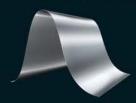




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# Second international edition of EUWID special

Following the launch of our inaugural edition in the middle of October 2017, the English-language special edition, **EUWID special: Wood-Based Panels,** is switching to regular operations. A total of three issues are planned this year, which will each provide an overview of the latest developments in machinery and plant engineering, the wood-based panel industry, supplier sectors and relevant buyer segments. With this special issue, EUWID is tackling the latest issues 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

Just like the first edition, this issue of **EUWID special: Wood-Based Panels** delivers a longer-term overview of developments and changes in the wood-based panel industry and related segments with background reports and special articles. The special edition thus complements our weekly newsletters, which track the latest developments in the industry as a printed edition and in an e-version. Our websites www.euwid-holz.de and www.euwid-wood-products.com also provide quick news online.

The new edition of EUWID special first casts the spotlight on changes within the wood-based panel and surfaces industry over the past year. The machinery section also addresses wood-based panel technology orders placed in the past year. Trends in North American OSB markets and plywood production in Finland are among the topics covered in the structural panels segment. EUWID special also looks at market and industry developments in North America, the ongoing process of divesting a variety of parts of the Chilean group Masisa and Swiss investors' acquisition of a particleboard mill in Shatura, Russia, in the section on composite panels.

The surfaces section primarily tackles the significant increase in decor printing capacity. Several articles on recent developments in the flooring and furniture segment wrap up the information contained in the latest issue. The next Englishlanguage editions of EUWID special will be published in June and September.

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

Yours sincerely **Andreas Ruf** Publisher Overview 6-8

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Cover image: In September 2017, Swiss Krono Group produced the first board on the new particleboard line constructed to replace the old line at the Menznau plant. (Photo credit: Dieffenbacher)

#### *Imprint*

Publisher and Editor Andreas Ruf

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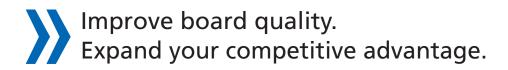
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Almost all areas of the surfaces business underwent further changes

# Wood-based panel sector has become more international over the last year

Several of the investment and acquisition projects undertaken during 2017 have resulted in the European wood-based panel industry becoming more international in nature.

The Egger Group started construction work on a long-planned project to build a particleboard mill in Biskupiec in the northeast of Poland during the third quarter. In addition to existing investment plans in Belarus and in the Russian regions of Kaluga and Kaliningrad, Kronospan is also considering a particleboard project in this region. Founded in June 2016, the Sonae Arauco S.A. joint venture intends to expand to Eastern Europe in the medium term, too. The resumption of plans to replace a singleopening particleboard line in Beeskow is considered an interim step. XyloSuisse LLC, a new firm based in Shatura that was founded by Swiss investors, wants to acquire a particleboard manufacturing facility run by the Russian furniture producer AO MK Shatura, headquartered in Shatura.

Two Turkish companies – Kastamonu Entegre Agac San. ve Tic. A.S. and Yildiz

Entegre Agac Sanayi Ve Ticaret A.S. have now also become active in Europe. Yildiz Entegre is currently building an MDF/HDF and laminate flooring mill in Pitesti, Romania. At the start of December, the company also acquired the assets of the Slovenian particleboard manufacturer Lesna Tip Otiski Vrh d.d., headquartered in Sentianz pri Drawograd. Kastamonu acquired the main production machinery from particleboard mills closed by the south-western French firm Darbo S.A.S., based in Linxe, and the affiliates Trombini Holding s.r.l., headquartered in Frossasco, and Gruppo Trombini s.r.l., based in Piangipane. The Falco particleboard mill in Pomposa di Codigoro is set to start operating in the first half of 2018. The Darbo technology will move to a site in Gorno Sahrane, Bulgaria doing business as Kastamonu Bulgaria A.D. by the start of 2019.

Swiss Krono Group, Egger and Kronospan are also expanding their overseas operations. Swiss Krono Group is adding MDF/HDF manufacturing systems to its laminate flooring mill in Barnwell,

South Carolina. In September, Egger closed a deal reached in mid-July to acquire a particleboard and MDF mill in Concordia, Argentina from Maderas y Sinteticos S.A. (Masisa). In North America, the company also intends to build a new particleboard mill in Lexington, North Carolina in the next two years. Kronospan has also moved forward with longstanding plans to add a particleboard line to expand its MDF/HDF and laminate flooring mill in Eastaboga, Alabama. The main machinery orders had been placed in December.

Several major replacement projects were completed in Europe, too, this year. The Italian particleboard and MDF manufacturer Fantoni S.p.A. commissioned a continuous MDF line installed at its Osoppo headquarters in May. In September, a new particleboard line run by Swiss Krono AG and a continuous OSB line operated by Norbord Europe Ltd. came online. Kronospan commenced construction work on a new OSB line in Sanem, Luxembourg. Polish cabinet furniture manufacturer Fabryki Mebli Forte S.A. is building a new particleboard mill in Suwalki; the first board has been produced in February. Classen, headquartered in Kaisersesch, Germany, is exploring increasing its MDF/ HDF capacity at the Baruth site. Sonae Arauco's next investment project is to replace a multi-opening line at an MDF mill in Mangualde, Portugal. Like a nearby particleboard mill in Oliveira do Hospital, this facility had to cease operations for likely four months in mid-October due to forest fires.

Arauco North America is moving forward with the construction of a particleboard mill in Grayling, Michigan. The North American OSB industry is currently restarting more idled mills. At the same time, a few new investment projects are being completed. In South America, several MDF mills in Brazil are set to get up and



Kronospan is building a new OSB line work in Sanem.

(Photo credit: Kronospan)

running in the months ahead. However, it is the ongoing restructuring of the Masisa Group that has been the hot topic over the past few months. Its activities in Argentina have been transferred to Egger. Arauco do Brasil S.A. with headquarters in Curitiba, Paraná acquired the Brazilian business Masisa do Brasil Ltda. Arauco also intends to acquire Masisa's Mexican mills. An agreement to this effect was inked in mid-December.

The wood-based panel industry in Australia and Oceania is also more on the move. The furniture supplier and laminating firm Borg Manufacturing Pty. Ltd., based in Somersby, New South Wales, intends to add a particleboard line to its Oberon MDF mill. At the same time, the company is bidding for the particleboard assets of Carter Holt Harvey Pinepanels Pty Ltd. (CHH), based in St. Leonards, New South Wales, in Oberon, New South Wales, and Mount Gambier, South Australia. The forestry company OneFortyOne Plantations Pty Ltd. (OFO) had also explored whether to start making particleboard, but has now dropped these deliberations.

In March, the Japanese firm Sumitomo Forestry Company Ltd. (SFC) sold all shares in the Australian MDF manufacturer Alpine MDF Industries Pty. Ltd., based in Wangaratta, Victoria, to Metro Particle Co. Ltd. from Nonthaburi, Thailand. In September, the Japanese company Daiken Corp. signed the paperwork to acquire an MDF mill in Mataura, New Zealand, that does business as Dongwha New Zealand Ltd. from South Korea's Dongwha Group.

The European insulating board industry has tended to see consolidation this year after company divestments were completed in spring 2016. Homanit Building Materials KG, a new firm created for this purpose, acquired the assets of the insulating material producer Homatherm GmbH, which is based in Berga, Germany, and had been insolvent since mid-October 2016, in a transferred reorganisation. The assets of Homatherm France S.A.S. from Chamouilley, St. Dizier, were bought at auction by Steico SE which is installing two more production lines to make wood-fibre insulating board in Czarnków,



Arauco acquired Masisa's mill in Ponte Grossa.

(Photo credit: Masisa)

Poland. The Norwegian firm Hunton Fiber AS is installing a new machine to make flexible wood-fibre mats at its Gjøvik headquarters.

On the other hand, the plywood and LVL business has been rather consistent. The Metsä Wood division within the Finnish company Metsä Group has started construction work on a new birch plywood mill in Pärnu, Estonia. Besides a replacement project in Lohja that was completed in the third quarter, the company made a decision to invest in installing a new LVL line in Punkaharju in November. Steico made the first board at a second LVL line installed in Czarna Woda, Poland, in September. The Russian plywood and particleboard manufacturer Sveza Group put pen to paper on an agreement to buy 000 Tyumen Plywood Plant, based in Tyumen, western Siberia, in November. In France, G Group X completed the acquisition of Hess France S.A.S., headquartered in Châtillon-sur-Seine, Côte-d'Or, during the second quarter. Groupe Thébault, based in Magné, and R. Drouin S.A., headquartered in Mézièressur-Ponthouin, are currently building a joint poplar veneer production facility in Marigny-le-Châtel in the western part of Champagne region.

Chemical suppliers relevant for the wood-based panel sector had repea-

tedly battled manufacturing troubles during the course of the year, which also had an impact on supply in the wood-based panel industry. Moreover, additional acquisitions took place within this sector. The Japanese Sojitz Corp. has acquired the base chemicals and speciality chemicals merchant Solvadis Holding S.à.r.l., which is active in the methanol business. The US group Tronox Inc. wants to become the world's biggest titanium dioxide producer by acquiring titanium dioxide activities from Cristal Global, headquartered in Jeddah, Saudi-Arabia.

Several transactions have also been closed in the world of machinery and plant construction. Siempelkamp Maschinen- und Anlagenbau GmbH bought the remaining shares in Pallmann Maschinenfabrik GmbH & Co. KG in April. In October, Fagus-GreCon Greten GmbH & Co. KG became a minority shareholder in Döscher Microwave Systems GmbH, based in Hamburg, Germany. Just a few weeks earlier, the panel saw manufacturer Wilhelm Altendorf GmbH & Co. KG. based in Minden, Germany, was sold to the Dutch private equity company Avedon Capital Partners B.V. and to two managing directors. Robert Bürkle GmbH Germany, spun off parts manufacturing to Haug Group Holding GmbH in February. Wemhöner Surface Technologies GmbH & Co. KG



New Slotex printing facility in Proba.

(Photo credit: Slotex)

has revived plans to build a second facility in Changzhou in China's Jiangsu Province that it briefly dropped in the second half of 2015. Changes will also come to the pressing belt sector with the sale of the Sandvik Process Systems unit that used to be owned by the Swedish conglomerate Sandvik AB to the Swedish investment firm Foundation Asset Management AB (FAM).

The biggest change in the world of decor paper was the 1 April merger of the two speciality paper manufacturers Munksjö Oyj and Ahlstrom Oyj to create Ahlstrom-Munksjö Oyj. Felix Schoeller Holding GmbH & Co. KG will start to make decor paper in China, too, through a joint venture forged in January with the Chinese pulp merchant and speciality paper producer Zhejiang Welbon Pulp & Paper Group Co. Ltd., based in Hangzhou, Zhejiang, Province. A new paper machine run by the Russian joint venture OOO Mayak-Technocell (MTC), based in Penza, Russia, is to start operating as soon as the first guarter of 2018. The Chinese decor paper joint venture Kingdecor Co. Ltd., based in Quzhou in Zhejiang Province, finalised ordering of the fourth paper machine in recent months. Start-up is slated for the beginning of 2019.

Almost all parts of the surfaces industry have seen corporate changes during 2017. In January, the US company

Matthews International Corp. finalised its acquisition of the engraving firms A.+E. Ungricht GmbH & Co. KG and Dornbusch Engraving GmbH. In the decor printing sector, Schattdecor AG and Interprint GmbH installed new rotogravure machines at several locations. During the third quarter, the Japanese group Toppan Cosmo Inc. acquired a majority stake in the decor printer Decotec Printing S.A.U., based in Tordera, Spain, through its European subsidiary Toppan Europe GmbH from the Spanish wood-based panel manufacturer Financiera Madereira S.A. (Finsa). The merger of the Italian companies Cartiere de Guarcino S.p.A. (CDG) and Confalonieri S.p.A. took place during the same period. The new firm that was created from the merger, Neodecortech S.p.A., headquartered in Filago, has been listed on the Milan Stock Exchange since September.

OAO Slotex, a company specialising in HPL/CPL laminates, elements, laminated board and melamine and phenolic film based in St. Petersburg, Russia, started decor printing during the third quarter. In a next step, the company intends to expand its treating capacity. Schattdecor intends to install new treating lines in Rosate (Italy) and Chekhov (Russia) in an investment programme announced in spring. The company has also started treating operations in China by creating a

joint venture Saintdecor, headquartered in Wuhan, Hubei Province.

The treating sector also encountered several major divestments during the course of the year. BMK GmbH, based in Gaildorf-Bröckingen, Germany, purchased a treating site in Welcome, North Carolina, from the US flooring company Shaw Industries Inc. in September. During the first quarter, the private equity company Lone Star Global Acquisitions Ltd. purchased stakes in the North American resin manufacturer and treater operator Arclin Inc., headquartered in Roswell, Georgia. Kotkamills Oy, based in Kotka, Finland, withdrew from the phenol treating business for good by selling Kotkamills Imprex Oy to the South Korean firm Dongwha Enterprise Co. Ltd. in late October.

The North American laminates industry continues to try to reposition itself amidst ongoing substitution pressure from other surface materials. Formica Corp. and Panolam Industries International Inc. are presently investing in continuous presses. Wilsonart International Holding LLC completed two more acquisitions in the direct coatings business during the year. In February, the group purchased a coating facility in Oxford, Mississippi run by Roseburg Forest Products Inc. By acquiring Kustom Material Laminators (KML) Corp., headquartered in Tacoma, Washington, Wilsonart now has its own laminating capacity on the west coast. Wilsonart's European activities were expanded with the early December takeover of the British wall and shower wall systems specialists Shore Laminates Ltd., headquartered in Perth, Scotland, and Mermaid Panels Ltd., based in Grimsby, N.E. Lincolnshire.

Surteco SE has considerably improved its market position in the Iberian Peninsula and in its strategically important markets in South and Central America with the July complete takeover of the Portuguese plastic edging producer Probos Plasticos S.A., based in Mindelo. In the thermoplastic film segment, the Continental subsidiary ContiTech AG wrapped up its acquisition of Hornschuch Group GmbH at the start of March. Benecke-Kaliko AG and Hornschuch have since operated under the Continental brand.



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## Siempelkamp eyeing revenues of over €1bn

G. Siempelkamp GmbH & Co. KG has its sights on generating group revenues of more than €1bn in the years ahead, according to management board spokesperson Dr Hans Fechner. This goal is to be reached through additional acquisitions, among other steps, after several companies had been integrated into the group in the past few years. Most recently, Siempelkamp purchased all of the remaining shares in Pallmann Maschinenfabrik GmbH & Co. KG, headquartered in Zweibrücken, Germany, with effect from 1 April 2017, meaning that the shredding technology manufacturer is now fully consolidated by Siempelkamp.

Preliminary figures published on 20 February 2018 show that Siempelkamp recorded a slight fall in revenues to €717m in 2017. However, its order intake did improve 15% to €720m. Pallmann contributed roughly €70m of this sum. The handling and automation solution specialist and Siempelkamp subsidiary Strothmann Machines & Handling GmbH, based in Schloss Holte-Stukenbrock, Germany, set a new order intake record of €37m. Siempelkamp's foundry managed to secure new orders valued at approximately €82m despite the continued challenging framework conditions.



(Photo credit: EUWID)

Siempelkamp had reported a 3.7% growth in order intake to €624.3m (2015: 602.1m) for 2016. The Machine and Plant Engineering division out-performed its other two divisions with a 7.9% improvement to €500.8m (464.0m). Group revenues leapt 28.4% to €732.8m (570.9m). This improvement was also primarily fuelled by machine and plant engineering operations, which had booked a 67.4% surge in revenues to €593.7m (354.6m). Siempelkamp invested a total of about €20m in 2017, including in expanding its locations in the Czech Republic and China.

#### French firm Schermesser in self-administration

The Mulhouse Commercial Court opened insolvency proceedings under selfadministration for the French handling system manufacturer Schermesser S.A.S, based in Altkirch, on 13 February 2017. Jean-Christophe Massotte, who has been Schermesser's owner and managing director since 2013, reported that a lack of new orders in the past quarter meant that it was unable to pay suppliers' receivables any more. The company had so far fully met obligations to pay its 27 workers.

Massotte noted that manufacturing is continuing without any restrictions at its Altkirch headquarters. He added that the site will be busy until at least June based on a partnership reached with the Kaltenbach Group, a German manufacturer of machinery for the metal industry based in Lörrach, at the end of last year. Towards the end of 2017, Schermesser took over the activities of the old Kaltenbach site in Burnhaupt-Le-Haut, France, under this partnership and has since supplied transport systems for the metalworking industry to Kaltenbach.

Up until now, Schermesser has primarily made handling systems for the woodbased panel industry in Altkirch. The company has also had a German branch with Schermesser Handling Systems GmbH Deutschland, headquartered in Munich, since the middle of 2016. According to Massotte this company is not affected by the insolvency proceedings. Besides selling cooling and stacking systems, packaging technology and handling systems for short cycle plants, Schermesser also sells sawing and edging systems and transport systems and roller and chain conveyers.

#### 24% of Kadant's revenues from Wood Processing

The Wood Processing Systems division of Kadant Inc. generated revenues of US\$95.1m (2016: 36.9m) in the 2017 financial year. This figure was US\$58.2m or 150% higher than in 2016. This significant growth was primarily prompted by the early July acquisitions of Nicholson Manufacturing Ltd, based in Sidney, British Columbia, and Valon Kone Oyi, headquartered in Lohja, Finland, which have since been part of the Wood Processing Systems divisions. Both companies specialise in developing and making rotary debarking technology, including for use in the sawmill, veneer and OSB industry. Kadant said that the two companies operate two main product facilities with a total of 275 workers. They generated revenues of about US\$81m in the 2016 financial year. The transaction was agreed on 24 May 2017 and completed on 5 July.

Kadant reported that the Wood Processing Systems division, which used to comprise the activities of Carmanah Design and Manufacturing Inc. until the acquisitions of Nicholson and Valon Kone, had accounted for approximately 24% of group revenues in the second half of the year. In the previous two years, its share had been in the region of 9%. Adjusted for acquisitions and exchange rate effects, revenues generated by the division rose US\$8.9m or by almost a quarter.



(Photo credit: Kadant)

Kadant's CEO Jon Painter feels that there is strong growth potential in the OSB business in 2018 due to brisk demand in China at present. He noted that the company had landed two orders from OSB manufacturers in this country in 2014. Kadant had already received a US\$2m order for a SmartDisc strander including feeding systems from a customer in Chile at the start of this quarter.

# Deurotech Group buys a stake in Airprotech

Deurotech Group GmbH (DTG), based in Langenfeld, Germany, acquired a majority stake in the exhaust air purification technology specialist Airprotech s.r.l., headquartered in Magenta, Italy, with effect from 8 February 2018. The remaining shares have stayed in the hands of the founding family Gatti. By making this acquisition, Deurotech is widening its portfolio of exhaust air purification systems, which has so far been covered by Wessel-Umwelttechnik GmbH, which is based in Hamburg, and which it acquired in September 2014.

Airprotech specialises in biological and thermal exhaust air cleaning systems. Airprotech's technology is used in the chemicals, pharmaceutical, petrochemical, printing and paint industry. The current management team will continue to manage Airprotech even after the integration in the Deurotech Group. It will also keep its headquarters in Magenta.

Besides Wessel Umwelttechnik, up until now DTG has also owned Vits Technology GmbH (Langenfeld), IFA Technology GmbH (Rain) and Deurotech America Inc. (Charlotte, North Carolina), founding the latter in November 2016. Deurowood Produktions GmbH, based in Hard, Austria, was sold to Pinova Capital GmbH, headquartered in Munich, in December 2016.

## GreCon has acquired shares in Döscher

Fagus-GreCon Greten GmbH & Co. KG of Alfeld acquired 24.5% of the company shares in Döscher Microwave Systems GmbH of Hamburg with effect from 1 July 2017. Dr Jörg Hasener, head of innovation management at Fagus-GreCon, also acquired a 24.5% share in the microwave measuring instrument manufacturer at the same time. Jörn Döscher holds the majority of the company shares in future. His brother, Dr Claas Döscher, and his wife and Professor Dr Reinhard Knöchel, on the other hand, are no longer partners in the company.

The two companies have been cooperating in sales of microwave-based measuring systems since 2013. The "MM6000" moisture-measurement instrument sold by Fagus-Gregon since then was developed and produced by Döscher Microwave Systems.

Döscher Microwave Systems had emerged from the merger between Döscher & Döscher GmbH and Advanced Microwave Systems GmbH (AMS), both based in Hamburg, at the beginning of 2015. Following its founding in 1994, Döscher & Döscher had initially operated as a consulting and engineering firm in the moisture-measurement systems segment. Until 2001, the firm had developed its own microwave-based measuring instruments in cooperation with AMS, a joint venture between the Döscher brothers

and Knöchel, the head of the Institute for High-Frequency Technology at the Christian Albrecht University in Kiel. Besides moisture measurement, these instruments are also used for determining grammages and density. The product range also includes laboratory equipment. The measuring systems are used in manufacturing wood-based panels and timber. Other areas of application are in the pharmaceutical, food, and feed industries.

#### Sandvik Process Systems to do business as IPCO

The Swedish investment firm Foundation Asset Management AB (FAM), based in Stockholm, completed the acquisition of Sandvik Process Systems from Sandvik AB, headquartered in Sandviken, Sweden by the start of December. This deal had been struck in late May 2017. Following a transition period, these activities are to do business as IPCO (Industrial Products Co.).

Sandvik Process Systems had last been consolidated by Sandvik under Other Operations. The Hyperion unit, which is also listed in this category and supplies hard and super-hard materials, is to be sold to the US private equity firm Kohlberg, Kravis, Roberts & Co. LP (KKR), based in New York, under an agreement signed at the start of December 2017.

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Order intake has shifted even more towards Asia / More replacement projects in Europe

# Dieffenbacher and Siempelkamp sold 26 wood-based panel lines combined in 2017

Dieffenbacher GmbH Maschinenund Anlagenbau and Siempelkamp Maschinen- und Anlagenbau GmbH sold a total of 26 partial or complete lines combined to make wood-based panels last year, coming close to 2016's level. The companies had landed 27 orders in that year. While a few multi-opening lines had still been sold in previous years, especially to make OSB, only continuous presses had been ordered last year.

Siempelkamp reports having booked 12 orders. The firm had sold 10 lines with a continuous press and one multiopening line in 2016. This level has been maintained for several years now. Ten orders had been landed in 2013, with order intake standing at 12 partial or complete lines in 2014 and 2015.

Together with its majority shareholding Shanghai Wood-Based Panel Machinery Co. Ltd. (SWPM), based in Shanghai, China, Dieffenbacher won a total of 14 orders last year, nine of which were handled by its Eppingen headquarters and five by SWPM. The company had listed a total of 17 orders for 2016: 10 for Eppingen and seven for SWPM. Order intake had thus increased slightly compared with previous years. In 2013, Dieffenbacher and SWPM had won 14 orders for partial or complete lines to make wood-based panels combined. They booked 11 orders in 2014 and again in 2015. Order intake in 2014 comprised eight lines with a CPS press, two SWPM lines with a ContiPlus and one multi-opening MDF line. In 2015, nine lines with a continuous press (four CPS, five CPS+) and one multi-opening OSB line had been sold.

In terms of the different regions, the wood-based panel technology providers have seen a growing shift towards Asia in recent years. Hardly any new invest-

ment projects have taken place in Western and Central Europe for some time now; investment activity has thus shifted towards replacing the final remaining multi-opening lines and exchanging older continuous production lines. This trend continued last year with one new line and three replacement projects. Egger has activated a contract that it awarded Siempelkamp some time ago to deliver a particleboard line to its site in Biskupiec in north-eastern Poland after receiving a permit. Kronospan has ordered a continuous OSB line from Dieffenbacher for a replacement project in Sanem, Luxembourg. On the Iberian peninsula, Sonae Arauco S.A., based in Madrid, will replace a multi-opening press at its site in Mangualde, Portugal, with a continuous press and Tableros Hispanos S.L.U., based in Nadela, Spain, will do the same.

The CIS region is represented on the list of incoming orders last year with a greenfield investment and a project to expand an existing mill by adding another production line. Siempelkamp will deliver the main technology in both instances. Kronospan is adding a thin board line to its site in Smorgon, Belarus, which it created a few years ago with two production lines transferred from Germany. The Altailes Group is entering the MDF production business with a greenfield project planned in Pavlovsk, Siberia. The order that the Algerian conglomerate Big Star S.à.r.l., headquartered in Annaba, placed with Dieffenbacher and SWPM in June 2017 is the first time that a line with a continuous press is being delivered to North Africa.

North American businesses ordered a particleboard line, a line to make MDF using rice straw and an LVL line last year. The MDF and LVL lines will be installed at new locations, while the particleboard

line will be assembled alongside an existing MDF/HDF mill. CalPlant I LLC, based in Willows, California, intends to make MDF from rice straw using a line delivered by Siempelkamp. Roseburg Forest Products Inc., based in Roseburg, Oregon, has ordered a continuous press for an LVL mill planned in Chester, South Carolina from Dieffenbacher. Siempelkamp secured a contract to supply the forming and press line for a long-planned Kronospan project to add a particleboard line to its MDF/HDF mill in Eastaboga, Alabama, in the fourth quarter. The chip dryer was ordered from Dieffenbacher. By contrast, no new orders had been placed by South American firms last year.

## 16 orders came from China and other Asian countries

Therefore Siempelkamp and Dieffenbacher secured a total of four orders from Europe, two from the CIS region, one from North Africa and three from North America last year. The other 16 orders came from Asia. Nine of them were awarded by companies in China, three from businesses in Thailand, two by firms in the Middle East and one each from companies in Vietnam and India. Dieffenbacher and SWPM received more than two-thirds of their orders (10 out of 14) from Asia. Three of the orders for wide lines with CPS or CPS+ presses and all five orders for lines with a ContiPlus press originated in China. The companies sold one line each to Thailand and Vietnam. The other four orders comprised two lines for European sites and one each for North Africa and North America. Six of the 12 orders placed with Siempelkamp came from Asia, but just one from China. Two lines will be delivered each to Thailand and the Middle East, while one order came from India. Europe and North America feature in the list of new orders awarded

to Siempelkamp last year with two lines each; the other two lines will be installed in Belarus and Russia.

In terms of the products that the lines will make, Siempelkamp tended to mainly sell MDF/HDF technology. Six of the 12 orders for which additional details were provided will make MDF/HDF. The two orders placed by companies in the Middle East will likely also manufacture MDF. Siempelkamp also booked four orders for particleboard lines. Last year, Dieffenbacher won six orders to deliver

particleboard lines, four of which were for the 4 ft-wide lines made by SWPM. The Chinese firm Wanhua Ecoboard Co. Ltd., based in Beijing, has also ordered two more straw particleboard lines. Dieffenbacher's list of orders also includes one OSB line and one LVL line.

