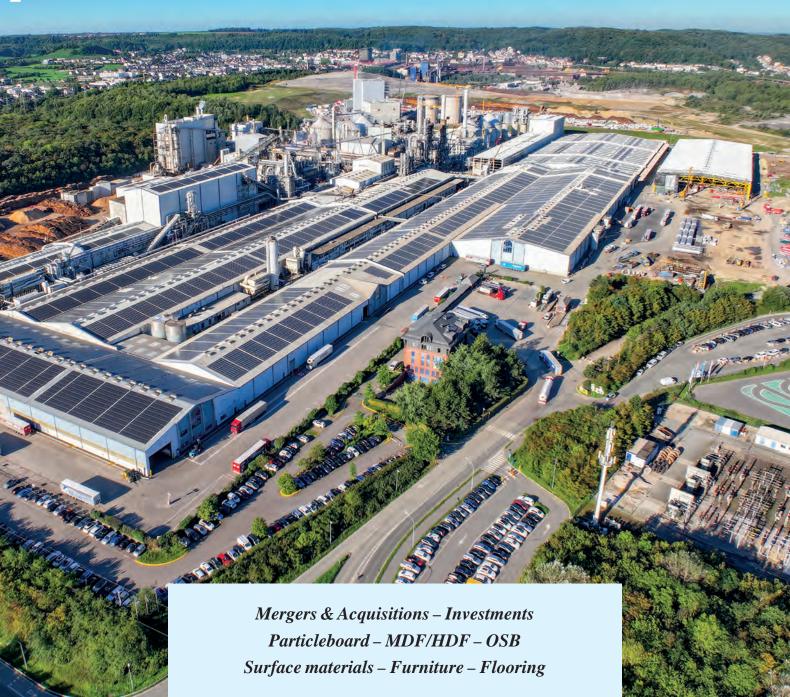
EUUID

Special: Wood-Based Panels







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It's getting cold

The period of weakness that has lasted for more than a year on wood-based panel, surface, furniture and building element markets will drag on longer than expected after all. The stabilisation that had been anticipated on several occasions has so far failed to materialise, with a reversal in fortunes still not on the horizon.

Demand for furniture and interior design products was primarily curbed by shifts in consumer spending in the second half of last year and in the first few months of 2023. Consumers had carried out more renovation projects than average during the pandemic, and projects planned for a later date had also been brought forward. Since mid-2022, end consumers have been spending more in other areas. European companies have also found that their export markets became much weaker due to similar developments in other markets. Overseas business, which has been solid for a long time, has collapsed in various product areas. Russia has completely vanished as an export market, and considerable downturns have also been booked in most European markets.

The intensifying slump in the construction industry is now overshadowing the change

in consumer behaviour. The energy crisis, inflation, and rising interest rates have significantly slowed residential construction in almost all relevant countries. Demand for building products, furniture, kitchens, doors and floor coverings will likely be affected by this trend for a long time. Manufacturers in a number of product areas, especially kitchens and doors, managed to fare better into the first half of 2023 thanks to order backlogs built up over the past two years. The slump has now spread to these areas, too. Long lead times in the construction sector mean that a recovery will likely be a longer time coming. Most companies have now written off 2023. The outlook for 2024 is also now considered rather gloomy in many cases.

This issue of EUWID Special: Wood-Based Panels, published for six years now, casts a spotlight on the related changes in volumes, costs and prices. Many examples

illustrate how companies from the affected sectors are responding to these recent challenges. Providing an overview of markets and sectors that is unparalleled on the international stage, EUWID covers developments in these areas with its weekly newsletter, EUWID Wood Products and Panels and its biannual special issue, EUWID Special: Wood-Based Panels.

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

Yours sincerely **Andreas Ruf** Publisher Machinery 6-15

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Imprint

Publisher and Editor Andreas Ruf

"EUWID Special: Wood-Based Panels" is published by EUWID Europäischer Wirtschaftsdienst GmbH

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www.euwid.de

www.euwid-holz.de (German website)

www.euwid-wood-products.com (English website)

Advertising

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Printed by

Schleunungdruck GmbH

"EUWID Special: Wood-Based Panels" is a special edition of our weekly newsletter

"EUWID Wood Products and Panels".

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Kronospan is expanding its mill in Sanem, Luxembourg, by adding a new particleboard line (top centre right), a laminating ball with three short-cycle presses (top right) and the new power plant CHP3 (top centre left). (Photo credit: Kronospan)







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Siempelkamp: orders in hand exceed €1bn



(Photo credit: EUWID)

Following the significant increase in the 2021 financial year, incoming orders and turnover of G. Siempelkamp GmbH & Co. KG slightly declined again last year. According to a statement published by the company on 10 May 2023, the group completed orders with a total volume of €779.3m. The record figure of €855.5m reached in 2021 (2020: €552.7m) was missed by €76.2m, or 8.9%. In terms of incoming orders, 2022 as a whole was nevertheless the fifth-best year in company history. Higher figures were only achieved in 2007 (€815.7m), 2008 (€798.5m), 2010 (€807.7m) and 2021. Order backlog, by contrast, continued to increase and amounted to €1.030bn at the end of 2022, exceeding the €1bn mark for the first time. The prior-year figure was exceeded by 19.2%, after a 37.0% increase in order backlog to €863.8m (630.1m) had already been recorded in 2021. Over the past two years, incoming orders improved by 41.0% and order backlog by 63.5%. In the three-year comparison, based on incoming orders to a value of €600.1m in 2019 and orderbacklog of €569.1m reported at the end of 2019, increase rates of 29.9% and 81.0% respectively ensue.

Siempelkamp group turnover amounted to €611.0m last year; total operating performance has not yet been indicated. According to the annual report for 2021, which was also published on 10 May in the Federal Gazette, Siempelkamp generated turnover of €622.6m (481.8m) in that year; total operating performance was indicated at €569.7m (519.4m). In 2019, turnover amounted to €672.4m and total operating performance to €636.7m. Over the last three years, group turnover has decreased by 9.1%. From 2020 to 2022, by contrast, it increased by 26.8%. The 2021 business report also included various results figures. The EBITDA margin amounted to 5.0% (±0%), whilst pre-tax and net profit rose to €1.7m (-21.6m) and €1.9m (-21.8m) respectively.

Raute: orders in band exceed €200m-mark

In the second quarter of 2023, major orders from Latvijas Finieris AS, based in Riga, Latvia, and Groupe Thébault, Magné, France, contributed to the value of incoming orders at Finnish Raute Oyj (Nastola) almost trebling year-on-year. At €112m (April-June 2022: 39m), the highest order value in the history of the company was achieved. Orders in hand amounted to €202m per end of June, exceeding the €200m-mark for the first time.

Total turnover decreased slightly to €29.3m (29.6m). Old contracts with customers in Russia accounted for €3.8m (1.7m). Raute has thus completed all orders agreed prior to Russia's invasion of Ukraine and now intends to permanently withdraw from this sales market as soon

as possible. The slight turnover decline is due to the 30% drop to €6.5m (9.2m) recorded in the services business division. This decline could be only partially offset by positive development in the analyzers business division (+70% to €5.5m). Turnover of the wood processing business division, at €17.3m (17.1m), remained stable at the level of the preceding year.

Development of results in the wood processing and services divisions was hampered by factors such as decreased productivity. Nevertheless, total EBITDA and comparable EBITDA (adjusted to account for extraordinary factors) were each back in the positive zone at $\{0.1\text{m} (-13.8\text{m}) \text{ and } \{0.7\text{m} (-10.9\text{m}) \text{ respectively. The operating loss was reduced to }-\{1.0\text{m} (-15.1\text{m}).$

Wemböner and Anthon deliver machinery to Huga

With the commissioning of a new shortcycle press and two cutting saws, interior door manufacturer Huga KG of Gütersloh, which has been part of Hörmann KG, based in Steinhagen, since early 2013, concluded the investment programme underway at company headquarters since the beginning of 2022. According to company information, Huga has invested a medium doubledigit million euro sum in construction of a new production building, expansion of an existing building as well as installation of the new machinery. By modernising production in the areas of laminating and cutting, Huga intends to increase capacity. At the same time, reduction of rejects and waste is to result in increased productivity and improved efficiency.

Over the course of the first half year, the company constructed a 10,000 m² production building at the 116,000 m² premises in Gütersloh, in which the new machinery has been installed since October. In parallel, an existing building was expanded by around 1,500 m². The short-cycle press supplied by Wemhöner Surface Technologies GmbH & Co. KG, in 4,500 x 2,200 mm format and with press pressure of 6.6 N/mm², achieves around 180 press cycles per hour. Assembly was carried out by SGS Industrial Services GmbH, based in Dorf an der Pram, Austria. The first board was laminated on 27 April. Following commissioning of the new press, the existing Wemhöner system, which has been in operation since 1996, is to be shut down and sold. The replacement investment will approximately double coating capacity. For production of direct-laminated "Durat" surfaces, both particleboard and MDF are used. To ensure availability of the required melamine films, Huga built an air-conditioned high-bay warehouse. Attached to new short-cycle press are two cutting and order-picking systems supplied by Anthon GmbH Maschinen- und Anlagenbau of Flensburg, which sort the laminated boards for door and door frame production. This procedure had previously taken place via panel saws. Over the course of 2020, Huga had already doubled its production capacities for lacquered surfaces.

Dieffenbacher supplies system for palm MDF

In April 2023, Egypt's National Service Projects Organization (NSPO), Cairo, commenced construction of the world's first plant for MDF/HDF production from date palm fronds in the Toshka region. Commissioning of the system, which is designed for an annual capacity of 125,000 m³, is planned for autumn 2025. Raw material supply is to be secured via an adjacent date palm plantation covering a total area of 40,000 acres (equivalent to around 16,000 ha). The MDF/HDF produced is to be sold to the furniture and flooring industries, as well as other sectors.

The project has been developed by Weser Industrie- und Anlagentechnik GmbH, based in Leer, together with its Egyptian partner MT Mixers of Cairo, and has been underway since 2018. As the project is set up as a joint venture arrangement, both companies

are acting as general contractor for the turnkey plant. According to a statement published by Weser in early July, NSPO had placed the order for the entire system with Dieffenbacher GmbH Maschinen- und Anlagenbau as early as January 2022. It includes all key components from the chipper line to raw board handling.

The chipper line is supplied by Dieffenbacher subsidiary B. Maier Zerkleinerungstechnik GmbH. It includes a drum chipper with an extra-large infeed cross-section specially designed for high-volume material, a feeding belt conveyor, a vibration dosing table and a rechipper. In addition to chip cleaning, Dieffenbacher is also to supply the refiner. The 29 MW energy system is to be supplied by Dieffenbacher Energy GmbH, a company newly founded last November, and which took

over assets and activities of Austrian power plant manufacturer Bertsch Energy GmbH & Co. KG of Bludenz, Vorarlberg, at the beginning of this year. Also included in the Dieffenbacher delivery are the dryer and sifter, glue preparation and dosing, forming line and forming station as well as a CPS+ continuous press with a press emission control system. The order furthermore consists of raw board transport, a sanding line, strapping line and pneumatic systems. Additionally, Dieffenbacher will be responsible for automation and electrics for the entire systems.

According to Weser, a treater has been ordered from Vits Technology GmbH and a short-cycle press from Wemhöner Surface Technology GmbH & Co. KG. Delivery of machinery and equipment is apparently to be handled by Leer-based logistics company EMS-Fehn-Group.

AMF-Bruns delivers to Egger and Swiss Krono

During the course of the second quarter 2023, the plant and machine manufacturer specialised in conveyor systems AMF-Bruns GmbH & Co. KG of Apen, largely completed the installation work at Egger Holzwerkstoffe GmbH of St. Johann, Austria, and at the works in Sully-sur-Loire, France, belonging to Swiss Krono Group.

A new woodchip conveyor system has been built at Egger. This system features two LGF 800 airglide conveyors with lengths of up to 145 m. The systems are part of the ongoing extension of the recycled-wood preparation plant in St. Johann. At the Swiss Krono site, AMF-Bruns is involved in extending and refitting the OSB plant. The order includes drag-chain conveyors, airglide conveyors, and two wet-particle bunkers. The newly developed movable conveyor system is used in the bunkers of 475 m³ each instead of the previously usual brush-back system. AMF Bruns says this system enables handling of major capacities. Conversely, power input and damage to the strands can be reduced.

Biele Group plans to generate turnover of €90m

Spanish machine and industrial equipment manufacturer Biele S.A. of Azpeitia is anticipating turnover of around €90m for the 2023 financial year. Of this figure, 95% is to be generated via exports. Biele is primarily active in the wood/wood-based panels, building components, metal and automotive sectors. Within the wood/wood-based panels sector, in recent years the company has mainly implemented projects involving production of light-weight panels, laminates, furniture, doors and flooring.

Led by CEO Txomin Andonegi, Biele currently employs around 350 persons across five sites in Spain (Azpeitia, Donostia, Navarrete-La Rijoa), the USA (Atlanta, Georgia) and China (Kunshan, Jiangsu Province). The Navarette site ensues from the takeover of press manufacturer Marrodán y Rezola S.A.U. (Marzola), completed in 2009. Last year, the company also established its new Biele Digital business division in Donostia. At company head-quarters in Azpeitia-Urrestilla, Biele plans to construct a new 4,000 m² production building over the coming months.

Sunds Fibertech adds PressBooster to OSB line

In the course of the second guarter 2023, Sunds Fibertech AB of Timrå, Sweden, installed a "PressBooster" preheating system in the OSB plant of Swiss Krono S.A.S. in Sully-sur-Loire, France. The startup took place in July. With the interaction of several measures, one of which is the steam-injection system, the OSB plant's annual capacity is to be enlarged from the 400,000 m³ to approximately 550,000 m³. Sunds Fibertech had already supplied a PressBooster to Kronospan Luxembourg S.A. of Sanem in mid-2022. This plant was installed at the infeed of the continuous press for OSB production put into operation in November 2018. A PressBooster was also installed at the particleboard manufacturer CF2P S.A.S. of Lure, France in 2021. Sunds Fibertech is currently negotiating further PressBooster orders with other European wood-based panel manufacturers. These are expected to be concluded over the next few months. A project in the MDF/HDF segment is relatively concrete. One company had already placed an order in the first half-year for a steam-injection system for an MDF/HDF plant at a location outside Europe.

Homag: gradual decline of order backlog

As a consequence of the decline in incoming orders observed since spring 2022, order backlog of Homag Group AG per end of June 2023 declined for the fourth consecutive time. Due to the fact that business development had still been exceptionally strong in the first half of 2022, order backlog had risen to a record level of €1.270bn at the end of the second quarter of 2022. Processing of these orders led initially to only a slight reduction of order backlog to €1.256bn at the end of September. At the end of the year, order backlog amounted to €1.102bn and to €1.036bn at the end of March. Per end of June. at €930.4m. order backlog fell short of the €1bn mark for the first time; compared to the preceding year it dropped by 26.7%.

Due to global reluctance to invest across all relevant sales segments, incoming orders also remain significantly below the unusually high preceding year's figures. In the second quarter, incoming orders fell by 30.2% to €318.8m (April-June 2022: 457.0m). A further decline was also recorded vis à vis the first quarter, which had been concluded with a year-on-year decrease of 38.5% to €352.6m.

Turnover, by contrast, still remains at a relatively high level. In the second quarter, turnover of the Homag Group amounted to €412.9m (414.7m) and was thus only 0.4% short of the high preceding year's figure. Compared to the first quarter (€403.8m), a 2.3% increase was achieved. The current figure represents the company's third-highest quarterly turnover, in the third quarter of 2022 turnover had also been slightly higher at €413.4m. The results situation, on the other hand, has stabilised despite weaker development of service business and one-off costs in connection with Ligna. Homag attributes the decline in service business with increasingly significant production adjustments in various customer industries which led, for example, to a decline in business with spare parts. Total EBIT of the Homag Group in the second quarter amounted to €27.8m (27.8m), declining by only 0.2% year-on-year; the margin thus remained unchanged at 6.7% (6.7%). Prior to special effects, quarterly EBIT declined by 6.4% to €29.7m (31.7m), resulting in a margin of 7.2% (7.7%). In the first quarter, Homag Group had achieved an adjusted margin of 6.7%.

Accumulated over the first half of the year, incoming orders declined by 34.9% to €671.4m (Jan.-June 2022: 1.031bn), whilst turnover still increased slightly by 4.5% to €816.7m (781.5m). Half-year EBIT also improved by 4.8% to €53.0m (50.6m), the margin thus remained unchanged at 6.5% (6.5%). EBIT prior to special effects declined by 3.1% to €56.8m (58.6m), the adjusted margin thus amounted to 6.9% (7.5%). The improvement in margin achieved from the first to the second quarter is expected to continue in the second half of the year. For the year as a whole the Homag Group, which forms the woodworking machinery and systems division of Dürr AG, is targeting an adjusted margin of 8.0%-9.5%. Incoming orders are to be in a range of €1.450-1.600bn and turnover in a range of €1.600-1.700bn. If these target, which were already formulated at the beginning of the year, are to be met, incoming orders must increase at more significant rates again in the third and fourth quarters. Regarding turnover, on the other hand, only a slight improvement is necessary in the second half of the year. In 2022, the Homag Group recorded incoming orders to the amount of €1.706bn and turnover of €1.602bn, the adjusted EBIT margin amounted to 7.8%.

Homag to acquire 26% stake in granIT

Homag Group AG intends to further expand its product range for the timber construction sector by acquiring a stake in granIT GmbH of Reutlingen, a software manufacturer specialising in production control systems for prefabricated housing production. granIT was established in 1995 through the spin-off of the SchwörerComputer division from SchwörerHaus KG, based in Hohenstein-Oberstetten. SchwörerHaus currently holds 76% of the shares in the software manufacturer. The remaining 24% is held by granIT managing director Wolfgang Bock, who succeeded founder Gert Seeger in 2013. Both shareholders will transfer shares to Homag Group, which will then hold a 26% stake. According to a statement issued by Homag Group on 26 May, software programs of granIT have already been in use for several years by Weinmann Holzbausystemtechnik GmbH of St. Johann-Lonsingen, which together with the majority shareholdings in Danish machinery manufacturers System TM A/S, based in Odder, and Kallesoe Machinery A/S, based in Lem, concluded in October 2020 and April 2021 respectively forms the construction elements solutions division launched by Homag on 1 April 2021. In timber construction, control systems are especially prized by industrial manufacturers, who are increasingly expanding their activities, for example, in the direction of multi-storev timber construction and modular construction. Its shareholding in granIT will grant Homag Group direct access to such programs in future. Since September 2019, granIT has been involved in the cloud-based internet of things (IoT) platform Tapio.

IMA Schelling: acquisitions in Italy and Poland

On 1 July 2023, IMA Schelling Group GmbH acquired two companies geared towards automation technology, Carmet Automazioni s.r.l., based in Olmi near Treviso, Northern Italy, and Blumenbecker Engineering System Technology Sp.zo.o. of Katowice, Poland. Carmet is to be continued under the current name with around 30 employees. The product portfolio includes handling/packaging systems and automation solutions as well as multi-blade saws. Blumenbecker Engineering System Technology, a former business unit of Blumenbecker GmbH & Co. KG, headquartered in Beckum, with around 60 employees, is to be renamed IMA Schelling Polska Automation and subsequently also to be continued as an independent company within the IMA Schelling Group.

Biesse: turnover stable, incoming orders down

In the first half of 2023, the value of incoming orders of Italian machine and industrial equipment manufacturer Biesse S.p.A. declined by 13.6% to €342m (Jan.-June 2022: 396m). Of this figure, €163m (-25.1%) was attributable to the first guarter and €179m (-0.6%) to the second. The level of orders in hand per end of June amounted to €314.9m, compared to €384.7m at the end of 2022 and €340.6m at the end of March. Turnover, by contrast, was only slightly lower than in the preceding year at €418.2m (419.1m). A similar amount of turnover was generated in both individual quarters. On a year-on-year basis, however, the two quarters developed along contrasting lines. Following a 6.6% increase to €209.5m in the first quarter, turnover in the second quarter decreased by 6.2% year-on-year to €208.7m. Total operating performance declined by 10.8% to €411.2m (461.1m) over the entire first half of the year, as the company had produced more in advance last year due to the still very good business situation at that time.

Weinig acquires 50% of shares in Essetre

Michael Weinig AG has acquired 50% of the shares in Italian machine and industrial equipment manufacturer Essetre S.r.l., based in Thiene, Vicenza. As announced by both companies on 17 July 2023, Essetre president and founder Giovanno Sella, along with other members of the Sella family, will remain responsible for operational management.

The shareholding in Essetre facilitates the expansion of Weinig's machine portfolio to include the as yet untapped formatting sector of wood construction products. With its Techno series, Essetre offers various 5- and 6-axis CNC machining centres for beam- and panel-shaped timber construction products such as FJC, gluelam and CLT. In return, Essetre will be able to take advantage of Weinig's global sales and service network in future.

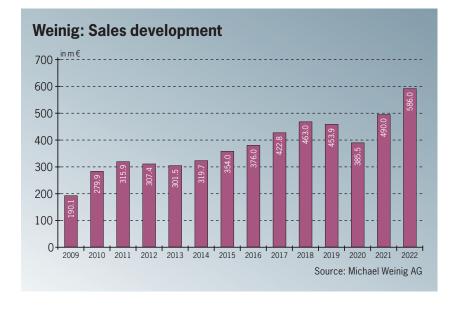
Weinig concludes 2022 with record turnover

In the 2022 financial year, Michael Weinig AG generated turnover of around €586m (2021: 490m). Compared to the preceding year, this represents an increase of 19.6%. In 2021, a considerably higher increase rate of 27% had been recorded due to a base effect. In 2019 and 2020, the company had reported turnover declines, mainly as a result of the corona pandemic. Weinig has not yet indicated any specific figures on EBIT, however according to CEO Gregor Baumbusch, the prior-year result of €26.0m has been clearly exceeded. Incoming orders rose only slightly in the past financial year by 2.1% to €597m (585m), but nevertheless also remained at a very high level. A more significant increase was prevented by the still long delivery times.

Implementation of the 2022-2027 investment programme presented by Weinig in June last year and consisting of a total volume of around €120m, has so far proceeded as planned by the group, despite certain problems in the construction sector. Conversion of buildings at company headguarters, expected to cost around €70m, commenced in December 2022 when the first building was demolished. Plans are to demolish a further four buildings (halls 2. 3, 4 and 7) as well as other constructions in Tauberbischofsheim to make space for a logistics centre covering a total area of 9,000 m² as well as a new exhibition and administration building covering 2,250 m².

Within the scope of these measures, the company's internal logistics arrangements are also to be modernised and adapted to suit future requirements. In recent years, project business has grown considerably. Customers are increasingly demanding end-to-end solutions. Acquisition of H.I.T. Maschinenbau GmbH & Co. KG and H.I.T. Keilzinkentechnik GmbH & Co. KG. both Ettringen, thus also took place with the aim of strengthening project business as well as the area of automation. The H.I.T. product portfolio in the area of sawmill technology and sawmill mechanisation is also to be continued, however. In the area of finger-iointing technology, there are currently in-company investigations concerning potential overlaps with Weinig

At Weinig subsidiary Holz-Her Maschinenbau GmbH, based in Voitsberg, where construction of a 1,700 m² assembly building was concluded in December 2022, the second expansion step begun in early June as planned. In the final expansion stage, available assembly space at the site will increase by around 60%. The second stage principally involves construction of a new warehouse with a usable area of 3,000 m³, implementation of a new logistics concept as well as modernisation of office infrastructure. Installation of a fully automated laser cutting system was already concluded at the beginning of May, the system has meanwhile been commissioned.



FY2022 concluded with total of eleven confirmed orders to customers worldwide

With a new order from Sudama, Andritz has sold a total of nine refiners to India

During the first quarter of 2023, Indian wood-based panels manufacturer Sudama Wood Panel Pvt. Ltd. placed an order with Andritz AG for a pressurised refining system with a 54-1CP type refiner for the planned MDF plant at the site in Udhamsingh Nagar, Uttarakhand.

The system, designed to process hardwood with an hourly output of around 25 t, is scheduled for commissioning in the first quarter of 2024. Sudama Wood Panel had announced the MDF project in mid-2022. According to information available at that time, the plant is to have an annual capacity of just under 200,000 m³.

With this new order, Andritz has now sold a total of nine refiners to India. The first two orders were received back in 2006. Bajaj Eco- Tec Products Ltd. had installed the 54-1CP type refiners in two MDF plants geared towards processing bagasse at the Palia Kalan and Kundarkhi sites in the state of Uttarpradesh.

Commissioning had followed in the first quarter of 2008.

In 2016, West Bengal-based Century Plyboards Ltd. (Centuryply), Kolkata, had placed its first order for a 54-1CP type refiner. The company subsequently ordered two more refiners, a 49-1CP type in 2021 and a 60-1CP in 2022. The first two refiners were installed at the site in Hoshiarpur, Punjab. The third is planned for the new site in Kadapa, Andra Pradesh. In the last two years, Andritz has also received one order each from Greenply Industries Ltd., Greenpanel Industries Ltd. (both Tinsukia, Assam) and Metro Decorative Pvt. Ltd. (Kala Amb, Himachal Pradesh). All three projects utilised an S1056 M type refiner. The second refiner installed at the Hoshiarpur site of Centuryply and the refiner supplied to Greenply's MDF plant in Vadodara, Gujarat, have been started up during the third quarter of 2023.

The considerably higher volume of incoming orders from India has partially offset

persistently declining business with refiners in China. Projects in North America and Southeast Asia have also increased in significance. Furthermore, Andritz has received an increasing number of orders from the insulating board industry. This redirection of focus enabled Andritz to sell a total of 13 pressurised refining systems in 2022. However, two orders from Russia could not be delivered due to the EU sanctions in force since the second quarter of 2022.

Concerning the other eleven orders, three came from India and three from the USA. Two of the refiners that went to the USA were ordered by Texas-based door manufacturer Steves & Sons Inc. (Steves), San Antonio, for a new door skin factory. The third refiner was installed at insulating board manufacturer GO LAB LLC, based in Belfast, Maine. The remaining five refiners will go to MDF/HDF manufacturers Shandong Canfield Wood Industry Co. Ltd. (Liaocheng, Shandong Province, China), Kim Tin Group (Ho Chi Minh City, Vietnam), PFB Private Ltd. (Karachi, Pakistan) and Wisewoods Co. Ltd. (Phetchaburi, Thailand) as well as to the Pavatex insulating board plant of Soprema S.A. (Strasbourg, France).

Orders received last year were for five S1056 M type refiners, four 44-1CP types, one 54-1CP and one 60-1CP. The largest refiner, an S2064 M, will be utilised in Kim Tin's project at the site in Dau Giay, Dong Nai Province. In the first five months of the current year, Andritz has already concluded six additional orders, including the refiner for Sudama Wood Panel. US-based Roseburg Forest Products Inc. (Roseburg, Oregon) ordered an S2064 M refiner for its MDF/ HDF project in Dillard, Oregon. Brazilian Sudati Painéis S.A. (Otacílio Costa, Santa Catarina) will receive a 60-1CP type refiner. The other three orders came from France, Egypt and Canada.



Greenply placed an order for an Andritz refiner at the end of 2021.

(Photo credit: Andritz)

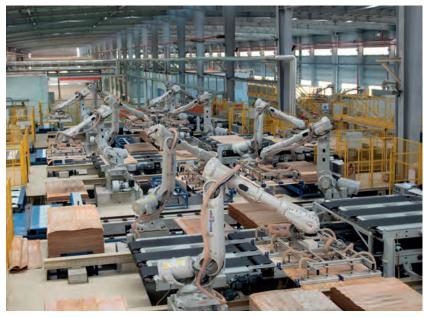
Regular production underway at Guangxi Forestry Group for more than a year

Continuous presses now used to make plywood for the first time

Over the past two years, Chongzuo Guanglin New Material Technology Co. Ltd, which is part of the Guangxi Forestry Group and headquartered in Nanning, has installed and commissioned a plywood line with a continuous press at its site in Chongzuo in the Southern Chinese Province of Guangxi.

Technology orders were wrapped up in December 2020. The main supplier was Dieffenbacher GmbH Maschinen- und Anlagenbau. The front end was brought to fruition in a partnership with Dieffenbacher Maschinenfabrik GmbH, headquartered in Zaisenhausen. The press was a 4 ft wide and 48 m long ContiPlus from Dieffenbacher's majority shareholding Shanghai Wood-Based Panel Machinery Co. Ltd (SWPM). Shanghai Mingke Process Systems Co. Ltd. supplied the steel belts. New concepts were rolled out in various areas of the production line, involving other machine manufacturers from Europe and China. The technology was delivered starting in mid-2021, with assembly completed by spring 2022. The first piece of plywood was produced on 1 June.

The commissioning of the plywood line marked the first time that the range of application for continuous presses was extended to include plywood. Dieffenbacher feels that there is potential for more projects in this area, mainly in China. Up to now, plywood has been produced almost exclusively using multi-daylight lines. Modern presses usually have 40-50 openings, which press plywood panels in a size of 4x8 ft or 5x10 ft in cycles, reaching annual capacities of 100,000-200,000 m³. According to Dieffenbacher, the production line at Chongzuo Guanglin New Material Technology has a designed annual capacity of around 150,000 m³. The Chinese company intends to increase its output to 200,000 m³ in the medium term by further optimising the line. Along with making plywood, the line also produ-



Full automatic veneer laying in front of the continous press

(Photo credit: Dieffenbacher)

ces laminated veneer lumber (LVL) from time to time. Individual 4 x 8 ft pieces of plywood are first pressed in the continuous line and then run through the press in a butt joint. Its ultimate aim is to produce a continuous strand of panels that can be sized in variable lengths downstream of the press (Conti-Plywood).

Continuous double-belt presses have been used to manufacture particleboard and MDF/HDF since the 1980s. This technology gained a foothold relatively quickly in these two product groups. New single or multi-daylight lines have only been built in isolated cases since the 1990s. Old single or multi-daylight lines have been replaced by continuous lines in most regions, with a few exceptions. North America alone still has a large number of multi-opening lines making particleboard and MDF. Single-daylight lines are still in use in China's MDF sector, but they are gradually vanishing as a result of stoppages or replacement projects. The first OSB lines featuring continuous presses were completed in the second half of the

1990s. Just a few OSB lines with single or multi-daylight presses are still in operation in Europe. They have been relocated to Eastern Europe or Turkey as second-hand technology. The Asia-Pacific region only used continuous presses to produce OSB from the outset. In North America, though, both options still run in parallel, with both large-format multi-daylight presses and continuous lines being installed in new projects. The use of multi-daylight presses is still justified there because production is mainly geared towards standard boards with little variation in size and the screen printing needed for ceiling panels. South America's relatively low OSB capacity is shared among older multi-opening presses relocated from North America to Chile and a continuous line in Brazil. Several LVL production lines with continuous presses had been installed in the US. Canada and Japan back in the 1990s and 2000s, but just a few projects have been completed since. European LVL locations mainly use multi-daylight presses, with just continuous lines in operation in Germany and Russia.

More projects to come from the energy sector and WBP and paper industry

Voestalpine places power plant order with Dieffenbacher Energy

Dieffenbacher Energy GmbH, a new company established at the start of 2023 and headquartered in Bludenz, Austria, has landed its first major order from the Austrian steel manufacturer Voestalpine Stahl GmbH.

Founded after Dieffenbacher acquired the company formerly known as Bertsch Energy GmbH & Co. KG, the firm will deliver the new power plant unit "Block 08" to Voestalpine's headquarters in Linz, according to a press release issued in early August 2023. This unit will convert smelter gases generated during steel production into electricity, district heat and process steam for Voestalpine to use inhouse. The order placed with Dieffenbacher Energy after a selection process involving several bidders includes a natural circulation boiler and auxiliary equipment, a combustion air and flue gas recirculation system, flue gas ducts and the flue gas cleaning and the exhaust stack, as well as the boiler house steel structure, operating platforms, feedwater system, electrical equipment and the instrumentation and control system. Assembly work is slated to begin in autumn 2024, with test operations set to happen in May 2026.

The new power plant will be built inside an existing power plant complex where, according to Voestalpine's environmental report, five power plants have operated to date. The company made its last major investment in this area in the 2009/2019 financial year when it commissioned "Block 07". With a designed capacity of 164 MW, Block 07 doubled the total power plant capacity in Linz to more than 300 MW, meaning that the group's power plants could already provide around 90% of the electricity needed. The existing power plants mainly use smelter gas as a fuel and can also process natural gas and light oil as a backup.

The contract that Voestalpine awarded at the end of the second quarter is the first that Dieffenbacher Energy has landed without the involvement of the firm formerly known as Bertsch Energy. Until now, the company has focused its operations on projects involving orders originally placed

with Bertsch Energy. These projects are now moving forward under new contracts with Dieffenbacher Energy. One case in point is a new residue incineration plant for the paper manufacturer Schoellershammer GmbH, based in Düren, Germany, which will convert plastic, sludge and non-recyclable fibres from recovered paper processing into process steam. Bertsch Energy had landed the contract to provide this technology in early 2021. Dieffenbacher Energy is now undertaking the project, with assembly work currently in progress. The paper industry as a whole is also a target for Dieffenbacher Energy. The company intends to focus its energy portfolio on biomass and gas-fired power plants. Dieffenbacher Energy already works on both partial and complete lines in these areas. It also aims to secure more orders from companies in the wood-based panel industry in partnership with Dieffenbacher GmbH Maschinen- und Anlagenbau, headquartered in Eppingen, Germany. One current project entails the delivery of a 29 MW energy plant with a grate firing system to the Egyptian firm National Service Projects Organization (NSPO), based in Cairo, which wants to build an MDF/HDF mill specialising in processing date palm fronds by autumn 2025.

Dieffenbacher Energy currently employs about 165 people under the leadership of Managing Director Wolfgang Lashofer, who was appointed in early March 2023. Some 125 employees work at the Bludenz headquarters, another 15 in Eppingen, and about 20 in a branch in Poland that focuses on engineering and design. The firm also has an office in Vienna that employs four workers. Dieffenbacher Energy currently has around 10-15 new positions advertised to cater to this growing number of orders. The company does not have its own manufacturing site. Bertsch Energy ceased its remaining production activities in March 2022 as part of restructuring work underway since 2020.



Voestalpine's steel plant at the main site Linz

(Photo credit: Voestalpine)



Over the next five years, sales revenue is to be boosted to roughly SEK1bn or €90m

Sunds Fibertech aims for further growth after majority sale to investor Priveq

By concluding an agreement for the acquisition of a 60% share by the Swedish private-equity investor Priveq of Stockholm at the end of March 2023, the Swedish plant and machine manufacturer Sunds Fibertech AB of Timrå intends to pave the way for further growth.

Over the next five years, sales revenue is to be boosted to roughly SEK1bn or €90m by expanding the worldwide sales organisation, further developing the plant concepts already established on the market, and by extending the range of products through specific acquisitions. Initial talks concerning potential acquisitions are already underway; one area here could be effluent treatment in the fibreboard industry.

Last year, the company, established at the beginning of 2016, generated sales revenue of SEK233m (2021: SEK146m) or almost €21m along with EBITA of SEK36.6m (SEK22.3m), which equates another improvement of 15.7% (15.3%)

in the EBITA margin against a year earlier. As such, the sales revenue was 59.6% higher than the year before; EBITA was even increased by 64.1%. At +40% to roughly SEK275m, the growth in receipts of orders was not quite as pronounced.

The search for an investor was launched in summer 2022. The former sole proprietors Lars and Kenth Eklund had spoken with several potential investors in autumn. Priveq was then selected for final negotiations in December. The contract was signed at the end of February, followed by the closure of the deal on 26 March. The majority share acquired by Priveq is held through the Priveq Investment VI fund established in 2020 and endowed with SEK2.5bn.

The bulk of the remaining 40% is held by Lars and Kenth Eklund. In addition, almost all of the current 60 or so employees have been given a stake in the company. Priveq's involvement does not entail any change in the management. Lars Eklund is CEO, and Kenth Eklund president; Lena Sandberg holds the CFO position. The reshuffled board of directors comprises Lars and Kenth Eklund, Thomas Engzell, and the Priveq representatives Karl-Johan Willén and Henrik Jatko.

Behind Priveq are several pension funds from Scandinavia, such as Skandia Liv and Fjärde AP-fonden, as well as some from other European countries. The current portfolio covers almost 17 companies from various segments, all of which combined generate a sales volume of approximately SEK5.7bn or almost €500m with roughly 2,400 employees.

Sunds Fibertech was formed at the beginning of 2016 as a result of the divestment of Sunds MDF Technologies AB, based in Sundsvall, from Dieffenbacher GmbH Maschinen- und Anlagenbau. The company operates as technology developer and engineering consultant. Production takes place at contract manufacturers in Sweden as well as the rest of Europe, North America and China. In addition, spare parts for continuous presses are manufactured at the company's site in Willich.

Sunds Fibertech's own product range is primarily focused on fiberline in MDF/HDF and fibreboard plants. Sunds Fibertech supplies systems for steam recovery (EVOfuge), adhesion (SundsResin), fibre drying (SundsDryer), emission control (AirCleanMAX), sifting (SundsZifter) and more. Regarding downstream forming and press lines, the company offers forming stations (Pendistor) and steamheated mat pre-heaters (PressBooster). The Sunds Fibertech product range furthermore includes conversion and modernisation projects for fibre dryers as well as the multi-daylight presses still used in the North American MDF industry and for hardboard, for example.



Priveq acquired a 60% shareholding in Sunds Fibretech.

