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Dear readers,

Welcome to the March 2021 issue of *Global Gypsum Magazine* - which takes in a wide-range of topics from around the gypsum and insulation sectors. First up after the global news, we speak with Maarten Hendriks, the Managing Director for Europe at New West Gypsum Recycling (NWGR), about the latest trends in wallboard recycling, plus his expectations for the rest of 2021 (Page 12). Alongside a number of positive trends for the wallboard recycling sector, Hendriks says that some of NWGR's clients have reported the first signs of a possible contraction in construction activity in recent months, as delays from planning approvals in the first half of 2020 filter through to projects on the ground. Also warning of a 'Covid-19 crunch' is Robert Crangle from the United States Geological Survey (USGS), who says that the credit situation in the US resembles that prior to the late 2000s financial crisis, albeit on a smaller scale. It seems clear that, while vaccines are finally allowing some countries to gain the upper hand on the virus, the economic fall-out will continue to be severe for many for the foreseeable future.

Elsewhere in this issue, we speak with representatives from gypsum forming belt manufacturer Trelleborg in Slovenia about the company's history, products and expertise (Page 16). We also feature a case study about close cross-continental collaboration, despite the current situation for a timely start up of two wallboard lines in China from cover advertiser Grenzebach (Page 22) and report on the latest goings-on in the wallboard sectors of Germany, Austria and Switzerland (Page 30).

Those with an interest in the global insulation industry can turn to Page 35 in this issue to read the latest sector news, plus a report on Johns Manville's new glass fibre recycling installation at its Trnava plant in Slovakia (Page 38).

Enjoy the issue!

Peter Edwards
Editor

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China: Saint-Gobain plans 10 gypsum wallboard plants in five years in China

France-based Saint-Gobain plans to establish 10 gypsum wallboard plants under the Communist Party of China (CPC)'s 14th five-year plan. China Daily News has reported that the move aims to ramp up production capacity in order to meet growing gypsum wallboard demand. The building materials company intends to open two more units to produce calcined gypsum in Yangzhou, Jiangsu Province and Huzhou, Zhejiang Province in 2021.

Asia-Pacific regional senior vice-president and chief executive officer Javier Gimeno said "China has recovered from the Covid-19 pandemic in an exceptional manner. We have seen the quick recovery of the Chinese economy and the many industries that we serve. In our segment, the Asia-Pacific region has remained largely positive in the third quarter, driven by the continued strong demand in China." He added, "Our business growth in China is linked with the development of Chinese society and the growth of China's middle-income earners, who are more demanding in terms of quality and performance of products."

US: CPS Performance Materials acquires Handy Chemical USA

CPS Performance Materials has acquired Handy Chemical USA from Rain Industries. The two naphthalene sulphonates producers are the only domestic suppliers of the dispersant to the gypsum wallboard industry in the entire North American region, according to Barney Heller, Hardt Chemical. The transaction concentrates naphthalene sulphonates supply under single ownership in the region. The sale, which also included Rutgers Polymers, is valued at around US\$87m.

Australia: Covid lockdown hits agricultural gypsum quarry

Albacutya Gypsum, based in Victoria, has been embroiled in confusion surrounding a five-day snap coronavirus lockdown in the state. The agricultural gypsum business, which operates from a quarry in Rainbow, was forced to temporarily close in mid-February 2021 due to uncertainty over whether it was an 'essential service' or not, according to the Australian Broadcasting Corporation. Local farmers, who are deemed 'essential,' continued to require the product. The owners say the closure cost them around US\$15,000 in lost income.

France: Saint-Gobain publishes preliminary 2020 results

Saint-Gobain recorded fourth-quarter sales of Euro10.2bn in 2020, up by 6% year-on-year on a like-for-like basis. The group noted a 'strong pricing dynamic' in the quarter. Its operating margin in the second half of 2020 was over Euro2bn, up by 20% year-on-year on a like-for-like basis. 'Upbeat momentum' in most markets buoyed results in the half.

The company said that it achieved the record second-half operating margin in part thanks to successful portfolio optimisation measures under the 'Transform & Grow' programme, reductions in discretionary spending and a very positive price-cost spread.



Argentina/Peru: Saint-Gobain and Compania Industrial El Volcan sign cooperation agreement

France-based Saint-Gobain and Chile-based Compania Industrial El Volcan have signed an agreement to cooperate in the Argentine and Peruvian gypsum wallboard markets. The companies finalised the agreement in January 2021.

In Peru, Saint-Gobain will purchase El Volcan Soluciones Constructivas, a company specialised in the production and sale of wallboard. After this new entity has been merged with SG Productos para la Construccion, which specialises in the production and sale of mortars and has been wholly owned by the Saint-Gobain Group since December 2019, Saint-Gobain will retain a 55% stake in the new consolidated group and will sell the remaining 45% to the El Volcan group.

In Argentina, El Volcan will purchase from Saint-Gobain a 45% stake in the group including Tuyango, the historical plaster business, and Aswell, the plasterboard business acquired in the first quarter of 2019, with Saint-Gobain owning a 55% stake in this Argentine gypsum group.

Oman: Omani gypsum exports fall in 2020

Gypsum exports fell by 2% year-on-year to 8.81Mt in 2020 from 9.01Mt in 2020. This has been attributed to weaker demand in key markets caused by a global economic slowdown and the coronavirus pandemic, according to the Oman Daily Observer newspaper. However, industry figures remain optimistic about the future for the sector given the country’s continued position as the world’s largest exporter of gypsum. In 2020 the country exported 2.49Mt of gypsum to Vietnam, 1.49Mt to India, 1.41Mt to Bangladesh, 0.8Mt to Indonesia, 0.78Mt to Japan, 0.49Mt to South Africa and 0.37Mt to South Korea.