In terms of the dimensions of the lines that were ordered, 19 lines will be 6 ft to 10 ft wide and seven will be 4 ft wide. The narrow lines include five particleboard lines, one MDF line and one

LVL line. Most of the wide lines are 8 ft to 8.5 ft wide. Two lines each will be 9 ft to 10 ft wide. One 6ft wide line will also be delivered. The length of presses vary between 14.5 m and 65.5 m for projects for which these details were provided. The LVL line planned for Roseburg has the longest press used for this product to date. Kronospan will receive a 57.9 m-long press for its OSB replacement project in Sanem, Luxembourg. The longest MDF press will go to Green River Panels Thailand Co. Ltd., based in Trang.

#### Plant Orders from the Wood-Based Panels Industry 2017

Company	Location	Investment	Product	Capacity 1)
Siempelkamp				
Rushil Décor Ltd.	Ahemdabad/India	ContiRoll 8' x 28.8 m	MDF	250,000 m <sup>3</sup>
Kronospan LLC	Eastaboga/Alabama	ContiRoll 10' x 44 m	Particleboard	900,000 m³
Green River Panels Thailand Co. Ltd.	Trang/Thailand	ContiRoll 8' x 50.4 m	MDF	900,000 m <sup>3</sup>
Vanachai Group Public Company Ltd.	Bangkok/Thailand	ContiRoll 4' x 48.7 m	Particleboard	n.s.
Sonae Arauco S.A.	Mangualde/Portugal	ContiRoll 8' x 28.8 m	MDF	160,000 m³
CalPLant I LLC	Willows/California	ContiRoll 10' x 35.4 m	MDF	250,000 m <sup>3</sup>
Nanning Shuixin Ketien (SciSky)	Wuming/China	ContiRoll 8' x 30.5 m	Particleboard	n.s.
Kronospan Group	Smorgon/Belarus	ContiRoll 8' x 28.8 m	MDF/HDF	n.s.
Egger Group	Biskupiec/Poland	ContiRoll 9' x 38.4 m	Particleboard	650,000 m <sup>3</sup>
Altailes Group	Pavlovsk/Russia	ContiRoll 9' x 30.4 m	MDF/HDF	250,000 m <sup>3</sup>
n.s.	Middle East			n.s.
n.s.	Middle East			n.s.
Dieffenbacher				
Wanhua Xinyang Ecoboard Co. Ltd.	China	CPS+	Straw particleboard	n.s.
Taishan Weiliban Woods Co. Ltd.	China	CPS	Particleboard	n.s.
Tableros Hispanos S.L.U.	Nadela/Spain	CPS+ 8 ft x 26.5 m	Particleboard	330,000 m <sup>3</sup> 2)
Panneaux d'Algérie S.à.r.l.	El Tarf/Algeria	CPS+ 6' x 14.5 m	MDF	80,000 m <sup>3</sup>
Roseburg Forest Products Inc.	Roseburg/Oregon	CPS 4' x 65.5 m	LVL	285,000 m <sup>3</sup>
Kronospan Luxembourg S.A.	Sanem/Luxembourg	CPS+ 8,5 ft x 57.9 m	OSB	630,000 m <sup>3</sup>
Wanhua Xinyang Ecoboard Co. Ltd.	Jingmen/China	CPS 8,5' x 28 m	Straw particleboard	n.s.
Thien Lam Dat JSC	Bac Giang/Vietnam	CPS+ 8' x 20 m	MDF	200,000 m <sup>3</sup>
S. Kijchai MDF Co. Ltd.	Rayong/Thailand	CPS+ 8' x 28 m	THDF	n.s.
n.s.	China	ContiPlus 4 ft	MDF	n.s.
n.s.	China	ContiPlus 4 ft	Particleboard	n.s.
n.s.	China	ContiPlus 4 ft	Particleboard	n.s.
n.s.	China	ContiPlus 4 ft	Particleboard	n.s.
n.s.	China	ContiPlus 4 ft	Particleboard	n.s.

1) m<sup>3</sup>/year

2) future expansion to 500,000 m<sup>3</sup> is already planned

Note: The overview shows orders for wood-based panel production lines which were received by the plant manufacturers Siempelkamp and Dieffenbacher in the course of the year 2017. In the case of several orders, however, neither the clients nor the details of the plant have been mentioned so far. The compilation does not claim to be complete.

Source: EUWID (according to information from plant manufacturers)

Seven orders came from China/Three orders from Russia and Belarus, two from Vietnam

# Andritz sold a total of 14 refiners to the MDF and fibreboard industry

Andritz AG sold 14 refiners to the MDF/HDF and fibreboard industry altogether during the course of 2017.

The company thus almost returned to the levels seen in 2013 and 2014 when it booked 16 orders in each year. The firm had landed 11 orders for refiners in 2015 and nine in 2016. Half of the orders won by Andritz last year came from China, Andritz received three orders from Russia and Belarus and two from Vietnam. The company is set to deliver a refiner and undertake an upgrade project in Thailand. Europe is represented on the list of orders last year with one refiner ordered by the Norwegian insulating board producer Hunton Fiber AS, based in Gjøvik, Norway. China has been the biggest sales market for Andritz by some margin in recent years. The company had sold four refiners to Chinese MDF manufacturers in 2015 and in 2016. It had also booked two orders each year from Thailand. Its list of incoming orders for 2015 also featured two refiners for Brazil and one each for Russia, Turkey and the Middle East. The other orders placed in 2016 had come from India, Brazil and Kenya.

The Hunton Fiber order, which was inked back in January 2017, is the third time that Andritz has sold a refiner to the European insulating board industry. The Kronospan Group also ordered a refiner from Andritz at the start of 2017. This 54/60-1CP refiner was installed in a thin board line in Smorgon, Belarus. Andritz sold a S 2064M refiner with a daily capacity of 1,370 tonnes to an unnamed customer later on in the first guarter of 2017. Unconfirmed reports suggest that this refiner is to be used in Kronospan's long-planned project to construct an MDF/HDF mill in Kaluga, Russia. Andritz will deliver an S 1056 M for an MDF/HDF project that Pavlovskiy DOK is undertaking in Pavlovsk, Siberia. The refiner is set to have a daily capacity of about 700 tonnes.

The Vietnamese firms VRG Quang Tri Wood JSC and Thien Lam Dat JSC both ordered a 50/54-1CP refiner during the second guarter. The unit earmarked for VRG Quang Tri Wood's second MDF project in Dong Ha had a designed capacity of 600 tonnes per day. Andritz had previously delivered the refiner for the first MDF line, which had been commissioned at the start of 2016. Its parent firm Vietnam Rubber Industry Group (VRG), based in Ho Chi Minh City, had ordered the forming and press line for both projects from the Italian firm Imal-Pal s.r.l., based in San Damaso. Thien Lam Dat will start making MDF with the investment project in Bac Giang Province. The refiner is to have a daily capacity of about 550 tonnes. Andritz has sold a total of seven refiners to the Vietnamese MDF industry with the order from Thiem Lam Dat.

The Thai firm S. Kiichai MDF Co. Ltd.. based in Rayong, had also entered the MDF manufacturing business by commissioning a production line in 2012. Kijchai intends to more than double its manufacturing capacity with the second MDF line ordered from Dieffenbacher GmbH Maschinen- und Anlagenbau, based in Eppingen, Germany, in spring 2017. Andritz had already supplied the refiner for the first line. A S 1056M refiner with a daily capacity of 680 tonnes is to be used in the second line. Andritz will install a C feeder into a 54/60-1CP refiner delivered to Siam Fibreboard Co. Ltd., based in Hat Yai, in 2007 as part of a retrofitting project.

Four of the seven refiners sold to Chinese MDF manufacturers are S 1050 M refiners with capacities between 410 and 435 tonnes per day. One S 1056M, one 45/49-1CP and one 50/54-1 CP have also been sold. Baishida Fibreboard Group and Zhangzhou Zhongfu Wood Industries have both ordered their second Andritz refiners. Andritz reported having now sold more than 150 refiners to China with these orders.



Pressurized refiner \$2070

(Photo credit: Andritz)



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Italian woodworking machine manufacturers' production turnover increased further

# Eumabois reported another upturn in woodworking machinery revenues

The European woodworking machinery industry delivered another growth in production turnover in 2015 and 2016 after a strong surge in 2014. Similar growth rates were booked in both years.

The latest annual report published by the European Federation of Woodworking Machinery Manufacturers (Eumabois), based in Brussels, Belgium, showed that turnover had increased 9.4% to €5.863bn in 2014 (2013: 5.359bn) after suffering setbacks in 2012 and 2013. In a summary report, Eumabois had reported a 7.0% growth to €6.273bn for 2015. According to excerpts of the Eumabois statistics quoted by the Italian industry association Acimall, based in Assago, a similar upturn of 7.1% to €6.718bn was achieved in 2016. Production turnover has thus jumped by a total of 26.9% since 2010 (€5.292bn). After soaring to €5.900bn in 2011, turnover was almost back at 2010's level in 2012 (€5.794bn) and 2013 (€5.359bn). The Eumabois data includes total turnover from woodworking machinery and tools.

Germany was responsible for 43 (2015: 45) % of total turnover in 2016, with Italy accounting for 31 (30) %. Austria's share increased to 6 (5) %, with Spain and Turkey listed at unchanged figures of 3% and 2% respectively. Other countries contributed a total of 16 (15) % to the European woodworking machinery sector's machinery and tool turnover in 2016.

According to the Eumabois summary report for 2015, woodworking machinery and tools with a total volume of €1.960bn were exported to markets outside Europe in that year. Imports were put at €638m. Therefore, the trade balance surplus had stood at €1.322bn. Woodworking machinery exports to countries outside Europe were broken down in greater detail in the summary report, citing Intracen data. Some 32.3% of the total export volume of about €1.820bn reported for 2015 was destined for North America, 11.2% for Central and South America, 6.2% for

Africa, 16.8% for the Middle East, 29.2% for the rest of Asia and 4.2% for Oceania.

Eumabois only published a summary report for 2015. It no longer publishes a comprehensive annual report, as it had between 2011 and 2014. Eumabois itself has yet to release statistics for 2016 and 2017.

# Growth in output in Italy even greater than in 2016

According to the provisional figures published by Acimall, Italian woodworking machine manufacturers' production turnover in 2017 as a whole rose to €2.296bn (2016: 2.057bn). This surpassed the previous year's figure by 11.6% after a double-figure increase of 10.4% had been achieved in 2016. Last year's turnover was 87.0% higher than the figure of €1.228bn recorded for the crisis year of 2009. This equates to an increase of 49.4% against the €1.537bn generated in 2013 after two years of reductions.

Exports of Italian woodworking machines also rose more sharply last year than in 2016; the previous year's figure was surpassed by 7.1% at  ${\leq}1.601$ bn (1.495bn). Growth of only half as much was recorded for imports at 10.0% to  ${\leq}199.0$ m (181.0m). Export had risen by 5.8% in 2016, and imports by 19.4%, resulting in growth of 4.1% in the trade surplus. The trade surplus had even risen by 6.7% in 2017 to  ${\leq}1.402$ bn (1.314bn).

These figures provided by Acimall include not only woodworking machines but tools as well. Acimall has calculated domestic sales revenue of €695m (562m) from the revenue generated from its output and its export volume. This figure has risen to a similar degree in the last two years. An increase of 24.8% was achieved in 2016, followed by growth of another 23.7% last year.



(Photo credit: EUWID)

#### Data networking to allow manufacturing processes to be optimised

# Weinig and SCM following Homag and Biesse in adding IoT platform

Two more woodworking machinery manufacturers - Michael Weinig AG, based in Tauberbischofsheim, Germany, and SCM Group S.p.A., headquartered in Rimini, Italy - have unveiled a concept for their own Internet of Things (IoT) platform at the end of January 2018.

Homag Group AG, based in Schopfloch. Germany, and Biesse S.p.A., headquartered in Pesaro, Italy, had started addressing this issue during the second quarter of 2017. IoT platforms are to allow both industrial companies and medium-sized businesses to better network various objects, such as machines, plants, products and systems, through the Internet and a final analysis of data that has been gathered. Machinery and plant suppliers are also able to find information about maintenance work and ways of optimising manufacturing processes by customers sharing data. The collection and use of real-time manufacturing data should allow for needs-based production planning, predictive maintenance and the automatic delivery of wear-and-tear and spare parts.

Weinig will take part in the MindSphere World user organisation launched by Siemens AG, based in Munich, Germany, for the cloud-based open IoT operating system. MindSphere World was founded by 19 machinery and plant construction companies in Berlin on 23 January. Weinig is the only woodworking machinery company to date that wants to develop its own IoT solution based on MindSphere. Companies that deliver components for machinery and plants for the wood, woodbased panel and surfaces sector are also represented, namely Festo AG & Co. KG (Esslingen), J. Schmalz GmbH (Glatten), Kampf Schneid- und Wickeltechnik GmbH & Co. KG (Wiehl) and the robot producer Kuka AG (Augsburg).



MindSphere World was founded on 23 January.

(Photo credit: MindSphere World)

On the other hand, SCM Group wants to add its own Maestro Datalink platform to its Maestro software area, which it had gradually expanded since 2011. The concept is to be finalised by the second quarter of 2018 before marketing gets under way. This IoT platform will allow data that has been captured for several years now using Maestro components in machines to be compiled. analysed and evaluated. The resulting improvement in process monitoring is to optimise manufacturing processes and allow required maintenance work to be projected. The goal is to make stoppages for maintenance shorter and thus improve capacity utilisation.

Homag Group had unveiled the tapio cloud-based IoT platform for the woodworking industry at the Ligna fair, which took place in Hanover in May 2017. All machines sold by the company have since had a corresponding interface. Existing Homag plants or machines made by other producers can be retrofitted. The open platform

also allows systems to be networked, for instance between suppliers and customers. Homag Group's parent firm Dürr AG, based in Bietigheim-Bissingen, Germany, founded the Adamos (Adaptive Manufacturing Open Solutions) joint venture together with four partners from the machinery and plant construction and software business on 1 October 2017. This joint venture provides centrally developed software solutions and services that can be implemented either on local servers or as a cloud solution through the Adamos App Factory. Biesse had also showcased its Sophia IoT platform for the first time at the Ligna and at first only offered it in Italy, Germany, Austria, Switzerland, France and the Netherlands. Distribution was expanded to North America in October. Sophia was initially only available for CNC machining centres. Edgebanding machines, partition saws and drilling and dowel inserting machines have been able to connect to the platform since the start of 2018.

#### Novofibre OSSB mill has been closed after blaze

A major blaze back in the middle of June 2016 severely damaged production machinery run by the Chinese company Novofibre Panel Board (Yangling) Co. Ltd., based in Yangling in Shaanxi Province. The fire destroyed the continuous press, among other items. European sales partners report that board made by Novofibre can no longer be delivered because of the ongoing stoppage.

Novofibre reported that the Yangling facility was the world's first industrialscale plant to make oriented structural straw board (OSSB). This product uses wheat straw as a raw material and is pressed without formaldehyde using PMDI as an adhesive. The fundamental technologies used to split straw before gluing had been developed by the Alberta Research Council (ARC), which has since been renamed Alberta Innovates, starting in the mid-1990s. ARC had granted the Dutch firm Panelboard Holding B.V., which served as a holding firm for Novofibre until 2015, an exclusive licence to make and sell OSSB worldwide in 2002.

The facility in Yangling, which Novofibre said had an annual capacity of about 60,000 m³, started operating at the end of October 2009. The 4 ft x 33 m continuous press was delivered by Shanghai Wood-Based Panel Machinery Co. Ltd. (SWPM). The site employed a total of 120 people turning raw board into acoustic and flooring panels, among other products. Novofibre had also installed laminating capacity.

Panelboard Holding filed for insolvency in May 2017. According to an interim report published by the insolvency administrator on 30 November, the group was declared insolvent by the competent court in The Hague on 1 August.



(Photo credit: Novofibre)

#### Norbord poised to invest US\$175m in 2018

Norbord Inc. is currently preparing to modernise its mill in Chambord, Quebec, which has stood idle since the third quarter of 2008. With an annual capacity of 470m sqft or 415,000 m<sup>3</sup>. the mill has been owned by Norbord since November 2016. At that time, the company had handed over a closed Val-d'Or mill in Quebec to Louisiana-Pacific Corp. in a swap and received the Chambord mill in exchange. A short time after the deal, Norbord announced its intention to restart the mill in the medium term in the event of a lasting improvement in the market. However, a date has not been set yet.



(Photo credit: Norbord)

Norbord has now ordered the first technology to modernise the Chambord mill during the engineering process, which has been under way for a few months now. The firm is initially focusing on components with longer lead times, primarily for drying. It awarded Büttner

Energie- und Trocknungstechnik GmbH a contract for a drum dryer during the final quarter of 2017. This dryer is to be heated with flue gas from an existing power plant.

The investment needed to modernise and then restart the Chambord mill cannot be provided yet since the engineering process is not over yet. The company has budgeted total investments of about US\$175m for the current 2018 financial year. Unlike in the past two years, when almost half of its investments were spent on replacing two multi-opening lines at its site in Moravhill near Inverness in Scotland and restarting the mill in Huguley (Alabama), the company has no major projects in progress. The planned investments primarily aim to cut production costs and increase productivity at its existing mills as well as raising the share of speciality products in its overall OSB production. More comprehensive maintenance work than last year is also on the agenda.

Norbord invested a total of US\$253m (2016: 101m) in the 2017 financial year. Out of this sum US\$101m (33m) was used for replacement work in Inverness. Work to cut costs and improve productivity swallowed up US\$103m (38m), with US\$34m (21m) earmarked for maintenance work.

## Raute selling LVL line to client in north-east Asia

The Finnish machinery and plant manufacturer Raute Oyj landed an order for an LVL line from a company in north-east Asia during January 2018. No further details were revealed about the client. The contract was valued at about €20m and principally includes the veneer layup line and the LVL press. These lines will be manufactured at Raute's sites in Nastola and Shanghai, A veneer sorting station was included in the order, which will be installed in the vicinity of a veneer dryer provided by an Asian manufacturer. Veneer sorting technology will be provided by Metriguard Inc., based in Pullmann, Washington, which is part of Raute's Mecano division in Kajaani, Finland, and was acquired at the end of 2017. The new LVL line is to process softwood, Raute said.

Raute last won a big LVL contract in the north-east Asia region about 20 years ago. The firm had delivered the main technology for an LVL project undertaken by Keytec Co. Ltd. in 1998. This company had already ordered a first LVL line in 1990. Raute landed an LVL order in South-East Asia from the Indonesian firm Nan Eng Huat Plywood Ltd. in 1997. An LVL line was delivered to the Malaysian company Shin Yang Plywood Sdn. Bhd. in 2011. In the same year, Raute also made an LVL line for the Chinese company Taizhou Kemian Wood Industry Co. Ltd.

#### Steico's LVL line starts regular operations

The insulating board manufacturer Steico SE of Feldkirchen took delivery of a second LVL line installed in Czarna Woda at the start of November 2017 with the successful completion of the 80% performance test. The supplier Raute Oyi handed over project management, further work to optimise technology and production planning to Steico as a result. Manufacturing using the new line has now switched to continuous operation in four shifts. Optimisation work required for the upcoming 100% test will be performed during ongoing operations. The first panel was made on 12 September, two months ahead of schedule. The transition to regular operation also happened earlier than planned. When the line started up, the company had anticipated that regular



(Photo credit: Steico)

operations would commence during the first half of 2018.

According to a statement published on 7 November, Steico can now focus its production planning on distribution needs. Known as LVL2, the new line is to primarily make flanges for its inhouse I-joist manufacturing. This will

allow the capacity of LVL1, which has run regular operations since the start of 2016, to be used primarily for customised orders.

The start-up of the second line has doubled Steico's total annual LVL capacity to about 160,000 m<sup>3</sup>. Steico can also now benefit more from economies of scale, for instance through longer product series and a reduction in retooling time. The residual timber generated during LVL production will be used to make insulating board and rigid board in Czarna Woda. Bark and production residues that cannot be recycled will go to the two biomass power plants, which generate the majority of the process heat and steam needed to operate the production lines. The Czarna Woda site is located in a special economic zone, which exempts Steico from paying Polish income tax until 2025.

#### Metsä Wood decides to undertake LVL project



(Photo credit: Metsä Wood)

The Metsä Wood division within the Finnish company Metsä Group is set to boost manufacturing capacity for its Kerto laminated veneer lumber (LVL) by installing another line at its site in Punkaharju, Finland. Construction work is set to get under way during the first quarter of 2018. About 13,000 m<sup>2</sup> will be added to the existing manufacturing space. The contract has been awarded to the construction firm Rakennusliike U. Lipsanen Oy, headquartered in Naarajärvi. Talks with machinery producers have yet to be completed. The start-up of the LVL line, which will have a designed annual capacity of roughly 65,000 m3, is slated to happen in the first half of 2019. This project will thus boost the location's LVL capacity to about 190,000 m<sup>3</sup> per year. Metsä Wood put the overall investment volume at €52m and said that it would create 35 new jobs.

Metsä Wood presently employs almost 400 workers at its site in Punkahariu. The existing LVL mill has an annual capacity of about 125,000 m<sup>3</sup> and has 160 employees. Metsä Wood also runs a birch plywood production facility with 230 staff members and a capacity of 60,000 m<sup>3</sup> at the same location. The Lohja LVL mill's capacity was raised from 100,000 m<sup>3</sup> to 120,000 m<sup>3</sup> during 2016 with a project to install a new production line that replaced two older lines. Some 140 workers are employed in Lohja, which is managed by Jouni Laakso. The Metsä Wood plywood mill in Suolahti, which is managed by Pasi Harju, can make about 55,000 m<sup>3</sup> birch plywood and 150,000 m<sup>3</sup> softwood plywood and has a staff of about 460 people.

Metsä Wood unveiled the Punkaharju LVL project at the start of September. In December, a letter of intent was signed with the town of Savonlinna to improve infrastructure. Consultations with employee representatives in Punkaharju were wrapped up a short time later. A decision about the investment, which was slated to be made by the year's end, was announced on 13 December

#### Sveza planning to take over Tyumen plywood plant

The Russian plywood and particleboard manufacturer Sveza Group intends to take over the plywood company OOO Tyumen Plywood Plant of Tyumen, Western Siberia. Sveza has signed a purchase agreement with the current Tyumen owner and managing director Almira Karimova. The transaction, which is still subject to approval from the Russian competition authority, would involve of all the shares in Tyumen being transferred to Sveza. The deal is likely to be concluded in the first quarter of 2018.

Tyumen is specialised in manufacturing large-format birch plywood. The range of raw plywood covers boards for interior applications, WBP plywood, "Avia" plywood for applications in the aviation industry, in shipbuilding, and instrument making, as well as "Bakelite" plywood for exterior applications. Tyumen also offers I/I, I/II and II/III film-faced. The company has roughly 750 employees and currently has annual output of approximately 90,000 m<sup>3</sup> of birch plywood; roughly 75% of this earmarked for export. Sveza is planning to enlarge the Tyumen plywood works' annual capacity to 120,000 m<sup>3</sup> in the next few years.

By taking over Tyumen, Sveza will have seven production facilities in future. The company is aiming to use these to achieve a birch-plywood output of around 1.15m m<sup>3</sup> in its business year 2018. Sveza Group currently operates six plants in Russia with a combined annual capacity of roughly 1.3m m<sup>3</sup>. Approximately 970,000 m<sup>3</sup> of this accounted for by birch and softwood plywood, and 330,000 m<sup>3</sup> by particleboard. The Ust-Izhora works near St. Petersburg (annual capacity: 100,000 m<sup>3</sup>), the Novator works near Veliky Ustyug, Vologda region (130,000 m³), Manturovo, Kostroma region (100,000 m<sup>3</sup>), and Verhnyaya Sinyachiha are geared exclusively to plywood. At the works in Kostroma, Kostroma region, and Uralskiv. Perm region, raw and melamine-laminated particleboard is produced in addition to plywood. The Kostroma works has a production capacity of 250,000 m<sup>3</sup> of plywood and 110,000 m<sup>3</sup> of particleboard. 210,000 m<sup>3</sup> of plywood and 220,000 m<sup>3</sup> of particleboard can be produced in Uralskiy.

Measures are currently underway at the Novator and Uralskiy plants to enlarge production capacity. At the Novator plant, for example, an additional production line made by the Japanese machineengineering company Hashimoto denki Co. Ltd. of Takahama is being installed to boost plywood capacity by around 50,000 m<sup>3</sup> to roughly 180,000 m<sup>3</sup> in future. The new line is scheduled to start up in spring 2019. Production capacity at the Uralskiy plant is to be boosted by roughly 40,000 m<sup>3</sup> of plywood to 250,000 m<sup>3</sup>. Final negotiations are currently being conducted with machine manufacturers. The new facilities are to be put into service at the end of 2018. Sveza estimates the total cost of these two investment projects at approximately RUB7bn (roughly equivalent to €100m). Total investment expenditure will probably amount to around RUB4.5bn (roughly €64.5m) in 2017. Besides the measures for enlarging capacity, new cogeneration plants have been built at several facilities, and wastewater treatment plants and environmental systems have been repaired and extended.

Sveza Group, founded in 1997, has concluded numerous acquisitions in the

Russian plywood industry since then, subsequently implementing major modernisation and expansion investment measures as well in a variety of the acquired plants. Sveza had taken over Ust-Izhora Plywood Mill (UIFK) in its first vear of existence. This was followed in 1999 by a stake in the plywood and particleboard manufacturer OAO Fanplit in Kostroma. Sveza acquired a majority holding in the plywood manufacturers Veliky Ustyug Novator, 000 PFK Perm Plywood Mill, and OAO Fankom Manturovo Plywood Mill from 2002 to 2007. The last major transaction was the participation in ZAO Fankom of Alapaevskiy, Russia, agreed in April 2012.

## UPM set to invest €50m in its Chudovo location



(Photo credit: UPM

UPM-Kymmene Corp. intends to spend about €50m on expanding its Russian birch plywood mill in Chudovo. According to a statement issued on 24 October 2017, the site is to see its manufacturing capacity rise from about 110,000 m³ of plywood per year now to 155,000 m³. In addition, UPM wants to install a new biomass power plant with a capacity of 19 MW that will run on production residues from plywood manufacturing.