(Photo credit: Priveq)

Turnover is to be increased to new record level of €135m in the current financial year

SGS completed relocation of short-cycle press to Meister Werke within two months

SGS Industrial Services GmbH relocated a short-cycle press, that Wemhöner Surface Technologies GmbH & Co. KG originally supplied to Windmöller GmbH in Augustdorf, to MeisterWerke Schulte GmbH in Rüthen-Meiste, during the first quarter of 2023.

The project had been brought forward by several months, as relocation was originally supposed to start in the middle of the year. SGS had landed the contract to perform this work just before Christmas. The press was dismantled at the Windmöller site starting in mid-January. Dismantled components had to be transported to the MeisterWerke site in Meiste, about 60 km away, at short notice because of limited storage space. The press, which weighed around 320 t. was subsequently reassembled in several stages in a hall at the Meiste plant that had recently been used primarily for storage. Mechanical and electrical installation work was completed by mid-April. Thermal oil supply to the press was connected to an existing boiler. The press was then put back into operation by the end of the second quarter.

SGS has repeatedly relocated shortcycle presses to other sites in addition to installing new units over the past few years. At MeisterWerke, the company dismantled two presses dating from the 1990s that were supplied by Siempelkamp Maschinen- und Anlagenbau GmbH. This technology was subsequently transferred to the South African wood-based panel manufacturer PG Bison Ltd, headquartered in Johannesburg. The first unit that was moved to South Africa started operations in the spring of 2017; and the second followed in August 2019. During the second half of 2022, SGS reassembled a Wemhöner press that Sonae Arauco Deutschland GmbH, based in Meppen, dismantled at the beginning of 2020 at the former Eiweiler MDF/HDF



Reconstruction of the short-cycle press in Rüthen-Meiste.

(Photo credit: SGS)

and laminate flooring mill. This technology was temporarily stored at the Horn-Bad Meinberg site before reassembly at the Nettgau particleboard mill. The first panel was laminated at the end of November 2022. SGS has already handled several relocation projects for the Panels division of the Belgian company Unilin byba, headquartered in Wielsbeke. SGS has also dismantled several short-cycle presses of Akzenta Paneele+Profile GmbH, based in Kaisersesch, Germany, and rebuilt them after their sale at the premises of their new owners in Eastern Europe, Turkey and the Middle East. Another short-cycle press was relocated from Kaisersesch to the Baruth mill doing business as Classen Industries GmbH.

In the current financial year, SGS Industrial Services GmbH is aiming for turnover of around €135m, despite the economic downturn in several industries that have been important in the past. This €135m turnover goal would also exceed the approximately €130m reached in 2017. In both 2019 and 2021, SGS Industrial

Services had generated turnover of around €120m.

The current forecast is based on a record level of orders in hand, which is to ensure capacities are fully utilised until next year. Over the course of recent years, the company's main areas of activity have increasingly shifted to new fields. At the time of the company's founding in 2003, SGS Industrial Services was mainly active in the wood and wood-based panels industries. Recently, the number of projects within these industries has tended to decline. On the other hand, the company has been able to secure numerous new projects in power plant construction, the cement industry and the logistics sector. SGS Industrial Services is currently building several power plants in Poland, Belgium, Great Britain and South Africa and is also involved in two airport projects in Texas. In the wood-based panels sector, SGS Industrial Services is currently involved in, for example, the green energy project of Swiss Krono Group in Sully-sur-Loire, France.

Rethink. Recalculate. Reform.



Rethink. Our low-emission products for a sustainable future offer the wood working industry "best-in-class" solutions on the way to climate neutrality.

Recalculate. We calculate the CO₂ footprint of your purchasing portfolio at BASF and help you to determine the CO₂ saving potential of your products.

Reform. With our unique solutions, we support you as a reliable partner on your way to a sustainable future.



More information: basf.com/glues_resins





ECHA launches consultation on PFAS ban

The ban on per- and polyfluoroalkyl substances (PFAS) planned by the European Chemical Agency (ECHA) will result in limitations for various sub-sectors of the wood, wood-based panel and furniture industries, too, in the view of affected companies and associations.

According to a definition updated by the Organisation for Economic Co-operation and Development (OECD) in 2021, PFASs include all substances that contain at least one fluorinated methyl or methylene carbon atom. The longevity of PFAS is considered particularly problematic, which can also lead to groundwater, surface water and drinking water contamination. Some types of PFAS are suspected of being carcinogenic. PFAS are also used in areas of application with extreme conditions, such as high temperatures, strong abrasion or chemical stress, because of their durability.

As a result, PFAS are found in seals, hoses, fittings, pumps and valves installed in woodworking machines. With this in mind, the Woodworking Machinery Association of the German Engineering Federation (VDMA), based in Frankfurt, opposed a complete ban on PFAS in comments made in late May 2023.

The PFAS ban planned by ECHA as part of the REACH regulation stems from a proposal submitted by five national authorities in July 2020. Germany was represented by the Federal Institute for Occupational Safety and Health (BAuA) in Dortmund. The proposal was submitted to ECHA on 13 January 2023 and published on 7 February. A six-month consultation has been running since 22 March and has welcomed comments from affected companies, among others. A scientific evaluation by ECHA's Committees for Risk Assessment (RAC) and Socio-Economic Analysis (SEAC) is taking place in parallel. The ECHA Member States Committee (MSC) will make proposals on a possible restriction of PFAS during the year 2024. A decision is expected in the course of 2025, with a possible ban coming into force after a transition period running until 2026/2027.

TPCs set to bandle NAF and ULEF exemptions

The California Air Resources Board (CARB), based in Sacramento, California, is longer processing exemptions for no-added-formaldehyde (NAF) and ultra-low-emitting-formaldehyde (ULEF) wood-based panels since 14 July 2023. These exemptions exempt manufacturers of NAF and ULEF panels from individual requirements of the Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products (ATCM), which has been in force since 1 January 2009. Among other things, external monitoring by CARB-approved third-party certifiers (TPC) can be waived. Title VI of the Environmental Protection Agency's Toxic Substances Control Act (TSCA), which has been in force since 1 June 2018, now has similar rules.

In a notice issued in early June, the California Air Resources Board indicated that there had been significant delays recently due to the high number of applications for the reissuance or extension of two-year NAF or ULEF exemptions. California law does allow for an extension of the 90-day processing time for NAF or ULEF applications. However, new EPA rules stipulate that the extension must be completed

within two years of a previously granted NAF or ULEF exemption. The CARB therefore only processed applications received before 14 July. From that date on, NAF and ULEF applications must be submitted to a TPC certified by the Board or the EPA. The CARB and EPA have certified about 50 testing institutes worldwide as TPCs in recent years. Some of these certificates have since expired; others have been revoked by the CARB or EPA. This means that 33 TPCs worldwide can carry out third-party monitoring in accordance with the CARB or EPA regulations.

Background

Updated overview of the CARB regulations



https://www.euwid-holz.de/232203/

The CARB says it has so far issued NAF or ULEF exemptions to around 600 woodbased panel manufacturers worldwide. In total, the list of wood-based panel manufacturers registered with CARB that either produce in accordance with CARB Phase 2 or are exempt from third-party monitoring via NAF/ULEF regulations now comprises just over 1,500 companies.

OCI melamine sales continue to rise



(Photo credit: OCI Nitrogen)

Ever since the slump recorded in the second half of 2022, melamine sales of OCI Nitrogen B.V., based in Geleen, Netherlands, have remained significantly below the respective prior-year figures in each individual quarter. Quarter-on-quarter, however, sales volumes are meanwhile gradually increasing. In the first two quarters of 2022, OCI Nitrogen had sold 31,000 t and 30,100 t,

respectively. After selling 15,400 t in the third quarter, a low point was then reached in the fourth quarter at just 7,300 t. The volume of 10,100 t reported for the first quarter of 2023 corresponded to a 37% increase again, though it still constituted a 67% decline year-on-year.

This contrary trend continued in the second quarter when, at 17,700 t, there was a quarter-on-quarter increase of 75% and a year-on-year decline of 41%. Accumulated over the first half-year, melamine sales of OCI Nitrogen were thus down 55% compared to the corresponding period in the preceding year to 27,800 t (Jan.-June 2022: 61,100 t). Compared to the 22,700 t sold in the previous second half-year, however, an increase of 22% was achieved.

Chemours stops production in Taiwan

US chemical group Chemours Co., based in Wilmington, Delaware, concentrated its titanium dioxide production at the two US sites in DeLisle, Mississippi, and New Johnsonville. Tennessee, as well as at the Mexican plant in Altamira, Tamaulipas, which underwent expansion measures in 2016. In turn, production at the Taiwanese plant in Kuan Yin, operating since 1994, was shut down on 1 August 2023. The Kuan Yin plant, situated around 50 km southwest of Taipei, is Chemours' smallest titanium dioxide plant. With the four plants, the company has a total annual capacity of approximately 1.250m t. Chemours does not disclose the individual capacities of the individual plants. According to estimates from the titanium dioxide industry, the Kuan Yin plant can produce around 170,000 t. The other three plants are each more than twice as large. To date, the Kuan Yin plant has primarily supplied customers in Taiwan, China and other Asian countries. Due to the closure, these customers will now be supplied by the North American plants. Chemours intends to create additional capacity at these plants by implementing debottlenecking measures.

In conjunction with expansion of the Altamira plant, where annual capacities had been increased by approximately 200,000 t upon the commissioning of an additional production line in May 2016, Chemours had also adjusted production at other sites. The plant in Edgewood, Delaware, which is near Wilmington and, at that time, was Chemours' oldest plant, had been shut down in September 2015. In parallel, the company had shut down one of the two production lines at the New Johnsonville plant. These two disinvestments resulted in the elimination of around 150,000 t of capacities.

In the presentation concerning quarterly figures, Mark Newman, CEO of Chemours since July 2021, justified the decision to shut down the Taiwanese plant, referring to higher production costs there compared to other locations. These higher costs ensue primarily from the higher-grade rutile ore utilised in Kuan Yin. Declining demand for titanium dioxide from the Chinese market over the past two years also played a role. \square

BASF ceased melamine production at end of April

The unproblematic supply situation prevailing for several months now coupled with the alignment of prices in Europe with import prices from China have led to further shifts in melamine business. Most processors scaled back imports from China, which had been on the rise since spring 2022, and intensified purchasing from European producers again. This reduced the dependence on imports that became especially prevalent in the second half of



Melamine plant (

(Photo credit: BASF)

2022. At times, various resin and wood-based panels manufacturers had covered a significant proportion of their requirement with such imports, as European producers had drastically cut back their production and increasingly raised their price demands under the influence of sharp increases in natural gas prices. The decline in natural gas prices has helped to even the playing field for European melamine producers again in recent months. Production is being ramped up again, although capacities are still far from fully utilised. Individual plants remain idle, especially in Eastern Europe.

In addition, BASF SE ceased production at its two melamine plants at the end of April. Background to this are the capacity adjustments announced in February concerning its Verbund site in Ludwigshafen; these adjustments rendered melamine production uneconomical. In future, the company will cover its melamine requirements for resin production through purchases.

Akzo Nobel concludes High Point expansion

At the end of June 2023, Dutch chemical group Akzo Nobel N.V. officially opened its research and development centre geared towards wood coatings at the site in High Point, North Carolina. The project had first been announced in April 2019. According to information published at that time, a total of €50m was to be invested in expansion of production and storage capacities as well as construction of a technical application centre. The entire project was to be completed by 2021. Subsequently, however, delays in implementation occurred and investment costs rose to €55m.

At the new research and development centre, which extends over a total area of 30,000 sqft (equivalent to around 2,800 m²), product development and other processes are to be worked on in future. The focus of the centre is on scratch resistance as well as UV and water resistance of coated wood surfaces. In order to conduct application tests. the company has installed machinery and equipment that enables Akzo Nobel to reproduce application environments of customers in the furniture, flooring, window and door industries. By conducting such tests, the company plans to significantly reduce the time required until new products can be launched on the market. The facility will also enable Akzo Nobel to respond to new trends considerably more quickly and flexibly.

At its High Point site operated under the name AkzoNobel Wood Finishes and Adhesives, the company currently employs around 225 persons. On a total area of 37 acres or around 15 ha Akzo Nobel produces items such as UV-curable, water-based and solvent-based wood lacquers for use in the furniture and flooring industries.

In North America, the company also produces wood coatings at the US sites in Roanoke, Virginia, and Salem, Oregon, as well at its Canadian plants in Warwick, Québec, and Port Hope, Ontario.

Limit values for wood-based materials must be complied with as of August 2026

European Commission has published formaldehyde regulation in mid-July

The European Commission adopted Implementing Regulation (EU) 2023/1464, which for the first time sets an independent limit value for formaldehyde emissions across Europe, on 14 July.

The Regulation, which was published in the EU Official Journal on 17 July, amends Annex XVII of REACH Regulation (EC) 1907/2006 with regard to formaldehyde. In future, a limit value of 0.062 mg/m³ or 0.05 ppm, determined via a test chamber, is to apply to wood-based panels and products made from them. This limit value corresponds to half of emission class E1, where emissions must remain below 0.124 mg/m³ or 0.1 ppm. The new limit for other products, such as textiles, leather, plastics, building materials or electronic products, is 0.080 mg/m³.

The start date for the new limit values and transition periods were also determined with the Regulation's publication in the EU Official Journal. The Regulation came into force on 6 August. A transition period of

36 months then commenced for wood-based products and all other products. A transition period lasting one year more, 48 months, will apply to applications in the automotive sector. This means that the new limit values for wood-based panels, products made from them and all other products must be complied with from 6 August 2026. The starting date for road vehicles is 6 August 2027.

The proposal to amend the formaldehyde emission limit values submitted by the European Commission was derived based on opinions from the European Chemical Agency (ECHA) and the Committees for Risk Assessment (RAC) and Socio-Economic Analysis (SEAC), which are part of the ECHA, provided during 2020. The ECHA Member States Committee (MSC) agreed to this proposal in a consultation carried out via a written procedure from 23 January to 10 February 2023.

The consultation on the European Commission's proposal was preceded by a hybrid meeting held on 13 and 14

December 2022. In the subsequent vote, 26 member states voted in favour of adopting the proposal. One country voted against it; there were no abstentions. The European Commission's communication on the voting result did not identify the country opposing the proposal. Based on that country's indicated population share of 15.2%, it can be deduced that the opposing vote came from France.

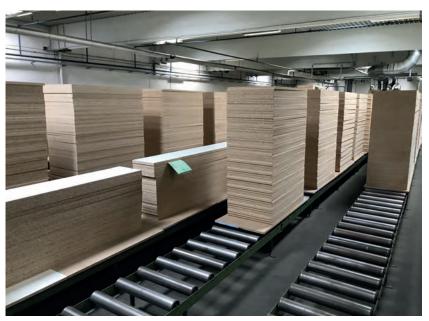
Background

EU Commission proposal on formaldehyde regulation



https://www.euwid-holz.de/230802/

The European Panel Federation (EPF), headquartered in Brussels, had previously proposed halving the E1 limit value in spring 2019 but had assumed that this would happen through a voluntary commitment by the wood-based panel industry. Germany had unilaterally tightened the E1 requirement by changing its formaldehyde testing methodology with effect from 1 January 2020. Emission class E05 has since been mandatory for wood-based panels sold in Germany. The European wood-based panel industry had starkly criticised the resulting emission specification variations. In recent years, a variety of associations and companies have repeatedly called for Europe-wide harmonisation of formaldehyde regulations. The Italian wood-based panel manufacturer Fantoni S.p.A., based in Osoppo, had filed a lawsuit against the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety in front of the Cologne Administrative Court in May 2020 over the change in formaldehyde testing methodology. These demands for harmonisation also played a greater role for the ECHA. The adoption of the Implementing Regulation by the European Commission means that emission class E05 will apply throughout Europe in the future.



A limit value of 0.05 ppm will be mandatory from August 2026.

(Photo credit: EUWID)

Applicants seeking to have melamine's inclusion in the SVHC list reversed

Melamine manufacturers and converters file action to have ECHA decision annulled

Two melamine manufacturers and eight converters from the resin and wood-based panel industry have filed separate cases seeking to end the inclusion of melamine in the list of substances of very high concern (SVHC), a move that happened in January 2023 in connection with the **REACH regulation.**

The defendant in the cases is the European Chemical Agency (ECHA), which had backed the inclusion of melamine in the SVHC list on 16 December following a public consultation in September and October 2022. This decision came into force with its publication on 17 January. The use of melamine has since been subject to special regulations. Melamine, which is contained in adhesive and impregnating resins, can continue to be processed. However, its use must be notified to the ECHA, where it accounts for more than 0.1% of the content by weight. Industrial customers must also be informed about the use of this substance.

Background

EU communication on the melamine converters' complaint



https://www.euwid-holz.de/232201

Background

EU communication on the melamine manufacturers complaint



Both cases were filed with the Court of Justice of the European Union on 24 March. The related actions were published in the EU Official Journal 2023/C 179 on 22 May. The converters involved in the cases include the wood-based panel manufacturers Fritz Egger GmbH & Co. OG (St. Johann, Austria), FunderMax GmbH (St. Veit, Austria), Kronospan Group, Swiss Krono Group, Pfleiderer Group B.V. & Co. KG (Neumarkt, Germany) and Unilin bvba



Court of Justice of the EU in Luxembourg

(Photo credit: Court of Justice)

(Wielsbeke, Belgium). BASF SE (Ludwigshafen, Germany) and Metadynea Austria GmbH (Krems, Austria) are companies from the adhesive and impregnating resin industry that are parties to the action. The second action was brought by the melamine manufacturers Borealis Agrolinz Melamine Deutschland GmbH (Wittenberg-Piesteritz, Germany) and Cornerstone Chemical Co. (Waggaman, Louisiana, USA). In their actions seeking annulment of melamine's inclusion in the SVHC list, both the wood-based panel and resin manufacturers and melamine producers claimed that the data used was not sufficiently supported by studies and that there were procedural errors. The action brought by converters as case T-163/23 contains a total of five pleas in law. The action brought by producers (case T-167/23) is somewhat more extensive, with seven pleas in law.

By taking this legal action, the plaintiffs are seeking to have melamine removed from the SVHC list by means of an "ex nunc" decision and aiming to receive a final first-

instance decision from the Court of the European Union. The actions will go to the Court of Justice of the European Union in a second instance, which will then make a final decision, if the ECHA or the plaintiffs appeal the CJEU decision. How long the proceedings drag on depends on various factors. Along with procedural issues, such as the chamber chosen or the scheduling of oral hearings, factors playing a role will also include substantive aspects, such as the extent of follow-up queries or requests for additional information and actions taken by the ECHA, the plaintiffs and the interveners appointed. Parties involved in the proceedings feel that a legally binding first-instance decision might be issued within about two years as long as neither side appeals.

The plaintiffs invoked Article 263 of the Treaty on the Functioning of the European Union (TFEU) as the legal basis for the actions. This Article states that the Court of Justice of the European Union may review the legality of legislative acts as well as of decisions of the European Commission or of downstream authorities.

Polish sanctions preventing imports from Russia

Methanol converters were forced to replace imports from Russia by other deliveries

Imports of Russian methanol into the EU, which had still been possible under an EU exemption, largely grounded to a standstill at the beginning of June 2023.

These deliveries had been almost exclusively carried out via Poland and were largely handled by the chemical trading company Nitro Chemical Sp.zo.o., based in Wroclaw, which is managed by Oleg Fedorchenko and Vera Kulichkova. Nitro Chemical coordinated methanol exports for the Russian chemical company OAO ShchekinoAzot, which produces methanol, among other things, at its site in Pervomayskiy in the Shchekino district of Tula oblast. Methanol industry insiders estimate that its annual capacity stands at around 1.4m tonnes, up to 75% of which were exported. The company had access to several hundred of its own tanker wagons to carry out these exports. Rail transports leaving for Eastern Europe had to be diverted via Belarus after the outbreak of war in Ukraine. The lion's share of these methanol deliveries remained in Poland, with the remainder transported on to other Eastern European markets, mainly the Czech Republic, Slovakia, Hungary and Romania. A few Austrian converters were also receiving deliveries.

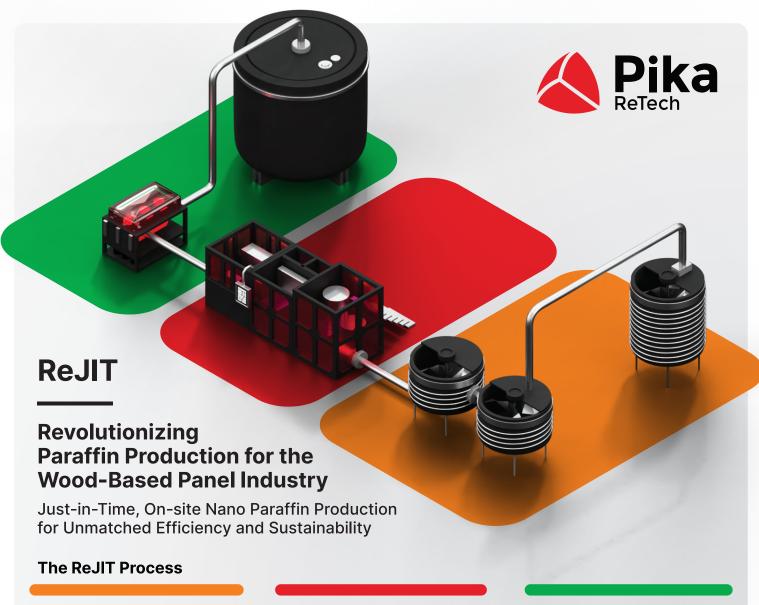
The Polish Ministry of the Interior, led by Minister Mariusz Kamiński, imposed extensive sanctions on 29 May in response to a ruling in Belarus against the Polish-speaking iournalist Andrzei Poczobut and the continued repression of the Belarusian opposition by Alexander Lukashenko's Government. The sanctions, which came into force with immediate effect, target 16 individuals and 20 companies with close economic ties to Russia or Russian companies. Assets have been frozen, and financial transactions are no longer possible. Nitro Chemical and its two managing directors, Fedorchenko and Kulichkova, are also affected due to their links to ShchekinoAzot. In a resolution signed on 29 May, Kamiński also temporarily halted truck and rail transports across the Belarus-Poland border. Logistical sanctions came into force on 1 June. According to the Eighth Package of Sanctions adopted by the Council of the European Union on 6 October 2022, methanol imports from Russia should actually have been banned since 8 January. However, the wind-down period, during which longer-term contracts concluded up to the beginning of October could still be processed, was extended until 18 June with the Ninth Package of Sanctions adopted on 16 December. A few EU member states have recently called for another extension to this exemption. The Polish sanctions have rendered the EU's pending decision obsolete.

Many European methanol converters. including companies from the adhesive/ impregnating resins and wood-based panel sectors, had already gradually scaled back their methanol purchases in Russia during 2022 after Russia invaded Ukraine and had mostly stopped them altogether by the end of the year. However, other companies continued to import methanol from Russia via Belarus and Poland. This differing approach meant that Russian shipments to the EU, which previously averaged 120,000-150,000 t per month, fell to around 40,000 t per month by the first quarter, according to the statistics available to date. Most of these deliveries went to converters in Poland, the Czech Republic, Austria, Slovakia, Hungary and Romania. After transports to Poland via Belarus were suspended because of the sanctions, the companies in question had to find alternatives in the short term. Enquiries to this effect were made starting with potential European suppliers in early June. Sufficient amounts would be available in principle due to high stocks in Rotterdam. However, limited transport capacity has been hampering possible deliveries from Rotterdam to Eastern Europe. The most cost-effective option, block train deliveries. was therefore barely an option. Methanol would have to be shipped by sea to the Northern Polish ports of Szczecin or Gdansk, although this option incurred relatively high costs. A similar situation exists for ships delivered via Mediterranean ports.



Waggon transport of chemicals for wood-based panel production

(Photo credit: EUWID)



Input

Solid paraffin or paraffin emulsion and additives

The Magic

Pika ReTech technology converts the mixture into nano particles using fluid mechanics principles

Output

High-quality nano paraffin emulsion, cooled and ready for use with extended shelf life

Features

Improve resource utilization and interaction between paraffin and glue

Easy Integration



Reduce transportation storage, and waste

On-Demand Production



Enhance sustainability and brand reputation



Long Shelf Life

Enhanced Efficiency

Embrace the Future of Wood-Based Panel Production with ReJIT

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sales@pikaretech.com +90 (216) 393 21 14 Yenişehir Mah. Millet Cad. No:34A Lens Istanbul A Blok No:142 Pendik 34912 / Istanbul - Türkiye EU cleared the deal in March / Closing dragged on until early July

Acquisition of Borealis Nitro plants added melamine to Agrofert's product range

A good year after submitting a binding offer to acquire the nitrogen business ("Borealis Nitro"), that Borealis AG put up for sale in February 2021, the Czech conglomerate Agrofert a.s. closed the €810m transaction on 5 July 2023.

In its annual report for 2022, which the firm published on 24 March, Borealis had still considered it possible that the deal might close this spring. The EU's Directorate General for Competition had approved the takeover, which was notified on 6 February, on 13 March, and published its 29-page decision on 27 June.

Agrofert can roughly double its fertiliser capacity and tap new markets by integrating Borealis Nitro. Until now, Agrofert has operated fertiliser plants in the Czech Republic. Slovakia and Germany. Borealis' facilities in France will also give the company better access to French and Benelux markets in the future. The acquisition of Borealis' plants in Linz and Wittenberg-Piesteritz will also add melamine to Agrofert's product range, which has so far focused mainly on nitrogen and fertiliser. The deal will make the company Europe's second-largest melamine producer after OCI Nitrogen. The latter claims to have a total annual capacity of 222,000 t with two production lines with a designed capacity of 166,000 t at its headquarters in Geleen, Netherlands, and another 55,000 t at a 49% joint venture in China. Previous reports indicate that Borealis Nitro has a total capacity of about 130,000 t, divided between around 50,000 t at Borealis Agrolinz Melamine GmbH in Linz, Austria, and roughly 80,000 t at Borealis Agrolinz Melamine Deutschland GmbH in Wittenberg-Piesteritz, However, Borealis' annual report states that the two plants combined sold just 84,000 t of melamine in the 2022 financial year. This slump came after melamine output had been much higher at 147,000 t in 2020 and 143,000 t in 2021. Borealis



Melamine plant in Piesteritz

(Photo credit: Borealis)

mainly attributed this downturn to weaker demand from the third quarter onwards and a sharp increase in Chinese imports. As a result, the firm had to temporarily suspend melamine production in Piesteritz during the second half of 2022, especially since high natural gas prices limited the supply of urea from the neighbouring plant Stickstoffwerke Piesteritz GmbH (SKW). By contrast. Borealis' plant in Linz continued to operate at reduced capacity utilisation. Melamine and resin industry insiders believe that Linz has been the only European melamine site to run without prolonged market-related shutdowns in recent months.

Along with the two melamine facilities, Borealis Nitro also includes three other plants in Austria and France that make fertiliser and technical nitrogen products. Despite much lower sales volumes, Borealis generated 2022 revenues of €2.351bn (2021: €1.264bn) from nitrogen activities, which have been consolidated as a discontinued operation since 2021 due to the divestment plans.

Borealis Nitro's assets were valued at €1.471bn at the end of 2022, while its liabilities amounted to €686.7m as of the same date. The fair value of Borealis Nitro was put at €793.9m at the end of last year, before disposal costs of €9.4m. Following the announcement of its plans to sell Borealis Nitro, Borealis AG initially received a binding offer from EuroChem Group AG of Zug, Switzerland, on 2 February 2022, which valued the activities put up for sale at €455m. Based on this offer, Borealis had recognised a valuation allowance of €443.7m in its 2021 consolidated financial statements. However, Borealis AG rejected EuroChem's offer on 10 March 2022 following Russia's invasion of Ukraine due to EuroChem's links to Russian oligarchs. The offer made by Agrofert on 2 June 2022 was accepted on 28 July. Takeover agreements were signed on the same day. Agrofert's offer, which was almost twice as high as EuroChem's, was reflected in Borealis' 2022 consolidated financial statements with an impairment reversal of €266.4m, which led to a corresponding improvement in its post-tax profits.

Particleboard produced in Menznau utilised for new product Corepel Evolution

Swiss Krono Group first user of BASF's biomass-balanced Kauramin resin

Since the first quarter of 2023, BASF SE of Ludwigshafen has been offering its entire product range in the amino resins sector also in a biomass-balanced (BMB) variant.

Purchasers from the wood-based panels and impregnation industries can meanwhile order the products marketed under Kaurit Zero and Kauramin Balance. The first regular delivery left the Ludwigshafen plant at the beginning of March. BASF sells urea formaldehyde resins (UF resins) under the Kaurit brand, whilst the Kauramin product range includes melamine-reinforced adhesive resins and melamine impregnating resins.

In the BMB products, the natural gas previously used as a precursor for ammonia and urea synthesis is to be replaced on the company's carbon balance by biogas as a sustainable alternative. This procedure reduces the CO₂ footprint (product carbon footprint, or PCF) of the respective products. Carbon offsetting involves the entire production network. After an order for Kaurit Zero or Kauramin Balance is received, a corresponding quantity of biomethane is provided for the natural gas required in resin production. This biomethane quantity is allocated to the respective end products via a calculated mass balance approach.

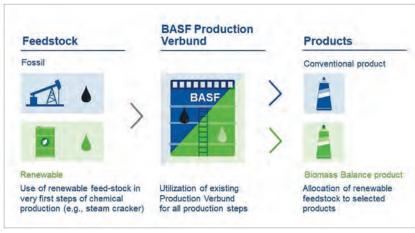
In the Kaurit Zero resin types, natural gases can be completely offset on the carbon balance by biomethane, resulting in a PCF of 0. In the Kauramin Balance products, the PCF is approximately halved compared to conventional products. With this approach, BASF guarantees the same product properties both for conventional products and the BMB alternatives. Each resin type can be replaced by a product with a lower carbon footprint without any adjustments in production or processing. BMB products can be processed within the scope of a drop-in solution at existing plants. Technological adjustments are not necessary.

According to a statement issued by BASF in mid-April, Swiss Krono Group is the first industrial user of the Kauramin Balance products. The wood-based panels and laminate flooring manufacturer uses the melamine resins for production of a new type of substrate material, which is then further processed into Corepel Evolution flooring. The substrate boards are produced on the particleboard line at Swiss Krono's site in Menznau, Switzerland. The chips used in this process are coated with Kauramin Balance resins using a process for which Swiss Krono Group has applied for a patent; however, other

components are likely used in the bonding process. Further processing is carried out in the flooring plant operating at the same site, which has so far concentrated mainly on laminate and design flooring with MDF/HDF substrate. For the new product variant, either veneer (Corepel Evolution Pure) or vinyl foils (Corepel Evolution Touch) can be used as surface material. Production of the innovative substrate boards as well as the flooring produced using these began in the first quarter; marketing commenced at the Bau trade fair in Munich.

Swiss Krono Group intends to promote Corepel Evolution flooring as an alternative to SPC and LVT flooring, which are often still produced using PVC. The company's main argumentations in this connection are the PCF reduction achieved due to the wood content and the Kauramin Balance resins, as well as the fact that recycling is rendered easier due to the chip substrate. Corepel Evolution Pure and Corepel Evolution Touch will be sold via the specialised trade sector. The initial focus will be on the product line with veneer surface. By the end of 2023, Swiss Krono Group is aiming to have sold at least 100,000 m² of Corepel Evolution Pure.

For two years now, Swiss Krono Group has been selling the Corepel Essence product line on the North American market. However, this product consists of a special HDF substrate with a directly coated surface. The substrate board, which differs from conventional HDF by virtue of significantly reduced swelling and its raw density of around 1,200 kg/m³, has so far been produced in the MDF/HDF plant in Menznau. Further processing into Corepel Essence also takes place at this site. In a next step, Swiss Krono Group also intends to manufacture the product at its Barnwell plant in the US state of South Carolina and at its site in Wittstock-Heiligengrabe, Germany.



Methodology of BASF's biomass balance approach

(Photo credit: BASF)

Sadepan's total capacity for glue and impregnating resins rises to 1.1m t

Gruppo Mauro Saviola acquired all Advachem shares at the start of April

Following the retroactive increase in its shareholding in Rheinspan GmbH & Co. KG of Germersheim, Germany, from 50% to 74.9% with effect from 1 January 2023, Saviola Holding s.r.l. of Viadana, Italy, has completed its next acquisition in central Europe.

The company took over all of the shares in the formaldehyde and resin manufacturer Advachem S.A. of Hautrage, Belgium, at the beginning of April. Both companies had already signed a contractual agreement in the fourth quarter of 2022. Like Rheinspan, the closing took place retrospectively with effect from 1 January after clearance was received from the competition authorities. The vendor was Yomi Holding S.A., controlled by Hubert Benjamin and Fabienne Laurent and which last held around 95% of the Advachem shares. Saviola integrated the glue-resin plant in Hautrage into the "Sadepan" division, which operates two production facilities for formaldehyde as well as for glue resin and impregnating resin in the form of Sadepan Chimica s.r.l. of Viadana, Italy, and Sadepan Chimica N.V. of Genk, Belgium. According to information from Gruppo Mauro Saviola, the Sadepan plants in Italy and Belgium currently have a combined annual resin production capacity of approximately 850,000 t. According to earlier information, the Advachem plant can produce around 250,000 t of resins. The integration of Advachem increased the total annual capacity to roughly 1.1m t.

The former Advachem owner Yomi Holding was founded by Hubert Benjamin and Andre Merlin in Mortroux, Belgium, in June 2003. The two entrepreneurs had acquired the assets of Woodchem Europe S.A. through this company in November 2003 from insolvency proceedings initiated in mid-2002. Woodchem Europe was founded by the engineering company ACM Wood Chemicals plc of West Drayton, UK, which had set up new formaldehyde and resin sites or operated existing ones in cooperation with wood-based panel manufacturers worldwide in the 1990s and early 2000s. The first two resin reactors in Hautrage, a suburb of the Southern Belgian town of Saint-Ghislain located directly on the Nimy-Blaton canal, started up in 1996. Two more resin reactors were installed in 2000, raising the plant's total annual capacity to around 220,000 t. There were also two formaldehyde plants with an annual capacity of around 110,000 t. The main customer for formaldehyde at that time was Reilly Chemicals S.A., located next door and whose production activities were moved by the superordinate company Reilly Industries Inc. of Indianapolis, Indiana, to other group facilities in the USA and China from November 2002 onwards. The ensuing discontinuation of production in Hautrage led to Woodchem Europe's insolvency.

After the fresh start, Advachem had initially shifted the focus of its production operations more heavily towards resins for the wood-based panel industry. A new urea storage system was built at the facility in 2008. Construction of the company's own power plant followed in 2009, and another enlargement in storage capacity in 2012. The next step towards expansion was the installation of a storage tank in 2017 for the company's new fertiliser business. Another formaldehyde plant was put into service in mid-2018, more than doubling the formaldehyde capacity to over 200,000 t.

As at other resin manufacturers, big jumps in sales revenue were caused by the sharp rise in raw-material costs in the second half-year of 2021 and the whole of 2022 along with the ensuing increases in finishedproduct prices. The company generated sales revenue of around €123m with 46 employees in its business year 2022. Information in the Belgian business register shows that Advachem had generated sales revenue of approximately €68m in 2018. Sales revenue had fallen to €58m in 2019, and 2020 turned out to be even poorer at €44m. In the business year 2021, sales revenue was almost twice as high as a year earlier at €83m.



Advachem production facilities at the Hautrage site

(Photo credit: Advachem)



Final figures in the EPF annual report are lower than the provisional levels

All European markets have experienced mounting pressure in recent months

Europe's wood-based panel industry suffered strong downturns in production and sales last year, largely because of a steep slump in the second half of the year.

If anything, this downward trend has actually intensified in the first half of 2023. The early-year recovery that followed fourth-quarter falls was short-lived. Demand slowed again across all product ranges from March onwards. April and May were particularly weak, as many customers had used holidays and long weekends to shut down production. June fared only slightly better. The third quarter has not ushered in a recovery, either, because of the holidays and persistently tough economic climate. This means that the second half of the year will not be able to make up for the losses recorded in the first half. Production and sales will thus continue to decline in the year as a whole. The significant slowdown on all European markets in recent months is problematic. At the moment, no markets are bucking the trend. Exports to markets outside Europe are not offering any relief, either. Shipments have fallen sharply in almost all product areas. By contrast, imports have risen in a few product areas. The circumvention of EU sanctions and dumping imports are also having undesirable ramifications from the perspective of the European wood-based panel industry. Low-priced deliveries of Russian birch plywood via third countries, especially Turkey and Kazakhstan, are currently the biggest issue in this context.

Rising raw material and energy costs, interest rate hikes approved in recent months and high inflation are creating further challenges for Europe's woodbased panel industry. However, the raw material and energy cost scenario that had been sketched out last year did not materialise in the form that had been expected. Wood-based panel manufacturers had anticipated a continuous increase in these costs after strong jumps in August and September. In fact, numerous cost items have started to recede. This relief, combined with persistently slow demand,

has also led to significant price corrections on the wood-based panel markets. In many cases, these markdowns exceed the proportionate cost savings, resulting in continued margin erosion. Interest rate hikes and inflation are further slowing the already weak demand. The lull in residential construction, among other areas, is to be counteracted by stronger promotion of timber construction. In addition to these economic problem areas, the wood-based panel industry is also dealing with a variety of regulatory issues. Examples are upcoming new rules governing formaldehyde emissions and restrictions on processing melamine or titanium dioxide as a result of the REACH regulation. Securing wood supply also remains a perennial issue, even if this situation has eased in recent months.

