upgraded waste wood processing system is to add €5.0m per year, with €2.0m per year anticipated from the new sanding line. □

Partners in CalAg, which had been established in January 1997, are MDM CalAg Limited Partnership with 32.2%, the Gallo Family Trust with 5.7%, Mark Mushro with 5.6%, Gerald Uhland with 5.3% and the Susan Boyd Trust with 5.0%. The remaining 46.2% are in spread holdings with smaller investors. All shares in the project company CalPlant I LLC, which had been established in February 2008, had initially been held by CalAg. With the issue of the corporate bond, the shares were transferred to CalPlant I Holdco LLC. Shareholders in CalPlant I Holdco LLC

are Occator Agricultural Properties LLC1 (32.95%), CalAg (27.92%), Columbia Forest Products (18.53%), Siempelkamp Maschinen- und Anlagenbau GmbH (4.12%) and other investors (16.47%). □

West Fraser recommissions Quesnel MDF plant

In March 2017, following a shutdown of roughly one year, the Quesnel MDF plant in British Columbia of the Canadian

company West Fraser, which had been damaged at the beginning of March 2016 by an explosion and subsequent fire, was re-commissioned and has since then been started up in stages. The repair work had lasted a great deal longer than originally expected and the date of recommissioning had repeatedly been postponed. In October 2016, the company had still been assuming that production would resume at the beginning of 2017. The postponements were partly explained by the complicated installation of fire-protection facilities.

With the plant in Quesnel trading as West-Pine and the Whitecourt plant in Alberta trading as Ranger Board, West Fraser operates two MDF plants with cumulative capacity of roughly 500,000 m³/year. □

Asperbras schedules MDF works' start-up

The Brazilian conglomerate Asperbras intends to conclude the ongoing construction of an MDF line in Água Clara, Mato Grosso do Sul, at the beginning of next year. The date the company has scheduled for the opening of the facility trading under the name of Greenplac is 8 January 2018.

According to information from Asperbras, the investment project costing a total of BRL300m has been 65% complete in August. The above and below-ground building works as well as the construction of the infrastructural systems have already been finished. The installation of the mechanical



(Photo credit: Siempelkamp)

components of the MDF plant is underway at the moment, the capacity of which Asperbras is meanwhile quoting as 250,000 m³ per year. Initial plant trials are scheduled for November. Once the production line is up and running, its output is to be ramped up until April 2018. Asperbras is planning to create a total of 200 direct jobs at the facility by then. The company says the MDF output is to be supplied mainly to the Brazilian furniture industry.

This latest date given for the company's debut in wood-based panel production constitutes another delay in the original timeframe. The company had originally been assuming the start-up would take

place in the first half-year 2017. The contract for supplying the complete MDF production line was awarded to Siempelkamp in the first quarter of 2014. □

Panneaux d'Algérie to start producing panels

The Algerian conglomerate Big Star is planning to start producing MDF with the newly-founded subsidiary Panneaux d'Algérie during the course of the next two years. Besides activities in a variety of other areas, Big Star is currently importing wood-based panels as well.

The ideas that the company has had about setting up a production company of its own for four years or so took on concrete shape when it ordered a complete MDF plant from Shanghai Wood-Based Panel Machinery (SWPM), owned by Dieffenbacher in June 2017.

SWPM will supply the sections located upstream and downstream of the press;

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the order covers the wood preparation section, the refiner, dryer, forming station, forming line, the entire finishing section with a diagonal saw, cooling star, stacking unit, and a short-cycle press. A 6 ft x 14.5 m CPS+ made at Dieffenbacher's main plant in Eppingen will be used as a continuous press.

The machines are to be supplied starting from the second quarter of 2018. The plant, geared to a production capacity of 250 m³ per day or a good 80,000 m³ per year, is scheduled for December 2018. □

Accsys and Medite begin building Tricoya plant

The ground-breaking ceremony in Hull, UK, on 20 July marked the beginning of the actual construction work on the first „Tricoya“ plant for producing on acetylated woodchips. The investment is being carried out through a consortium of several partners that had been founded in March for financing, building, and operating the plant. Besides Accsys Technologies and the Irish MDF manufacturer Medite Europe also participating in the project are the chemical group BP Chemicals and the holding company BP Ventures (BPV). Other members are the investment companies Business Growth Fund (BGF) of London and Henderson Volantis. The consortium is planning to invest a total of €68.2m. €58.9m of this is earmarked for the actual construction of the plant, which will also create 30 new jobs. The start-up is scheduled for early 2019.

The production line is subsequently due to be run up to speed over a period of four years up the planned capacity of 30,000 tpy. As part of the consortia agreements, Medite has committed itself to buying at least 6,000 t of woodchips in the first year after the plant is put into service. This volume has increased continuously thereafter to at least 12,000 t in the fourth year of production. Medite has already been obtaining acetylated wood from Accsys since 2012. This is used for producing MDF marketed under the name of „Medite Tricoya Extreme“. According to

information from Accsys, Medite took in a total of 8,258 m³ (2015/2016: 7,058) of Accoya in its business year 2016/2017 (31 March). The sales volume of Medite Tricoya Extreme simultaneously increased 32% to 5,806 m³. This brings the total volume sold since the market launch in 2012 to 17,200 m³. □

Siempelkamp delivers MDF line to Mangualde plant



(Photo credit: Sonae Arauco)

The joint venture Sonae Arauco has ordered the replacement forming and press line for its MDF plant in Mangualde (Portugal) from Siempelkamp. The order includes an 8 ft x 28.8 m continuous press, the associated automation technology, a handling system configured for differing panel lengths and widths and the necessary link to the existing panel store in the form of the downstream sanding and packaging lines. According to Siempelkamp, the new line is to produce a thickness range of 2-37.8 mm. When changing the panel thickness, the line will be automatically converted to the necessary production parameters, as a result of which fluctuations in product and quality will be minimised.

The continuous forming and press line is to replace a multi-daylight press supplied in 1988 by Dieffenbacher. The front end will be taken over from the existing line. Commissioning is scheduled for the third quarter of 2018. Sonae Arauco also runs a continuous MDF line in Mangualde with an 8 ft x 28.5 m press that had also been supplied by Siempelkamp in 1955. In a next step, following the firm order for the replacement investment in Mangualde, Sonae Arauco also intends to replace the other single- and multi-daylight presses still running at other sites. □

Borg obtains approval for expansion of Oberon plant

At the end of May 2017, the furniture-supplier and laminating company Borg Manufacturing, based in Somersby (New South Wales, Australia) and owned by the Australian company Borg Group Holdings, was granted approval for the expansion of its Oberon MDF plant with the addition of a particleboard line. The associated application had been submitted in the first half of 2016. The Department of Planning & Environment of the New South Wales government had subsequently conducted a public consultation process from mid-June until the end of July 2016. Borg will invest a total of Aus\$106m and create 70 new jobs at the Oberon site. The overall project includes not only the building of the new particleboard plant but also modernisation of the existing MDF line and the erection of additional warehouses. The main machinery orders had already been placed by Borg with Siempelkamp in the second quarter of 2016. □

Fantoni makes first board using Plaxil 8 line

On 17 May 2017, the Italian particleboard and MDF manufacturer Fantoni made the first board using a continuous MDF line installed at its Osoppo headquarters. The forming and press line delivered by Dieffenbacher has an installed capacity of about 1,400 m³ per day or 460,000 m³ per year. Featuring a CPS press that is 2,200 mm wide and 65 m long, it replaces two multi-opening lines Plaxil 4 and Plaxil 5. These two lines have been shut down after the new production line reached stable production. Two existing



(Photo credit: Fantoni)

refiners will supply the new line with fibre, meaning that MDF production can gradually shift from two old lines to the new line.

Fantoni announced this replacement project in spring 2015. Dieffenbacher landed the order for the forming and press line in August 2015. At that time, Fantoni had anticipated that manufacturing could begin in December 2016. Fantoni also installed a new 30 MW power plant delivered by the Italian firm ITI Engineering, headquartered in Cremona, as part of the overall project. Dieffenbacher modernised two existing fibre dryers. □

Altailes group to enter MDF manufacturing

Altailes, a Russian company created in 2007 when several timber industry firms merged, wants to start making wood-based panels by building an MDF/HDF mill through its subsidiary Pavlovskiy DOK. The Siempelkamp group won the orders for areas from drying to final assembly at the end of November 2016. Siempelkamp will deliver the sifter, an Ecoresinator, forming and press line with a ContiRoll in dimensions of 9 ft x 30.4 m, cooling and stacking, an automated interim storage system, sanding line and partition saw. An option for subsequent extension of the continuous press was secured. Fibre dryer and energy centre will be supplied by Büttner. The wood yard with debarking technology and a disc chipper will come from Holtec, Andritz was awarded the contract to supply the refiner.

The new MDF mill will be built in Pavlovsk in Siberia's Altai region, located. Pavlovskiy has now started preparatory construction work on the new mill. Work to install the technology is to commence in October, with the first board slated for production in July 2018. The firm wants the line to make MDF/HDF 2.5-40 mm thick, reaching an annual capacity of about 250,000 m³. The board will primarily be sold in Russia and China. Altailes put the investment in the MDF/HDF project at approximately €100m. □

Finsa has invested more heavily again

Following restraint driven by the general business situation in preceding years, the Spanish company Finsa has made considerably higher investments again in the last two years. In the 2016 financial year, roughly €57m were invested in new and expansion measures, after investments in 2015 had been quoted at roughly €53m, which was almost double the sum invested in 2014 (€29m). In contrast, in each of the years 2012 and 2013, Finsa had invested only roughly €9m.

Among the biggest individual investment projects implemented in the last two years were the setting-up of a „Superpan“ production line at the particleboard and MDF plant in Nelas (Portugal) trading as Luso-Finsa and the press extensions in the Rabade and Santiago de Compostela plants. In May 2015, the company had also taken a 5.2% holding in the Mexican company Proteak Uno, which, through its subsidiary Pro MDF has erected and commissioned an MDF plant in Huimanguillo, Tabasco, in the last two years. Finsa has also generally scrutinised possibilities of expansion abroad in the last two years. In the fourth quarter of 2015, the company had briefly taken part in the selling process for Nolte's particleboard plant in Germersheim, Germany. An investment in

Europe is still considered as conceivable. Parallel to that, a possible expansion of operations in South and Central America is being explored.



(Photo credit: Finsa)

Turnover generated by the Finsa group in 2016 declined again to €798m, after it had shown a slightly positive trend in the two preceding years. Starting from €811m shown for 2011, group turnover declined in both 2012 (€759m) and 2013 (€735m). A turnaround was achieved in 2014, with €779m, and in 2015 revenues reached €817m, even exceeding the level achieved in 2011. The work force had declined sharply, primarily on account of the disinvestments made in the years 2009 to 2013. In 2008, the Finsa group had still boasted 4,217 employees. The work force had numbered 3,623 in 2011, 3,216 in 2012, and by 2016 had fallen to 3,056. □

Swiss Krono commissions new line in Menznau

In the first half of September 2017, Swiss Krono Group produced the first board on the new particleboard line constructed to replace the old line at the Menznau plant. Since then the individual components of the line have been optimised. Over the coming weeks the line is to be started up gradually and continuous production is to commence. Standard panels in a thickness range 6-60 mm, as well as thin-particleboard panels in thicknesses up to 2.5 mm and light particleboard are to be produced on the press, which boasts dimensions of 8 ft x 34.5 m.

The commissioning which has now taken place means that the schedule postponed during the project phase was virtually adhered to. At the time

the investment decision was made in July 2015, Swiss Krono AG had aimed to begin production in the first quarter of 2017. Assembly of the equipment, however, was only commenced in January 2017, and the target date for commissioning was September.

The new equipment was set up in parallel to ongoing production operations. In this connection, the existing dryer was replaced by one supplied by Büttner. The forming and press line came from Dieffenbacher. The order, which was placed in November 2015, marks the first time in a while that Dieffenbacher has supplied Swiss Krono Group with a new press. The last major order involved two MDF/HDF lines that had been commissioned in the middle of the 1990s when Kronotex set up a site in Wittstock-Heiligengrabe. □

Slight consumption volume increase for all three product groups in 2016

EPF expects rise in wood-based panel production in Europe to continue this year

Over the entire period of 2016 the European wood-based panel industry recorded moderate production increases in all three product groups.

The upward trend observed over past years has continued and, indeed, in the case of OSB actually increased. According to the 2016/2017 annual report of the Brussels-based European Panel Federation (EPF), OSB production actually increased by 6.9% vis à vis the preceding year to 5.4m m³ (2015: 5.0m m³). MDF/HDF production increased by 2.0% to 12.0m m³ (11.8m m³). In the case of particleboard a marginal rise of 0.8% to a volume of 30.2m m³ (30.0m m³) was recorded.

According to the EPF figures, particleboard production thus increased for the third time in succession. A slight decrease had most recently been recorded in 2013. The last time decreases against production volume in the preceding year had been recorded for MDF/HDF and OSB was in 2012. In the ensuing years, four consecutive increases were recorded. The rate of increase in OSB production volume was in fact higher each successive year. Based on the figure of 4.8m m³

recorded for 2014, OSB production in 2015 increased at a rate of 3.9%. In the case of MDF/HDF and also of particleboards, by contrast, growth rates in 2015 were higher than they had been the previous year. Particleboard production at that time had increased by 2.0% and MDF/HDF production had increased by as much as 2.7%.

In both cases the production volumes achieved were still significantly below the record volumes of 2007, however. That year 37.8m m³ of particleboards and 13.3m m³ MDF/HDF were produced in the EPF area, which includes the 28 EU states as well as the EFTA states. When looking at long-term comparisons it is, nevertheless, important to consider that the EPF quite frequently undertakes retrospective corrections in the statistics section of its annual reports. The production and consumer figures of consecutive EPF annual reports, consequently, are not always congruent.

In the case of particleboards, the most significant production increases last year were achieved in Romania (+8.5%), Italy (+7.2%) and Austria (5.5%). On the basis

of a very low comparative level the rates of increase in Greece (+43%) and Finland (+12%) were even higher. In France particleboard production remained marginally below the level of the preceding year (-0.1%), in Germany it declined by 0.6%. Temporary or permanent downtime for technical reasons led to more serious production declines in Great Britain (-7.9%) as well as Belgium (-11.0%).

56% of total production in five largest countries

Recording a volume of 5.500m m³ (5.532m m³) and an 18% proportion of European production overall, Germany remained the most important production country with a clear lead over France in second place with a production volume of 3.627m m³ (3.630m m³), constituting 12% of production overall. In Poland a total of 2.8m m³ has been produced, and Italy's production volume increased to 2.569m m³ (2.396m m³). In the EPF annual report a rounded production percentage of 9% is indicated for both countries. Austria features with a production increase of 5.5% to 2.3m m³, thus overtaking Great Britain which dropped below the 2m m³ mark with a production volume of 1.95m m³. Austria's proportion thus increased to 8%. Consequently the five largest producing countries were responsible for 56% of total production. The five next largest countries (Great Britain 6%, Spain 6%, Romania 6%, Belgium 4% and Czech Republic 3%) produced a combined total of 25%. The accumulated proportion of the ten most important producing countries thus amounts to 81%.

Particleboard imports increased last year by 5.4% to 9.441m m³ (8.955m m³), whilst exports remained virtually unchanged at 10.501m m³ (10.514m m³) by comparison with the preceding year. As a proportion of total production, ex-

Europe: Production of particleboard

in 1,000 m ³	2012	2013	2014	2015	2016	2017 ¹⁾
Germany	5,608	5,626	5,665	5,532	5,500	5,540
Scandinavia	1,300	1,233	1,223	1,282	1,311	1,321
East/Middle Europe	8,976	8,840	8,863	9,022	9,110	9,107
Belgium, UK, Ireland	3,079	3,119	3,230	3,295	2,999	3,190
France	3,870	3,797	3,779	3,630	3,627	3,700
Italy	2,588	2,354	2,316	2,396	2,569	2,650
Spain, Portugal, SE Europe	3,843	3,766	4,346	4,849	5,135	5,295
Total EPF²⁾	29,264	28,735	29,422	30,007	30,250	30,802
Total EU 28	28,433	27,945	28,772	29,342	29,580	30,127

1) forecast 2) EU 28 and EFTA

Source: EPF

ports therefore decreased slightly to 34.7% (35.1%). Imports accounted for 31% (32%) of consumption.

The most important export countries were Austria with a volume of 1.830m m³ (1.828m m³), Germany with 1.771m m³ (1.736m m³) and France with 1.602m m³ (1.661m m³). Following in the next positions were Belgium (765,000 m³), Czech Republic (710,000 m³) and Spain (570,000 m³). Double-digit rates of increase in exports were recorded in Belgium (+35% to 765,000 m³), Italy (+19% to 310,000 m³), Slovenia (+10% to 91,000 m³) as well – at a low level – as Sweden (+65% to 32,000 m³). The most serious deteriorations were in Lithuania (-71% to 52,000 m³), Bulgaria (-39% to 100,000 m³), Croatia (-34% to 62,000 m³), Hungary (-23% to 200,000 m³) and Slovakia (-10% to 286,000 m³).

Germany remained the biggest importer by far

Germany was in lead position with regard to particleboard imports with a volume of 2.195m m³ (2.152m m³), followed by Italy with 1.155m m³ (1.122m m³) and Poland with 926,000 m³ (905,000). Imports to Great Britain again increased significantly to 760,000 m³ (610,000 m³). Based on the figure of 430,000 m³ recorded for 2014, the rate of increase in 2015 was higher, however. Imports to France increased to 509,000 m³ (472,000 m³). The most significant increases in imports were in Slovenia (+115% to 254,000 m³), Belgium (+43% to 381,000 m³), Great Britain (+25%), Ireland (+21% to 70,000 m³) and the Netherlands (+10% to 391,000 m³). Double-digit figure declines were recorded in Romania (-13% to 115,000 m³) and Sweden (-10% to 315,000 m³).

14 of the countries listed separately in the EPF export statistics achieved an export surplus. The greatest net exporters were clearly Austria (1.580m m³) and France (1.093m m³), whilst the most significant growth was recorded in Belgium (+28% to 384,000 m³) and Latvia (+21% to 200,000 m³). The other 13 countries imported more than they exported. At the top of the list here were Italy (845,000 m³), Great Britain (699,000 m³), Poland

Europe: Consumption of particleboard

in 1,000 m ³	2012	2013	2014	2015	2016
Austria	643	670	602	608	720
Belgium	1,038	1,117	1,015	855	667
Bulgaria	425	455	465	453	520
Czech Republic	672	633	611	694	701
Denmark	559	545	570	597	592
France	2,806	2,804	2,751	2,488	2,564
Germany	6,078	5,773	6,135	5,948	5,924
Italy	2,674	2,904	3,140	3,179	3,349
Lithuania	516	632	692	649	785
Poland	3,666	2,980	3,251	3,368	3,357
Portugal	556	497	610	737	784
Romania	880	888	1,265	1,410	1,545
Slovakia	610	619	554	618	684
Spain	1,209	1,137	1,346	1,325	1,426
Sweden	895	837	816	847	838
United Kingdom	2,058	2,374	2,433	2,662	2,671
Others	1,961	1,949	1,903	1,914	2,051
Total EPF ¹⁾	27,246	26,814	28,159	28,352	29,178
Total EU 28	26,653	26,219	27,679	27,892	28,716

¹⁾ EU 28 and EFTA

Source: EPF

Europe: Consumption of MDF/HDF

in 1,000 m ³	2012	2013	2014	2015	2016	2017 ¹⁾
Austria	260	260	260	270	280	280
Belgium/Luxembourg	750	700	700	700	700	700
Denmark	140	140	130	130	130	130
France	520	530	530	530	530	530
Germany	3,100	3,100	3,200	3,300	3,400	3,400
Greece	80	80	80	85	100	100
Italy	930	970	1,000	1,050	1,110	1,160
Netherlands	180	180	180	180	190	190
Poland	1,050	1,050	1,150	1,150	1,200	1,250
Portugal	170	190	210	250	250	260
Romania	210	210	230	230	230	230
Spain	660	690	700	647	690	710
Sweden	150	145	145	145	150	150
Switzerland	180	180	180	180	180	180
United Kingdom	1,000	980	1,100	1,200	1,240	1,240
Ukraine	150	140	100	50	50	50
Others	535	592	603	601	628	633
Total EPF ²⁾	10,095	10,137	10,498	10,698	11,058	11,193

1) forecast 2) EU 28 and EFTA

Source: EPF



*In the current year, EPF assumes ongoing increases in production as well as consumption figures in all three product groups.
(Photo credit: EUWID)*

(550,000 m³) and Germany (424,000 m³). In Great Britain the export deficit, consequently, has continued to increase, and has thus doubled within a period of three years. In the other three countries, by contrast, the import surplus reflects little change vis à vis the preceding year. The strongest increase is recorded in Lithuania (+507% to 103,000 m³) and Slovenia (+362% to 163,000 m³). In total the accumulated net export volume of the 27 countries has declined by 21% to 1.239m m³ (1.559m m³).