A majority of the new machinery will be installed in halls that will take up about 37,000 m² of space. The biomass power plant and an additional 4,500 m² hall will be built. The biggest single supplier of new plywood and veneer technology will be the Finnish machinery manufacturer Raute Oyj. The €21m order placed with Raute includes technology to peel and dry veneers, splicing plants and veneer laying stations, presses and coating lines and scanner and humidity measuring systems. The machinery is to

be delivered starting in autumn 2018 and gradually start operating during 2019. The entire two-year investment project is slated to be completed towards the end of 2019. Manufacturing is to continue without restrictions during this period. UPM intends to hire about 100 new employees in connection with the expansion plans, both for manufacturing and for purchasing raw materials and logistics.

The Chudovo facility, which is located about 120 km south of St. Petersburg in the Novgorod region, currently employs about 600 people. The site presently processes about 300,000 m³ of birch roundwood. Its product range encompasses laminated and unlaminated plywood, which is used in areas including construction, the automotive industry, the furniture industry and liquefied natural gas tanks.

UPM operates a total of nine mills in its UPM Plywood division. Outside Finland, the firm is also represented in Otepää, Estonia, where it has a birch plywood mill with an annual capacity of about 90,000 m<sup>3</sup> and a workforce of about 240 employees. UPM runs another six plywood mills and a veneer mill at five locations in Finland. Three softwood plywood mills with a combined capacity of about 480,000 m<sup>3</sup> per year are located in Pellosniemi. The group also makes birch plywood in Savolinna (annual capacity of about 100,000 m<sup>3</sup>) and Joensuu (about 55,000 m3). UPM makes laminated and unlaminated standard board made out of birch and spruce in Jyväskylä; its annual capacity stands at approximately 100,000 m<sup>3</sup>. The Kalso mill in Vuohijärvi produces veneers, mainly out of spruce. Its capacity is listed at about 80,000 m<sup>3</sup>. In 2016, UPM Plywood employed about 2,400 people and generated revenues of €444m (2015: 439m); its sales reached 764,000 (740,000) m<sup>3</sup>.

UPM Plywood had last undertaken a major investment project in Otepää, Estonia. This mill's manufacturing capacity increased from 50,000 m³ to about 90,000 m³ between spring 2015 and autumn 2016 and a biomass power plant with a capacity of 18 MW was also installed. The investment reached a total of €40m.

OSB share of overall structural panel production climbed to 67.4% last year

# North American OSB output surpassed the 20m m<sup>3</sup> mark for the first time again

North American OSB production surpassed the 20m m<sup>3</sup> mark for the first time in a long while last year.

The APA-The Engineered Wood Association, based in Tacoma, Washington, announced that 20.196m (2016: 19.434m) m³ of OSB had been made in 2017, a 3.9% year-on-year growth rate. While bigger increases had been registered in Canada than in the US in the years 2014 to 2016, the tide turned last year with the US OSB industry performing better. US mills produced 4.9% more last year with a total of 13.002m (12.391m) m³. Canadian OSB output increased by just 2.1% to 7.194m (7.043m) m³ compared to the preceding year.

Since bottoming out at 12.533m m³ in 2009, North American OSB manufacturing has gradually improved, according to the APA statistics. Stronger growth in 2010 (+8.6%) and a temporary stagnation in 2011 were followed by a 9.6% rise in 2012 and an 11.8% leap in 2013. North American OSB producers had restarted several mills that had previously been

indefinitely idled during this period. OSB output rose 6.0% in 2014, before the upward trend slowed again in 2015 (+2.4%). The APA data shows that output had improved by another 7.3% last year.

2017 had started off on a relatively good note again with the first quarter's 5.2% improvement to 4.887m (Jan.-March 2016: 4.645m) m<sup>3</sup>. Output passed the 5m m<sup>3</sup> mark again in the second and third quarters. However, the year-on-year growth rates were not as strong as they had been. OSB manufacturing had been up 2.0% at 5.047m (April-June 2016: 4.947m) m<sup>3</sup> in the second quarter, while the third guarter produced a 3.2% hike to 5.123m (July-Sept. 2016: 4.966m) m<sup>3</sup>. This production level was maintained in the fourth quarter when a 5.4% upswing in output to 5.141m (Oct.-Dec. 2016: 4.877m) m<sup>3</sup> was booked.

OSB production increased even more than softwood plywood output in the first and fourth quarters; both product groups had similar growth rates of 2-3% in the

second and third quarters. North American softwood plywood production was 2.4% higher at 9.808m (2016: 9.576m) m³ in 2017 as a whole. By contrast, softwood plywood output slipped in 2014 (-3.1%) and 2015 (-1.1%), before improving 0.7% in 2016.

A somewhat stronger growth in OSB manufacturing has gradually boosted OSB's share of overall North American structural panels production over the past few years. The latest APA statistics show that OSB accounted for 67.4 (67.0) % of the total output of 30.004m (29.010m) m³ last year.

# LVL output enjoyed double-digit growth

According to statistics from APA , North American LVL manufacturing climbed 13% to 2.271 m (2016: 2.011 m)  $m^3$ , according to the APA data. Canada fared better than the US, with a 25% rise to 212,400 (169,900)  $m^3$ . The US experienced a 12% jump to 2.059 m (1.841m)  $m^3$ .  $\hfill \Box$ 

1,000 m <sup>3</sup>	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
OSB										
US South	9,374	6,932	7,386	7,108	7,769	8,943	9,327	9,501	9,945	10,460
US North	2,198	1,610	1,780	1,827	2,055	2,175	2,250	2,321	2,446	2,542
USA total	11,572	8,542	9,166	8,935	9,824	11,118	11,577	11,822	12,391	13,002
Canada	4,897	3,991	4,448	4,687	5,110	5,579	6,121	6,296	7,043	7,194
Total	16,469	12,533	13,614	13,622	14,934	16,697	17,698	18,118	19,434	20,196
Softwood Plywood										
US South	6,050	5,177	5,103	5,173	4,910	4,900	4,723	4,563	4,719	5,00
US West & Inland	3,060	2,484	3,023	2,819	3,261	3,418	3,273	3,225	3,121	3,028
USA total	9,110	7,661	8,126	7,992	8,171	8,318	7,996	7,788	7,840	8,033
Canada	1,752	1,426	1,579	1,597	1,623	1,595	1,611	1,717	1,736	1,775
Total	10,862	9,087	9,705	9,589	9,794	9,913	9,607	9,505	9,576	9,808

Canadian exports showed mixed trends in the two halves of the year

# OSB exports from Canada and from USA developed in different directions in 2017

Canada exported much more OSB in the second half of the year after a rather subdued first six months of 2017.

Data from Statistics Canada indicate that exports had leapt 18.1% to 1.598m (Oct.-Dec. 2016: 1.353m) m³ in the fourth quarter, the highest growth rate all year. However, their value had improved just 10.1% to Can\$496.7m (451.1m). Exports had leapt 14.9% in a year-on-year comparison to 1.563m m³ in the third quarter, while their value increased 12.6% to Can\$509.2m. Statistics Canada had reported only a small 3.4% upturn in shipments to 1.364m m³ for the first quarter, followed by a 1.8% decrease to 1.381m m³ in the second quarter.

Shipments to the US also rose 18.1% to 1.463m (1.239m)  $m^3$  in the fourth quarter. The US had taken delivery of 1.280m  $m^3$  in the first quarter, 1.314m  $m^3$  in the second quarter and 1.448m  $m^3$  in the third quarter. Exports to Japan were 20.8% higher at 61,958 (51,259)

 $\rm m^3$  in the fourth quarter. Shipments to China and Vietnam both rose by about half to 32,546 (21,892)  $\rm m^3$  and 19,007 (12,025)  $\rm m^3$  respectively. On the other hand, South Korea sourced only two-thirds of the previous year's sum with 11,036 (16,087)  $\rm m^3$ .

Canadian OSB exports climbed 9.2% to 5.937m (2016: 5.438m)  $m^3$  in 2017 as a whole with the mixed trends in the two halves of the year. The value of these exports leapt even more with a 14.6% jump to Can\$1.996bn (1.742bn). Double-digit increases in shipments were even booked in 2012 (+10.0% to 3.380m m³), 2013 (+15.1% to 3.892m m³), 2014 (+13.2% to 4.404m m³) and 2016 (+13.5%). 2015 had ended with a smaller growth than last year (+8.8% to 4.790m m³). Exports had thus grown by a combined figure of 75.7% over the past five years combined.

Last year, Canada delivered 5.505m (5.061m) m³ of OSB valued at Can\$1.866m (1.632m) to the US, representing an 8.8% rise in quantity

and 14.3% increase in value. Exports to Japan did not improve as much as overall exports with a 6.3% upturn to 191,650 (180,304) m³; their value was said to have risen by 6.0% to Can\$58.6m (55.3m). A disproportionately strong growth was booked in shipments to China (+86.2% to 92,264 m³), Vietnam (+92.9% to 58,615 m³) and Taiwan (+39.5% to 20,233 m³). Canada exported less OSB to South Korea (-33.1% to 41,755 m³) and Chile (-40.1% to 16,794 m³).

# Sharp decline registered in OSB exports from USA

The growth in demand on the North American OSB markets led to a sharp reduction in US OSB exports in 2017. The 158,874 m<sup>3</sup> (2016: 215,416 m<sup>3</sup>) reported by the US Department of Agriculture, Foreign Agriculture Service (FAS) of Washington, D.C., is 26% less than the figure for a year earlier. The export value fell less sharply by 16% to US\$53.2m (63.4m). The heaviest losses in volume occurred in the second (-42%) and third (-39%) quarter. Exports rose by 17% in the first quarter, however, but a reduction of 31% has emerged for the fourth. The export volume achieved in the year as a whole is only slightly higher than the 2009 level. At that time the exports had slumped to 133,132 m<sup>3</sup>, only a third of the previous year's figure of 398,661 m<sup>3</sup>. OSB exports rose again in 2010 (+70.9% to 227,463 m<sup>3</sup>), 2011 (+19.3% to 271,348 m<sup>3</sup>), 2013 (+19.2% to 268,745 m<sup>3</sup>), and



In 2017 Canadian OSB exports climbed 9.2% to 5.937m m³ compared to the preceding year. (Photo credit: EUWID)

m³	2012	2013	2014	2015	2016	2017
USA	2,964,678	3,445,600	3,948,720	4,479,179	5,061,157	5,504,621
Japan	131,820	209,359	204,990	159,653	180,304	191,650
China	12,133	8,351	57,074	47,152	49,540	92,264
Vietnam	138	0	0	5,888	30,389	58,615
South Korea	30,602	27,603	48,199	51,383	62,428	41,755
Taiwan	11,916	10,362	15,191	21,996	14,509	20,223
Chile	40,794	11,906	6,321	198	28,033	16,794
Thailand	2,092	2,497	3,935	5,397	4,547	5,224
Mexico	5	69	1,095	1,963	869	3,338
Netherlands	334	154	1,291	2,174	2,911	977
Russian Fed.	150,577	148,338	114,477	3,183	0	C
Other countries	34,679	28,179	2,267	11,770	3,512	1,692
	4,024	4,124	3,060	1,009	280	23
Total	3,379,768	3,892,418	4,403,560	4,789,936	5,438,199	5,937,15

2014 (+2.6% to 275,759 m³). A sharp decline was registered in 2012 (-16.9% to 225,398 m³) and in 2015 (-20.8% to 218,501 m³); after the later adjustment, the export volume for 2016 was only 1.4% short of the figure for the previous year.

In 2017 as a whole, the reductions on the overseas markets turned out to be considerably more pronounced than within North America. Exports to Canada even increased slightly. The substantial reduction in deliveries to Mexico led to a decline of 11% for North America

**USA: Exports of OSB**  $m^3$ 2012 2013 2014 2015 2016 2017 174,559 141,101 North America 140,442 168,480 139,777 159,231 86,738 114,650 117,897 88,177 97,082 98.492 Canada Mexico 53,704 59,909 50,583 51,600 62,149 42,609 12,795 33,959 11,962 East Asia 23,941 47,869 32,020 South Korea 17,483 7,049 39,443 26,707 30,550 11,120 6,573 77 China 4,659 5,188 7,977 1,048 32,299 50,997 45,597 33,481 17,016 59 South America Chile 22,004 43,096 41,980 32,403 16,471 0 EU-28 4,191 3,167 2,243 3,551 2,547 1,913 Central America 1,257 869 848 1,510 1,939 1,721 2.607 850 471 1.340 903 1.136 Oceania Carribean 1,393 546 1.761 1.044 760 628 4,024 3.060 1.009 280 23 Middle East 4.124 CIS 14,292 20,117 3,983 220 52 39 Total 225,398 268,745 276,105 216,367 215,416 158,874 Source: EUWID (based on data provided by US Department of Agriculture, Foreign Agriculture Service FAS) overall; the export value fell by 5% to US\$47.5m (50,0m). Deliveries to East Asia fell by 63%. EU-28 regained its standing at third place despite a reduction of 25%.

## Growth in OSB imports to USA continued in 2017

OSB imports to the USA rose considerably more sharply in the second half of 2017 than they did in the first. According to information from the US Department of Agriculture, Foreign Agriculture Service (FAS) they increased in the first quarter by 5% against the previous year to 1.287m m<sup>3</sup> whilst they fell in the second by 1% to 1.306m m<sup>3</sup>. Growth of 15% to 1.468m m<sup>3</sup> was recorded for the third quarter, followed by an increase of 19% to 1.478m m<sup>3</sup> (Oct.-Dec. 2016: 1.242m m<sup>3</sup>) in the fourth. This equates to growth of 9% for the year as a whole to 5.539m m<sup>3</sup> (2016: 5.068m m<sup>3</sup>); the export value rose twice as sharply at +18% to US\$1.430bn (1.208bn).

As such, the OSB imports have almost doubled over the last five years. 2.965m m³ had been imported in 2012. The FAS had recorded imported volumes of 3.460m m³ and 3.965m m³ respectively for 2013 and 2014. 4.484m m³ were imported in 2015. The 5m m³ mark was exceeded in 2016.

Imports from Canada rose by 8% in 2017 to 5.474m m<sup>3</sup> (5.061m m<sup>3</sup>) whilst the import value increased 17% to 1.413m m<sup>3</sup> (1.206m m<sup>3</sup>). Deliveries from EU-28 increased more than tenfold to 59,921 m<sup>3</sup> (5,598 m<sup>3</sup>) with comparable growth in their value to US\$14.4m (1.3m). The EU imports were obtained almost exclusively from Romania, whose share of which amounted to 56,016 m<sup>3</sup> (5,180 m<sup>3</sup>) with a value of US\$14.2m (1.1m). The second-biggest EU supplier country according to the FAS statistics was Germany at 853 m<sup>3</sup> (0 m<sup>3</sup>). An imported volume of 4,572 m<sup>3</sup> (39 m<sup>3</sup>) was recorded for the CIS countries, 2,780 m<sup>3</sup> (6 m<sup>3</sup>) of which originated from Russia and 1,792 m<sup>3</sup> (33 m<sup>3</sup>) from Belarus. 3,460 m<sup>3</sup> (109 m<sup>3</sup>) was imported from East Asia.

Export volumes for plywood and LVL increased by 10.5 % until end of August

# Finnish plywood industry has reached a turnaround in its production output

After the slightly regressive development in 2015 and 2016, the Finnish plywood industry succeeded in boosting its output at a greater rate again last year.

Figures published by the Finnish Forest Industries Federation (FFIF) in mid-February show that the production volume rose by 9.0% to 1.240m m³ (2016: 1.140m m³) compared to the preceding year. The Finnish plywood industry had last achieved an output of 1.2m m³ in 2008. The output had even been in excess of 1.4m m³ in each of the years 2006 and 2007. Production had then slumped to 800,000 m³ by 2009; a reduction of 43.3% within the space of two years.

A marked recovery then occurred in 2010 with an increase of 22.5% to 980,000 m³. The output rose mostly by mid-range single-figure percentages in each of the years from 2011 to 2014 (2011 +3.1%, 2012 +1.0%, 2013 +6.9%, 2014 +6.4%). The following reductions in 2015 (-0.9%) and 2016

(-1.0%) turned out to be relatively moderate.

Of the individual quarters in 2017, the first and third developed best against those of the previous year. The output increased 16.5% to 310,000 m3 (Jan.-March 2016: 270,000 m<sup>3</sup>). According to the FIFF figures, the second quarter produced a marginal increase of 0.1% to 300,000 m<sup>3</sup> (April-June 2016: 300,000 m<sup>3</sup>). An increase of 15.7% was given for the third quarter to 300,000 m<sup>3</sup> (July-Sept. 2016: 260,000 m<sup>3</sup>). The figure for the fourth quarter was 5.3% higher than a year earlier; at 330,000 m<sup>3</sup> (Oct.-Dec. 2016: 310,000 m<sup>3</sup>), this was the highest quarterly output since 2007. The production volumes are rounded in the FFIF statistics whereas the rates of change against the same period of the previous year are calculated from the exact figures.

According to the figures from the Natural Resources Institute Finland (Luke) of Helsinki, the increases in the output of soft and hardwood plywood

turned out to be similar last year. The Finnish output of softwood plywood rose by 9.1% to 840,000 m³ (770,000 m³); an increase of 8.7% to 401,000 m³ (369,000 m³) was established for hardwood plywood. As such, softwood plywood manufacturers almost matched the level of output achieved in 2006 (845,000 m³) and 2007 (869,000 m³).

The output of hardwood plywood, on the other hand, was well over 500,000 m³ in each of the years from 2001 to 2007; at 465,000 m³, even the output in 2008 was considerably higher than last year in spite of a significant decline against the previous years.

# Finnish plywood exports also on the rebound

Finland's plywood exports have also recovered in 2017 on the heels of a minor downturn in 2015 and 2016. According to foreign trade statistics published by FFIF on 7 November, the country shipped a total of 529,000 m³ (Jan.-Aug. 2016: 479,000 m³) of plywood and LVL abroad between January and August, 10.5% more than in the same period last year. The average export price had dipped by 0.5%, meaning that the overall value of exports was 9.9% higher at €282m (257m).

The FFIF data shows that birch plywood exports improved 19.0% to 191,000 m³ (160,000 m³) in the eight-month period. Foreign shipments of softwood plywood and LVL rose just 6.2% to 339,000 m³ (319,000 m³). The FFIF reported similar



Finnish plywood production increased by 9.0% to 1.240m m³ last year.
(Photo credit: Raute)

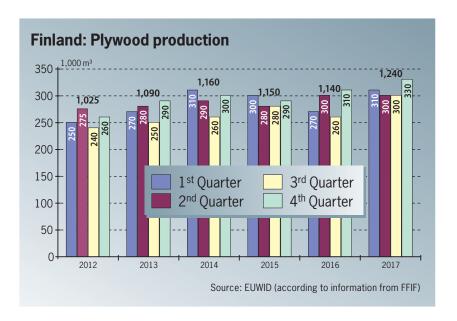
cuts in the average export price for birch plywood (-2.9%) and softwood plywood/LVL (-2.3%), although they cannot be reconciled with the trend in prices reported for plywood/LVL (-0.5%). The Federation stated that the total value of exports broke down into €157m (136m) for birch plywood and €125m (121m) for softwood plywood/LVL. The value of birch plywood shipments thus grew 15.5%, while the value of softwood plywood/LVL shipments climbed 3.7%.

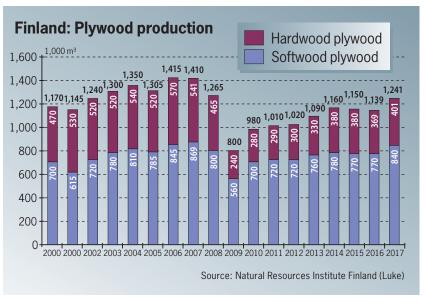
In 2016 as a whole Finnish plywood exports dipped 0.4% to 940,000 m<sup>3</sup>. Bigger drops materialised mainly in terms of shipments to the Eurozone (-6% to 440,000 m<sup>3</sup>), to other EU member states (-9% to 310,000 m<sup>3</sup>) and to Asia (-10% to 50,000 m<sup>3</sup>). On the other hand, exports to other European countries outside the EU increased 8% to  $80,000 \, \text{m}^3$ . A 40% growth in shipments to other regions to 60,000 m<sup>3</sup> was also recorded. This meant that 47% of total exports ended up in the Eurozone, 33% in other EU member states, 9% in other European countries, 5% in Asia and 6% in other regions.

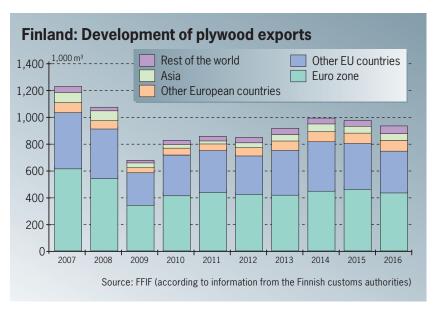
Germany has strengthened its position as the biggest export market for Finnish plywood with a 7% upswing to 180,000 m³ in 2016. Shipments to the UK (-20% to 130,000 m³) and the Netherlands (-16% to 120,000 m³) plunged sharply. Exports to Sweden rose 5% to 100,000 m³, while deliveries to Denmark slipped 6% to 60,000 m³. A total of about 590,000 m³ or 63% of total exports ended up in these five countries last year. Exports to other countries had hardly altered compared with last year at a total of 350,000 m³.

When it came to imports, Finland received more plywood and LVL between January and August, but less of other grades compared with last year. Plywood/LVL imports were 11.1% higher at 13,000 m³ (11,000 m³). Average prices improved 14.4%, sending the value of imports soaring 27.1% higher to €8m (6m).

Finnish plywood imports had soared 14% to  $93,000 \text{ m}^3$  in 2016 as a whole.  $\Box$ 







### Kronospan orders machinery for Eastaboga

The Kronospan Group ordered the main machinery for a long-planned particleboard mill in Eastaboga in the US state of Alabama in December 2017. The orders were placed via GIM Export Group GmbH & Co. KG which also landed the contract to provide project financing. The forming and press line and final assembly systems will be provided by Siempelkamp Maschinen- und Anlagenbau GmbH. Kontra Anlagentechnik GmbH is to deliver the sanding line; the sanding machine will come from Steinemann Technology AG. The Italian company Imal-Pal s.r.l. won the contract to provide the screening, sifting and gluing technology. The order for the dryer went to Dieffenbacher GmbH Maschinen- und Anlagenbau. The new particleboard line is to be equipped with a 10 ft x 44 m continuous press and will ultimately have an annual capacity of up to 900,000 m<sup>3</sup>. Commissioning is slated to happen in the second quarter of 2019.

Kronospan had announced the project to expand the Eastaboga site, which does business as Kronospan LLC, in several stages in June 2016. A laminate flooring production unit was subsequently installed at the MDF/HDF mill. Two treating lines, two short-cycle presses and two profiling lines were installed. This technology started operating during the first half of 2017. The next step involved adding the particleboard line and boosting resin

production. A furniture cluster is then to be set up at the site. Under plans in June 2016, the measures envisaged by 2019 were to entail an investment of US\$362m.



(Photo credit: Kronospan)

Kronospan has undertaken several investment projects through GIM Export Group over the past four years. The first project entailed replacing a multi-opening press at the Hungarian particleboard producer Falco CC, headquartered in Szombathely, which was completed in the first quarter of 2014. A continuous particleboard line installed at Kronospan Bulgaria EOOD, based in Veliko Tarnovo, Bulgaria, to replace a multi-opening line also started operating in the final quarter of 2016. An MDF/HDF thin board line is currently being added to the Kronospan FLLC mill in Smorgon, Belarus. A considerable proportion of the technology for a project to modernise OSB production at Kronospan Luxembourg S.A., based in Sanem, was also ordered via GIM Export Group.

#### Unilin commissions shortcycle press in Thomasville

The Flooring division of Unilin bvba, based in Wielsbeke, Belgium, started operating a new short-cycle press at its US laminate flooring mill in Thomasville, North Carolina, in September 2017. Work to assemble an identical press at its Wielsbeke laminate flooring mill has been completed in late fall. The first board has been laminated before year end. A new laminating line is to be commissioned at its Russian laminate flooring mill in Dzerzhinsk, Nizhny Novgorod, during the first quarter of 2018. Unlike the two other large-sized short-cycle presses, this latter press will be designed as a half-size press like its existing unit in Russia.

Wemhöner Surface Technologies GmbH & Co. KG is supplying all three presses. Unilin awarded the contract for assembly services in Thomasville and Wielsbeke to SGS Industrial Services GmbH, based in Dorf an der Pram, Austria.

Unilin Flooring said that the three similarly designed short-cycle presses implemented a number of innovations that were developed in partnership with Wemhöner. With a specific pressing force of 800 N/cm², the new presses can process special substrate and press deeper structures. Special automation solutions will also allow for rapid production changes and small batch sizes without any major loss in capacity. The two large-sized short-cycle presses in Thomasville and Wielsbeke will achieve an annual capacity of up to 10m m² even when making speciality products.

Unilin currently runs four short-cycle presses to laminate substrate for laminate flooring at its Wielsbeke laminate flooring facility. The Thomasville complex, which was commissioned in summer 2005 and expanded in 2008, presently runs two short-cycle presses as well as two treating lines. Unilin will invest in a profiling line as well as the short-cycle press at the Russian facility, meaning that it will have two laminating presses and two profiling lines there in future. Unilin commissioned the Russian plant in September 2011. It first installed a half-sized short-cycle press and a profiling line from a mill in Mouscron, Belgium, that closed in June 2009.

#### Arauco North America tasks SGS with assembly



(Photo credit: Arauco North America)

Austrian SGS Industrial Services GmbH, based in Dorf an der Pram, started work to assemble machinery for a particleboard mill that Arauco North America is planning in Grayling, Michigan, towards the end of August 2017. As a first step, the power plant

and dryer have been installed. At the same time, work to build the silos has begun. The assembling of the forming and press line has started in November. The €25m contract awarded to SGS also includes screening/sorting, gluing, final assembly with the sanding line and two packaging lines, two short-cycle presses and two high-bay warehouses for particleboard and melamine film. Installation work is to be wrapped up by mid-2018 for the most part. Commissioning is slated to happen in the second half of 2018. The main technology supplier is Dieffenbacher GmbH Maschinen- und Anlagenbau. Other parts will come from Anthon GmbH, Imeas S.p.A. and Wemhöner Surface Technologies GmbH & Co. KG.