Most of these points were also addressed at the General Assembly of the European Panel Federation (EPF), based in Brussels, which took place from 21 to 23 June in Santiago de Compostela, Spain. The EPF Annual Report, which was completed at this event, goes into fairly great depth about the trends in sales on European wood-based panel markets. This annual report again slightly lowered preliminary figures unveiled by the EPF in mid-May but raised plywood statistics a little.

Production decreased across all product groups last year after increasing across the board in 2021. Manufacturing even increased by double-digit percentages in three of the six separately listed product groups in that year. According to sincerevised figures in this year's EPF Annual Report, particleboard output had risen by 12.3% to 34.474m (2020: 30.691m) m³ in 2021. Softboard production was 12.6% higher at 5.639m (5.008m) m³, and plywood production had increased by 12.2% to 3.178m (2.832m) m³. The EPF even raised MDF/HDF output figures significantly for several years compared



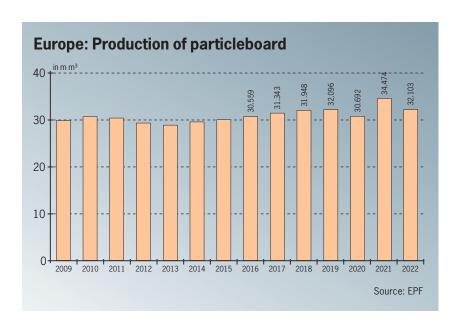
Meeting room of the EPF General Assembly in Santiago de Compostela

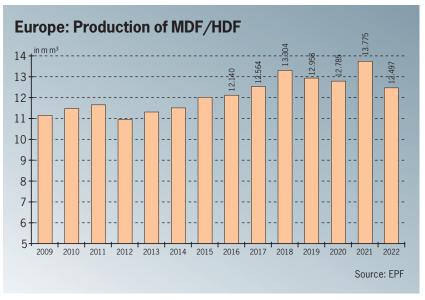
(Photo credit: VHI)

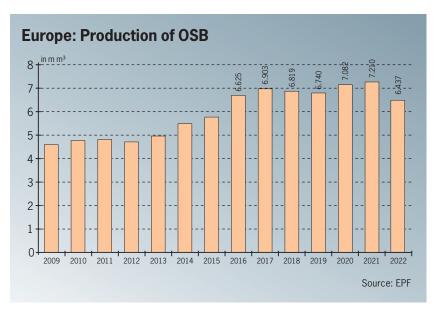
to previous publications. This correction was connected to factors including the federation gaining additional information from MDF/HDF producers not previously affiliated with the EPF. The revised figures show that MDF/HDF production was up 7.7% at 13.775m (12.785m) m³ in 2021. At that time, OSB (+1.8% to 7.210m m³) and hardboard (+2.4% to 526,000 m³) experienced only minor improvements. Across all product groups, output leapt by 10.0% to 64.801m (58.911m) m³.

On the heels of this strong upswing, total production ended up falling by 7.8% to 59.773m m³ last year, according to the latest EPF Annual Report. OSB output tumbled by as much as 10.7% to 6.437m m³. MDF/HDF (-9.3% to 12.497m m3) and softboard (-8.9% to 5.137m m³) also performed worse than the average. At 32.103m m³, particleboard production was 6.9% lower than in 2021. Plywood (-2.5% to 3.097m m³) and hardboard (-4.6% to 502,000 m³) held up somewhat better than other product groups last year. These final production figures are somewhat worse than the preliminary figures presented by the EPF during the Interzum trade fair. At that time, the association still thought that total production would decline by 6% to 60.9m m³. However, manufacturing was unable to reach the 60m m³. The final figures ended up being in the region of the forecast for OSB and plywood alone (OSB: -10% to 6.5m m³, plywood: -3.0% to 3.1m m³). For the other product groups, however, the preliminary figures had been somewhat higher (particleboard: -5.0% to 32.8m m³. MDF/HDF: -7.5% to 12.7m m³, softboard: -5.1% to 5.3m m³, hardboard: -4.0% to 0.5m m³).

The EPF Annual Report only broke down production figures by country or country groups for particleboard and plywood. Particleboard manufacturing declined across the board. Italy (-9.9% to 2.746m m³), Poland (-9.6% to 3.806m m³), Germany (-8.9% to 5.501m m³) and Scandinavia (-8.6% to 1.305m m³) all fared even worse than the average. Eastern/Central Europe (-6.3% to 6.992m m³) and the Iberian Peninsula/South-Eastern Europe (-5.2% to 5.337m m³) did not perform quite as badly. The smallest falls occurred in France (-3.8% to 3.155m m³) and Belgium/







Europe: Production of wood-based panels 1)										
in 1,000 m ³	2014	2015	2016	2017	2018	2019	2020	2021	2022	2022/2021 in % ²⁾
Particleboard	29,514	30,188	30,559	31,343	31,948	32,096	30,692	34,474	32,103	- 6.9
Germany	5,665	5,532	5,619	5,760	5,757	5,715	5,592	6,036	5,501	- 8.9
Poland	2,790	2,793	2,807	2,922	3,235	3,693	4,001	4,212	3,806	- 9.6
France	3,779	3,630	3,627	3,395	3,508	3,341	2,753	3,281	3,155	- 3.8
Italy	2,316	2,396	2,569	2,917	3,108	2,944	2,668	3,048	2,746	- 9.9
MDF/HDF	11,520	12,027	12,140	12,564	13,304	12,958	12,785	13,775	12,497	- 9.3
OSB	5,426	5,731	6,625	6,903	6,819	6,740	7,082	7,210	6,437	- 10.7
Hardboard	570	574	542	544	550	514	513	526	502	- 4.6
Insulation board	4,003	4,403	4,579	4,895	5,184	4,738	5,008	5,639	5,137	- 8.9
Plywood	2,792	2,816	2,926	3,149	3,206	2,974	2,832	3,178	3,097	- 2.5
Total	53,825	55,739	57,371	59,398	61,011	60,021	58,911	64,801	59,773	- 7.8

1) for plywood EU-27/UK, for all other product groups EU-27/UK and EFTA 2) Previous year's figures are always corrected in new EPF annual reports

Source: EUWID, according to information of EPF

UK (-3.4% to 3.262m m³). By contrast, plywood production saw mixed trends among the different countries and country groups. Finland strengthened its position as the largest production country in the EU-27 with a 0.5% increase to 1.113m (1.108m) m³. Plywood output in the Baltic states edged 2.2% higher to 502,600 (492,000) m³. The strongest losses were found in Spain (-12.9% to 368,800 m³) and France (-6.5% to 253,000 m³). Plywood manufacturing in Germany, the Czech Republic, Hungary and Greece, which the EPF groups together as a single block, was down 4.7% at 126,100 m³ last year. The EPF reported that countries not assigned to any group witnessed a 5.7% slump in output to 173,500 m³. Poland (-1.9% to 272,300 m³) and Italy (-0.7% to 288,000 m³) only faced a small decrease.

In addition to providing production figures, the EPF Annual Report also contains information on imports, exports, consumption and capacities, although not for all product groups. According to the EPF, total particleboard capacity rose by 1.6% to 39.445m (38.840m) m³ last year and is projected to reach 40.165m m³ in 2023. MDF/HDF capacity is forecast to climb from 14.750m m³ this year to 15.060m m³ next year. The federation did not provide any information about OSB and plywood capacity in its Annual Report. Last year's softboard capacity totalled 3.555m m³

(3.420m m³) for pressure-resistant board and 3.320m m³ (3.320m m³) for flexible mats. The EPF reports total hard board capacity including the CIS countries, which has remained largely unchanged at 1.457m m³ in recent years.

European wood-based panel capacity has not altered much over the past two years, according EPF. However, the projects that the association is aware of will pave the way for more substantial capacity building over the next three years. The EPF said that particleboard production capacity increased by 0.9% or. 340.000 m³ in 2021 and by 1.6% or 605.000 m³ in 2022. Particleboard capacity stood at roughly 39.445m m³ per year at the end of 2022. According to EPF, the capacity additions came from extension projects in Austrai (+10.000 m³), Germany (+100.000 m³) and Spain (+495.000 m³). A much larger growth in capacity will occur this year and next year once two new mills are commissioned in Spain and Luxembourg.

After two years of declines in 2019 (-2.8% to 14.695m m³) and 2020 (-0.4% to 14.635m m³) due to announced permanent closures, the European MDF/HDF capacity edged 0.8% or 115.000 m³ higher in 2021, thanks to expansion projects in France and Poland. No capacity changes took place in 2022. Mills

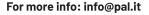
can currently make 14.750m m³. The EPF estimates that MDF/HDF capacity will increase even more in the next three years due to a new line in Lithuania, a replacement project in Germany and a medium-term project in Slovakia.

The EPF recorded increases in OSB capacity in both 2021 (+3.2%) and 2022 (+2.3%) due to expansion projects carried out at existing lines, mainly in the UK and Belgium of late. The EPF estimates current OSB production capacity at 7.8m m³. This year will see even bigger expansion projects in Hungary, France and the UK. Plans for new OSB mills in Spain, France and the UK are currently afoot.

The EPF expects the wood-fibre insulating board sector to experience the biggest increase in capacity. In 2021, production capacity for rigid softboard remained stable at 3.420m m³, while that for flex softboards continued to increase by another 450,000 m³ to 3.320m m³. In 2022, another expansion project in Poland brought capacity for rigid board up by 135,000 m³ to 3.555m m³, while capacity for flexboard was unchanged. The installation of additional lines at existing mills and several greenfield projects will boost the total estimated capacity for wood-fibre insulating boards in the EU-27 by a good two-thirds from just under 7m m³ to around 10m m³ in the next three years.







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Imbalance between supply and demand on markets for particleboard, OSB and MDF/HDF

Central Europe: wood-based panel prices still falling after the summer holidays

The downward spiral in prices on Central European particleboard, MDF/HDF and OSB markets, which has now lasted for more than a year, has not halted to date.

Prices for raw and laminated particleboard and OSB were lowered even more in new contracts for deliveries in August and September 2023. Even bigger markdowns have been booked in a few cases. However, the decline in MDF/HDF prices has slowed. The most recent contracts did not feature quite as severe reductions. This slight stabilisation is probably primarily due to the earnings situation in the MDF/HDF sector, which has been strained for a long time. Energy and wood costs, which are already higher than for par-

ticleboard and possibly also OSB, are even more significant in the event of sales-related problems with capacity utilisation.

The continuing imbalance between supply and demand leads buyers to believe that there are opportunities for additional price cuts for particleboard, OSB and MDF/HDF in the coming months. Most companies are only inking contracts for relatively short periods since prices have not stabilised yet, and there are no supply problems, which is reflected in short lead times and favourable spot lots for all three product groups. During the second quarter, however, a few buyers had prepared themselves for the supply situation to become more difficult again in the autumn. Some of them entered into quarterlong contracts again to hedge against this. This strategy has not worked to

Manufacturers and converters still expect demand to pick up in autumn after an extremely weak summer in many sales segments. However, this revival will probably come later and be weaker than in previous years. What's more, imports offered by neighbouring countries and the upcoming addition of capacity, especially for particleboard and OSB, are seen by many customers as a back-up. In the particleboard sector, the Kronospan Group ramped up a new particleboard mill in Tortosa, Spain, during the first half of the year. The new particleboard line currently being installed at Kronospan Luxembourg S.A. in Sanem is scheduled to commence operations by the beginning of 2024.

Investments made by the Swiss Krono Group to boost OSB capacity at several locations, in particular, will boost supply. On the other hand, only





a few MDF/HDF projects are looming in Central Europe. Examples include a debottlenecking project in the drying area planned by Unilin bvba, based in Wielsbeke, Belgium, at Panneaux de Corrèze S.A.S., headquartered in Ussel, France, at the end of the year, Homann Holzwerkstoffe GmbH, based in Munich. has also announced plans to modernise its Losheim plant but has not fleshed them out yet. An MDF/HDF mill built by UAB Homanit Lietuva at the Pagirai site in Lithuania will be commissioned this autumn. Additional MDF/HDF offers have come from Eastern Europe, among others from Ukraine, in recent months. In addition, Turkish MDF/HDF producers, who have commissioned several new production lines in recent months, have also sought to ramp up their exports.

Despite the surplus supply situation that has already lasted for several months and inventories built up at most mills, wood-based panel manufacturers are trying to operate without major interruptions as much as possible. Output is being reduced primarily by slowing production speeds and taking shorter downtime lasting up to a week. Several companies have also extended inspection and rebuild projects that were already planned for the summer. A few shutdowns have also taken place following technical problems or fires. However, hardly any longer market-related production shutdowns have been reported to date.

Nevertheless, particleboard, MDF/HDF and OSB producers are trying to slow or stop the downward spiral in prices. The deterioration in the earnings situation in recent months continues to be cited as the reason. Manufacturers admit that the majority of raw material costs and energy costs have also fallen. However, wood-based panel producers believe that price cuts exceed the relief gained on the cost front. According to them, additional price cuts are therefore no longer possible. Buyers counter that similar statements have already been made in months past, but prices then continued to fall.







West Fraser: plants still not fully utilised

In the second guarter of 2023 West Fraser Timber Co. Ltd., based in Vancouver, British Columbia, continued to implement production adjustments at its European wood-based panel sites in order to avoid excessive accumulation of stocks. According to the company, especially capacity utilisation of particleboard and MDF/HDF plants was lower than in the comparative prior-year period. However the half-year report published on 26 July did not include any specific figures on this matter. OSB production amounted to 279m sqft (April-June 2022: 281m sqft; basis 3/8"), equivalent to around 247,000 m³, and was thus almost at the same level as in the preceding year, but 3.5% short of the volume of 289m sqft produced in the first quarter. OSB sales declined at more significant rates both year-on-year (-7.2% to 258m sqft) and quarter-on-quarter (-11.9%).

Turnover of West Fraser's Europe EWP business division in the second quarter once again dropped by around one-third to US\$136m (207m). As in the previous quarter, this development was due to lower sales volumes as well as lower average prices. Both factors had a significant negative impact on the development of results (prices: -US\$39m, sales volume:

-US\$16m). On the other hand, a positive effect of US\$17m ensued from lower costs. Overall, adjusted EBITDA plummeted by around two-thirds year-on-year to US\$19m (54m). Operating profit, at US\$7m (42m), amounted to 17% of the previous year's figure.

West Fraser's NA EWP business division achieved year-on-year increases in production and sales volumes for both OSB and plywood. As in the preceding quarter, OSB production rose by 2.8% to 1.634bn sqft (1.590bn sqft); deliveries once again increased at an even more significant rate, by 5.4% to 1.652bn sqft (1.568bn sqft). Turnover generated with OSB in North America, at US\$470m (942m), nevertheless amounted to only half of the previous year's figure due to lower prices. Plywood production increased at a rate similar to OSB, by 2.2% to 183m sqft (179m sqft); plywood sales rose by 24.1% to 206m sqft (166m sqft). Declines, by contrast, were recorded in LVL and MDF/HDF deliveries, according to information provided by the company. Total turnover of the three subdivisions declined by 29.7% to US\$154m (219m). Taking into account other turnover, for example generated with sales of wood chips and roundwood, turnover of the business division declined by 46.0% to US\$629m (1.165bn) in the second guarter.

Even though the cost situation continued to improve vis à vis the comparative quarter of the preceding year, results figures of the NA EWP business division in the second quarter once again fell short of the respective prior-year figure. Adjusted EBITDA dropped by 79.8% to US\$126m (623m). Operating profit declined at an even more significant rate of 89.4% to US\$58m (545m), but unlike in the preceding quarter (-US\$38m) was back in the positive zone.

According to West Fraser, in the second quarter the company largely completed the modernisation investment at the OSB plant in Allendale, South Carolina, which was shut down at the end of 2019 and taken over from Georgia-Pacific Wood Products LLC, based in Atlanta, Georgia, in early December 2021. Following commissioning at the end of the quarter, the certification process for various commodity products has meanwhile been completed. Currently, further optimisation work is being carried out. According to recent plans, over the next three years the plant is to be ramped up to full capacity, which at the time of the takeover had been indicated at around 760m sqft, equivalent to 675,000 m³. □

Banasino now holds 10.3% of West Fraser

On 16 June 2023, Banasino Investments Ltd. of Nicosia, Cyprus, a company affiliated with the Kronospan Group, transferred its shareholding in West Fraser Timber Co. Ltd. of Vancouver, British Columbia, acquired through several transactions since April 2021, to Banasino Investments S.à.r.l., based in Soleuvre, Luxembourg. The portfolio of 8.346m shares and the contractually agreed purchase price of Can\$101.55 per share result in a total transaction volume of Can\$847.6m, equivalent to approximately €590.4m. Also on 16 June, Banasino Investments S.à.r.l. acquired an additional 10,000 West Fraser shares via the Toronto stock exchange. The average purchase price was stated at Can\$105.12. A total of Can\$1.1m was thus spent on expanding the shareholding.

Following these two transactions, Banasino Investments S.à.r.l. now holds a total of 8.356m West Fraser shares. Based on the altogether 81.274m shares last reported by West Fraser on 25 April, this corresponds to a shareholding of 10.28%. Banasino Investments S.à.r.I. disclosed the directly held interest in an SEC filing published on 20 June. In the same communication, this holding was indirectly attributed to Banasino Investments Ltd. and its superordinate, Luda Stiftung of Vaduz, Liechtenstein. Banasino Investments S.à.r.I. is controlled by Banasino Investments Ltd., which in turn is a wholly owned subsidiary of Luda Stiftung. The 19-page SEC filing contains on the one hand information concerning the changes in shareholdings (third joint filing agreement) and on the other hand the underlying agreement between the two Banasino Investments companies (contribution and transfer agreement).

According to a recent overview from US stock market information service provider Marketscreener, Luda Stiftung with its newly expanded stake of 10.28% remains the second-largest West Fraser shareholder. Canadian investor James Allen Pattison, who is also the largest shareholder of Canfor Corp., based in Vancouver, British Columbia, currently holds 10.98%. William Peters Ketcham follows in third place with a stake of 4.53%. Swiss company Pictet Asset Management S.A., which became a West Fraser stakeholder as recently as February 2022 following the purchase of 5.863m shares, currently holds 4.16% after selling 2.113m shares in February 2023.

Huber's patent dispute with LP also settled

In patent infringement proceedings which commenced in February 2019 concerning OSB with a bulk water resistant, vapour permeable barrier, at the beginning of August 2023 US-based OSB manufacturer Huber Engineered Woods LLC (HEW) of Charlotte, North Carolina, reached a settlement with Louisiana-Pacific Corp., based in Nashville, Tennessee. The settlement, on the one hand, involves an arrangement for patent-infringing products already supplied by LP. The other part of the arrangement involves conclusion by both companies of a licensing agreement enabling LP WeatherLogic products, as the product line in dispute, still to be produced and sold. By means of a waterresistive overlay, the LP WeatherLogic OSB, used predominantly as sheathing, is protected against water and draughts. These products are part of LP's Structural Solutions product group, in which various wall panels, roof panels and flooring boards are consolidated. Examples are LP TechShield Radiant Barrier, LP Legacy Premium Sub-Flooring, LP FlameBlock Fire-Rated Sheathing, LP NovaCore Thermal Insulated Sheathing and LP TopNotch Sub-Flooring. The LP Building Solutions portfolio also includes the Siding Solutions product group with various Trim & Siding products as well as standard OSB.

HEW had filed the patent infringement claim against LP on 18 February 2019 at the US district court for the District of Delaware. In previous legal proceedings HEW had also brought claims against Georgia-Pacific Wood Products LLC of Atlanta, Georgia, as well as Martco LLC and Corrigan OSB LLC, both of which belong to Roy O. Martin Lumber Management LLC, based in Alexandria, Louisiana. A lawsuit had been brought against Georgia-Pacific in June 2016 at the US district court for the Western District of North Carolina. Since a settlement achieved at the end of February 2017 which, as in the case of LP, regulated past as well as future deliveries, Georgia-Pacific has been able to market the ForceField product line on the basis of a licensing agreement with HEW. The case against the Roy O. Martin companies was opened at the US district court for the Eastern District of Texas at the beginning of December 2018. A settlement was achieved in July 2019 according to which Martco and Corrigan OSB agreed to stop marketing the RoyOMartin Eclipse product line and, in a reciprocal move, HEW withdrew its claim.

The patents which are the subject matter of both lawsuits concern the so-called ZIP System developed by HEW and launched on the market in 2006. The system features water- and wind-repellent overlay as well as acrylic tape to seal off panel seams. Using this pre-fabricated OSB product enables considerable savings in time and money as compared to sealing at the building site. □

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Huber finds alternative site for sixth OSB plant



Existing Huber site

(Photo credit: HEW

Huber Engineered Woods LLC (HEW), based in Charlotte, North Carolina, intends to build its sixth OSB plant in Shuqualak, Mississippi. Receipt of the necessary permits is one of the conditions to be fulfilled before a final investment decision can be taken. The new plant is planned for a site on highway 145 with a total area of more than 550 acres, equivalent to approximately 220 ha. Supply of raw materials and transportation of finished goods are also to take place via a nearby railway line.

With regard to the plans for a new OSB plant, Huber had previously pursued a greenfield project in Cohasset, Minnesota, designed for a projected annual capacity of 725m sqft (basis 3/8") or 640,000 m³. Due to delays in the approval process, however, this project was abandoned in February and the search for an alternative site began.



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Saint-Gobain acquires BP of Canada



Pont Rouge plant

(Photo credit: BP of Canada)

After receiving clearance from the Competition Bureau of Canada on 21 August 2023, French building materials group Compagnie de Saint-Gobain S.A, Courbevoie, completed the takeover of Québecbased roofing and wall products company Building Products of Canada Corp. (BP Can), LaSalle, on 1 September. Saint-Gobain had first announced its intention to acquire BP Can on 12 June. The acquisition means Saint-Gobain will also have its own production capacities for roofing products in Canada. In addition, the product range is to be expanded to include the wood fibre insulation boards produced by BP Can at its main plant in Pont Rouge, Québec. The wood fibre insulation boards are coated either with an air barrier membrane (Excel product line) or with aluminium foil (Enermax product line). BP Can's product range also includes several wood fibrebased acoustic panels. These acoustic panels are offered either as raw panels with pre-coated surface (Primecoat) or with an aluminium coating (Soundsmart).

The wood fibre-based insulation boards and acoustic panels account for appro-

ximately 20% of BP Can's total turnover; the other 80% is attributable to asphalt roofing and roof underlayment materials. In the 2022 financial year, BP Can generated turnover of Can\$435m and EBITDA of Can\$111m with 460 employees at its three plants in LaSalle, Pont-Rouge and Edmonton (Alberta), resulting in a margin of 25%. Following the planned integration of BP Can's activities into Saint-Gobain's North American business, which is operated under the name CertainTeed, Saint-Gobain will have pro forma turnover in Canada of approximately Can\$1.8bn based on the 2022 financial year.

Saint-Gobain already significantly expanded its activities in Canada with two acquisitions last year. The takeover of Canadian façade panels manufacturer Kaycan Ltd., based in Montréal, Québec, was agreed at the end of May and completed at the beginning of August 2022. This was followed at the end of September by the closing of the acquisition of building materials group GCP Applied Technologies Inc. of Alpharetta, Georgia, which had been agreed back in December 2021. GCP's building products business was integrated into the CertainTeed subdivision. With Kaycan and the building products business of GCP, CertainTeed's turnover in Canada increased to Can\$1.4bn for the full year 2022 from the previous figure of approximately Can\$0.9bn. With the addition of BP Can, the company is targeting turnover in Canada of around Can\$1.8bn.

Metsä forced to further reduce plywood production

In the second quarter of 2023, the wood products industry business division (Metsä Wood) of Finnish Metsä Group, based in Espoo, sold a total volume of 122,000 m³ (April-June: 2022: 137,000 m³) plywood and LVL (Kerto). The 10.9% year-on-year decrease means deliveries declined at a comparable rate to the first quarter (-10.2% to 115,000 m³). In each of the four preceding quarters, sales had already declined in the mid

to high single-digit percentage range. One reason for the current decline in sale volume is ongoing weak demand from the construction industry, which in the second quarter also had an impact on LVL deliveries. According to Metsä, the Suolahti softwood plywood mill consequently had to operate at reduced capacity, as had already been the case in the previous quarter. Production restrictions at birch plywood mills, on the other hand, ensued from shortages in the supply of roundwood.

Latvijas Finieris records strong growth in turnover

In the 2022 financial year, Latvian plywood producer Latvijas Finieris AS of Riga increased its turnover by 36% to €350m (2021: 257m). EBITDA even rose by as much as 54% to €55.5m (36.1m). The corresponding margin increased by 1.9 percentage points year-on-year to 15.9% (14.0%). Growth was thus even stronger than in the previous year. In the 2021 financial year, Latvijas Finieris had achieved turnover growth of 15% and EBITDA growth of 8%. In a 24 May publication concerning business figures, Latvijas Finieris specified a planned investment volume of around €200m for the coming years. According to earlier information, approximately €100m is to be spent on the expansion measures at the birch plywood mill Verems in the Rēzeknes municipality as well as on the construction of a production facility for lignin-based resins at company headquarters in Riga. The company is furthermore planning expansion of the veneer mill in Kuldīga. П

EU launches investigation into birch plywood imports

The European Commission has opened an investigation into illegal shipments of Russian birch plywood via Turkey and Kazakhstan with the publication of a notice in the Official Journal of the European Union on 22 August 2023. The investigation does not relate to economic sanctions against Russia that have been in place since last year but to anti-dumping measures that entered into force in November 2021. These measures had been requested in August 2020 by the Woodstock Consortium, an association of several European birch plywood producers founded for this purpose. The investigation into the possible circumvention of the anti-dumping measures also stems from a request by the Woodstock Consortium that was submitted to the European Commission on 10 July 2023. An initial assessment by the European Commission found sufficient signs that anti-dumping duties on Russian birch plywood are being circumvented by processing deliveries via Turkey and Kazakhstan.



Building materials group ramping up recently underrepresented WBP activities

Fletcher Building planning OSB line at former particleboard site in Taupo

The New Zealand-based building materials group Fletcher Building Ltd., headquartered in Auckland, intends to start manufacturing OSB by making investments in Laminex New Zealand's Taupo site.

A single-opening press used to make particleboard there since 1974 is to be replaced by a continuous OSB line with an annual capacity of around 400,000 m³ during the next year. Fletcher Wood Products, which is part of the Fletcher Building Products division, ordered key machinery for the OSB project from Dieffenbacher GmbH Maschinen- und Anlagenbau back in December 2022. Assembly work is set to begin in early 2024, with commissioning set to happen by the end of 2024. The OSB line will then commence regular operations starting in mid-2025. Along with producing standard OSB, Fletcher Building intends to use the line to make fine OSB made out of a stranded core covered top and bottom by a layer of fine particleboard. Taupo will become the first site in Oceania to manufacture OSB.

The order that Fletcher Building placed with Dieffenbacher includes an energy plant, a debarking line, a single-line strand production system, screening and air grading, a low-temperature belt dryer, glue systems, a forming and press line with a 40 m-long CPS+ and raw board handling systems. Dieffenbacher's subsidiary, B. Maier Zerkleinerungstechnik GmbH will provide engineering for the entire wood vard up to the strander. The Fletcher Building contract also provides Dieffenbacher with the first reference for its belt dryer concept, which was developed over the past two years at its site in Leverkusen, which specialises in drying technology. Additionally, Dieffenbacher will provide the Evoris digitalisation solution, the Cebro smart plant concept and the MyDieffenbacher digital service platform.

Fletcher Building is set to undertake the project in Taupo, which is almost 280 km south of Auckland in the heart of New Zealand's North Island. The company, then known as Fletcher Wood Panels Ltd., started making wood-based panels

there in 1968 with a waferboard line that mainly produced particleboard flooring. In the 1970s, the company made several investments in expanding the site in rapid succession. Bison-Werke GmbH & Co. KG, based in Springe, Germany, had delivered two Mende calendar lines to make thin particleboard to Taupo in 1973 and 1978. The particleboard line, which is still running to this day, features a single-opening press with a capacity of 50,000 m³ per year and a heated platen size of 2,610 x 7,600 mm; it was originally provided by Dieffenbacher. The two calendar lines and the particleboard flooring line shut down during the 1980s. A particleboard mill in Kumeu, around 25 km northwest of Auckland, that Fletcher Wood Panels acquired in 1989 ceased manufacturing in mid-2009. This site had a multi-opening press with an annual capacity of about 90,000 m³. New Zealand's particleboard production activities were thus concentrated in Taupo. Laminex New Zealand also operates a laminating plant in Hamilton, roughly halfway between Auckland and Taupo, since 1983 and added a treating line a few years ago. The decorative panels made there are sold under the Melteca name.

Fletcher Wood Panels started making MDF in Taupo in 1985. The multi-opening press supplied by Motala Verkstad AB, based in Motala, Sweden, had an initial annual capacity of approximately 100,000 m³, which was raised to 160,000 m³ in 1988. This line suffered severe damage in a fire in September 2006 and was permanently closed in May 2007 as a result. In September 2007, Fletcher Building purchased a 20% stake in the MDF manufacturer Dongwha Patinna NZ Ltd., headquartered in Gore-Mataura, and assigned this stake to Laminex Group Pty. Ltd., based in Doncaster, Victoria. Located on the Southern end of New Zealand's South Island and doing business as Dongwha New Zealand Ltd., this mill was sold by the two joint venture partners Dongwha Holdings Group, based



Existing particleboard line in Taupo

(Photo credit: Laminex NZ)



Short-cycle press in Hamilton

(Photo credit: Laminex NZ)

in Seoul, South Korea, and Laminex to the Japanese firm Daiken Corp., headquartered in Tokyo, in the fourth quarter of 2017.

Fletcher Building's wood-based panels business has experienced relatively strong fluctuations over the years. Its November 2002 acquisition of Laminex Group gave a strong boost to its wood-based panel activities. Over the next few years, though, the focus of investments shifted more and more to other areas. For instance, its July 2007 acquisition of the laminate specialist Formica Corp., based in Cincinnati, Ohio, happened during this period. On the other hand, several wood-based panel assets were divested. The MDF mill in Welshpool. Western Australia, followed in the footsteps of the MDF line in Taupo and the particleboard mill in Kumeu in shutting down. The Welshpool mill last had an annual capacity of around 110,000 m³ using a ten-opening line commissioned in 1990. Fletcher Building expanded its wood-based panel business again during the first half of 2019 at almost the same time as Formica Group was sold to Broadview Holding B.V., based in s'Hertogenbosch, the Netherlands, in a deal that was struck in December 2018 and closed in June 2019. In April 2019, Laminex Group reached an agreement with Carter Holt Harvey Pinepanels Pty. Ltd. (CHH), based in St. Leonards, New South Wales, to continue operating a particleboard mill that CHH had recently closed

in Gympie-Monkland, Queensland. Earlier information suggests that the mill, which is mainly set up to make raw particleboard and particleboard flooring, can manufacture roughly 100,000 m³ per year using a multi-opening press delivered by Siempelkamp Maschinen- und Anlagenbau GmbH. Laminex Australia also runs a particleboard mill and coating plant in Dardanup, West Australia, which is equipped with a Siempelkamp multi-opening press with an annual capacity of around 270,000 m³. It also operates an MDF mill in Gympie-Toolara

that features two Siempelkamp continuous production lines with an annual capacity of 230,000 m³. Laminex also has laminating capacity in Gympie-Toolara. Laminex Australia produces HPL and compact board in Cheltenham, near Melbourne. Located about 120 km northwest of Melbourne, the Ballarat mill in Victoria also makes MDF fronts and high-gloss/matte board. The Bathurst mill, which is 200 km west of Sydney, uses compact board and melamine-faced wood-based panels for the production of partition walls for bathrooms.

Fletcher Building feels that it is still underrepresented in the wood-based panel business, according to a press release issued in December 2022. Bearing this in mind, the firm announced plans during an investor presentation in July 2022 for a fundamental overhaul of the Taupo complex to significantly boost wood-based panel sales in New Zealand and on export markets. Updated plans suggest that the company intends to invest about NZD275m or a good €150m in the OSB project. The necessary permits were issued at the end of 2022. Preparatory construction work commenced in the first half of the year. Fletcher Building expects that it will take two and a half years to complete the project, with a target date in the 2025/2026 financial year (30 June). The Taupo OSB mill is to contribute around NZD40m to annual group EBIT once it is up and running. □



Treating of melamine films in Hamilton

(Photo credit: Laminex NZ)

In Europe, OSB capacity is to be increased by new lines in Rivne and Tortosa

Kronospan to invest US\$350m in new OSB line in Eastaboga, Alabama

Over the past few months, Kronospan has firmed up its longstanding plans to build its first OSB mill in North America.

After reviewing various locations in the south of the US last year, the company plans to move forward with the project at its existing mill in Eastaboga, Alabama. Kronospan has a total area of 460 acres, or just under 190 hectares, there after buying several plots of land. The new OSB line is to be installed on a plot of land 44 acres or just under 18 ha in size. In a statement published on 25 April, Kronospan said that the project would entail an investment of about US\$350m or almost €320m and create 125 direct jobs. Construction is scheduled to begin this year; Kronospan has yet to announce a commissioning date. The company held preliminary talks with potential technology suppliers in the second half of 2022. Siempelkamp Maschinen- und Anlagenbau GmbH and Dieffenbacher GmbH Maschinen- und Anlagenbau are reportedly among those invited to submit initial offers in early



(Photo credit: Made in Alabama)

2023. However, Kronospan has not placed any firm orders to date. The company has also not made a final decision yet about whether to use a continuous production line or a multi-opening press.



MDF/HDF and laminate flooring plant in Eastaboga.

(Photo credit: Kronospan)

Kronospan said that the Eastaboga mill, which was built starting in the mid-2000s in a greenfield project just 20 km west of the city of Oxford, is already the most integrated wood-based panel complex in the US. The company first commissioned an MDF/HDF line there in March 2008. The site was subsequently expanded to include resin production, treating lines, short-cycle presses and a laminate flooring production plant. Its own biomass power plant provides energy for the complex. Resin production commenced in August 2015. The treating, coating and laminate flooring lines have been up and running since March 2017. Kronospan has also set up the Eastaboga mill to serve the US furniture industry by commissioning a particleboard line and ramping up its laminating capacity in October 2019. The next step will see production units making furniture and supplier parts located in Eastaboga as part of the Furniture Cluster concept. Kronospan developed this strategy starting in 2015 and initially rolled it out at several European mills. So far, though, there are no concrete projects afoot for the US cluster.

However, the kitchen furniture manufacturer Wellborn Cabinet Inc., based in Ashland, Alabama, intends to build a new kitchen and bathroom furniture plant in the Oxford West Industrial Park a few kilometres away from the Kronospan complex.

A Furniture Cluster prospectus for the Eastaboga site published in June 2019 summarised background information on the available space and the production capacities installed to that point. According to the prospectus, the approximately 230 acre or 95 hectare Kronospan site, which includes the MDF/HDF and particleboard line, resin production and processing facilities, is located between a regional road and a rail line. Kronospan owns another 230 acres or 95 ha south of the regional road, including two sub-areas of 22 ha and 38 ha, respectively, earmarked for the Furniture Cluster. It is unclear from the information published to date whether the OSB project will take place on land originally earmarked for the Furniture Cluster. According to the Furniture Cluster prospectus, the two raw board lines in Eastaboga assigned to Kronospan LLC have an annual capacity of around 320,000 m³ of MDF/ HDF and approximately 550,000 m³ of particleboard. The adhesive and impregnating resin plant, which does business as Kronochem LLC, can produce 39,400 t of formaldehyde (100 %), 63,000 t of MUF resins and 45,000 t of MF resins. In mid-2019, its annual treating capacity was estimated at around 120m m2. At the time, its thermally fused laminate (TFL) capacity was listed at about 24m m² and its laminate flooring production capacity at about 20m m².

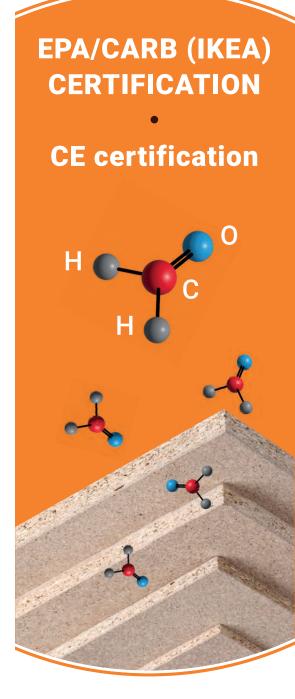
Kronospan has already spent more than US\$1bn on investment projects carried out to date in Eastaboga since beginning the first construction work in 2005. The OSB project would bring the total investment to almost US\$1.4bn. The company has not specified how much it spent on the initial land purchases, the MDF/HDF mill and the adhesive/impregnating resin plant. In June 2016, the company announced plans to invest US\$362m in the next steps, which included expanding downstream processing capabilities and starting to make particleboard. This figure was revised upward by US\$101m to US\$463m in the first half

of 2018. A smaller investment package of around US\$46m was launched in the spring of 2022. The latest announcement indicates that Kronospan LLC has invested another US\$89m in expanding its existing systems over the past six months.

Under the original plan announced in October 2004, the firm was to build a laminate flooring production facility integrated across all production stages at the Eastaboga site. However, Kronospan did not move forward with this plan. The installation of an OSB line, which had already been approved as a second step, was also postponed after the economic crisis in 2008 and 2009 led to a slump in demand. In the past two years, the firm has revisited these plans. At the same time, Kronospan acquired a minority stake in West Fraser Timber Co. Ltd., based in Vancouver, British Columbia, in several steps starting in April 2021. In July 2022, speculation arose that Kronospan might be preparing a takeover bid for West Fraser together with the private equity company CVC Capital Partners, headquartered in London, but this did not materialise.