Romania: Siniat Romania grows turnover in 2020

Siniat Romania increased its turnover by 6% year-on-year to Euro51.3m in 2020. It attributed this to a growing residential sector, higher demand for logistics spaces and the need for adapted office space due to the coronavirus pandemic, according to See News. The subsidiary of Belgium-based Etex Group expects turnover to rise by 5 – 10% to around Euro56m in 2021.

“The construction market in Southeast Europe was one of the most resilient economic segments in 2020. The shock caused by the spring lockdown was followed by a rapid recovery and by an increase in the second half of the year,” said Etex Building Performance commercial director Andrei Popa.

The company operates two gypsum wall-board plants in the country and it holds an estimated market share of over 25%. Almost half of the output of the two plants is exported to 11 countries in Southeast Europe.



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US: Eagle Materials' nine-month gypsum wallboard sales increase to US\$397m

Eagle Materials' nine-month gypsum wallboard sales rose by 5% year-on-year to US\$120m in the period ending on 31 December 2020 from US\$114m a year earlier. Volumes increased by 7% to 200Mm² from 187Mm². Group sales rose by 16% to US\$1.28bn from US\$1.10bn. Net earnings were US\$273m, compared to a loss of US\$1.54m in the first nine months of its 2020 financial year.



President and chief executive officer Michael Haack praised the performance in the quarter which ended on 31 December 2020, saying "Despite continued pandemic-related economic uncertainty, our wallboard shipments were up by 9%, a third quarter record for American Gypsum. We continued to generate strong operating cash flow, which significantly improved our balance sheet and liquidity position providing us with increased financial flexibility." He added "As we continue to navigate the Covid-19 environment, I want to thank our team for their exceptional work under extraordinary circumstances, delivering strong results and keeping our strategic projects on schedule. We continue to closely monitor the disruptions caused by the Covid-19 pandemic and their possible impact on our business in current and future periods. We also continue to enforce strict health and safety protocols to protect our employees, customers and business partners, and we will continue to manage our cash flow prudently and protect our balance sheet."

Spain: Placo launches laminated gypsum wallboard product

Saint-Gobain Placo has announced the launch of 4PRO ActiveAir, a laminated gypsum wallboard for use in ceilings. The company says that the product improves the air quality of rooms by absorbing pollutants with its ActiveAir technology. The boards also have tapered edges for a join-free fit.

The producer said "4PRO Activ'Air is presented as the most complete and efficient construction solution for the creation of continuous ceilings with a smooth and perfect finish, thanks to its fine edges, which increase the resistance between the joints and reduce the risk of cracks. In addition, it increases productivity thanks to its easy and fast installation, and offers great flexibility in construction, since it adapts to any type of project in the realisation of both regular and rounded shapes."

Switzerland: Sika's sales rise in 2020

Sika's 2020 full-year sales were Euro7.29m, up by 3% year-on-year when adjusted for currency variations. Sales grew in the Europe, Middle East and Africa region by 4.4%, in the Americas regions by 1% and in the Asia/Pacific region by 13%. The group recorded market share gains in all regions. During the year it acquired Romania-based Adeplast, US-based CIDRA Concrete Systems and Egypt-based Modern Waterproofing Group. The acquisitions span concrete, mortars and insulation production. The company established new plants in China and Colombia. It upgraded plants in France, Switzerland and the UAE.

Chief executive officer Paul Schuler said "The 2020 fiscal year was overshadowed by the global coronavirus pandemic, which had a number of serious repercussions for the construction and automotive sectors. Thanks to the strong motivation of our employees and their pronounced customer focus, Sika managed to perform successfully in this highly challenging market environment and achieve above-average results. We remain very well positioned in what is still a difficult environment – thanks to our innovative products and solutions, as well as to our employees, who continue to deliver their utmost even in times such as these. On behalf of group management, I would like to thank our global workforce of 25,000 people for the tremendous dedication they have shown and for the unique way they identify with our company."

The group confirmed its 2023 targets, saying "The company remains aligned for long-term success and profitable growth. With its focus on the six strategic pillars – market penetration, innovation, operational efficiency, acquisitions, strong corporate values, and sustainability – Sika is seeking to grow by 6 – 8% a year in local currencies up to 2023. From 2021, the company is aiming for a higher earnings before interest and taxation (EBIT) margin of 15 – 18%. Projects in the areas of operations, logistics, procurement, and product formulation should result in an annual improvement in operating costs equivalent to 0.5% of sales."



US: International Paper reports 2020 results

International Paper's net sales fell to US\$20.6bn in 2020 from US\$22.4bn in 2019, down by 8% year-on-year. Adjusted operating earnings dropped by 15% to US\$3.06bn from US\$3.61bn. Gypsum kraft paper volumes rose by 5% to 190,000t from 181,000t.