The apparent consumption of particleboard based on production, export and import figures increased by 2.6% last year in the EPF region, to a volume of 29.190m m³ (28.448m m³). Taking changes in warehouse stocks into consideration, this results in a 2.9% increase in actual consumption to 29.178m m³ (28.352m m³). The largest individual markets were Germany with 5.924m m³ (5.948m m³), Poland with 3.357m m³ (3.368m m³), Italy with 3.349m m³ (3.197m m³), Great Britain with 2.671m m³ (2.662m m³) and France with 2.564m m³ (2.488m m³). With a total of 17.865m m³ (17.663m m³), they covered 61.2% (62.3%) of the entire EPF market. Of the larger individual markets, the strongest growth was recorded in Lithuania (+21% to 785,000 m³), Austria (+19% to 720,000 m³), Bulgaria (+15% to 520,000 m³) and Slovakia (+11% to 684,000 m³). Development was poorest

in Belgium, where a decline of 22% to 667,000 m³ was recorded.

Five largest countries covered 72% of MDF

Also with regard to MDF/HDF, Germany was the most important producing country. Output at 3.5m m³ remained at virtually the same level as the preceding year. As in the preceding year, Germany was followed by Poland, Italy, France and Great Britain. These five countries together covered 72% of total European MDF/HDF production.

MDF/HDF consumption, at an growth rate of 3.4% to 11.058m m³ (10,698m m³), increased at a 1.4% higher rate than production. Germany further established its position as the largest individual market with an increase rate of 3% to 3.400m m³ (3.300m m³). Great Britain (+3.3% to 1.240m m³) was marginally ahead of Poland (+4.3% to 1.200m m³). Italy followed in fourth position (+5.7% to 1.110m m³). These four markets represented a total of 6.940m m³ (6.700m m³), i.e. 62.8% (62.6%). The largest consumption increases were in Slovenia, Croatia, Cyprus and Greece. In each of these cases, however, the increases were based on low comparative values. In 17 of the countries listed separately in the EPF statistics the MDF/HDF consumption remained at approximately the same level as the preceding year. None of the

featured markets recorded a decline in consumption.

In the case of OSB the EPF annual report focuses essentially on the representation of production trends and capacity development. More precise figures regarding development of production and consumption volumes in the individual countries are not included. As in the case of MDF/HDF, the export trade is not recorded in detail.

The OSB capacities, according to the EPF annual report, increased last year by 490.000 m³ to 6,500m m³ (6,010m m³). This increase ensued from the commissioning of the new OSB plant at Swiss Krono Kft., Vásárosnamény/Ungarn (300,000 m³), and replacement and/or expansion investments at Smartply Europe of Waterford (150,000 m³) and Norbord of Genk/Belgien (40,000 m³). MDF/HDF capacities, by contrast, have declined by 150,000 m³ or 1.0% to 14.732m m³ (14.882m m³). Declines in capacity were registered in Germany (-70,000 m³) and Spain (-80,000 m³). In the case of particleboards, termination of production at Darbo, based in Linxé, France (-410,000 m³), and restructuring measures in Spain (-310,000 m³) and Portugal (-100,000 m³) led to a reduction in capacity on the scale of 820,000 m³ or 2.2%, according to estimations by EPF. Total capacity in the EPF area was thus reduced to 36.367m m³ (37.187m m³).

In the current year, EPF assumes ongoing increases in production as well as consumption figures in all three product groups. Particleboard production, according to the EPF annual report, is intended to increase to 30.802 m m³, which would correspond to a further significant rise of 1.8%. The apparent consumption of particleboards, according to the EPF forecast, is expected to increase by 1.2% to 29.538m m³. In the case of MDF/HDF, the association expects a similar increase in consumption by 1.2% to 11.193m m³. □

Imports of MDF, particleboard, furniture and laminate flooring have grown considerably

North American markets for composite panels are recovering on a moderate level

North American composite panel markets have experienced only slight growth in recent years, with the projected stronger revival failing to materialise to date.

This more subdued development is also reflected in shipments statistics from the Composite Panel Association (CPA). Sales of both particleboard and MDF/HDF have staged only a slow recovery since bottoming out in 2009 and 2010. Last year, shipments of both products even slipped a little. According to the CPA data, North America's particleboard industry sold a total of 5.849m (2015: 5.931m) m³ last year. Sales of MDF/HDF were also down slightly at 3.902m (3.910m) m³.

Particleboard shipments were thus 8.0% higher than 2009's total of 5.414m m³, meaning that the market has grown at an annual rate of less than 1%. Sales had gradually recovered in 2010 and 2011 before falling again in 2012. Minor growth then occurred between 2013 and 2015. US particleboard shipments rose by a cumula-

tive total of 5.9% between 2009 and 2016. During this period, shipments even fell 3.2% in the south and east, which was driven by factors including several mill closures. On the other hand, shipments headed 23.4% higher in the western US. The CPA statistics show that Canadian shipments jumped 13.2% between 2009 and 2016.

North American total MDF/HDF shipments leapt 17.6% from 2009 to 2016. 2010 was even a little worse than 2009 at 3.300m m³ due to further declines in business in the south and south-east of the US. Sales had stabilised in 2011 before surging by 11.5% in 2012. The upward trend slowed considerably in the next few years. Growth rates were in the lower single digits in 2013 (2.7%) and 2015 (4.6%); MDF/HDF shipments had slipped below the previous year's level in 2014 and 2016. The variations from one region to another were less pronounced for MDF/HDF than for particleboard. Total US MDF/HDF shipments have climbed 18.9% in the past seven years. In the south and east of the US, shipments were up 13.5%; shipments in the west

of the country even soared 40.7% from a relatively low level. Canada delivered a similar performance to the US's main manufacturing region with a 13.7% upturn.

There are several reasons why demand is still not living up to expectations on North American particleboard and MDF/HDF markets. US housing starts have not risen as much as projected, especially in the recent past. This is leading to delays in housing completions and thus in equipping these homes with furniture and interior remodelling materials. On the other hand, the repair/remodelling business is experiencing considerable growth.

However, this demand for particleboard, MDF/HDF, furniture, building elements and interior remodelling materials is met by imports to a considerable degree. These imports have long played a role for a variety of products, such as MDF, MDF mouldings, laminate flooring and modular furniture. Shipments of raw and laminated particleboard have also risen more and more in recent years. □

North America: Particleboard & MDF/HDF Shipments

in 1,000 m ³	January - June									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Particleboard										
US East	3,380	2,534	2,599	2,640	2,434	2,590	2,561	2,579	2,453	1,264
US West	1,781	1,324	1,379	1,356	1,327	1,433	1,574	1,628	1,634	828
USA	5,161	3,857	3,978	3,996	3,760	4,023	4,135	4,207	4,087	2,092
Canada	1,743	1,557	1,734	1,718	1,705	1,701	1,717	1,724	1,763	903
Total	6,904	5,414	5,712	5,714	5,465	5,724	5,852	5,931	5,849	2,995
MDF/HDF										
US East	2,323	1,981	1,945	1,967	2,248	2,267	2,195	2,235	2,248	1,135
US West	698	498	562	547	632	700	687	701	701	336
USA	3,021	2,479	2,507	2,513	2,880	2,966	2,881	2,936	2,948	1,471
Canada	1,207	839	793	788	798	811	855	973	954	503
Total	4,228	3,318	3,300	3,301	3,678	3,777	3,736	3,910	3,902	1,973

Source: CPA - The Composite Panel Association

Central European wood-based panel markets have experienced several cycles since 2008

Composite panel markets in Europe: Supply issues paving the way for higher prices

The trend in prices on German, Austrian and Swiss particleboard and MDF/HDF markets has reversed course again with the hikes instituted in recent months.

Raw and laminated particleboard prices paid by industry had gradually declined starting in the fourth quarter of 2014. At that time, medium-density raw stan-

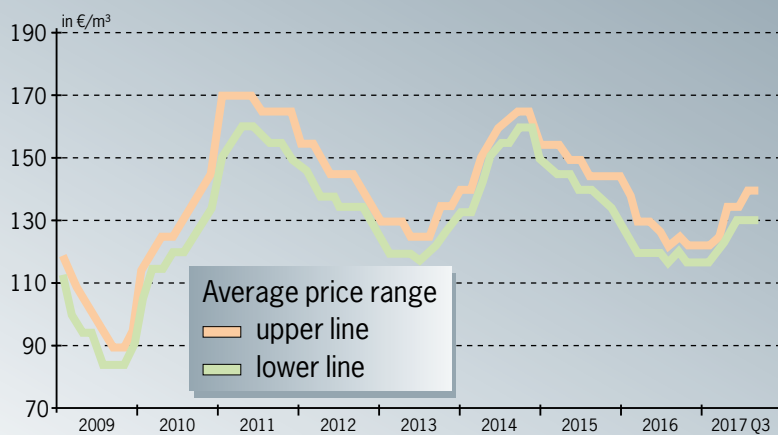
dard particleboard had commanded an average of €160-165/m³, while prices for 16 mm laminated white body climbed to roughly €3.35-3.45/m² by the end of 2014. After a downward spiral lasting almost two years, raw particleboard prices had bottomed out at an average of €117-122/m³ in the final quarter of 2016. Spot prices had fallen even more sharply at the end of

last year. Following the first slight adjustments in the first quarter of 2017, raw particleboard prices have risen more and more as the year has gone in the wake of strained supply at times. Particleboard manufacturers have boosted their prices by an average of €10 from €120-125/m³ in the first quarter to roughly €130-135/m³ in the second quarter. Further mark-ups brought the average bracket to €130-140/m³ in the third quarter. Particleboard producers want to implement further mark-ups in talks currently under way about fourth-quarter shipments.

Echoing the fall in raw particleboard prices, white laminated particleboard prices had also dropped to an average of €2.95-3.05/m² between the end of 2014 and the end of last year; bigger orders sometimes even attracted much lower prices. Few changes then occurred in the first three months of this year. The upward trend then pushed prices above the €3.00 mark across the board during the spring. They ultimately levelled off at €3.05-3.25/m² in the second quarter. A price range of €3.15-3.35/m² was then quoted for the third quarter. Temporary supply problems in the second and third quarter also paved the way for longer lead times and meant that bigger buyers sometimes had to accept prices above €3.20 too.

MDF/HDF prices had altered minimally in recent years. A number of producers had tried time and again to launch attempts to raise prices, but then ditched these plans after they lost business. Standard MDF and HDF prices had then dipped in the third quarter of 2016 after being relatively solid for a long time. The more challenging supply situation in the first half of the year, especially for HDF, allowed manufacturers to increase prices slightly in several increments after all starting in the second quarter.

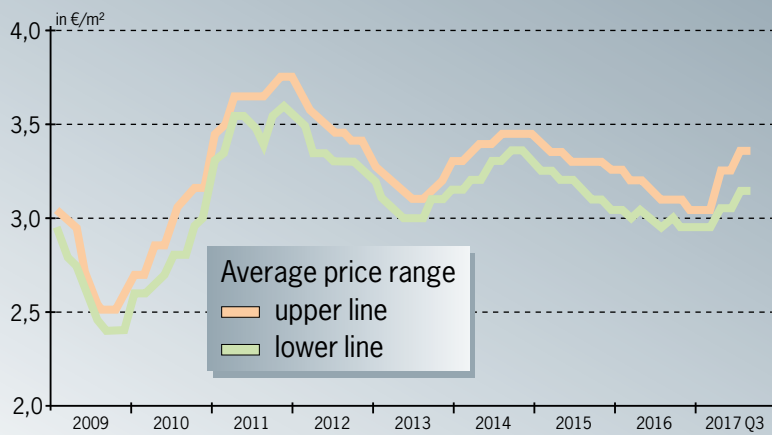
EUWID Pricewatch: Particleboard Germany ¹⁾



1) Raw particleboard 16-19 mm standard

Source: EUWID

EUWID Pricewatch: Particleboard Germany ¹⁾

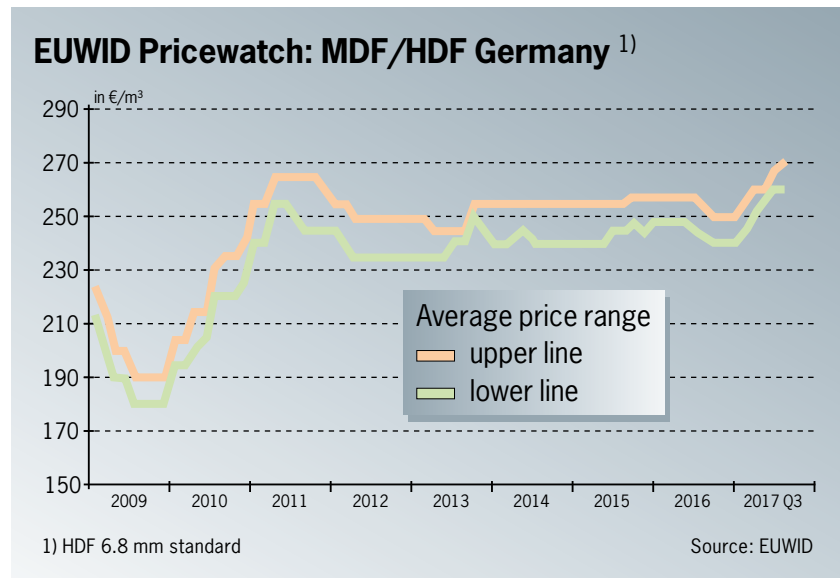


1) Laminated particleboard 16 mm body white

Source: EUWID

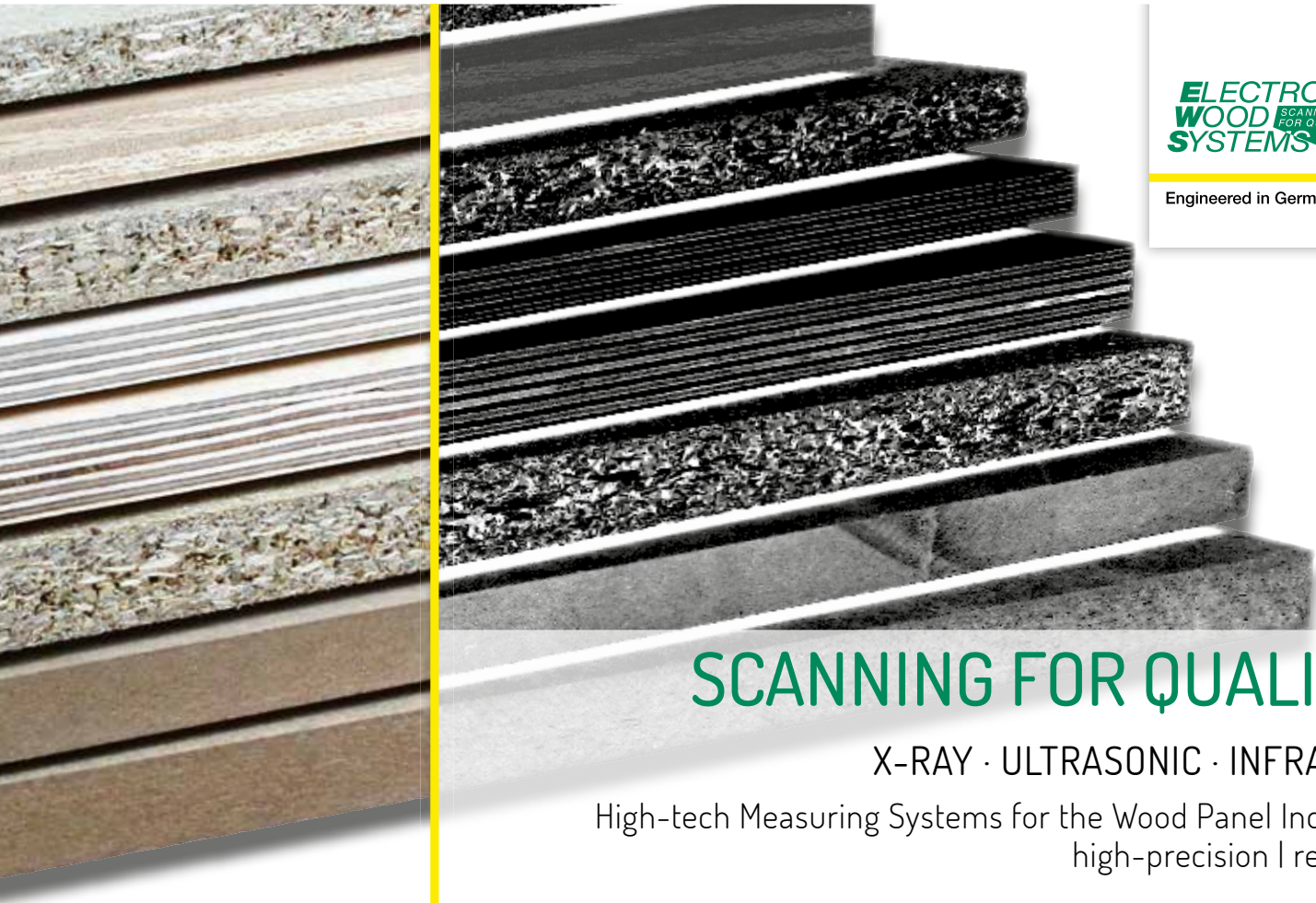
Central European wood-based panel markets have each experienced five major cycles since 2008, which have been more pronounced for raw and laminated particleboard than for MDF/HDF. The global economic crisis sent prices for all product groups tumbling in 2009. Raw particleboard prices had slipped to an average of €85-90/m³ by the third quarter of 2009. Prices for white laminated board had tumbled to as little as €2.40-2.50/m². HDF prices had also reached a low in this period at €180-190/m³.

The subsequent economic recovery and parallel cutback in production capacity meant that the market and prices had improved again as soon as during 2010. By the summer of 2011, both particleboard and MDF/HDF prices had climbed to a level that had not been reached for a long time. Raw particleboard prices were also hoisted to €160-170/m³ by the second quarter of 2011. Prices for laminated particleboard had incre-



ased even further in following months, reaching €3.60-3.75/m² in the fourth quarter of 2011. HDF prices improved to €255-265/m³ by the second quarter of 2011. Prices had then gradually softened up until the third quarter of

2013. The times then turned again with €118-125/m³ for raw particleboard and €3.00-3.10/m² for white laminated board. HDF prices reached an interim low in the second quarter of 2013 at €235-245/m³. □



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Ongoing sales process for industrial activities and Placacentro network in Mexico

Masisa reached agreements for the sale of its activities in Argentina and Brasil

Following the sale agreements concluded for the Argentine Concordia plant and for the Brazilian subsidiary Masisa do Brasil, based in Curitiba, Paraná, the Chilean wood-based-panel concern Masisa also intends to divest its industrial operations in Mexico.