### AGT ist planning for second MDF/HDF plant

The Turkish wood-based panel, laminate flooring, and profile manufacturer AGT Agac San. ve. Tic. A.S. of Antalya has been giving concrete shape to its longstanding plans for building a second MDF/HDF production line in the last few months. At the end of January 2018, the company has engaged GIM Export Group GmbH & Co. KG of Göttingen, Germany, to purchase the main production equipment and to provide the project financing. A little later on, GIM Export Group started by placing an order with Siempelkamp Maschinen- und Anlagenbau GmbH of Krefeld, Germany, for a 7 ft x 55.3 m forming and press line with a ContiRoll. The orders for the upstream and downstream plant components and for the planned enlargement of the value-adding capacity are to be placed during the course of the next few weeks. Initial talks have already been held for the order packages for the refiner, power plant/fibre dryer, and sanding line. Negotiations on delivery of another short-cycle press and an additional profiling line for the downstream laminate-flooring production plant are to be held at a later date.

The new MDF/HDF production line is to be set up alongside the plant that was put into service at the beginning of March 2014. Space for the second line had already been taken into account

in the hall built at that time. Under the current plans, installation of the plant and machinery is to begin in December. Production of the first panel is scheduled for August 2019. The new plant is designed to achieve a production capacity of around 1,200 m<sup>3</sup> per day or almost 400,000 m<sup>3</sup> per year. The first plant, also supplied by Siempelkamp, was originally geared to an annual capacity of roughly 430,000 m<sup>3</sup> with an 8 ft x 55.3m continuous press. At that time the refiner was supplied by Andritz AG of Graz, Austria; the power plant and dryer came from the Siempelkamp subsidiary Büttner Energie- und Trocknungstechnik GmbH of Krefeld, Germany. The laminate-flooring works built at the same facility as part of the MDF/HDF investment project started up at the end of 2014. AGT currently operates three short-cycle presses made by Wemhöner Surface Technologies GmbH & Co. KG of Herford, Germany, and two profiling lines from Homag GmbH of Schopfloch.

The currently 25 ha works premises of AGT in Antalya is being extended by roughly 12 ha for building the second MDF/HDF line. The additional area is to be used above all for setting up the wood year, enlarging the wood storage areas, and for extra storage space for MDF/HDF and finished products.

# Dieffenbacher supplying a press to Tableros Hispanos

The Spanish particleboard manufacturer Tableros Hispanos S.L.U., headquartered in Nadela in Lugo Province, ordered the main components for a project to modernise an existing multi-opening line from Dieffenbacher in October 2017. The centrepiece of this order is a CPS+continuous press line, which has a designed daily production capacity of 1,500 m³, according to Dieffenbacher. Besides assembling the press, something that is to commence in the fourth quarter of 2018, the forming station and the forming line as well as raw board handling were modernised. In spring

2017, Tableros Hispanos also ordered a short-cycle press from Dieffenbacher Maschinenfabrik GmbH.

Tableros Hispanos is implementing the first step to modernise the entire mill by replacing the forming and press line. At a later point in time, chip preparation technology is to be modernised and expanded as part of the subsequent investments. The new plant's capacity will thus be limited to 1,000 m³ per day until this work is finished.

Tableros Hispanos was created in July 2013 when the Peruvian firm Grupo Martín acquired the assets of the Spanish particleboard manufacturer Tablicia S.A. Tablicia had been in liquidation proceedings since mid-December 2012.

# Forte particleboard mill now up and running

The Polish cabinet furniture manufacturer Fabryki Mebli Forte S.A., headquartered in Ostrów Mazowiecka, made the first board at a particleboard mill at its Suwalki complex on 3 February 2018. Assembly of the production machinery had begun in May 2017, two months later than originally planned. Delays in the permit process had pushed back this work. The team managed to catch up during the second half of 2017, meaning that work to install technology was largely completed by December. The front end was supplied by the Italian firm Imal-Pal s.r.l., based in San Damaso. Siempelkamp Maschinen- und Anlagenbau GmbH provided the forming and press line with a capacity of 1,500 m<sup>3</sup> per day or almost 500,000 m<sup>3</sup> per year and the entire final assembly with diagonal saw, cooling and stacking station, automated warehouse and sanding line. The 49.9 MW power plant and drum dryer with an hourly capacity of 42.4 bone-dry tonnes had been supplied by Siempelkamp's subsidiary Büttner Energie- und Trocknungstechnik GmbH.



(Photo credit: Siempelkamp)

Forte had revealed plans for its own particleboard mill in autumn 2015. The final decision in favour of this site was made during the first quarter of 2016. Forte ordered the first technology in May 2016.

Forte intends to gradually switch raw particleboard supply to its Ostrów Mazowiecka, Hajnówka, Suwalki and Bialystok plants from long-term agreements with external providers to its own mill by ramping up the technology in Suwalki. Another furniture plant is currently under construction in Suwalki that will start operating in the first quarter of 2019 under current plans.

# Forte concludes new supply contract with Pfleiderer

On 5 February 2018, Fabryki Mebli Forte S.A. concluded a long-term supply contract with Pfleiderer Polska Sp.zo.o., Breslau. The supply contract, which runs until the end of 2019, is for raw and melamine coated particleboards as well as raw and lacquered MDF/HDF. The new agreement replaces the former supply contract which was concluded at the end of 2014 for 2015 and 2016, and had been extended ahead of schedule in November 2015 by a further year to the end of 2017. The original agreement for 2015 and 2016 amounted to a total volume of some €71m, corresponding to PLN306.3m. After the contract was extended to 2017, this volume increased further by some PLN146m. The new two-year contract, according to an adhoc statement issued by Forte, includes an order volume of some PLN132m. This significant reduction in volume compared to the preceding contracts is due to the commissioning of a raw particleboard plant in Suwalki (north-east Poland) constructed by Forte. By the end of September 2017, according to the latest quarterly report published, Forte had invested a total of some PLN422m in this project. Of this figure, PLN210.2m was invested during the first three guarters of 2017. The remaining PLN211.3m had already been invested over the course of 2016. In spring 2016, Forte had indicated the investment volume for the new particleboard plant to be up to PLN427m.

### Homanit drops plans to acquire Baltwood

Homanit Holding GmbH, based in Herzberg, Germany, and the Lithuanian group AB Grigeo, headquartered in Grigiškes near Vilnius, have terminated a letter of intent signed in mid-September 2017 for the sale of the hard fibreboard producer UAB Grigeo Baltwood. The termination agreement was signed on 2 February. Grigeo announced that due diligence performed by Homanit in recent months had revealed that the territory and infrastructure conditions for investments planned for the site in Grigiškes near Vilnius were not sufficient. Under the original plans, Homanit wanted to complete the acquisition by the end of 2019, rename the company Homanit Lithuania and subsequently install a new thin MDF/ HDF line and a variety of downstream refining systems.

The acquisition of the Lithuanian hard fibreboard producer and subsequent investments were supposed to be the next step in the growth strategy for Homann Holzwerkstoffe GmbH, which is controlled by Homanit Holding. In its annual report for 2016, the company had made it clear that this growth was also to be underpinned by strategic acquisitions, and adequate liquidity was available for these actions too. The company's liquidity and financing situation had improved again with the trend in its revenues and earnings in the 2017 financial year. According to a

statement published in mid-December, group revenues rose by more than 15% by the end of November compared with the prior-year period. Operating EBITDA climbed by about 20%. Homann Holzwerkstoffe had boosted its revenues by 12% to €226m (2015: 202m) and operating EBITDA by 60% to €33m (20m) in 2016.



(Photo credit: Grigeo Baltwood)

Following the termination of the agreement, Grigeo Baltwood is to continue operating as part of the Grigeo Group. The hard fibreboard manufacturer had generated consolidated revenues of €15.6m and employed 140 workers in 2017, according to recently published preliminary figures. This revenue figure was just shy of 2016's total of €16.0m. The firm has set its sights on raising revenues to about €18m this year. Grigeo Baltwood claims to have output of about 23m m<sup>2</sup> at present with an export rate of 80%. Its main sales markets are located in the EU.

#### Stichting Lindenhaag buys majority stake in Atlantic

The Dutch foundation Stichting Lindenhaag, based in Nieuwer Ter Aa, bought a majority stake in the investment company Atlantik S.A., headquartered in Luxembourg, on 19 December 2017, making it the second-biggest shareholder in Pfleiderer Group S.A., based in Wroclaw, Poland, albeit indirectly. Represented by Thijs Schütte, the foundation was created on 2 October 2015.

By acquiring Atlantik, Stichting Lindenhaag has gained indirect access to the 12,474,561 shares in Pfleiderer held by Atlantik. This represents 19.28% of total share capital. According to a stakeholder overview published after the last extraordinary general meeting on 18 October, the US hedge fund Strategic Value Partners (SVP)



(Photo credit: Pfleiderer)

controls a total of 19,183,149 shares or 29.65% through several intermediate investment funds. Some 7.814 million of these shares (12.08%) are held by Yellow Saphire S.à.r.l., 4.793 million shares (7.41%) by Brookside S.à.r.l. and 3.080 million shares (4.76%) by Field Point IV S.à.r.l.

The next-largest shareholders are Aviva OFE Aviva BZ WBK, based in Warsaw, with 5.945 million shares (9.19%), Nationale Nederlanden Otwarty Fundusz Emerytalny with 9.58% and Otwarty Fundusz Emerytalny PZU Zlota Jesien with 4.64%. Altogether, there are 64,702,007 shares in Pfleiderer at present.

# Pfleiderer starts up coating line in Leutkirch

Pfleiderer Deutschland GmbH, based in Neumarkt, Germany, officially commissioned a HotCoating plant at the Thermopal site in Leutkirch. Germany that does business as Pfleiderer Leutkirch GmbH on 23 January. The first test board was made at the start of December. The transition to regular operations means that the new PrimeBoard and Duropal HPL Compact Exterior products developed by Pfleiderer will be made in Leutkirch. Since the production start in Leutkirch, PrimeBoard can also be provided in a full 2,800 x 2,100 mm size. For its market launch. Pfleiderer had supplied smallersized high-gloss and matte board last year. These products had been made by dekoraPUR GmbH, based in Barsinghausen, Germany. Laminates with a lacguered surface, which can be delivered in a size of 2,800 x 2,070 mm, will be offered with a supermatte and exterior matte surface.



Photo credit: Pfleiderer

The 165 metre-long HotCoating line was installed during the course of last year. Commissioning began in the fourth quarter. The project entailed an investment of approximately €12m. The Spanish company Barberán S.A., headquartered in Castelldefels, supplied the technology. Kleiberit provides the UV acrylic lacquer used for the multi-layer lacquer structure.

#### Kastamonu purchases two Depalor short-cycle presses

The Turkish wood-based panel and building element manufacturer Kastamonu Entegre Agac San. ve Tic. A.S., based in Istanbul, acquired two short-cycle presses from the Depalor mill in Phalsbourg,

France, which closed back in 2013, from Swiss Krono Group in July 2017. Both machines, which were delivered by Siempelkamp Maschinen- und Anlagenbau GmbH and have a format of 2,200 x 5,800 mm, had started operating in 1995 and 2001. The presses were dismantled starting in August and are to move to existing Kastamonu sites. One short-cycle press is being installed at a particleboard mill in Reghin, Romania, which does business as Kastamonu Romania A.D. The second press is to be used to boost laminating capacity at a particleboard mill in Pomposa di Codigoro. This mill had been bought from Italy's Gruppo Trombini in an asset deal in March 2017. The new short-cycle presses are set to be commissioned in Reghin in July 2018 and in Pomposa di Codigoro by the end of 2019.

A new short-cycle press delivered by Wemhöner Surface Technologies GmbH & Co. KG is currently being installed in Pomposa di Codigoro in a first stage. This press had originally been earmarked for the Kastamonu site in Romania. Shortly before its delivery, the company decided to use this machinery in Pomposa di Codigoro instead. A resin production unit, a treating line and a new wet electronic filter are to be installed too in preparation for recommissioning in the second quarter of 2018.

# Dieffenbacher relocating and updating Darbo plant

The Turkish wood-based panel and construction-element manufacturer Kastamonu Entegre Agac San ve Tic. A.S. of Istanbul has commissioned Dieffenbacher GmbH Maschinen- und Anlagenbau to relocate and update the forming and press line purchased from the insolvent assets of the French particleboard manufacturer Darbo S.A.S. of Linxe in March 2017. The plant is to be used as part of the modernisation of the particleboard works trading under the name of Kastamonu Bulgaria A.D. in Gorno Sahrane, Bulgaria, and thereby replace the existing multiopening unit.

The order placed with Dieffenbacher covers the dismantling and reassembly



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of the forming station, forming line, pre-press, a 7 ft wide and 42.4 m long CPS, a modernisation and optimisation package, and a completely new control system. Dieffenbacher says the plant at the Linxe facility in southwest France has already been dismantled. Resumed operation in Gorno Sahrane is scheduled for early 2019. In Linxe, the press put into service in 1996 and extended in 2000 last had an annual production capacity of approximately 580,000 m<sup>3</sup>.

#### Siempelkamp Qingdao to supply plant to Vanachai

The Thai wood-based panel manufacturer Vanachai Group Public Company Ltd. of Bangkok placed an order with Siempelkamp Maschinen- und Anlagenbau GmbH for a 4 ft particleboard production plant in October 2017. The order, which covers the forming and press line with a 4 ft x 48.7 m continuous press, the cooling and stacking station, a fully-automated panel depot, and the sanding line was ordered directly from the Chinese Siempelkamp subsidiary Siempelkamp (Qingdao) Machinery Co. Ltd. of Qingdao, Shandong province. Vanachai will be setting the new plant at the group's meanwhile largest facility in the province of Surat Thani. Work on assembling the new production line is scheduled to begin in the fourth quarter of 2018.

At the facility, Vanachai is currently building a 6 ft wide MDF plant ordered from Siempelkamp in November 2016. Once the two new plants are up and running, Vanachai will be operating a total of six particleboard and MDF lines. Three of the plants already in operation were supplied by Siempelkamp, and one by Metso Panelboard of Helsinki.

#### Mieco to also produce MDF after acquisition

Malaysian particleboard producer Mieco Chipboard Bhd. based in Kuala Lumpur intends to take over wood-based panels manufacturer Great Platform Sdn. Bhd. Mieco reached an agreement to this effect with the superordinate holding company SYF Resources Bhd. at the end of July 2017. On 19 December shareholders of both companies approved the transaction, which is to be concluded over the course of the first guarter of 2018. The purchase price was fixed at MYR58.6m, which corresponds to approximately €12.2m. This includes the existing liabilities of Great Platform to the amount of MYR51.53m, which means the purchase price was effectively MYR7.06m.

Mieco is to take over two wood-based panel locations within the scope of the agreed transaction. Great Platform has operated a particleboard plant in Gemas (Negeri Sembilan), since 2013, which has an annual capacity of 80,000 m<sup>3</sup>. At the Simpang Pertang (Negeri Sembilan) location commissioned in 2015, an additional 100,000 m<sup>3</sup> MDF can be produced. The supplier of both plants, according to SYF Resources, was Chinese Linyi Xingteng Wood-Based Panel Machinery Co. Ltd. (Linyi, Shandong province). In the 2017 financial year the SYF Resources boards business division, in which the activities of Great Platform are consolidated, generated turnover of MYR75.1m and contributed 6.0% to total turnover of MYR453.2m. SYF Resources has also operated two further business divisions so far - rubberwood furniture and property development and construction.

Once the acquisition is completed, Mieco is to commence MDF production as well. So far the company has operated two particleboard locations, the total capacity of which is indicated at 900,000 m<sup>3</sup> per annum. In February 2005 the company commissioned a plant in Kechau Tui (Pahang). The particleboard line supplied by Dieffenbacher GmbH & Co. KG is equipped with a continuous press in the dimensions 2.65 x 41.6 m, whereby there is also an option to extend this to up to 60 m. The overall plant is designed with a daily production capacity of some 2,000 m<sup>3</sup>. At the end of 2008, the plant was temporarily taken out of production due to unfavourable fundamental economic conditions and then recommissioned in January

Prior to commissioning of the Kechau Tui location, Mieco operated two particleboard plants in Gebeng (Pahang) and Semambu (Pahang). At the time, the annual capacity of these plants was indicated to be some 300,000 m<sup>3</sup>. Following the sale of the plant premises in Semambu in 2014, the impregnation facility was transferred to Gebeng in 2015 and the short-cycle press was also transferred to this location in 2016. Mieco therefore focussed its coating activities at the Gebeng location, whereas raw particleboard is exclusively produced in Kechau Tui. 

#### Andritz starts up refiner at Panel Plus MDF

Andritz AG commissioned a pressurised refiner system that it delivered for the new thin board line run by the Thai woodbased panel manufacturer Panel Plus MDF Co. Ltd., headquartered in Hat Yai, during the final quarter of 2017. The order placed in spring 2016 had included a 56" refiner with an hourly capacity of 30 tonnes bone-dry, a wood chip washer with sedimentation technology and a C-feeder. Besides

ordering the new machine, Andritz had also awarded Panel Plus a contract to modernise the refiner in an existing MDF line in 2013.



(Photo credit: Andritz)

# Green River set to double its particleboard capacity

The Thai particleboard manufacturer Green River Panels Thailand Co. Ltd. wants to more than double its particleboard capacity by installing a third production line. To this end, the company placed an order with Siempelkamp Maschinen- und Anlagenbau GmbH in November 2017. The project involves a number of companies within the Siempelkamp family. Pallmann Maschinenfabrik GmbH & Co. KG will deliver a variety of components for the wood yard. CMC Texpan s.r.l. will provide the screening technology and the resin blending system with an Ecoresinator P. Büttner Energie- und Trocknungstechnik GmbH landed the order for an energy plant with a furnace capacity of 95 MW and a drum dryer with a diameter of 7 m and a length of 36 m. Siempelkamp itself will deliver the forming and press line with a 8 ft x 50.4 m continuous press, the board handling system and intermediate storage. Sicoplan N.V. will provide overall planning of the mill. The technology is to be installed starting in October 2018 at Green River Panels Trang Thailand Co. Ltd., which was founded for the project, in Trang in southern Thailand. Commissioning of the plant, which will have a daily capacity of up to 2,800 m<sup>3</sup>, is slated for the third quarter of 2019.

Green River Panels is part of Green River Holding Co. Ltd. (GRH), which was founded in January 2011 and is backed by Taiwanese investors. At that time, GEH purchased the shares of the solid timber converter Green River Wood & Lumber Manufacturing Thailand Co. Ltd. (GRW) and Green River Panels Co. Thailand Ltd. (GP). GP started making particleboard in Hat Yai in 2007 using a production line delivered by Dieffenbacher GmbH Maschinen- und Anlagenbau (CPS 8 ft x 20 m, designed annual capacity: 200,000 m<sup>3</sup>). A second line also provided by Dieffenbacher was installed at the same location in 2015 (CPS 8 ft x 27.9 m, 300,000 m<sup>3</sup>). The main feedstock for the two existing plants and the new line is rubber wood from overaged plantations.

#### Rushil: Siempelkamp to supply MDF line

The Indian laminate and wood-based panel manufacturer Rushil Décor Ltd., based in Ahemdabad, Gujarat, has ordered a complete line from Siempelkamp GmbH & Co. KG for a long-planned project to increase MDF production. Placed in the fourth guarter of 2017, the order includes wood and fibre preparation, gluing, fibre drying, screening, a ContiBooster pre-heater, a forming and press line with a 8 ft x 28.8 m Contiroll, cooling and stacking technology, intermediate storage, the sanding line and cut-to-size technology. The ContiBooster pre-heater installed before the press entry will boost production by up to 20%, according to Siempelkamp. Some of this technology will be delivered from Siempelkamp's two Chinese manufacturing facilities in Qingdao and Wuxi. With a capacity of 760 m<sup>3</sup> per day or about 250,000 m<sup>3</sup>

per year, the MDF line will be installed in Atchutapuram, Andhra Pradesh. Siempelkamp will start delivering technology in the fourth quarter, with commissioning slated for the final quarter of 2019. The line will primarily make MDF out of eucalyptus grown in plantations and from over mature mango trees.

Rushil Décor started making MDF in 2012 with a multi-opening press. It had ordered this line from the Dieffenbacher subsidiary Shanghai Wood-Based Panel Machinery Co. Ltd. (SWPM) at the start of 2010. Plans to add a second MDF line had been announced during 2016. In the first quarter of 2017, the firm inked a memorandum of understanding with the government of Andhra Pradesh, which is located in the south-east of India, that raised the prospect of potential tax incentives.

### Borg Group gets green light to buy CHH assets

The Australian Competition & Consumer Commission (ACCC) approved the partial sale of particleboard activities by Carter Holt Harvey Pinepanels Pty Ltd (CHH), based in St. Leonards, New South Wales, to Borg Group Holdings on 26 October 2017. Borg intends to acquire two mills in Mount Gambier, South Australia, and Oberon, New South Wales, where CHH currently makes raw particleboard and particleboard flooring.

On a total of four production lines at the Mount Gambier facility, CHH manufactures raw particleboard of which a certain proportion is processed further into flooring panels. In Oberon, the company now only operates value-adding facilities for producing flooring panels. Besides these works, Borg also wants to obtain all the rights to the "STRUCTAflor" brand, under which CHH distributes the flooring panels. CHH's other two particleboard facilities in Tumut, New South Wales, and Gympie, Queensland, are not part of the planned transaction. According to the ACCC, particleboard is currently still manufactured in Australia by Laminex Group Pty. Ltd. of Doncaster, Victoria, and by D&R Henderson Pty. Ltd of Sydney in Dardanup, Western Australia, and Benalla, Victoria, respectively.

Borg still intends to add a particleboard production line to its existing MDF facility in Oberon in spite of the planned acquisition of the CHH assets. In the first stage of the investment project, this will initially be geared to a production capacity of roughly 1,500 m<sup>3</sup> per day. The company had announced corresponding plans in February 2016 and subsequently placed orders for the necessary plant and machinery with companies such as Siempelkamp Maschinen- und Anlagenbau GmbH of Krefeld. An order was also placed at the same time for modernising the MDF plant that Siempelkamp had supplied in 1996 and which meanwhile reaches a capacity of 260,000 m<sup>3</sup> per year.



(Photo credit: Borg)

## Duratex selling hardboard lines to Eucatex



(Photo credit: Sunds Fibertech)

The Brazilian wood-based panel manufacturer Duratex S.A. intends to sell its hardboard manufacturing assets in Botucatu, São Paulo, to Eucatex S/A Indústria e Comércio. Eucatex made a binding offer for these assets at the end of January 2018. In return, Duratex will receive a forestry plantation in Capão Bonito, São Paulo, known as Vitoria farm from Eucatex, which Eucatex can only use to a limited degree because it is too far away from its existing facilities in Salto, São Paulo, and Botucatu. Both companies want to enter into a wood supply contract lasting a maximum of seven years in connection with the transfer of hardboard technology.

The hardboard lines operated at Duratex's site in Botucatu have an installed annual capacity of roughly 200,000 m<sup>3</sup>; Duratex put the number of people working in this manufacturing area at

about 280. Most of the hardboard it makes is exported. According to its latest quarterly reports, Duratex can reach capacity utilisation of about 80-85% at its hardboard production facility. Duratex said that it is planning to withdraw from the hardboard business because of the general trends on Brazilian wood-based panel markets and plans to restart its particleboard and MDF/HDF mill in Itapetininga. Closed indefinitely in December 2015, the two production lines are to get up and running from April 2018 onwards and be supplied with timber from the forest plantation acquired from Eucatex among others.

Duratex had already closed three hardboard lines with a total capacity of about 150,000 m³ per year in Jundiai, São Paulo, towards the end of March 2009. These divestments were connected to the start-up of the second MDF/HDF line in Agudos, São Paulo. Duratex also operates one MDF/HDF line each in Botucatu and Uberara, Minas Gerais.

Eucatex already has a particleboard mill and a laminate flooring facility in Botucatu. The firm operates two hardboard lines and a thin MDF/HDF line commissioned in October 2010 at its second location in Salto. Eucatex intends to boost its hardboard capacity by about 70% by acquiring the Duratex assets.

#### Government support for Duratex project in Alagoas

The Brazilian state of Alagoas is to provide financial support for plans to build a wood-based panel site in northeastern Brazil announced in late 2014 by the Brazilian firm Duratex S.A., headquartered in São Paulo, that have not been fleshed out in further detail. On 11 October 2017, Governor Renan Filho signed a decree to this effect, under which Duratex would receive tax breaks for the construction project through the funding programme Programa de Desenvolvimento Integrado (Prodesin). According to a statement from the Ministry in charge, the Secretaria de Desenvolvimento Econômico e Turismo (Sedetur), Duratex is seeking to invest a total of BRL 1.1bn or about €293m in the new MDF and particleboard mill. The state agency Agência Alagoas reported that construction work should get under way during 2019. Duratex has not yet commented on the project's current status.

Duratex had announced a similar project in the state of Minas Gerais in March 2014. Two lines to make particleboard and MDF/HDF, each with an annual capacity of 700,000 m³, were to be built with a total investment of BRL1.3bn. A treater line and three short-cycle presses were envisaged to process raw board. Wood supply was to take place using plantations with a total area of almost 60,000 ha in proximity to the mill. However, all major investment projects were shelved at the start of the second half of 2014 because of the weak state of Brazil's economy.

#### Stevens Industries wants to build second location

The US laminated products firm Stevens Industries Inc., headquartered in Teutopolis, Illinois, intends to build a second production facility in Effingham, just a few miles away from its headquarters. The company has reached an agreement to purchase a plot of land about 200,000 sqft in size with the property developer Agracel Inc. in Effingham. The production hall there has a railway connection, which is to be used primarily to deliver wood-based panels to the site. The company is to invest US\$16m-18m in the new complex in the coming years. The installation of a new short-cycle press is to boost laminating capacity by about 40%.

Stevens also wants to install technology to make furniture parts in Effingham. Unconfirmed reports suggest that Stevens has already held talks about ordering this technology in recent months. Installation work is to get under way during the first quarter of 2018.



(Photo credit: Stevens Industries)

Stevens wants to create the conditions for further growth with this investment decision made during autumn. Managed by Todd Wegman, the company currently employs about 525 workers at a 475,000 m<sup>2</sup> facility in Teutopolis. It also completed two acquisitions in the past three years. In April 2014, Stevens acquired the activities of Techline USA LLC, based in Waunakee, Wisconsin. A similar transaction followed in February 2016 with the takeover of LSI Corp., headquartered in Minneapolis, Minnesota. Both companies used to be active mainly in commercial furniture and sourced upstream products from Stevens. The takeovers, which both took the form of an asset deal, involved production activities ceasing at the current locations and moving to Teutopolis.