Chairman and chief executive officer Mark Sutton said "Our performance while navigating through the impacts of the pandemic in 2020 reaffirms my admiration and appreciation for our employees and their on-going commitment to take care of each other and our customers. Above all, the health and safety of our employees remains our most important responsibility." He added "In terms of results, International Paper delivered solid earnings and outstanding cash generation in the fourth quarter and full-year 2020. Our performance demonstrates the strength and resilience of our employees, our diverse customer base and our world-class manufacturing and supply chain capabilities. In 2020, we returned US\$800m to shareholders and reduced debt by US\$1.7bn to enhance our financial strength, while continuing to strengthen our packaging business through targeted investments. As we enter 2021, we anticipate continued strong demand for corrugated packaging and pulp and are poised to grow earnings as we take actions to build a better International Paper and accelerate value creation for our customers and shareholders."



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Canada: GMS acquires DL Building Materials

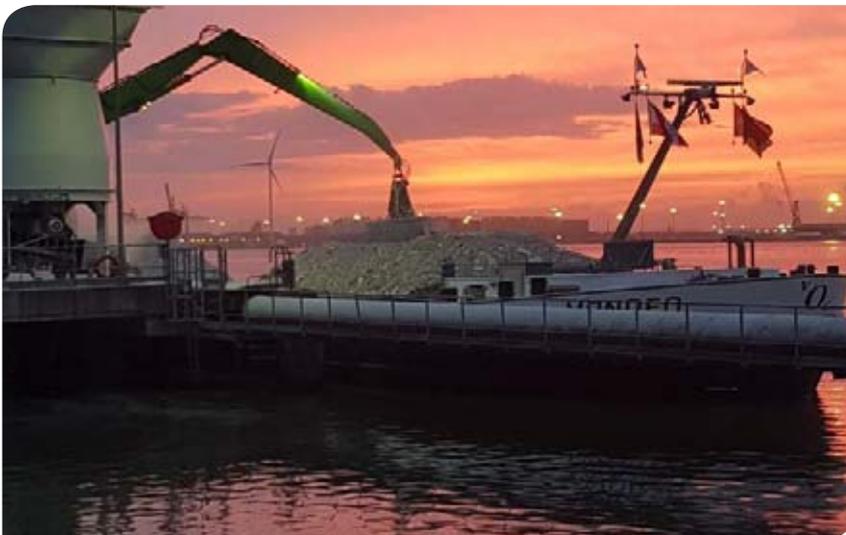
US-based GMS has acquired DL Building Materials. The company distributes gypsum wallboard and other building products to western Quebec and eastern Ontario via two locations in Gatineau, Quebec, and Kingston, Ontario. Founder Richard Davis, general manager Shana Davis and the existing DL management will continue to lead the business. The acquired locations will continue to operate under the DL brand. No value for the acquisition has been disclosed.

Interview by Peter Edwards, Global Gypsum Magazine



Above: Maarten Hendriks is New West Gypsum Recycling's (NWGR) Managing Director for Northern Europe. He has worked for the company for 15 years, during which time he has developed a process to supply the European wallboard sector with recycled gypsum from NWGR's wallboard recycling plants in the Netherlands, the UK, Germany, Belgium and Norway. In recent years this has involved a strong focus on quality control. He is currently in the process of having each of NWGR's European plants certified to ISO:9001 and ISO:14001. The company is based in Canada, where it has three wallboard recycling plants.

Below: Unloading gypsum wallboard waste at NWGR's operations in Norway.



Gypsum recycling in the pandemic

Global Gypsum speaks to Maarten Hendriks from New West Gypsum Recycling (NWGR) about the latest trends in gypsum wallboard recycling.

Global Gypsum (GG): What are the latest trends regarding gypsum wallboard recycling?

Maarten Hendriks (MH): In a nutshell the reduction in supply of synthetic, predominantly flue-gas desulphurisation (FGD) gypsum has been a major driver towards increased gypsum recycling in developed markets, particularly in Europe. This is driving the economics of gypsum recycling. There is also increasing legislation, which is helping on the supply side. For example the spreading of gypsum waste on agricultural land has now been brought down to very low levels in the UK, and Germany has now banned landfilling of wallboard. Indeed, most EU countries are now considering similar bans, which means there is an increasing volume of wallboard that cannot be easily discarded. The mischievous accounting methods that have previously allowed wallboard waste to 'disappear,' for example classing agricultural land-spreading as 'recycling' are also disappearing. Recycling is increasingly the only way to deal with such waste, so it is an exciting time for the sector.

GG: Can you comment on the situation in the Netherlands, where landspreading of gypsum has recently been approved?

MH: As a Dutchman, I find this a regrettable loophole. If you speak with the environmental agencies in the Netherlands, they would say that it is not possible to spread gypsum waste on farmland because waste materials are not allowed back into the foodchain. However, there is also the department of agriculture, which allows the use of calcium sulphate residues on the land, as long as the contaminant levels are low. It is classed as a 'fertiliser.' This is really frustrating for NWGR and we spend a lot of time fighting this use. If we don't, we will lose a lot of suppliers, not only in the Netherlands, but also in neighbouring Belgium and Germany, who instead might be tempted to start producing this 'fertiliser.'

GG: What was the story of gypsum recycling in 2020?

MH: There were no major shifts compared to 2019 before the pandemic hit, with steady volumes across the developed markets and no significant increase in the number of gypsum recyclers. Most of the new activity in 2020 was on the west coast of the USA and the product was used for agricultural purposes.

In March 2020, everything changed. I deal with operations in five countries in Europe and speak every week with our North American operations. Every week throughout the pandemic it seemed that we were discussing a different region. One week, the UK might be particularly affected, a couple of weeks later it would be Vancouver and then a couple of weeks later, Toronto. I think that the 'Covid situation' around each of the plants has been fairly similar in terms of infections and the level of disruption seen. In Europe disruption has been fairly limited and business has been at normal levels since the end of the spring 2020 lockdowns.