The sale of the Concordia Mill to the Austrian Egger group for US\$155m has been signed on 17 July 2017. The transaction has finally been wrapped up by the end of September. Masisa do Brasil will be sold to Arauco do Brasil, which is owned by the Chilean company Celulosa Arauco y Constitución and also headquartered in Curitiba. Both companies signed an agreement to this effect on 7 September 2017. The sale is to close by the year's end, according to Masisa.

The purchase price for Masisa do Brasil was fixed at US\$102.8m, which includes liabilities of US\$44.7m attributed to Masisa's Brazilian activities. This translates into an effective purchase price

of US\$58.1m. By contrast, Masisa do Brasil's cash of US\$11.2m was excluded from the transaction. The effective purchase price and cash means that Masisa will gain a total of US\$69.3m from the transaction, which is meant to be used to reduce its liabilities.

Masisa's Argentinian operations were sold to the Egger group for US\$155m. The sale will yield net proceeds of US\$102.0m, according to a notification to the Chilean supervisory authority Superintendencia de Valores y Seguros (SVS) a short time after the contract was signed. On the other hand, the planned sale of its two Brazilian mills will incur a net loss of US\$128.0m. The two divestments will lead to a cumulative net loss of US\$26.0m, according to Masisa.

The process of selling its industrial activities and the Placacentro network in Mexico is still under negotiation. Masisa, which claims to be currently scrutinising concrete offers for these operations, is

currently operating four production sites in Mexico. The Durango plant boasts annual production capacity of 155,000 m³ of particleboard and 220,000 m³ of MDF. In addition, 206,000 m³ of raw panels can be coated. In Chihuahua and Zitácuaro, Masisa operates two more particleboard plants with annual capacity of 276,000 m³ and 184,000 m³ respectively. Annual laminating capacity at the latter two sites is quoted at 117,000 m³ and 103,000 m³ respectively. At the sites in Lerma and Durango, Masisa can also produce 187,000 t/year of adhesive resins and 91,000 t/year of formaldehyde. The company intends to dispose not only of its industrial operations but also all 77 Placacentro superstores located in Mexico.

However, the search for a strategic partner for Masisa as a whole which had been initiated in the autumn of 2016 has been abandoned. With the planned disinvestments in the Industrial division, Masisa will instead focus on the remaining production sites in Chile and

Masisa: Production capacities 2016 ¹⁾

Location	Country	Particle-board	MDF	Mouldings	Coating	Sawn-wood	Adhesive resins	Formaldehyde
Mapal	Chile	137,000	150,000		260,000			
Cabrero	Chile	280,000	340,000	130,000	228,000	337,000		
Ponta Grossa	Brazil		300,000		360,000			
Montenegro	Brazil	650,000			300,000			
Macapaima	Venezuela	120,000	310,000		60,000	150,000	99,000	
Concordia	Argentina	144,000	280,000	74,000	274,000			
Durango	Mexico	155,000	220,000		206,000		64,000	63,000
Chihuahua	Mexico	276,000			117,000			
Zitácuaro	Mexico	184,000			103,000			
Lerma	Mexico						24,000	28,000
Total		1,946,000	1,600,000	204,000	1,908,000	487,000	187,000	91,000

1) in m³/year, adhesive resins and formaldehyde in t/year

Source: Masisa

Venezuela. Apart from that, operations are also to be continued in the second business division, Forestal, which manages forest plantations with a total area of 188,588 hectares in Chile (48,800 hectares), Argentina (47,057 hectares) and Venezuela (92,731 hectares).

In the on-going sales process, Masisa is being advised by a consortium consisting of UBS and the Colombian investment bank Inverlink, as it had been in the abandoned search for a strategic partner. Masisa also reports that it is aiming at income of more than US\$500m from the disinvestments; that income is to be used to further reduce net debt. In conjunction with expected annual savings on financing and operating costs totalling US\$50m, Masisa aims to bring down the ratio of net debt to EBITDA, which is currently at 4.2:1 to the order of 2-2.5:1.

In the 2016 financial year, Masisa generated consolidated turnover of US\$959.8m (2015: 1.053bn) and a recurring EBITDA of US\$98.5m (156.7m). Net debt as at the end of 2016 was US\$667.0m, but by the end of the first quarter of 2017 had risen slightly again to US\$677.6m.

According to a presentation published at the beginning of July, Masisa generated turnover of US\$938m and a recurring EBITDA of US\$129m in the twelve months up to the end of March (LTM). Without the industrial operations which are now sold or up for sale, the same period showed turnover of US\$520m and a recurring EBITDA of US\$84m on a pro-forma basis.

Business figures deteriorate sharply

Turnover and results figures at Masisa have declined considerably in recent years. Although turnover had initially increased from US\$1.349bn to US\$1.545bn between 2012 and 2014, it had then plunged by more than one third to US\$959.8m by 2016. In contrast, the recurring EBITDA has decreased continuously in the last few years, and the figure of US\$98.5m shown for 2016 was

Masisa: Development of financial results					
in m US\$	2012	2013	2014	2015	2016
Sales	1,349.3	1,364.7	1,544.6	1,052.6	959.8
Particleboard	360.2	370.7	361.8	271.8	272.1
MDF	594.9	519.8	513.2	324.7	301.1
MDF-Mouldings	35.0	61.6	63.5	78.2	85.6
Logs	121.2	113.2	227.8	110.2	95.6
Sawnwood	86.5	86.6	113.8	68.7	56.4
Wooden doors	40.2	24.1	18.6	2.6	1.6
Other ¹⁾	111.2	188.7	245.9	196.4	147.3
EBITDA	224.4	240.8	338.0	200.4	161.2
Recurring EBITDA	n.a.	240.8	190.5	156.7	98.5
Pre-tax result	56.0	90.1	6.5	53.8	61.8
Net result ²⁾	45.2	50.5	11.3	52.3	19.9
Net result	50.7	54.9	-0.2	45.6	-0.2

1) i.a. plywood, resins, energy
2) after minority interests

Source: EUWID according to information from Masisa

down by no less than 60% on the base value from 2013. That negative trend has been attributed by the company, as in past years, to the longer period of recession on main sales markets and the progressive devaluation of most Latin American currencies against the US dollar.

Masisa has until now run a total of ten production sites in Chile, Brazil, Argentina, Mexico and Venezuela. Wood-based panels are produced at nine sites. Both particleboard and MDF are manufactured in five plants, while there are three plants producing only particleboard and one plant producing only MDF. All of Masisa's wood-based-panel plants boast coating capacity, and mouldings are also produced at two of the six MDF sites.

According to information contained in the last business report, total capacity for particleboard as at the end of 2016 was 1.946m m³/year. Of that volume, 896,000 m³ were accounted for by standard panels and 1.050m m³ by MDP produced in the plants in Cabrero (Chile), Montenegro (Brazil) and Macapaima (Venezuela). Annual MDF capacity was quoted at 1.600m m³. In the sector of further processing, Masisa boasted

laminating capacity of 1.908m m³/year and profiling capacity for MDF mouldings of 204,000 m³/year. In the latter product segment, sales volume has been more than tripled from 55,000 m³ in 2011 to 193,000 m³ in the last financial year.

At the Mexican sites in Durango and Lerma and in Macapaima (Venezuela), Masisa operates three adhesive-resin plants with total capacity of 187,000 t/year; two of those plants produce their own formaldehyde. In Cabrero in Chile's Bío Bío region there is also a 10 MW biomass power plant, which Masisa had taken over in November 2013, but which has been sold to the Spanish power plant operator Neoelectra, headquartered in Sant Just Desvern near Barcelona, in July.

Specialist-trade sales in Latin America has been handled by a network of 317 Placacentro superstores in nine countries (Chile 49, Argentina 55, Uruguay 1, Bolivia 6, Peru 21, Ecuador 29, Colombia 32, Venezuela 47 and Mexico 77). Those stores are mainly organised in a franchise system.

During the course of the disinvestments now decided upon, Masisa aims to dis-

pose of its industrial operations and all 132 superstores in Argentina and Mexico. The only Placacentro store in Uruguay is also to be disposed of, so that 184 superstores in six countries will remain after conclusion of the planned restructuring.

Apart from the industrial activities which are part of the Industrial division, Masisa owns forest areas in Chile, Argentina and Venezuela, which are part of the second business division Forestal. On a total area of 302,906 hectares, 188,588 hectares of forest plantations were being managed as at the end of 2016. Of that total, 163,464 hectares were accounted for by eucalyptus,

18,648 hectares by pine and 6,476 hectares by other tree species. The total area of forest comprises 83,182 hectares in Chile, 72,384 hectares in Argentina and 147,340 hectares in Venezuela.

Masisa has to repay more than US\$400m by 2019

According to a corporate presentation dated June 2017, repayment obligations of Masisa will increase considerably in the coming years. Bank loans totalling US\$70m must be redeemed during the current financial year, and in 2018, bonds with a value of US\$11m will become due, apart from other bank

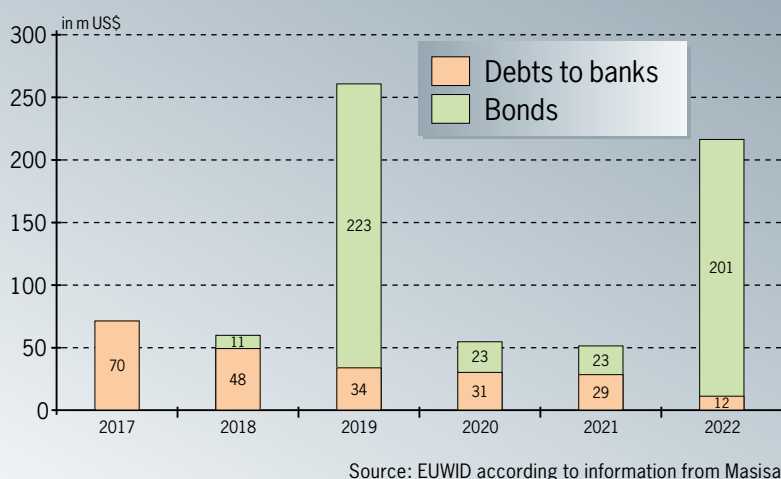
debts totalling US\$48m. In 2019, repayment obligations increase to a total of US\$258m, most of which, at US\$223m, are accounted for by bonds. The bank loans to be redeemed total US\$34m.

In order to refinance existing debts, Masisa concluded a loan agreement in August 2016 for a total sum of US\$100m. The lenders were Coöperatieve Rabobank U.A., the Canadian Scotiabank, Export Development Canada and Banco de Crédito del Perú. To reduce refinancing requirements, Masisa had already prematurely bought back international bonds with a value of US\$100m in the first quarter of 2016; these originally had terms running until 2019. The funds for this had been raised partly through savings achieved by cost-cutting measures which had been in progress since mid-2014.

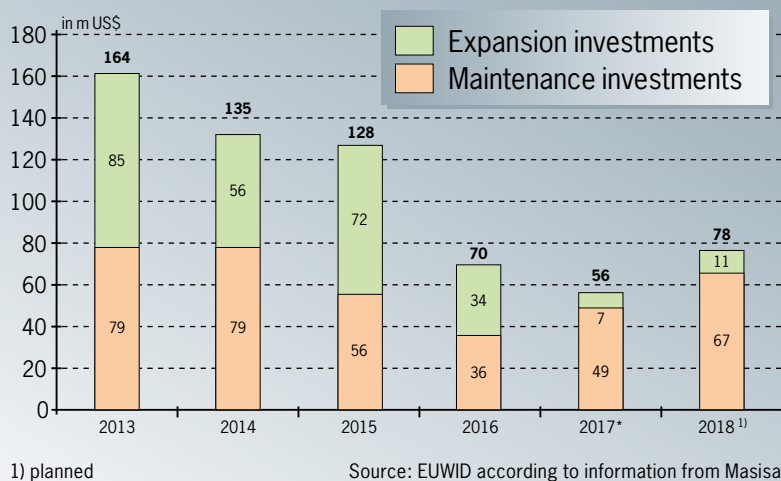
As a reaction to the tight financing situation, Masisa had also on several occasions in recent years adjusted investment planning. For example, in 2015, instead of the budgeted US\$153m, only US\$135m were invested. At the same time, Masisa had reduced investments of US\$103m envisaged for 2016 to US\$65m. According to plans at that time, investments in 2017 were to have totalled US\$90m, but that amount was subsequently repeatedly cut to the latest figure of US\$56m. At the end of 2015, parallel to the cost-cutting measures, Masisa had initiated the sale of non-strategic assets. In the first half of 2016, all forest possessions in Brazil were sold in two separate transactions to the companies Taeda Empreendimentos Florestais S.A. and Klabin S.A., while forest areas in Chile and a holding in the joint venture Hancock Chilean Plantations LP (HCP) were also disposed of.

At the end of November 2016, Masisa's majority shareholder Grupo Nueva launched plans for a capital increase at Masisa. For that purpose, a bank consortium was commissioned to find a strategic partner. However, those plans were abandoned following the decision to sell industrial operations in Argentina, Brazil and Mexico. □

Masisa: Maturity structure of debts



Masisa: Investments





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Wood-based panel capacity of Arauco moving closer to the 10m m³ per year mark

Arauco planning a major expansion in Brazil by purchasing Masisa mills

The Chilean wood-based panel manufacturer Masisa is to part ways with its Brazilian subsidiary Masisa do Brasil, based in Curitiba, Paraná.

The new owner of these activities will be Arauco do Brasil, which is owned by the Chilean company Celulosa Arauco y Constitución and also headquartered in Curitiba. Both companies signed an agreement to this effect on 7 September 2017 and announced the deal on the same day in a notification to the Chilean supervisory authority Superintendencia de Valores y Seguros (SVS). The purchase price was fixed at US\$102.8m, which includes liabilities of US\$44.7m attributed to Masisa's Brazilian activities. The sale, which has to be approved by bodies including the Brazilian competition authority Conselho Administrativo de Defesa Econômica (CADE), is to close by the year's end, according to Masisa.

Masisa do Brasil runs two plants making wood-based panels. A particleboard mill commissioned in 2009 in Montenegro, Rio Grande do Sul, which used

a second-hand forming and press line from Canada, has a designed annual capacity of about 650,000 m³. Some 300,000 m³ of its output can be laminated. An MDF mill operating in Ponta Grossa, Paraná since 2001 can make about 300,000 m³ per year. Masisa reports that its laminating capacity stands at 360,000 m³ after the start-up of a new short-cycle press in May 2013. It also commissioned a new treating line in Ponta Grossa at the start of 2012.

The particleboard mill in Montenegro was commissioned in June 2009. Masisa had originally been planning to build another MDF mill in Montenegro. However, plans to this effect had been changed to particleboard in September 2007. The company had then ordered the essential plant components from Dieffenbacher. Among other things, this project involved a used 9.5ft x 42.6m continuous press that had produced straw board at the Canadian company Isobord Enterprises of Elie/Manitoba and Isobord's successor company Dow BioProducts until December 2005 and was then sold to Masisa. Prior to the

transfer to Brazil, the press has been modernised at Dieffenbacher's Canadian plant in Windsor/Ontario.

The MDF line in Ponta Grossa, which is equipped with a 9ft x 33.2m continuous press, was originally supplied by Metso Panelboard. With this investment Masisa expanded its production activities to the Brazilian Market. In January 2008 Masisa signed an agreement under which the company wanted to buy the stake of Brascan Brazil in Tafibrás Participaciones, at that time the holding company of Tafisa Brazil in Pién. In addition to Masisa's purchase of Brascan Brazil shares, Masisa and Sonae Industria as majority owner of Tafisa Brazil had agreed to merge their Brazilian particleboard and MDF/HDF operations in a joint venture firm. In the following negotiations the two companies couldn't reach an agreement about this joint venture. According to a put/call option, which was signed before, Masisa sold the Tafibrás Participaciones shares to Sonae Industria in July 2008. But only one year later, Sonae Industria transferred the ownership of the Pién mill to Arauco in August 2009.



Masisa site in Ponta Grossa

(Photo credit: Masisa)

In a second investment phase Masisa extended the Ponta Grossa site by an OSB mill. Using a continuous 43.4 x 2.65 m press supplied by Dieffenbacher, and commissioned at the end of 2001, the OSB mill was designed for an annual capacity of around 350,000 m³. Masisa sold 75% of the shares in this facility to the US company Louisiana-Pacific in May 2008. Parallel to the establishment of this OSB joint venture LP-Brasil OSB Industria e Comercio, both companies agreed in a put/call option for the remaining shares. In May 2011 Louisiana-Pacific took over the outstanding 25%.

In the following years Masisa was evaluating the extension of the MDF mill in

Ponta Grossa. The company was long considered as potential buyer for an MDF/HDF production line, which had originally been earmarked for an investment of Pfleiderer at its particleboard mill in Novgorod, Russia. Later Pfleiderer had stopped the MDF/HDF project in Novgorod; the already delivered machinery had been stored at several locations for a number of years. In January 2013 Pfleiderer sold the Novgorod site together with the MDF/HDF line to Ikea Industry Group. At the time of the purchase, Ikea Industry indicated that it did not intend to complete the MDF/HDF project in Novgorod or install the production line at a different location. The company thus searched for a buyer for the MDF/HDF technology. Masisa intended to use this technology to add a second production line to its Ponta Grossa MDF mill. However, it decided not to make this acquisition due to the size of the plant and given that the press width was not optimal for the Brazilian market. In January 2015 Ikea Industry sold the line to Istanbul-based wood-based panel and building product manufacturer Kastamonu Entegre, which transferred the machinery to its Alabuga site in Russia's Republic of Tatarstan. Start-up was in April 2016.

Up until now, Arauco has been represented in Brazil by two facilities in Jaguariáiva and Pién, both in the state of Paraná. The Jaguariáiva MDF mill had become part of the group in spring 2005 when it acquired wood-based panel activities from the Louis Dreyfus group in Brazil and Argentina. At that time, the location did business as Placas do Paraná and was home to an MDF line commissioned in 2001. The core components with an M60 refiner and a 9ft x 27.5m Küsters press were supplied by Valmet Panelboard, which was later renamed Metso Panelboard. Originally designed for a capacity of 200,000 m³ per year the line can now make about 315,000 m³ per year, according to Arauco. A



Former Placas do Paraná site in Jaguariáiva

(Photo credit: Valmet)

second MDF line with an annual capacity of some 500,000 m³ was installed in Jaguariáiva during 2011. Andritz installed the refiner, the forming and press line with a 9ft x 45m continuous press was supplied by Siempelkamp.

A good two years before the start-up of the second MDF line in Jaguariáiva, Arauco had acquired the Pién mill of Tafisa Brasil from Sonae Industria. According to a statement released by Sonae Industria at that time, Arauco had paid €116m to buy all shares and assumed €43m in liabilities. There are three continuous production lines on the site. A particleboard line commissioned in August 1998 can make roughly 300,000 m³ per year; the total capacity of the MDF/HDF lines commissioned in December 1998 and August 2001 is listed at 420,000 m³ per year. All three lines with continuous presses were supplied by Siempelkamp. The particleboard line, which was installed with a 7 ft x 16.5 m press, was extended one year later to 23.5 m. The first MDF line contains a 8 ft x 28.5 m press, the second one is equipped with a 8 ft x 30.4 m press. Laminate flooring operations in Pién were added to a 50/50 joint venture doing business as Unilin Arauco Pisos in April 2012.

By integrating Masisa's two Brazilian mills, Arauco wants to move its total wood-based panel capacity closer to the

10m m³ per year mark. The company had listed its capacity at about 6.570m m³ in autumn 2015 – 3.670m m³ in South America and 2.900m m³ in North America – after investing in facilities in South America and completing acquisitions in North America. The total figure was divided into 515,000 m³ MDF, 300,000 m³ particleboard, 60,000 m³ hardboard and 700,000 m³ plywood in Chile (four mills), 300,000 m³ MDF and 360,000 m³ particleboard in Argentina (two mills), 1.255m m³ MDF and 310,000 m³ particleboard in Brazil (two mills) and 1.470m m³ MDF and 1.416m m³ particleboard in North America (eight mills). The new particleboard plant in Grayling, Michigan, which should start production in the second half of 2018, will have an annual capacity of 800,000 m³.