Kronospan has been Europe's largest OSB manufacturer by far for quite some time. In September 1996, the company commissioned its first line in Sanem, Luxembourg, which was still equipped with a multi-daylight press. In 2000, a rebuilt single-daylight line was added at the Bourgas, Bulgaria site. While Swiss Krono Group, Egger Group and Sonae Industria SGPS S.A. already invested in the first continuous OSB lines in the late 1990s, it took Kronospan until mid-2005 to do so. However, further projects followed relatively quickly after it started up the first OSB line with a continuous press in Jihlava in the Czech Republic. Kronospan now operates eight OSB lines in Europe without Russia and Belarus (Sanem, Bourgas, Jihlava, Riga/Latvia, Brasov/Romania, Strzelce Opolskie/Poland, Novovolynsk/ Ukraine and Kastamonu/Turkey). The next mill is currently being built in Rivne-Gorodok, Ukraine. Kronospan's total European OSB capacity will further increase once the line in Rivne is commissioned, which is expected to happen before the year's end. The next OSB project will add an OSB line to its new particleboard mill in Tortosa, Spain, as announced back in spring 2022.







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Conversion in Sagola increased total siding capacities by 300m sqft to 2.320bn sqft

Louisiana-Pacific to convert Wawa site from OSB to siding production

Louisiana-Pacific Corp. of Nashville, Tennessee, has acquired the assets of Wawa OSB Inc., based in Wawa, Ontario, for approximately US\$80m. A definitive agreement was reached in Mid-April, closing followed on 2 May.

Seller was Canadian company Groupe Forex Inc., based in Montreal, Québec. This company had acquired the former OSB plant in Wawa via the subsidiary Wawa OSB Inc. in April 2021. This plant was originally commissioned in 1995 by the Jager Strandboard Limited Partnership, a joint venture between H.J. Forest Products and MacMillan Bloedel Ltd. of Vancouver. MacMillan Bloedel had acquired all shares in Jager Strandboard at the end of 1996. In November 1999, MacMillan Bloedel was acquired by Weyerhaeuser Co., Seattle, Washington. Weyerhaeuser stopped production at the end of 2007.

The investments required to reactivate the OSB plant resulted in a liquidity shortage at Groupe Forex. The company and its

subsidiaries Wawa OSB and Forex Amos Inc., which has operated an OSB plant at its site in Amos, Québec, since April 2018, had thus submitted an application for financial restructuring pursuant to Canada's companies' creditors arrangement act (CCAA) to the superior court of the Province of Québec on 6 February. On 22 February, a bidding process was then launched to sell the company as a whole or as individual assets.

Louisiana-Pacific plans to convert the Wawa plant to increase production of SmartSide sidings. According to the company, the site is very well suited for this due to extensive poplar stands and good logistical connections. Installation of a second press line at the site in Houlton, Maine, which had initially been planned within the scope of a further expansion of siding capacities and, according to the plans presented in November, had been scheduled for commissioning in the second half of 2024, will only take place after the conversion at the Wawa site has been completed.

A comparable conversion project in Sagola, Michigan, was completed in mid-March with the production of the first board. This project increased Louisiana-Pacific's annual siding capacities by 300m sqft to 2.320bn sqft (3/8" basis). The 400m sqft estimated to ensue from the conversion at the Wawa site would further increase annual capacities to around 2.7bn sqft.

Once conversion measures at the plant in Wawa are complete, the siding production line there will be the company's largest. Although the site in Hayward, Wisconsin, actually has an annual capacity of 475m sqft, this is produced on two production lines. Together with the plants in Newberry, Michigan (annual capacity: 165m sqft), Tomahawk, Wisconsin (245m sqft), Two Harbors, Minnesota (235m sqft) and Houlton (220m sqft), Louisiana-Pacific currently has annual siding capacities of 1.340bn sqft in the USA, according to the 2022 annual report.

The two existing Canadian siding sites in Swan Valley, Manitoba (380m sqft) and Dawson Creek, British Columbia (300m sqft) have a combined total capacity of 680m sqft. In its 2021 annual report, Louisiana-Pacific had reported lower annual capacities for the plants in Tomahawk (230m sqft), Two Harbors (220m sqft) and Swan Valley (350m sqft). As a result of the implemented adjustments, total siding capacities have increased from 1.960bn sqft at the end of 2021 to 2.020bn sqft at the end of 2022.

According to Louisiana-Pacific, further expansion of siding capacities could subsequently be implemented via conversion of the OSB sites in Maniwaki, Québec, or Fort St. John, British Columbia. In addition to expanding existing siding plants, the company is also still considering building a new siding plant on the site of the former Ainsworth plant in Cook, Minnesota.



Wawa OSB plant in Ontario

(Photo credit: Louisiana-Pacific)

Expansion of four existing plants shall bring total capacity to almost 2.4m m³ by mid-2024

Swiss Krono Group is planning to build next OSB mill in southwest of France

After completion of the expansion investments currently underway at the plants in Wittstock-Heiligengrabe, Zary (Poland), Sully-sur-Loire (France) and Vásárosnamény (Hungary), scheduled for 2024, Swiss Krono Group intends to build an additional OSB plant in the southwest of France within the scope of a greenfield investment.

These plans have already been under consideration for several months; a final investment decision is to be made before the end of this year. Subsequently, Swiss Krono Group expects implementation to take two to three years. Commissioning should thus take place by 2026. The production capacity is still to be determined in the pre-engineering now underway; current allusions indicate capacities in an approximate range of 400,000-600,000 m³ per year. The new site will primarily supply the markets in France, the Iberian Peninsula and Italy. An expansion of deliveries to the Benelux region and Great Britain is also planned in collaboration with the Sully-sur-Loire plant. Furthermore, shipping via the Mediterranean is making it increasingly feasible to serve markets in North Africa and the Near/Middle East. The plant in Heiligengrabe is primarily focused on supplying markets in the DACH region and Scandinavia. The Polish plant in Zary mostly delivers to Eastern European markets and to the east of Germany. Heiligengrabe and Zary also cover the majority of Swiss Krono Group's non-European OSB exports.

With the investments in the four plants which have either been completed in recent months or are still ongoing, Swiss Krono Group intends to expand its overall annual OSB capacities from the almost 1.8m m³ available at the beginning of 2022 by around 600,000 m³ to almost 2.4m m³ by mid-2024. The Heiligengrabe plant can meanwhile produce approximately 600,000 m³ per year. With the projects currently underway in Zary and Sully-sur-Loire,



Start of the Green Energy project in Sully-sur-Loire in autumn 2022

(Photo credit: Swiss Krono)

annual capacities at the plants there are to increase to 500,000 m³ and 550,000 m³ respectively. Expansion of capacities at the Vásárosnamény plant from the current 350,000 m³ to 600,000 m³ is to be completed next year. In Kamianka-Buzka, Ukraine, Swiss Krono Group operates another OSB plant with a capacity of around 130,000 m³.

The project concerning construction of an OSB line at the Russian location in Sharija, Kostroma Oblast, which had been in preparation for several years and for which a sum of approximately €260m was to be invested, had to be cancelled following the outbreak of war in Ukraine. For preparatory work in Sharija, such as laying foundations, Swiss Krono Group had already invested a low double-digit million euro sum up to spring; these costs have since had to be written off.

Some of the equipment intended for the project in Sharija is used in expansion projects at other Swiss Krono OSB sites. A large part of the wood yard technology goes to

the mill in Zary. Swiss Krono Sp.zo.o. will modernise and expand the wood yard for MDF/HDF and OSB production there at the same time as it builds a waste wood processing plant for particleboard production. Wet chip bins and conveyor systems are relocated to Sully-sur-Loire. The drum dryer and energy plant are being installed in Vásárosnaményi. However, Swiss Krono had no use of its own for the forming and press line planned for Sharya. The company therefore reached an agreement with the supplier Dieffenbacher GmbH Maschinen- und Anlagenbau to resell the forming station and the continuous press in the last year. Dieffenbacher then contacted potential wood-based panel manufacturers. The press had been sold to Canadian OSB manufacturer Tolko Industries Inc., headquartered in Vernon, British Columbia, in the fourth quarter. Tolko is using the continuous press to replace the multi-opening press at the High Prairie, Alberta mill that was severely damaged by a fire on 20 May 2022. On the other hand, the forming station earmarked for Sharya might be used in an OSB project in Asia.

Purchase price set at €251.4m/Put-and-call option for remaining shares of Schramek

Kingspan poised to acquire 51.0% stake in Steico by the start of 2024

Schramek GmbH plans to sell 51.0% of its shares in the insulating board and LVL manufacturer Steico SE (Feld-kirchen, Germany) to the Kingspan Group plc (Kingscourt, Ireland) and Kingspan Holding GmbH (Wesel, Germany).

Schramek is led by Chairman of the Management and Administrative Board Udo Schramek and is Steico's main shareholder with a 61.1% stake. The three companies signed an agreement to this effect in mid-July 2023. This agreement also includes a put-and-call option to acquire Schramek GmbH's remaining share in Steico. The transaction is still subject to customary conditions, including competition clearance. Kingspan said that it aims to close the deal by early 2024.

The purchase price was initially put at €35 per share. The transaction is thus valued at €251.4m for the acquisition of the 51.0% stake. This amount will become due upon closing. The plan is for 25% of the purchase price to be paid through the issue

of new Kingspan shares. The purchase price can be increased by up to €35 per share if defined earnings targets are met, resulting in a maximum total purchase price of €70 per share. In this scenario, the value of the transaction would double to €502.8m. Based on the 51.0% stake, the company has a maximum valuation of €985.9m.

The prices of Steico shares, which are traded on the open market, had risen steadily in 2020 and 2021, peaking at €128.80 on 12 August 2021. The share price then dropped significantly and stood at just €27.40 on 29 June 2023. It had even fallen as low as €19.10 by 19 March 2020 following the outbreak of the pandemic. The closing price on 17 July, before news of the takeover agreement became public, was €32.15. It increased slightly to €33.15 one day later. With a total of 14,083,465 shares, this price translates into a market capitalisation of €466.9m. The previous high recorded in August 2021 had resulted in a capitalisation four times as high at €1.814bn.

Schramek GmbH will continue to hold a 10.1% stake in Steico for the time being. No relevant changes are reported among the remaining shareholders, which include several investment and fund companies. Steico shares will continue to be traded on the stock exchange after the deal closes. Udo Schramek will retain his position as Chairman of the Executive Board. He intends to relinquish his position of Chairman of the board of directors with the sale of the shares but will remain a member. Kingspan is seeking representation on the board of directors through Kingspan Holding GmbH in keeping with its stake. Schramek, his wife Katarzyna Schramek, Dr Jürgen Klass and Professor Heinrich Köster were re-elected as members of the Administrative Board for a further term of office at the Steico Annual General Meeting held in Munich on 23 June.

In spring 2023, news trickled out that Udo Schramek had been exploring options to sell shares since mid-2022. The addition of a new major shareholder aimed to prepare a succession solution and drive the company's further development. These deliberations led to a structured sales process in the fourth quarter of 2022, which involved only strategic investors and no financial investors. In an ad-hoc announcement issued on 12 May, Steico confirmed that Schramek was exploring the sale of the majority of shares. However, it provided no information about the status of the sales process.

By acquiring the stake in Steico, Kingspan wants to expand its range of insulation products, which has so far mainly focused on polyurethane rigid foam (PIR), resol hard foam and mineral wool, to include sustainable products. Its goal is to encompass the entire insulation product range. In a first step, Kingspan acquired all shares in the Danish firm Troldtekt A/S, head-quartered in Tranbjerg, in April 2022. This firm produces cement-bonded wood-wool



The new Steico plant in Gromadka is scheduled to start up in the third quarter.

(Photo credit: Steico)

lightweight board and acoustic board at a facility in Troldhed. The company booked revenues of around DKK500m or €67m in the year before the acquisition. In the 2022 annual report, Kingspan announced plans to increase Troldtekt's capacity in the next two years.

Steico has boosted its capacity more and more over the past 20 years. The firm initially only made products at its main plant in Czarnków, Poland. Its second Polish site in Czarna Woda was leased in 2003 and purchased in October 2005. Its acquisition of a plant in Casteljaloux, France, followed in March 2008. All three sites have gradually added more production lines in recent vears. The firm primarily used second-hand technology purchased from other insulating and fibre board manufacturers to increase its insulating board capacity. In the early years, Steico mainly operated wet lines. Recent projects have focused investments more on technology using a dry process. At the same time, its product range has been expanded to include l-joists, laminated veneer lumber (LVL) and wood construction elements. In autumn 2020, Steico unveiled plans to build a fourth plant in Gromadka, Poland, where a total of three insulating board lines have been installed in the past two years. Originally slated to happen at the end of 2022, commissioning has been delayed by a few months. Construction work has now been largely completed. The facility is to make its flexible insulating mats during the third quarter. A short time later, it is set to commission a line to make pressure-resistant insulating board.

m €	2015	2016	2017	2018	2019	2020	2021	2022
Insulating materials	115,9	124,8	141,7	156,6	176,0	204,6	264,3	288,
l-joists	30,1	33,3	32,0	33,0	43,2	34,9	52,0	65,
LVL	6,8	13,7	19,4	28,3	31,9	37,9	37,7	45,
Special products	15,0	16,7	14,1	13,9	15,4	16,3	13,9	17,
Hardboard	7,2	7,5	6,5	5,4	2,9	2,4	3,0	3,
Wholesale timber	9,8	7,7	11,2	8,1	5,1	4,3	3,3	3,0
Other 1)	4,1	5,2	5,5	6,5	6,5	8,5	14,0	21,4
Total	188,9	208,9	230,3	252,0	281,0	308,8	388,2	445,2

Not long after announcing plans to invest in Gromadka, Steico launched planning work for a fifth site, which subsequently focused on a location near Landsberg am Lech, Germany. However, the company ultimately chose not to move forward with the project.

Steico currently operates eight wet lines for the production of insulating material in Czarnków and Czarna Woda. Using the dry process, three lines make pressure-resistant insulating board in Czarnków and five lines make flexible insulating mats and wood fibre blow-in insulation in Czarnków and Casteljaloux. The commissioning of the Gromadka plant will add one dry line for insulating board and two dry lines for insulating mats. Czarnków also has two lines making cellulose blow-in insulation and an I-joist plant. Czarna Woda also has two

hardboard lines and two LVL lines. Steico added another product area in 2019 by establishing an element production facility in Czarnków.

Steico recorded a 12.8% fall in its insulating material production to 340,888 (2021: 390,830) t in the 2022 financial year. LVL (144,430 m³), hardboard (31,784 t) and I-joist (12.5m running metres) output increased at least slightly. Revenues rose by 14.7% to €445.3m (388.2m) in the wake of price hikes instituted during the year. However, EBITDA was slightly weaker than last year's level at €90.0m (91.3m). Steico is again expecting a downward trend this year. According to the forecast, which was lowered at the beginning of July, the company expects to book annual revenues of just under €380m.

	Unit	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total insulating materials	t	207,946	218,070	236,988	270,650	294,365	319,427	352,160	390,830	340,88
Pressure-resistant boards ²⁾	t	154,805	145,797	158,269	164,375	165,313	168,115	172,921	187,618	151,17
Pressure-resistant boards 3)	t	24,508	36,011	40,205	52,999	54,793	70,909	86,947	105,664	101,91
Flex/air-injected insulation	t	28,633	36,262	38,515	51,179	69,139	73,327	83,632	87,373	87,79
Others	t	-	-	-	2,097	5,120	7,076	8,660	10,175	10,20
Hardboard	t	26,910	29,569	36,611	34,086	36,623	28,686	23,511	23,423	31,78
l-joists	1,000 lfm	6,936	8,374	9,613	9,007	9,685	12,115	9,366	12,409	12,50
LVL	m ³	-	6,360	57,292	79,306	112,967	134,070	130,562	139,549	144,430

Board approved €100m investment / Commissioning slated for the first half of 2025

Sonae Arauco to start manufacturing insulating board in Meppen too

Sonae Arauco Deutschland GmbH is poised to add pressure-resistant insulating board, flexible insulation mats and blow-in insulation to its Agepan portfolio of structural wood-based panels by installing a new production line in Meppen over the next two years.

The Board of Directors of its parent company Sonae Arauco S.A., headquartered in Madrid, has already rubberstamped the €100m investment project. Construction work is expected to begin possibly before the year's end. If all goes according to plan, the new line should be commissioned in the first half of 2025.

Until now, Sonae Arauco has operated an MDF/HDF line known as Topan 2 in Meppen. This line can now produce around 300,000 m³/year. Its product range includes MDF for the furniture industry and its suppliers as well as board for the construction sector. Its portfolio also includes a variety of speciality products, such as MDF that is dyed throughout and formable MDF. The company, then known as

Glunz AG, entered the MDF/HDF production business in Meppen in 1987 when it commissioned the Topan 1 line. With an annual capacity of around 120,000 m³, this line was closed in August 2008 and subsequently sold.

The new production line is to be installed on the site vacated by the old Topan 1 line and adjacent land. The line will produce both pressure-resistant insulating board and flexible insulation mats. Wood fibres will be discharged downstream of the refiner to make blow-in insulation. The new line's specifications will be determined during engineering work, which is still ongoing. Sonae Arauco presently thinks that it has a total annual capacity of about 500,000 m³ across all products. Alongside work to install the new production line, the firm will also modify the plant's infrastructure as part of the overall project. The singlelargest projects will involve redesigning energy supply setup and expanding the wood yard. Up to now, natural gas and the incineration of production residues and grinding dust have provided the thermal energy needed by the plant. The new concept will switch energy supply to other fuels.

The Agepan system has until now comprised various types of MDF/HDF and OSB products for structural applications, which are mainly used in timber construction and renovation. The group discontinued its range of particleboard flooring a few years ago. The Nettgau mill produces OSB products sold under the Agepan OSB Ecoboard name. The Meppen site manufactures MDF for structural applications using a ContiRoll press tailored to make the required board thicknesses and raw densities. Sonae Arauco said that it had decided to install a separate line for insulating board/insulating mats due to factors including the limited spectrum of thickness and raw density that can be made at Topan 2. The new line will also be able to handle thicker panels and lower raw densities in the future. Sonae Arauco is also entering new product fields by adding flexible insulating mats and blow-in insulation.

According to Sonae Arauco, the addition of a second line at the Meppen mill is the largest investment project since the joint venture was established in June 2016. Sonae Industria SGPS S.A., based in Maia, Portugal, and Paneles Arauco S.A., headquartered in Santiago de Chile, each own a 50% stake in the entity. Sonae Arauco had invested around €53m in installing a new forming and press line at its Beeskow particleboard mill in a project completed in the summer of 2020. The company has postponed a second phase, which would expand the front end and drying system, for the time being. The project will be revived when the market situation improves. Sonae Arauco has also completed an investment project in the finishing area in recent months by replacing a short-cycle press at its Nettgau particleboard mill. The first piece of board was laminated at the end of November 2022.



Blowline of the Topan 2 plant at Sonae Arauco's factory in Meppen

(Photo credit: EUWID)



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New facility in Haute Loire département / Capacity of roughly 100,000 m³

Plywood producer Groupe Thébault to build LVL plant in the centre of France

Groupe Thébault, currently geared to producing plywood made of maritime pine, poplar and okoumé, intends to start producing laminated veneer lumber (LVL), also known as "lamibois" in France, in the next two years.

The investment project announced on 31 March 2023 and costing a total of around €100m is to be realised at a new location in Lempedes-sur-Alagnon in the département of Haute Loire in the Auvergne-Rhône-Alpes region roughly 60 km south of Clermont-Ferrand. The company has purchased a roughly 15 ha of land there.

The LVL plant, planned on an area of roughly 25,000 m², will be geared to an annual capacity of around 100.000 m³ and is to be achieved in two stages. Commissioning is planned for 2025. At this time the company will have approximately 85 employees at the new plant. Groupe Thébault wants to achieve an annual capacity of around 70.000 m³ in the initial phase, with an increase to approximately 100,000 m³ planned for later on. Silver fir

from the Massif-Central and already used by Groupe Thébault to a small extent in plywood production is to be processed as the raw material. The LVL produced will be processed into joists and board material. Groupe Thébault's intention behind these new products is to widen its range for structural timberwork and various industrial applications.

Groupe Thébault has commissioned machine and industrial equipment manufacturer Raute Oyj to deliver all essential plant components for the LVL plant. According to a statement issued by Raute on 10 May, the agreement covers all major production areas from veneer peeling to LVL billet handling. The total order volume is said to amount to €44.6m. Delivery is scheduled for 2024.

The recently presented project will make Groupe Thébault the first LVL manufacturer in Western Europe. LVL is currently produced mainly in Scandinavia and Eastern Europe. The LVL mills operating there are geared above all to processing spruce.

The Pollmeier group processes beech and spruce at the LVL plant trading under the name of Pollmeier Holzwerkstoffe GmbH in Creuzburg in Eastern Germany.

In funding the investment project, Groupe Thébault is being partly assisted by the French state, which will provide funds from the "Plan d'investissement France 2030" through the Agence de l'Environnement et de la Maîtrise de l'Énergie (ADEME). Other subsidies are to be provided by the Auvergne-Rhône-Alpes region and by the "Syndicat intercommunal pour le développement économique Allier Allagnon". The site will be constructed through a joint venture in which Groupe Thébault will hold at least 75%. The sawn-softwood producer C.B.D. Bois S.A.S. of Craponnes-sur-Arzon will subscribe to the remaining shares.

Groupe Thébault currently operates three plywood plants, a peeling plant, and a felling company in France. The three plywood plants, with a combined annual production capacity of around 125,000 m³, are all located in the Nouvelle Aquitaine region in Southwestern France. Okoumé and poplar plywood are manufactured at the headquarters in Magné whereas the sites in Sauzé-Vaussais and Solférino are geared above all to producing maritime pine plywood.

The poplar-veneer peeling plant put into service in Marigny-le-Châtel in the Grand Est region in 2018 and doing business under the name of Bois Deroules de Champagne S.A.S. (BDC), is operated through a joint venture with R. Drouin S.A. of Mézières-sur-Ponthouin. Thébault holds a 70% share in the joint venture and Drouin the remaining 30%. The veneers are being processed into plywood at the two joint-venture partners' main facilities. The okoumé veneer processed in Magné is supplied by the peeling plant of Thébault Transbois S.A. in Owendo, Gabon, set up in 1999.



Project presentation on the site of the future LVL plant

(Photo credit: Groupe Thébault)

Total investment volume of €300m with an annual capacity of 160,000 m³

Metsä implements plans to expand LVL capacities at the Äänekoski site

Metsä Group of Espoo, Finland, has taken the final investment decision concerning the long-planned third LVL plant at its Äänekoski site. With this project, Metsä Wood division intends to raise its Kerto LVL production capacity, currently listed at around 310,000 m³, by around 50%.

In a statement issued on 14 June 2023, a total investment volume of €300m has been indicated for the plant, which is designed for an annual capacity of 160,000 m³. According to the company, construction is scheduled to commence next spring at the latest, and commissioning is planned before the end of 2026. Approximately 400,000 m³ of roundwood will then be processed annually at the plant with its 150 employees.

Metsä first announced the project in mid-September 2021. According to plans presented at that time, an LVL plant with a somewhat lower capacity of 150,000 m³ was to be built by 2026. The planned budget had been set at €200m. The meanwhile significantly inflated budget is attributable to sharp cost increases, the slightly higher annual capacity as well as technological and process-related modifications. The delay is due to the detailed local plan being made available later than originally anticipated as well as necessary approval procedures. However, the final investment decision was taken when the environmental permit was definitively granted at the end of May.

The project is to facilitate an increase of around 50% in Metsä's LVL capacities. The company first began producing LVL in Lohja in 1981. The second LVL plant in Punkaharju was brought into operation in 2001. Expansion investments were implemented at both sites in recent years. In 2017, Metsä had replaced two



The new LVL plant is to be built in the southeast of the Äänekoski site.

(Photo credit: Metsä Group)

older lines in Lohja with a new production line, increasing the annual capacity by 20,000 m³ to 120,000 m³. With the commissioning of a third production line in the first quarter of 2019, capacities at the LVL plant in Punkaharju had increased from previously 125,000 m³ per annum to 190,000 m³.

Metsä Group currently operates a pulp mill, a biorefinery and a veneer plant in Äänekoski. The new LVL plant, covering an area of 20 ha, will be built on a 150-ha plot of land adjoining the existing site to the south-east. Preparatory measures, such as the construction of access roads, have already been implemented there.

At the existing site, the Metsä wood business division, to which Metsä Group's business with plywood is assigned in addition to LVL activities, is operating a birch veneer mill with an annual capacity of 58,000 m³. The veneer facility started operating in the first quarter of 2018 and supplies a birch plywood

mill in Pärnu, Estonia, that got up and running in August 2018.

The Metsä fibre business division operates a pulp mill and a biorefinery at the Äänekoski site. The pulp mill has an annual capacity of 1.3m t, which according to earlier information comprises 800,000 t of softwood pulp and 500,000 t of hardwood pulp. Production at the biorefinery includes base substances for the chemical industry such as crude tall oil, crude sulphate turpentine and sulphuric acid. The two plants have a combined workforce of approximately 240.

In the Metsä board business division, another 200 employees produce approximately 260,000 t of packaging board annually at the Äänekoski site. Metsä modernised the board machine in 2002 and 2012, and investments in new cutting systems were implemented in 2012 and 2019. Paper production was discontinued in 2011 following the shutdown of PM2.

Uniboard: work at Val-d'Or plant starts



Val-d'Or particleboard plant

(Photo credit: Uniboard)

The third phase of the modernisation project of the Val-d'Or, Québec, particleboard plant, commenced by Uniboard Canada Inc. of Laval, Québec, in June 2022 under the project designation "Renaissance", is currently proceeding according to schedule. In a first step, the company built a new distribution warehouse, which was commissioned in August. Construction of buildings for the forming and press line as well as finishing commenced in June. Equipment installation, initially scheduled to commence at the end of 2023, has been postponed by a few weeks. In a current statement, Uniboard anticipates early 2024 as a new date. According to the updated schedule, the first board is to be produced during the first quarter of 2025.

Commissioning of the new press line will increase production capacity, currently

indicated at 205m sqft (basis 3/4") or around 360,000 m³/year, by around 50% to 310m sqft or 550,000 m³. Within the scope of the replacement investment, the range of formats and thicknesses to be processed at the Val-d'Or particleboard plant is also to be expanded, which means the company can develop new sales segments. Uniboard plans to enter production of light particleboard, for example.

In a first investment phase implemented at Val-d'Or between 2015 and 2017, Uniboard had already renovated the areas of wet chip preparation and drying for a total investment volume of Can\$53m. From 2018 to 2020, in a second investment phase, dry chip preparation had been modernised for around Can\$50m. In these projects, the main suppliers of equipment were Imal-Pal s.r.l. and Büttner Energie- und Trocknungstechnik GmbH. Construction of the new forming and press line, which is now underway, involves a total of around Can\$250m, bringing the total investment volume up to Can\$350m. Main suppliers of equipment are Dieffenbacher GmbH Maschinen- und Anlagenbau, Anthon GmbH Maschinen- und Anlagenbau and Steinemann Technology AG.

Kronospan plans to increase activities in Mexico

Within the scope of its international expansion, Kronospan is meanwhile also looking towards the Mexican market. The company has built its own storage facility in this country, which over the course of the first quarter 2023 has been stocked with raw particleboard as well as coated particleboard and MDF from Spanish Kronospan plants via break bulk shipment. Concerning distribution, one of Kronospan's cooperation partners is distributor Triplaymarket Corp. S.A. de C.V., Naucalpan de Juárez, which, via its nine subsidiaries, is represented in 13 Mexican federal states with a total of 34 branches.

In Spain, in addition to the particleboard plant in Burgos-Castañares and the MDF/HDF plant in Salas de los Infantes, Kronospan also set up a new particleboard plant in Tortosa, Tarragona Province, over the course of last year. Since April the plant, which is designed for an annual production capacity of around 720,000 m³, has been in continuous operation. In future the plant is also to supply certain export markets, including North Africa and Central/South America. In Central America, Mexico is to become the focus of Kronospan's expansion measures.

Ampine plant in Martell destroyed by fire

For more than a year now, US-based Timber Products Co. of Springfield, Oregon, has only been operating one composite panels production site: its particleboard plant in Medford (Oregon). Timber Products had previously also operated a particleboard plant in Martell, California, under the name Ampine, which the company had acquired from Sierra Pine Ltd., Roseville, California, in November 2015. This plant was destroyed in a major fire on 25 July 2022, however. The fire had broken out at midday and could not be brought under control until the following morning.

The production and storage buildings had already collapsed not long after the blaze broke out. There was also little remaining of the administration building. The wood

yard, wood preparation and a loading bay were less severely damaged. Production was not running at the plant when the fire broke out. The Ampine plant, which is located some 70 km southeast of California's capital Sacramento, was capable of producing approximately 213m sqft (basis 3/4"), or almost 380,000 m³, annually with a multi-daylight press from Washington Iron Works (WIW) and would have celebrated its 50th anniversary around a week after the fire.

With the acquisition of the Sierra Pine plant, Timber Products had almost trebled its particleboard production capacities. The Medford plant, which has been in operation since 1966, can produce around 117m sqft, or almost 210,000 m³. At the site in

White City, Oregon, Timber Products produces thermally fused laminate (TFL), with an annual laminating capacity of around 33m sqft, or 3.1m m². In the composite panels product segment, Timber Products also sells Masisa Ultralight MDF, which is sourced from a Chilean plant belonging to Maderas y Sinteticos S.A. (Masisa), Santiago de Chile, as well as Spectra-Board veneer-laminated panels from its own production.



Fire at particleboard plant Ampine (Photo credit: Cal Fire

Greenpanel orders for thin-board plant

Indian Greenpanel Industries Ltd., based in Kolkata, West Bengal, has expanded its order for an MDF/HDF thin-board plant planned at Routhu Suramala site in Andhra Pradesh, placed with Dieffenbacher GmbH Maschinen- und Anlagenbau in the fourth guarter of 2022, to include a chipper line. This chipper line is to be supplied by Dieffenbacher subsidiary B. Maier Zerkleinerungstechnik GmbH. According to a statement issued on 22 June 2023, in addition to the drum chipper with a rotor diameter of 1,600 mm the scope of delivery also includes the drum chipper feeding line. The order for the fibre production equipment has been placed with Andritz AG. The pressurised refining system, which is to include a type S 1056M refiner, will be designed to process 100% eucalyptus.

The order already placed Dieffenbacher in 2022 includes a fibre dryer, sifter, forming station and forming line, a continuous CPS+ press, the press exhaust system, raw board transport as well as raw board storage facilities. The thin-board plant,

which according to earlier information from Greenpanel is designed for an annual capacity of around 230,000 m³, is expected to be commissioned in mid-2024.

So far, Greenpanel has been operating two MDF/HDF plants also supplied by Dieffenbacher. In contrast to the current order, however, the refiners used at these plants were supplied by Valmet Oyj. By means of debottlenecking measures as well as installation of two mat pre-heaters, Greenpanel expanded total capacity of the two existing MDF/HDF plants during the second half of the 2021/2022 financial year (31 March), by around 20% to 660,000 m³/year.

The plant in Rudrapur, equipped with a 28 m continuous press and commissioned in 2010, now has an annual production capacity of 216,000 m³. The plant in Routhu Suramala, with a 56 m press commissioned in April 2018, has a production capacity of 444,000 m³. During the 2022/2023 financial year, total capacity utilisation of the two plants amounted to 78%. □

Evergreen reduces MDF capacities in Malaysia

Malaysian Evergreen Fibreboard Bhd. (EFB) plans to relocate an MDF plant installed at company headquarters in Parit Rajat, Johor, to Indonesia. Reasons for this decision include the loss of market shares during the nationwide corona-related lockdown during the second half of 2021. Several of the MDF plants shut down in Malaysia at that time have not resumed operations since.

Last year, the situation was exacerbated by tight roundwood supply. The significant increase in electricity prices and the rise in minimum wages also led to further cost increases. Against this background, Evergreen plans to manufacture MDF mainly at its locations in Hat Yai, Thailand, and Palembang, Indonesia, in future. Production in Malaysia is to be geared towards particleboard and flat-pack furniture; MDF is to be produced only in limited volumes for local customers and for further processing within the company.

Greenply adds mat prebeating to MDF/HDF plant

Indian wood-based panels manufacturer Greenply Industries Ltd., based in Tinsukia, Assam, has installed mat pre-heating in the MDF/HDF plant commissioned in mid-April 2023 at its Western Indian site in Shepura, Gujarat. Installation work began on 1 August during a nine-day conversion shutdown. According to a statement issued at the end of July, the system is required to reach full annual capacity of the production line at 240,000 m³.

Following commencement of commercial production in early May, Greenply sold a total MDF/HDF volume of 6,062 m³ in the first quarter of the 2023/2024 financial year, which ended on 31 March. According to currently available information, a total of around 100,000 m³ MDF/HDF is to be produced by the end of the financial year. Greenply thus downwardly adjusted its originally announced target of 115,000 m³.

Greenlam completes two investment projects

In mid-May 2023, Indian wood-based panels and laminates manufacturer Greenlam Industries Ltd. of New Delhi completed the expansion of the laminates plant in Prantij, Gujarat, that was acquired in June last year. The plant, which had been shut down by the previous owner at the turn of 2021/2022, was restarted in August 2022. Immediately thereafter, Greenlam began with the gradual modernisation and expansion of the three production lines. With the work now completed, the total annual capacity of the site has increased by around 60% from the previous 3.4m sheets to 5.4m sheets. With the plant running at full capacity, turnover is expected to increase at a similar rate to INR2.5bn. Taking into consideration the sites in Behror, Rajasthan (6.9m sheets) and Nalagarh, Himachal Pradesh (8.7m sheets), Greenlam's annual laminate capacities meanwhile amount to around 21.0m sheets - 35% more than before the takeover of the plant in Prantij.

The newly constructed plywood mill at the site in Tindivanam, Tamil Nadu, which is operated by Greenlam's subsidiary HG Industries Ltd., was put into commercial production at the beginning of June. The mill, designed for an annual capacity of 18.9m m², is expected to generate turnover of INR4.0bn when fully ramped up. Approximately INR1.3bn has been invested in its construction to date, slightly more than the INR1.25bn estimated when the greenfield project was announced in December 2021.

Later in the current 2023/2024 financial year, Greenlam also plans to commission the particleboard and laminates plant built through a greenfield project in Naidupeta, a town in the Southern Indian state of Andhra Pradesh. With the start-up of laminates production at the plant, Greenlam's total laminate capacities are to increase by another 3.5m sheets to 24.5m sheets per annum. The particleboard plant is to be commissioned at the end of the financial year. The plant, with a forming and press line supplied by Dieffenbacher GmbH Maschinen- und Anlagenbau, is designed for an annual capacity of 265,000 m³.

Swiss Krono: waste wood plant destroyed



Fire damage in Menzna

(Photo credit: Swiss Krono

In the early hours of 9 August 2023, the waste wood processing plant that was commissioned just several years ago at the particleboard and MDF/HDF factory of the Swiss Krono Group in Menznau caught fire. The affected building collapsed. Conveyor equipment, storage areas and waste wood stocks were also damaged. Industrial timber stored next to the waste wood plant sustained fire damage as well, albeit to a lesser extent. The blaze eventually spread over an area of around one hectare. The waste wood processing plant is located on a separate site, separated from the factory itself by a road and a railway line. According to the company, the plant needs to be completely replaced. The exact approach going forward is to be clarified with group management and the insurance companies involved. The now destroyed plant had been supplied in 2015 by Imal-Pal s.r.l. of San Damaso, Italy, which has also implemented waste wood projects at other Swiss Krono locations.

According to Swiss Krono AG, the section of the wood yard assigned to waste wood processing is spatially separated from green timber processing, which was not affected by the fire. There was also no direct damage to the particleboard and MDF/HDF factory across the road. Production was shut down in a controlled manner in the early morning hours. The power supply was temporarily disrupted during the fire and subsequent extinguishing measures. Particleboard and MDF production was restarted two days after the fire. Most of the waste wood processed by the now destroyed plant had gone into particleboard production. Following the restart, particleboard production will thus be supplied primarily with green timber or with waste wood that is processed either externally or in mobile plants.

Medite Smartply: further double-digit turnover rise

In 2022, the Medite Smartply division of Irish state-owned forestry authority Coillte Teoranta, based in Newtonmountkennedy, generated turnover of €334.1m (2021: 283.7m). This corresponds to year-onyear growth of 18%. In 2021, following the declines recorded in 2019 (-2%) and 2020 (-10%) due to uncertainties in connection with upcoming Brexit and the effects of the corona crisis in Ireland and Great Britain, an even more significant increase of 53% had been recorded. The once again doubledigit increase last year was due to higher average prices. MDF/HDF and OSB sales volumes, by contrast, were at the same level as in the preceding year at 700,000 m³, according to the company.

As in the preceding year, all sales regions contributed to the increase in turnover. Based on the amount of €106.6m generated in 2020, turnover generated in Great Britain virtually doubled to €208.7m (176.7m). Following the 66% increase recorded in 2021, an 18% rise was recorded in 2022. In Ireland (+20% to €36.4m),

the growth rate also slackened off considerably compared to the preceding year (+41%). This was also the case in the rest of the world sales region (+16% to €89.0m). However, turnover in this division has increased consistently since 2016 (€41.8m). With a compound annual growth rate (CAGR) of 13.4%, turnover has more than doubled over the course of six years.