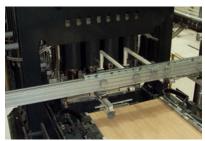
# Laminate Technologies completes LTI deal

The US firm Laminate Technologies Inc. (Lam Tech), headquartered in Tiffin, Ohio, purchased the assets of its competitor Lamination Technologies Industries (LTI) Inc., based in White City, Oregon, with effect from 1 December 2017. This transaction marked the first time that Laminate Technologies had gained two manufacturing locations on the West Coast of the US. LTI employs a total of about 55 workers in manufacturing at its headquarters in White City and in Spokane, Washington. Laminate Technologies has so far only been active in the East Coast with four facilities at its Tiffin headquarters as well as in Gallatin (Tennessee), Diboll (Texas) and Ridgeway (Virginia). The company's workforce was put at a total of about 200.

Founded in 1985 by current President and CEO Frederick Zoeller, the company created a new site in 2008 besides the Diboll particleboard mill. The Ridgeway facility was added in 2012. Laminate Technologies also operates a purchasing entity in China, which sources a variety of upstream products. Laminate Technologies and LTI each make film-laminated wood-based panels and finished parts for use in the furniture industry, in interior remodelling and in caravan construction.

## Egger orders Siempelkamp short-cycle press

The Egger Group will be enlarging its laminating capacity at the parent works in St. Johann, Austria, this year. The company had placed an order with Siempelkamp Maschinen- und Anlagenbau GmbH for another KT 700 unit in November 2017.



(Photo credit: EUWID)

The plant, geared to a specific pressing force of 700 N/cm<sup>2</sup> and 180 strokes/hr is to be installed from August and then put into operation in December. Egger currently uses two KT 700. The first plant delivered by Siempelkamp was installed at the Rambersvillers works in France and started up in May 2012. Egger set up the second short-cycle press of this type in St. Johann: production began in December 2013. This unit, referred to by Egger as "Super KT", is used mainly for laminating thin boards and boards with both side synchronous pore surfaces; compact boards are produced as well. Mainly boards with synchronous pores

are to be laminated on the new short-cycle press, which, like all new machines installed by Egger, are geared to board dimensions of 5,600 x 2,070 mm. Egger currently operates a total of four short-cycle presses in St. Johann, all of which were supplied by Siempelkamp.

In the new and expansion investment projects realised in the laminating segment in the last few years, however, the Egger Group had only used short-cycle presses made by Wemhöner Surface Technologies GmbH & Co. KG. In its business year 2016/2017 (30 April), the company had replaced a shortcycle press in each of the works in Rambersvillers and Hexham, UK, with new Wemhöner machines. Additional short-cycle presses had been installed in the works in Brilon, Germany, and in Gagarin, Russia, in 2014. This was followed by a replacement investment in Unterradiberg, Austria, in early 2015. In the next few months, Wemhöner will also be supplying a short-cycle press for the Rion de Landes works in France as well as the two plants earmarked for the new particleboard works in Biskupiec, Poland. The first plant in Biskupiec is scheduled to start up in summer 2017 whereas the second unit is to be put into operation parallel to the start of raw particleboard production in December.

# North America: Increase in laminating capacity

North American manufacturers of Thermally fused laminate (TFL) found that their overall capacity rebounded to 3.034bn (2015: 2.968bn) sqft or 281.9m (275.7m) m² last year. This came after a slight downturn was recorded in 2015. The 2016 Thermally fused laminate shipments report released by the Composite Panel Association (CPA), headquartered in Leesburg, Virginia, at the end of October 2017 lists 15 laminating companies in the US with 24 locations and a total capacity of 1.680bn (1.835bn) sqft or 156.1m (170.5m) m².

Canada was home to six companies with a capacity of 1.354bn (1.133bn) sqft or

125.8m (105.3m) m² at eight locations. Canada's share of overall North American capacity has thus risen to 44.6%, with the US accounting for 55.4%. Some 11 of the 21 companies listed in the CPA report submitted their capacity data to the association, making up 2.636bn sqft or 86.9% of total capacity. The CPA estimated the capacity of the other laminating companies, most of which are relatively small in size.

The CPA report only partly reflects new investments completed in North America in 2016, meaning that information for individual companies is not always plausible. Uniboard Canada Inc., based in Laval, Quebec, reportedly has a capacity of 609m (440m) sqft, followed by Arauco North America with 472m (472m)

sqft and Funder America Inc., based in Mocksville, North Carolina, with 454m (454m) sqft. The CPA listed the capacity of Panolam Industries International Inc. of Shelton, Connecticut, at 390m (528m) sqft, Roseburg Forest Products Inc. at 351m (374m) sqft and Tafisa Canada Inc., based in Lac-Megantic, Quebec, at 265m (199m) sqft.

North American TFL companies' total sales rose by 9.1% to 1.274bn (1.401bn) sqft or 118.4m (130.2m)  $m^2$  last year. About 657m (677m) sqft or 51.6 (48.3) % was sold by companies in Canada and 617m (724m) sqft or 48.4 (51.7) % by firms in the US. As a result, US manufacturers saw their capacity utilisation deteriorate to 36.7 (39.4) %; Canadian mills ran at just of their 48.5 (59.5) % capacity.

Longer-term growth in MDF sales more pronounced for than in particleboard sales

# In 2017, hardly any change in sales of composite panels in North America

The North American particleboard and MDF/HDF industry closed 2017 as a whole at more or less the same level as the year before.

The relatively sluggish development in sales volume continues to be regarded as attributable to what is still relatively low growth in output in the US furniture industry and the increasing imports of particleboard and MDF/HDF. According to the statistics presented by the Composite Panel Association (CPA) of Leesburg, Virginia, a total of 5.856m m<sup>3</sup> (2016: 5.849m m<sup>3</sup>) of particleboard were sold in North America last year. The 1.5% reduction in sales volume in the third quarter was compensated for by a slightly better development in the fourth quarter (+1.3%). The volume of particleboard sales in the first and second quarters remained roughly on par with the previous year's levels.

The volume of MDF/HDF sales rose by 2.0% in the year as a whole to 3.980m m<sup>3</sup> (3.902m m<sup>3</sup>). This increase is partly

attributable to the March reopening of the MDF works in Quesnel, British Columbia, trading under the name of "WestPine" which had been damaged by an explosion and an ensuing fire in early March 2016. In contrast to particleboard, the volume of MDF/HDF sales showed the best development in the third quarter at +6.0%. Slight growth of +0.6% and +2.1% had been registered in the first and second quarters respectively. Development in the fourth quarter, however, fell 0.7% short of the previous year's figure.

The volume of particleboard sales rose gradually in the first and second quarters, but relatively conspicuous reductions were recorded in the third and fourth quarters against the preceding quarters. The upward trend in sales volumes of MDF/HDF continued into the third quarter; a relatively sharp adjustment against the preceding quarters then occurred in the fourth quarter, however, making it by far the weakest individual quarter in the year as a whole. In particleboard, too, the fourth quarter fell considerably short of

the other three quarters. The reductions against the same quarter of the previous year were of a similar magnitude as in the preceding years in both particleboard and MDF/HDF, however.

US manufacturers' particleboard sales developed slightly better in 2017 as a whole at +0.6% to 4.109m m<sup>3</sup> (4.086m m<sup>3</sup>). The reduction in the west was offset by the growth achieved in the east/southeast. The volume of sales in Canada was 0.9% down at 1.747m m<sup>3</sup> (1.763m m<sup>3</sup>) compared to the preceding year. In MDF/HDF, on the other hand, Canada and the west of the USA did better than the east/southeast of the USA. The resumed operation of the WestPine works must be taken into account when evaluating the growth of 7.8% to 1.028m m<sup>3</sup> (953.900 m3) achieved by Canada. MDF/HDF sales in the USA were only slightly higher than a year earlier at 2.952m m<sup>3</sup> (2.948m m<sup>3</sup>).

When compared over a longer period, however, it becomes clear that little change has occurred in the volume of particleboard sales in North America over the last few years. The most recent instances of more pronounced growth were in 2013 (+4.7% to 5.724m m<sup>3</sup>) and in 2014 (+2.2% to 5.852m m<sup>3</sup>). In these two years the CPA had slightly adjusted the provisional sales figures in the subsequent statistics. The provisional and final figures have tallied in the last three years, however. The growth of 1.3% achieved in the sales volume in 2015 to 5.931 m m<sup>3</sup> was cancelled out by a comparable decline of 1.4% in 2016 to 5.849m m<sup>3</sup>. Substantial differences between the two countries had last occurred in 2013. At that time, US manufacturers' particleboard sales had risen by 7.0% to 4.023m m<sup>3</sup> whereas a slight reduction had occurred in Canada to 1.701m m<sup>3</sup>. The cumulated volume of sales in the USA had only risen by 2.1% from 2013 to 2017 whereas the figure for Canada increased by 2.7% for the



North American markets stagnated in 2017.

(Photo credit: EUWID)

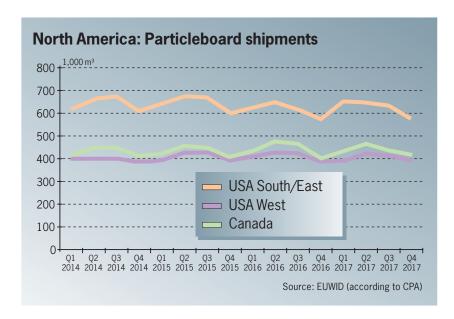
same period. Cumulated over the last four years, the volume of particleboard sold in North America as a whole increased 2.3%.

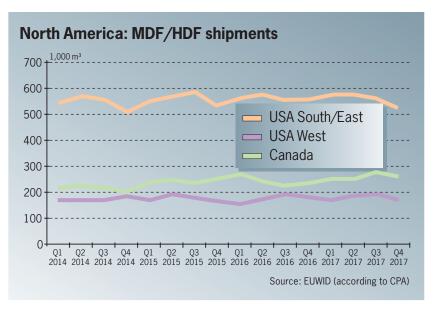
North American MDF/HDF sales had risen more sharply in 2012 (+11.4% to 3.678m m<sup>3</sup>) and 2015 (+4.6% to 3.906m m<sup>3</sup>) compared to the preceding year. An increase of 2.7% to 3.777m m<sup>3</sup> had occurred in 2013. In contrast, the figures recorded for MDF/HDF sales in 2014 and 2016 were slightly lower than those of the preceding years at -1.1% and 0.2% respectively to 3.736m m<sup>3</sup> and 3.902m m<sup>3</sup>. After the double-figure increase in the USA in 2012 (+14.6% to 2.880m m<sup>3</sup>), the volumes oscillated up and down to some degree in the years that followed: stagnation followed in 2016 and 2017. Development in Canada was considerably stronger than in the USA in 2014 (+5.6% to 854.800 m<sup>3</sup>), 2015 (+13.8% to 973,400 m<sup>3</sup>), and 2017. A slightly reduction of 2.0% to 953,900 m<sup>3</sup> was registered in 2016, however. Canadian manufacturers' volume of MDF/HDF sales rose by 26.8% from 2013 to 2017. In the USA, on the other hand, a cumulated reduction of 0.5% occurred in the same period. The marked differences in development culminate in a 5.4% increase in sales volume for North America as a whole over the four years.

# North American TFL sales lower again in 2017

Thermally fused laminate (TFL) sales dipped slightly again last year in North America after tumbling in 2016 as a whole. Statistics from CPA show that total sales were down 0.5% at 117.75m m². Sales volumes had slipped 8.9% to 118.40m (2015: 130.20m) m² in 2016, according to final figures that were revised again in the second quarter of 2017. The figure for 2015 was left untouched.

The strong downturn in 2016 and slight decrease last year means that North American TFL sales have fallen below the level recorded by the CPA for 2011. At that time, North American laminate companies sold a total of 118.86m m². Sales had fallen 4.7% to 113.29m m² in 2012. Growth rates were virtually the same in subsequent years (2013:





+4.7% to 118.59m m², 2014: +4.9% to 124.44m m², 2015 +4.6%).

Statistics that were later revised indicate that the downturn recorded in 2016 was much more pronounced in the US than in Canada. US laminating firms suffered a 14.8% decline in sales to 57.25m (2015: 67.19m) m², according to the CPA data. Canadian TFL manufacturers' sales were down just 3.0% at 61.15m (63.19m) m². Canadian laminating firms had thus sold more than their US counterparts for the first time in a long while. Last year, too, Canada was well ahead of the US in spite a 1.3% dip to 60.33m m². Sales in the US actually improved slightly to 57.42m m².

US laminating companies' sales decreased by a total of 5.5% compared with 2013. Canadian manufacturers registered a 4.3% growth during the same period. Altogether, TFL sales had dipped 0.7% during the past four years in North America.

The first and third quarters were the weakest quarters in 2017. TFL sales were down 1.6% at 28.71m m² in the first three months. Second-quarter sales were down 0.4% at 31.09m m². The CPA statistics had first booked a larger drop of 3.6% for the third quarter. A minor 1.7% improvement to 28.15m (Oct.-Dec. 2016: 27.69m) m² was then posted for the fourth quarter.

Total fine amounted to PLN 135m/Leniency rules exempt Swiss Krono from penalties

# Polish anti-trust authority fines four wood-based panel manufacturers

The Polish anti-trust authority Urzad Ochrony Konkurencji i Konsumentów (UOKiK) in Warsaw has issued a total fine of about PLN135m or roughly €32.5m in cartel investigations under way against four woodbased panel manufacturers since 30 March 2012.

According to a statement published on 28 December 2017, about PLN60.7m of this fine will have to be paid by Kronospan Szczecinek Sp.zo.o. (Szczecinek), PLN39.3m by Kronospan Mielec Sp.zo.o. (Mielec), PLN16.0m by Pfleiderer Group S.A. (Wroclaw) and PLN19.8m by Pfleiderer Wieruszów Sp.zo.o. (Wieruszów). Swiss Krono Sp.zo.o., which is based in Zary and was also involved in the cartel, was exempt from paying a fine due to leniency rules.

According to the outcome of UOKiK's investigations, the five companies, which are owned by three groups, had colluded on particleboard and MDF/HDF prices between the start of 2008

and September 2011. Evidence of this price collusion was found during raids of five mills. Additional documents had been provided by Swiss Krono, which cooperated. This price collusion had taken place verbally during direct meetings or in telephone conversations. Moreover, the UOKiK alleged that the companies had exchanged information about plans to raise prices and about sales volumes.

The UOKiK noted that these companies could appeal the verdict, with two instances possible. The decision is thus not final. The cartel fines must not be paid until the proceedings have been completed. On the day that the decision was published, Pfleiderer announced its intention to make use of its right to appeal. The company said that it had not been able to find any indications of behaviour that conflicted with anti-trust law during a review of the accusations levelled by UOKiK against Pfleiderer Group and Pfleiderer Wieruszów. Therefore Pfleiderer lodged an appeal with the UOKiK on 29 January.

Polish anti-trust authorities had introduced preliminary investigations as from October 2011 following initial indications from the market which subsequently led to offices of the companies involved also being searched. After suspicion initially related to a horizontal cartel involving the five companies, investigations then expanded to another vertical cartel involving Kronopol Sp.zo.o., which has since been renamed Swiss Krono. Actual cartel proceedings were launched on 30 March 2012.

In the instance of the vertical cartel, Kronopol was fined PLN19.6m at the start of 2013 because of price collusion with distributors. This figure was cut by 30% to PLN13.7m due to Kronopol's willingness to cooperate during the investigations. Kronopol, according to UOKiK, had disclosed information in connection with the accusations and also presented correspondence and discussion notes in connection with contacts to distributors.

On the basis of the investigations, UOKiK has been convinced of the fact that in the period between 2001 and 2012 Kronopol made agreements with its distributors which, based on purchase prices and trade margins, stipulated the sales prices of distributors for particleboards and fibre boards. The company had threatened the distributors with sanctions such as stopping their supply if they dropped below the agreed sales prices. Kronopol, by contrast, had argued that the sales prices communicated to the distributors were simply recommended retail prices.

Investigations into the horizontal cartel had taken much longer than UOKiK had planned even with the information supplied by Kronopol. The taking of evidence was not completed until November 2017.

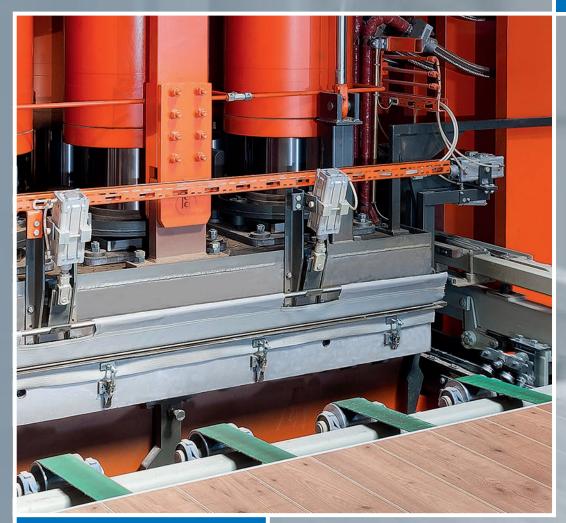


UOKiK's office in Warsaw

(Photo credit: EUWID)

### **Short Cycle Presses**

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Acquisition of five mills in Brazil and Mexico / Start-up of a new mill in the US

## Arauco to take over Masisa Mexico following the acquisition in Brazil

Celulosa Arauco y Constitutión intends to acquire the Mexican activities of Maderas y Sintéticos S.A. (Masisa) through its subsidiaries Inversiones Arauco Internacional Ltda. and AraucoMex S.A. de C.V. The two groups had completed the sale of Masisa do Brasil Ltda. to Arauco do Brasil S.A. on 6 December 2017.

The transaction, which was agreed and announced through a notification to the Chilean stock market supervisory authority Superintendencia de Valores y Seguros (SVS) on 19 December, will see Arauco pay a total of \$245m for all shares in a total of five Mexican Masisa subsidiaries. The companies in question are Maderas y Sintéticos de México S.A. de C.V., Maderas y Sintéticos Servicios S.A. de C.V.. Masisa Manufactura S.A. de C.V., Placacentro Masisa México S.A. de C.V. and Masnova Química S.A. de C.V. The transaction, which is still subject to the usual closing conditions including approval by the Mexican antitrust authority Comisión Federal de Competencia Económica (COFECE), is to close during 2018, according to Arauco. Masisa said that it intends to close the deal within the next six months.

Up until now, Masisa has operated three wood-based panel locations in Mexico. The recent SVS notifications put its particleboard capacity at 519,000 m³ per year. This figure varies from data contained in Masisa's annual report for 2016. In this annual report, Masisa had listed its Mexican particleboard capacity at 615,000 m³ per year, breaking down into three sites in Durango (155,000 m³), Chihuahua (276,000 m³) and Zitácuaro (184,000 m³). Furthermore, all three mills have laminating capabilities with a combined capacity of 429,000 m³.

Masisa Mexico also started making MDF in Durango during 2016. The 8 ft

x 29.4 m continuous press delivered by Dieffenbacher has a designed annual capacity of 220,000 m³. Masisa also operates two adhesive plants that can make 109,000 tonnes of adhesive resin and 82,600 tonnes of formaldehyde each year in Durango and at a leased site in Lerma. The figures contained in the SVS notifications again deviate from those found in Masisa's annual report (adhesive resin: 88,000 tonnes, formaldehyde: 91,000 tonnes). According to Arauco, the Durango site also has treating capacity of 22.8m m² per year.

Masisa intends to wrap up the long-running divestment process, which moved forward in the second quarter 2017 with the announcement of plans to sell activities in Argentina, Brazil and Mexico by selling its activities in Mexico. Towards the end of September, it first finalised the sale of the Concordia particleboard and MDF mill to Egger Group, based in St Johann, Austria, at a price of US\$155m. Arauco paid a total of US\$102.8m for Masisa do Brasil. With the expected outcome of the sale of its Mexican activities, Masisa will be able to slightly exceed its original target sale price of US\$500m by receiving about US\$503m. Once all transactions have closed, the company expects to yield net proceeds US\$46m, which will be used to further reduce its existing liabilities.

After completion of the sales process in Mexico, Masisa will have a total capacity of 800,000 m³ MDF, 537,000 m³ particleboard and 548,000 m³ laminating capacity available at its three remaining mills in Chile and Venezuela. Its annual particleboard and laminating capacity which Masisa put at 1.9m m³ for each material at the end of 2016 - would have been cut by almost three quarters. MDF capacity would have been cut in half from the original level of 1.6m m³.

The sale of Masisa do Brasil to Arauco do Brasil has been completed on 6 December. The companies had reached an agreement to this effect at the start of September. The Brazilian anti-trust authority Conselho Administrativo de Defesa Econômica (CADE) had approved the transaction on 14 November. With closing the sale to Arauco do Brasil, Masisa has parted ways with all of its activities in Brazil, having sold its forestry assets to Taeda Empreendimentos Florestais S.A. and Klabin S.A. in two separate transactions in the first half of 2016.

As originally agreed, Arauco paid a total of US\$102.8m for Masisa's particleboard mill in Montenegro, Rio Grande do Sul and an MDF mill in Ponta Grossa, Paraná. This figure includes the liabilities of Masisa's Brazilian activities to the tune of US\$44.7m, resulting in an effective purchase price of US\$58.1m. Since Masisa's cash of US\$4.3m was excluded from the transaction, the group will yield a total of US\$62.4m from the sale. This figure is lower than had been expected when the contract was inked. At that time, Masisa had anticipated cash of US\$11.2m and total proceeds of US\$69.3m. As originally announced, the funds should be used to reduce liabilities.

#### Arauco to boost total capacity to 11.7 m m<sup>3</sup>

Arauco is set to raise its overall woodbased panel capacity to almost 11.7 million m³ per year by acquiring the activities of Masisa in Brazil and Mexico and by building a new particleboard mill in Grayling, Michigan. The two Brazilian mills acquired from Masisa have a combined capacity of about 950,000 m³. The capacity of the four Mexican mills accounts for 835,000 m³. The Grayling particleboard mill will have a designed

annual capacity of about 800,000 m<sup>3</sup>. Assembly work got under way there, with start-up slated to happen in the second half of 2018.

According to an investor presentation published in autumn 2017. Arauco has had an annual capacity of 9.106 million m<sup>3</sup> at its own 15 locations in North and South America and 10 mills operated with the joint venture Sonae Arauco S.A., which was created at the start of June 2016. The Sonae Arauco mills, which have a total capacity of 4.326m m<sup>3</sup> per year, are included in the calculation based on the firm's 50% stake. Out of the 9.1m m<sup>3</sup>, some 3.675m m<sup>3</sup> comes from eight locations in South America, 3.790m m<sup>3</sup> from its seven current mills in North America, a share of 278,000 m<sup>3</sup> from two joint venture mills in South Africa and a share of 1.885m m<sup>3</sup> from the eight joint venture mills in Europe, two of which each are located in Spain and Portugal and four in Germany.

In terms of the different products, 4.245m m³ of capacity is used to make MDF/HDF (10 group-owned mills with 11 production lines, five joint venture mills with six lines), 3.555m m³ to make particleboard (seven group-owned mills with eight lines, four joint venture mills with five lines), 258,000 m³ to make OSB (one joint venture mill), 710,000 m³ to make plywood (two mills, three production lines) and 60,000 m³ to make hard fibreboard (one mill).

The Sonae Arauco joint venture will see its capacity alter in the coming years when the final opening lines are replaced. A project in Mangualde has already been fleshed out. Decisions about replacement projects in Beeskow and White River are to be made in the foreseeable future.

- 1) as of December 2016 respectively August 2017
- 2) two production lines
- 3) Trupan
- 4) until November 2017 Masisa do Brasil
- 5) without the Mexican activities of Masisa
- 6) including the Mexican activities of Masisa
- 7) commissioning second half of 2018
- 8) 50/50 joint venture with Sonae Industria

#### Arauco: Wood-based panel capacities 1)

Plant	Country	Product	m³/year
South America			
Arauco	Chile	Plywood 2)	350,000
Nueva Aldea	Chile	Plywood	360,000
Cholguán	Chile	MDF <sup>2) 3)</sup>	515,000
		Hard board	60,000
Teno	Chile	Particleboard	300,000
Zarate	Argentina	Particleboard <sup>2) 3)</sup>	260,000
Piray	Argentina	MDF	300,000
Jaguariaíva/Paraná	Brazil	MDF	780,000
Pién/Paraná	Brazil	Particleboard	310,000
		MDF <sup>2)</sup>	440,000
Montenegro/Rio Grande do Sul 4)	Brazil	Particleboard	650,000
Ponta Grossa/Paraná <sup>4)</sup>	Brazil	MDF	300,000
South America total <sup>5)</sup>	5.02		4,625,000
Durango	Mexico	Particleboard	155,000
	Mexico	MDF	220,000
Chihuahua	Mexico	Particleboard	276,000
Zitácuaro	Mexico	Particleboard	184,000
Mexico total	WICKICO	i ai ticicboaia	835,000
South America total <sup>6)</sup>			<b>5,460,000</b>
South America total			3,400,000
North America			
St.Stephen/New Brunswick	Canada	Particleboard	216,000
		MDF	160,000
Sault Ste. Marie/Ontario	Canada	MDF	310,000
Albany/Oregon	USA	Particleboard	442,000
Eugene/Oregon	USA	MDF	154,000
Malvern/Arkansas	USA	MDF	310,000
Moncure/North Carolina	USA	Particleboard	262,000
	USA	MDF	285,000
Bennettsville/South Carolina	USA	Particleboard	600,000
	USA	MDF	251,000
Grayling/Michigan 7)	USA	Particleboard	800,000
North America total			3,790,000
South Africa 8)			
Panbult	South Africa	Particleboard	152,000
White River	South Africa	Particleboard	320,000
South Africa total		MDF	84,000
			556,000
Europe 8)			
Oliveira do Hospital	Portugal	Particleboard	456,000
Mangualde	Portugal	MDF <sup>2)</sup>	370,000
Valladolid	Spain	MDF	140,000
Linares	Spain	Particleboard	428,000
Nettgau	Germany	Particleboard	650,000
Hoteguu	Germany	OSB	516,000
Meppen	Germany	MDF	314,000
Beeskow	Germany	Particleboard <sup>2)</sup>	324,000
DCC2VOW		MDF	
Eiwoilor	Germany		348,000
Eiweiler Europe total	Germany	MDF	224,000 <b>3,770,000</b>
			5 / / (1 (1(1())

General Agreement has been signed in early March/Closing is expected for 9 April

## Roseburg to expand into Canada with acquisition of Pembroke MDF

At the beginning of March 2018, the US wood-based panel manufacturer Roseburg Forest Products Inc. of Roseburg, Oregon, signed a general agreement for taking over the MDF/HDF manufacturer Pembroke MDF Inc. of Pembroke, Ontario.