The creation of the joint venture Sonae Arauco S.A., based in Madrid, on 1 June 2016 added 4.2m m³ in Europe and South Africa, of which about 2.1m m³ can be credited to Arauco based on its stake in the joint venture. According to an investor presentation published by Sonae Industria in July 2015, about 55% of this capacity is in Germany (950,000 m³ particleboard, 880,000 m³ MDF and 460,000 m³ OSB), 33% in Spain and Portugal (880,000 m³ particleboard and 500,000 m³ MDF) and 12% in South Africa (445,000 m³ particleboard and 70,000 m³ MDF). □

Background

SVS-announcement: Sale of Masisa do Brasil to Arauco

<http://download.euwid-holz.de/173702.pdf>



Overseas expansion is to be implemented with projects in North and South America

Egger planning to invest €640m in three facilities in Poland, Argentina and the US

The Austrian Egger group wants to invest a total of around €640m in the greenfield projects in Biskupiec, Poland, and Lexington, North Carolina, planned for the next three years as well as the acquisition of the Concordia works in Argentina agreed by contract for the middle of July.

Roughly €250m is earmarked for building the new particleboard mill in Biskupiec, which is scheduled to go into service at the end of 2018. The investment agreement for the project in Lexington was signed at the end of July. The necessary approval procedure was initiated at the same time. Building work on the particleboard mill is scheduled to begin at the end of 2018, the start-up is planned for 2020. Egger intends to invest around €260m in the first stage of the investment project in Lexington. The acquisition of a particleboard and MDF mill in Concordia (in Argentina's Entre Ríos Province) from Masisa has been concluded by the end of September. The purchase price has been set at US\$155, roughly equivalent to €130m, on a debt-free basis.

With the announcement of the investment decision for the particleboard plant in North Carolina and the takeover of Masisa's particleboard and MDF plant in Concordia/Argentina the Egger group has implemented the overseas expansion plans announced in mid-2015. Egger had subsequently inspected existing plants, especially in North America, during the course of 2016, and also examined acquisition possibilities in South America. After further consideration the company decided after all to make a greenfield investment in North America.

Finally, from an initial list of roughly 50 sites, three counties in North Carolina, South Carolina and Georgia had been selected during the first half of 2017, out of which Lexington was chosen as the new site. During the initial search for investment opportunities in North and South America Egger had also visited the Masisa mills in South America in 2016. These contacts led to negotiations about the Concordia mill during the first half of 2017, which could be concluded until July.

Parallel to that preparatory planning, Egger has also conducted a phased

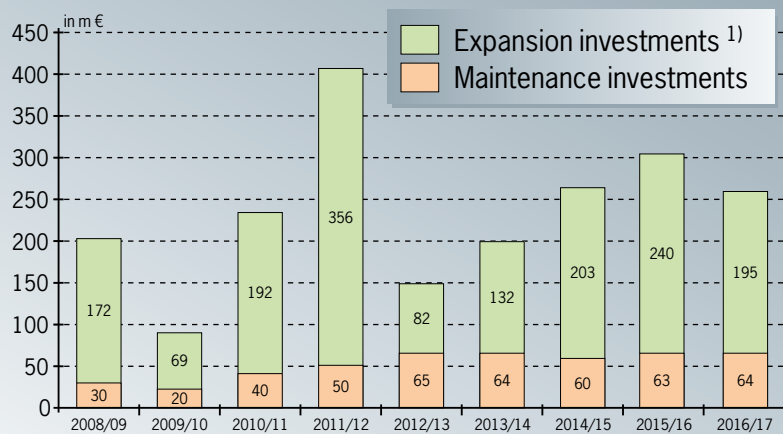
expansion of its sales activities on the North American market. Sales coordination, customer service and architect advisory services are provided by Egger Wood Products LLC, a sales company founded last year in Atlanta, Georgia. During October Egger is to open a new distribution centre in Livonia, near Detroit, Michigan. Retail customers served directly by Egger that already have their own warehouses can be served more quickly from the new distribution centre in future. This centre is mainly set up to handle higher-quality products for the furniture industry and interior remodelling. In South America Egger had established the sales company Egger Productos de Madera in Con-Con, Chile in 2012. This entity's activities were transferred to a new sales branch in Santiago de Chile in December 2013.

Construction work in Biskupiec can begin

The building permit for the particleboard mill in Biskupiec has been received in the first half of September 2017 after multiple delays. Construction work can now begin after only earth-moving work to prepare the site has been performed to date. In the first step, the foundations are to be poured for the production halls and key production machinery. Technology assembly is to get under way at the start of 2018 depending on weather conditions and building progress. Start-up is scheduled for the end of 2018.

Egger's plans to build the new mill in north-eastern Poland had been unveiled in October 2016. At the start of August 2015, the firm announced a greenfield investment in Eastern Europe and first reviewed several locations in a number of countries. It had focused its plans on Poland during 2016. Egger chose Biskupiec, which is located in the special economic zone of Warmińsko-Mazurskiej Specjalnej Strefy Ekonomicznej

Egger group: Investments



1) including acquisitions

Source: EUWID according to information from Egger

(WMSSE), out of a number of possible sites in north-eastern Poland in autumn 2016. The environmental impact assessment was completed by mid-February. The building permit was originally expected during the second quarter but took longer than planned due to appeals. In the next phase, Egger has to complete the permit process required to commission the mill under the EU Integrated Pollution Prevention and Control (IPPC) Directive.

In the first project phase that is now getting under way, Egger will install a particleboard line with an annual capacity of some 650,000 m³, two laminating presses and a 55 MW power plant in Biskupiec. The project involves an investment of about €250m. The site will employ about 400 workers at first after commissioning. In subsequent investment phases, its laminating capacity is to increase and its downstream refining capabilities will be expanded to include additional products.

Three project phases for the Lexington site

The wood-based-panel investment project in Lexington was announced on 24 July 2017 during a joint meeting between on the one hand Michael Egger and Walter Schiegl (Group technical manager), and on the other hand Roy Cooper, governor of North Carolina, and Steve Googe, executive director of the Davidson County Economic Development Commission.

In the first project phase covering six years, Egger intends to erect a particleboard plant with laminating capacity at a total investment cost of roughly €260m. The start of construction is planned for the end of 2018, and commissioning is scheduled for 2020. In that first phase, roughly 400 direct jobs are to be created in the medium term. The particleboard plant is to be built on a 220-acre site (almost 90 hectares) located in the I-85 Corporate Park newly set-up by Davidson County. The particleboard plant will occupy roughly 40 hectares of the site envisaged for Egger, so that roughly 50 hectares will still be available for subsequent investment phases.

Following the construction of the particleboard plant, two further project phases are planned. By the year 2032, Egger will thereby have invested a total of roughly US\$700m and created roughly 770 new jobs. According to a notice published by the N.C. Department of Commerce on 24 July, Egger can take advantage of various grants for the project.

Lexington is located in Davidson County in the US federal state of North Carolina, roughly 30 km south of Winston-Salem and 30 km south-west of High Point. Numerous companies engaged in the US-American furniture industry are headquartered in the region of the plant site, while High Point is the venue for the High Point Market trade fair, which is held every six months and which is claimed by the organiser to be the world's biggest furniture fair. The next two stagings of that fair will be from 14 to 18 October 2017 and from 14 to 18 April 2018.

Contracts for Concordia mill were inked mid-July

The contracts to buy Masisa's particleboard and MDF mill in Concordia and the associated sales network were inked on 17 July 2017. The purchase price was fixed at US\$155m on a debt-free basis. Masisa's Argentinean forestry activities are not part of the transaction, although the two companies have entered into a long-term partnership to supply the mill with timber. Masisa's Concordia's 500 employees has been retained by Egger after closing. According to Egger, the transaction did not require approval from anti-trust authorities. Closing conditions thus mainly related to the acquisition approvals required from the Masisa side. The acquired company will be renamed Egger. Masisa's product brands and sales network may continue to operate under their current names in a transition period, although they will also be renamed in the medium term.

Built by Masisa and commissioned in 1994, the Concordia facility has a total of four production lines with an annual capacity of almost 170,000 m³ particleboard and 280,000 m³ MDF. A single-opening press in operation since 1994 (annual

Background

SVS-announcement: Sale of Masisa Concordia to Egger

<http://download.euwid-holz.de/173701.pdf>



capacity: 144,000 m³) and a calendar line (25,000 m³) are available to make particleboard. However, Masisa idled the calendar unit indefinitely last year for profitability reasons and has yet to resume operations there. The start-up of a continuous production line in 1995 (160,000 m³) marked Masisa's entry to the MDF production business in Concordia. A second continuous MDF line followed in 2001, which primarily makes thin MDF. This line started operations with an annual capacity of 70,000 m³, but can now make up to 120,000 m³. A portion of the MDF it makes is turned into mouldings at three profiling lines. Approximately 274,000 m³ can be laminated using three short-cycle presses in Concordia. Melamine film supply is safeguarded by a treater at the site. Georgia-Pacific Chemicals operates an adhesive resin plant doing business as Resinas Concordia in direct proximity to the Masisa facility.

The Argentinean sales network also acquired by Egger encompasses the franchise-like Placacentro network with a total of 56 branches operated by 42 independent partners. Besides distributing to special merchants using this network, Masisa also serves industry and DIY shops in Argentina. Egger will initially continue to operate the Masisa sales network in its current form. In the medium term, the Placacentro network should be turned into a structure similar to the Egger key merchant system that has been established in a variety of European markets. At the same time, the network is to be renamed. Egger said that more extensive co-operation with Placacentro locations in other South American markets is not envisaged.

According to a statement published by Egger on 18 July, Masisa generated revenues of US\$131m in Argentina in the 2016 financial year. Masisa was the second-largest wood-based panel supplier in the country with a market share of about 35%. □

Mill to add particleboard and resin production capabilities in medium term

Kronospan Luxembourg poised to invest about €330m in two major phases

The Kronospan Group wants to undertake a further expansion of its site in Sanem, Luxembourg that does business as Kronospan Luxembourg in the coming years.

The company is to spend a total of roughly €330m on the project in two major phases. Running from 2017 to 2021, the first phase includes the construction of two biomass power plants and the modernisation of the OSB line. Furthermore, work to optimise infrastructure and the flow of goods is planned. Kronospan put the investment in the first phase at €150m-170m in a presentation given at the Luxembourg Ministry of Economy on 19 May. The second phase, which will start in 2021, entails raising recycled timber capacity, installing a particleboard line and backward integration into adhesive production. The new particleboard line is to run on 100% recycled timber. Kronospan also wants to deliver new strategies for manufacturing technology, circular economy, energy generation and CO2 reduction with the investments planned in Sanem. Examples include new recycling concepts for making particleboard, MDF/HDF and OSB, the possible expansion of its raw material basis and the use of new drying and gluing technologies, especially for OSB.

Kronospan installed a new biomass power plant in the past year and commissioned this technology by the start of the second quarter of 2017 as part of the first investment phase that is already under way. The Ecogen combined heat and power plant will ultimately have a total capacity of 40 MW, breaking down into 8 MW of power and 32 MW of heat. The facility is to have a 95% efficiency thanks to consistent waste heat utilisation, which will be used to operate the planned belt dryer for OSB strands. The plant is to incinerate about 100,000 tonnes of waste wood each year, including bark and production residues, using a 65 m²



OSB, MDF and laminate flooring mill in Sanem

(Photo credit: Kronospan)

moving grate. The downstream boiler can generate up to 47 tonnes of overheated steam per hour at a pressure of 80 bar and a hot steam temperature of 470°C. The resulting heat of up to 32 MW is used to operate the belt dryer, the existing fibre dryer, the pressurised refining system at the MDF mill and the two production lines. A steam turbine with a generator is to also generate up to 8 MW of power.

The planned second biomass power plant will be three times as large as the plant that is now getting up and running with a total capacity of 125 MW. High-temperature steam is to be used to run the power generation plant, which has a designed capacity of 20 MW. The medium temperature range is to be used to generate process steam. The low-temperature steam is meant to operate the OSB dryer in future. Kronospan believes that the temperature will be in the region of 90-120°C. The second power plant should be used to generate a total of 105 MW of heat.

The next large project entails the modernisation of an OSB line that has been up and running since 1996. The multi-

opening press is to be replaced by a continuous forming and press line during the next year. Kronospan will also introduce a new drying concept as part of the required expansion of the front end and final assembly systems; a belt dryer is to supplement the existing drum dryer. These planned steps are to roughly double production capacity. Holtec is to deliver a rotary debarker with feeding and bark management technology. The belt dryer was ordered from Stela Laxhuber. The forming and press line will be supplied by Dieffenbacher.

Kronospan built the Sanem site starting in 1994 and has since invested more than €300m there. Commissioned in July 1995, the MDF line features a 9 ft x 33 m continuous press and now has an annual capacity of about 270,000 m³ per year. In a second stage, Kronospan had installed a multi-opening OSB line, which it commissioned in November 1996. Optimisation work performed in recent years boosted its capacity from an original level of about 160,000 m³ to roughly 220,000 m³. The forming and press lines for both projects came from Siempelkamp. □

Letter of intent signed in mid-September / Deal to close by end of 2018

Homanit eyeing construction of a thin board mill after acquiring Baltwood

The MDF/HDF producer Homann Holzwerkstoffe signed a letter of intent to acquire the Lithuanian hardboard manufacturer UAB Grigeo Baltwood in late September.

Homann will next perform due diligence at the firm, which is owned by the paper and board manufacturing specialist AB Grigeo. Grigeo intends to complete the transaction, which will be handled via Homanit Holding during the next 18 months. Upon closing, Homanit will retain all of Grigeo Baltwood's 140 employees and rename the firm Homanit Lithuania.

Homann Holzwerkstoffe wants to finance the takeover using free cash flow, corporate bonds and existing lines of credit. In its 2016 annual report, which was published back in mid-April, the firm already indicated that it intended to grow further through strategic acquisitions and had enough liquidity to do so. The group's thin board manufacturing subsidiary Homanit subsequently purchased the assets of the insolvent insulating board producer Homatherm, based in Berga, with effect from 1 March 2017 and integrated them

into a new firm founded for this purpose, Homanit Building Materials.

Hardboard production is to continue in full at Grigeo Baltwood after the acquisition. In the medium term Homanit wants to invest in a new thin MDF/HDF line and a variety of pieces of downstream processing technology in Grigiškes, which is located about 10 km west of Lithuania's capital. In a press release published on 21 September, the firm made mention of lacquering, laminating, partition and folding technology. The Grigeo Baltwood facility already has the space and infrastructure needed for an expansion of this kind.

Homanit had previously built two thin board mills in Karlino (Homanit Polska sp. zo.o.) in 2007/2008 and in Krosno (Homanit Krosno Odranskie sp. zo.o.) in 2014/2015. Conversely, production ceased at its Herzberg headquarters at the start of 2009. The Polish investments had also been implemented at hardboard producers, which had been previously acquired. After purchasing the insolvent Polish hardboard producer Plyty Karlino at the end of February 2005, Homanit

first installed a printing and lacquering line there and added more cutting capacity during 2005. A new thin board line in Karlino started operating in May 2008. At the same time, Homanit installed a second printing and lacquering line. In 2012, laminating technology was also added at the facility.

The acquisition of activities from the Polish hardboard manufacturer Hardex, headquartered in Krosno Odrzanskie, gave Homanit its second production site in Poland at the end of June 2012. In December 2012, the decision was made to concentrate labour-intensive cutting and refining capacities at its Polish locations in Karlino and Krosno. In return, its location in Losheim am See focused on operating an HDF production line, two lacquering lines and a sanding/sawing combination to make fixed door dimensions. In April 2015, a new thin board facility was commissioned in Krosno, too.

Up until now, all of the shares in Grigeo Baltwood have been owned by AB Grigeo, which was privatised in 1990 and has been listed on the Vilnius stock exchange since 1994 under its old name AB Grigiškes. The lumber and hardboard production specialist UAB Baltwood became part of the group in 2003. The firm undertook a variety of investments in modernising its facilities during 2004.

Grigeo Baltwood claims to presently have an annual output of some 23m m². The company aims to generate revenues of about €17m in the 2017 financial year. According to Grigeo's annual report for 2016, Grigeo Baltwood's total revenues slipped to €16.7m (2015: 19.9m) last year. Its export rate was 85%, with Poland, Sweden, the UK and Finland serving as the biggest markets. Its main product, hardboard, is mainly sold to furniture and packaging producers and to building and DIY companies. □



Thin board plant in Krosno Odrzanskie

(Photo credit: Homanit)

Production in former Falco plant in Pomposa di Codigoro is to commence by Q2 2018

Kastamonu Entegre intends to relocate Darbo particleboard line to Bulgaria

Over the course of coming months, Turkish wood-based panels and building components manufacturer Kastamonu Entegre is to relocate the production equipment of former French particleboard manufacturer Darbo, which was acquired in an auction on 14 March 2017, to the location in Gorno Sahrane, Bulgaria, which operates under the name of Kastamonu Bulgaria A.D.

The Kastamonu subsidiary, which emerged from the takeover of Gabrovnitsa A.D. concluded in 2000, has been manufacturing so far on a Flexoplan multi-opening press line supplied by Schenck Panel Production Systems and Dieffenbacher in 1986. This multi-opening press, with six openings, a 1,830 x 3,660 mm format and a production capacity of meanwhile some 670 m³/day and 220,000 m³/year, is to be replaced with the continuous production line from the Darbo plant. Darbo commissioned the Dieffenbacher equipment in 1996, and in 2000 the press was extended. A production capacity of 1,750 m³/day and almost 580,000 m³/year was achieved with the 7 ft x 42.4 m pressing format. The Darbo

assets acquired by Kastamonu also include a Dieffenbacher short-cycle press as well as an energy plant (71.8 MW) supplied by Vyncke, which was first commissioned in 2008. The replacement investment in Gorno Sahrane is to be concluded over the course of 2018.

Over recent months, Kastamonu has also clearly defined plans for the relaunching of operations of the particleboard plants of Italian Gruppo Trombini. It had acquired the two mills situated in Pomposa di Codigoro and in Frossasco during liquidation proceedings involving the insolvent Gruppo Trombini that began in November 2013. Kastamonu said that it had completed the takeover, which took the form of an asset deal, at the start of May 2017. Concrete talks had begun in the first quarter; an agreement in principle was reached in March.

In a first stage, production is to start up at the Pomposa di Codigoro location in the second quarter of 2018. Until then, the company intends to install an impregnation line, a short-cycle press and equipment for production of resins at the

plant which comes equipped with a continuous press measuring 7 ft x 43.7 m for an annual capacity of some 480,000 m³, supplied by Siempelkamp. In the first stage, some 200 persons are to be employed in Pomposa di Codigoro. For the former Annovati plant in Frossasco, which can produce some 320,000 m³/year with a continuous press with the dimensions 7 ft x 33 m, there are currently no specific plans according to Kastamonu.

In Turkey Kastamonu is currently focusing on the expansion of further processing capacities. In the Adana MDF/HDF plant, an additional laminate flooring line has been commissioned. The line, which according to company information has a capacity of some 16m m²/year, is to manufacture products such as tile formats of up to 12mm thickness, four-sided bevelled laminate flooring and laminate flooring with EIR surface.

At the Kastamonu location, a second production line is expected to commence for high-gloss surfaces marketed under the name of Glossmax in the fourth quarter of 2017. For the procedure, Kastamonu utilises the HotCoating technology of Kleiberit. The 135 m long and 2,400 mm wide application plant is to be supplied by Barberán. The first HotCoating equipment from Kastamonu was started up in 2015.