In North America, many wallboard plants were not subject to shut downs and the impacts on recyclers varied by region. For example, certain jurisdictions deemed the waste/recycling industry to be an essential service and remained operational, while others did not. This affected incom-



ing wallboard volumes for NWGR to some extent. There was a significant decrease in the inbound tonnage at the height of the lockdowns in April 2020 and reduction in tonnage until the fourth quarter of 2020, when inbound tonnage recovered to 'normal.' This situation has so far continued in 2021, with inbound tonnages close to normal. This is, in part, being driven by higher numbers of housing starts in North America.

Overall, despite the pandemic, 2020 was a solid year in terms of volumes processed, with a 10% increase for NWGR. I cannot comment on the volumes recycled by other companies, because it really depends what is done with the end product. The tonnages increased in each of our European plants. If you had asked me what to expect from 2020 in March last year, I would have said that our volumes would have fallen. I am glad that this was not the case.

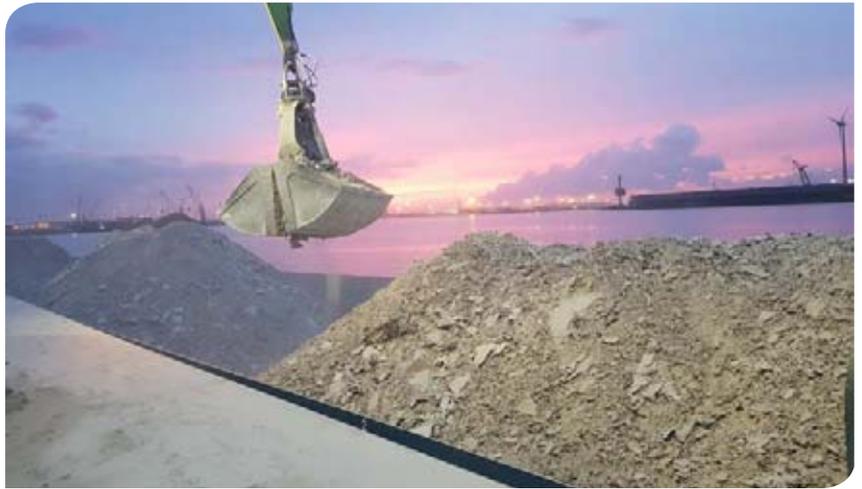
GG: What day-to-day changes have been made to the company's operation?

MH: NWGR introduced a number of safety precautions with which many will now be familiar. For us these included a dramatic reduction in the amount of face-to-face contact on-site, for example plexiglass to avoid physical contact in offices, home-working where practical and even camera monitoring systems. In our Belgian plant we were able to use these to allow our scale clerk to work from home. The camera allows them to see a truck arrive, communicate with the driver and weigh it in and out remotely. The driver collects a print-out from the side of the scale and there is no real-world contact at all. We are pleased to say that the hard work and diligence of our workforce when adhering to these new measures has allowed NWGR to record zero Covid-19 cases to date.

From my perspective, I love the use of the technology and remote meetings, especially for those contacts I deal with on a routine basis. I can be in four countries at the same time! However, developing new projects with partners that you have never sat next to can be a challenge. At some point you have to look each other in the eye.

GG: What will happen in 2021?

MH: I do believe that a financial crisis will follow the pandemic and that this will influence the 2021 market. I think we will see sales slow down in the wallboard sector, which will have a knock on effect for NWGR



and its competitors. When there is a construction crisis, new buildings that are to be built starting in 6-12 months in the future are the ones delayed, not those that are already underway. It could take a whole year for a financial crisis, perhaps even due to a resurgence of the virus, to feed through to the wallboard recycling sector. At present, some of our customers say that they are feeling the first effects of a possible downturn in construction. Thankfully for us, any crisis will not be as pronounced as for these sectors.

At present the dominant consumer of recycled gypsum is the wallboard industry, which of course represents perfect closed-loop recycling. I would say that at least 80% of our business is with this sector. However, a second, and growing consumer is the cement sector. Waste-processing companies, certainly within Europe, are likely to already have close contacts with cement producers, which use various wastes as process fuels. That pre-existing relationship makes it easy to 'offload' the material. From NWGR's perspective, such use is not true recycling, because the gypsum ultimately ends up in concrete, which is currently difficult to recycle.

Above: NWGR recycled 10% more gypsum in 2020 than in 2019, despite the Covid-19 pandemic. Image from NWGR's Norwegian operations.

Below: As natural gypsum has once again become the main raw material for wallboard production, so the recycled gypsum particle size has increased to match.





Right: Gypsum processing inside the NWGR plant in Holmestrand, Norway.



GG: So is NWGR a wallboard plant supplier or a waste gypsum processor?

MH: First and foremost, we strive to supply wallboard plants to achieve 100% closed-loop recycling. However, when we are unable to find a wallboard sector offtaker or an existing plant cannot take increased volumes of material, we too supply the cement sector. I believe that this use is better than doing nothing with it, or someone else might do it instead, with unknown consequences.

GG: How are the demands placed on your material at the wallboard plant changing?

MH: Volume demands are now huge, mainly driven by the high cost of natural gypsum and an increasing lack of synthetic gypsum. We are increasingly reaching the point where plants are coming to rely on recycled gypsum to quite an extent. It is no longer a niche interest, at least in parts of Europe. Quality guarantees are also increasingly the norm.