According to a release published by Roseburg on 5 March, the transaction is to be concluded by 9 April upon completion of the ongoing due diligence and approval by the board of directors. Roseburg's intention behind the planned takeover is to increase the scope of the MDF activities it had only resumed in September 2015 and to also expand abroad for the first time. In the wood-based panels segment, the company currently operates four particleboard plants, an MDF plant, and engineered-wood products (EWP) facility, and three softwood plywood plants. Seven of these facilities are located in the US West Coast states of Oregon and Montana. In south east USA, Roseburg currently operates a particleboard works in Simsboro, Louisiana, and one in Taylorsville, Mississippi. Once the projected LVL works has been built in Chester, South Carolina, the company will also set up an EWP production facility in the same region by the end of 2019.

Roseburg, formerly only geared to particleboard and plywood in the wood-based panel sector, had made its debut in MDF production when it completed its takeover of the Holly Hill MDF works in South Carolina from Georgia-Pacific LLC of Atlanta, Georgia, in October 2006. The company had closed down this facility in October 2008, however, thereby initially withdrawing from MDF production again. In August 2015, Roseburg had then come to an agreement with Sierra Pine Ltd. of Roseville, California, on taking over the Medford MDF works in Oregon geared to an annual production capacity of around 250,000 m3. This transaction was concluded in mid-September 2015.

The MDF works in Pembroke had been built by MacMillan Bloedel Ltd. of Vancouver, British Columbia, and was put into operation in March 1997. At that time, the plant was geared to a production capacity of roughly 750 m<sup>3</sup> per day or 240,000 m<sup>3</sup> per year with a 3200 mm x 34.6 m continuous press supplied by Küsters Maschinenfabrik GmbH & Co. KG of Krefeld, MacMillan Bloedel had then sold the facility along with the Shippenville MDF/HDF works in Pennsylvania to Temple-Inland Forest Products Corp. of Diboll, Texas, in September 1998. The works in Shippenville was resold to Aconcagua Timber Co. Panels Inc. (ATC Panels) in June 2004; ATC Panels had then taken over the Pembroke works from Temple-Inland in June 2005 through the new company ATC Pembroke Inc., founded specifically for this purpose.

ATC Panels had closed down the Pembroke MDF works indefinitely in October 2008. The works resumed operation in August 2014 through MDF Pembroke Inc., founded specifically for the purpose and run by Rodolfo Salman. The production capacity, originally given as 240,000 m³ per year, had previously been ramped up to around 280,000 m³ by means of repair and modernisation work.

Roseburg had gone through several major changes in the composite panels segment since mid-2000. The biggest transaction was the takeover of the particleboard and MDF activities of Georgia-Pacific agreed in September 2006 and concluded in two stages. The deal had covered the four particleboard works, the Holly Hill MDF works, the Oxford laminating plant, and a sizing works in Eupora, Mississippi. Roseburg had closed down most of these works in 2008 to 2011, however. Conversely, in summer 2011, the company had taken over the Simsboro particleboard works in Louisiana, which was equipped with a continuous press, from Flakeboard Co. Ltd of Markham, Ontario, which has meanwhile merged into Arauco North America of Atlanta, Georgia.



(Photo credit: Pembroke MDF)

New owner planning to modernise Siempelkamp multi-opening line at the existing site

# XyloSuisse to take over particleboard plant of Russsian furniture producer Shatura

The Russian furniture manufacturer AO MK Shatura of Shatura wants to sell its particleboard production plant to XyloSuisse LLC of Shatura, a company founded for this transaction.

The agreement, signed by both companies at the beginning of November 2017, provides for a transfer of the raw particleboard, lamination, and resin production sections. The planned acquisition of the Shatura particleboard plant will be the first time the Swiss investors behind XyloSuisse have become involved in the Russian wood-based panel industry. Once the transaction has been completed, the particleboard plant is to be renamed. The production facilities are then to be modernised and extended with the aim of improving availability and gradually increasing the output.

At the Shatura facility located roughly 125 km east of Moscow, AO MK Shatura intends to concentrate on further expanding its furniture production plant once the particleboard production facilities have been spun off. At the headquarters in Shatura and at the premises of the furniture manufacturer EMK of Balakovo, Saratov oblast, taken over in 2003, the company produces home, children's, bathroom, kitchen, and office furniture with approximately 2,500 employees. Upholstered furniture, mattresses, tables, and chairs are marketed under the Shatura brand as well. Over the last few months, Shatura has launched the "Rimini" line of products as a second brand. The Shatura and Rimini furniture is sold mainly through a network of some 500 franchise retailers in Russia and neighbouring countries.

The furniture manufacturer AO MK Shatura emerged from a former furniture combine which, besides furniture production, had also covered various preliminary-product areas. The decor-paper printing, impregnating, and coating segments had



(Photo credit: Xylosuisse)

already been transferred to Schattdecor AG of Thansau on 1 October 2000.

The Shatura particleboard activities were gradually updated and expanded from the start of the new millennium. In August 2000, the company had put into operation a new short cycle press supplied by Wemhöner Surface Technologies GmbH & Co. KG of Herford. At the time of the start-up. the capacity had been given as around 6.5m m<sup>2</sup> per year. In 2001 the company had engaged Siempelkamp Maschinenund Anlagenbau GmbH to modernise the raw particleboard production plant. From 2002, a new 1,860 mm wide forming and press line was set up with a six-opening press, cooling/stacking unit, and panel saw parallel to the existing system. A surface-layer wind matformer made by CMC Texpan s.r.l. of Colzate, Italy, was integrated into the forming section.

In this first investment phase, Siempelkamp optimised the existing particlepreparation unit and prepared the replacement investment measures planned for the next stage. On the basis of this plan, Shatura had set up new chippers and flakers in 2003 to replace the earlier log-flaking system. A new dryer with its own power plant was installed by Büttner Energie- und Trocknungstechnik GmbH of Krefeld. The sieves, separators, and gluing station were supplied by Imal-Pal s.r.l. of San Damaso, Italy. The replacement investment measures enabled the Shatura particleboard works' production capacity to be raised by 50% to around 170,000 m<sup>3</sup> per year. Production was resumed in 2004. Shatura had launched another modernisation project for the particleboard-production plant in 2010.

Shatura covers thickness of 16-36 mm on the updated production plant. The bulk of the output is earmarked for the company's own furniture factory; external buyers are supplied as well, though these external sales activities have no longer been pushed recently. For this reason the particleboard production plant had mostly been operated at less than its nominal capacity in the last few years.

#### Ablstrom-Munksjö Decor improves margins

The Decor division within Ahlstrom-Munksjö Oyj enjoyed better margins during the fourth quarter of 2017 compared with the previous three-month stretch after experiencing worsening fortunes since the second quarter of 2016. Price hikes implemented in recent months to offset much higher raw material costs are thus now having an impact. However, at the presentation of quarterly financials, CEO Jan Åström cautioned that the cost increases faced to date had still not been fully offset and it had taken longer than planned to implement higher prices.

The division's revenues had been hoisted above the previous year's levels with the gradual implementation of mark-ups in the individual quarters of 2017. Growth rates were much higher in the third and fourth quarters than in the first half of the year. The fourth quarter's 6.2% improvement to €94.2m (Oct.-Dec. 2016: 88.7m) was primarily

connected to higher sales prices; sales volumes were unchanged at the same level as one year earlier. Revenues had risen 2.4% to  $\in$ 95.4m (Jan.-March 2016: 93.2m) in the first quarter. The second quarter had ended with the highest absolute revenues last year with  $\in$ 98.2m (April-June 2016: 97.8m), but this was only 0.4% higher than the same stretch in 2016. The Decor division had experienced a 6.6% upturn in third-quarter revenues to  $\in$ 90.5m (July-Sept. 2016: 84.9m).

However, EBITDA fell sharply on a like-for-like basis in all four quarters. A slight downturn in the first quarter was followed by EBITDA being roughly halved in the second and third quarters on a comparable basis. The downward trend slowed in the fourth quarter; the total of €8.6m (Oct.-Dec. 2016: 11.4m) was 24.3% lower than in the prior-year period. The division also surpassed absolute figures for the second (€8.1m)



(Photo credit: EUWID)

and third (€5.8m) quarters. The margin based on comparable EBITDA stood at 9.2 (12.9) % in the fourth quarter, compared with 8.2% in the second quarter and 6.4% in the third quarter.

The Decor division posted a 3.8% improvement in revenues to €378.4m (2016: 364.6m) during 2017 as a whole; this growth was spurred by higher sales volumes and gradual price hikes during the course of the year. Like-for-like EBITDA tumbled 37.0% to €33.8m (53.7m) because of cost hikes that were passed on with a delay and not in full yet.

#### Neodecortech posts slight rise in its revenues

Neodecortech S.p.A., based in Filago, Italy, saw its growth in revenues flatten out a little in the second half of 2017. This company was created when the decor paper manufacturer Cartiere de Guarcino S.p.A. (CDG), based in Guarcino, merged with the surfaces producer Confalonieri S.p.A., headquartered in Filago. Listed on the Milan Stock Exchange since the end of September 2017, the firm ended the first half with an 18.4% upturn in revenues to €62.5m (Jan.-June 2016: 52.8m) compared with the previous year's pro forma sum. Preliminary figures published in mid-February indicate that the second half produced a 3.7% increase in consolidated revenues to €65.2m (July-Dec. 2016: 62.9m). The full year thus ended with a 10.4% growth in turnover to €127.7m (2016: 115.7m), surpassing 2015's total of €125.5m.

Neodecortech had emerged from the renaming of Confalonieri S.p.A. at the beginning of July 2017. The company meanwhile holds all the shares in CDG, which in turn holds all the shares in the sales and

distribution company CDG International Corp. of Las Vegas, Nevada, founded in 2015, and in the energy company Bio Energia Guarcino s.r.l. (BEG) of Guarcino. The initial public offering completed on 26 September had been preceded by various intra-group restructuring measures. The bookbuilding process was concluded on 19 September. At that time Finanziaria Valentini S.p.A. of Rimini had held 95.25% of the shares. Luigi Valentini accounted for 3.85% and Valfina S.p.A. for 0.9%. The IPO put 3.564m shares or 27.2% of the share capital on the market at a price of €4.00/share. The remaining 9.538m shares are held by the existing owners.

According to the issue prospectus, the Neodecortech Group achieved a production value of  $\in$ 115.7m (2015: 125.5m) on a pro forma basis in its business year 2016, comprising  $\in$ 106.2m (123.1m) from product sales,  $\in$ 0.6m (0.6m) from services, and  $\in$ 8.9m (1.8m) from other sales revenues.  $\in$ 52.2m (55.5m) of the revenue from sales of products was ac-

counted for by decor paper,  $\leq$ 42,3m (40.4m) by melamine foils/decor printing, and  $\leq$ 11.8m (27.2m) by energy.

The sales revenue quoted for the individual companies in the issue prospectus does not tally precisely with the group's consolidated sales revenue, which may be attributable to consolidation effects. Neodecortech achieved an output of 7,750 t of decor printing and 2,550 t (2015: 2,957 t) of impregnates in its business year 2016. Sales revenue of €23.8m (22.3m) was generated in the decor printing segment. €15.8m (17.1m) was accounted for by impregnates/finishing foils, consisting of €13.2m from impregnates and €2.6m from finishing foils. Printing on PVC foils, which began from scratch in 2014, contributed €2.8m (1.0m) to the total. With a capacity of around 50,000 t in the business year 2016, CDG had a total output of 37,972 t. Of the sales revenue of €52.2m (56.2m) given separately for CDG, €15.5m was accounted for by printing base paper, €30.0m by single-colour decor paper, and €6.7m by backing paper.

#### Neenah entered the digital printing paper business

The US company Neenah Paper Inc. completed its purchase of all of the shares in the Dutch speciality paper manufacturer W.A. Sanders Coldenhove Holding B.V. (Coldenhove Papier), headquartered in Eerbeek, on 1 November 2017. The purchase price due upon closing was put at about US\$45m. According to Neenah Paper, Coldenhove Papier employs 118 workers and last generated revenues equalling approximately US\$45m and EBITDA of roughly US\$6m. Its export rate stands at approximately 95%. Coldenhove Papier said that it hopes to reach the €60m mark by 2020.

Family-owned businesses had largely held shares in Coldenhove Papier up until now; the management team had held a stake of about 20% since a restructuring in 2000. Shareholders had explored the opportunities for an exit starting in 2014 and recently held talks with four strategic investors in the subsequent sale process. Existing organisational structures will remain in place after the acquisition by Neenah Paper. The company will operate under the Neenah Coldenhove name in future.

Broken down into the Technical Products and Fine Paper and Packaging divisions, Neenah Paper intends to primarily strengthen its foothold in the digital printing paper business with the transaction. Coldenhove Papier currently generates about 80% of its revenues from speciality paper for digital sublimation printing, in which printed designs can be transferred on to textiles or film (digital transfer printing paper, DTP). The other 20% is split between packaging/barrier paper for medical and food applications and office organisational paper. Coldenhove Papier also entered the edging paper business starting in 2003. These activities were gradually scaled back in recent years and largely shut down in 2016 in connection with the decision to stop making coloured paper and cartons. Over the past few years, the company developed a type of digital printing paper for the decor paper segment (DDP) in return. This development work sometimes took place in partnership with Hymmen GmbH Maschinen- und Anlagenbau (HMA). □

#### Dongwha has acquired Kotkamills Imprex

The South Korean company Dongwha Enterprise Co. Ltd. has bought all shares in the Finnish phenol film manufacturer Kotkamills Imprex Oy with effect from 31 October 2017. Dongwha and Imprex's current owner, Kotkamills Oy, had signed an agreement to this effect on 12 October. The purchase price on a debt and cash-free basis was put at €27m.

Kotkamills had launched a strategic review of Imprex activities in December 2016 and had holders of a bond issued by the parent firm Kotkamills Group Oy in 2015 approve the possible spin-off a few weeks later. Under an agreement reached during the approval process, 50% of the net proceeds from the Imprex sale were distributed to bondholders as an advance repayment.

Kotkamills' phenol film business had been incorporated into a new firm, Kotkamills Imprex Oy, with effect from 1 September in connection with the July spin-off of three divisions. Kotkamills Imprex Oy runs two treating lines in Kotka that make phenol film used either as surface film by the plywood industry (Imprex films) or as core film (Imprex Core Stock) for laminate production.

Past information suggests that these lines can make about 30,000 tonnes per year. Kotkamills is now exiting the treating business upon closing. Towards the middle of November 2016, the firm sold the Malaysian subsidiary L.P. Pacific Films Sdn. Bhd., based in Pasir Gudang, to Surfactor Germany GmbH, headquartered in Essen, Germany.

Dongwha Enterprise is part of the Dongwha Group, which also includes the second-hand vehicle retailer MPark and the media group Hankook Ilbo and which is split into the Wood Panels, Chemical Materials and Building Materials units. The Wood Panels business includes particleboard and MDF mills in South Korea, Malaysia and New Zealand, an MDF joint venture in Vietnam and a sawmill in Australia. Dongwha Enterprise's Chemical Materials unit makes a variety of upstream products used in wood-based panel manufacturing, including resins, phenol film and melamine film, at several locations in South Korea and Malaysia. The Building Products division's portfolio includes different types of flooring, wall/ceiling cladding, doors, WPC and lumber.

### Wilsonart acquires wall panel manufacturers

The US laminate producer Wilsonart International Holding LLC acquired the British shower wall and wall panel system manufacturing specialists Shore Laminates Ltd., based in Perth, Scotland, and Mermaid Panels Ltd. of Grimsby, N.E. Lincolnshire, through Wilsonart Western Europe with effect from 1 December. The companies were sold by Strata International Group Ltd., which is part of the Simon Howie Group.

Founded in 1991, Shore Laminates makes wall panel systems at a 100,000 sqft facility in Perth, about 30 miles north of Edinburgh; it has produced Wetwall shower wall systems since 1998. The company purchased its competitor Mermaid Panels in May 2007 and continued to operate it as a sales entity. Thrislington Cubicles, which is based in Sandycroft,

North Wales, and which was acquired from Strata International Group in the second half of 2007, is not part of this recent transaction.

Upon closing, both businesses were integrated into Wilsonart Western Europe, which currently comprises the laminate manufacturers Resopal GmbH (Groß-Umstadt, Germany) and Polyrey International (Vélizy, France), the British element producer Wilsonart Ltd. (Shildon, Durham) and the worktop manufacturer Bushboard Ltd. (Wellingborough, Northamptonshire), which it acquired in November 2016.

Simon Howie, the owner of the food company Simon Howie Group, created Shore Laminates in 1991 to safeguard supply of butcher's shops with laminate elements. In 1998, its portfolio was expanded to include Wetwall shower wall systems, which now account for almost three quarters of its revenues.

### Impress installing fifth treating line in St. Veit



(Photo credit: Impress)

The Impress Group is currently installing a new treating line in St. Veit, Austria. Commissioning of the 2,200 mm-wide line provided by Vits Technology GmbH is slated to happen by the start of May 2018. The fifth treating line is to increase capacity from about 150m m<sup>2</sup> per year at present to about 180-190m m<sup>2</sup>. The company currently operates two lines that are 2,200 mm-wide in St. Veit, together with a line that is 2,600 mm wide and one that is 2,900 mm wide. The site also has its own impregnating resin production facility. In recent years, Impress has primarily increased treating capacity at its Russian joint venture 000 Funder Uwa, based in Uva in the Republic of Udmurtia, and at its Brazilian site in Araucária, Paraná. The fourth and five treating lines had started operating in Uva in August 2012 and summer 2016 respectively, meaning that the site now has an annual capacity of roughly 130m m<sup>2</sup>. Funder Uwa had also installed its own impregnating resin unit during 2010. The treating capacity of the Araucária complex doubled to about 60m m<sup>2</sup> with the start-up of a second line in December 2014.

Impress will make its next investment in decor printing at the Russian firm 000 Sokol-Yar, headquartered in Yaroslavl. The company intends to install a third rotogravure machine there during the second half of 2018. Specifications for the machine, which will have four printing heads and a working width of 2,200 mm, are currently being determined. The technology is supposed to be ordered by the start of the second quarter, with commissioning following at the start of 2019.

The Impress Group's last major investment project was the transfer of a printing/laminating machine with electron beam curing (EBC) from its location in Aschaffenburg, Germany, to a site in Elk, Poland, that does business as Impress decor Polska Sp.zo.o. during the first half of 2017. With a width of 2,200 mm and an annual capacity of about 60m m<sup>2</sup>, the machine resumed operations in mid-2017. Impress thus has two lines to make finish foils in Elk. In December 2015, the firm had started operating a new plant delivered by Rotodecor GmbH, based in Lage, Germany, with EBC drying systems and an UV lacquering unit. With a working width of 2,750 mm, it can make up to 90m m<sup>2</sup> per year. Impress next intends to add an offline lacquering line in Elk. Orders for this technology may be placed this year under the timetable, which has now been revised several times.

#### Schattdecor places orders for new treating lines



(Photo credit: Schattdecor)

Schattdecor AG has ordered two treating lines for projects planned at its sites in Chekov, Russia, and Rosate, Italy. Both lines will have a working width of 2,800 mm. Schattdecor will enter the impregnating business at its Chekov site, which has so far focused on decor printing, with a line supplied by Rotodecor GmbH Maschinen- und Anlagenbau. This technology will be assembled in a new production hall built alongside the existing printers. Start-up is slated for the third quarter of 2018. The newest of three treating lines will then be transferred from its Shatura facility to Chekov. The order for its fifth treating line in Rosate went to Tocchio International s.r.l., based in Vigevano, Italy. Its previous incarnation Tocchio s.r.l. had delivered a 2,200 mm-wide treating line to Schattdecor's Rosate facility in the first half of 2012. In April 2013, Rotodecor also landed the order to deliver a new 2,300 mm-wide treater to Rosate. Schattdecor had commissioned this fourth line at the end of March 2014. The new Tocchio line is to get up and running in the second half of 2018.

The impregnating line in Wuhan, China, built by the Saintdecor joint venture formed at the end of March 2017 has ramped up operations by the end of year. These 4 ft-wide lines were delivered by Imaco Technology Development Co. Ltd., based in Suzhou in Jiangsu Province.

The firm has also now completed the expansion of its printers in Shanghai. Schattdecor has installed two more narrow printing machines with a working widths of 4 ft there since the second quarter. PMD 45 was commissioned in August, with PMD 46 following in September. Schattdecor thus now operates four narrow printing machines in Shanghai; the first two lines started production in November 2015 and February 2016. Rotodecor's Chinese subsidiary supplied all four units.

The decor paper joint venture Kingdecor Co. Ltd., based in Quzhou, Zhejiang Province, wrapped up technology orders for its fourth paper machine in recent months. With a working width of 3,900 mm and an annual capacity of 40,000 tonnes, the machine is to start operating at the beginning of 2019. Kingdecor will thus see its total capacity increase to about 240,000 tonnes.

### Schattdecor Inc. starts up second printing machine



(Photo credit: Schattdecor)

The US company Schattdecor Inc. printed the first reel using a new printing machine installed in Maryland Heights near St. Louis, Missouri, on 30 November 2017. The machine was delivered by Rotodecor GmbH Maschinen- und Anlagenbau and installed during the autumn.

The first test runs were conducted in November once installation work was completed. Schattdecor said that the 7 ft-wide rotogravure machine can print at a speed of more than 400 m/min. The machine differs from the printing machines used by Schattdecor to date in that it uses a new operating concept and a new generation winder.

The first printing machine in Maryland Heights, also delivered by Rotodecor, started operating at the end of January 2011. Schattdecor had previously long explored creating a printing site in the US and fleshed out the project during 2007, opting for a site near St. Louis, Missouri. When the investment decision was announced in April 2008. Schattdecor had expected to start manufacturing during the first half of 2009. When the first sod was turned in August 2008, the firm then listed the start of 2010 as the start-up date. The project was then temporarily shelved in the first quarter of 2009 because the market climate had become more challenging, before reviving the plans in the second quarter of 2010. With a €21m investment, the plant has a total area of about 50,000 m<sup>2</sup> and a 10,000 m<sup>2</sup> production and logistics hall with space for up to four printing machines.

### Surteco pools firms in limited liability company

Surteco SE is poised to combine three independent companies - BauschLinnemann GmbH (Sassenberg, Germany), Surteco Decor GmbH (Buttenwiesen-Pfaffenhofen, Germany) and Döllken-Kunststoffverarbeitung GmbH (Gladbeck, Germany) – in a new group Surteco GmbH during 2018.

The planned organisational change is part of the Surteco 2025+ growth strategy that has been under way since 2015. By pooling these activities, Surteco also wants to move away from its current product orientation to focus on target groups throughout the group. In future, buyers are to be provided with relevant products and services for their respective sector from a single source. Ordering options are to be simplified

and development times shortened. For Surteco itself, the change is to deliver stronger organic growth and synergy effects. Surteco has long worked across product groups in a variety of foreign markets, especially for those markets served by a sales entity under the Surteco name. Examples include Surteco Italia s.r.l. (Martellago, Italy), Surteco France S.A.S. (Beaucouzé, France), Surteco OOO (Moscow, Russia) and Surteco Australia Pty. Ltd. (Sydney, Australia). This model should now be replicated group-wide.

The three entities affected by the merger presently employ some 2,000 workers (about 60% of the group's workforce) and generated revenues of about €500m in 2016 (approximately 78% of group revenues). Döllken Kunststoffverarbeitung GmbH is the leading company within the Plastic division. Founded in June 2014 when Bausch Decor GmbH was renamed, Surteco Decor GmbH and BauschLinnemann GmbH are part of the Paper division. This divison also includes Süddekor Art Design+Engraving GmbH, headquartered in Willich, which was renamed Surteco art GmbH in April 2017.

According to a forecast confirmed in mid-November, the Surteco Group intends to achieve a significant increase in revenues compared with last year (€639.8m) in 2017. Despite higher raw material costs, EBIT is to be in the region of €42m-46m (2016: 40.9m).

### Likora orders printing machine from Rotodecor

The decor printer and finishing-foil manufacturer Likora GmbH of Horn-Bad Meinberg placed an order with Rotodecor GmbH Maschinen- und Anlagenbau of Lage, for a new printing/lacquering system at the beginning of 2018. The 2,250 mm-wide system fitted with six printing and lacquering units is due to be delivered in December and, based on current planning, is scheduled to be put into service in March 2019. The final decision to go ahead with the investment was made in the fourth quarter of 2017 after roughly one year of planning and securing funding for the project. Once

the new system is up and running, Likora is likely to successively shut down two older production plants.

The company currently operates a total of seven printing/lacquering machines. Six of them were purchased second-hand and then optimised to suit decor-printing requirements when they were relocated to the Horn-Bad Meinberg works, which was built in 1991. Likora also set up a new slimline printing/lacquering machine supplied by Rotodecor in 2016 for producing wrapping foils. The system, which, with a working width of 910 mm, four printing stations and a lacquering unit, has been operating in three shifts since it was put into service in November 2016, is geared to producing small batches for profile-wrapping companies. Only UV-curing coatings are processed with the coating unit. The wide machine now ordered from Rotodecor with two lacquering units can be run with UV-curing as well as acid-curing coating; the emphasis will be on UV coating systems, however. Roughly 70% of the finishing-foil output is processed with UV coatings; the remaining 30% is accounted for by AC coatings.



(Photo credit: GEW)

By setting up the slimline printing/lacquering system and other expansion investment in the existing facilities, Likora has been gradually increasing its processing options for UV coatings over the last two years. One of the five Cerutti machines was fitted with a UV-curing unit supplied by GEW (EC) Ltd. of Crawley, UK, in the first quarter of 2016. Part of the refit involved installing three 2,400 m-wide UV lamps, each fitted with a ballast unit, in the coating station. This enables the 2,250 mm-wide system with five printing/ coating stations to be run at a production speed of around 120 m/min. Likora retrofitted comparable GEW systems to two other production machines later on in 2016.