Kastamonu Entegre reports presently having an annual production capacity of 2.4m m³ of MDF/HDF, 2.6m m³ of particleboard, 70m m² of laminate flooring and 19.5m doorskins at its facilities in Kastamonu, Gebze, Balikesir, Samsun, Tarsus, Adana (all in Turkey), Reghin (Romania), Gorno Sahrane (Bulgaria) and Alabuga (Russia). With some 5,700 workers at 16 production facilities in Turkey, Romania, Bulgaria, Bosnia-Herzegovina and Russia, the firm generated consolidated revenues of €1bn last year, including about €400m outside Turkey. □



(Photo credit: Kastamonu)

Mataura MDF plant currently operating as Dongwha and Laminex joint venture

Daiken and Dongwha agreed on a sale of MDF producer Dongwha New Zealand

Japanese Daiken intends to take over the Mataura MDF plant in New Zealand, which operates under the name of Dongwha New Zealand, and belongs to the South Korean Dongwha Group.

According to a report in business magazine Nikkei Asian, the two companies have agreed a corresponding transaction which is to be completed by the end of the year. Daiken intends to take over all shares in Dongwha New Zealand via its local New Zealand company. So far the shares have been held by Dongwha Hong Kong International, which belongs to the Dongwha Holdings Group, based in Seoul, South Korea, as well as minority shareholders.

Dongwha took over the Mataura plant, which operated under the name of Rayonier NZ at the time, from Rayonier in August 2005. The purchase price was said to be US\$40m. Once this transaction was completed, Dongwha renamed the plant Dongwha Patinna NZ. At the beginning of September 2007, Fletcher Building acquired a 20% share in Dongwha Patinna. Fletcher Building subsequently classified this shareholding under Laminex Group, which, in May 2007, had decided against the reconstruction of the MDF plant in Taupo, New Zealand. The plant had been heavily damaged by a fire in September 2006. By selling the Mataura plant, which is equipped with a continuous press supplied in 1997 by Küsters in the dimensions 8 ft x 28.1 m and has an annual capacity of some 170,000 m³, Dongwha is withdrawing from the Oceania region. Laminex is focussing its MDF activities on the Gympie plant in Queensland, which achieves an annual capacity of some 230,000 m³ with two production lines supplied in 1988 and 1997 by Siempelkamp with continuous presses in the dimensions 2.55 x 21 m and 2.55 x 23.5 m.

Shortly after the takeover of the former Rayonier plant, the Dongwha Holdings Group



(Photo credit: Dongwha)

concluded three further acquisitions in the MDF sector within a short period of time. In September 2005 the Asan MDF plant, operating under the name of Hansol Homedeco and belonging to conglomerate Hansol Forest, was taken over. This was followed in November 2006 by the takeover of Merbok's MDF and resin activities. These were subsequently renamed Dongwha Fibreboard (DFB) and Dongwha Chemical (DCM). Guthrie MDF, which was acquired by Dongwha in May 2007, was renamed Dongwha MDF (DMM). The Malaysian companies were assigned to Dongwha Malaysia Holdings Sdn. Bhd. In 2008 Dongwha founded the joint venture company MDF VRG Dongwha with the Vietnam Rubber Industry Group (VRG). In February 2012 this joint venture commissioned an MDF production line and is currently setting up a thin board line.

Daiken has so far operated three MDF plants in Malaysia and New Zealand. At the Bintulu and Miri locations in Malaysia hardwood MDF is produced, and the plant in Rangiora, New Zealand, focuses on processing of radiata pine. With the commissioning of the Bintulu MDF plant, operated

under the name Daiken Sarawak Sdn. Bhd., Daiken commenced production of MDF in 1994. In 2005, together with Itochu, Daiken took over the majority of shares in the Miri MDF plant, which previously belonged to Samling Global and has since been operating under the name of Daiken Miri. Initially, Daiken held a 55% share and Itochu a 15% share, with the remaining 30% being held by Samling.

At the beginning of 2009, together with Itochu, Daiken took over the Rangiora plant of Carter Holt Harvey (CHH). At the time, via several transactions, this plant had been separated from the wood-based panels business operated under CHH Pinepanels. Daiken initially held 51% shares in the newly formed Daiken New Zealand, and the remaining 49% was held by Itochu and Itochu New Zealand. In May 2012 Daiken increased its shareholding in the plant to 85.1%. The production capacity of the Rangiora plant is estimated to amount to some 200,000 m³. This plant was set up in 1976 with a multi-daylight press supplied by WIW and expanded in 1994 with a continuous press supplied by Dieffenbacher. □

Cooperation on colour measurement systems

Colorgate Digital Output Solutions, based in Hanover, and Improve Process Analytics and Control GmbH (Ipac), headquartered in Villach, Austria, in which Fagus-GreCon Greten has held a majority stake since September 2016, are collaborating to develop inline colour measurement solutions for digital printing. Manufacturers and users of industrial digital printing systems are included in the agreed cooperation as project partners. In this connection, especially addressed are companies which realise or operate systems for colour-critical production and which attach great importance to colour consistency. The planned inline colour measurement system is to ensure continuous colour accuracy and colour-consistent print results on single-pass digital printing systems via Closed-Loop Colour Correction.

Colorgate specialises in digital printing software solutions and colour management. The company focuses on systems for colour-correct print data preparation for industrial digital printing applications such as the production of ceramic wall and floor tiles, surface decoration of wood-based materials and floor coverings, as well as in the packaging sector. Ipac has developed an offline colour measurement system called Advanced Color Measurement System (ACMS), which has predominantly been used in decor printing and the wood-based materials industry so far. In the next stage of the development of an inline colour measurement solution - iCMS - Ipac and Colorgate are now going to collaborate. □

Formica to modernise North Shields in phases

The laminate manufacturer Formica which is part of Fletcher Building's International division, invested a total of NZD12m or €7.7m in modernising its site in North Shields in the UK during the 2016/2017 (30 June) financial year. Fletcher Building intends to spend a total of £40m or €45m

on the modernisation project, which will be implemented in a total of three phases, by 2019.



(Photo credit: Fletcher Building)

The decision to undertake this project had been made in mid-2016 a short time after the Brexit vote. The exact timetable was fleshed out at the start of June 2017. In a first step, Formica set up new European headquarters at its North Shields production facility. The relocation of about 80 workers in the finance, human resources, IT, sales, marketing, customer services and business development departments reversed the 2008 spin-off of administration to the Cobalt Business Park. The installation of a continuous press and a new treating line is planned at the production facility. Unconfirmed reports suggest that Formica ordered a 2.20 m-wide double-belt press with a 4.20 m-long press zone from Held Technologie, based in Trossingen, Germany, during the first half of the year. This press is to be delivered and commissioned in 2018. □

Toppan Europe to buy majority stake in Decotec

The Japanese decor printer Toppan Cosmo wants to acquire a majority stake in the decor printer Decotec Printing, based in Tordera, Spain, through its European subsidiary Toppan Europe. Decotec Printing has been owned by the Spanish wood-based panel manufacturer Finsa up until now. The remaining shares will be retained by Finsa. Toppan and Finsa reached an agreement in principle on the main points of this transaction in May. These plans transpired during the Interzum trade fair. Toppan Europe notified the German Federal Cartel office of the transaction for approval on 12 July 2017. The application was approved as early

as 18 July, following a relatively brief investigation.

The purchase of a stake in Decotec Printing means that Toppan will have its own decor printing capacity in Europe for the first time. What is more, the company will be able to improve its production capabilities for decor paper that is 7 ft or 2,100 mm wide. These working widths are presently printed in Japan or through a partnership forged in the fourth quarter of 2011 with Chiyoda Europa, headquartered in Genk, Belgium.

Decotec Printing runs three printing machines in Tordera and has previously said that it can print up to 7,500 tonnes per year. The company last achieved annual output of 4,000-5,000 tonnes. Decotec Printing was created in the 1990s as a joint venture involving the Italian firm Confalonieri, based in Filago. Finsa bought shares in Decotec in February 2001 after Confalonieri entered administration. □

Surteco exits leasing contract for Laichingen site

Surteco exited a finance leasing agreement for Plant I in Laichingen during the final quarter of 2016. Conversely, the automotive supplier Holder Oberflächen-technik, which had used a hall in the former Süddekor facility as a sub-tenant since the end of 2015, entered into a new leasing contract with the property's owner, LHI Leasing.



(Photo credit: EUWID)

According to an article in a local newspaper in late May, this contract includes a later purchase option. The article stated that Plant I, which housed the Süddekor printing facility as well as a paper and cylinder warehouse until the end of 2015, had a total area of 43,000 m², whereof some 27,000 m² is under cover. The site

also includes a former Süddekor office building with an area of some 2,500 m².

The exit from this finance leasing agreement was reflected in several balance sheet items in Surteco's annual report for 2016. Its tangible fixed assets were trimmed by about €10m as the lessee is the economic owner in one of the leasing deals so the assets in question had to be listed at fair value in the balance sheet. At the same time, current liabilities arising from future leasing rates from the finance leasing deal were lowered by €9.3m. The original leasing agreement for Plant I stems from a sale and lease back transaction involving Süddekor GmbH, which Surteco acquired in November 2013. □

Benecke, Hornschuch doing business as Continental

Benecke-Kaliko and Hornschuch Group will do business under the Continental brand in future. This change comes after Hornschuch was acquired by the Continental subsidiary ContiTech with effect from 1 March 2017. The appearance of the two companies will gradually switch to Continental's corporate design. The company thus wants to safeguard a uniform brand identity worldwide and create a second field of activity for the Continental brand outside the automotive industry with the new Benecke-Hornschuch Surface Group business unit. Individual product brands, such as thermoplastic film for the furniture industry sold under the skai name, will be maintained.

Managed by Dr Dirk Leiß, the Benecke-Hornschuch Surface Group currently comprises 11 production sites, 20 sales offices and a joint representative office in more than 80 countries. Dr Leiß is Benecke-Kaliko AG's CEO and also serves as the chairman of the supervisory board at Konrad Hornschuch AG in this role. The integration of Hornschuch Group, which has been under way since the start of March and involves 90 workers, is to be completed by the end of 2018, according to a statement published by Continental on 20 June. According to pro forma figures now published, Benecke-Hornschuch Surface Group made a total of 263.5m m² of sheet material in the 2016 financial

year. Benecke-Kaliko generated revenues of about €599m (2015: 549m) with 2,911 (2,569) employees, with the Hornschuch Group booking turnover of about €436m (409.7m) with 1,816 workers. □

Kotkamills has to transfer paper production in Imatra

Stora Enso has terminated a leasing agreement in place since 2010 for PM 7 at the Tainionkoski Mill in Imatra with effect from the end of 2018. Kotkamills group, headquartered in Kotka, used PM 7 to make Absorbex saturating kraft paper under the terms of this leasing agreement. Kotkamills wants to make up for the shortfall caused by terminating the leasing agreement, which recently added up to 25,000 tonnes per year, by expanding capacity at PM 1 at its own facility in Kotka and through contract production at other manufacturers.



(Photo credit: Kotkamills)

The first paper from this contract production are to become available during the first half of 2018. Contract production is to exceed PM 7's present available manufacturing capacity in the medium term. The capacity increase at PM 1 is to provide extra amounts as well.

Up until now, Kotkamills has made impregnating raw paper at PM 1 in Kotka and PM 7 in Imatra. Its total capacity was recently put at around 185,000 tonnes per year. Some of this saturating kraft paper is turned into phenolic film by Kotkamills's Imprex business unit. This product is either used as surface films in the plywood industry (Imprex films) or supplied to laminate producers as core films (Imprex Core Stock). In December 2016, Kotkamills launched a strategic review of its remaining Imprex activities in Finland. Kotkamills' bondholders approved the planned spin-off in mid-January.

However, no decision has been made yet about a possible sale. Kotkamills had divested the Malaysian treater operator L.P. Pacific Films, based in Pasir Gudang, to Surfactor Germany, headquartered in Essen, in the middle of November 2016.

The leasing agreement for PM 7 in Imatra can be traced back to the second-quarter 2010 sale of Stora Enso's Laminating Papers unit to the US investment firm Open Gate Capital. At that time, Open Gate had acquired activities in Kotka and Pasir Gudang and renamed them Kotkamills; PM 7 was leased. This leasing agreement was also renewed after the second-quarter 2015 sale of Kotkamills to the Finnish private equity company MB Rahastot Oy (MB Funds).

Stora Enso makes hardwood and softwood pulp and packaging and food packaging at two production units in Kaukopää Mill and Tainionkoski Mill, based in Imatra. According to a capacity overview contained in Stora Enso's annual report for 2016, total pulp capacity adds up to 1.005m tonnes. Its board machines can make 1.130m tonnes each year, with the firm also having capacity to laminate 270,000 tonnes of board. □

Greenlam raises its laminate capacity

The Indian laminates producer Greenlam Industries commissioned a new production line for laminates with an annual capacity of 2m laminate sheets in Nalagarh, Himachal Pradesh on 5 June 2017. The site's capacity increased to 8.7m units as a result. The second laminate facility in Behror, Rajasthan has an installed capacity of roughly 5.3m sheets per year. Greenlam is thus boosting its laminate capacity to 14.0m units per year.



(Photo credit: EUWID)

Greenlam increased its laminate sales by 7.3% to 12.7m (2015/2016: 11.9m) sheets in the 2016/2017 financial year, which ended on 31 March. Just over half, 6.5m sheets, was shipped abroad, with 6.2m sheets sold within India. Higher sales made up for a 2.8% drop in average sales prices, with revenues jumping 4.4% to INR8.322bn (7.974bn). The Laminates & Allied division saw its EBITDA rise 8.9% to INR1.239bn (1.138bn), with the corresponding margin climbing to 14.9 (14.3)%. □

Ahlstrom-Munksjö exploring decor investment

Ahlstrom-Munksjö wants to install decor paper capacity outside Europe, too, in the medium term. This company was founded in 1 April 2017 as a result of the merger of the speciality paper producers Munksjö and Ahlstrom. The framework conditions for overseas investments had improved through the creation of the larger group of Ahlstrom-Munksjö. The company is currently reviewing investment opportunities of this kind. The focus is on regions with forecast stronger growth in demand. Munksjö already had considered investment projects in China and Brazil in recent years, but did not flesh out these plans. According to Ahlstrom-Munksjö estimates the global decor paper market will grow at an average rate of 2-4% in the coming years. This corresponds to an annual increase in demand of 30,000 to 55,000 tonnes. To meet this growth in demand, at least one new paper machine had to be added each year. Several European companies are currently preparing for or implementing investment projects of this kind in Europe and Asia. □

Ahlstrom-Munksjö's results impaired by higher costs

The continuing growth in pulp and titanium dioxide costs had considerable consequences for the financial results of the „Décor“ division of Ahlstrom-Munksjö in the second quarter. According to CEO Jan Åström, although the volume of décor paper sales surpassed the 50,000 t mark

in a single quarter for the first time, the increase in volume was counteracted by slightly lower average prices again. As in the preceding quarters, this reduction in prices was mainly attributable to changes in the product mix. Net sales revenue was slightly higher than a year earlier at €98.2m (April-June 2016: €97.8m). Comparable EBITDA more than halved, however, to €8.1m (€17.6m), reducing the margin to 8.2% (18.0%).



(Photo credit: EUWID)

The reason Åström gives for this is the increasingly rapid growth in titanium dioxide prices and the further increase in pulp prices, which can only be compensated for with a several-month delay by putting décor paper prices up, which has been done in the meantime. Åström says titanium dioxide prices have been raised by another €280/t in the third quarter, giving rise to a cumulated cost increase of almost €1,000/t over the last five quarters. Further increases have been pushed through in prices for eucalyptus pulp as well in the third quarter, even though the upward trend is no longer as steep as it had been in the second quarter. □

Marked leap in Chemour's sales revenue and result

The price increases gradually pushed through during the course of the last few quarters were reflected in a considerable improvement in the sales revenue and results of the titanium dioxide manufacturer Chemours in the second quarter of 2017. According to an investor presentation published on 6 September, Chemours last raised its titanium dioxide prices by 130-135 US\$/t with effect from 1 July. The prices had previously been raised by 100-200 US\$/t on 1 March. The relatively wide range is due to the pricing strategy pursued by Chemours for quite some

time, differentiating between grades, regions, and sales areas.

The quarterly report shows that the titanium dioxide prices established by Chemours in the second quarter on average worldwide were 14% higher than last year's figure. The sales volumes were stepped up by 8%. Chemours says its production capacity is being fully utilised at present. The „Titanium Technologies“ division's sales revenue for the quarter rose by 22.3% against a year earlier. The adjusted EBITDA increased 73.9%, resulting in a 6.9 percentage point better margin of 26.5%. □

Egger commissions three digital printing lines

During the first quarter of 2017, the Egger Group commissioned three digital printing lines at its sites in Wismar, Brilon and Gifhorn (Germany). The company claims that all three lines are now producing. The 7-ft-wide multi-pass printer from Durst Phototechnik, based in Brixen (Italy), set up in the new flooring plant in Wismar has been used since January for printing cork floor coverings which in the meantime are being marketed under the designation „comfort+“, after previously having been known as „cork+“.



(Photo credit: Egger)

In Brilon and Gifhorn, Egger had installed two single-pass lines from Hymmen and commissioned them in February. On the line being operated in the new plastic-edging plant in Brilon, Egger is printing PP-edging for the first time. Following commissioning of edging production in the second quarter of 2016, only single-colour edging had initially been produced. The 1,600-mm-wide digital printer installed in the laminate plant in Gifhorn has also been in operation since February and is now printing decors for the CPL sector. □

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Disproportionate increase in Europe / Further shift towards white decor paper

Growth in global decor paper market greater than expected even without China

Last year, after a temporarily somewhat slower pace of development in 2015, the global decor paper market (without China) grew more heavily than expected and outperformed the forecasts for 2016 as well.

According to „Decor Paper Market Research 2016“ presented by Ahlstrom-Munksjö Germany Holding at the beginning of May 2017, 745,000 t of décor paper were sold worldwide (without China) last year, breaking the former record of 724,000 t for 2006 for the first time. The increase against 2015 (710,000 t) was 4.9%. In last year's market study for 2016 by what had been Munksjö Germany Holding at that time, it had been assumed that market growth would amount to 1-3%. This should have amounted to a worldwide sales volume of 710,000-730,000 t without China. The company had been working from the assumption of somewhere in the region of 720,000-750,000 t for 2017. The stronger growth had already enabled this volume to be achieved last year. Ahlstrom-Munksjö is anticipating slightly

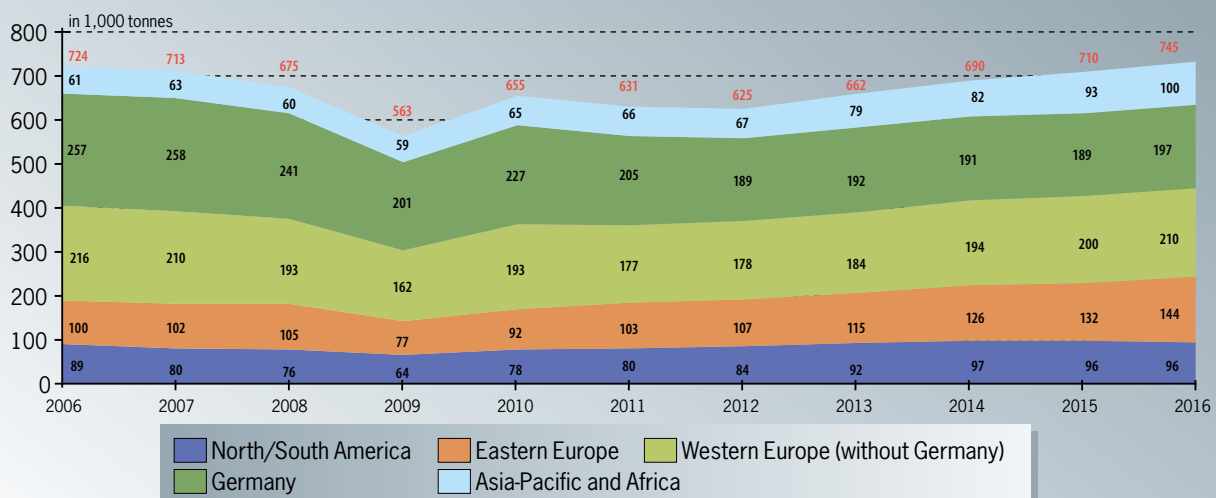
lower annual growth rates of 2-3% again for 2017 and 2018. This should enable a market volume of 760,000-775,000 t to be achieved in 2017; 775,000-795,000 t is already considered possible for next year.