Interestingly, as more producers return to natural gypsum from using synthetic, we have seen the required recycled particle size increase again, up to a maximum size of 14mm in diameter. This is because natural gypsum is ground at the wallboard plant, unlike synthetic gypsum. In the past the particle size that we had to supply was becoming smaller and smaller, down to less than 3mm in diameter. The switch back to natural gypsum puts less demand on the equipment at our plants.

GG: Are we really at a point where recycled gypsum is becoming a serious supply option?

MH: Almost. The most forward thinking plants, which might have used a maximum of 30% recycled content in some boards in the past, are now using 30% recycled across their product ranges. They are

at the supply limit with regards to the amount of wallboard waste in their region, but could happily use more recycled content from a technical standpoint. It depends on country of course, with this the best-case scenario.

GG: Do you have any comments on the EU's ongoing Renovation Wave?

MH: Different EU Member States have different approaches to renovation, but overall the emphasis on renovating inefficient and out-of-date building stock is likely to give rise to large amounts of wallboard waste. This, however, is already in quantities that the recycling plants cannot handle.

GG: Does the fact that the UK has now completed its departure from EU affect NWGR's operations in that country?

MH: The UK business has always operated solely in the UK, so the source material, process and destination of the material are unaffected. From what I have heard coming out of the UK Environment Agency, there will continue to be a high emphasis on gypsum wallboard recycling as part of the UK's ongoing sustainability efforts. I think this will involve following the EU legislation in this area.

GG: How prevalent will gypsum recycling become in the next five years?

MH: I hope that there will be significant expansion in the sector, but don't have a crystal ball. In the medium term even a 10% recycled content across the industry would represent a major demand for new plants. We are fielding requests from all kinds of places, in Europe and elsewhere. However, some are not ready for gypsum recycling at this point, in the eastern and southern fringes of the EU for example. However, drivers are improving all of the time. For example, Austria will soon enact a transport ban to Czechia, which currently represents a major land-filling destination for wallboard in central Europe. The Austrian material will have to be recycled. This is good, because every such regulation in a given country affects those around it for the better.

GG: Where is the next area, beyond Europe and North America?

MH: The next area will be in Australia and New Zealand. Most other countries, however, are at 'Level Zero.' There are no financial incentives to do this at present in places like Russia or Brazil, for example.

GC: Thank you for your time today Maarten.

MH: You are very welcome indeed, as always. 

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Interview by Peter Edwards, Global Gypsum Magazine

In discussion: Rok Jamšček & Milan Petković, Trelleborg in Slovenija

Global Gypsum speaks with representatives of the well-known forming belt manufacturer Trelleborg in Slovenija...

Global Gypsum (GG): When did the company become involved in the global gypsum sector?

Milan Petković (MP): In 2011, when the economic crisis was still severe, we made a strategic decision to seek new industries and offer them new niche products so they could benefit from our extensive knowledge of the rubber conveyor belt business. The construction industry was one of our targets. We were familiar with wallboard forming belts as an application for years, but in 2011 we took the decision to enter this sector. In 2014, our new belt was finally developed. It was produced and installed at a plant in Poland. This belt is still running and still achieves the same quality standards as when assembled. During the development phase, we were able to fulfil almost all of the customers' requirements. In the longer term, the feedback from the market surpassed our expectations. In a very short time, we managed to enter numerous markets with our unique product. We are very proud of this achievement.

GG: How important is wallboard to the company?

Rok Jamšček (RJ): For Trelleborg in Slovenija the wallboard forming belt is a niche product. We always

seek to develop and manufacture highly-engineered products to create value through high-performance solutions. This product is of importance for our development program as well as for our company as a whole.

GG: Please outline the main products that Trelleborg in Slovenija makes for the gypsum sector.

MP: We entered the wallboard industry with our high-performance Sava Plasterboard forming belt and we planned to offer the same recognisable construction of rubber forming belts, EP8005/5 5/5 at 15mm thickness, to the market. The wallboard business is rather conservative and we were a new player in the game. Therefore we chose to approach the market in a conservative manner and offered the same belt construction, yet with numerous improvements, to build customer confidence in the first instance.

From today's perspective, this was the right decision. Now we find it much easier to introduce new products that incorporate innovation and high-performance solutions in combination with customer focus and business responsibility. We have earned our customers' trust. This was a step-by-step, day-by-day and belt-by-belt process. Our customers know what they can expect from us and our products. Thanks to our leading technology and excellent service, we have built long-term partnerships with our customers and suppliers. They can rest assured that we keep our commitments and transform them into a product that best serves their applications.

In 2020, we launched a new and totally unique product onto the market, a high-performance Sava wear-resistant forming belt. The emphasis is on its wear resistance (WR), which is unprecedented on the market. The WR rubber belt has been specially developed and

Below: Overview of the Trelleborg in Slovenija production facility in Kranj, Slovenia.





Left: Milan Petković is R&D Manager in Trelleborg in Slovenija's Conveyor Belts division. He is a mechanical engineer with 13 years of experience in the conveyor belts business. In his role, he is responsible for new product development and production technology and led the development of the Sava Plasterboard forming belt.



Right: Rok Jamšček has been the Sales and Marketing Manager of the Conveyor Belts division at Trelleborg in Slovenija since October 2018. He began with the division in 2012, where he was responsible for sales to Italy, Spain, Portugal and South America. During his time with the company, he has gained a comprehensive knowledge of rubber conveyor belts.

manufactured for glass mat products, where glass fibres, a material that acts very aggressively on the belt surface, are used in the wallboard liner. Glass fibres wear out standard forming belts very quickly, which is why their lifetime is rather limited.