Schattdecor, Interprint, Impress and Lamigraf undertaking projects

## Decor printers investing more heavily in increasing rotogravure capacity again

Decor printers have been concentrating a little more on increasing their rotogravure capacity for some time now. This comes after a lengthy slow period when investment projects tended to focus on finish foils, impregnating and digital printing

Over the past two years, Schattdecor AG, based in Thansau, has installed a total of four narrow printing machines with a working width of 4 ft in its plant in Shanghai. The first machines started operating in November 2015 and February 2016. PMD 45 was commissioned in August 2017, with PMD 46 getting up and running in September. The Chinese subsidiary of Rotodecor GmbH Maschinen- und Anlagenbau, based in Lage, Germany, had delivered the technology for all four projects. No further investments in manufacturing can be made at the Shanghai complex after this latest expansion. Schattdecor thus intends to create a second printing location in China by the start of 2019. The new facility is to be situated near the decor paper joint venture Kingdecor Co. Ltd., based in Quzhou, Zhejiang Province.

Rotodecor also delivered a new 7 ft-wide printing machine for its US site in Maryland Heights near St. Louis, Missouri, which printed its first reel at the end of November 2017. The complex is now home to two printing machines. The first printing machine in Maryland Heights, which was also delivered by Rotodecor, started operating at the end of January 2011. A 7ft-wide Rotodecor printing machine was also installed at Schattdecor's Turkish location in Gebze near Istanbul in the past few months; it is slated to start operating in the first quarter of 2018. Up until now. Schattdecor has run two machines in Gebze. The Turkish complex was commissioned at the start of December 2010 with a modernised printing machine transferred from Tarnowo Podgorne, Poland. A new machine got up and running in December 2011.

In 2015 and 2016, Interprint GmbH installed a total of four printing machines at overseas locations in São Jose dos Pinhais (Paraná, Brazil), Nilai (Malaysia) and Changzhou-Wujin (Jiangsu Province, China). The first machine started operating at the new Brazilian site at the end of June 2015; the second printing machine has been up and running since November 2015. Interprint had used two secondhand, 7ft-wide machines for the Brazilian project, which were acquired from Constantia Industries AG, headquartered in Vienna, Austria, during the third quarter of 2013 and underwent a thorough overhaul during the transfer process. On the other hand, Interprint did use new technology delivered by a Chinese machinery manufacturer in its expansion projects in Malaysia and China. The third machine in Nilai started operating in the fourth quarter of 2016. The first printing machine commissioned in Wujin in the first quarter of 2017 replaced an older unit that had been taken out of service during 2015. Therefore, Interprint still runs five printing machines at this location.

Production was last expanded at its Arnsberg headquarters with the summer 2017 commissioning of a new rotogravure machine. The 7ft-wide unit delivered by Rotodecor replaced a printing machine that shut down in December 2013 before being dismantled. Interprint thus operates eight rotogravure machines again in Arnsberg. The next rotogravure investment project is to take place in Pittsfield, Massachusetts, in the US. This machine will primarily print oriented polypropylene (OPP) foils laminated with electron beam curing. Interprint has sold these products under the Premeer name since mid-2012. Commissioning of the sixth printing machine in Pittsfield is scheduled for mid-2019.

Impress intends to carry out its next decor printing investment project at the Russian firm OOO Sokol-Yar, based in Yaroslavl. A third rotogravure machine is to be installed there during the second half of 2018. Decisions are currently being made about specifications for this machine, which will have four printing heads and a working width of 7ft. Orders should be placed by the start of the second quarter, with commissioning to happen at the start of 2019.

OAO Slotex, which is based in St. Petersburg, Russia, and currently focuses on HPL/CPL laminates, elements, laminated board and melamine/phenolic film, also entered the decor printing business during the third quarter of last year. Towards the end of July, OOO Slotex-Decor – a firm created to undertake these activities – had commissioned a four-colour printing machine and a rewinder in a new production hall built in Proba, about 20 km away from St. Petersburg. It had purchased this technology second-hand from Surteco Decor GmbH, based in Buttenwiesen-Pfaffenhofen, Germany, at the end of 2015.

The Spanish decor printer Lamigraf S.A., based in L'Amettla del Vallès, installed a printing machine moved from its Spanish headquarters during the transfer of its Brazilian subsidiary Lamigraf do Brasil Comercio de Papeis Decorativo Ltda., based in Curitiba. Paraná, to a new location in São Jose dos Pinhais, Paraná, during the third quarter of 2017. After production commenced in September, Lamigraf then started moving the printing machine that used to run at the old Brazilian site in a second phase. Operations are set to resume before the end of the first quarter. Both machines, which each have a working width of 7ft and four printing heads, were overhauled and modernised as part of the transfer process. A third printing machine is to be installed at a site in Bönen, Germany, in the medium term. Lamigraf's current investment plans provide for the creation of a new manufacturing site in Asia, with the goal to start operations during 2019.

Second printing machine shall be commissioned before the end of the first quarter

## Lamigraf is adding printing capacity to its new premises in São Jose dos Pinhais

The Spanish decor printer Lamigraf S.A. of L'Amettla del Vallès has moved the activities of its Brazilian subsidiary Lamigraf do Brasil Comércio de Papéis Decorativo Ltda. of Curitba, Paraná, which has existed since October 2012, to a new facility in São Jose dos Pinhais, Paraná.

A corresponding investment decision had been taken at the end of 2016. The company had purchased a property with a hall of roughly 10,000 m<sup>2</sup> from the insolvent estate of an automotive supplier in January 2017. A printing machine originally supplied by Rotomec of San Giorgio Monferrato, Italy, to the Lamigraf works in Spain was installed at this new location in the third quarter of last year. This machine had been shut down in L'Amettla del Vallès in January 2017 and was subsequently disassembled. Reassembly at the Brazilian works that began at the end of June was completed by the end of August. Following the recommissioning in September, in a second step Lamigraf began relocating the printing machine that had been

running at the former Brazilian facility until recently. This machine, which had originally been supplied by Rotomec to the previous owner Decorprint Decorativos do Paraná Indústria e Comércio Ltda. and was not set up to start with, was then installed by Lamigraf in 2013 and subsequently put into operation in March 2014. Installation work has been under way at the new location since December. The machine is scheduled to be recommissioned before the end of the first quarter. Both Rotomec machines, which each have a working width of 2,200 mm and four printing units, were overhauled and updated during the relocation process.

This enables Lamigraf to run production on two printing machines at its Brazilian subsidiary in future, which currently has 40 employees. The aim is to achieve a capacity of 2,000-4,000 tpy depending on the production programme and batch size. Both machines are only running in a single shift to start with. Production can be stepped up gradually by means of additional shifts if needs be. There

are plans to install more machines in the medium term. The new works has enough space for a total of six production lines.

Finishing-foil production was permanently discontinued when the facility moved into the new works. At the old location, Lamigraf had been using a lacquering line leased from Decorprint. According to Lamigraf, however, the sales volume of finishing foils had been shrinking at an ever-faster rate in the last few years. This reduction is attributed in part to former finishing-foil customer switching their finishing process from lamination to direct printing. Lamigraf's finishing-foil production had subsequently shifted increasingly to single-colour and white products, which the company says can no longer be produced profitably without reverse integration.

Following the move to the new location, the Brazilian Lamigraf subsidiary is therefore concentrating on business in printed decor paper and melamine films. In doing so, impregnation is performed through a cooperation that has existed for some considerable time with Schattdecor do Brasil Indústria e Comércio Ltda., also of José dos Pinhais, which operates a decorprinting and impregnating facility only a short distance from the new Lamigraf works. The Schattdecor impregnating facility emerged from the takeover of Coveright Surfaces do Brasil Indústria e Comércio Ltda, of São José dos Pinhais which was completed at the end of January 2013.

Lamigraf intends its next step to be to set up its own cylinder-engraving plant at the Brazilian facility by the end of this year in order to get newly-developed decors into production more rapidly. To do so, the company will be falling back on an engraving unit currently in use in L'Amettla del Vallès and which will be replaced with a new plant with greater capacity being installed there at the moment.



New Lamigraf facility in São Jose dos Pinhais

(Photo credit: Lamigraf)

#### ZM sells all shares in Bauwerk Boen to EGSB

Swiss investment company EGS Beteiligungen AG (EGSB) is to take over all shares in Bauwerk Boen AG (Wallisellen, Switzerland), which had previously been held by ZM Opportunity II LP (Jersey). EGSB thus becomes majority shareholder of the parquet manufacturer.

The Bauwerk Boen shares held by ZM Opportunity II LP have until now been controlled by Swiss asset management company Patrimonium Private Equity, previously Zurmont Madison Private Equity. With takeover of these shares, according to an ad-hoc communication issued on 18 January 2018, EGSB will in future hold 64.8% of the share capital in Bauwerk Boen, thus virtually doubling their interest in the company. The largest minority shareholder remains the Johan G. Olsen Group (Tveit, Norway) with a share of 33.2%. The remaining 2% of shares are in free float. No change is to take place in the management team of Bauwerk Boen under CEO Klaus Brammertz following the transfer of shares. The group strategy is also to continue unchanged.

EGSB is a subsidiary of the Ernst Göhner Stiftung, based in Zug, Switzerland, and, as an investment company with a long-term strategy, invests in growth and buyout undertakings of private companies as well as companies quoted on the stock exchange, with turnover amounting to at least CHF50m. The foundation was set up by entrepreneur Ernst Göhner who established Bauwerk Parkett AG in 1944. In 1974 Bauwerk was sold to Elektro Watt AG, based in Zurich. In 1979 the company was sold to Hiag Holding AG of Riehen. In 2000 the company was integrated into Flooring International (NFI), based in Jona, which ensued from the merging of the Hiag parquet activities with Nybron AB, based in Nybro. At the end of 2009, NFI subsequently sold all shares in Bauwerk to EGSB and Zurmont Madison. The sale of Bauwerk at that time was processed by ZMEGSB AG, which had just been set



(Photo credit: Bauwerk)

up as an intermediate holding company and in which Zurmont Madison held a share of 55% and EGSB a share of 45%. The Bauwerk Boen Group in its current form ensues from the merger of the two parquet manufacturers Bauwerk Parkett AG, headquartered in St. Margrethen, and Boen AS, based in Tveit, Norway, in May 2013. In this connection there was a further change in the ownership structure. At the time of the merger Zurmont Madison held a share of 30.9% and EGSB of 32.5%. Former owner of Boen, Johan G. Olsen, held a share of 32.5% whilst the management and other shareholders had an interest of 4.1%. П

#### Antitrust fines for Tarkett, Forbo, and Gerflor in France

In cartel proceedings underway against three manufacturers of PVC and linoleum flooring since March 2013, the French Autorité de la concurrence of Paris has imposed fines totalling €302m. According to the decision published on 19 October, the companies concerned are Tarkett S.A. (Paris-La Défense), Forbo Holding AG (Baar, Switzerland), Gerflor S.A.S. (Villeurbanne, France), and the French association Syndicat Français des Enducteurs Calandreurs et Fabricants de Revêtements de Sols et Murs (SFEC) of Paris. The cartel office holds the view that the three companies collusively agreed their sales strategies and prices for PVC and linoleum flooring. Between the end of 2001 and 2011, the three companies are said to have set lower price limits and procedures for price increases at so-called "1, 2, 3 meetings". The three companies also agreed not to use environmental aspects of the relevant floorings for competitive purposes. There are said to have been a total of 30 meetings in hotels in Paris and the French province for the purpose of fixing prices; another 16 meetings revolved around sales strategies. These meetings took place at least initially in connection with SFEC association meetings. The association also assisted the companies with the exchange of information on other occasions.

In accordance with the recent ruling, Tarkett must pay a cartel fine to the amount of €165m. As such, the claim exceeds the reserve of over €150m established in the half-year accounts for 2017. In a release published on 19 October, Tarkett announced its intention to review the cartel office's decision. Parallel to this, the company intends to form a reserve of another €15m. The cartel fine imposed on Forbo amounts to €75m. This company had also formed an advance reserve of CHF85m, equivalent to roughly €73.6m, in the first half of this year. Gerflor must pay a fine of €62m. A fine of €300,000 was imposed on the SFEC. Payment of the cartel fine will probably become due at the end of 2017 or in early 2018.  $\Box$ 

#### Tarkett investing €70m in increasing LVT capacity

The French company Tarkett S.A., based in Paris-La Défense, intends to invest a total of €70m in raising its LVT manufacturing capacity in North America and Europe over the next three years. The group is to spend about €50m on boosting capacity at its two plants in Florence, Alabama, and will also build a new distribution centre at the same location. These measures are to create a total of 50 new jobs. The two mills used to be owned by Centiva, which Tarkett acquired in November 2010 and which was then North America's second-largest LVT producer. In Europe, Tarkett has earmarked roughly €20m for boosting its LVT capacity in Clervaux-Lentzweiler, Luxembourg, and Jaslo, Poland. The LVT manufacturing facility in Jaslo had only been installed and commissioned during 2016. The product range of the Polish PVC flooring producer Gamrat Wykladziny Sp.zo.o. (Gamrat Flooring), which it acquired

in May 2014, was thus expanded to include design flooring too.

Tarkett has also made a number of shifts among its different production sites in recent years in connection with the expansion of its LVT business by making these acquisitions and investments. The company entered the European LVT business with its 2005 acquisition of the British flooring producer Marley Floors Ltd., based in Maidstone. LVT manufacturing subsequently moved from the Marley plant in Lenham to Sedan, France. Another move to Clerveaux followed in 2008. Tarkett also installed an LVT manufacturing unit at its complex in Konz, Germany, during 2012.

### Gerflor set to buy linoleum assets from DLW Flooring

The French flooring company Gerflor S.A.S., based in Villeurbanne, is set to acquire the linoleum activities of the insolvent company DLW Flooring GmbH, headquartered in Bietigheim-Bissingen, Germany, and related assets. The transaction includes the site in Delmenhorst where DLW Flooring makes linoleum flooring, spare parts and individual parts of a production line in Bietigheim-Bissingen together with all shares in DLW Flooring Denmark A/S, DLW Switzerland AG, DLW Property GmbH and DLW Licensing GmbH. Gerflor will retain all 270 staff members in Delmenhorst, 42 workers at the Bietigheim-Bissingen headquarters and other employees working for foreign subsidiaries.

By the start of January, Gerflor and DLW Flooring's managing director Hans-Norbert Topp had reached an agreement on the main points of the asset deal during the process of finding an investor that was launched during November 2017. The contracts were signed by the start of February. The proceeds from the sale of the linoleum activities will safeguard financing for the planned employment and training entity to be created in Bietigheim-Bissingen. An investor could not be found for this mill.

Topp had recently been in talks with a potential buyer, but it dropped out at the end of 2017. A decision was made to close the facility at the start of January. Some 190 workers were then laid off with effect from 15 January for insolvency law reasons. The remaining 150 or so workers processed the remaining orders. Staff not retained by Gerflor will be able to transfer to the employment and training entity for 80% of their last earnings for five months under the financing deal now reached.

DLW Flooring had filed for insolvency under self-administration on 11 October since a short-term shortage of liquidity could not be resolved. The Heilbronn District Court had opened the case on 1 January. At the same time, Dr Tibor Braun was appointed as preliminary trustee.

### Mohawk plans takeover of Godfrey Hirst Group

By taking over the Australian Godfrey Hirst Group, based in Geelong, Victoria, US flooring group Mohawk Industries Inc., headquartered in Calhoun, Georgia, intends to expand its activities in Australia and New Zealand, which formerly consisted of sales only, to include production. Mohawk believes this will improve its market position significantly.



(Photo credit: EUWID

The transaction, for which contractual agreement was reached in mid-November 2017, is expected to be concluded within the first six months of 2018, after the conditions stipulated have been fulfilled, and all approvals required within the scope of competition law have been submitted.

The business, which until now has operated as a family-run company, will continue to be managed by the current

CEO and chairman R.G. Kim McKendrick following its integration in the Mohawk Group. After the closing procedures, the Godfrey Hirst Group will be integrated into the Mohawk rest of the world business division, which includes companies such as Unilin byba, based in Wielsbeke, Belgium, and its affiliates.

The Godfrey Hirst Group produces textile floor coverings based on pure new wool, nylon, polypropylene and triexta and is thus perceived by Mohawk as providing for a relatively broad spectrum of the market. In this context the company, in the same way as Mohawk, is quite highly integrated in the production of raw materials. Originally operating predominantly in Australia, in 2006 Godfrey Hirst acquired the assets of insolvent carpet manufacturer Feltex Carpets, Auckland, thus enabling the company to expand into New Zealand. Godfrey Hirst markets the textile floorings in different distribution channels under the brand names of Godfrey Hirst, Feltex and Hycraft. In recent years the company, furthermore, has expanded its range to include various hard floorings such as LVT, wooden flooring and laminate flooring, which until now have been purchased predominantly in Asia. In the medium term these products could be acquired from Unilin plants in Malaysia and Europe. In the 2016/2017 (30 June) financial year, according to Mohawk, the Godfrey Hirst Group generated turnover corresponding to US\$334m.

Until now Mohawk has been mainly active in the hard flooring area in Australia and New Zealand and has also established its own sales structures there with the takeover of Australian wholesale distributor Premium Floors Pty Ltd., which was concluded in September 2011. The distributor, renamed Premium Floors Australia Pty Ltd. within the scope of the transaction, had already marketed mainly laminate flooring and parquet flooring made by Unilin in Australia prior to the transaction. Via five sales centres, Premium Floors markets laminate flooring, wooden flooring and LVT under the brand name Quick-Step. The portfolio is also supplemented by cork and bamboo flooring which is purchased externally.

Sharp drop in sales in Germany and Turkey/Slight increases in France and UK

### EPLF members offset weaker laminate flooring business in Western Europe

The 17 ordinary members of the association European Producers of Laminate Flooring (EPLF) suffered another 2.9% decline in their Western European sales to 243.0m (2016: 250.2m) m2 last year.

However, at least small growth was recorded in all other regions. According to final statistics unveiled on 13 January 2018 during the Domotex flooring fair in Hanover, global laminate flooring sales stayed close to the previous year's level. EPLF members shipped a total of 477.0m (477.5m) m<sup>2</sup> from their European production facilities in 2017 as a whole. Sales had only been higher in the record year of 2007 (507.4m m<sup>2</sup>) and in 2010 (486.7m m<sup>2</sup>).

The slump in Western European sales continues to be mainly fuelled by renewed downturns in Germany (-10% to 57.0m m<sup>2</sup>) and Turkey (-10% to 24.9m m<sup>2</sup>). German sales have now fallen for eight years in a row. The last time that they increased, even slightly, was in 2009 (84.7m m<sup>2</sup>). German laminate flooring sales have tumbled by almost 42% since the current record of 97.7m m<sup>2</sup> was set in 2006. The latest figure is now lower than the level recor-US, according to the EPLF.

ded in 2002 (59m m<sup>2</sup>). Turkey, which the EPLF counts towards the Western Europe region, has also faced a downward trend since 2014 in the view of EPLF members. A growth that had lasted for several years had reversed course because of the impact of anti-dumping investigations into laminate flooring imports from Germany and the weakening Turkish lira against the euro. However, the jump in volumes recorded in the EPLF statistics for Turkey are also partly due to Turkish laminate flooring producers joining or leaving the association. In 2016, EPLF shipments to Turkey had dropped below 2009's level. Last year, they slipped by another 9.2% to 24.9m m<sup>2</sup>. On the other hand, Turkish laminate flooring manufacturers have boosted their sales on their domestic market more and more in recent years. With total sales in excess of 100m m<sup>2</sup>, Turkey has been the world's third-biggest laminate flooring market for some time after China and the



Laminate flooring production

(Photo credit: Classen)

EPLF members experienced at least small growth in France (+0.5% to 37.6m m<sup>2</sup>) and the UK (+2.5% to 33.8m m<sup>2</sup>) last year. The next biggest markets in Western Europe saw only marginal changes. Laminate flooring sales reached 19.7m m<sup>2</sup> (+1.9%) in the Netherlands and 16.8m m<sup>2</sup> (+0.8%) in Spain. By contrast, sales fell 7.6% to 9.4m m<sup>2</sup> in Belgium. Other Western European markets sold 43.9m (43.0m) m<sup>2</sup>. Bigger growth rates were registered in Denmark (+11.5% to 3.7m  $m^2$ ) and Portugal (+14.5% to 3.1m  $m^2$ ). Minimal changes were seen in Sweden (-0.7% to 5.9m m<sup>2</sup>), Norway (+0.8% to 5.6m m<sup>2</sup>), Finland (+0.9% to 4.0m m<sup>2</sup>), Italy (-1.8% to 9.4m m<sup>2</sup>), Switzerland (unchanged at 2.3m m<sup>2</sup>). Sales in Austria (-3.6% to 4.4m m<sup>2</sup>) and Ireland (-6.9% to 3.0m m<sup>2</sup>) were lower last year than in 2016.

Eastern European sales were 1.9% higher at 128.4m m<sup>2</sup>. Russia strengthened its position as the biggest single market in this region again with a 5.2% growth to 35.5m m<sup>2</sup>, while Polish sales were 0.5% lower at 30.4m m<sup>2</sup>. Contrasting trends were thus recorded in the two countries for the first time in a while after EPLF sales volumes had gradually jumped from 2013 to 2016. Romania took third place last year with sales of 13.2m m<sup>2</sup> (-2.6%). The Ukrainian laminate flooring market has continued to recover from its collapse in 2014 and 2015. Last year, EPLF members sold 18.4% more or 7.4m m<sup>2</sup> in the country. Hungary solidified its position as the fifth-biggest market in Eastern Europe with a 5.5% upturn to 6.5m m<sup>2</sup>. Bulgaria had sales of  $5.1 \text{m} \text{ m}^2 \text{ (+1.1\%)}$ . About 4.7m m<sup>2</sup> (-2.9%) of laminate flooring was sold in Slovakia and 4.1m m<sup>2</sup> (-6.1%) in the Czech Republic. Sales to other Eastern European countries were stable at 21.4m m<sup>2</sup>.

The Asia/Pacific area was the best overseas laminate flooring market with an 8.7%

improvement to 29.1 m m². Some 9.6 m m² (+12.4%) was sold in China/Hong Kong and 3.6 m m² (+27.9%) in Kazakhstan. Laminate flooring shipments in the third biggest market, Israel, dropped 10.5 % to 2.2 m m² after a slight decline in 2016. The next biggest markets were Saudi-Arabia (-3.5% to 2.6 m m²), Taiwan (+18.5% to 1.8 m m²), India (+8.4% to 1.4 m m²), Uzbekistan (+29.6% to 1.1 m m²), Vietnam (+0.6% to 1.0 m m²), Azerbaijan (+30.1% to 1.0 m m²), Kyrgyzstan (+15.3% to 0.9 m m²) and Iran (-7.7% to 0.7 m m²).

Shipments to North America increased 4.7% to 49.4m m<sup>2</sup>. The US was responsible for 31.4m m<sup>2</sup> (+8.1%) of this sum and Canada for 18.0m m<sup>2</sup> (-0.7%). Exports to the US have almost doubled since 2013. EPLF members sold 49.6m

m² in 2006, the best year to date, more than half as much again as last year. Canadian sales have been less volatile in recent years. Since bottoming out at 11.2m m² in 2014, these shipments have surged 61%. Business in Latin America has been even more stable in recent years. Sales had risen 3.0% to 17.6m m² last year. The biggest markets were Chile with 7.7m m² (+4.6%) and Mexico with 4.3m m² (-1.2%). Columbia was roughly in line with previous year's performance with 1.6m m², but is still well below 2015's level of 2.0m m². Deliveries to Peru tumbled 32.1% to 1.0m m², ending up at 2015's level.

EPLF members sent a total of 9.4m m<sup>2</sup> to other regions. Some 4.7m (4.9m) m<sup>2</sup> ended up in Africa whose biggest markets were South Africa (-18.3% to 1.9m m<sup>2</sup>),

Egypt (-0.2% to 1.6m m²) and Morocco (+21.0% to 0.8m m²). Australia/Oceania was the destination for 3.7m (3.4m) m², comprising 3.3m (3.1m) m² in Australia and 0.4m (0.3m) m² in New Zealand. Deliveries to other countries dropped to 1.0m (1.8m) m².

The EPLF sales statistics solely capture shipments from its members' European production locations, including mills in Russia and Turkey. The EPLF's managing director Peter Meyer noted that inaccuracies still exist in documenting sales from Russian mills since two EPLF members do not report these amounts. The EPLF believes that almost 20m m² is left uncovered as a result. Including this sum, total sales would have reached almost 500m m² last year.

m m²	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 1)	2016 <sup>2)</sup>	2017 2)
Western Europe	284.9	295.4	269.9	284.7	301.6	299.4	297.7	290.1	282.3	253.0	250.2	243.0
Germany	97.9	95.8	84.0	84.6	83.4	80.0	76.3	71.9	68.9	65.7	63.3	57.0
France	36.3	41.5	39.6	38.6	40.6	40.9	40.4	38.8	39.3	37.4	37.4	37.6
Turkey	15.9	15.5	14.8	36.2	54.2	53.8	66.2	65.6	57.2	31.1	27.5	24.9
United Kingdom	40.3	38.6	33.0	32.5	28.6	30.2	29.0	29.1	31.6	30.6	33.0	33.8
Netherlands	20.8	21.8	22.3	21.4	21.1	20.8	18.6	19.2	17.6	19.1	19.3	19.7
Spain	17.6	22.2	18.0	16.3	18.2	17.9	14.9	14.1	14.6	15.3	16.7	16.8
Eastern Europe	88.1	128.8	130.2	97.5	108.7	103.5	98.9	103.4	110.4	111.2	126.0	128.4
Russia	14.0	27.2	27.8	17.1	24.7	25.5	23.7	24.0	28.5	28.9	33.8	35.5
Poland	22.8	30.9	33.0	29.3	28.9	25.6	24.0	24.8	26.3	28.1	30.6	30.4
Romania	13.8	19.3	18.2	12.5	13.4	9.2	9.8	10.1	11.5	11.2	13.6	13.2
Hungary	7.4	9.1	8.7	6.1	6.2	5.5	4.3	4.6	6.0	6.1	6.2	6.5
Bulgaria	3.8	5.9	6.1	3.8	4.4	4.4	4.8	4.3	4.2	5.0	5.1	5.1
Ukraine	2.9	6.4	5.6	4.7	5.8	8.3	8.2	9.5	7.5	4.7	6.2	7.4
North America	67.8	53.6	36.4	35.6	41.2	26.9	23.5	27.9	29.2	38.5	47.2	49.4
USA	49.6	33.9	21.4	20.0	24.4	13.4	11.8	16.4	18.0	24.6	29.1	31.4
Canada	18.2	19.7	15.0	15.6	16.8	13.4	11.6	11.5	11.2	13.9	18.1	18.0
atin America	11.7	11.9	11.8	10.6	15.7	15.7	16.8	17.0	15.9	17.3	17.1	17.6
Chile	3.0	3.1	3.2	3.3	5.3	5.4	6.6	6.1	6.7	6.8	7.3	7.7
Mexico	5.9	5.3	5.0	4.3	5.2	4.6	4.3	4.9	4.0	4.5	4.3	4.3
Asiea	8.2	8.3	7.0	7.7	10.3	10.6	11.6	12.7	15.3	17.5	26.8	29.1
China 3)	1.5	1.4	1.3	1.5	2.1	2.3	3.2	4.3	5.1	5.6	8.6	9.6
Saudi Arabia	0.3	0.4	0.5	0.5	0.6	0.7	0.9	1.3	2.0	2.9	2.7	2.6
Israel	1.3	1.6	1.4	1.5	1.9	2.0	1.9	2.1	2.2	2.5	2.4	2.2
Other Regions	7.4	9.3	7.0	6.6	9.1	11.9	11.0	11.6	13.7	13.8	10.2	9.4
Total .	468.2	507.4	462.4	442.6	486.7	467.9	459.6	462.7	466.9	451.3	477.5	477.0

KKR's exit is primarily connected to the premature achievement of fixed earnings targets

### Private equity investor Kirkbi bought 49.8% stake in Välinge Innovation

The US private equity firm Kohlberg, Kravis, Roberts & Co. LP (KKR) has sold the majority stake that it bought in Välinge Innovation AB, based in Viken, Sweden, in spring 2016 to the Danish investment company Kirkbi A/S, headquartered in Billund.