The forest business division harvested a volume of around 2.6m m³ in 2022, and sold 1.5m m^3 (1.4m m^3) of sawlogs. Adjusted to account for internal deliveries to Medite Smartply at a value of €27.2m (25.0m), turnover in Ireland increased by 5% to €121.2m (115.9m). The only relevant export market Great Britain developed along similar lines, increasing by 4% to €18.5m (17.7m).

Including the land solutions division, total turnover of Coillte increased by 13% to €478.8m (422.4m) in the past financial year. Due to higher operating costs, however, EBITDA fell slightly short of the peak figure recorded in the preceding year at €157.4m (159.4m); operating profit declined by 12% to €118.7m (135.0m).

Sonae Arauco and Leitopal cooperate on HPL panels

At the beginning of May 2023, Sonae Arauco Deutschland GmbH of Meppen and laminating company Leitopal Ludwig Leitermann GmbH & Co. KG, based in Bad König, agreed to a cooperation in the area of composite panels. Leitopal is to produce composite panels with HPL surfaces for Sonae Arauco in future. The particleboard required for this will be supplied by Sonae Arauco; the HPL panels will come from the laminates plant of Sonae Industria SGPS S.A. in Maia, Portugal, which operates under the name Surforma. With this cooperation, Sonae Arauco is expanding its range of products in the Innovus collection, which is primarily geared towards supplying the trade. The composite panels produced by Leitopal are supplied in a decor coordination with melamine-faced wood-based panels. Laminated particleboard is mainly produced at the Nettgau particleboard plant. To date, Sonae Arauco operates three short-cycle presses there. At the Beeskow plant, another line is in operation for the lamination of both particleboard and MDF/HDF.

Until the end of 2020, Sonae Arauco had still produced laminates, worktops and elements itself at the former Glunz Holzwerkstoffproduktions-GmbH (GHP) in Horn-Bad Meinberg. Following the shutdown of the plants, the company had examined various possibilities to re-enter the worktop and element business more intensively on DACH markets through cooperations.

Through the planned expansion of the Innovus product range, Sonae Arauco is also aiming to gradually improve its position in the specialised trade with decorative products too. In this connection, the company would also be satisfied with second or third position on the market. These measures are also to facilitate an expansion of regional coverage; the main focus here is expansion towards Southern Germany.



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Simsboro and Missoula are now Roseburg's only particleboard locations

Roseburg shutting Taylorsville mill and investing in new MDF/HDF mill

The US company Roseburg Forest Products Inc, headquartered in Roseburg, Oregon, continued to consolidate its production capacity with the planned closure of the particleboard plant in Taylorsville, Mississippi, on 21 August 2023.

The mill, which is equipped with a WIW multi-daylight press and has an annual capacity of about 330,000 m³, is one of North America's oldest particleboard mills. According to Roseburg, the site is no longer competitive with the newer plants built in recent years, mainly by European and South American groups, and with the influx of imported products. Since the closure of this location, existing customers are supplied from the Simsboro, Louisiana, plant, which is located about 350 km to the west and has an annual capacity of about 500,000 m³ using a 10 ft-wide continuous production line. Simsboro and the 350,000 m³ Missoula mill now are Roseburg's only particleboard locations. Both locations also have laminating capacities, while Taylorsville only produced raw particleboard.

The Taylorsville plant has been owned by Roseburg since it acquired the particleboard and MDF activities of Georgia-Pacific LLC, based in Atlanta, Georgia, in September 2006. The transaction also included particleboard mills in Louisville (Mississippi), Russellville (South Carolina) and Vienna (Georgia), the MDF mill in Holy Hill (South Carolina), the laminating plant in Oxford (Mississippi) and a cut-ro-size plant in Eupora (Mississippi). Roseburg shut down the majority of these sites between 2008 and 2011. In July 2011, Roseburg acquired the Simsboro mill from Flakeboard Co. Ltd., based in Markham, Ontario, which has since become part of Arauco North America Inc.

Roseburg re-entered the MDF/HDF manufacturing business by acquiring a plant



Particleboard plant in Taylorsville

(Photo credit: Roseburg)

in Medford, Oregon, that was previously owned by Sierra Pine Ltd., based in Roseville, California, in August 2015. This was followed in March 2018 by the purchase of Pembroke MDF Inc, headquartered in Pembroke, Ontario. In February 2019, the El Dorado, Arkansas, MDF mill of PotlatchDeltic Corp, based in Spokane, Washington, which does business as Del-Tin Fiber LLC, was integrated into Roseburg. The next major expansion step in the MDF/HDF segment is a new mill in Dillard, Oregon, which was announced in April 2023. This mill is to be built on the site of the particleboard mill that closed in 2021. At the same time, Roseburg will build a new component plant in Dillard, where MDF from Medford will be processed into mouldings and Armorite exterior panels.

Siempelkamp Maschinen- und Anlagenbau GmbH and Andritz AG will be the main suppliers of technology for the new line in Dillard. The orders were placed back in the first quarter of 2023. Andritz will provide the pressurised refining system with an

S2064 M refiner with an hourly capacity of 40 bdmt, a 74" digester including a C feeder and a 24" plug screw. Büttner Energie- und Trocknungstechnik GmbH will deliver the fibre dryer and screen. Siempelkamp will supply the forming and press line with a 10' x 42.1 m ContiRoll, cooling and stacking technology and intermediate and maturation storage. The Siempelkamp contract also includes engineering services provided by Sicoplan N.V., automation and the EcoScan Neo measurement system. Commissioning is set to take place in the third quarter of 2025. With products 2-28 mm thick, the line will have an annual capacity of around 310,000 m³.

Roseburg is planning to invest a total of around US\$450m for the new MDF/HDF line. A further US\$50m is to be spent on a new component plant in Dillard, where MDF from the Medford plant in Oregon will be processed into mouldings and "Armorite" cladding panels. The capacities planned for these products are given as roughly 90m ft of mouldings and 124,000 m³ of exterior MDF.

Production of rice-straw MDF already discontinued in autumn last year

CalPlant in liquidation, ongoing sales process for plant and machinery

The reorganisation under Chapter 11 of the US American Bankruptcy Code initiated for the straw-board manufacturer CalPlant I LLC and the superordinate company CalPlant I HoldCo LLC, both based in Willows, California, on 5 October 2021 has definitively failed. According to a release published on 15 May 2023, liquidation has been started for the two companies.

The reorganisation transformed into a liquidation will continue to be coordinated by Kroll Restructuring Administration based in New York. The document archive created by Kroll for the CalPlant proceedings meanwhile contains several hundred documents. During an omnibus hearing on 27 June, the claims brought against the insolvent companies were examined, Creditors include Siempelkamp Maschinen- und Anlagenbau GmbH, which had supplied the key components of the MDF/HDF plant put into operation at the Willows facility from November 2020, and the glue supplier Huntsman International LLC of Salt Lake City, Utah. The law firms

Morrison & Foerster LLP and Hepner & Myers LLP have been engaged as reorganisation consultants. The liquidation is being handled by Paladin Management Group; the company says that as such it is the point of contact for the sale of the assets and for the retention of former CalPlant employees.

Auction companies Rabin Worldwide (Mill Valley, California) and Onyx Asset Advisors LLC (San Francisco, California) have been commissioned to sell all the plant equipment. In early August 2023, the two companies set up an auction, the first phase of which was scheduled to run until the end of August. The auction catalogue included a total of ten equipment categories, each with separate overviews. Accumulated over all ten categories, a total of 369 individual items were available for auction. The main items of the straw intake, chopping and pulverising lines category was supplied by Robert Nyblad GmbH and Pallmann Maschinenfabrik GmbH & Co. KG. In the sifting/screening category, the machines available for auction were

supplied by companies such as Ventapp GmbH & Co. KG and LHS Clean Air Systems GmbH. The refining category includes two Pallmann refiners with a capacity of 28 t a.d. per hour. Main suppliers of machinery in the drying/glue-preparation category were Büttner Energie- und Trocknungstechnik GmbH and Siempelkamp. The next categories, mainly machinery supplied by Siempelkamp, consist of fibre sifting, scattering station, continuous press and cooling equipment. The largest individual item is a 10 ft wide and 35.4 m long generation 9 ContiRoll. The final three categories consist of an 8-head sanding system supplied by Steinemann Technology AG, a cut-to-size saw supplied by Siempelkamp as well as various control and infrastructure installations.

CalPlant I LLC, which had emerged from the project company CalAg LLC, had already been struggling for quite some time with technical, technological, and financial difficulties, which had also hampered the construction and the commissioning of the plant as well as the market launch of the MDF sold under the name of "EurekaMDF". The plant had started operation two years behind the original schedule as a result of repeated delays in the construction phase and necessary adaptations in technology. Even after this, production fell significantly short of the planned annual capacity of approximately 250,000 m³. These problems, which had not been solved until recently, had repeatedly led to budget overruns. For this reason, even before Chapter 11 proceedings were filed for, more funds had to be injected besides those from the Green bonds for financing the projects. In the course of the Chapter 11 proceedings that were extended several times during the course of 2022 and early 2023, four debtor-in-possession (DIP) bonds were issued through LIFO post-petition financing in order to be able to continue business operations. Production was terminated in October 2022, nevertheless.



Finishing of the CalPlant plant after production ceased.

(Photo credit: Rabin Worldwide)

Invest Plus plans to invest in a third short-cycle press and to widen furniture portfolio

Slotex owner acquired Ikea facilities in Novgorod and restarted production

Following sales agreements reached at the end of March 2023 concerning the Russian plants of the Ikea Group, new owners Invest Plus OOO of St. Petersburg and OOO Luzales, based in Syktyvkar, Komi Republic, resumed production in mid-May.

Invest Plus, which is controlled by Vadim Osipov, produced the first board at the particleboard plant in Veliky Novgorod, Novgorod oblast, on 16 May. No larger investments were required, as former lkea Industry 000 had regularly modernised the equipment prior to termination of production in March 2022. The most recent modernisation measures concerned the areas of sifting/screening, gluepreparation and press exhaust system. The originally intended installation of an organic rankine cycle (ORC) system for electricity production, however, could no longer be realised due to the EU sanctions. Up to the end of the year, Invest Plus plans to produce around 200,000 m³ particleboard at Veliky-Novgorod, some of which is to be further processed at the adjacent furniture plant. Osipov is the CEO and shareholder of the laminate and element manufacturer OAO Slotex, headquartered in St. Petersburg.

The lkea Group sold the particleboard mill in Veliky Novgorod and a neighbouring furniture factory as part of a divestment process underway since June 2022. An agreement in principle was reached in February 2023. A Russian government commission approved the deal in mid-February, and the transaction was completed with effect from 24 March. The change of ownership was entered in the register on 31 March.

Ikea suspended all business activities in Russia and Belarus on 3 March 2022 after Russia invaded Ukraine. Ikea's 17 Russian stores were closed, and factories operated through Ikea Industry Group were temporarily shut down. In mid-June, the decision was made to withdraw permanently from Russia and Belarus. A short time later, Ikea started the process of selling its four Russian plants. Invest Plus,

established as a special purpose vehicle (SPV) for the purposes of this acquisition, had entered the process for the two plants in Novgorod at a relatively early stage. The company won out over several other interested parties after submitting binding offers for the particleboard and furniture plant in Veliky Novgorod.

The two plants in Novgorod were offline for 13 months. Although a few test runs were carried out in autumn 2022 as part of the due diligence process, regular production had not taken place. The particleboard line in Novgorod has an annual capacity of around 500,000 m³. About half of the raw particleboard made there can be laminated using two short-cycle presses. Invest Plus next wants to install a third short-cycle press. Re-commissioning the furniture factory took longer. This is due to required production changes as the contract does not allow it to keep making Ikea products. Ikea Industry has mainly produced Metod kitchen furniture. Knoxhult modular kitchens and Pax wardrobes at the Novgorod factory using melaminefaced particleboard from the neighbouring particleboard mill. Invest Plus also plans to widen the portfolio to include finished furniture components to be supplied to furniture manufacturers and the processing trade. Invest Plus is also planning its own flat-pack furniture range, which will include kitchen furniture, cupboards, wardrobes, children's furniture and home office solutions. It will be marketed via the furniture trade and DIY stores.

Invest Plus wants to develop its own brand structure for the three planned production areas at the Novgorod site (raw and coated particleboard, prefabricated furniture parts, and flat-pack furniture). Sales will be focused on the Russian domestic market and neighbouring CIS markets. Some of the particleboard will be supplied to Slotex and used primarily to make worktops/elements.



Invest Plus is the new owner of the particleboard plant Novgorod

(Photo credit: Invest Plus)

Old production line, equipped with multi-opening press, shut down beginning of July

Kastamonu Entegre produced first particleboard at new site on 17 August

One and a half months after the closure of the old multi-opening line at the main site in Kastamonu City, the woodbased panel and laminate flooring manufacturer Kastamonu Entegre Agac San. ve Tic. A.S. of Istanbul, Turkey, put the new particleboard line into operation at the facility located outside the city.

The first panel was produced on 17 August 2023. Optimisation of the individual sections has been underway since then. At full capacity utilisation, the new plant, which has been built alongside the MDF/HDF line in operation since 2008, is said to achieve an annual output of around 600,000 m³. The multi-opening press shut down at the beginning of July had last had an output of roughly 220,000 m³. According to information from the company, this line was equipped with a seven-openings press supplied by Siempelkamp Maschinen- und Anlagenbau GmbH and produced a total of around 7m m³ since it was put into service in 1975.

Kastamonu Entegre had already set up a melamine treater and a new short-cycle press for further processing the particleboard panels at the new facility in the fourth guarter of 2022. The short-cycle press had already been ordered in July 2021 for enlarging the laminating capacity at the Russian Alabuga MDF/HDF and laminateflooring works in Tatarstan. Owing to the EU sanction in place since April 2022, however, it was unable to be delivered to Russia. In the course of the third quarter, Kastamonu Entegre has placed an order through GIM Export Group GmbH & Co. KG of Göttingen for another short-cycle press for the new particleboard plant in Kastamonu. Start-up is scheduled for the first half-year 2024. The second press is of largely identical design to the one already in operation. Three 2,200 x 2,295 mm boards can be laminated on each of the two presses. GIM Export Group says the



Management in front of the closed multi-opening press

(Photo credit: Kastamonu Entegre)

latest order will be the twenty-sixth Wemhöner short-cycle press it has delivered to Kastamonu Entegre.

The concept being implemented at the new facility in Kastamonu is similar to the one for replacement investment project completed at the Samsun works in February 2021. Here, too, a continuous press line was set up as a replacement for a ten-opening plant supplied by Dieffenbacher GmbH Maschinen- und Anlagenbau in 1990 and updated in 2001. In both cases, the plant orders, delivery, and the project financing were handled through GIM Export Group. Kastamonu Entegre says it has spent the equivalent of around €175m on building the particleboard plant and enlarging the laminating capacity.

Over the last one and a half years, Kastamonu has invested roughly €165m in the Balikesir facility previously geared to particleboard. The biggest individual project was the new MDF/HDF line, which has been built alongside the particleboard plant in operation since 2005. The first

panel was produced on 6 February 2023; the plant was accepted at the end of March. In the laminating section, the first step was to install two short-cycle presses purchased second-hand. Two new plants are to be added in the course of the second half-year. By setting up a treater and a profiling line, Kastamonu has also started producing melamine films and laminate flooring at the facility.

Siempelkamp supplied the main components for the raw-board plants for both projects. The conveyor systems for the particleboard project in Kastamonu were supplied by Trasmec s.r.l. of Casalbuttano, Italy, and the refiner for the MDF/HDF project in Balikesir by Andritz AG. Sanding machines from Steinemann Technology AG and power plants from Vyncke Energietechniek N.V. were used for both projects. The orders for the short-cycle presses and treaters were placed with Wemhöner Surface Technologies GmbH & Co. KG and Vits Technology GmbH, respectively. The laminate-flooring plant was realised with Homag GmbH.

New high-bay warehouse will deliver entire portfolio worldwide in the future

Particleboard line at Kronospan Sanem to make first board in mid-December

Kronospan Luxembourg S.A. intends to supply a complete range of particleboard, MDF/HDF, OSB, coated board, laminates, worktops/elements and laminate flooring from a single location in future by expanding its location in Sanem, Luxembourg, to include a particleboard line and three short-cycle presses.

Its entire product range will be in stock at a largely automated high-bay warehouse. Laminated board will be stored both in the 2.800 x 2.070 mm commercial format common in Germany, Austria and Switzerland and in the 4 x 8 ft format preferred in many export markets. Its complete range of decors in the Kronodesign Global Collection 3.0, which was unveiled at the Kronoevent held in Mosta, Malta, at the beginning of November 2022, will be available in both formats. The collection, which will be updated biannually until the end of 2027, comprises 154 decors and 11 textures for laminated particleboard and MDF/HDF, 68 decors and 16 textures for worktops, as well as 24 decors and three textures for the Avantgarde highgloss, matt and metallic surfaces.

Kronospan wants to further improve its portfolio and delivery service for customers from the trade and contract sectors, compared to other locations, by adopting this concept in Sanem. In Central Europe, Kronodesign's complete decor collection has so far been supplied from Kronospan's mills in Steinheim-Sandebeck (Germany), Szczecinek (Poland), Jihlava (Czech Republic) and Chirk (UK). However, only 2,800 x 2,070 mm laminated options are available. By contrast, 4 x 8 ft laminated panels are delivered from its plants in Burgos (Spain), Sebes (Romania) and Eastaboga (Alabama, US), for example. Along with melamine-faced board, its portfolio for industrial customers includes a wide range of raw particleboard. In addition to large standard board, the firm also offers inline fixed sizes, for example, for worktop production. Customers from the trade and industry will also be able to obtain mixed loads of various types of raw board and finished products from the high-bay warehouse in Sanem. Kronodesign products will be able to be combined with OSB and particleboard ("Kronobuild") and laminate flooring ("Krono Original").

Kronospan started work to build the new particleboard line and its third biomass power plant in Sanem back in the second half of 2022. The power plant and new halls will expand the current site to the west. The particleboard line will be installed in the northwest in parallel with the OSB and MDF/HDF production lines. A new hall to house the forming and press line, another hall for final assembly and a hall for laminating technology have been built as a first step. Two more silos were added to the wood yard alongside four existing concrete silos, which contain wood chips for OSB production and waste wood fractions for the existing two power plants. The new biomass power plant was built in the southwest corner of the premises. Three more concrete silos have been built between the power plant and the wood yard, where processed waste wood is stored for material and energy use. The new high-bay warehouse will be built directly adjacent to the newly constructed laminating hall, where a total of three short-cycle presses will be installed by next year. The foundation work is currently underway, and completion is planned for the first quarter of 2024.

Mechanical assembly of the new particleboard line, the front-end systems, the finishing line, and the first short-cycle press is already at a relatively advanced stage. For chip preparation, Kronospan has installed twelve knife ring flakers, ten screens and four sifters, among other things. The 100% Kronospan subsidiary Xylo Machinery DE GmbH, based in Losheim, Germany, is providing machining systems. The screens and classifiers came from Ceatec Engineering GmbH, based in Eberschwang, Austria, in which Kronospan holds a 70% stake. Two "Swiss



Press installation is nearly finished

(Photo credit: EUWID)

Combi" belt dryers from W. Kunz dryTec AG, headquartered in Dintikon, Switzerland, will dry the chips. Instalmec s.r.l., which is based in San Giorgio di Nogaro, Italy, and in which Kronospan also holds a stake, has supplied the glue system. The forming and press line was ordered from Siempelkamp Maschinen- und Anlagenbau GmbH. With dimensions of 9 ft x 58.7 m, the ContiRoll will produce up to 3,000 m³ per day or almost 1m m³ per year when it is running at full capacity. Siempelkamp also installed the cross-cut saw, the star cooler and the jumbo stack. The sanding/ sawing line provided by Kontra Anlagentechnik GmbH, based in Rüthen, Germany, which includes a ten-head sanding machine from Steinemann Technology AG. headquartered in St. Gallen, is connected to the intermediate storage area. The sanding machine is set up for two additional sanding heads to be retrofitted at a later date. Kronospan's subsidiary Xylo Machinery CZ s.r.o., based in Jihlava, Czech Republic, is installing conveyor systems, packaging and automation. Working in partnership with Homag GmbH, Kontra installed an additional tongue-and-groove line last year, which will profile both OSB and particleboard flooring in the future.

After leaving the sanding line, raw particleboard is automatically transported to the high-bay warehouse, from where it is also sent to laminating lines. HDF coated using the existing short-cycle press in the laminate flooring plant will be temporarily stored in the high-bay warehouse in future, which will then supply the profiling lines. Melamine films provided from other Kronospan locations will also be made available from the high-bay warehouse. The three new short-cycle presses will be supplied by Wemhöner Surface Technologies GmbH & Co. KG. With a hot-platen format of 5,800 x 2,200 mm, a specific pressing pressure of up to 8 N/mm² and a capacity of around 260 cycles/hour, the three presses are largely identical in design. All three presses can produce board with synchronous pores on both sides. The individual coating lines are followed by both automatic and manual inspections of surface quality. The first short-cycle press has already been installed, with the other two to follow in the course of 2024.



CHP 3 will be able to generate 35.0 MW of green electricity.

(Photo credit: EUWID)

Once coated, panels pass through an automatic packaging system from Xylo Machinery CZ. They are then sent to dispatch via a subsequent block store. By contrast, raw particleboard, MDF/ HDF, MDF coated on one side with primer film and OSB intended for dispatch are handled via the high-bay warehouse. Laminate flooring produced in Sanem and refined products from other locations, such as laminates, worktops and elements, are also stored in the high-bay warehouse. Incoming and outgoing deliveries will, at first, continue to take place by truck. However, preparatory work is already underway for a rail connection in cooperation with the Luxembourg State Railway CFL. In the future, this connection will be used to receive upstream products, such as adhesive and wood, and to transport finished products. Under current plans, the connection will have four loading tracks, which can also handle block trains. These block trains will then travel directly to big customers or to the port of Antwerp, about 250 km away, for onward shipping around the globe products can be shipped worldwide. The new loading tracks are expected to be completed by the end of 2024.

Kronospan wants to make the first piece of board using the new particleboard line before the year's end following the completion of electrical installation work and once the different components are ready. The current target date is 15 December. Commercial production is slated to get underway in the first quarter of 2024. A third biomass power plant for Kronospan Energy S.A., headquartered in Sanem, will also be commissioned this year. Valmet Technologies Oy Finland, will be the main technology provider. The combined heat and power plant (CHP 3) is designed to have an electrical output of 35.0 MW using a circulating fluidised bed combustion system. Like CHP 1 and CHP 2, which were both built by Bertsch Energy GmbH & Co. KG, based in Bludenz, Austria, CHP 3 will be heated using A1 to A4 waste wood. Commissioned in early 2016, CHP 1 has an electrical output of 8.4 MW using a grate firing system. CHP 2, which is equipped with a stationary fluidised bed combustion system and has an electrical output of 21.5 MW, has been in operation since the beginning of 2019. When CHP 3 comes on stream, Kronospan will be able to generate 64.9 MW of green electricity in Sanem.

Kronospan Energy has also installed additional photovoltaic systems on the roofs of the production halls. In a first step, around 25,000 m² of PV panels with an output of 5 MWp were installed in the second half of 2020 in cooperation with Avantag Energy S.à.r.l., based in Mertert, Luxembourg. Another 5 MWp was added at a later date.



 ${\it Production of OSB\ next\ generation\ in\ Sanem}$

(Photo credit: Kronospan)

More PV panels are now being installed on the roofs of the particleboard building, bringing the total output to around 15 MWp. Kronospan will be able to generate more than twice as much electricity as the plant consumes in Sanem with the three CHP plants and the photovoltaic system. When all the plants reach normal operation, the complex will need 30-35 MW of electricity. Any surplus power will be fed into the grid. The heat generated by the three biomass power plants will be used entirely in-house. Thermal oil for the press heating and steam for the refiners will be provided by registers. In addition, two belt dryers for OSB production and two new belt dryers for particleboard production will be supplied with hot water. CHP 1 has an available thermal output of around 32 MW, giving the power plant a total output of around 42 MW. CHP 2 is two and a half times as large, with an available thermal output of around 78 MW and a total output of a good 105 MW. CHP 3 has an available thermal output of 100 MW, resulting in a total output of 145 MW. As a backup for thermal oil supply, a biomass-fired boiler with a grate firing system is also installed in Sanem.

The new particleboard line will be designed to run on 100% waste wood from the outset. To this end, the existing waste wood processing plant in Sanem, which has so far provided recycled chips for

OSB cores and fuel for the two biomass power plants, will be significantly expanded with the installation of a third precrushing line and another recycling line. This technology will help Kronospan work towards its goal of cascade utilisation. Processed waste wood in categories A1 and A2 is to be used in wood-based panel production as far as possible. Waste wood fractions that can no longer be used in particleboard or OSB production, and categories A3 and A4 will be used for energy recovery. The construction of the new particleboard line and CHP 3 will boost the Sanem complex's total demand for waste wood to more than 1.5m t in the medium term. To meet this demand, Kronospan intends to expand its Silva Recycling collection system for waste wood, which has so far been set up mainly in the UK and Eastern Europe, into Central Europe. In the first step, the company has already purchased the assets of Hermeskeiler Holzhackschnitzel PeMa e.K., based in Hermeskeil-Gusenburg, Germany, in October 2022 and integrated them into a new firm HR Hermeskeiler Recyclinggesellschaft mbH. Its processing capacities are to be expanded, with new sites planned in parallel.

The raw material concept implemented for the new particleboard line, the belt dryer technology, the expansion of the power plant and photovoltaic systems, and

the planned addition of a rail connection form part of Kronospan's plans to further reduce the CO₂ footprint of wood-based panels made in Sanem. According to the company, the site is already CO₂-negative. The firm has made significant progress by replacing OSB technology in 2017 and 2018. This project entailed replacing the old multi-opening press with a continuous production line and the drum dryer with two belt dryers. Its wood feedstock supply was also expanded to include waste wood chips. Waste wood chips have since been used in OSB cores. Kronospan has marketed this product concept since mid-2019 under the OSB Next Generation name. Kronospan intends to prepare a separate sustainability report for each location to map progress made externally; the one for Sanem was published in the second quarter of 2023. Separate environmental product declarations (EPDs) are also planned for the individual products at each site. In Sanem, EPDs are already available for OSB, MDF/HDF and laminate flooring; the EPD for particleboard is currently being prepared.

Kronospan says that it will invest around €400m in the new particleboard line, the three short-cycle presses, the high-bay warehouse, expanding the woodyard and waste wood processing and the CHP3 power plant. About €180m of this will be invested in the power plant. The total investment made in Sanem since the first half of the 1990s will thus increase to about €1.2bn. The first projects culminated in the commissioning of the MDF/HDF line in August 1995 and the multi-opening OSB line in September 1996. Laminate flooring has been produced in Sanem since December 1997. Major projects since then have involved updating the MDF/HDF line, replacing the OSB line and building the first two biomass power plants. In the medium term, Kronospan also wants to possibly provide treating services and make adhesive/impregnating resins in Sanem. For the time being, though, these upstream products will be supplied from other group locations. The group mainly sources its melanine films in Lampertswalde (Germany), Salzburg (Austria) and Mielec (Poland) and its resin from sites including Lampertswalde. □



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Record-bigh investments in 2022/2023 financial year / €94.6m cash out for acquisitions

Egger raised group revenues again despite lower production volumes

Egger Holzwerkstoffe GmbH has reported an 8.7% reduction in woodbased panel and sawn timber production to 9.6m m³ for its 2022/2023 financial year, which ended on 30 April.

Output was thus roughly the same as in 2020/2021. Production had climbed to 10.5m m³ in 2021/2022. All locations apart from its particleboard mill in Lexington, North Carolina, which has been up and running since September 2020, contributed to this decline. The two Russian mills and its OSB mills in Wismar, Germany and Radauti, Romania, booked the biggest falls.

The company's manufacturing of upstream products even tumbled by double-digit percentages last year. Resin production was down 13.4% at 486,300 (2021/2022: 561,600) t. Impregnates production dropped by 12.9% to 1.005bn (1.154bn) m². Laminates saw an even bigger dive of 14.2% to 38.9m (45.3m) m². Downstream refining operations did not

post quite as severe decreases. Laminated board output was 7.9% lower at 342.9m (372.5m) m², while finished furniture part manufacturing slipped by 6.1% to 37.0m (39.4m) m². The biggest losses were in flooring production, which tumbled by 27.8% in a year-on-year comparison to 51.5m (71.3m) m². Production was last at a similarly low level in 2016/17 (52.6m m²). Resin production was even lower than in 2012/2013 (489,500 t). Despite last year's slumps, Egger's output of impregnates, laminated panels and furniture parts stayed above 2019/2020's level. The company's laminating output came close to the 2020/2021 range (343.7m m²). Laminate production was at least higher than the level recorded in 2018/2019 (37.8m m²).

Despite lower output and sales volumes, Egger Group's consolidated total revenues swelled by 5.1% in a year-on-year comparison to €4.450bn (4.234bn) on the back of higher prices across almost all product groups. Unconsolidated revenues stood at €4.729bn (4.515bn).

Some €3.783bn (+8.9%) of this sum was generated by the Decorative Products Division, €511.1m (+0.8%) by the Flooring Division and €434.8m (-18.7%) by the Building Products Division. Decorative Products' share of group revenues climbed again to 80.0% (76.9%). Flooring Products and Building Products contributed 10.8% (11.2%) and 9.2% (11.8%), respectively. The trade business, which has gradually increased in recent years, lost ground last year. Its share of group revenues fell to 52.6 (54.7) %. DIY's slice of the pie decreased to 6.9% (7.1%), while industrial business topped the 40% mark for the first time since 2018/2019 (41.8%) at 40.5% (38.2%). In terms of the different regions, revenues grew in Austria (+3.6% to €102.5m), Western Europe (+4.7% to €2.182bn), and North/ South America (+38.7% to €561.3m). On the other hand, revenues were lower than the previous year in Central/ Eastern Europe, including Russia (-0.6% to €1.308bn) and the rest of the world (-10.3% to €295.5m).

Group EBITDA dropped by 31.3% to €602.5m (877.5m) because higher costs were not passed on in full. This translates into a margin of 13.5%, compared to 20.2% in 2020/2021 and 20.7% in 2021/2022. Decorative Products was the best-performing division, with EBITDA down 16.2% at €551.0m (657.4m). Flooring Products' EBITDA fell by 63.0% to €18.3m (49.3m). EBITDA from the Building Products Division plunged by 80.6% to €33.2m (170.8m) compared to the very good previous year. Along with rising costs, lower volumes and price declines also played a role.

Egger Holzwerkstoffe GmbH boosted its total investments by 84.1% to €540.6m (2021/2022: 293.6m) in the 2022/23 financial year. The investment amount had soared by 180.1% compared to 2020/2021, when just €193.0m had



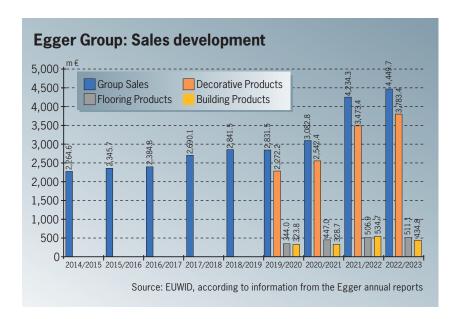
View from "Wilder Kaiser" to the Egger main plant in St. Johann

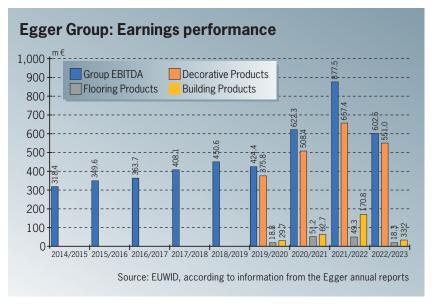
(Photo credit: EUWID)

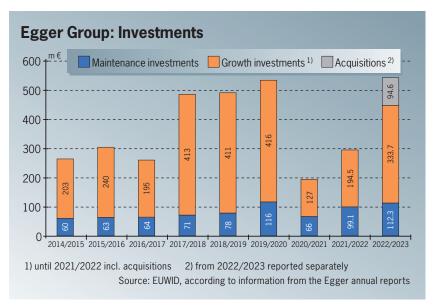
been spent after three expansive years with major projects in Argentina, Poland and the US. This was also €10.2m higher than the previous record of €531.4m set in 2019/2020. Some €112.3m (99.1m) of last year's investments were for maintenance projects, €333.7m (194.5m) for growth projects and €94.6m for cash out for acquisitions, which Egger reported separately for the first time. Egger had included net cash outflow for acquisitions in "growth investments" in annual reports for the previous years.

The last significant acquisitions were the purchase of the particleboard and MDF/HDF mill in Concordia, Argentina, which was completed in the 2017/2018 financial year, and the acquisition of a 27.5% stake in the laminating company Cleaf S.p.A., based in Macherio, Italy, since the beginning of November 2020. Egger carried out three acquisitions in the past year: the acquisition of a 60% stake in the Italian particleboard manufacturer Società Agglomerati Industriali Bosi S.p.A. (SAIB, Fossadello di Caorso) on 15 December and the integration of the recycling companies Novem Industries Inc. (Charlotte, North Carolina) and M+P Umweltdienste GmbH (Overath, Germany) in the first quarter of 2023. Egger paid around €9.4m net for the Novem Industries assets and the shares in M+P. The purchase price for the SAIB stake was set at €124.4 million. Some €17.0m of this sum will be due at a later date once specified conditions have been met. Including the cash and cash equivalents acquired in the amount of €22.2m. Egger recorded a net cash outflow of €85.2m for the SAIB investment in 2022/2023. Together with the €9.4m spent on the two recyclers, this results in a cash outflow of €94.6m. In connection with growth investments of €333.7m, Egger has invested €428.3m in further expansion steps in the past financial year.

The Decorative Products division accounted for €470.6m (248.4m) or 87.1 (84.6) % of total investments. The Flooring Products division accounted for €50.6m (31.2m) or 9.4 (10.6) %. Just €19.4m (14.0m) was invested in the Building Products division, reducing its share to 3.6 (4.8) %.







Agreements with Rauch Group signed on 8 September 2023

Egger already planning to make first investments in Markt Bibart mill

Rauch GmbH & Co KG, based in Freudenberg, is set to part ways with its particleboard manufacturing operations and to sell Rauch Spanplattenwerk GmbH of Markt Bibart to the Egger Group.

Speculation had first surfaced in the market at the end of August, including claims that plant inspections had been carried out as part of the due diligence process. Rauch's shareholders ultimately decided to sell the mill to Egger, with the two sides putting pen to paper late on 8 September. Egger then announced the transaction on 11 September. Antitrust clearance by the Federal Cartel Office in Bonn is the only condition for the deal to go ahead, with Egger having already submitted the notification documents. Unless any fundamental objections are raised, the German Federal Cartel Office will informally approve the first phase of the merger project within a month. The deal could then close in October. The undisclosed purchase price will be financed primarily from free cash flow, as with Egger's most recent projects.

Although restructuring measures have already been underway for some time, the Rauch Group only started to consider selling the particleboard mill in recent months. These deliberations were firmed up from June onwards, which then led to initial talks with potential interested parties relatively guickly. Several factors contributed to the final decision to exit particleboard production. According to Rauch, Central European particleboard markets have continued to deteriorate since mid-2022. The resulting capacity utilisation problems, unfavourable costs in some areas and the persistent pressure on sales prices are dragging down earnings, so the company can no longer implement upcoming investments at the particleboard mill cost-effectively. The Rauch Group has undertaken major modernisation projects at the Markt Bibart mill over the past ten years, such as installing an additional dryer in 2013 and replacing the forming and press line with a new line in 2016.

However, several projects are now pending that Rauch cannot pursue with the necessary vigour because of the ongoing reorganisation of its furniture production activities. These projects include expanding its feedstock supply to include waste wood, optimising energy supply, eliminating bottlenecks in the drying systems, sanding line and downstream dividing saws, and developing downstream processing options. Rauch will, therefore, concentrate on its furniture activities in the future. Funds drummed up from the sale of the particleboard mill will be used to finance furniture projects. Over the next three years, the firm plans to invest tens of millions of euros in modernising production facilities, increasing assembly automation and additional digitalisation projects. One focus is on optimising processes from order entry to invoicing ("order to cash"). The company will also modernize its paint shop, with the related technology orders now being firmed up.

The Markt Bibart mill specialises in making particleboard with special surface qualities ("Woodmax M") since Rauch still uses direct lacquering to a relatively large extent in its furniture production operations. Its portfolio of products also includes lightweight particleboard ("Woodmax X") and special grades made to meet customer specifications. In its current configuration, the Markt Bibart mill can manufacture up to 550,000 m³ per year. However, the 7 ft x 52 m press commissioned in January 2017 is designed to have an annual capacity of around 650,000 m³. Its output can only reach this level once bottlenecks in upstream and downstream areas have been eliminated. The Rauch particleboard mill currently produces around 450,000 m³ due to the significant economic slump seen in the past year. About 150,000 m³ of this sum is used in in-house furniture production. At times in the past, Rauch



The mill in Markt Bibart has so far only produced raw particleboard.

(Photo credit: Rauch)

Möbelwerke had used roughly half of the particleboard made by the mill.

Following the sale of Markt Bibart, the supply of particleboard to the three Rauch furniture factories will be secured through a long-term supply contract with the Egger Group that will initially run for five years. This supply contract will also improve reliability. Unscheduled production disruption at the Markt Bibart particleboard mill caused by just-in-time deliveries affected the furniture plants within just a few days. The Egger particleboard mills in Brilon, St. Johann, Wörgl and Rambersvillers, France, will offer several alternative sources. Rauch also wants to use melamine-coated particleboard in furniture production in the future, with the first major order already being processed. Rauch will be able to draw on Egger's range of decorative panels when expanding these operations.