This would create an average annual growth (CAGR) of 3.0-4.1% for the period of 2012-2018. The heavy losses in 2008 and 2009 had led to a negative CAGR of -2.4% in the period from 2006 to 2012. From 2001 to 2006, however, the décor paper market had grown by an annual average of 6.8%. Here, the greatest growth had been achieved in 2002, 2004 (both +10%), and in 2010 (+16%). With an increase of almost 5%, 2016 was the joint sixth-best with 2003 since 2001 in terms of the annual growth rates after 2006 (+8%) and 2013 (+6%). The biggest reductions had occurred in 2009 (-17%), 2001 (-10%), 2008 (-5%), and 2011 (-4%). Over all, the worldwide sales volume of decor paper (without China) has fallen short of the previous year's figure in six years since 2001; there has

been an increase in ten years. From 2001 (521,000 t) to 2016, the market volume rose by a total of 224,000 t or 43.9%.

330,300 t (2015: 315,400 t) of the 745,000 t sold worldwide (without China) in 2016 was accounted for by LPL paper, whose share of the total sales volume remained just below the previous year's figure again at 44.3% (44.4%). The LPL share of the total had previously grown increasingly heavily since 2009 whereas the share of the printing base papers had gradually declined. The volume of printing base paper sales had also developed downhill in the same period of time. A minor increase had only occurred in 2014. Ahlstrom-Munksjö had identified a slight turnaround in both performance characteristics again last year. The sold volume of printing base paper rose by 7.0% to 281,800 t (263,400 t), which equates to a 37.8% (37.1%) share of the total sales. A higher volume of printing base paper sales was last achieved in 2010; at that time the share of the total sales had still amounted to 46.2%.

Market development of decor paper 2006-2016 ¹⁾



1) without China

Source: Ahlstrom-Munksjö Germany Holding

Out of a combined total of 611,400 t of melamine paper, which was processed by décor printers, impregnators, LPL laminators, and HPL/CPL last year, 275,300 t was printed. (Photo credit: EUWID)



After the growth achieved in the preceding years, sales of HPL/CPL paper fell again slightly for the first time to 63,800 t (64,200 t) in 2016. In contrast, the upward trend in pre-impregnates continued, albeit at a slightly slower pace. Ahlstrom-Munksjö believes the sales volume was only slightly below the 70,000 t mark at 69,100 t (67,000 t). As such, 9.3% (9.4%) of the global sales volume of décor paper (without China) was accounted for by pre-impregnates. The share of HPL/CPL paper fell a little more heavily than the year before to 8.6% (9.0%).

As in the previous years, Ahlstrom-Munksjö did not only analyse the décor paper market in terms of product groups but by sales channels and sales regions as well. 333,400 t or 44.8% of the total of 745,000 t sold by the décor-paper industry last year were delivered to décor printers who also process pre-impregnates and edging paper in addition to printing base paper. Laminators (LPL and HPL/CPL) took delivery of a combined volume of 328,500 t, 264,700 t of which was accounted for by LPL laminators and 63,800 t by HPL/CPL manufacturers. 83,100 t went to impregnators. After printing, décor printers in turn supplied 223,000 t to LPL laminators and HPL/CPL manufacturers, 58,000 t went to impregnators and 52,000 t to furniture and construction-element manufacturers. The impregnators thus processed a total of 141,000 t of décor paper, 118,000 t of which was sold to the LPL/HPL/CPL sector and 23,000 t to the furniture /construction element sector. LPL laminators and HPL/CPL manufacturers correspondingly obtained from the décor paper industry, printers, and impregnators a combined volume of 670,000 t and supplied it to furniture/construction element manufacturers. Volumes of rejects have not been taken into account in this review according to sales channels.

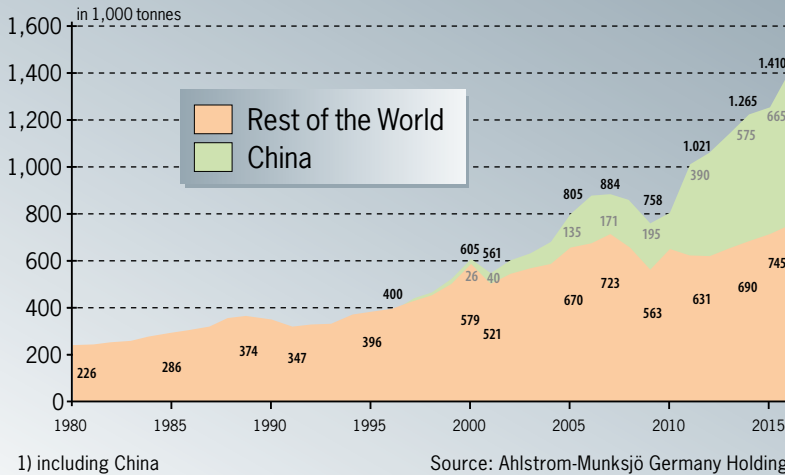
As such, a combined total of 611,400 t of melamine paper was processed by décor printers, impregnators, LPL laminators, and HPL/CPL manufacturers last year, 275,300 t of which was printed and 336,100 t marketed as unicolour paper. The bulk of the pre-impregnate volume of 69,100 t went through printers (51,600 t), impregnators processed 17,000 t, and LPL laminators 500 t. The volume of edging paper sales (13,000 t) was split into two almost equal parts between printers (6,500 t) and impregnators (6,100 t). The remaining 400 t was delivered to LPL laminators. 42,400 t of the total sales volume of 51,500 t of backing paper went to LPL laminators with their own impregnating capacity, 8,300 t to independent impregnators, and 800 t to HPL/CPL manufacturers.

According to the Market Research report by Ahlstrom-Munksjö, the shift towards white décor paper observed for several years now was perpetuated in 2016 as well. 419,000 t of the worldwide total sales volume of 745,000 t (without China) was delivered as white décor paper; this equates to an increase of 8% on the year before. The white proportion thus rose to 56%. The sold volume of coloured décor paper, however, only rose by 0.3% to 326,000 t, which equates to a share of 44%. Leaving aside the 51,500 t of backing paper recorded by Ahlstrom-Munksjö as coloured décor paper even produces a white share of 60%.

In terms of the different regions, there was no consistent development last year either. In 2014, all the regions had contributed to the market growth achieved at that time. In 2015, the renewed reduction in Germany had caused the volume of sales in the euro regions to remain slightly below the previous year's volume. The volume of sales had fallen even more sharply in South America. In Europe, on the other hand, disproportionate growth was achieved last year. The volume sold in Germany increased for the first time in quite a while by 3.9% to 196,700 t (189,300 t). Ahlstrom-Munksjö established an increase of 4.1% for the euro region as a whole to 334,600 t (321,500 t). In western Europe (without Germany, with Turkey), growth was even more pronounced at 4.9% to 210,100 t (200,200 t). The volume of eastern European sales rose by 9.0% to 143,800 t (131,900 t). This results in 5.6% growth in the sales volume for Europe as a whole to 550,600 t (521,400 t).

The sluggish development continued in North and South America, however. After the slight increase a year earlier, the volume of North America sales decreased again by 2.5% to 47,500 t (48,700 t) and thereby fell below the 2014 level as well. The downhill trend slowed in South America; at 46,500 t (46,700 t), the previous year's figure was only missed by a short margin. This results in a reduction of 1.5% for America as a

Market development of decor paper 1980-2016¹⁾



whole to 94,000 t (95,400 t). Like 2015, the growth rates were more pronounced in the remaining regions. In the Asia-Pacific region (without China) the volume sold amounted to 83,000 t (78,200 t), an increase of 6.1%. Ahlstrom-Munksjö states even greater growth of 15.8% for the Middle East and other regions to 17,400 t (15,000 t).

Production in China grew more sharply again

Also in China output of decor paper rose more sharply again last year, after the slow growth in 2015. The „Decor Paper Market Research 2016“ report presented by Ahlstrom-Munksjö Germany shows that the China National Forest Products Industry Association (CNFPIA) established an increase of 15.7% to around 900,000 t (2015: 778,000 t). As such, the growth rate was restored to the level of the multiannual average. According to the CNFPIA figures, Chinese decor paper production had risen by 17.8% and 16.9% respectively in 2013 and 2014 whereas growth of only 1.6% had been recorded for 2015. The CNFPIA only records printing base paper, white and unicolour decor paper, and backing paper. Ahlstrom-Munksjö believes a good 20% of the Chinese output is unable to meet the usual requirements for standard decor paper, however. Adjusting the CNFPIA figures for these volumes, Ahlstrom-Munksjö establishes a decor

paper output of around 715,000 t for 2016. This exceeds the 635,000 t assumed for 2015 by 12.6%. On the basis of the 610,000 t assumed for 2014, the output was raised by 4.1% in 2015. The growth in Chinese exports of decor paper sooner slowed in the same period of time, however. Ahlstrom-Munksjö estimates that a net volume of 15,000 t was exported in 2013. 35,000 t and 45,000 t are assumed for 2014 and 2015 respectively; 50,000 t was achieved last year. The production volume of 715,000 t and the net exports in 2016 give China a 12.7% higher volume of local decor paper sales than a year earlier at 665,000 t (590,000 t).

Ahlstrom-Munksjö believes China's share of the total global decor paper output surpassed the 50% mark for the first time last year. A total of 1.410m t (1.300m t) of decor paper were produced worldwide in 2016, 715,000 t or 50.7% (48.8%) of which was made in China. Another 11,000 t was manufactured in other Asian countries. Europe contributed 634,000 t (611,000 t) or 45.0% (47.0%) to the worldwide decor paper output, 35.7% (37.5%) of which was accounted for by western Europe and 9.2% (9.5%) by eastern Europe. Germany's share of the output has continued to decline in recent years; 29% in 2015 and 28% in 2016. The local output in North and South America fell by around 2,000 t in each case, taking

the former's output down to 30,000 t (32,000 t) and the latter's to 20,000 t (22,000 t). The share of the global output correspondingly amounted to 2.1% and 1.4% respectively, putting America's share at a total of 3.5%.

Of last year's output of 504,000 t in western Europe, a net volume of 97,000 t (98,000 t) was exported. Local demand thus increased to 407,000 t (389,000 t). 130,000 t (124,000 t) was produced and a net 14,000 t (8000 t) imported in eastern Europe, resulting in an increase of 9.1% against last year to a market volume of 144,000 t (132,000 t). North America produced 30,000 t in 2016, imported a net 17,000 t and consumed 47,000 t. The output in South America turned out to be considerably lower at 20,000 t. Net imports were considerably higher at 27,000 t. This put decor paper consumption at the same level as in North America at 47,000 t. 11,000 t were produced in the Asia-Pacific region, a net 72,000 t were imported, and 83,000 t sold. As in the previous years, these three regions were thus net importers. Another 17,000 t were delivered to the Middle East and other regions. Europe and China were net exporters, whereby the gap decreased between the two regions.

Ahlstrom-Munksjö derives a global market volume of 1.410m t (1.300m t) from the sales volumes stated for the individual regions for last year. 655,000 t or 47.2% of this was sold in China and 745,000 t or 52.8% in all the other regions. China's share has risen continuously in the last few years. With the exception of the slump in 2008 and 2009, this compensated for tendency towards weaker development in other regions. According to a longer-term overview contained in the Decor Paper Market Research report, the global decor paper market has increased more than six-fold since the beginning of the 80s and has quadrupled since the beginning of the 90s. It doubled from 2003 to 2016. Ahlstrom-Munksjö's overview shows that a relevant consumption of decor paper did not arise in China until the second half of the 90s. The Chinese market in 2011 was roughly half as big as the rest of the world. The two regions' markets are meanwhile both of a similar scale. □

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Four new printing machines, four new treating lines and fourth decor paper machine

Schattdecor poised to invest about €120m in new production capacity

Schattdecor is set to boost its manufacturing capacity in the US, Turkey, Italy, Russia and China with a €120m investment project. These funds are to be deployed by the end of 2018.

Up until now, the company had planned to invest roughly €50m in 2017. Based on this figure, investments will be much higher in 2018 at approximately €70m. Schattdecor had invested €48.2m in 2013, €59.5m in 2014, €38.9m in 2015 and more than €80m in 2016. After these investments Schattdecor has been operating 35 printing machines, one single-pass digital printing line, seven lacquering lines, 12 treating lines and 12 lab printing machines at 14 production sites in nine countries.

By mid-2018, its printing operations are to gain four printing machines – two in Schattdecor's standard width of 7 ft and two narrow lines that are 4 ft wide. Its treating operations are to add four treating lines in the same period. Two lines earmarked for China will be 4 ft wide; the width of the lines for the projects planned in Russia and Italy will be 9 ft. Schattdecor also wants to

invest in upstream products by installing another paper machine at its decor paper joint venture Kingdecor, based in Quzhou, Zhejiang Province, and in expanding its printing ink joint venture Arcolor.

Its printing locations in Maryland Heights near St. Louis, Missouri and Gebze, Turkey are to each add another 7 ft-wide rotogravure printing press. Both presses will be delivered by Rotodecor. The second press at the US location is to commence operating at the end of 2017; the third printing machine in Turkey is slated to start manufacturing in the first quarter of 2018. Two more narrow printing machines have been installed at the existing printing location in Shanghai, China. The first machine started in August, the second followed in September. As with the two existing narrow lines, the technology provider is Rotodecor's Chinese subsidiary. These two machines had started operating in November 2015 and February 2016 respectively.

Following the latest expansion, no further investments in manufacturing can be made at the Shanghai facility. Schattdecor thus

wants to build a second printing site in China by the start of 2019. The new plant is to be built in Quzhou close to the Kingdecor site. Kingdecor's own facility in Quzhou is to commission a fourth decor paper machine in the second half of 2018. The building and infrastructure had been prepared when the third paper machine was built and commissioned in February 2015. The new paper machine will have a width of 3.900 mm, the projected capacity is 40.000 t per year.

A fifth treating line will be installed in Rosate, Italy by mid-2018, with an option agreed for a sixth line. The new line will be supplied by Tocchio International and go into production in the second half of 2018. The Russian printing location in Chekhov will also gain a treating line by mid-2018, supplied by Rotodecor. Start-up of this line is planned for the third quarter of 2018. The newest of three treating lines at the Russian site Shatura will next be transferred to Chekhov. Resin production capabilities are planned there at a later point in time. Machinery will be installed in a 10,700 m² production building constructed since autumn alongside the existing printing facility. Manufacturing space is also to be expanded at the Brazilian treating location in São José dos Pinhais, Paraná by building a new hall by the start of 2018. However, there are no plans to add capacity for the time being.

Schattdecor will also launch treating operations in China. Towards the end of March, the firm purchased a 50% stake in the joint venture Saintdecor in Wuhan. The company wants to start operating in the second half of 2017 with two 4 ft-wide treating lines and a resin manufacturing unit. The first line is presently in the start-up procedure, with the second to start operating at the year's end. Imaco has supplied both systems. Schattdecor will thus be able to supply both printed decor paper and melamine film in China in future. □



(Photo credit: EUWID)



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Treating operations at the Proba site expanded to phenol films last year

Russia's Slotex group has entered decor printing business during third quarter

Slotex, a firm based in St. Petersburg, Russia that has specialised in HPL/CPL laminates, elements, laminated board and melamine/phenol film to date, entered the decor printing business during the third quarter of 2017.

Towards the end of July, a new company created for this purpose, OOO Slotex-Decor, commissioned the first four-colour printing machine and a rewinder in a new production hall built in Proba, about 20 km away from St. Petersburg, during the first half of 2017. Over the next two years, the company intends to invest in a second machine. With production space of about 1,500 m², the existing hall has space to house three printing machines. A separate area of the hall has 1,380 m² of storage space available.

During the past year, Slotex installed a laboratory printing machine with a working width of 660 mm at its laminate and element plant in St. Petersburg. At the same time, the firm set up a repro department with a total of six employees, two of whom primarily work in decor development. Colour matching for new decors is performed digitally for the most part.

Slotex-Decor had acquired the second-hand printing machine and laboratory plant from Surteco Decor at the end of 2015. Both pieces of technology had originally been delivered to Süddekör by Kochsiek. Commissioned in 1996, the printing machine has a working width of 2,250 mm and production speed of about 350 m/min. It was overhauled and modernised by WDB Systemtechnik during the transfer to Proba. G&Z Montageservice won the contract to move this machinery; Inter-Flex installed and commissioned the technology. These three companies had also moved five printing machines from the Süddekör



First printing machine in Proba

(Photo credit: Slotex)

I Plant in Laichingen to Büttenwiesen-Pfaffenhofen for Surteco Decor from February 2015 to January 2016. The printing machine now acquired by Slotex-Decor is one of the three machines left in Laichingen.

Slotex-Decor wants to primarily supply external customers in future. As plans currently stand, just 5-10% of printed decors will be used in-house by its laminate production machines. About 20% of the printing volume will also be treated by Slotex's treaters in Proba and then sold as melamine film. The other 60-70% will be sold on the free market in both Russia and for export.

Alexander Bürger manages the company, having worked for Slotex since November 2014. At first he was mainly responsible for treating activities on OAO Slotex's managing board. He is also a fellow partner in Slotex-Decor, which was founded last year. After working as a technology specialist at Süddekör, Bürger was production manager at the decor printer and treater operator Mepa, based in Oudenaarde,

Belgium, and then took a similar position at Confalonieri, a subsidiary of the Valentini group and headquartered in Filago, Italy.

Slotex was founded as a furniture board producer in 1990. In 1999, the company became the Russian representative of the Italian laminate manufacturer Abet Laminati, based in Bra. Slotex started making laminates in 2003. In 2005, the firm commissioned a first treating line purchased second-hand. In 2006, treating activities were integrated into a joint venture with Hans Schmid GmbH & Co. KG, which did business as OOO Hans Schmid Dekor. This entity outsourced treating to the new location in Proba in the first half of 2011. During the third quarter of 2014, Hans Schmid exited the joint venture and sold its 50% stake to Slotex. The three treating lines in Proba initially only made melamine film. Following rebuilding work, phenol films were added to their portfolio during the past year. Besides core paper for making laminates, the company can supply the plywood industry with surface films too. □

Investment plans for new site in Virginia have been dropped

BMK invests in North America by acquiring Shaw's treating site

The impregnating company BMK Group, headquartered in Gaildorf-Bröckingen, has acquired a site in Welcome, North Carolina from the US flooring company Shaw Industries, with effect from 1 October 2017.

The purchase agreements were signed on 14 September 2017. BMK Group has founded two entities for this asset deal. The property will be transferred to BMK Properties LLC. Production and distribution should be handled by BMK Americas LLC in future. Shaw's site in Welcome, which is close to Lexington, employs 33 workers who will join BMK Americas. Founded in Charlotte, North Carolina by BMK in April 2016, DKB Decor Inc. will serve as a holding entity in future.

In mid-August, Shaw announced plans to close the impregnating site in Welcome, which it acquired in June 2005 from Dynea Overlays and which has since done business as Plant LP. At the same time, a laminate flooring mill in Ringgold, Georgia that was known as Plant LM and started operating in the first quarter of 2002 is to close by the end of October. Shortly

after this announcement, BMK entered talks about acquiring the Welcome plant, which were wrapped up after about four weeks. The two companies have already worked together for several years. Dekor-Kunststoffe GmbH (DKB), which is based in Erndtebrück-Schameder, and was acquired by BMK in September 2015, entered a partnership with Shaw at the start of 2014 under which the company can use available capacity in Welcome for contract manufacturing orders.