Our WR belt is twice as resistant to abrasion as our standard belt, which itself is a leader in its field. After the successful installation of the first WR belt and excellent results in the application, further orders were quickly received. The WR belt is suitable not only for glass mat products but also for regular papers and regular gypsum boards.

Over the next few years, we expect this market to expand. At the same time, we continue to develop other new products, one of them being a special forming belt. More details on this development will be revealed in due course. All the time, we are aware that development is our greatest strength and we are determined to keep it that way.

GG: How does Trelleborg in Slovenija come into contact with new clients?

RJ: The most important event in connection with our wallboard business is the *Global Gypsum Conference*, which the company has attended since 2016. The events are the ideal place to meet and exchange knowledge and ideas with new customers. It provides the possibility to present our Sava Plasterboard belts to a broader public and to meet smaller manufacturers from different geographical areas, too. The conference is also a great opportunity to introduce new or improved products to the global market.

GG: What is the most common request from the sector?

MP: It's common knowledge that the quality requirements for forming belts are extremely strict. One of our customers said "There are two most important things in our industry that can lead to a shutdown with no quick remedy: The mixer and the belt. For everything else, there is an alternative."

To put it simply: The belt must be perfect, but every customer has their own specifications and requirements for the belt. While these are often quite similar, it is hard to clarify what a 'perfect' belt looks like. Some belts, even though they are manufactured within the specifications, can be of poor quality. However, our development approach



Left: Sava Plasterboard forming belts ready for dispatch to customers packed in special protective wooden drums.



Left: Vulcanization of a Sava Plasterboard forming belt on a rotocure press machine at Trelleborg in Slovenija's production facility in Kranj, Slovenia.



Above: Plasterboard production.

managed to successfully identify the majority of potential failures before production. The first belts we manufactured met almost all of the customers' strict requirements.

The next step was to remedy the remaining shortcomings and make some small changes to correct certain visual and hidden defects. These, as many in the sector will know, are more dangerous than the visual ones. They can compromise the board surface and lead to rejection by the end user. We identify and remove all visual and hidden potential defects on the belts that could affect the board quality. When we now inspect the belt before shipment, we are completely confident and know exactly what to look for.

The majority of our belts are now also repair-free. Nowadays, customers seek a package service that includes forming a belt, its installation and splicing, as well as after-sales support. As far as we know, we are the only manufacturer of rubber forming belts in the European market able to offer such a complete service. In the case of the non-EU markets, we have an arrangement with several outsourcing companies that carry out the belt installation.

RJ: In most cases, the delivery time of each individual belt is very important, as companies carefully plan the installation dates in order to minimise production downtime. For regular orders, we carefully plan the production timeline in order to meet customer expectations.

Our manufacturing process is rather complex. All raw materials are controlled by our Central Laboratory and only after the defined parameters pass the receiving inspection are the fabrics and compounds released for production. Every single step of the manufacturing process is subject to strict controls. Every semi-product must be first released to proceed to the next phase. For reasons of sensitivity, we pay maximum attention and give the highest priority to the manufacture of these products. There are occasions when something unpredictable can happen in the manufacturing process and the gypsum forming belt needs to be replaced urgently. This

is why we always have a few forming belts in stock in our own or our partners' warehouses to meet the need.

We offer our own installation service across the EU market, whereas in the North American market we cooperate with specialised vulcanising companies. During belt installation, we are often present, especially in the case of new customers, ready to offer support and supervise the splicing and installation procedures. We also join the commissioning of regular wallboard production after the belt is installed to provide assistance and support to the plant and local people in crucial moments. A complete transfer of information and instructions on belt maintenance is also conducted. Moreover, we provide full and quick technical support at all times, which is much appreciated by our customers.

GG: What are the biggest advantages of your plasterboard forming belts?

MP: Our belts contribute to innovation, improvements and benefits for our customers' business. For example, we are the only manufacturer to offer calibrated belts. After the curing process on the rotary press is finished, the belt is inspected and calibrated. In the calibration process, we achieve thickness tolerances of $\pm 0.1\text{mm}$.

Another advantage is that the belts are made of wax-free natural rubber, which is unique on the market. It is a well-known fact that waxes migrate to the surface of the belt over time and accumulate on the supporting rollers, drums and take-up pulleys. This gives maintenance personnel a headache and it is worse for quality control, as the accumulated wax has to be cleaned regularly. Usually, it takes a few months or more for the situation to stabilise.

In contrast, our customers can produce the highest quality wallboard immediately after the belt is installed. As no substance migrates to the belt surface, the conveyor components and board liner remain clean. I would also like to emphasise the Factory Acceptance Test (FAT) protocols referring to the belt quality. When the belt is finished, it automatically undergoes an inspection by a laser inspection system. On the finishing line, belt thickness, width, hardness and length are measured. Following a detailed inspection, we prepare a final inspection report and attach it with every single belt shipped to our customers.