The Markt Bibart particleboard mill is located about halfway between Würzburg and Nuremberg. Rauch's furniture factories in Freudenberg and Bürgstadt, which are between Würzburg and Frankfurt, are about 100 km away from Markt Bibart. The factory in Bürgstadt is now only used as an assembly site. The site in Masterhausen is about 270 km away. Rauch's furniture range is divided into the Rauch Blue line for entry-level products, Rauch Orange for quality furniture and the high-end Rauch Black line. Its portfolio includes wardrobes, chests of drawers, beds, bed frames, bedside tables and shelves. The Rauch particleboard mill primarily serves external customers from the door and furniture supply industry. Particleboard exports are mainly destined for neighbouring Eastern European countries and Italy.

Egger intends to integrate the Markt Bibart particleboard mill as its 22nd production site. The company's last major expansions were the acquisition of the particleboard and MDF/HDF mill in Concordia, Argentina, in September 2017, the commissioning of new sites in Biskupiec, Poland, and Lexington, North Carolina, in June 2019 and September 2020, respectively, and the acquisition of a 60% stake in the Italian particle-



Installation of the new dryer in Markt Bibart in 2009

(Photo credit: Dieffenbacher)

board manufacturer Società Agglomerati Industriali Bosi S.p.A. (SAIB), based in Fossadello di Caorso, at the end of 2022. Egger will retain Rauch Spanplattenwerk GmbH's current workforce of around 195 employees upon closing.

Egger has committed to the long-term future of the particleboard mill in Markt Bibart. As a dedicated raw particleboard mill, the location will play a special role within the Egger Group. The group can even expand its business model in Germany by delivering raw particleboard fixed dimensions to Rauch and other furniture buyers. Egger intends to make major investments in Markt Bibart relatively quickly after closing. The firm is already exploring specific steps but will not comment on details until after closing. Possible projects might include the construction of a waste wood processing plant and the installation of short-cycle presses, allowing Markt Bibart to provide customers with decor panels. Schüller Möbelwerk KG, headquartered in Herrieden, Germany, about 65 km south of Markt Bibart, is one of the largest German kitchen furniture factories in the vicinity.

In the 2021/2022 financial year, the two different business areas within Rauch GmbH & Co. KG saw their revenues head in opposite directions. According to its

annual report, which was published in mid-July 2023, furniture revenues were down 5.7% in a year-on-year comparison at €231.1m (2020/2021: €245.0m), with sales volumes around 13% lower. Some €147.8m (158.6m) of this sum was generated in Germany and €83.3m (86.4m) abroad. The smaller fall in international revenues helped to increase the export rate slightly to 36.1 (35.3) %. Furniture revenues were primarily generated by the three production entities Rauch Möbelwerke GmbH (Freudenberg), Möbelwerke Mastershausen GmbH (Mastershausen) and Möbelwerke Bürgstadt GmbH (Bürgstadt) and by the distribution firm Rauch Furniture UK GmbH (Freudenberg). By contrast, Rauch Spanplattenwerk GmbH saw its revenues soar by 58.5% to €75.6m (47.7m) on the back of higher prices with only a slight change in production and sales volumes. German revenues climbed by 45.5% to €56.0m (38.5m). Foreign revenues more than doubled to €19.7m (9.2m), boosting the export rate for particleboard to 26.0 (19.2) %. At €1.2m (1.3m), other revenues played a minor role in the 2021/2022 financial year. Much stronger particleboard business more than compensated for the decline in its furniture business. Therefore, Rauch GmbH & Co KG booked a 4.8% rise in group revenues to €308.1m (294.0m) compared to the previous year.

Hans Schmid commences sales of MFS-Touch



New Coating plant in Gronau

(Photo credit: HSG)

Following its investment in a new coating plant, impregnator Hans Schmid GmbH & Co. KG (HSG), Gronau, has expanded its product range, which, to date, has mainly comprised melamine films for the coating/ laminate flooring industries and phenolic films for CPL production, to include super-matte surfaces with anti-fingerprint effect. Development of the meanwhile patented production process has taken around three years. On 14 December 2020, HSG managing director Jan Esser filed a patent application for the process with the German Patent and Trademark Office (Munich). The patent specification has been available since 15 June 2022. Patent DE102020007628B4 (process for producing a material panel and a laminating film and use of such a material panel) was published on 4 May 2023. The 13-page patent specification includes descriptions of the initial situation, the processes previously used to produce matte surfaces and the special features of HSG's new development process. The development objective was a surface that can be processed, without any need for major conversions, on the equipment used to produce HPL, CPL and melamin films. The ensuing simpler production process should also engender cost advantages compared to the processes used for surface production to date. In the HSG process, plain paper or printed decorative paper is impregnated in an existing treater and coated with an adhesive agent. A two-coat, UV-curable acrylic lacquer is subsequently applied in a separate coating plant. This lacquer application consists of a base coat and a topcoat, which is made matte with an excimer.

To execute the process, HSG uses an existing treater as well as a coating plant with working width of 2,200 mm that was installed at the Gronau plant during 2021. The entire system was supplied by Hymmen GmbH Maschinen- und Anlagenbau. Individual components were supplied by Olbrich GmbH of Bocholt, which was integrated into Vreden-based Saueressig Group in August 2022. The coating plant was commissioned in various stages over the course of the past year. The plant has been in regular production since the first quarter of 2023 and sales of the MFS-Touch matte surfaces commenced in parallel. In a second step, HSG also intends to launch a weather-resistant surface for façade panels under the name MFS-Tech.

Further decline in Neodecortech turnover

Following significant increases in the 2021 (+38.0% to €176.4m) and 2022 (+11.4% to €196.5m) financial years, in the first half of 2023 consolidated turnover of Italian decor paper and surface manufacturer Neodecortech S.p.A., based in Filago, declined again. Turnover generated with products and services decreased by 12.9% to €86.4m (Jan.-June 2022: 99.2m). The most significant decline was recorded in the decorative paper business division, where turnover, at €33.7m (42.3m), fell 20.4% short of the preceding year's figure. Turnover of

the printed decorative paper division declined by 13.6% to €37.1m (42.9m). In its energy division, by contrast, Neodecortech achieved a 11.7% increase to €15.7m (14.0m). The trends recorded within the individual divisions thus reversed vis à vis 2022. During that period, the most significant turnover increase had been recorded for decor paper (+26.3% to €77.2m). Printed paper turnover had declined by 1.9% to €75.4m. In the energy division, turnover had still declined by 7.3% to €14.0m during the first half of the year. As the trend reversed later in the year, however, a 14.3% increase to €43.8m was nevertheless recorded for the year as a whole.

Surteco adjusts EBIT forecast down by 50%

Despite ongoing consolidation since the beginning of March of the laminates, performance films and coated fabrics divisions acquired from US-based Omnova Solutions Inc., based in Beachwood, Ohio, turnover of Surteco Group SE of Buttenwiesen increased just slightly in the first half of 2023. The company generated turnover of €428.8m, compared to €415.1m in the preceding year. EBIT, at €7.6m, dropped to less than one-fourth of the preceding year's figure (€33.5m).

The main reason cited for the restrained turnover development is the persistently difficult market environment in Europe and North America. Development of results has also been hampered by one-off costs in connection with the Omnova acquisition and the associated purchase price allocation. Furthermore, due to the difficult market circumstances, Surteco Group has initiated countermeasures which are to result in additional one-off restructuring expenses in the second half-year. Accordingly, Surteco Group has adjusted its turnover and results forecasts for the year as a whole. Group turnover is expected to fall short of the previous forecast of €920-950m. In terms of EBIT, the company meanwhile anticipates just €20-30m. Adjusted to account for acquisition and integration costs, the purchase price allocation and restructuring costs, however, the previous EBIT forecast of €45-55m is still expected to be reached. As a result of the measures now initiated. from FY2024 onwards EBITDA and EBIT are expected to sustainably exceed €110m and €60m respectively.

In full year 2022, Surteco Group had generated turnover of €747.1m (2021: 757.1m). EBITDA had decreased by 27% to €84.2m (114.8m) and EBIT by as much as 45% to €40.2m (72.5m). In the first quarter of 2023, group turnover declined by 3% to €205.7m (Jan.-March 2022: 213.0m). EBITDA fell by 38% to €19.1m (31.1m) and EBIT by 62% to €7.6m (20.2m). Omnova activities, which in 2022 had generated turnover equivalent to approximately €238m, were only consolidated for a period of one month during the first quarter.

Swiss Krono secures digital printing licence



RotaJET printing lin

(Photo credit: KBA)

The Unilin Technologies division of Unilin bvba, based in Wielsbeke, Belgium, and the Swiss Krono Group wrapped up negotiations about a licence for the digital printing patents held by Unilin Technologies during the second quarter of 2023. These patents primarily cover decor printing on paper with water-based inks. The rollto-roll printed papers can then undergo downstream converting using conventional treating and coating machinery. One of the patents held by Unilin Technologies allows the holder to produce and convert rainbow rolls, which can print different decors consecutively on one paper web down to batch size 1. The licence agreement that has now been signed means that the Swiss Krono Group, which has been a licensee of Unilin Technologies in other areas for some time, has now also safeguarded all previous and future digital printing activities in the roll-to-roll area under patent law.

Swiss Krono Tex GmbH & Co KG, based in Wittstock-Heiligengrabe, Germany, a member of the Swiss Krono Group, has so far pursued two approaches in the field of

digital printing. The firm has already used a multi-pass system delivered by Wemhöner Surface Technologies GmbH & Co. KG for direct printing on laminate flooring substrate. However, the digital printing licence now concluded with Unilin is used on a 2,250 mm wide RotaJET 225 single-pass digital printing system. Swiss Krono Tex ordered this technology from Koenig & Bauer AG (KBA), based in Würzburg, in the first quarter of 2019 and installed it during the second half of 2020 at the laminate flooring plant in Heiligengrabe. The press, which is designed for printing on decor paper, has been in regular operation since March 2021. Until now, it has primarily made decors for laminate flooring production. In the next step, it will use digital printing on furniture decors. Swiss Krono Tex has also finalised a cooperation agreement with the Spanish decor printer Lamigraf S.A., headquartered in L'Ametlla del Vallès, over the last few months. Lamigraf intends to add a digital printing collection to its portfolio by utilising the KBA technology at Swiss Krono Tex.

Unilin Technologies has already granted several licences for digital printing. An agreement was signed with Surteco Group SE, based in Buttenwiesen, for roll-to-roll printing in January this year. The SPC manufacturer United Surface Solutions LLC, headquartered in Chatsworth, Georgia, has held a Unilin licence for digital printing directly on substrates since November 2022.

ERA forges agreements with ACIMGA and DIPA

The European Rotogravure Association (ERA), based in Munich, forged two partnership agreements with other printing associations during the first quarter of 2023. In January, the ERA agreed to cooperate with the Italian group ACIMGA, headquartered in Milan, which currently represents 73 machinery manufacturers and supplier companies from the rotogravure industry. In February, the ERA signed a similar agreement with the Digital Printing Association (DIPA), based in Essen. This cooperation

aims to identify and unlock potential synergies between rotogravure and digital printing. Founded in the second quarter of 2019, the DIPA now has 23 member companies from various industries. ERA currently pools 85 companies. The association mainly comprises engraving companies. Printing press manufacturers, printing paper and printing ink manufacturers and companies from magazine and packaging printing are also among the members. Two decor printers, Interprint GmbH, based in Arnsberg, and Impress Decor Austria GmbH, headquartered in St. Veit an der Glan, Austria, have also joined the ERA.

Stylam builds third HPL plant in Panchkula

In parallel to the ongoing modernisation of existing plants, Stylam Industries Ltd., based in Chandigarh, India, also intends to expand its laminates capacities through a new investment. At the beginning of May 2023, the board of directors approved a budget for this purpose to the amount of INR1.5bn, equivalent to approximately US\$18m. According to information available to date, a new plant is to be constructed in Panchkula, Haryana, where the company already owns a suitable building site. Commissioning is planned for the end of the current 2023/2024 financial year (ending 31 March). Stylam intends to use the additional volumes primarily to expand its export business. In addition, the market share within India is to be expanded by increasing domestic sales. The company sees turnover potential in excess of INR5.0bn for the new plant once ramped up to full capacity.

Stylam currently operates two laminates plants in Haryana, one in Panchkula (4.5m sheets per year) and another in Manak Tabra (9.8m sheets per year). The modernisation of the plants operating there, which was approved in mid-2022, was intended to result in a 40% increase in the previously stated total annual capacity of 14.3m sheets by the end of the past financial year. By that time, however, Stylam had only spent about half of the INR400m estimated for this investment.

In the 2022/2023 financial year, Stylam sold a total of 11.6m (2021/2022: 9.2m) laminate sheets, exceeding the preceding year's figure by around one-fourth. Stylam did not provide separate sales figures for other products. Total consolidated turnover increased by 44% year-on-year to INR9.521bn (6.593bn). Compared to the INR4.606-4.795bn generated in the financial years 2018/2019 to 2020/2021, turnover has thus doubled. EBITDA improved by around 50% to INR1.550bn (1.040bn) last financial year, whereby the EBITDA margin rose to 16.2% (15.7%). Pre-tax profit (+59% to INR1.281bn) and net profit (+57% to INR960m) each increased even more significantly.

Further consolidation might occur in the European decor paper industry

Added capacity in new markets leads to shift in decor paper production

The steep decline in demand on global decor paper markets since the middle of 2022 might combine with investments made mainly in China and Russia in recent years to pave the way for further consolidation in Europe's decor paper industry.

Most companies have slashed their production by taking regular downtime in recent months. Insiders estimate that average capacity utilisation has decreased to 60-70% over the past few months. It was even lower at times in some locations. The resulting change in fixed costs, coupled with a slump in prices that surpasses the reduction in raw material and energy costs, is eating away at earnings. The situation does not look set to change in the short to medium term. Bearing this in mind, a few decor paper manufacturers are considering strategic alternatives again. Kämmerer Spezialpapiere GmbH, based in Osnabrück, already exited the pre-impregnated paper business by closing PM 3 at the end of 2022. Another firm has been switching to making other types of speciality paper for some time now because of unsatisfactory earnings from decor paper. Shutting down decor paper production does not appear to have been ruled out, either.

Divestments have become an issue for major producers, too. Some sources said that one or two decor paper machines actually need to be shut since demand on European markets will likely remain cooler in the long term, exporting to Russia is no longer an option and imports from China are mounting. However, it will likely be difficult to do so because the different decor paper manufacturing sites are fairly specialised. Most mills operate two paper machines, with only a few sites having one or three machines. The majority of machines make certain grades or special qualities that are hard to transfer to other machines. With just a few exceptions,



Commissioning of PM 16 at Huawon

(Photo credit: Voith)

European decor paper machines are relatively old, too. Their working widths rarely exceed 2.70 m, with their capacity below 30,000-40,000 tpy in most cases.

By contrast, much larger machines that make a relatively streamlined portfolio of grades have been commissioned in China in the past few years. They focus on making white decor paper or printing base paper. With working widths of up to 4 m, these machines can also handle double widths, resulting in a peak capacity of up to 100,000 tpy. A few firms, such as the joint venture Kingdecor Co. Ltd. (Quzhou, Zhejiang Province), Hangzhou Huawang New Material Technology Co. Ltd. (Huawon, Hangzhou, Zhejiang Province) and Quifeng New Material Ltd. (Zibo, Shandong Province) each have total capacities of more than 350,000 tpy.

In Russia, Felix Schoeller Group started up PM 6 at the joint venture OOO Mayak-Technocell (MTC), based in Penza, Russia, during the second half of 2018. This machine makes both decor paper and other types of speciality paper. The new paper machine was installed along-

side PM 5, which was commissioned in March 2009 and solely makes decor paper. MTC had long been the only decor paper manufacturer in Russia. A second supplier has now entered the market: LLC Ultra Decor RUS, a Kronospan subsidiary based in Lyudinovo, Oblast Kaluga. The company started up a 40,000 tpy decor paper machine in December 2022. An identical second machine is to be added in the second phase.

Another investment project is afoot in North America. Towards the end of 2022, Felix Schoeller Group unveiled plans to more than double its decor paper capacity in the continent over the next three years. The firm first intends to raise the capacity of its existing PM 19 in Drummondville, Quebec, a site that does business as Technocell Inc., from 32,000 tpy to roughly 40,000 tpy by the fourth quarter. Between now and 2025, Felix Schoeller intends to invest in a second paper machine with a designed capacity of about 50,000 tpy. Its location and technical details are to be determined during a project planning phase that is now beginning and is set to last until the end of 2023.

Global sales (excluding China) for full-year 2023 may even fall back below 700,000 t mark

Recovery of global decor paper markets will take longer than originally expected

Global decorative paper sales (excluding China) are expected to decline in the current year at a rate similar to that recorded for 2022.

The anticipated recovery during the second half-year, posited by Munksjö Germany Holding GmbH in its Decor Paper Market Research completed for Interzum in May, will likely take longer to materialise. The main reason for this is the downturn in the construction industry in almost all relevant sales markets, which is slowing demand for furniture and interior design products. As a consequence, considerable production adjustments are being implemented throughout the value chain, which are in turn impacting demand for decor paper. For European decor paper producers, the already negative situation is exacerbated by the almost complete loss of the Russian sales market and the fact that the Chinese decor paper industry is increasingly expanding its exports towards Europe. The interplay of these factors means capacity utilisation of European producers has progressively deteriorated since mid-2022. Most companies

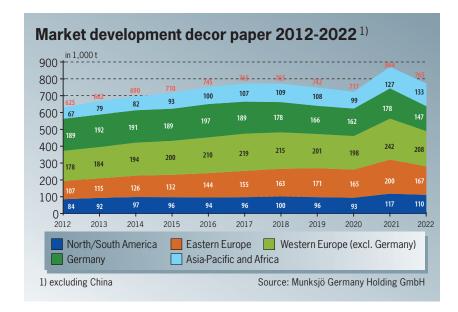
are regularly shutting down their paper machines. A change in this situation in the near future is considered quite unlikely. Demand for decor paper is expected to remain subdued in the coming months. The likelihood of a stronger seasonal upturn during autumn is assessed as rather low. However, the weakening that had set in last autumn means year-on-year decline rates will likely be more on the moderate side again. Not least due to this base effect, demand for decor paper should subsequently stabilise again. Positive momentum is expected initially from the renovation sector, whereas housing construction will probably remain weak for a lengthier period.

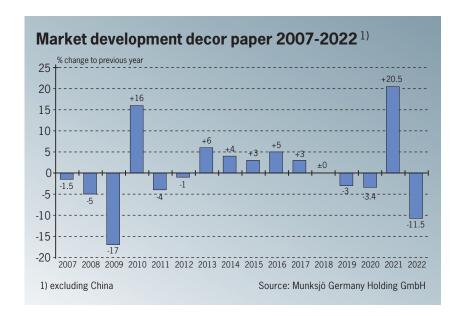
In its Market Research 2021, which was completed in June 2022, Munksjö Germany Holding had actually forecast a sales decline of 8-10% for the entire period of 2022. However, after the slump in demand during the third quarter, consequences of which had included the need for extensive shutdown measures in the relatively short term, the company had feared declines would be even more significant. At worst, a decline of

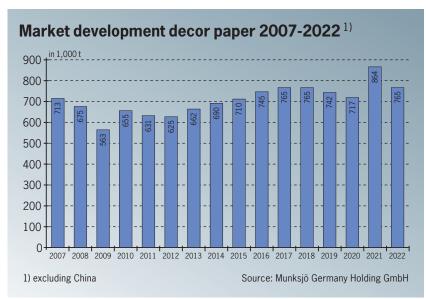
16-20% had been considered possible at that time. Then, in the fourth quarter of 2022, production in European decor paper mills had indeed continued to decline. Deliveries to customers during this period were mainly from previously accumulated stocks. With the relatively strong first half-year followed by the slump in demand during the third quarter and the reduction of stocks at the end of the year, global sales volumes of decor paper for the entire period of 2022 ultimately dropped by 11.5% to 765,000 t (2021: 864,000 t), according to the Market Research of Munksjö.

The forecast of -2% to +1% for 2023 posited in last year's Market Research, which should result from the anticipated stabilisation over the course of the year, is meanwhile described by the company as too optimistic. This also applies to the growth rates assumed for 2024 (+6% to +7%) and 2025 (+3% to +4%), which would result in global decor paper sales returning towards the 850,000 t mark within the next two years. Taking into consideration the sustained low level of demand and ensuing production adjustments implemented by almost all decor paper processors, Munksjö is currently expecting a decline of as much as around 10% for the current year. As a result, sales volumes could fall back below the 700,000 t mark, a low point not hit since 2014. The level eventually reached is subsequently expected to be maintained in the following year. No noteworthy increases are expected until 2025 at the earliest.

The sales declines recorded last year and expected in the current year will likely more than offset the unexpectedly strong growth in 2021 (+20.5%). For the period 2018 to 2023, this will probably result in stagnation or perhaps even a slight decline. From 2012 (625,000 t) to 2017 (765,000 t), global decor paper







sales had consistently risen. The level eventually reached had initially been maintained in 2018 (765,000 t) before declining again in 2019 (742,000 t) and 2020 (717,000 t), due at first to the economy and later to the corona crisis.

According to the Market Research of Munksjö, almost all markets contributed to the decrease last year. Slight increases were only recorded in the Asia-Pacific region (excluding China) and in North America, at +6.3% to 117,300 t and +3.7% to 48,000 t respectively. In the Near/Middle East, decor paper sales declined by 5.2% to 16,200 t. For all other markets and regions, double-digit year-on-year decline rates were recorded

in each case. As in previous years, Germany performed more poorly than most other markets at -17.5% to 147,100 t. In the rest of Western Europe, to which Munksjö also assigns Turkey, sales dropped by 14.0% to 208,000 t. In Eastern Europe, there was a somewhat more significant decline of 16.4% to 166,700 t. Of this, 55,200 t (-21.4%) was sold to Russian and Belarusian markets, which are meanwhile almost exclusively supplied by domestic producers or via imports from China. Sales in Germany, the rest of Western Europe and Eastern Europe resulted in a total sales volume of 521,800 t in Europe, corresponding to a year-onyear decline of 15.8%. Sales within the euro zone fell even more sharply, down 16.9% to 280,500 t. Outside Europe (excluding China), a volume of 243,200 t was sold last year. The slight increases in Asia-Pacific and North America are to be considered against the backdrop of the slight decline in the Near/Middle East and poorer development in South America (-12.6% to 61,700 t). Germany thus accounted for 19% of global decor paper sales (excluding China) last year. The next largest markets were Poland (13%), India (9%), Turkey (8%), Russia and Brazil (7% each). The USA, Italy and Spain each accounted for 5% of sales, followed by Austria at 4%. All other countries accounted for the remaining 18%.

There were declines across all individual product groups last year. Decor paper sales performed least poorly, declining 10.5% to 647,000 t. Sales of pre-impregnates fell by 12.3% to 68,000 t. Even greater declines were recorded concerning sales of backer papers (-20.4% to 41,000 t) and edgebanding papers (-23.7% to 9,000 t). The shift towards white papers, ongoing for several years already, continued. Across all product groups, 498,000 t of white papers were sold last year, corresponding to a decline of 10.1%. Of this sum, 444,300 t was attributable to decor paper, 50,400 t to pre-impregnates and 3,300 t to edgebanding papers. Sales of coloured papers fell by 13.8% to 267,000 t. This sum comprises 202,700 t of decor paper, 17,600 t of pre-impregnates and 5,700 t of edgebanding papers. Munksjö assigns its backer papers entirely to the coloured decor paper category. White paper thus accounted for 65% of all decor paper sales. If backer paper is excluded, white paper accounted for 69%.

With regard to areas of application, sales have shifted further towards LPL papers (incl. backer papers) and HPL/CPL papers. LPL papers accounted for 350,500 t (2021: 394,100 t), or 45.8% (45.6%) of total sales last year. Sales of printing base papers decreased to 273,700 t (319,800 t), resulting in a proportion of 35.8% (37.0%). The proportion attributable to HPL/CPL papers increased to 9.5% (8.4%), with 72,800 t (72,600 t) sold. Pre-impregnates accounted for 68,000 t (72,600 t), a proportion of 8.9% (9.0%).

As usual, the Market Research also included a breakdown according to purchaser group. Of the 765,000 t constituting the total sales volume, 324,300 t (-13.6%) were supplied to companies that print decor paper. This volume comprised 269,500 t of decor paper. 50,600 t of pre-impregnates and 4,200 t of edgebanding papers. Producers of TFL (LPL) purchased 275,500 t (-10.4%) of unicolour decor paper, of which decor paper accounted for 239,100 t and backer papers for 35,900 t. HPL/CPL producers purchased 72,800 t (+0.3%). Direct deliveries to impregnators and foil producers increased by 15.0% to 92,400 t; this volume comprised 65,800 t of decor paper, 17,200 t of pre-impregnates, 4,900 t of backer papers and 4,500 t of edgebanding papers.

The downturn on Chinese markets for wood-based panels, furniture and interior products that occurred in 2022 has shifted the Chinese decor paper industry's production and export figu-

res in different directions. Decor paper production has declined for the first time in a while amidst a slump in demand on the domestic market, while exports have increased significantly. In its latest Decor Paper Market Research report, Munksiö Germany Holding GmbH estimated net export volumes at around 160,000 (2021: 130,000) t. This was around 30,000 t or 23% more than in the same period last year. Chinese decor paper exports in 2021 had even leapt by more than half in 2021 after standing at 85,000 t in 2019 and 2020. Exports soared by 88% over the two-year period. The growth rates were not quite as strong in years past.

Chinese decor paper manufacturers are also reacting to the decline in domestic demand that has lasted for two years by exporting more and more, increasingly to less-tapped markets, such as Europe. Sales of grades comparable to European decor paper, which undergo downstream processing in decor printing, treating and coating lines, had risen again slight-

ly in China from 815,000 t in 2019 to 835,000 t in 2020. They then softened to 820,000 t in 2021 before suffering a much stronger drop to 710,000 t in 2022.

This slump in domestic sales far exceeds the increases in exports, which has sent production falling even though more capacity has been added. Munksjö has drawn on manufacturing statistics from the China National Forest Products Industry Association (CNFPIA) in its market research for several years. According to the CNFPIA figures, Chinese decor paper production had grown at doubledigit rates for a long time but has been in the single digits since 2018. In 2022, production dropped by 8.6% to 1.100m (2021: 1.200m) t. When adjusted to reflect the simple decor paper grades included in this total. China's relevant production volume reached around 870,000 (950,000) t last year, according to Munksjö estimates. This was also less than in 2019 (900,000 t) and 2020 (920,000 t).



WestRock announcement causes further turmoil on the saturating base kraft market

DuraSorb production in North Charleston finally phased out by end of August

The US paper and packaging group WestRock Co., based in Atlanta, Georgia, closed its mill in North Charleston, South Carolina, which specialises in making different types of kraft paper, by the end of August 2023.

The move also marked its permanent exit from the unbleached saturating base kraft business. According to a press release issued by WestRock on 2 May, the Dura-Sorb product area will be eliminated from its portfolio. For many years, WestRock and its predecessor companies, including KapStone Paper and Packaging Corp (Northbrook, Illinois), which WestRock acquired in November 2018, and MeadWestvaco Corp. (Richmond, Virginia), which merged with RockTenn Co (Norcross, Georgia) to form WestRock in July 2015, were among the world's largest producers of saturating base kraft. However, WestRock had withdrawn from certain product areas, which also led to a gradual reduction in production volumes by closing PM 2 at the North Charleston mill. This decision, which was announced in September 2019 and completed in early January 2020, saw the company transfer DuraSorb production to PM 1. The company had gradually scaled back its production of lightweight saturating base kraft, in particular, which is used in applications including CPL production. Since this transfer, PM 1 has made other paper grades in addition to DuraSorb, notably KraftPak packaging board.

Industry estimates indicated that WestRock had made up to 250,000 tpy of DuraSorb products prior to the closure of PM 2, mainly in grammages of 146-254 g/m². Roughly 80,000 tpy of this amount had reportedly been delivered to European customers. Customer reports suggested that WestRock experienced qualification problems from the outset in a few product areas when it switched DuraSorb production from PM 2 to PM 1, especially with lightweight papers. Some of these problems had not been resolved to this day. WestRock stopped making saturating base kraft in grammages below 161 g/m² as a result. This move cut deliveries to CPL manufacturers significantly, with DuraSorb sales increasingly shifting to standard HPL and compact boards. Regional changes have also occurred. Shipments to Europe have decreased because of its withdrawal from the CPL business. Conversely, sales markets in North America and Asia have gained in stature. A small amount of Dura-Sorb is also used to make surface films for coating plywood and OSB, for instance, for medium-density overlays (MDO) for use in plywood production. Sources in the kraft paper, treating and laminate industries estimate that total DuraSorb sales have been well below 200,000 tpy as a result of the changes that have taken place in recent years.

The transfer of DuraSorb production from PM 2 to PM 1 and subsequent qualification problems had caused particular difficulties for CPL manufacturers and treater operators geared towards serving the CPL industry in 2020 and 2021. Demand for lightweight kraft papers, which had increased significantly due to good sales at the time, had to be shifted to other suppliers. This process has likely now been largely completed. The Kotkamills mill in Kotka, Finland, is now considered to be the main supplier of saturating base kraft for use in CPL production. Other kraft paper producers have also been trying to enter this market segment for some time. By contrast, standard HPL and compact board producers have focused their purchasing of kraft paper more on WestRock. A few companies in Europe also meet a significant part of their demand by ordering from the North Charleston mill. These customers had to find alternative suppliers and qualify them for their HPL or compact board production. The economic slowdown that has also touched the laminates industry since mid-2022 leaves a certain amount of leeway. Potential alternative saturating base kraft suppliers usually have free capacity at the moment, although it will likely not be enough to fully make up for the amounts formerly made in North Charleston.



WestRock paper mill in North Charleston.

(Photo credit: WestRock)

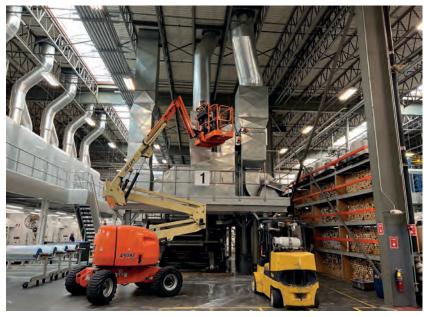
Three new machines to print film / Two printing machines for Turkey

Interprint expands site in Pittsfield and adds new printing plant in Gebze

Interprint GmbH, which is headquartered in Arnsberg, Germany, and part of the Japanese group Toppan Printing Co. Ltd., is planning to spend around €65m on another expansion to its US facility in Pittsfield and on building another production location in Turkey between now and the end of 2024.

Last year, the company acquired a piece of land around 24,000 m² in size for the €35m greenfield project in Turkey, which is to be carried out in the vicinity of the Western Turkish city of Gebze. Two 7 ft-wide rotogravure machines are to be installed there in the coming year once hall construction work has been completed. The firm is currently preparing to place technology orders. In the second phase, the project will add its own cylinder engraving unit and an electroplating unit at the site. Interprint wants to roll out cylinder management, which has already been introduced at several locations, at the Gebze complex, too. The number of Interprint production sites will increase to ten upon commissioning, which is slated to happen by the end of 2024. In Europe, Interprint currently has sites in Arnsberg (Germany), Ozorków (Poland) and Tordera (Spain), Its two Russian plants in Egorievsk and Samara have operated as a separate entity since mid-2022 because of EU sanctions imposed against Russia. The company also has locations outside Europe in Pittsfield (US), Curitiba (Brazil), Nilai (Malaysia) and Changzhou (China).

Interprint has already started installing another printing machine for thermoplastic surfaces in Pittsfield, which was planned to be commissioned in the third quarter. The company is presently building a new production hall at the site, which will house two more foil printing machines and is slated for commissioning in the first half of 2024. The new hall with an area of approximately 8,000 m²



Dismantling of 33 year old press #1 in Pittsfield

(Photo credit: Interprint)

offers space for a total of six machines. Jagenberg Converting Solutions GmbH, based in Bocholt, Germany, will deliver the three new machines, which are largely identical and each designed to have an annual capacity of about 25m m² with a working width of 5 ft.

Interprint is adding capacity mainly in response to the ever-stronger demand for PVC foils to make design flooring in North America. The firm put the investment in building the new hall and installing the three additional printing machines at around €30m.

The company currently uses two rebuilt printing machines and a new machine supplied by Faustel Inc., based in Germantown, Wisconsin, to print thermoplastic foils in Pittsfield. The printing machine, which added an EBC lacquering system in the fourth quarter of 2011, produces OPP films sold under the Premeer name. The second rebuild printing machine mainly prints PVC film. The two machines will undergo a retrofit after

the three new printing machines have been commissioned. They will be able to be used again primarily for printing on decor paper. The Faustel printing/lacquering machine, which was commissioned in October 2020, can produce up to 35m m² per year and processes both PVC and OPP. The machine is also equipped with an EBC unit to print on OPP films. PVC film presently accounts for just under 80% of production, and OPP film for the rest.

Interprint will also convert one of the decor printing machines at its Arnsberg headquarters to process thermoplastic film over the coming months. Production is slated to begin in the fourth quarter. The machine is to handle PVC, OPP and PET film. This conversion project and related possible expansion of its portfolio will make up for the stoppage of deliveries mainly handled from Arnsberg to the Turkish market. Interprint also intends to retrofit one of two treating lines to make post-impregnated paper in Tordera, Spain, over the coming year.

Company ramping up capacity to make thermoplastic foils/Start-up planned for 2025

Schattdecor orders a printing/lacquering system for its Tarnowo Podgórne site

Schattdecor SE, based in Thansau, Germany, is set to install another printing/lacquering system referred to as machine PMD 55 at its site in Tarnowo Podgórne, Poland, which does business as Schattdecor Sp.zo.o., by the start of 2025.

This project is to add capacity to make SmartFoil finish foils and, above all, will boost its capacity to make thermoplastic foils. In recent years, the firm has already modified several printing machines to print foils at its Thansau headquarters, in Tarnowo Podgórne and at its US site in Maryland Heights, Missouri. The machines in Thansau and in the Polish plant mainly printed PP film at first. This product has been marketed under the Proflex name since 2017 and is now delivered to foil processors as an upstream product for complete design flooring surfaces.

Schattdecor has also been printing PVC films for use in the flooring sector in Thansau and Maryland Heights since 2021. Following the firm's acquisition of a 50%

stake in Fine Decor GmbH, based in Oelde, Germany, at the end of September 2021, its portfolio in Thansau was also expanded to include PET films. Until now, Fine Decor has only offered single-shade surfaces made at the Oelde site and sold as Lacklaminat. Printed versions are also available for the product line, which has been renamed "Fineflex". Schattdecor also wants to offer structured Fineflex surfaces in the medium term. Fineflex products have so far been used primarily for 2D applications in the sheathing sector; a version for 3D coating is next to be developed.

According to Schattdecor, PMD 55 will be optimised to process thermoplastic foils, which can then be used in various areas of applications. The machine should thus cover a similar portfolio to the PMD 42 printing/lacquering line in Tarnowo Podgórne, which was initially commissioned as a printing machine in May 2012 and which has also been used to make finish foils since September 2014 after the installation of a first EBC unit. PMD

42 is now equipped with a total of seven coating heads, including two EBC units. PMD 55 is to have as many as eight coating heads for applying primer, printing and lacquering. It will be fitted with two EBC units from the outset. The key technology orders were placed at the end of 2022, with the firm since working on specifying the details. Rotodecor GmbH Maschinen- und Anlagenbau, based in Lage, Germany, is to deliver the entire plant and components provided by various other machinery suppliers, such as coating units, EBC units and excimers.

Schattdecor will increase the number of lacquering machines with EBC units to seven with the investment in PMD 55. The number of EBC units will increase to 11. Lacquering machines PML 7 and PML 8 at its Glucholazy site can provide EBC lacquering with one EBC unit each. Schattdecor operates PML 10 with an EBC unit and PML 11 with two units commissioned in the second quarter of 2022 at its US foil site in Lexington, South Carolina. In Tarnowo Podgórne, PMD 42, PML 12 and the future PMD 55 machine are each equipped with two EBC units.

During last year, Schattdecor put finishing touches on projects announced since mid-2020 at its sites in Lexington and Tarnowo Podgórne. Investments in Lexington entailed a move to a new location, the installation of PML 11 delivered by the South Korean machine manufacturer Sung An Machinery Co. Ltd. (SAM), headquartered in Hwaseong, and the relocation of PML 10 to the new site. PML 11 was commissioned during the second quarter of 2022. After dismantling, PML 10 underwent a retrofit. The modernized line started production in the first quarter of 2023. In Tarnowo Podgórne, the new line PML 12 supplied by Kroenert GmbH & Co. KG, headquartered in Hamburg, started operating in September 2022.



PML 12 in Tarnowo Podgórne was commissioned in September 2022. (Photo credit: Schattdecor)

Supplier Jagenberg has meanwhile modernised three Cerutti printing machines

Lamigraf commissions new printing machine at its Spanish headquarters

At the end of July 2023, Lamigraf S.A., based in L'Amettla del Vallès, Spain, printed its first reel on the gravure printing machine supplied by Jagenberg Converting Solutions GmbH of Bocholt.