Under the new agreement, Shaw has continued operations in Welcome up until the end of September before handing them over to BMK Americas without a break. The facility is equipped with two treating lines delivered by the firm then known as Vits Maschinenbau in 2000. The lines can make about 70m m² per year and each have a working width of about 9 ft. One of the two lines also has a corundum coating line. In recent years, however, Shaw has only operated one line and thus achieved an annual output of about 25m m². Its portfolio has been solely geared towards flooring films. Shaw has used its products both directly in its own laminate flooring

manufacturing site in Ringgold, Georgia as well as sold them to other North American laminate flooring manufacturers through an existing sales partnership between Shaw and DKB, especially to Mannington Mills, based in Salem, New Jersey.

BMK wants to add furniture films to the range of products made in Welcome, which until now has focused on melamine films for producing laminate flooring, in future. Up until now, these activities have only been served through imports from DKB's plant in Erndtebrück-Schameder. Melamine film imports, which are primarily handled through the ports of Charleston (South Carolina), Norfolk (Virginia) and New York are to continue and focus primarily on speciality products. Its biggest North American client at present is Uni-board Canada, headquartered in Laval, Quebec. In February 2017, BMK also entered into a long-term supply agreement with Arauco North America through DKB Decor. This agreement will initially run until the end of 2020. To provide the required amounts, the treating line that is presently idle in Welcome is to be retrofitted to make furniture films over the coming months and resume operations by the middle of 2018. BMK Americas is to increase its workforce in Welcome to about 40 workers in this context.

BMK had gradually advanced its long-standing plans to expand to North America over the past few months. Until the time that talks with Shaw began, the firm had anticipated that it would build a new impregnating location. During the second quarter, DKB Decor selected a piece of land in Williamsburg, Virginia from a number of locations on the east coast of the US. This option was dropped with the acquisition of the Welcome facility. The order placed for a new treating line that had been placed with Rotodecor in the first half of 2017 has been shelved for now. □



The new BMK site in Lexington

(Photo credit: BMK)

€99m purchase price has been financed entirely with borrowed capital

Surteco bought all shares in Portuguese Probos Plásticos group through Döllken

Surteco has significantly strengthened its position on the Iberian peninsula and in strategically important markets in Central and South America with the complete takeover of the Portuguese plastic edging producer Probos Plásticos, based in Mindelo.

The acquisition of Probos Plásticos has been wrapped up on 7 July 2017, a fortnight after putting pen to paper. The contracts had been signed on 23 June after the completion of negotiations lasting about six months. Surteco had announced the planned transaction one day later in an ad-hoc statement. The purchase agreement did not impose any conditions precedent. Anti-trust approval was not required because the overall market for thermoplastic edging is not that large.

Surteco has acquired all shares in Probos' Spanish parent firm Global Abassi through Döllken Kunststoffverarbeitung in connection with the deal closing. The sellers were Alantra Private Equity, the private equity firm of the Spanish investment banking and asset management

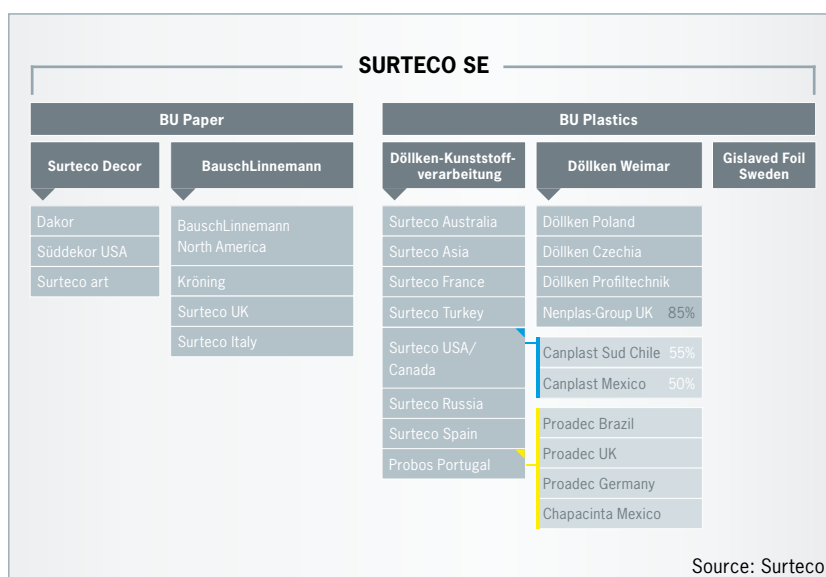
group Alantra Partners as well as Probos' management team, which held a smaller number of shares. The purchase price of €99m, which was based on goodwill on a cash free/debt free basis, is nine times last year's EBITDA of Probos. It has been completely financed by borrowed funds, as Surteco announced after the paperwork was signed. Surteco said that it has very sound financing, also after the deal closed. At the end of the first half of 2017, Surteco had a balance sheet total of €687.1m (30 June 2016: 673.9m) and equity of €338.3m (346.6m). Its net debts reached €114.4m (135.6m). The equity ratio hence stood at 49.2 (51.4)% and the debt level (ratio of equity to net financial debt) at 34 (39)%.

The Probos group has been consolidated within Surteco's plastic division retroactively to 1 July. Surteco will continue to operate the Probos group in its existing form. Probos will still be run as a separate company and headed by its current management team led by CEO Maria Conceição Gomez and director of sales Paulo Moutinho. The Probos brands will also be maintained.

Surteco wants to significantly improve its market position on the Iberian Peninsula and in Central and South America by integrating Probos. In terms of products, the firm is to enhance its portfolio of thin edging in particular, which plays a much bigger role for Probos than at Döllken entities. Döllken mainly uses ABS as edging material, as well as PP and PVC, the latter predominantly at non-European sites. Probos focuses on PVC edging. Like Döllken („fusion edge“), Probos also offers an option in its portfolio that is suitable for laser and hot-air units („Proair“).

Up to the Probos acquisition, Surteco has mainly been represented in Central and South America by two joint ventures in Chile and Mexico. The Probos group comprises the PVC and ABS edging manufacturing specialists Probos Plásticos (Mindelo) and Proadec Brasil (São Jose dos Pinhais, Brazil) as well as the sales companies Proadec Deutschland (Bad Oeynhausen, Germany), Proadec UK (Greenhithe, UK), Edging Plus (Greensboro, North Carolina, US) and Chapacinta (San Pablo Tultitlán, Mexico). Proadec UK was created on 1 June 2008 when the distributor T & A Carter, which had been acquired in 2006, was renamed. The Mexican distributor Chapacinta was acquired in 2011. Surteco said that Probos employed about 470 workers and generated revenues of €66.5m, EBITDA of €11.0m and an EBITDA margin of 16.6% in the 2016 financial year.

Probos Plásticos' predecessor Productos Adesivos e Decorativos (Proadec) was founded in 1977 by Belmiro de Azevedo, the main shareholder in Sonae Industria. Activities were transferred to Probos - Químicos e Plásticos through a management buy-out in June 1997. After another name change to Probos - Resinas e Plásticos, the company focused on its edging business with the November 2003 spin-off of its Divisão Químicos division,



which specialised in water-based resins for the adhesive and coatings industry. In 2008, the Portuguese private-equity firm Explorer Investments purchased a stake in Probos Plasticos with the Explorer II fund, which had been established in 2007 with a €200m investment. Explorer sold all shares in Probos Plasticos to a Spanish consortium of investors surrounding Dinamia Capital Privado and Nmás1 Capital Privado for €75m in a secondary buy-out in January 2013. In a second phase, Probos Plasticos's management team also purchased shares. According to financials published at that time, Probos Plasticos had posted revenues of close to €58m (2011: 51.9m) in the 2012 financial year. Its export rate was put at 90%, about half of this sum in South and Central America. Probos Plasticos had generated turnover of about €40m in 2006-2008 and in 2010; revenues slipped to €33m in 2009. However, the EBITDA margin hovered around 15% to 20% throughout the entire period.

Surteco generated group revenues of €639.8m (2015: 638.4m) and EBITDA of €74.3m (65.0m) in the 2016 financial year. Its EBITDA margin was 11.6 (10.2)%, five percentage points lower than Probos'. Its Plastics division was responsible for revenues of €254.4m (243.7m) and EBIT of €22.1m (18.5m) last year. The Paper division saw its revenues fall to €385.4m (394.7m), while EBIT increased to €25.3m (17.1m) on the back of lower extraordinary charges. Surteco already anticipated that its Plastics division would record a considerable growth in turnover in the 2017 financial year. Besides organic growth, full-year consolidation of the Nenplas group, based in Ashbourne in the UK, is to underpin this growth. The Plastics division is to enjoy an even bigger improvement in EBIT despite first-quarter increases in the cost of buying ABS.

The acquisition of Probos has been Surteco's biggest deal since it purchased Süddekor on 1 December 2013. Surteco's last takeover was the 1 December 2016 transaction to purchase a 85% stake in the technical plastic profile specialist Nenplas through Döllken-Weimar. These talks had been close to completion in June/July 2016, but were temporarily suspended after the Brexit vote. The Nenplas sub-



Canplast Sud in Santiago de Chile

(Photo credit: Surteco)

sidaries Polyplas Extrusions and Delta Plastics, a holding firm and two property firms were also integrated into Surteco as part of the transaction. Surteco thus has three manufacturing sites in the UK for the first time. Nenplas had booked turnover of £16.6m in the 2015/2016 financial year, 97% of which was generated in the UK. EBITDA reached £3.8m, translating into a margin of 22.9%. Surteco's annual report for 2016 put Nenplas's revenues at €19.8m and its contribution to earnings at €2.0m on a pro forma basis. Turnover of €1.3m was consolidated from closing on 1 December.

Unlike the Probos acquisition, the €23.5m purchase price for the 85% stake in Nenplas was financed from available cash. Döllken-Weimar agreed on a purchase option and the sellers on a sale option for the remaining 15%, which can be exercised until 31 December 2019. At the time of the takeover, Nenplas's balance sheet showed assets of €32.0m and liabilities of €13.1m, adding up to net assets of €18.6m. Including the outstanding 15% stake, Surteco assumed an enterprise value of €26.2m. The difference was recognised as goodwill. Goodwill listed in the 2016 consolidated balance sheet rose to €118.8m (€111.4m) as a result. The bulk or €111.8m (104.4m) comes from the plastics division, with paper operations responsible for just €7.0m (7.0m). Goodwill from the plastic division broke down into €67.0m (69.1m) from edgebanding,

€36.3m (26.4m) from skirting boards (including Nenplas) and €8.5m (8.9m) from technical foils.

After closing, Probos Plasticos has become part of Döllken Kunststoffverarbeitung, which before operated five production sites for plastic edgebanding in Gladbeck, Greensboro, North Carolina (Surteco USA), Brampton, Ontario (Surteco Canada), Sydney (Surteco Australia) and Batam, Indonesia (Döllken Edgings & Profiles). Surteco Canada also has a 55% shareholding in the manufacturing and sales firm Canplast Sud, based in Santiago de Chile, and a 50% stake in the sales company Canplast Mexico, headquartered in Chihuahua. South and Central American markets are presently served by these two entities.

At the end of 2016, the Surteco group comprised a total of 40 (36) subsidiaries. Some 10 (10) of the fully consolidated entities were located in Germany and 26 (20) abroad, 3 (3) abroad were valued at acquisition cost, and 0 (1) in Germany and 1 (2) abroad were recognised using the equity method. During the course of last year, Surteco's 50% stake in the joint venture Canplast Centro America, based in Guatemala, was liquidated; its 30% shareholding in Saueressig Design Studio, headquartered in Mönchengladbach, was relinquished in the third quarter of 2016. The six Nenplas entities are new additions to the balance sheet. □

Classen suing two IVC companies in the US

The Classen group, based in Kaisersesch, is continuing its actions against sub-licensees of Välinge Innovation with a patent infringement suit filed in the US against the Mohawk subsidiaries IVC US (Dalton, Georgia) and IVC (Avelgem, Belgium). In the case filed with the US Court for the Northern District of Georgia via Akzenta Paneele+Profile, Classen accuses the two IVC companies of infringing US patents 7.146.772, 8.544.231, 9.175.475, and 9.695.851 with its Moduleo luxury vinyl tiles.



(Photo credit: EUWID)

Classen believes that IVC is attempting to avoid paying licence fees for the patents held by Akzenta by entering into a sub-licence with Välinge Innovation and its Belgian subsidiary Välinge Innovation Belgium. However, Classen believed that Välinge Innovation was not entitled to award sub-licences of this kind for the LVT sector. Akzenta had levelled similar claims in a case that it filed against the Strub/Alsapan group, based in Marlenheim, France, in front of the Düsseldorf District Court in August 2017. □

Shaw closing Ringgold laminate flooring mill

The US flooring company Shaw Industries is to exit the laminate flooring manufacturing business and source its laminate flooring from other manufacturers in future. The group informed its customers of the plans back in July 2017 and officially announced the decision on 16 August. By way of explanation, Shaw primarily underscored shifts in the North American laminate flooring market over the past few years.

Shaw is to cease production at the Plant LM laminate flooring mill in Ring-

gold, Georgia by the end of October. This facility had started operations in the first quarter of 2002. At the same time, it will end treating operations at its Welcome facility near Lexington, North Carolina (Plant LP). It had acquired this facility from Dynea Overlays in June 2005. Shaw reported that a total of some 140 employees will be affected by the closure of the two locations, some of which are to be offered employment in other areas of the company.

With an estimated output of 8m-10m m² per year, Shaw is considered North America's fifth-largest laminate flooring manufacturer. The firm entered the laminate flooring business at the start of 1999 by buying products from other companies. Its suppliers were Witex, based in Augustdorf, and Industrias Auxiliares Faus, headquartered in Gandia, Spain. The company built its own laminate flooring mill in Ringgold during 2001. Equipped with two short-cycle presses from Siempelkamp and two profiling lines from Homag this facility gradually started operating in the first quarter of 2002. In the first quarter of 2004 Shaw had bought production machinery from the US laminate producer Formica. This purchase covered the laminate flooring mill in Algona, Washington run by Formica's then subsidiary Stel Industries. Over the next few years, Shaw made laminate flooring at two locations. However, Shaw had closed the Algona facility (Plant LW) in June 2009 in response to the slump in demand for laminate flooring caused by economic conditions coupled by mounting import pressure. It had thus concentrated laminate flooring production in Ringgold. □

Beaulieu Group filed for bankruptcy in mid-July

The US carpet manufacturer Beaulieu Group of Dalton, Georgia, filed for reorganisation under Chapter 11 of the US Bankruptcy Code before the US Bankruptcy Court for the northern district of Georgia located in Rome, Georgia, on 17 July 2017. According to a release issued by the company, ongoing business is to be assured by means of

debtor-in-possession (DIP) financing by the existing creditors; the appropriate pledges have already been received. The owners and management of Beaulieu Group had examined alternative funding solutions prior to the application, but they ultimately favoured the Chapter 11 option.

Beaulieu Group, which used to trade on the market under the name of Beaulieu of America, was originally founded as a carpet manufacturer. In recent years, the company had widened its range of products to include wooden flooring, WPC flooring, laminate flooring, and luxury vinyl tiles. These products are bought in from other manufacturers. At the end of 2014, the company entered the WPC flooring business, for example, with the „Bliss COREtec One“ product line supplied by US Floors of Dalton, Georgia. In June 2016, Beaulieu Group also began marketing laminate flooring produced by external manufacturers.

In spite of this extension of the range of products, Beaulieu Group has been losing sales revenue and market shares in the last few years. According to opinions from the US flooring industry, the company is still relatively heavily dependant from the textile flooring segment. In this particular product segment, Beaulieu Group faces intensive competition from the big flooring groups, who had extended their range of products into other areas at an earlier stage, and from Engineered Floors of Dalton, that Bob Shaw had founded only a few years ago. □

Duratex enters tiles business with Ceusa

Duratex is set to enter the tiles business with the acquisition of the affiliates Cerâmica Urussunga and Massima Revestimentos Cerâmicos. The Brazilian company signed a sale and purchase agreement with Ceusa's owners on 28 August 2017. This agreement put the purchase price for all of the shares in Ceusa at BRL280m or the equivalent of almost US\$90m. This corresponds to almost nine-times Ceusa's EBITDA in the 2016 financial year. Duratex said that the Ceusa group, which employs about

330 workers and has a manufacturing capacity of close to 6m m² per year, generated revenues of BRL162.4m and EBITDA of BRL31.5m last year. The transaction is still subject to a number of conditions.

By acquiring Ceusa, Duratex wants to create a third business area. Up until now, the company has been split into the Wood and Deca business areas. Duratex's last major acquisition was its takeover of the Colombian wood-based panel manufacturer Tablemac, based in Medellin, which took place in several phases from August 2012 to August 2016. Duratex had paid a total of BRL414m for Tablemac. □

plants in Beverly, West Virginia; Oneida, Tennessee; Somerset, Kentucky; West Plains, Missouri; Titusville, Pennsylvania and Warren, Arkansas. □

Mohawk Industries to invest some US\$850m



(Photo credit: EUWID)

The US flooring group Mohawk Industries of Calhoun, Georgia, intends to continue the strategy of expansion that it has been pursuing for several years. The total investment of US\$850m planned for 2017 as a whole is 26.5% higher than last year's figure of US\$672m. In 2013 and 2015 the company had spent over US\$2bn on each of the major acquisitions concluded at that time. US\$1.828bn of the total US\$2.194bn invested in 2013 was accounted for by acquisitions and US\$367m by new and expansion investment projects. Investment activity in the following year of 2014 was governed by internal projects, consuming US\$562m of the total investment expenditure of US\$570m. The emphasis in 2015 was on acquisitions again (US\$1.523bn). US\$504m was spent on internal investment. This resulted in total investment expenditure of US\$2.027bn. Mohawk had thus invested a total of US\$4.791bn over the period of 2013 to 2015, US\$3.359bn of which was spent on acquisitions and US\$1.433bn on new and expansion investment measures. Mohawk has not yet further itemised its investment budget for 2016 and 2017.

The investment projects realised in 2016 and 2017 involve capacity enlargement in wooden-flooring, laminate flooring, LVT, and ceramic flooring in North America. In Mexico, tile capacity at the Salamanca works is to be doubled; the installation of a new production line for textile flooring is planned in Mexicali. In Europe, production

capacity is being enlarged for laminate flooring and LVT. The installation of a new short-cycle press has begun in Wielsbeke, Belgium. The LVT plant set up in Avelgem, Belgium, for manufacturing rigid as well as flexible products is scheduled to start up in the fourth quarter. A carpet tile production line is being built at the Mouscron facility in Belgium, which is also due to commence production from the fourth quarter. In the ceramic flooring segment, Mohawk completed its takeover of the Italian Emileramica Group of Fiorano Modenese in the first quarter of 2017. The Italian tile factory is to be updated in a next step. Capacity enlargement is underway in the tile and laminate flooring segments in Russia. Mohawk has also purchased an existing hall alongside one of the Russian tile works in order to set up a production line for resilient flooring there. □

Armstrong to close two wood flooring locations

US floor-coverings manufacturer Armstrong Flooring (AFI) intends to close two plants in which solid parquet and upstream products for multi-layer parquet production are produced. In its financial statements for the first half of the year published on 7 August 2017, the group explains this step as being due to the deterioration in the turnover and profit situation in the wood flooring business division.



(Photo credit: EUWID)

The locations in Jackson, Tennessee and Vicksburg, Mississippi are affected - a total of some 300 persons are employed at these sites. In Jackson AFI produces solid parquet and in Vicksburg upstream products made of plywood are produced for further processing into multi-layer parquet. In both cases the closures are to be completed over the course of the fourth quarter of 2017. Consequently, the number of timber processing locations in the company will be reduced from currently eight to six. The remaining locations are

Tarkett and Forbo allocate reserves for cartel case

The floor-coverings concerns Tarkett and Forbo Holding have allocated substantial reserves for potential cartel fines. According to a notice published on 20 July 2017, Tarkett allocated more than €150m in its half-year statement of accounts. As a result, the net result for the first half of 2017 and for the year as a whole will be in the red. According to a notice which was also issued on 20 July, Forbo has allocated SFR85m or €76.8m to reserves. The company claims that potential burdens from the cartel proceedings have been shown until now in its financial reports as potential obligations. However, Forbo has now received from the French cartel authority a reliable indication of the cartel fine to be expected, so that this special effect can now be booked in the balance sheet.