The laser inspection system provides an automated report, another interesting and effective feature of the system. The customer can easily check the entire belt and see any deviations. Manual measurements and visual inspection serve only to confirm what is measured, inspected and reported

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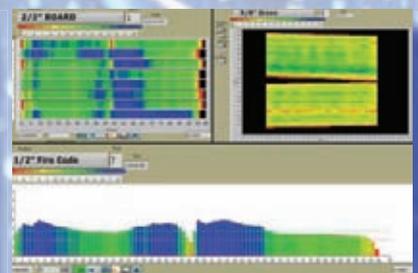
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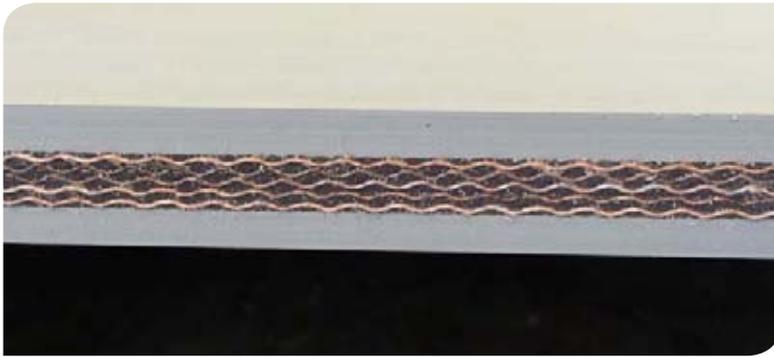


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Above: Cross section of Sava Plasterboard forming gypsum belt: 5mm top and bottom 100% NR, wax-free rubber cover with five plies of high-quality textile EP160; EP800/5 5/5 Sava Plasterboard forming belt.

by the laser system. Other physical parameters (tensile strength, working elongation, adhesion, friction etc.) are measured in our Central Laboratory and included in the inspection report. The laser system is beneficial for both us and the customers.

During the Covid-19 pandemic, a laser report is critical for companies to decide whether to accept a belt. I believe that customers will maintain this way of belt inspection even when Covid-19 restrictions are eased, as it is a much more cost-effective approach than travelling to Slovenia!

GG: Which world regions are the most enquiries coming from at the moment?

RJ: Most enquiries are currently from North America and Europe, with a smaller number from Russia and the Middle East. The short-term goal is to strengthen our presence in Europe with our full-service package, from technical support to splicing services. We are also striving to obtain new partners in Asia and the Pacific rim.

GG: How are gypsum sector clients changing at present?

RJ: In the past couple of years we have noted the important mergers in the wallboard industry. This trend will likely continue in the future to some extent. This creates both opportunities for and challenges to gaining business in regions that we are not currently present in. We have also noticed that certain manufacturers prefer to have long operation lines. In case of such demands, we can offer belts up to 285m in length.

Covid-19 and the future

GG: How did the Coronavirus outbreak affect day-to-day operations for Trelleborg in Slovenija?

MP: Trelleborg prioritised its employee well-being and safety with comprehensive routines and measures to prevent the spread of infection, while customer needs were also put into focus. Over 2020 new practices became normal for us and our customers and the supply of belts was not affected.

GG: What about ongoing projects and commissioning in 2021?

MP: We cannot comment on specific customers or future projects but can confirm that we have several in the pipeline. The major goal for the time being is to present our high-performance Sava wear-resistant forming belt to a broader market.

In terms of new inquiries, these mostly originated from previously-approved capital expenditure programmes. We have noticed that the largest volume of inquiries coincides with the beginning of each year and hope this trend will continue in 2021.

GG: What do you think 2021 will 'look like' regarding the Covid-19 pandemic and associated economic situation?

RJ: There is still uncertainty about the demand trend for the coming quarters. However, we look forward to new projects in the building industry, which will surely have a positive effect on the production of gypsum boards and hence the sale of forming belts too.

GG: What are the largest challenges to and opportunities for Trelleborg in Slovenija over the next 1-5 years?

RJ: We do not see any specific challenges over the coming years. Our biggest opportunity is the development of new types of belts and rubber compounds and to improve the existing ones with the help of our Central Laboratory, in-house mixing plant and the Research and Development department within Conveyor Belts, which has more than 60 years of experience of developing new types of rubber conveyor belts. This includes cutting-edge innovation, leading technology and high-performance solutions. As Milan mentioned, we are working on a new type of rubber belt with a better price/performance ratio, as we feel this mature market is ready to try something new.

We are confident that, in the next few years, we will become one of the world-leading manufacturers of wallboard forming belts owing to carefully designed technological processes, calibration and laser inspection, our own installation team in the EU and strong support by specialised vulcanising companies in other regions/continents along with customer support.

GG: Thank you for your time today gentlemen.

RJ/MP: You are very welcome indeed.



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Andrea Braun, Grenzebach BSH GmbH

Cross-continental teamwork keeps gypsum production running non-stop

With its global presence and resources and cooperation based on partnership and digital innovations, Grenzebach secures non-stop gypsum production and even makes it possible to quickly start up equipment across continents, despite the current pandemic.

Producing gypsum wallboard non-stop, 24 hours per day, means facing new challenges during this time marked by Covid-19. Contacts have to be reduced, travel restrictions are in place, supply chains are weakened - all that has an impact on gypsum production operations. In order to keep production running, existing plants still need to be serviced and optimised on a regular basis.

Despite the restrictions, new plants and systems must be started up on schedule to make an investment profitable. This frequently requires in-person cooperation between supplier and customer. Working closely together while being physically separated is a new challenge that calls for new possibilities.