Installation of the printing machine began at the Spanish headquarters back in May. Mechanical and electrical installation was completed by mid-July. Meanwhile the fourcolour printer, known as the M19, with a working width of 2,250 mm, capable of speeds of up to 400 m/min and designed for an annual capacity of around 4,500 t, is running in regular production. The new machine is able to produce more flexibly than the existing printers supplied to L'Amettla del Vallès by Cerutti S.p.A. of Casale Monferrato, Italy, in the late 1990s and the 2000s. In this connection, the new printer is to be used in future to print large batches as well as special decors.

In parallel with the order for the new machine, Lamigraf had also commissioned Jagenberg Converting Solutions in the third guarter of 2021 to modernise five of the altogether six Cerutti printers. One of the two presses at the site in Bönen, which operates under the name Lamigraf GmbH, had already been modernised during the first half of 2021. Within the scope of the new order, the oldest of the four machines in L'Amettla del Vallès was converted during 2022; this was followed by the second Bönen printer at the turn of 2022/2023. Over the next two years, the other three Cerutti machines at the Spanish site will also be modernised. In the course of the modernisation measures, the printers are to be fitted with a new register control and new web tension; the complete control system will also be overhauled. After the upgrade, the printing machines will be able to operate with significantly lower reject rates.

In Spain, Lamigraf has previously produced on a total of four Cerutti printers (M10,



Lamigraf site in L'Amettla del Vallès

(Photo credit: Lamigraf)

M11, M12, M13). The Jagenberg machine has now been added. Another machine, originally supplied by Rotomec of San Giorgio Monferrato, Italy, is meanwhile seldom in use. At the Bönen site there are two Cerutti printers (M8 and M9). In the fourth quarter of 2021, Lamigraf had also completed construction of a new printing site in Changzhou (Jiangsu Province, China) equipped with two 4 ft printing machines (M17, M18) supplied by Rotodecor GmbH Maschinen- und Anlagenbau of Lage. Two Rotomec machines (M14, M15) are in operation at the plant in São Jose dos Pinhais (Paraná, Brazil), which had been relocated during the second half of 2017. With the total of eleven machines across four locations, Lamigraf is focusing on printing decor papers for TFL and HPL/ CPL production. The finish foils segment, by contrast, is covered by the strategic cooperation agreed in December 2020 with Likora GmbH, based in Horn-Bad Meinberg. Likora is also able to use Lamigraf cylinders to produce finish foils on its printing/ lacquering lines. Likora has replaced all its machinery with new equipment in recent

years. In this connection, two Rotodecor machines were put into operation in 2016 and early 2019. Two machines supplied by Elrond GmbH of Schloss Holte-Stukenbrock followed at the end of 2021 and beginning of 2023.

In the digital printing segment, Lamigraf has been cooperating with the Swiss Krono Group for several months. Within the scope of a cooperation agreed in spring 2023, Lamigraf can use capacities on the single pass digital printing machine of Swiss Krono Tex GmbH & Co. KG, based in Wittstock-Heiligengrabe. This machine was installed by Koenig & Bauer AG (KBA) of Würzburg at the laminate flooring plant in Heiligengrabe during the second half of 2020 and commissioned in the first quarter of 2021. Lamigraf will mainly print decors for the furniture sector on this machine; the company also plans to launch a corresponding digital print collection in the foreseeable future. In the medium term, the company is apparently considering investing in its own digital printing machine.

American Woodmark builds plant in Mexico

In late January 2023, US-based kitchen and bathroom furniture manufacturer American Woodmark Corp., headquartered in Winchester, Virginia, started construction of a fourth plant in Monterrev in the Mexican state Nuevo León. The company had announced the project in October 2022. Expansion of the plant in Hamlet, North Carolina, had been announced at the same time. American Woodmark plans to invest a total amount of around US\$65m in the two projects. Approximately two-thirds of this sum is to be used for the greenfield investment in North-Eastern Mexico. The plant will extend over a production area of around 25,000 m², approximately 300 persons are to be employed. Completion is scheduled for the end of 2024. Subsequently, especially furniture parts for made to stock kitchen furniture and bathroom furniture are to be produced in Monterrey. Expansion of the plant in Hamlet is to be concluded as early as mid-2024. With this project, the company will create a so-called bath manufacturing center of excellence at the site. A corresponding kitchen manufacturing center of excellence is to be established at the site in Lincolnton, North Carolina.

Currently, American Woodmark operates a total of 17 plants, of which 14 are located in the USA and three plants in the vicinity of the Mexican city of Tijuana, Baja California, near the Californian border. In addition the company operates the Van Horn distribution center near Dallas as well as eight primary service centers located across the USA.

American Woodmark concluded its 2022/2023 financial year (end of April) with an 11.3% increase in turnover to US\$2.066bn (2021/2022: 1.857bn). EBITDA more than tripled to US\$232.4m (63.8m); on an adjusted basis, EBITDA amounted to US\$240.4m (138.0m). Operating profit improved to US\$136.4m (36.2m). Net profit, at US\$93.7m (-29.7m) was back in the positive zone. According to American Woodmark, however, the annual accounts are not yet final as the pending decision of the United States Department of Commerce concerning antidumping and countervailing duties for plywood imports from Vietnam could still reduce net profit by up to US\$4.0m. Over the course of the financial year, turnover development of American Woodmark slackened off vis à vis the respective period of the preceding year (Q1: +22.7% to US\$542.9m, Q2: +23.9% to US\$561.5m, Q3: +4.6% to US\$480.7m, Q4: -4.1% to US\$481.1m). Results figures, by contrast, considerably exceeded the preceding year's figures in each of the four quarters.

American Woodmark PRIMERA PIEDRA 26 de enero de 2023 CPA TRASA

Laying of the foundation stone for the new plant in Monterrey (Photo credit: American Woodmark)

Nobia turnover 8% down in second quarter

In the second quarter of 2023, turnover of Swedish kitchen furniture manufacturer Nobia AB of Stockholm declined by 8% to SEK3.562bn (Apr.-June 2022: 3.890bn), equivalent to around €308.5m. In organic terms, turnover fell by 13% vis à vis the preceding year. The company indicated that, due to the price increases implemented last year, the decline in sales volume was actually even more significant.

As a consequence of the declines recorded in the first (-3%) and second quarters, half-year turnover decreased by 6% to SEK7.222bn (Jan.-June 2022: 7.669bn). Development of results was particularly burdened by restructuring costs amounting to SEK320m. Both operating profit and profit after tax were negative, at -SEK156m (+244m) and -SEK213m (+145m) respectively. In this context, however, operating loss of SEK217m (+182m) recorded in the first quarter was then followed by operating profit of SEK61m (62m) in the second quarter. During this period, price effects as well as cost savings to the amount of SEK70m, resulting from restructuring measures, had a positive effect.

In Great Britain, Nobia has meanwhile closed its plants in Dewsbury and Grays. British project business is also to be reduced, and discontinued in areas where it is not profitable. In Great Britain and the Nordic region, as well as at group level, the company is planning to cut a total of 500 jobs. Nobia management has decided to sell the production location in Dewsbury. The sales process has already been initiated. Completion of the transaction is expected during the second half of the year.

In the new Swedish plant in Jönköping, installation of equipment and testing of machinery has already commenced. Commercial production of the first components has been launched at a small scale. Further machinery is to be installed over the course of the year and the plant is to become fully operational in 2024. By the end of June, SEK2.1bn, almost two-thirds of the planned investment volume of SEK3.5bn, had already been invested in the new location.

Wren doubled total turnover within four years



(Photo credit: Wren Kitchens)

Almost two-and-a-half years after entering the US market, British kitchen furniture manufacturer and retailer Wren Kitchens Ltd., based in Barton-upon-Humber, opened its seventh US-based kitchen studio at the end of March 2023 at its site in Hamilton, New Jersey. 32 showroom kitchens will be displayed on an area covering almost 10,000 sqft. In eleven so-called design suites, customers will also be offered 3D visualisation systems for assembling kitchens.

Wren opened its first US-based kitchen studio at the beginning of November 2020 in Milford, Connecticut. According to Wren Kitchens US at that time, the location was set to become the largest kitchen showroom

in the USA, with a sales area of 31,465 sgft and around 100 show kitchens on display. 75 kitchens are currently on display in Milford, according to an up-to-date overview. Additional kitchen studios have since been added in Newington, Connecticut (67 show kitchens); Levittown, New York (86 kitchens); Selden, New York (86 kitchens); Wilkes-Barre, Pennsylvania (59 kitchens); and Lawrenceville, New Jersey. The next new opening is planned in College Point, New York. Kitchens for sale in the USA will be produced at the Wilkes-Barre factory, which was commissioned in 2021. The expansion step in the USA was preceded by strong growth in the British domestic market, where Wren Kitchens is meanwhile represented with 110 showrooms. The product range, which, to date, has focused on kitchen furniture and kitchen accessories with the Infinity, Infinity plus, Vogue and Easy Fit product lines, was expanded in spring 2023 to also include bedroom and wardrobe furniture. Initial plans were announced in February. Wren Kitchens then officially announced its entry into the bedroom furniture business in the second half of March, Currently, the company offers the two collections Infinity

and Infinity plus in the bedroom furniture segment. As with kitchens, the furniture is configured in Wren Kitchens showrooms according to customer specifications; production is then executed to order in Wren Kitchens factories.

The expansion strategy implemented by Wren Kitchens since the company's founding in 2009 has facilitated relatively strong growth. According to business reports published in the British register of companies, total turnover more than doubled in the four years from 2017 to 2021. EBITDA more than trebled in the same period. Pre-tax profit as much as sextupled. All turnover increases in recent years have been well into the double-digit percentage range. After £406.7m was generated in 2017, growth of 21% to £490.8m was recorded in 2018. In 2019, turnover increased by 25% to £612.7m. In 2020, growth was slightly less significant at +15% to £703.1m. The £916.5m generated in 2021 represented a year-on-year increase of as much as 30%. Of this 2021 turnover figure, £912.2m (699.0m) was attributable to British activities and £4.3m (4.2m) to the US business. which has been newly established in recent years.

Howdens records slight turnover growth

In the first 24 weeks of the 2023 financial year, British kitchen furniture manufacturer and retailer Howden Joinery Group plc (Howdens), based in London, generated turnover of £926.9m (Jan.-June 2022: 913.1m). This corresponds to a year-on-year increase of 1.5%. Compared to 2019, turnover increased by 42.0%. Following the lockdown-related decline of 28.7% in the first half of 2020, an exceptionally high increase of 68.8% was recorded in 2021; in 2022 turnover also increased at a double-digit rate of 16.3%.

On the British domestic market, the prioryear figure was exceeded slightly in the first 24 weeks of the current financial year, up 0.6% to £895.1m (889.3m). In the international business division, which includes activities in France, Belgium and Ireland, turnover rose by one-third to £31.8m (23.8m). On a like-for-like basis, however, growth on

the foreign markets remained rather subdued at 2.6%. In Great Britain, like-for-like turnover stagnated at the prior-year level.

Operating profit (-21.5% to £117.0m) and pre-tax profit (-22.8% to £111.9m) each declined by more than one-fifth in the first half-year. Howdens attributes this development to the £32.5m increase in distribution and administration costs associated with issues such as new store openings, renovation of stores, optimisation of the product range as well as increased digitalisation.

Howdens plans to open 33 new kitchen studios in Great Britain over the year as a whole. During the first half-year, the company commissioned eight new locations. At the end of 2022, there were 808 stores on the domestic market. Overall, Howdens sees potential for around 1,000 studios in Great Britain. Abroad, approximately ten

new stores are to be added in 2023. Last year, Howdens entered the Irish market with the opening of five stores in the greater Dublin area. In 2023, two more stores have already been opened in Ireland, one of which is in Cork. By the end of the year, the Irish store network is expected to be expanded to ten. At the end of 2022, the company operated two studios in Belgium and 60 in France, where the number of locations is to be increased to around 65 by the end of 2023.

Due to the commissioning of new machinery and equipment in 2022, especially concerning production of kitchen fronts at the production site in Howdens, Yorkshire, the company has been able to increase its vertical range of manufacture whilst reducing dependence on suppliers as well as costs and delivery times. A second system for the production of skirtings and jointing strips at the Howdens site has meanwhile also been ramped up to full operation.

Finsa and Groupe Adéo to build kitchen plant

Spanish wood-based panels manufacturer Financiera Madereira S.A. (Finsa) of Santiago de Compostela and French Groupe Adéo S.A., Ronchin, which includes DIY chains Leroy Merlin and Bricomart, are planning to invest around €75m for the construction of a kitchen furniture plant in Teruel. The project was announced at the end of March 2023 within the scope of a press conference held by Javier Lambá, president of the autonomous Aragón region. According to the plans presented, the project will be implemented in two phases at the PLATEA Plataforma Logística de Teruel industrial estate.

In the first investment phase, a 32,000 m² production building is to be constructed on a 145,000 m² site. In this building, a cut-to-size saw, a production line for processing cut panels and a packaging line for flat-pack furniture are to be installed. Commissioning of these systems is scheduled to take place during 2025. Finsa's nearby site in Cella is to supply the new furniture plant with laminated panels. By 2028, the furniture plant is to be expanded to include a second production and packaging line. The investment budget required for this is indicated at a further €5-10m. In the final phase, the companies plan to employ a total of 213 persons at the site. Turnover is to be increased gradually from initially €20m to €70m by 2030.

Finsa had originally operated two woodbased panel plants at the Cella site, which is around 10 km away. The MDF line at the Cella I plant, commissioned in 1977, was permanently shut down back in 2011; production was subsequently focused on particleboard and processed products such as furniture parts. By 2015, the continuous forming and press line for particleboard in operation since 1998 was then also relocated to the Portuguese site in Nelas. At the Cella II plant, Finsa has been operating a continuous press since 1999, which was supplied by Siempelkamp Maschinen- und Anlagenbau GmbH & Co. KG and was originally designed for a capacity of 1,150 m³/day.

In recent years, the front-end area has been expanded to include two waste wood processing systems supplied by Italian Imal-Pal Group, based in San Damaso. According to a statement issued by the Consejo de Gobierno, the plant processes a large proportion of the waste wood collected under the circular economy programme entitled Aragón Circular. In this connection, over the past two years the company has received €700,000 in subsidies from the Ministry of Economy of the Autonomous Region.

Stosa Cucine increases its turnover to €183m

Italian company Stosa Cucine S.p.A., based in Radicofani, Tuscany, one of the largest kitchen furniture manufacturers in Italy according to its own estimates, has increased its turnover by around two-thirds over the past two years. Starting from the €110.4m generated in 2019, turnover in the 2020 financial year had initially declined by just under 5% to €105.0m. 2021 had then been concluded with turnover growth of 39.6% to €146.6m. According to preliminary figures for 2022, turnover increased to around €183m last year. The prior-year figure was thus exceeded by almost 25%.

Stosa Cucine's production programme comprises the two product lines modern and classic, which are offered in three versions: evolution system, look system and classic glam. Distribution takes place, for example, via a network of meanwhile around 230 monobrand stores in Italy and abroad. The company exports to around 40 markets. In Germany, there are currently six Stosa kitchen studios in Nuremberg, Fürth, Erlangen, Herzogenaurach, Forchheim and Neustadt.

Stosa Cucine's production is located in a plant newly constructed in the early 1990s in the Val di Paglia industrial area, which is located some 60 km south of Siena and is part of the Radicofani municipality.

Administrator of Störmer reports lack of assets

In the insolvency proceedings concerning the assets of kitchen furniture manufacturer Störmer AG of Rödinghausen, insolvency administrator Manuel Sack of law firm Brinkmann & Partner reported a lack of assets on 2 August 2023. One day earlier, the Bielefeld district court had opened the insolvency proceedings. Sack was appointed as preliminary insolvency administrator on 22 June, after applications for the opening of insolvency proceedings had been submitted by the company directly as well as by a third party.

Most recently, around 160 persons had still been employed by Störmer. On 13 June, lawyer Klaus Pahne, acting on behalf of the Störmer works council, had filed criminal charges for delayed filing of insolvency against sole managing director Michael Leslie Cox with the district police authority in Bünde, as the company had failed to pay wages and salaries for the month of May. Already since March, production has also no longer taken place due to lack of upstream products.

TCM Group acquires all shares in Aubo Production

With the takeover of Aubo Production A/S, based in Aulum, Denmark, contractually agreed on 19 June 2023, Danish kitchen and bathroom furniture manufacturer TCM Group A/S of Holstebro plans to expand its activities especially on the Norwegian market.

At company headquarters in Aulum, Aubo Production manufactures mainly kitchen furniture; the entire production range also includes bathroom furniture and wardrobes. Sales are conducted via 22 independent retailers on the Danish market. Aubo Production also operates shop-in-shop concepts at stores of Norwegian building materials chain Optimera AS, which belongs to Saint-Gobain S.A. of Courbevoie, France. So far, TCM Group sells its kitchen and bathroom furniture in Norway mainly via group-owned kitchen stores of Svane Køkkenet and Nettoline.

Forte: decline in particleboard turnover

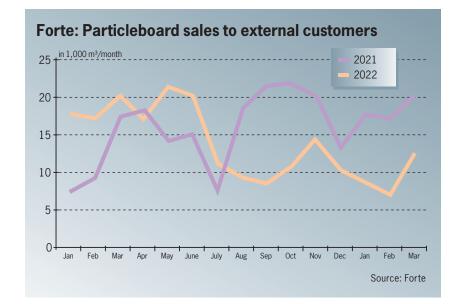
According to preliminary figures published at the end of July, in the first quarter of the 2023 financial year (31 March), turnover of Polish cabinet furniture manufacturer Fabryki Mebli Forte S.A. of Ostrów Mazowiecka declined by PLN69m or 20.7% to PLN264m (April-June 2022: 333m). Of this decline, PLN68m resulted from particleboard sales to external customers, which are handled via Tanne Sp.zo.o. and, due to declines in sales volume and price, dropped by 75% to PLN23m (91m). Adjusted to account for this external particleboard turnover, turnover generated by Forte with furniture remained virtually unchanged year-on-year at PLN241m (242m).

Consolidated results figures, by contrast, plummeted vis à vis the preceding year. EBITDA more than halved to PLN16m (36m), whilst EBIT, at PLN2.5m (22m), amounted to only 11.4% of the prior-year figure. Adjusted to account for revenue generated with sales of CO₂ certificates, which is included in EBIT, Forte actually only just achieved a balanced result. Over the entire first quarter, Tanne sold a total of 6,855 certificates for €87 each, generating revenue of PLN2.6m.

As Forte is changing its financial year from the calendar year to the twelve-month period from April to March, the first quarter of 2023 marks a transitional period for the company. Between January and

March, Forte generated total turnover of PLN325.0 (Jan.-March 2022: 355.6m), representing a year-on-year decrease of PLN30.6m, or 8.6%. During this period, particleboard turnover generated by Tanne had declined by 29.0% to PLN44.3m (62.4m) and had thus already developed along considerably weaker lines than furniture turnover, which had declined by 4.3% to PLN280.7m (293.2m). In its presentation of the quarterly figures at that time, Forte had also explained development of external particleboard sales in greater detail. According to the presentation, in March 2023 Tanne had still sold around 12.000 m³ particleboard on the free market, compared to more than 20,000 m³ in March 2022. From September to November 2021 as well as in May and June 2022, external particleboard sales had also exceeded 20,000 m³ in each case. In January and February 2021, in July 2021 as well as in January and February 2023, by contrast, the monthly volume of particleboard sold on the free market had each dropped to less than 10.000 m³.

In the period from January to March EBITDA halved to PLN23.9m (46.0m) and EBIT dropped by two-thirds to PLN10.6m (32.2m). These declines led to margins of 7.4% (12.9%) and 3.3% (9.0%) respectively. Results included revenue of around PLN7m generated with $\rm CO_2$ certificates. \Box



Administrator starts sales process for Kröger



(Photo credit: Christian Kröger)

The preliminary insolvency administrator appointed by the Bielefeld district court on 8 August 2023, Dr. Hans-Joachim Berner of Hamburg-based law firm Willmer-Köster, is currently conducting a structured sales process for Christian Kröger GmbH & Co. KG of Löhne. According to a statement issued by WillmerKöster on 10 August, potentially interested parties were contacted from mid-August onwards. The 120 employees at the two sites in Löhne and Kirchlengern have already been informed at a company meeting about the background of the insolvency application and the planned next steps. Wages and salaries are secured until October through compensation money in connection with the insolvency. According to Berner, this means business operations can definitely continue for the time being. In the coming months, the restructuring process already initiated in 2022 is also to be intensified. The measures implemented so far, in the opinion of managing director Klaus Mattiszik, have not been sufficient to stabilise the economic situation of the company. Christian Kröger was taken over by Mattiszik in the fourth quarter of 2020 within the scope of a management buyout.

According to the most recent published business report, in 2021 Christian Kröger generated gross profit of €11.5m (2020: 12.7m) with an average of 105 employees; the decline was mainly attributed to the increase in materials ratio to 66.0% (61.3%) This led to an annual deficit of -€0.6m (+0.2m). With a balance sheet sum of +9.2m (9.8m), per end of 2021 the company reported equity capital of +2.0m (2.5m) and liabilities to the amount of +6.8m (6.8m).

Kitchen, upholstery and living room furniture producers record drop in orders

German furniture industry to brace itself for further declines in second half-year

A further drop in incoming orders has resulted in the Verband der Deutschen Möbelindustrie (VDM), Bad Honnef, revising its turnover forecast for the full year 2023 significantly downwards.

At the beginning of the year, the association had still thought it possible for industry turnover to remain on par with the level of the preceding year. Meanwhile, a nominal decline of 5-7% is expected. Based on the €18.766bn generated over the entire period of 2022, this would correspond to just €17.5-17.8bn. However, price increases implemented by the furniture industry over the course of the preceding year, in some cases in several stages, mean there will likely be an even sharper decline on a price-adjusted basis. According to VDM estimates, adjusted turnover will probably fall 15-20% short of the preceding year's figure.

The forecast was updated on the basis of the now available turnover figures for the first half-year as well as current incoming order development and estimates from furniture manufacturers. At the business press conference held in Cologne on 21 August, however, VDM managing director Jan Kurth again mentioned that the turnover figures compiled by the Federal Statistical Office for the first half-year are actually too high and thus probably do not accurately reflect the market situation. Despite incoming orders remaining below the prior-year figures since mid-2022, turnover has still fared relatively well. From the perspective of the VDM, this divergence can be only inadequately explained by the orders in hand accumulated up to the first half of 2022, the ensuing order backlogs at the end of the year, price increases implemented to compensate for higher material and energy costs as well as project delays. These project delays mean turnover is still being belatedly reported, especially in the kitchen furniture sector. This effect was particularly pronounced in March and April. The kitchen furniture industry is also more affected by statistical irregularities overall than other furniture industry subsectors, where development of incoming orders and turnover are more easily reconcilable. The VDM and the Verband der Deutschen Küchenmöbelindustrie (VdDK), Herford, have contacted the Federal Statistical Office in an effort to find possible explanations. This has yet to yield any usable results, however.

According to figures of the Federal Statistical Office, evaluated by the economy & statistics division within the VDM, total turnover of the German furniture industry in the period from January to June declined by just 0.2% vis à vis the preceding year to 9.489bn. At -1.2% to 6.301bn,

Germany: Sales development of the furniture industry 1) January - June 2023

in m €	Jan	Feb	March	April	May	June	June 23/22 in %	Jan - June 2023	Jan - June 23/22 in %	Jan - Dec 2022	Jan - Dec 22/21 in %
Kitchen furniture	504.0	558.6	676.5	593.4	558.6	555.8	+ 2.9	3,446.9	+ 6.7	6,242.0	+ 9.5
Germany	271.9	315.0	378.0	335.8	299.4	293.4	+ 2.8	1,893.4	+ 6.7	3,428.6	+ 7.0
Abroad	232.1	243.6	298.5	257.7	259.2	262.4	+ 3.0	1,553.4	+ 6.7	2,813.4	+ 12.7
Other furniture 2)	499.6	500.9	592.4	463.4	481.6	472.9	- 10.8	3,010.8	- 9.6	6,246.4	+ 8.0
Germany	353.6	355.1	421.9	332.7	339.3	331.8	- 12.9	2,134.4	- 10.6	4,536.1	+ 6.7
Abroad	145.9	145.8	170.5	130.8	142.3	141.2	- 5.4	876.4	- 7.2	1,890.3	+ 11.1
Upholstered furniture	92.1	96.5	116.4	90.3	91.3	89.7	+ 1.8	576.4	- 0.1	1,102.4	+ 6.6
Germany	63.1	64.5	78.8	63.0	61.5	58.7	+ 1.6	389.7	+ 0.6	721.2	+ 7.4
Abroad	29.0	32.0	37.6	27.3	29.8	31.0	+ 2.2	186.7	- 1.3	381.3	+ 5.1
Total 3)	1,437.9	1,536.5	1,852.6	1,533.7	1,565.7	1,563.0	- 1.0	9,489.4	- 0.2	18,765.5	+ 6.9
Germany	954.6	1,032.0	1,238.5	1,027.6	1,024.3	1,024.2	- 1.5	6,301.1	- 1.3	12,529.4	+ 5.5
Abroad	483.3	504.5	614.2	506.1	541.4	538.8	- 0.2	3,188.2	+ 2	6,236.0	+ 9.8

¹⁾ Companies with more than 50 employees

Source: VdDK, VdDW, VdDP

²⁾ The item "Other furniture" includes living room/dining room/bedroom furniture, furniture parts, furniture made of other material, small furniture and non-upholstered seating furniture

³⁾ The total sales also include office furniture, shop/contract furniture and mattresses

domestic business developed along weaker lines than exports, which still rose by 2.0% to €3.188bn. This results in an export rate of 33.6%, compared to 32.9% in the preceding year.

Varying development was recorded across the individual furniture industry sub-sectors. There were significant turnover declines in the case of mattresses (-19.3% to €273.3m) and miscellaneous furniture (-9.6% to €3.011bn). Noticeable increases, by contrast, were recorded in the office furniture (+8.4% to €1.162bn) and shop/contract furniture (+6.6% to €1.020bn) sectors. The VDM reckons this positive trend is plausible since business with capital goods, which had been more severely impacted by the corona crisis, is currently faring better than business with consumer goods. On the other hand, the VDM and the kitchen furniture industry are sceptical of the turnover growth reported for kitchen furniture (+6.7% to €3.447bn). A similar situation prevails for upholstered furniture which, with turnover of €576.4m, is reportedly almost on par with the level of the preceding year.

In the second half-year, turnover in the German furniture industry is expected to decline significantly, compared to the first half-year as well as to the second half of last year, which had been influenced by looming negative development. Due to difficult development of overall economic conditions, the VDM also considers declines in the double-digit percentage range to be possible. Even greater declines in terms of volume will continue to be partially offset by increased average prices, even if there have already been reports of discounts or price reductions in some sub-sectors. The VDM does not expect any significant improvement in 2024 either; the furniture industry will likely need to adapt to a longer-term lull.

According to a recent VDM survey, furniture manufacturers currently consider the ongoing purchasing reluctance from end consumers to be most problematic. During the corona crisis, furniture purchases which had actually only been planned for the medium or long term were brought forward, which also led



Production of kitchen furniture

(Photo credit: EUWID)

to corresponding turnover growth in the period from mid-2020 to mid-2022. From spring 2022, the focus of end consumer spending had then shifted again to other areas. The resulting drop in demand, which was first felt in the entrylevel price segment before spreading to other segments, accelerated from the third quarter onwards due to the sharp rise in energy prices and inflation generally. Following a slight upturn at the beginning of 2023, business with furniture increasingly weakened over the course of spring. To make matters worse, the subsequent summer slump was even more pronounced than usual in most sectors. The extent to which the slight autumn upturn anticipated by the VDM in September and October will actually manifest is questionable. Demand from the furniture trade is also hampered by the stocks built up until the first half of 2022 in order to ensure reliable supply; these stocks have not yet been completely reduced. These problems have meanwhile been eclipsed by dismal development in housing construction, however. The decline in residential building approvals, which has now been ongoing for several months, and the postponement or cancellation of projects that were already approved are likely to have an increasingly severe impact on demand for furniture in the coming months.

These negative effects are increasingly impacting incoming orders, orders in hand and capacity utilisation. According to incoming order statistics compiled by the Herford-based furniture associations, year-on-year declines ensue for all three of the separately recorded sub-sectors up to and including July. For the kitchen furniture industry, the VdDK has determined a decline of 2.2% in terms of value over the seven-month period; order volumes have dropped by as much as 11%. In the case of upholstered furniture (-9.6%) and home furniture (-11.8%), the value of orders has decreased even more significantly. Furniture manufacturers' capacity utilisation has also gradually deteriorated as they cope with dwindling orders. Most companies have scaled back their production to an increasing extent over the last few months. Companies initially relied on time accounts being run down and remaining annual leave days being taken. Meanwhile, they are often resorting to short-time work arrangements, making it possible to cancel certain production shifts or even shut production down for complete days. Numerous furniture manufacturers have also extended the duration of planned company holidays. In a next step, structural measures are also to be prepared. This will primarily concern the release of temporary workers; longer-term problems may also require job cuts in the permanent workforce or disinvestments.

Double-digit declines also recorded for household appliances/home textiles

Germany: online furniture sales declined by 13.3% in second quarter

In the second quarter of 2023, e-commerce turnover generated with furniture, lamps and decorative articles continued to decline, down 13.3% to €1.347bn (April-June 2022: 1.553bn).

The downward trend recorded since the outbreak of war in Ukraine thus continued unabated. According to data compiled by Beyondata GmbH on behalf of the Bundesverband E-Commerce und Versandhandel Deutschland (bevh), both Berlin, in the first quarter of the current year turnover generated online with furniture had declined by 10.9% vis à vis the preceding year's figure. The declines recorded in the second (-13.7%), third (-15.6%) and fourth (-13.9% to €1.572bn) quarters of last year had been even more severe. The first guarter of 2022 had been concluded with a 3.8% increase, whereby development within the guarter had fluctuated. Whilst in the first eight weeks up to 24 February, furniture turnover had risen by 9.1%, a decline of 5.5% had subsequently been recorded in the remaining five weeks up to the end of March.

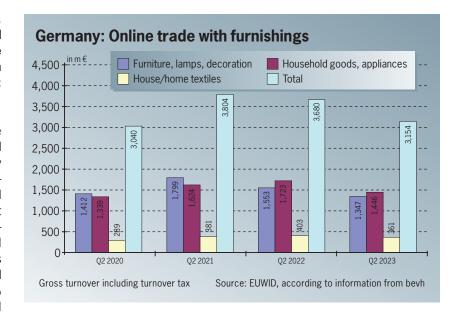
Turnover generated with household goods/appliances in the second quarter of 2023 declined by 16.1% to 0.1% to

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€361m (403m), also crept into the doubledigit percentage range.

For the furnishings product group cluster as a whole, a decline of 14.3% to €3.154bn (3.680bn) thus ensues. In the first quarter, the decrease had amounted to 10.6%. Accumulated over the first half-year, ecommerce turnover generated with furnishing products declined by 12.4% to €6.801bn (Jan.-June 2022: 7.760bn). In the first half of 2022, an increase of 2.8% had still been achieved.

Total e-commerce turnover generated with goods in Germany decreased by 12.2% to €19.2bn (21.8bn) in the second quarter of 2023. The lowest decline rate was once again recorded in the case of products for everyday use (-6.2% to €2.3bn). A belowaverage decline was also recorded in the leisure cluster (-6.9% to €2.6bn). In the entertainment (-14.7% to €5.7bn) and clothing (-14.1% to €4.3bn) segments, decline rates were similar to those in the furnishings segment.

In a comparison of the various seller types, producer-sellers (-8.7% to €740m)

and online marketplaces (-9.4% to €9.9bn) recorded declines high in the single-digit percentage range during the second quarter. Marketplace operators thus continued to generate slightly more than half of all e-commerce turnover generated with goods. Turnover generated by online retailers - which, in addition to companies operating exclusively online, includes mail-order pharmacies and shopping clubs - declined by 12.5% to €5.7bn (6.5bn). In the case of teleshopping sellers (-19.0% to €103m), multichannel sellers (-21.1% to €2.8bn) and seller types consolidated in the Other group (-40.4% to €29.0m), decreases were even more significant.

In the first half of 2023, e-commerce turnover generated with goods, at €38.6bn (44.6bn), fell 13.6% short of the preceding year's figure. The growth of 4.8% forecast for 2023 as a whole by bevh at the beginning of the year is thus no longer feasible. The industry association meanwhile anticipates a decline in excess of 5%. Already in 2022, online turnover generated with goods had decreased by 8.8% to €90.4bn (2021: 99.1bn).

Decline in demand expected to exacerbate liquidity problems

After weak holiday period, furniture sector fears further slowing down in autumn

The closure of the two Maja factories in Kasendorf and Wittichenau announced by Vivonio Furniture GmbH on 3 August 2023 could herald the start of further changes within the furniture sector, according to some representatives from the furniture and supplier industries.

The decline in demand since summer 2022, which by the first guarter of 2023 had also started to affect areas that until then had been surviving reasonably well such as the kitchen furniture industry, is likely to become a more long-term problem for the entire furniture industry. In areas which had already been seriously affected last year, a slight improvement was experienced for a short period in the first quarter. With just a few exceptions, however, the situation has deteriorated again during the second quarter and particularly throughout the course of the summer. Office furniture is the only sector which has remained more positive recently, although there are also considerable differences in development between individual companies.

The decline in demand for furniture ensues from a constellation of several factors. The considerable increase in renovation activities during the corona crisis and the move to home office work places had stimulated the furniture industry from mid 2020 until the first half of 2022. Many renovation projects were also brought forward due to circumstances. As corona-related restrictions have been lifted, consumer spending has increasingly shifted to other areas. The resulting decline in demand for private capital goods has been intensified by, in some cases severe, energy cost increases and subsequent general inflation. This effect is likely to be felt for some time to come. High cost increases in the case of building projects and the fast

rise in interest levels have now started to have an increasingly restrictive effect on housing construction. In many European countries housing construction approvals, construction starts and completions remain significantly below the level achieved in past years. Targets, some of them set at government level, are still a long way from being met. The considerable decline in housing construction could have an even more serious and long-lasting restrictive effect on furniture demand, due to correspondingly lower levels of first furnishings being purchased for new living units and the lack of replacement acquisitions for existing living units which become free for new occupants. From today's perspective, both factors, the decline in housing construction and less renovation activity, will have a reciprocally intensifying effect, at least during the next few months. A more significant upturn in the course of the second half year, still considered possible even in the spring, is meanwhile considered virtually out of the question. There is currently an increasing number of voices in the furniture business emphasising the likelihood of difficult developments in 2024 and possibly even in 2025.

In order to adapt supply to the reduced demand, various furniture industry companies already began to make some production adjustments in the second quarter of 2022. Such adjustments often involved a switch to short-time work arrangements. Since spring, the extent of such counteractive measures has been increasing consistently. Numerous furniture manufacturers already had to cut back their production more severely in May and June. In July and August, there were additional or prolonged downtimes in connection with company holidays. With the end of special corona-related regulations in late June 2023 and the restriction

of short-time work phases to one year, more extensive measures have to be implemented to compensate for these downtimes, for example reduction of accumulated overtime, collective holiday leave or more far-reaching personnel adjustments. Most of these measures also require approval of the works council. In some individual areas, the problems of capacity utilisation, which have accumulated over recent months, have been intensified by capacity expansion undertaken by the company in connection with the preceding boom. This applies particularly with regard to the kitchen furniture industry where, over the course of the last three years, especially the larger manufacturers have set up several new factories. In subsegments of the supplier industry, for example in the case of worktops or furniture parts, competitive pressure has also increased as a result of new or larger capacities.

Lower sales levels ensuing from poor market circumstances and competitive pressure in connection with significant cost increases last year, which particularly in the furniture industry could not be completely passed on to customers, are meanwhile leading to economic problems for some companies. The boom following the corona crisis as well as favourable financing conditions often helped to conceal these problems over the last two years. The clear downward trend in business volumes is meanwhile increasingly leading to liquidity problems. Companies without much equity capital but with high liabilities also have to cope with increasing interest rates. Against this background, suppliers, credit insurers and banks are exercising increasing caution in an effort to avoid potential failure of businesses. By shortening terms of payment and reducing credit limits, liquidity problems are only exacerbated, however.

Search for suitable location outside of Vorarlberg for new plant continues

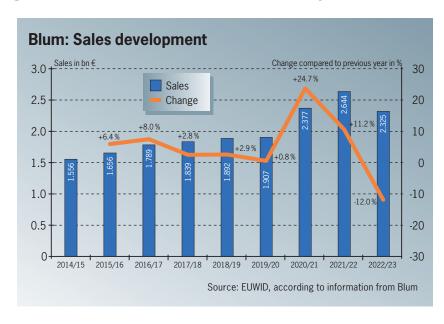
Blum concludes financial year 2022/2023 with double-digit turnover decline of 12%

Austrian fittings manufacturer Julius Blum GmbH, based in Höchst, concluded the 2022/2023 financial year with a turnover of €2.325bn (2021/2022: €2.644bn), corresponding to a year-on-year decline of 12%.

After achieving over-proportional growth in the two preceding financial years 2021/2022 (+11.2%) and 2020/2021 (+24.7%), demand weakened noticeably from the second half of 2022 onwards. Blum attributes this development to the overall difficult market environment. Thus, after twelve consecutive increases, turnover declined again for the first time in 2022/2023. The last time a turnover decline had been recorded was during the global financial crisis in the 2008/2009 financial year (-9%).

According to Blum, in the last financial year, particularly in Europe, high inflation and issues surrounding energy supply were reflected in a strong sense of uncertainty among end consumers, leading to a reduced propensity to consume and a significant decline in turnover. Development in the Asia-Pacific region was negatively affected by the lengthy corona-related lockdown in China. However, development in all other countries in the region was stable or positive vis à vis the preceding year.