Under the terms of an agreement signed by the two companies at the end of December 2017, Kirkbi has acquired 49.8% of the shares in Välinge; the other 50.2% stay in the hands of Pervanovo Invest AB, which is based in Viken and owned by Darko Pervan. The transaction has been completed in February after conditions had been met.

Välinge Innovation said that KKR's exit is primarily connected to the premature achievement of fixed earnings targets. The company said that the targets originally set for a five-year period were reached within the first two years. KKR had thus explored the options for selling its stake in Välinge Innovation starting last summer. About 10 investors had

been involved in the resulting sale process. Towards the year's end, negotiations focused in on Kirkbi A/S, which was also favoured by Pervan and Välinge Innovation's management team as the new minority shareholder. Pervan said that KKR will recoup about 2.5 times its original investment with the growth in earnings delivered by Välinge Innovation over the past two years and the sale of its stake in Välinge Innovation.

Upon closing, Anders Borg, who oversees activities in the Nordic region as KKR's managing director, handed over the reins as chairman of Välinge Innovation's board of directors, which he assumed in July 2016. At Darko Pervan's suggestion, a representative of Kirkbi should assume this position in future. After the sale of the minority stake, Välinge Innovation will continue to be managed by the current management team and initially also keep its existing organisational structure. Over the next few months, however, Välinge Innovation's activities are to be grouped into two new divisions. The Välinge

Innovation business unit will comprise research and development activities, patent management and awarding production and distribution licences. Production activities in Viken will become part of the Välinge Flooring business unit.

In connection with the change in shareholders, Välinge Innovation reached a deal with Pervanovo Invest to acquire a mill to make wood fibre floor (WFF) that was constructed over the past two years directly next to Välinge Innovation's site in Viken.

Välinge Innovation presently employs about 130 workers and generated revenues of about €120m in the 2017 financial year, according to preliminary figures. The EBITDA margin hence reached more than 50%. Välinge Innovation had employed about 100 workers and generated revenues of some €86m (2014: 82.9m) and EBITDA of some €46m (39.1m) in the 2015 financial year before KKR came on board. The EBITDA margin thus soared to 53.5 (47.2) %. The number of employees was put at 115 and its revenues at roughly €100m in the 2016 financial year. To date most of its revenues come from awarding production and distribution licences for flooring and furniture technologies developed in-house as well as resulting licence fees.

KKR had agreed to buy a stake in Välinge Innovation at the start of February 2016. Under the original plans, the private equity firm was to purchase the two 20% stakes held by the old minority shareholders Kronospan and Swiss Krono Group as well as another 10% from Pervanovo's previous incarnation Pervan Holding AB. Pervan and KKR would have each held 50% of the shares as a result. Under the final agreement, however, the size of the stake transferred to KKR was put at 9.7%, meaning that KKR had initially owned a shareholding of 49.7% after closing.



Välinge Innovations's site in Viken

(Photo credit: EUWID)

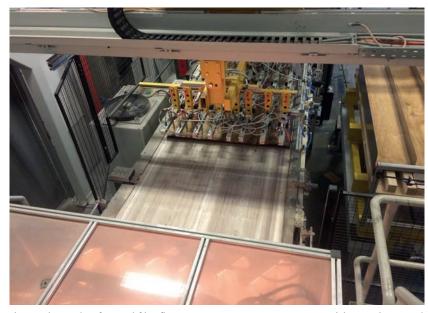
Upstream product supplies to be secured by building new veneer plant

## Pervanovo planning powder-based wood-fibre floor plant in Croatia

Following the sale of the plant in Viken, Sweden, agreed at the end of 2017, Pervanovo Invest AB wants to set up a new plant for powderbased wood-fibre floors (WFF) in Ogulin, Croatia, by 2019.

The "Nadura" and "Woodura" floorings developed by Välinge Innovation AB of Viken. Sweden, are to be produced at the new facility using the production concept implemented in Viken over the last two years involving a continuous doublebelt press. Depending on the production programme, Pervanovo wants to achieve an annual capacity of 6-8m m<sup>2</sup> in continuous operation for 330 days p.a. in Ogulin. Pervanovo says an output of up to 8m m<sup>2</sup> p.a. is possible when producing Nadura and Woodura flooring: around 6m m<sup>2</sup> is described as realistic for producing Woodura on its own. The WFF floorings produced in Ogulin are to be sold and distributed under the brand name of "Bjelin". Pervanovo will obtain a production and distribution licence from Välinge Innovation for this purpose and thereby become one of the biggest WFF licence holders.

The plans that have existed since mid-2016 became concrete with the investment decision taken last year. Pervanovo's first step was to purchase a 220,000 m<sup>2</sup> plot of land immediately adjacent to the existing parquet works in Ogulin to serve as the site for the new WFF works and a veneer-processing plant. The WFF plant is to be set up in a building of approximately 40,000 m<sup>2</sup>, providing enough space for a total of two production lines. Only one line covering all production stages is to be built to start with, however. The main components are the powder-mixing plant, a 2.1 m-wide double-belt press, lacquering and profiling stations, and a packaging section. The orders for the equipment are to be finalised so-



Short-cycle press line for wood-fibre floor

(Photo credit: EUWID)

metime in the next few months upon completion of the ongoing production tests. The double-belt press will probably be delivered by Hymmen GmbH Maschinen- und Anlagenbau, which had already supplied the plant in Viken. The double-end tenoner is to be supplied by Homag GmbH.

The veneer-processing plant also planned for the Ogulin facility will include a sizing and assembly unit. The veneers are to be supplied by a planned veneer works due to be built in Bjelovar where Pervanovo will be demolishing an existing hall there to replace it with a new building. The slicing machines, geared to a combined annual capacity of around 20m m<sup>2</sup>, are to be built in two stages. The initial capacity of some 10m m<sup>2</sup> is to be available by 2019 and is likely to be doubled by 2021. The veneers will be processed downstream in Ogulin and then delivered to the WFF works projected for the same location, to Välinge Innovation, and to Välinge Innovation's WFF licence holders. The

plant concept for veneer production geared to manufacturing Woodura surface layers is currently being developed in cooperation with Grenzebach BSH GmbH, which is also listed as a supplier of the required production equipment.

Parallel to setting up the veneer production plant in Bjelovar, a new sawmill is to be built at the facility as well in order to achieve optimum utilisation of the company's intake of oak logs. The produced assortments of timber are to be further processed at the multilayer parquet works that already exists in Ogulin. The envisaged doubling in capacity to around 2m m<sup>2</sup> p.a. that had actually been planned for last year is now to take place within the next few months. The biggest single measure is the installation of a new parquet press; surface-finishing equipment is being installed as well. The additional capacity is to be used mainly for producing narrow blocks for fishbone designs. Multi-layer rustic floorboards are to be manufactured as well to a lesser extent. Pervanovo intends to invest a total of around €100m in building the veneer plant, the veneer-processing plants, the new WFF plant, and enlarging the parquet capacity. Installation of the Nadura/ Woodura production line is the biggest individual project at a cost of around €60m. The estimated cost of the first stage of the investment in the veneer works is roughly €20m. The remaining €20m is earmarked for doubling the capacity of the parquet works. Pervanovo says it has so far invested around €50m in Croatia. The first major step in the investment project was the full takeover of the Croatian company Tehnodrvo d.o.o., whose products include oak timber, semi-finished goods, and multi-laver parquet made at two facilities in Bjelovar and Ogulin, in mid-August 2016 through Pervanovo Croatia d.o.o. of Dubrovnik. Tehnodrvo was renamed Bjelin d.o.o. upon conclusion of the deal.

The WFF works in Viken, under construction by Pervanovo since mid-2016 and largely completed in the fourth quarter of 2017, will be transferred to Välinge Innovation on the basis of the sales agreement signed on 27 December. According to Pervanovo, this transfer was one of the conditions for the involvement of the Danish investment company Kirkbi A/S of Bilund in Välinge

Innovation that had also been negotiated at the end of December. Once the conditions precedent have been fulfilled, Kirkbi is to acquire sometime in the first quarter the 49.8% stake currently held by the US private-equity company Kohlberg, Kravis, Roberts & Co. LP (KKR).

The construction of the works, called "F2", went through the company Viken Flooring AB, set up specifically for this purpose; the cost of the investment has been quoted as around €50m. The first production trials are scheduled to take place before the end of the first quarter, followed by the start of production in the second quarter. By means of a continuous production line integrating all the production stages, the new plant should achieve an annual capacity of 5-7m m<sup>2</sup> in three-shift operation depending on the product range. A target output of around 5m m<sup>2</sup> p.a. has been set if production is focused on Woodura flooring. The acquisition of the works will boost Välinge Innovation's total woodfibre floor capacity to over 7m m<sup>2</sup> p.a. The company currently operates two short-cycle presses at its own works, each of which can produce around 2m m<sup>2</sup> p.a. The wood-fibre floors produced in Viken are mainly supplied to Välinge Innovation's licence holders.

Pervanovo and Välinge Innovation also began preparations for another WFF works at the Viken facility last year. This plant, named "F3", is to produce Nadura flooring alone; the projected capacity is put at more than 10m m<sup>2</sup>. Pervanovo puts the cost of the investment in the new production line, comprising a double-belt press, a digital printing system, a digital structuring system, final finishing and coating, profiling, and packaging at around €60m. If the decision is made to go ahead with the investment project, the start-up is envisaged for 2021. No final decision has been made yet as to whether the investment should be handled by Pervanovo or Välinge Innovation. There is a tendency towards Välinge Innovation, however.

Once the works planned for Ogulin in Croatia has been completed, Pervanovo says it too could be transferred to Välinge Innovation. Both companies want to further enlarge their production capacity in Viken and Ogulin in the years ahead. These plans include the construction of a works in North America in the medium term. Pervanovo's owner, Darko Pervan, says the total capacity of these three facilities' is to be brought up to around  $100 \text{m} \, \text{m}^2 \, \text{p.a.}$  within the next five to ten years.



 ${\it Construction work for the F2 plant in Viken.}$ 

(Photo credit: EUWID)

Three more acquisitions in Europe for Unilin since the start of the year

# Mohawk: IVC commissions two new plants making rigid LVT in Avelgem and Dalton

IVC Group started up the second line to make luxury vinyl tiles (LVT) at its headquarters in Avelgem, Belgium, in December 2017.

IVC is part of the US flooring company Mohawk Industries Inc., based in Calhoun, Georgia. During the current ramp-up phase, the new machine is making flexible LVT products already introduced on the market in two-shift operations. In a second stage, its product range should be expanded to include rigid LVT. The first test runs have been under way since January. These products are to be marketed by IVC and by another Mohawk subsidiary, Unilin byba Division Flooring, headquartered in Wielsbeke, Belgium, starting in April. In the medium term, IVC wants to primarily make rigid LVT at the new line, which has a designed annual capacity of about 15m m<sup>2</sup>. A largely identical production line was added last year at its site in Dalton in the US state of Georgia, which will likely start operating before the end of the first quarter. This line will also primarily make rigid LVT in future.

IVC had announced the new investments in Avelgem and Dalton at the start of 2016 and put the envisaged investment at a total of US\$200m or almost €185m. The two lines were each installed alongside existing LVT units set up to make flexible products. The first LVT line in Avelgem had started operating in the first quarter of 2012, with the existing plant in Dalton up and running since the summer of 2015. IVC's total LVT capacity was poised to rise from about 27m m<sup>2</sup> to roughly 60m m<sup>2</sup> per year with the start-up of the new production lines, which was originally slated to happen in summer 2017. Both the two new units and the existing production lines are equipped with double-belt presses supplied by the Sandvik Materials Technology Deutschland GmbH subsidiary Sandvik TPS, based in Göppingen, Germany. Unilin's Wielsbeke complex has been home to another LVT



IVC Group started up a second line for LVT in Avelgem.

(Photo credit: IVC)

line since the third quarter of 2014, which was also supplied by Sandvik TPS. This line is to reach a production volume of about  $8m\ m^2$  this year.

IVC also commissioned a carpet tile production facility at a former Unilin laminate flooring mill in Mouscron, Belgium, during the fourth quarter of 2017. This facility is currently ramping up operations, with marketing of products set to start in the second quarter. Unilin has installed one new short-cycle press in each of its three laminate flooring mills over the past few months; at the same time, profiling capacity has also been increased. In Russia, Mohawk is currently building a facility making tiles and a production line for sheet vinyl, which will start operating in the fourth quarter under the present timetable. Its mid-November acquisition of the Australian company Godfrey Hirst Group, based in Geelong, Victoria, is taking longer than originally planned due to a more complicated anti-trust review in Australia and New Zealand. Unilin has launched three other take-over projects so far in the first

quarter. The Flooring Division intends to acquire its distribution partners in Italy and Switzerland as part of successor solutions with Area Pavimenti S.p.A., based in Udine, and Eich Handels AG, headquartered in Lenzburg, Aargau. The Panels Division also signed an agreement to acquire the Dutch firm Molber Beheer B.V., based in Overveen, the Netherlands, which holds all shares in the wood-based panel converter Berghoef Hout B.V., headquartered in Amsterdam.

Mohawk's Flooring Rest of the World division, which includes IVC and Unilin's European activities, boosted its revenues by 17.8% to US\$545.9m (Oct.-Dec. 2016: 463.3m) in the fourth quarter; the growth rate was only half as big when adjusted for currency effects (+9.0%). Operating income, which decreased in the first and second quarters compared with the prioryear periods before improving slightly in a year-on-year comparison between July and September, showed a similar growth rate to revenues, rising 18.7% to US\$83.9m (70.7m).

Investment plans in China put on hold/Turnover has increased again in 2017

## Nobilia intends to supply French market via kitchen furniture plant in Saarlouis

Kitchen manufacturer Nobilia-Werke J. Stickling GmbH & Co. KG, based in Verl, has put the preceding year's plan to construct an assembly plant in China on hold again.

These plans are no longer being pursued due to the relatively high complexity involved in an investment in China. The company is instead planning on constructing a new kitchen furniture plant close to the German-French border. Over the course of recent months various locations in the south-west region of Germany have been analysed, with the search for a location recently focusing on the Saarlouis district. According to the final investment decision reached at the end of February, the project is to be implemented in the Lisdorfer Berg industrial park in Saarlouis. Nobilia's management signed the purchase agreement for the 29 ha site at the city hall in Saarlouis on 2 March. Construction of the new plant is to be gradually implemented over the course of the coming years. The building start is still scheduled for this year after the required approval procedures have completed. In the final expansion stage over 1,000 persons are to be employed at the production site, which covers an area of up to  $120,000 \text{ m}^2$ .

By constructing the new plant Nobilia is intending to improve the logistical conditions for processing the French market, the most important export market by far. as well as further markets in south and south-west Europe. These markets have so far predominantly been supplied by the Verl-Kaunitz plant, which focuses on export business. The expansion plans for Kaunitz, which have been in place for some time now, are being pursued independently of the project in Saarlouis. According to previous information, the company intends to construct a new plant section covering an area of some 25 ha. The approval procedures, however, have taken significantly longer than planned. At the end of March 2017 the regional council of the Detmold regional administration approved the change required to the regional plan for the Kaunitz expansion. In the next stage the plans for use of the area must be changed and the development plan drawn up. Negotiations concerning the purchase of required plots of lands have not yet been concluded, however. At the existing Kaunitz plant further production equipment has been installed in the free spaces available, which means that full capacity will be achieved in the foreseable future. The last larger investment project in Kaunitz was the construction of an automated logistics centre for accessory parts which was commissioned in summer 2017.

Pressure is to be taken off the main facility in Verl-Sürenheide, which has already been working to the limits of its capacity for some time, by constructing an additional plant section at the Hüttenbrink industrial park in Gütersloh-Spexard. located some 500 m away on the other side of the A2 motorway. The purchase of the site planned for this investment, which covers an area of some 130,000 m<sup>2</sup>, has meanwhile been completed. In a subsequent stage, the approval procedures have been initiated. Special parts which do not need to be directly integrated in the manufacturing process are to be produced at the new location in future. At the Sürenheide plant Nobilia has commenced construction of a 13,000 m<sup>2</sup> production building for production of components on an area previously used as a parking space for lorries. The building is to be completed by the second quarter of 2018. Additional parking areas for lorries and trailers have been created, conversely,

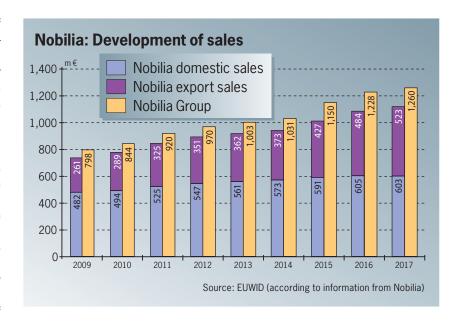


Nobilia's management signed the purchase agreement for a 29 ha site in the Lisdorfer Berg industrial park in Saarlouis on 2 March. (Photo credit: Nobilia)

on a site acquired within the scope of an auction in April 2017 on Schinkenstraße in Sürenheide. The building on this site is used by another company which, however, is to move out over the course of the coming months when its lease expires.

In 2017 Nobilia invested a total sum of €105.0m (2016: 51m). This means the figure recorded in 2016 was more than doubled. The investment amounts in 2014 (€55.1m) and 2015 (€68.7m) were therefore also significantly exceeded. Nobilia predominantly attributes this to the completion of the logistics centre in Kaunitz and the construction of a new administrative building in Sürenheide. The existing building, covering an area of 10,245m<sup>2</sup>, has been expanded to include a new complex in which approximately 300 iobs can be created in the total 5.700m<sup>2</sup> area and five storeys. The first divisions moved into the new building in January. Other areas of focus for investments over the preceding year have been the development of production opportunities implemented in the two plants for the XL cabinets and Xtra worktops launched on the market as part of the new Nobilia collection 2018 in autumn 2017, the installation of new production facilities and the related expansion of component production in the Kaunitz plant, and also further replacement investments and optimisation measures in the Sürenheide plant. The company's own transport fleet has also been expanded to include 36 (20) new tractors and 65 (72) new trailers.

The number of commissions for kitchens produced in the two plants increased by some 15,000 to 675,000 (660,000) in 2017. In the two preceding years the number of commissions had increased by 30,000 in each case. Total production consisted of 6.75m (6.6m) cabinets and some 1.55m (1.5m) worktops. Approximately 31,200 (29,700) cabinets are manufactured each work day in the two plants operating on a double shift basis. The Sürenheide plant, with a daily production volume of 16,200 cabinets, has been working to full capacity for several years. By means of the expansion investments



implemented in the Kaunitz plant the production volume was increased to 15,000 (13,500) cabinets/day.

In the 2017 financial year Nobilia-Werke J. Stickling GmbH & Co. KG, according to figures announced on 23 February, increased turnover by a further 3.4% to €1.126bn (1.089bn). This means the figure of the preceding year was surpassed for the seventeenth consecutive time. The turnover rise, however, decreased by approximately half vis à vis the two previous years - in which an increase of 7.6% (2015) and 6.9% (2016) respectively was achieved. Whereas at that time both domestic as well as export business had contributed to the growth, the turnover increase in 2017 was exclusively achieved via export business. Whilst domestic turnover remained 0.3% below the preceding year's figure at €602.5m (604.5m), export turnover increased by 8.0% to €523.0m (484.3m). The export rate therefore rose to 46.5% (44.5%) and continues to be significantly above the sector average of 39.8% (38.5%), which also increased.

Regarding the distribution of turnover on the most important export markets, no significant changes were recorded in 2017. Business in France was again expanded slightly more markedly meaning, that as a proportion of the total Nobilia export turnover, it was again

at the level recorded in 2015 at 42% (41%). The proportion of the next two largest markets of Belgium and Austria remained unchanged following the below-average growth in 2015 and 2016. Consequently, as in the preceding year, 13% of export turnover was generated in Belgium and 10% in Austria. For the Netherlands the figure was 6% (6%), and for Denmark, Great Britain, Spain and China a proportion of 3% (3%) was indicated in each case. For Switzerland and Italy the figures also remained the same at 2% (2%) in each case. Business in Czech Republic increased at a slightly more significant rate, which constituted a rise to 2% (1%) as a proportion of export turnover. A proportion of 1% - as in the previous year- was contributed by Finland, Sweden and Saudi Arabia, and the remaining 8% was generated in the other export markets.

In the Nobilia Group turnover growth also slowed down somewhat in 2017. Taking into consideration the consolidated turnover of Nobilia plants, turnover of the retail companies overseas in accordance with shareholding interests, as well as franchise fees of the French Franchise Business Division Group (FBD) (Roissy), export turnover of the Nobilia Group increased by 2.6% to €1.260bn (1.228bn) in 2017. In 2015 and 2016 group turnover increased by 11.5% and 6.8% respectively.

Changeover to be completed by end of 2018 as a rule

## More kitchen manufacturers want to switch production to WBPs meeting CARB II

From the end of 2018, formaldehyde limit values that have so far only been implemeted in California will take effect throughout the US in a move that will likely bring major changes to the types of wood-based panels used by the Central European kitchen furniture industry.

During the first half of 2017, it had looked as if only a few companies mainly focusing on exports would switch to using wood-based panels meeting California's CARB II rules, which will apply throughout the US from December 2018 as Title VI of the US Toxic Substance Control Act (TSCA). However, most major kitchen furniture producers have now explored a change of this kind and are leaning towards using wood-based panels with reduced formaldehyde. A variety of companies thus now believe that the wood-based panels used by the kitchen furniture industry will shift from the E1 panels commonly used now to materials with CARB or EPA certification in the medium term.

Over the past few years, the first kitchen furniture producers specialising in higherquality kitchens and thus on exporting to the US had switched production partly or entirely to the wood-based panel grades required only in California to date. Bulthaup GmbH & Co. KG, based in Aich, Germany, launched steps of this kind about five years ago. August Siekmann Möbelwerke GmbH & Co. KG (SieMatic), headquartered in Löhne, Germany, has been running two-track production for some time now. Häcker Küchen GmbH & Co. KG, based in Rödinghausen, Germany, became the first major kitchen furniture producer to opt for a complete changeover in autumn 2016 and wrapped up this process by the time that its in-house exhibition was held in September 2017. Over the last year, several medium-sized kitchen furniture producers have started changing over production. A few companies have long been sourcing formaldehyde-reduced certified wood-based panels and have already replaced the majority of their inventories, especially in the front end. Other companies are poised to complete this process during the first half of 2018. Nobilia-Werke J. Stickling GmbH & Co. KG. based in Verl, Germany, decided to undertake a complete changeover at its two mills in Verl-Sürenheide and Kaunitz during the third quarter and will only deliver kitchens complying with CARB Il rules from the start of 2019 at the latest. Other producers want to make decisions about their exact plans in the foreseeable future.

Just a few kitchen furniture manufacturers are left that have not to address this issue or have decided not to switch at least for the time being. Out of the bigger companies, Schüller Möbelwerk KG, based in Herrieden, Germany, is the main one still taking a wait-and-see approach. The company has hardly shipped to the US to date and feels that there is thus no need for action at present. The Pino Küchen facility in Coswig will focus on ramping up production, which was temporarily suspended during insolvency proceedings, in the coming months. Nobilia's decision to make the switch had not direct impact on Pino Küchen, since both companies will continue to operate separately from one another in future despite the existence of ties on the part of shareholders.

In European countries outside Germany, the Italian kitchen and bathroom furniture manufacturer Scavolini S.p.A., based in Montelabbate, for instance, informed its suppliers of its plans to switch to CARB II soon in April 2017. The French company Schmidt Groupe S.A.S., headquartered in Lièpvre, has only been using particleboard made according to the EPF-S standard at its kitchen furniture production

site for about eight years now. Suppliers report that these panels are made with similar formulations to wood-based panels meeting CARB II or the IOS-MAT standard prescribed by the Ikea Group. Additional requirements mainly pertain to certification, labelling and documentation of the wood-based panels used. All told, the switch to CARB II-compliant wood-based panels seems to primarily be an issue in Germany, Austria, Switzerland, Italy and France. Discussions tend to be on the back burner in the Benelux countries, the UK and Scandinavia.

The changeover process is taking its time in most cases, depending on the amount produced, the variety of products, the supplier structure, the size of their warehouses and warehouse logistics. Suppliers must first prove certification of all upstream products on a wood-based panel basis. New incoming deliveries have to be switched over and entire inventories with A, B and C parts be completely flipped. Major kitchen furniture producers have planned up to a year for this switchover. Medium-sized producers need six to nine months to do so on average. Changing front materials is more complex than body panels or rear panels due to the wider variety of options. A more differentiated approach can be taken to switching worktops since these are not always contained in export consignments.

The deadline extension of up to a year announced by the Environmental Protection Agency (EPA) in late September 2017 for new US formaldehyde emission rules has given kitchen furniture producers a little more time to make this change. Originally set for 12 December 2017, the new deadline for complying with documenting and labelling in accordance with the new formaldehyde emissions was pushed back to 12 December 2018.

### EUWID Special issues

























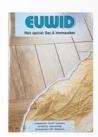












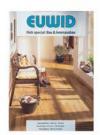




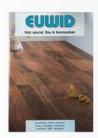










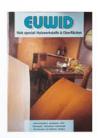




















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