The reserves refer to cartel proceedings commenced in March 2013 by the French cartel authority against several producers of elastic floor coverings. Those producers are alleged to have concluded agreements on market behaviour from the beginning of the 1990s. Both Tarkett and Forbo claim to have cooperated with the cartel investigations from the start. □

EPLF members had increased worldwide sales by 5.8% to 477.5m m² in 2016

Laminate flooring producers faced a slight decline in global sales again

The 17 ordinary members of the association European Producers of Laminate Flooring (EPLF) booked total worldwide sales of 234.5m (Jan.-June 2016: 239.7m) m² in the first half of 2017.

This was just shy of the same period last year and followed a growth in 2016. Echoing what happened last year, this slump was solely driven by the Western Europe region where sales dropped 6.2% to 121.6m (129.6m) m². The association booked double-digit decreases in Germany (-13.6%), UK (-4.9%) and France (-2.2%) performed better than the Western European market as a whole. The downward spiral in Turkish sales recorded since 2014 continued with a 11.9% drop. The next biggest markets in the Netherlands and Spain closed the first six months on a similar level as last year.

Eastern European sales were up 0.5% at 60.6m (60.2m) m². Poland (+6.8%) developed better than Russia (+0.9%), but Russia kept its position as biggest sales market in this region. Romania stayed the third largest sales market (-1.6%). Ukraine

(+17.7%) recovered again, while Hungary (-3.5%), Bulgaria (-6.8%), Slovakia (-7.4%) and the Czech Republic (-19.3%) fell below last year's level.

Other regions delivered stronger growth. North American sales were 5.3% higher at 24.6m (23.4m) m². The US (+12.3%) performed better than the Canadian market (-5.5%). The EPLF sales statistics show a 7.4% upturn in South American sales to 9.2m (8.6m) m². Shipments to Mexico leapt nearly a quarter, while deliveries to the biggest market to date, Chile, were down 7.0%. Asia fared even better with a 9.7% jump to 14.0m (12.8m) m². The EPLF's quarterly statistics solely cover deliveries from its members' European production facilities, including Russian mills.

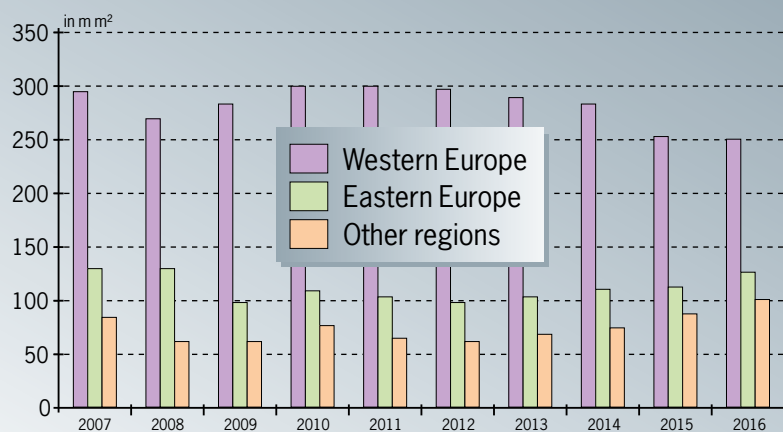
In 2016 laminate-flooring producers organised in the EPLF increased their worldwide sales by 5.8% to 477.5m (2015: 451.3m) m², according to the final figures published in February. Growth was therefore slightly stronger than had initially been assumed. Based on provisional figures, the EPLF had reported a plus of 5.6% to 476.5m

(2015: 452.4m) m² during the Domotex fair in January.

In Western Europe EPLF members sold a total of 250.2m (253.0m) m² in 2016, representing a year-on-year decline of 1.1%. In other regions, significant growth in sales volume was achieved in some cases. Eastern European sales were up by 13.3% to 126.0m (111.2m) m², and North American sales showed a plus of 22.6% to 47.2m (38.5m) m². Deliveries to Asia increased by no less than 53.5% to 26.8m (17.5m) m². However, a good half of that growth resulted from the change to the country categories at the beginning of 2016, through which several sales markets which had previously been listed under Other Countries were recategorized for the first time under the Asia region. Of those countries, Kazakhstan, with sales of 2.8m m², immediately occupied second position in the Asia region behind China/Hong Kong.

The decline in sales in Western Europe was primarily influenced by the most important market, Germany, where sales volume fell by 3.6% to 63.3m (65.7m) m². The downward trend seen in the last five years, with year-on-year declines in sales volume ranging from 4.1% to 5.8%, therefore slowed. The continuing decrease is attributed by EPLF to a substitution of laminate flooring with modular multilayer flooring (MMF). In France and in the Netherlands sales volumes of 37.4m (37.4m) m² and 19.3m (19.1m) m² respectively have remained approximately constant year on year. In Great Britain, the volume sold by EPLF members increased by almost 8% to 33.0m (30.6m) m², while Spain showed an even higher rate of growth, at 8.7% to 16.7m (15.3m) m². In Turkey, following the sharp decrease in sales in 2015, sales volume fell again, by 11.6% to 27.5m (31.1m) m². Among the factors contributing to that trend were the anti-dumping duties imposed in mid-June 2015 on laminate-flooring imports from Germany. □

EPLF: Global sales of laminate flooring



Source: EUWID according to data provided by EPLF

In 2016 production and consumption of parquet have risen for the second successive year

European parquet markets continued to grow for the most part in first half of 2017

The positive performance delivered by most European parquet markets has continued in the second quarter of 2017 after a slight growth in the first three months of this year.

The European Federation of the Parquet Industry (FEP) believes that the industry is currently benefiting from the good state of the construction sector throughout Europe. According to a market overview published by FEP nine out of 13 countries registered further growth in the first half of 2017. The Dutch market fared especially well, which the FEP said had achieved a 7% growth on the back of strong home building activity. Growth rates of 1-4% have been reported for the other markets. Swedish parquet sales had risen 3-4%, while sales in Poland were up 2-3%. France also booked average growth of 3% in the first half of the year. The FEP overview shows that Belgian sales were 2.5% higher. Germany and Austria both recorded growth rates of about 2%; both countries still face sizable competition from other types of flooring; business in Germany was also hampered by a lack of

tradesman capacity. The slowest growth rates were booked in Denmark (+1-2%) and in Italy (+1.5%). Spain, Finland, Norway and Switzerland delivered a stable performance.

According to FEP statistics, in 2016 a total of 77.015m (2015: 75.768m) m² of parquet flooring were consumed in the 16 member countries. With a growth of 1.7%, parquet consumption has risen for the second successive year. After consumption volumes in each of the years 2012 to 2014 had declined, 2015 saw slight growth again of 0.5%. In 2016 only three of the 16 member countries showed a decrease in consumption: Switzerland (-2.2%), the Netherlands (-4.2%) and the group Finland/Norway/Denmark (-1.2%). In Romania the volume was nearly unchanged. All other countries showed low to mid-single-figure-percentage growth rates.

Parquet production in 2016 increased year-on-year by 2.5% to 65.603m (2015: 63.982m) m². In 2015, growth had been of a similar order, at 2.6%. In contrast, in

each of the three preceding years 2012 to 2014, production volume in the FEP countries had shown a declining trend. All countries except for Italy (-1.8%), Romania (-0.2%) and Switzerland (-3.3%) contributed to last year's production growth.

With a below-average rate of growth of 1.3% to 13.170m (13.000m) m² Poland remained by far the largest producer in the FEP region, with a share of 20.1% (20.3%) in total FEP parquet production. Sweden further consolidated its position as the second-largest production country, with above-average production growth in 2016 of 4.7% to 11.144m (10.640m) m². Austrian parquet production was up by roughly 1% to 9.197m (9.106m) m². In Germany, which is the fourth largest FEP producer country, parquet production rose to 7.854m (7.656m) m², representing growth of 2.6%. The four largest production countries Poland, Sweden, Austria and Germany together accounted for a total of 41.365m (40.402m) m², or 63.1% (63.2%) of total production in FEP countries, followed by France, Spain, Norway/Denmark/Finland and Romania. □

Europe: Parquet Production ¹⁾

in 1,000 m ²	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Change in % 2016/15
Poland	13,000	16,677	15,280	11,817	12,450	12,450	12,950	13,280	13,170	13,000	13,170	+1.3
Sweden	17,250	17,000	12,000	9,300	9,350	9,375	9,080	8,780	9,290	10,640	11,144	+4.7
Austria	8,782	8,401	7,603	7,223	7,958	8,236	8,275	8,275	8,993	9,106	9,197	+1.0
Germany	12,905	13,000	11,043	10,006	10,995	10,348	10,401	10,377	8,255	7,656	7,854	+2.6
France	5,850	7,566	5,652	4,351	4,505	5,618	5,325	4,900	5,125	5,130	5,285	+3.0
Other	38,124	35,690	31,146	22,824	23,242	23,603	20,235	19,415	17,525	18,450	18,953	+2.6
Total FEP	95,912	98,333	82,723	65,522	68,500	69,630	66,266	65,027	62,357	63,982	65,603	+2.5
Multi-layer parquet	75,660	76,974	65,172	52,652	55,387	55,599	53,008	52,134	48,873	50,809	52,395	+3.1
Solid-wood parquet	17,730	18,589	15,312	10,750	11,601	12,685	12,085	11,679	12,140	12,065	12,134	+0.6
Mosaic Parquet	2,521	2,770	2,240	2,120	1,511	1,346	1,173	1,215	1,345	1,109	1,074	-3.1

1) in FEP member states

Source: EUWID according to data provided by FEP

Ikea exploring another reduction in formaldehyde emissions

Several kitchen furniture producers opt to switch entirely to low-emission WBPs

Even though additional delays are emerging in regulatory projects under way in a variety of countries, more movement has occurred after all in discussions surrounding another reduction in formaldehyde emissions from wood-based panels held since the start of the year.

Over the second quarter, more kitchen furniture companies have opted to switch manufacturing entirely to wood-based panels with reduced formaldehyde emissions. A complete changeover of this kind has been bolstered mainly by small export-oriented firms to date, but a few major manufacturers now appear to be falling into line. In April, the Italian kitchen and bathroom manufacturer Scavolini, headquartered in Montelabbate, informed its suppliers of a similar move. After a relatively brief transition, the company wants to only use types of wood-based panel that meet formaldehyde emission rules set forth in the CARB 2 rules that have applied in California since the start of 2011. Häcker Küchen, based in Rödinghausen, one of Germany's five big kitchen furniture manufacturers, has also made a decision of this kind. The changeover has taken place during the third quarter, after talks with suppliers had been held on this issue.

Over the past few months, other producers have also reviewed whether they will have to adjust their manufacturing to reflect new formaldehyde rules that are to be introduced in the US and France. However, most of these companies have tended to take a wait-and-see approach to date. By way of explanation, they pointed to the delays that have now emerged in both countries, the varying importance of these markets for their export business and the additional costs associated with a complete changeover. The US Environmental Protection Agency (EPA) has pushed back the deadlines for the introduction of new emission values by a year



Häcker Küchen has switched to CARB 2 boards.

(Photo credit: Häcker)

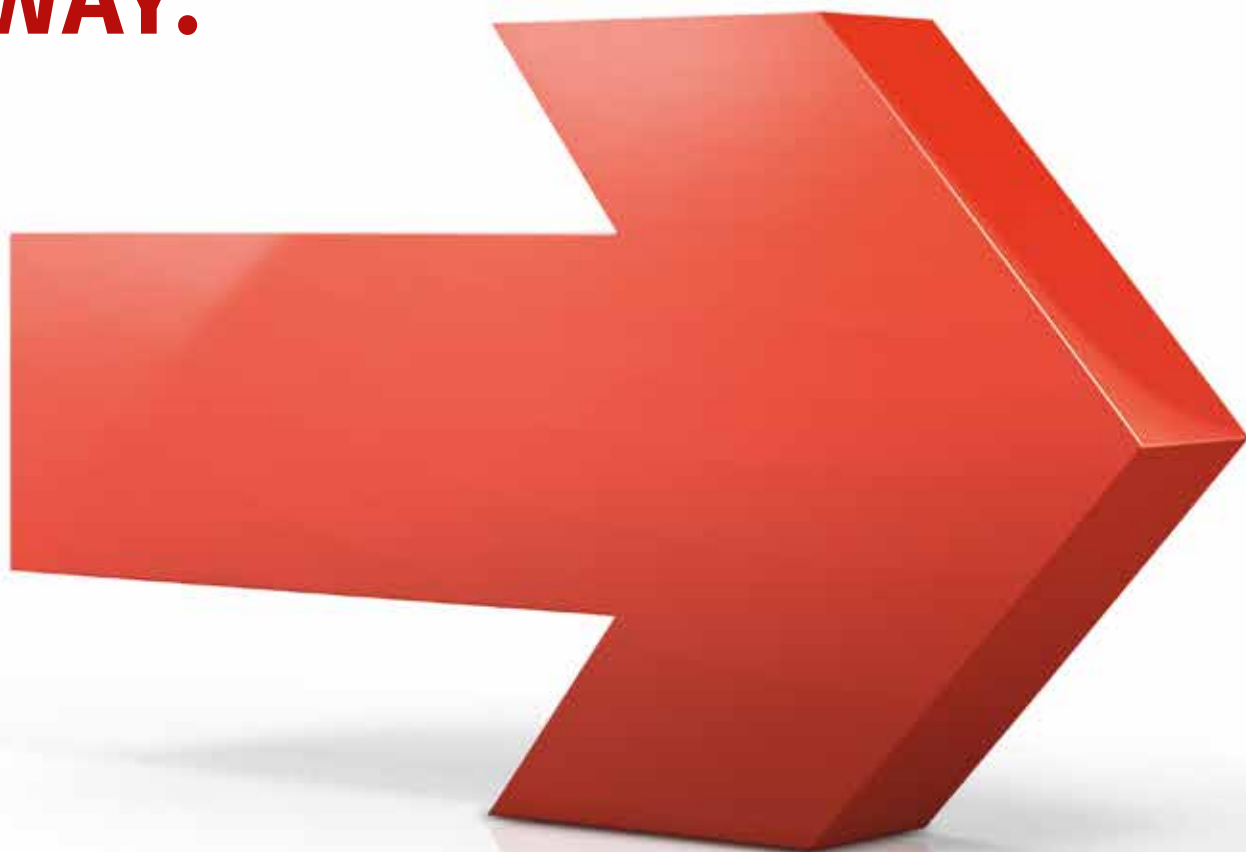
on 30 August 2017 after multiple delays were encountered in recent months. The rules set forth in CARB 2, which has been in effect only in California to date, will thus not apply until 12 December 2018. The furniture labelling system planned in France is to take effect from 1 January 2020 based on the latest draft. The notification process under way at the European Commission was also extended by three months towards the middle of April.

Additional costs are also hindering a more far-reaching changeover of furniture production to wood-based panels with lower formaldehyde emissions. However, the wood-based panel industry and furniture industry have mixed views about these additional costs. While wood-based panel producers have repeatedly sought hikes of up to €15/m³ for CARB 2 panels, buyers from the furniture industry think that surcharges tend to be in the middle of the single-digit euro range. Additional costs are even higher in the case of a bigger reduction in emission values. For instance, suppliers are charging up to €30/m³ more for F**** panels based on the current volume structure.

The Ikea group geared its use of wood-based panels to the levels set forth in the CARB rules when they took effect in 2009. Consequently, the upcoming replication of CARB rules throughout the entire US in December 2018 will have hardly any ramifications for the wood-based panels used by Ikea. However, accreditation by a third-party certifier (TPC) sought by the EPA rules and the documentation duties will result in additional requirements.

In a letter sent out in mid-April before the latest EPA delay, Ikea thus urged its wood-based panel suppliers to switch to delivering products to Ikea providers that comply with the EPA rules from 24 October 2017 at the latest. This step should ensure that only products that meet EPA rules are shipped to the US from 12 December onwards. Ikea wants to lower formaldehyde emissions from wood-based panels used in Ikea furniture even more in future in the medium term. At a meeting held in Malmö on 17 May, wood-based panel manufacturers and adhesive suppliers were informed about Ikea's future formaldehyde strategy. □

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Four further-processors have so far settled at the Polish Kronospan-site Szczecinek

Kronospan Group aims for eight furniture clusters near wood-based panel sites

The Kronospan Group aims to implement the concept of the Szczecinek Furniture Cluster (SCF) at the industrial site in Szczecinek (Poland) in regions surrounding a further seven of the group's plants.

According to a prospectus published in mid-March 2017, the company is also making efforts to attract further-processing businesses from the furniture and furniture-supplier industries to locate at sites in Smorgon (Belarus), Elektrogorsk (Russia), Lapovo (Serbia), Szombathely (Hungary), Veliko Tarnovo (Bulgaria), Sebes (Romania) and Eastaboga (Alabama, USA). Kronospan is offering companies suitable plots for erecting new plants in the direct vicinity of its own production sites. The necessary technical infrastructure, such as high-voltage power connections, gas and water supplies and facilities for treating waste water will be provided by Kronospan.

The company states that future furniture-cluster partners will profit, inter alia, from substantial cost benefits because of short transport distances and consequent possible flexibility for deliveries. Kronospan intends to guarantee processing businesses an agreed minimum storage volume of raw and coated wood-based panels. On the basis of just-in-time supply, participating processors would therefore be able to reduce their own warehouse capacity for raw goods to a minimum.

The Cluster prospectus initially lists the services offered by Kronospan to potential cluster partners. This is followed by an overview of the production and sales locations and the Kronospan Group's product range. Worldwide, Kronospan now operates 40 production sites for wood-based panels, laminates and elements, 14 production sites for upstream chemical products, 14 distribution centres and seven service centres. For transport by sea, Kronospan boasts four port termi-



(Chart credit: Kronospan)

nals and four ships. In the prospectus, Kronospan sets out detailed information on the eight planned furniture clusters. The cluster areas are mostly directly adjacent to Kronospan plants.

In the Szczecinek Furniture Cluster (SFC), which was presented for the first time in 2015, a production hall boasting space totalling 36,600 m² can be used; in 2018, another hall of the same size is to be built in the immediate vicinity. For the Smorgon Furniture Cluster, two halls close to the Smorgon plant were completed in April 2017. One of those halls, which is located alongside the Kronospan plant, boasts space of 4,625 m²; the second hall, which covers 2,705 m², is situated in Soly, roughly 20 km away. In Elektrogorsk, Kronospan is currently negotiating the purchase of a 200-hectare site adjacent to its plant. In the three southern-European plants, larger areas are already available for building (Szombathely 29,647 m², Lapovo 78,000 m² and Veliko Tarnovo 60,000 m²); Kronospan states that the type and scope of building can be agreed with cooperation partners. For Sebes, the Cluster prospectus provides only general information on

the location, and details of potential cluster space are lacking. In Eastaboga, Kronospan is offering two cluster areas of 22 and 38 hectares.

At the furniture cluster set up in Szczecinek in the special industrial zone of Slupska Specjalna Strefa Ekonomiczna (SSSE), four companies have now established themselves. Stol-Tap had already started production of components for the furniture and upholstered-furniture industry in May 2013. The Danish flat-pack-furniture manufacturer Tvilum, based in Faarvang, commissioned its new production plant at the end of September 2016. At the beginning of June 2017, the furniture-component plant of FHU Grzeskowiak was officially inaugurated. And through its subsidiary BHK Polska, which was established at the beginning of 2017, the German furniture-component and building-element producer BHK, based in Büren, has built a new plant for the production of drawer frames. The Kronospan plant in Smorgon was erected in the FEZ Grodnoinvest free-trade zone; similar to the situation in Szczecinek, future cooperation partners can profit from the existing conditions there. □



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