In North America, slight turnover growth was achieved. Here, development was especially positive in the USA. Accounting for a turnover proportion of 15%, the USA is Blum's largest individual market. The EU accounts for approximately 45% of total turnover. The remaining 40% is generated across all other markets. Development in the last financial year was also slowed by the cessation of deliveries to Russia. Blum had already stopped supplying the Russian market immediately after the outbreak of war in Ukraine. Due to



legal and economical uncertainties in this connection, a process to sell the Moscow-based subsidiary, which was established in 1996, to two long-standing distribution partners was initiated at the beginning of September 2022. According to company information, the transaction has meanwhile been concluded. Blum previously had around 60 employees in Russia.

For 2023/2024, Blum is aiming to keep turnover stable at the prior-year level. The order situation is expected to remain difficult in the current financial year, which began in July. Blum had already cut back production in some areas last autumn. As before, employees are being deployed to other departments and plants as required, overtime hours are increasingly being run down, and the company is taking advantage of flexitime accounts and natural fluctuation. Since positions that became vacant were not filled again, the number of employees decreased last financial year. At the end of the financial year, there were 6,813 (6,981) employees in Vorarlberg, 168 fewer than in the preceding year. Globally, the number of employees decreased by 92 to 9,330 (9,422).

Investments in the 2022/2023 financial year amounted to €390m. At €255m, twothirds of this went into the eight plants in Vorarlberg. In coming years, the production and storage area in Vorarlberg is to be expanded by a further 52,000 m². A new two-storey building with a usable area of 20,000 m² was commissioned at the Gaißau site (plant 6) this summer. This contains a high-bay warehouse, new assembly facilities and an office area. Plant 2 in Höchst and plant 4 in Bregenz are also currently being expanded. In Bregenz, the production areas and the central warehouse are being expanded. This will improve the flow of materials and reduce the need to transport parts to other plants. The planned commissioning of plant 9 at an as yet undecided location in the east of Austria is scheduled in four to five years at the earliest. This plant is intended to create additional capacities for the production of box systems. Possible locations for the construction of this plant, which is to be Blum's first Austrian production site outside of Vorarlberg, are currently being explored.

Total of 884 job cuts implemented at seven North Carolina factory sites

US Furniture manufacturer Klaussner discontinued all activities in August

Following termination of important loan contracts, on 7 August 2023 US-based upholstered and living room furniture manufacturer Klaussner Furniture Industries Inc. of Asheboro, North Carolina, announced termination of all business activities.

On the same day, Klaussner CEO David Cvbulski announced in a notice letter submitted to the North Carolina Department of Commerce in compliance with the Worker Adjustment and Retraining Notification Act (WARN) that it was to lay off a total of 884 employees at seven sites. Six of these sites are located near company headquarters in Asheboro. At the main factory on Lewallen Road, 556 persons used to be employed. The company also operates two sites on US Highway 49 with a total of 165 employees, two sites on US Highway 220 with a total of 79 employees as well as a smaller site on Dumont Street with 26 employees. The factory in Candor, located around 45 km south of Asheboro, used to employ 58 persons. In the WARN

notice letter, Klaussner took the view that the employees were being made redundant during the period between 7 and 21 August due to the special situation ensuing from the termination of the loan contracts. Health insurance benefits were originally to be continued until 31 August, but were already cancelled by Klaussner on 24 August due to lack of finance.

Klaussner Furniture Industries ensued from Stuart Furniture, an upholstered furniture manufacturer founded in 1963. In 1979, the company was sold to German-born Hans Klaussner, a member of the family of Hukla founder Eugen Klaussner. In 1986, the company was renamed. From 2001 onwards, the product range, originally focused on upholstered furniture, was expanded to include shelves and cabinets. In both product areas, Klaussner also grew via acquisitions, and in the second half of the 2000s achieved turnover of around US\$500m. Within the scope of a management buy-out in 2011, the shares previously held by Hans Klaussner were transferred to CEO Bill Wittenberg and CFO Dave Bryant. The new owners launched an outdoor furniture range in 2014, however this was discontinued over the course of 2021. Prior to this, in early 2017, the company had been sold to private equity company Monomoy Capital Partners, based in Greenwich, Connecticut. Klaussner, however, no longer features in the current overview of Monomoy shareholdings. During the

Background

WARN notice from Klaussner Furniture Industries



https://www.euwid-holz.de/233501/

initial period of Monomoy ownership, Klaussner had been run by the previous management team. In November 2019, Wittenberg then passed the CEO position on to Terry McNew, who retired in July 2022. His successor Cybulski joined Klaussner as CFO in August 2019.

At the time Monomoy became involved, according to a statement issued during that period, Klaussner still employed nearly 1,800 persons at ten production sites. Over recent years, the company has been scaled down considerably, resulting in increasingly significant turnover declines. According to estimates from the US furniture industry, Klaussner most recently generated turnover of around US\$250m. In 2020, three business premises in Asheboro with a total area of 265 acres (equivalent to almost 110 ha), which covered the main factory on Lewallen Road, a further production site in Asheboro as well as a distribution centre, were sold for a purchase price of US\$50.6m to AR Global Investments LLC of New York within the scope of a sale & lease back agreement. In a similar transaction, the factory in Candor was sold for almost US\$12m.



The abrupt closure of Klaussner Furniture is challenging retailers. (Photo credit: Klaussner Furniture)

Real estate in Kasendorf already sold/production in Wittichenau to terminate

Vivonio Furniture Group to close both Maja furniture factories by end of year

In connection with closure of Maja-Werk Manfred Jarosch GmbH & Co. KG in Kasendorf and Maja-Möbelwerk GmbH in Wittichenau, announced by the company on 3 August, Vivonio Furniture GmbH of Munich is to significantly shrink the production activities which it had gradually expanded over recent years by investments as well as a number of acquisitions.

Group turnover, as a consequence, will decline by a significant amount. According to previously circulated information, there were periods in the past when the two companies together generated around half of total group turnover. A further consequence of the closures will be clear shifts in the focus of the company portfolio. The two factories now being closed down are involved primarily in manufacturing low-price, flatpack furniture which is sold via larger furniture chains. The group companies which will remain following the divestment, on the other hand, produce mainly cupboards with sliding door arrangements, bedroom furniture, storage furniture and office furniture.

Production at Maja-Werk Manfred Jarosch GmbH & Co. KG in Kasendorf is expected to terminate imminently, during the autumn period. The Maja logistics site, constructed just 30 kilometres away in Bad Berneck as recently as 2022, is also to be closed down. According to the statement issued by Vivonio, the real estate in Kasendorf has already been sold to a company located in the vicinity. Transfer of ownership is expected to take place at the end of October. Vivonio has also announced that the company's equipment and machinery is to be auctioned and warehouse stocks sold off. The name of the purchaser of the real estate was not disclosed in the Vivonio statement. Heat pump manufacturer AIT Deutschland GmbH, also based in Kasendorf, announced in an own company statement however, that it intends to double its production capacity following acquisition of the Maja site. The Maja real estate apparently comprises a total surface area of 50,000 m², 30,000 m² of which consist of production, storage and office areas. In the buildings taken over from Maja, AIT plans to commence production of heat pumps already at the beginning of 2024. In addition to the real estate being purchased from Maja, AIT has acquired a 30,000 m² plot of land to use in connection with future stages of expansion. The Maja factory in Wittichenau, constructed in 1992 and since then significantly expanded in a series of stages, and which produces exclusively for the lkea Group, is to be closed down completely by the end of 2023.

Employees at the two Maja factories were informed at general works meetings held on 3 August about the pending termination of production. Around 200 persons are employed in Kasendorf and Bad Berneck, according to the Vivonio statement, AIT. as purchaser of the real estate, has expressed interest in taking over Maja employees. In Wittichenau some 450 persons are still employed following some adjustment measures over past months. Maja already axed 198 of the originally 750 jobs during the first three months of this year. This measure, along with others such as switching to two-shift operation, was made necessary by a significant decline in orders from Ikea.

In Kasendorf, over an area of 30,000 m², predominantly flatpack furniture for the areas of living, home office and media is produced from melamine-faced particleboard. The annual production volume is quoted by Vivonio at around 280,000 pieces of furniture, which are sold particularly via large-scale suppliers. After the factory has been closed, a core range of the storage furniture previously produced in Kasendorf, especially chests of drawers and cupboards, are to be produced by other Vivonio Group companies. Discussions with customers are to take place to clarify precisely which products are concerned. The Maja brand will continue



Production in Wittichenau is to be shut down by the end of 2023.

(Photo credit: Maja Möbel)

to exist, however, and is to be used for furniture which subsequently will be produced at other sites. Vivonio cites the abrupt decline in demand for flatpack furniture as the reason for terminating production in Kasendorf. The ensuing decline in volume makes it impossible to continue any form of cost-covering production at the site.

The main reason for closing down the Wittichenau site, on the other hand, is that Ikea has terminated the supply contracts as from the end of the year. Over the course of last year lkea had already significantly reduced purchasing volumes of product lines made in Wittichenau. Production, consequently, had been increasingly cut back. According to Vivonio, the technical equipment at the factory provides for production of 6m pieces of furniture per annum. In the 2022 financial year, 4.1m pieces of furniture were produced. In the statement announcing closure of the factory Vivonio reports that current production volume has dropped to 1.5m pieces of furniture. Until two years ago, on the other hand, the Maja management had still been assuming ongoing expansion of the business relationship with Ikea and, following the large-scale investment concluded in September 2013 and involving €65m for a new lightweight panel plant with honeycomb panel production and printing/ coating equipment, had also made further investments. Following construction of the new plant, the production area had more than doubled from previously 40,000 m² to 85.000 m². The current production range made for Ikea in Wittichenau comprises the product lines Malm (chests of drawers), Alex (desk/drawer elements) and Kallax (shelf elements). Base products are predominantly raw particleboard and HDF. In Wittichenau the raw particleboard is coated with finish foils on laminating systems whereas following printing/ coating, the HDF is further processed to produce honeycomb panels. In order to compensate for the decline in quantities supplied to Ikea, Maja has been trying to find further large-scale customers over recent months, but without any success. Consequently, the machinery and equipment in Wittichenau, which is designed for large-scale production, cannot be properly utilised on the long-term. According



Real estate in Kasendorf has been sold to AIT.

(Photo credit: A. Hartmann)

to Vivonio, this is why the company had no option but to terminate production completely. The factory in Wittichenau is expected to fulfil all orders until production is terminated at the end of the year.

According to a statement issued by Maja Möbelwerk GmbH in spring 2016, the factory at that time was the fifth largest external lkea furniture supplier in the world. In the opinion of furniture business representatives, however, the company had receded increasingly into the background over recent years as a result of competition from Ikea Industry furniture manufacturers. This applies especially for Kallax production, which has gradually been shifted to Eastern European Ikea Industry sites. Concerning the Alex product line, Ikea apparently established a new supplier in Romania, which has recently been receiving sizeable orders. In the case of Malm, Maja is estimated by furniture industry representatives meanwhile to be the smallest of four main suppliers. The larger suppliers, in contrast to Maja, could evidently maintain their volumes better recently, possibly because they operated different price policies.

The Vivonio Furniture Group, formed in July 2012 by the owners of furniture manufacturers Maja-Werk Manfred Jarosch GmbH & Co. KG, Martin Staud GmbH & Co. KG (Bad Saulgau) and SCIAE Société Commerciale

et Industrielle d'Ameublement Européen (Dienville, France), was gradually expanded via further acquisitions between 2016 and 2018. Leuwico GmbH (Wiesenfeld) has been part of Vivonio since August 2016. Acquisitions of Noteborn B.V. (Heerlen. Netherlands) and fm Büromöbel Franz Meyer GmbH & Co. KG (Bösel) followed in March and October 2017 respectively. In addition, a production location in Ampflwang, Austria, that had recently been shut down by Möbelwerk R. Prenneis Ges.m.b.H. & Co KG was taken over via fm Büromöbel in March 2019. The acquisition of all shares in KA Interiør A/S (Grindsted, Denmark) was completed in June 2018. In turn, however, after insolvency proceedings were initiated at the end of November 2017, French SCIAE had to be sold back to the former owner in March 2018. Congruently to the current divestment of the Maja plants, the loss of a major customer as well as strong competition from Eastern Europe were also cited as reasons for the divestment of SCIAE at that time.

Funds advised by Equistone Partners Europe Ltd., based in London, had acquired a majority stake of 67% in Vivonio Furniture Group via a secondary MBO in September 2012, whereby the remaining 33% stayed with former owner Orlando Management AG of Munich and members of Vivonio management.

FEP annual report: 2022 was still the second-best year since 2012

European parquet production fell nearly twice as much as parquet consumption

European parquet production and consumption declined last year after rising sharply in 2021. However, both production and consumption were still higher than in prior years, meaning that 2022 was the second-best year of the past decade despite these downswings.

According to the annual report of the European Parquet Federation (FEP), based in Brussels, which was presented at its general assembly in Barcelona on 15 and 16 June 2023, total production in the countries covered by the federation fell by 4.7% in a year-on-year comparison to land at 78.012m (2021: 81.851m) m². Production in European countries outside the FEP area, which have been included in the FEP statistics since 2012, decreased even more sharply, falling by

6.5% to 14.3m (15.3m) m². Some 7.3m (9.7m) m² of this amount was produced in EU member states and 7.0m (5.6m) m² in non-EU countries. Combining the figures for the FEP area and estimates for the other countries, total European production stood at 92.312m (97.151m) m² in 2022. This represented a 5.0% slump compared to the previous year.

Figures contained in the latest annual report that had been slightly corrected compared to last year's publication show that parquet production in the FEP region increased by 5.9% in 2021. Manufacturing had shown mixed trends in the year before that (2017: +2.8%, 2018: -0.3%, 2019: -1.1%, 2020: +2.0%). Based on 2016's total of 74.749m m², which included data for Croatia, Estonia and Portugal for the first time, output

had still increased by 4.4% over the past six years. Total production in the FEP area and in the additional countries covered has only increased by 3.4 % in the same period (2017: +2.3%, 2018: $\pm0\%$, 2019: -1.6%, 2020: +0.9%, 2021: +7.0%, 2022: -5.0%).

In keeping with the customary practice, the annual report also broke down production in the FEP area by product group. The slightly revised data for 2021 shows that multilayer parquet production tracked almost in line with overall output, with a 4.6% decline to 64.602m (67.736m) m². Solid parquet production decreased by 5.5% to 11.682m (12.361m) m². Mosaic parquet held up slightly better, with a 1.5% decrease to 1.728m (1.754m) m². However, multilayer parquet has made significant gains over the past six years since 2016,

in 1,000 m²	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% Change 2022/202
Poland	12,950	13,280	13,170	13,000	12,498	13,779	13,050	11,826	12,408	13,266	13.856	+ 4.5
Austria	8,275	8,275	8,993	9,106	9,197	9,385	9,573	9,669	9,766	10,743	10,808	+ 0.6
Sweden	9,080	8,780	9,290	10,640	11,144	11,145	11,420	12,306	12,091	11,892	9,808	- 17.5
Germany	10,401	10,377	8,255	7,656	7,854	7,525	8,633	7,083	8,611	8,209	7,313	- 10.9
Croatia					4,475	4,603	4,266	4,671	5,381	5,940	6,520	+ 9.8
Italy	3,600	4,000	4,200	4,100	4,200	4,529	4,914	5,315	4,825	6,021	5,707	- 5.2
France	5,325	4,900	5,125	5,130	5,285	5,444	5,286	5,439	5,144	6,049	5,590	- 7.6
Spain	4,620	4,588	4,293	4,741	4,784	4,621	4,447	4,488	4,516	4,667	4,188	- 10.3
Romania	2,183	2,250	2,250	2,254	3,001	2,783	3,324	3,884	3,847	3,840	4,155	+ 8.2
Portugal					1,732	1,882	1,798	1,900	1,800	2,200	2,400	+ 9.1
Norway/Denmark/Finland	3,874	3,000	2,100	2,350	2,375	2,565	2,298	2,093	2,000	1,927	1,738	- 9.8
Hungary	1,595	1,695	1,761	1,724	2,204	2,253	2,095	1,812	1,800	1,852	1,648	- 11.0
Switzerland	1,496	1,747	1,754	1,700	1,644	1,842	1,676	1,753	1,656	1,805	1,549	- 14.2
Netherlands	1,371	1,445	1,597	1,845	2,092	2,170	1,995	1,673	1,932	1,966	1,349	- 31.4
Czech Republic	1,350	1,350	1,230	1,141	1,350	1,344	1,065	1,098	769	600	600	± 0.0
Estonia					441	568	400	312	270	398	450	+ 13.1
Belgium	450	390	390	455	473	402	362	407	458	476	333	- 30.0
Total FEP	66,570	66,077	64,407	65,842	74,749	76,840	76,601	75,728	77,274	81,851	78,012	- 4.7

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change
in 1,000 m ²												2022/202
Germany	20,983	19,765	18,055	17,775	18,216	16,759	16,677	15,800	18,014	18,091	19,510	+ 7.8
Italy	8,800	8,600	8,300	8,200	8,500	8,909	8,445	8,613	7,657	9,937	9,822	- 1.2
France	10,530	9,600	7,430	7,865	8,190	8,299	8,429	8,584	8,122	8,982	8,014	- 10.8
Sweden	6,350	6,300	6,440	7,360	7,654	7,883	8,290	8,207	8,289	9,020	7,910	- 12.3
Switzerland	5,825	6,417	6,227	6,345	6,203	6,217	5,771	5,716	5,856	6,568	6,533	- 0.5
Austria	6,459	6,500	6,175	6,175	6,299	6,424	6,488	6,553	6,619	6,817	6,000	- 12.0
Norway/Denmark/Finland	7,069	7,462	7,449	6,610	6,533	6,633	6,215	5,873	5,838	6,400	5,888	- 8.0
Spain	6,536	5,600	5,329	5,380	5,499	5,607	5,637	5,724	5,557	5,722	5,238	- 8.5
Poland	4,550	4,090	3,950	3,870	3,986	4,185	4,311	4,527	4,520	4,565	4,063	- 11.0
Croatia					1,861	2,115	2,115	2,009	1,987	2,334	3,759	+ 61.1
Romania	2,033	2,563	2,563	2,563	2,563	2,589	2,680	2,760	2,691	3,095	2,940	- 5.0
Belgium	2,133	2,162	2,097	2,160	2,246	2,336	2,243	2,221	2,300	2,415	2,125	- 12.0
Netherlands	996	990	1,892	1,961	1,878	2,000	1,708	1,616	1,769	1,861	1,430	- 23.2
Portugal					1,208	1,240	1,290	1,350	1,339	1,200	1,248	+ 4.0
Estonia					713	781	859	848	950	1,019	1,178	+ 15.6
Czech Republic	985	1,020	965	965	1,000	1,025	1,000	1,020	1,010	1,050	1,019	- 3.0
Hungary	279	452	457	489	494	504	559	525	504	549	439	- 20.0
Total FEP	83,528	81,521	77,329	77,718	83,043	83,506	82,717	81,946	83,022	89,625	87,116	- 2.8

with a 7.0% growth, whereas solid parquet output fell by 7.4% and mosaic parquet output by 1.4%. In other words, multilayer products accounted for 82.8% of the total parquet production in the FEP area last year. Solid and mosaic parquet had respective shares of 15.0% and 2.2%.

The production trend sometimes varied wildly from one country to another last year. Six countries enjoyed growth, while one reported no change. The remaining ten countries or country groups experienced declines. Some of these downturns were also the result of production shutting down or being relocated elsewhere. These mixed trends also reshuffled the cards when it came to the positions of each country. Austria has passed Sweden to become the second-largest country in the FEP region. Croatia has overtaken France and Italy, which have both swapped places. Portugal has further widened the gap to the next-largest countries. Switzerland moved ahead of the Netherlands despite declines. Poland's share of FEP production rose to 17.8 (16.2) % last year, followed by Austria with 13.9 (13.1) %, Sweden with 12.6 (14.5) %,

Germany with 9.4 (10.0) % and Croatia with 8.4 (7.3) %.

According to since-revised statistics, parquet consumption increased by 8.0% in the FEP countries in 2021. This represented a growth that was a good third more than the rise in 2021 production. Last year, the decline in parquet consumption was less pronounced, with a 2.8% drop to 87.116m (89.625m) m². Taking a multi-year view, though, the trends in production and consumption are closer together. Compared to the 83.043m m² sold in 2016, parquet consumption has increased by 4.9%, only 0.5 percentage points more than production. Minimal changes occurred from 2017 to 2020 (2017: +0.6%, 2018: -0.9%, 2019: -0.9%, 2020: +1.3%). A restrained development at first was more than offset by the strong increase in consumption recorded in 2021.

The differences from one country to another were much greater for parquet consumption than for production last year. Just four FEP countries consumed more parquet than in 2021. The FEP statistics indicate a 61.5% leap in Croatian

consumption, which is difficult to comprehend. German parquet consumption rose by 7.8%. Increases were also registered in Estonia (+15.6%) and Portugal (+4.0%). The other 13 FEP countries or country groups consumed less parquet than in 2021, with seven suffering doubledigit declines. Sweden (-12.3%), Austria (-12.0%), France (-10.8%), Spain (-8.5%) and Denmark/Finland/Norway (-8.0%) faced the biggest drops, with the Netherlands also bringing up the rear in terms of consumption with a 23.2% dive. Changes in the order of the countries surfaced as a result. Sweden was overtaken by France, while Austria and Switzerland swapped positions and Croatia made up two places. Germany accounted for 22.4 (20.2) % of total FEP parquet consumption, followed by Italy with 11.3 (11.1) %, France with 9.2 (10.0) %, Sweden with 9.2 (10.1) %, Switzerland with 7.5 (7.3) % and Austria with 6.9 (7.6) %. In terms of per capita consumption, Croatia is in the lead with 0.97 m², ahead of Estonia (0.91 m²), Switzerland and Sweden (0.74 m² each) and Austria (0.67 m²). Average parquet consumption across the entire FEP area stands at 0.20 (0.21) m^2 . \square EU parquet imports up 19.6%/Exports remain below previous year

Import surplus on European parquet markets rose to 13.2m m² in 2022

Parquet imports into and exports from the EU-27 developed along diverging lines last year.

At +19.6% to 35.814m m² (2021: 29.936m m²), parquet imports increased at a rate more than twice as high as that recorded in 2021. According to the meanwhile slightly adjusted figures for 2021, imports had risen by 9.1% at that time. Exports, on the other hand, declined by 2.6% to 22.584m m² (23.176m m²) in 2022. In 2021 they had increased by 1.0%. This contrasting development meant the EU-27's export trade deficit concerning parquet was even higher than in the preceding years. The import surplus doubled year-on-year to 13.230m m²

(6.760m m²). According to the analysis of Eurostat export trade statistics contained in the current business report of the European Parquet Federation (FEP), Brussels, the last time an export surplus had been recorded was in 2017 (3.238m m²). At that time, 25.573m m² of parguet had been exported from the EU-27; parquet imports had amounted to 22.335m m². From then on, parquet imports increased in four of the next five years; the only decline was in 2019 (-2.2% to 24.928m m²). In 2018 (+14.1% to 25.487m m²) and 2020 (+10.1% to 27.436m m²), double-digit increases had been recorded. Whilst EU exports of parquet have declined three times since 2017, the respective prior-year figure was at least slightly exceeded in the other two years. Development was poorest in 2018, with exports declining 10.7% to 23.107m m^2 ; in 2020, a decrease of 3.9% to 22.938m m^2 was recorded. In 2019, however, exports had risen by 3.3% to 23.860m m^2 .

As a result of price increases implemented during the year, changes in terms of value were much more significant than in terms of volume, both for imports and exports. According to FEP's analysis of the Eurostat statistics, the total value of imports increased by 46.0% to €817.1m (€559.7m) in 2022. Starting from the €457.6m reached in 2019, the import value had initially declined by 2.7% to €445.2m in 2020. The increase rate of 25.7% subsequently recorded in 2021 almost doubled last year. Regarding the total export value, at -7.8%, the decline rate from 2019 (€626.7m) to 2020 (€577.6m) was even more significant than the decrease in import value. In 2021, the export value had then risen again by 14.8% to €662.8m, thereby even exceeding the 2019 level. Last year, a further increase of 16.7% to €773.8m was recorded.

In the FEP annual report, EU-27 imports and exports were broken down into the 20 largest supplier countries and sales markets respectively; together with the countries not listed separately, this gives the total. In both cases, there was also divergent development among the larger supplier countries and sales markets. Over-proportional increases were recorded concerning imports from most Asian supplier countries (China: +30.7%, Malaysia: +23.8%, Vietnam: +134.6%, Indonesia: +34.3%). Deliveries from Russia (-67.5%) and Belarus (-28.4%) declined sharply due to the sanctions enforced since July 2022. Ukraine (-8.8%) was able to maintain its position as the second largest supplier country. In terms of exports, development was weakest in the case of Russia (-44.5%) and Ukraine (-59.1%). Deliveries to China declined by 16.8%.

EU-27: Imports of parquet 2022

in 1,000 m ²	2019	2020	2021	2022	% change 2022/2021
China	12,868	15,592	17,210	22,496	+ 30.7
Ukraine	6,784	6,711	6,766	6,169	- 8.8
Malaysia	716	1,064	1,515	1,875	+ 23.8
Vietnam	654	465	519	1,219	+ 134.9
Switzerland	982	977	1,071	936	- 12.6
Total	24,928	27,436	29,936	35,814	+ 19.6

Source: FEP, according to information from Eurostat

EU-27: Exports of parquet 2022

2019	2020	2021	2022	% change 2022/2021
4,588	4,691	5,227	5,118	- 2.1
3,873	3,587	3,321	3,420	+ 3.0
3,706	3,099	3,821	3,290	- 13.9
2,612	2,592	2,807	3,032	+ 8.0
2,284	3,127	2,060	1,714	- 16.8
23,860	22,938	23,176	22,584	- 2.6
	4,588 3,873 3,706 2,612 2,284	4,588 4,691 3,873 3,587 3,706 3,099 2,612 2,592 2,284 3,127	4,588 4,691 5,227 3,873 3,587 3,321 3,706 3,099 3,821 2,612 2,592 2,807 2,284 3,127 2,060	4,588 4,691 5,227 5,118 3,873 3,587 3,321 3,420 3,706 3,099 3,821 3,290 2,612 2,592 2,807 3,032 2,284 3,127 2,060 1,714

Source: FEP, according to information from Eurostat

European producers call for measures to alleviate import pressure from China

European market share of Chinese parquet producers rose above 25%

Within the context of an increasingly difficult market environment since mid-2022, the European parquet industry must contend with intensifying competition from Chinese parquet producers in both purchasing and sales.

Chinese companies' vigorous purchasing activities had already led to problems on procurement markets during the boom from mid-2020 to mid-2022. Chinese companies have been purchasing significant volumes of oak roundwood and oak lumber in Europe for a considerable period already. These purchasing activities, which had initially focused mainly on France, have now extended to other countries, including Germany. According to the assessment of European parquet producers, Chinese companies are paying relatively good prices, resulting in increased competition on procurement markets. This competition has persisted even during the market downturn, which has now been ongoing for more than a year. Thus, despite declining demand from European processors, purchasing prices for oak roundwood and lumber have declined only slightly in recent months. By contrast, much greater price reductions have been observed for most other upstream products.

Chinese competition on European sales markets has meanwhile become an even bigger problem for European parquet producers, however. In recent years, Chinese parquet deliveries to the EU-27 have increasingly intensified. According to an analysis of Eurostat export trade statistics contained in the current business report of the European Parquet Federation (FEP), Brussels, EU parquet imports from China have almost doubled over the past four years (2019: 12.868m m², 2020: 15.592m m², 2021: 17.210m m², 2022: 22.496m m²). Parquet consumption in FEP cour



Parquet production in China

(Photo credit: EUWID)

tries increased by just 6.3% over the same period (2019: 81.946m m², 2020: 83.022m m², 2021: 89.625m m², 2022: 87.116m m²).

When comparing these figures, imported parquet from China had accounted for a market share of 15.7% in 2019. This had increased to 18.8% in 2020 and 19.2% in 2021 before rising to as much as 25.8% last year. Multi-layer one-strip parquet accounts for approximately 90% of Chinese parquet imports, meaning China's EU-27 market share in this product category is likely to be even higher. Various European parquet producers estimate this share could meanwhile amount to around 40%. On the other hand, in the case of doubleand triple-layer strip parquet, mosaic parquet and solid parquet, Chinese producers play virtually no role. Import pressure from China is exacerbated by the ongoing price decline. Import prices for the finished product are in some cases already lower than the purchasing prices European producers must pay

for top layers. According to the assessments of the European parquet industry, such prices can only be achieved through unlawful state subsidies. Over recent months, various companies have been gathering evidence, in the form of offers and calculations, for example, that Chinese parquet producers are receiving subsidies for aspects of their export business, such as logistics and marketing expenses. Cost advantages also ensue from more favourable energy prices and procurement costs, including for upstream products from Russia or Belarus, which are actually sanctioned.

The FEP has been calling for the EU to intervene for a considerable period already. Back in 2022, the association had proposed a limitation on oak roundwood exports to alleviate competition on procurement markets. In spring 2023, several FEP members also suggested that anti-dumping measures regarding parquet imports from China should be investigated at EU level.

Slight growth in rigid SPC sales/Other products face sharp falls

MMFA members saw their total sales decrease more and more last year

Companies belonging to the Multilayer Modular Flooring Association (MMFA), headquartered in Brussels, saw their sales decline in 2022 after enjoying several years of continuous growth.

Total sales reached 103.9m (2021: 120.2m) m² across the four separately recorded product categories, representing a year-on-year fall of 13.5%. While sales figures were relatively close to one another in all four quarters of 2021, they decreased more and more strongly as last year went on. As a result, the two halves of the year turned in completely different performances. The 28 ordinary members of the MMFA had improved their total sales by 8% in a year-on-year comparison to 31.0m (Q1 2021: 28.4m) m² in the first guarter of 2022. The second guarter already ended with a 9% slump to 29.5m (32.2m) m² in the wake of a slowdown in demand that emerged in spring. The third quarter recorded a 21% drop to 23.6m (29.8m) m², while the fourth quarter was even worse, with a 33% decline to 19.8m (29.6m) m². Total sales of multilayer modular flooring fell by as much as 36% between the first and fourth quarters. Altogether, second-half sales were down 28% at 43.4m (60.5m) m^2 compared to sales of 59.4m (60.5m) m^2 in the first half of the year.

This full-year downturn has reversed the upward trend registered in years past. The MMFA had reclassified the product categories in its quarterly sales statistics starting in 2018. Sales had improved by 21.5% from 73.9m m² in 2018 to 89.8m m² in 2019. 2020 produced a moderate increase of a good 5% to 94.6m m² despite the pandemic. The significant increase in demand that surfaced starting in the second half of 2020 paved the way for a 27% upturn in 2021 sales. Things then headed in the opposite direction last year. Looking at the past four years combined, MMFA members' total sales have leapt by 41%.

The four product categories experienced marked differences in their fortunes in the past year. The Wood product category saw sales dive by 16% in a year-on-year comparison to 12.8m (15.2m) m², which was almost back at 2019's level (12.6m m²). In 2020, MMFA members had sold 15.0m

m² of products in the Wood category. The three polymer categories – Polymer LVT Clic, Polymer Rigid SPC and Polymer Rigid EPC – fared only slightly better, with a 13% decrease to 91.1m (104.9m) m². However, the LVT Clic (-31% to 32.1m m²) and Rigid EPC (-21% to 7.4m m²) categories encountered an even bigger fall than the Wood category. This decline could only be slightly cushioned by last year's 5.5% increase in Rigid SPC sales to 51.7m (49.0m) m².

These mixed trends continued a shift towards SPC flooring observed in previous years. Over the past four years, Rigid SPC sales have more than quadrupled from 11.7m m² in 2018. The Wood category saw a slight increase of 6% over the same period, while Rigid EPC sales were almost back at 2018's levels (7.3m m²) last year. LVT Clic sales even tumbled by a guarter in a four-year comparison. The different categories' shares of total MMFA sales have also shifted as a result. The Wood category accounted for 12.3 (12.7) % of total sales, while Rigid EPC's share declined somewhat more to 7.1 (7.8) %. LVT Clic only accounted for 30.8% (38.8%) of the total, whereas Rigid SPC's share increased to 49.7% (40.7%). In 2018, this category contributed only 16% of total sales. LVT Clic was by far the strongest category in that year with a share of 58%. The Wood category was similar in size to Rigid SPC with 16%, while Rigid EPC accounted for

In terms of the different regions, the three polymer categories saw 2022 exports to North America (-21% to 32.1m (40.7m) m²) end up even weaker than business in Western Europe (-8% to 49.5m (54.0m) m²). In other regions, Polymer sales volumes were 9% lower at 9.4m (10.3m) m². In the Wood category, sales continue to be concentrated in Germany, Austria and Switzerland, where sales decreased by 15% to 10.4m (12.2m) m².





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Around €6.5m have been invested in new building and pilot plant facilities

I4F Licensing relocates headquarters to new technology centre in Turnhout

I4F Licensing N.V., an intellectual property company previously based in Hamont, Belgium, intends to further grow its licensing business via investment in a new technology centre in the Northern Belgian city of Turnhout, expansion of its worldwide sales and service network as well as a broadening of its patent base.

After the slight decline last year and with the stabilisation anticipated in the current year, turnover is expected to develop better than the overall market in each of the coming years. In the 2022 financial year, I4F's licence sales declined by almost 5% vis à vis 2021 due to the economic slowdown that occurred in all relevant regions and product categories from the second guarter onwards, which then intensified in the second half-year and continued into 2023. In the current year, despite the ongoing difficult market situation, the company aims to return to slight growth. Turnover declines in the licensing business with parquet, laminate flooring and LVT manufacturers, which are more significantly impacted by declines in volumes, are expected to be more than offset by growth in the SPC sector, new licensees for locking technologies and increased sales of new technologies. From 2024 onwards, I4F is also anticipating growth rates for the market as a whole again; the company considers an increase of around 5% across all product categories to be possible. These growth rates could even double in the following year as markets continue to recover. For 2025, I4F expects market growth of around 10-12%. With the planned expansion of the licensing business on various fronts, I4F intends to achieve even higher turnover growth in both years. In this way, the company is hoping to further close the gap on even larger intellectual property companies such as Välinge Innovation AB (Viken, Sweden) and the Unilin Technologies division of Unilin bvba (Wielsbeke, Belgium).

Over the last 18 months or so, I4F has invested a total of around €6.5m in the new technology centre built at the Turnhout site, located some 50 km to the west of

Hamont. Within the scope of this investment, which includes construction of the building as well as installation of various laboratory equipment and pilot plant facilities, a 2,500-m² R&D area was created along with around 1,100 m² of office space. In addition, exhibition space for the presentation of technologies and products marketed by I4F was established in the entrance area. In total, I4F has a usable area of around 3.600 m² at the new location. For future expansion steps, the company has already secured an adjacent plot of land where up to 2.500 m² of additional usable area can be created. According to I4F, such expansion measures may be on the cards if the acquisition opportunities already being examined for a considerable period in the IP sector eventually come to fruition.

Machinery in the R&D area currently includes a profiling line and an extruder with upstream granulate mixing system and is to be expanded in the coming years corresponding to technological developments. The double end tenoner with longitudinal and transverse profiling had been supplied by Homag GmbH to the previous I4F site in Hamont in 2020 and used there for production trials. This system was relocated to Turnhout in the course of the new construction. A new extruder was installed in parallel; supplier was the Chinese company Changzhou Sofine Machine and Technology Co. Ltd., Changzhou, Jiangsu Province. The profiling line and extruder together take up almost half of the R&D building. In a next step, a digital printing system could be installed on the remaining free space. A final investment decision has yet to be made, however. The pilot plant facilities are to be used in future both by I4F and by licensees for technological developments and production trials. Extensive laboratory equipment and a large-scale climate chamber are also available for material and product testing. Large-scale flooring installations can also be tested in the climate chamber.

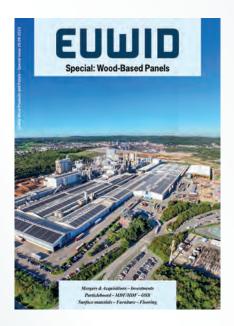


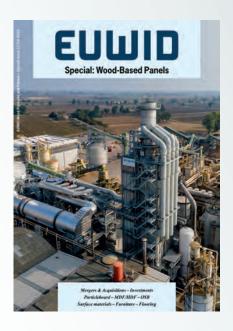
New I4F technology centre in Turnbout/Belgium.

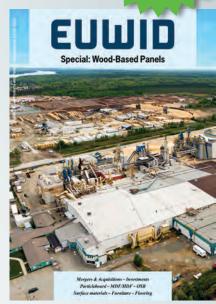
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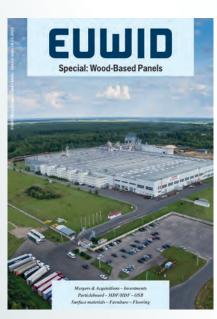
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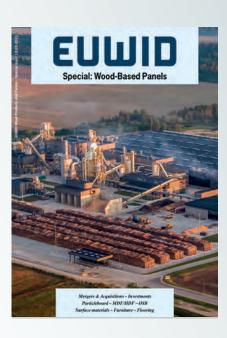


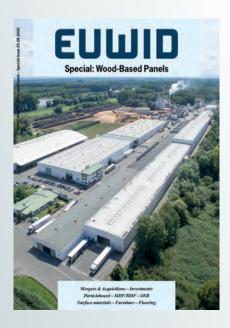












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