To minimise the impact caused by the current situation and to be able to provide the quickest possible support, Grenzebach has developed its collaboration resources even further than before. Grenzebach caters for its customers' needs in a number of ways to complete projects and commissioning jobs smoothly and without stoppages. Its global presence with loca-

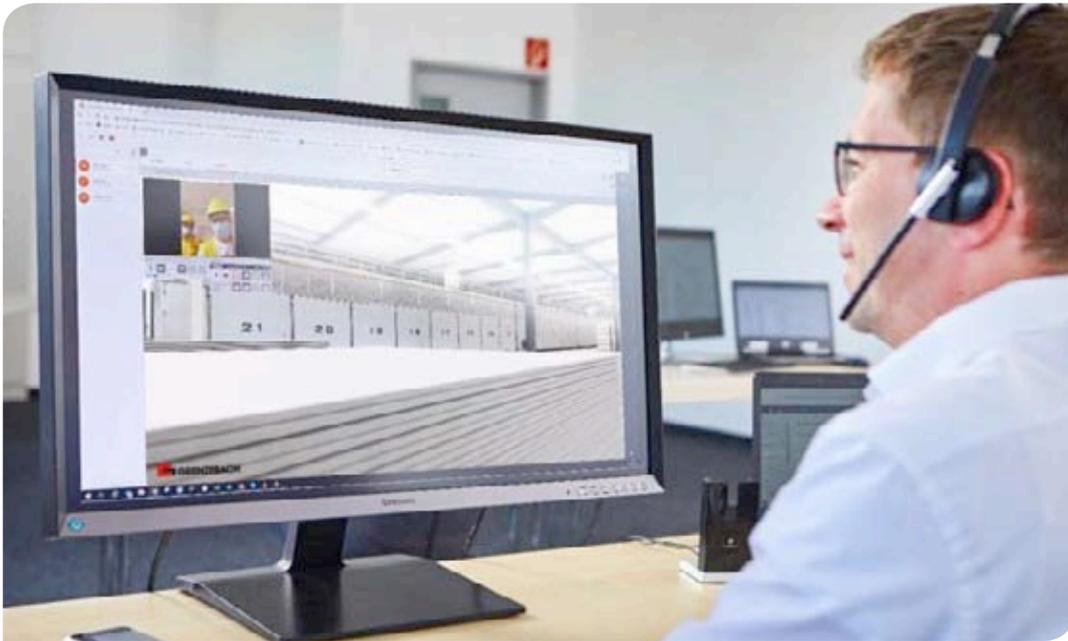
tions in Europe, North America and Asia keeps up performance and ensures on-site availability and thus quick support when needed. Digital services allow Grenzebach experts to bridge physical distances and be close to the customer. It assists its customers in a variety of different ways in their non-stop gypsum and wallboard production and responds flexibly to changing circumstances.

Two high-speed plants started up on schedule despite the current challenges

A major project was completed for the Xinfu Group in China at the end of 2020 in spite of the current conditions with the start-up of two high-speed gypsum wallboard facilities. The project was in the middle of being developed when the pandemic broke out in early 2020. Grenzebach provided extensive assistance as the general contractor to prevent the progress of the project being jeopardised. In addition to all of the plant engineering, its array of responsibilities included plant planning, integration into the

Right: Due to the high flexibility and close coordination of all those involved at the Grenzebach locations in Bad Hersfeld (Germany) and Jiashan (China), two new gypsum plasterboard lines supplied to Xinfu Group were able to start production on schedule. **Source:** Grenzebach.





Left: With its new Collaboration App, Grendebach is now even closer to its customers, also in day-to-day business. Grendebach experts are available via live video chat wherever and whenever needed. **Source:** Grendebach.

existing infrastructure, energy supply design, and development of the entire production and warehouse logistics.

In order to carry out this project in current circumstances, Grendebach drew on its global presence. In a concerted transcontinental effort, Grendebach experts at the sites in Jiashan, China, and Bad Hersfeld, Germany, collaborated closely on the project in order to execute plant installation and activation according to schedule.

“Our top priority is not only to offer the customer an optimum technical concept, but also to provide them with the best possible assistance throughout all of the project stages,” says Dr Christoph Habighorst, Head of Sales at Grendebach BSH. Thanks to the good collaboration of all the staff involved, Grendebach was able to guarantee realisation of the project in next to no time. “The efficiency of our international footprint takes full effect here,” he adds.

The Grendebach team took various steps to ensure that the project schedule was not jeopardised. A number of local coworkers assisted with the plant’s development and activation. Grendebach also engaged closely with the authorities to ensure that the necessary specialists from Germany could enter China at the right time. The flexibility and close coordination of everyone involved in the project meant that the new gypsum wallboard facility could go into operation on time at the end of 2020.

The smooth progress made with the project under the currently challenging conditions, confirmed to Xinfra that they had chosen the right partner with Grendebach. “The collaboration based on partnership between Xinfra and Grendebach demonstrates what can be achieved even in extraordinary times if we work together,” adds Dr Habighorst.

Swift and straightforward assistance via the Collaboration App

With its new Collaboration App, Grendebach has also further bridged the gap digitally to its customers around the world in day-to-day business. Grendebach experts are at its customers’ disposal anytime and from anywhere via live video chat, in order for them to jointly take a direct look at a plant.

The experts can provide audio-visual troubleshooting assistance and directly contribute to solving the problem by means of graphic annotations on the live picture on screen. With the Collaboration App making support available quickly, customers are able to reduce unexpected downtimes. The direct support provided by the experts means that employees can identify fault causes quickly and easily trigger immediate spare part deliveries.

Wolfgang Eydt, Head of Customer Service, Building Materials, emphasises, “In these challenging times in particular, it is very important to us that we are there for our customers at all times – with very practical assistance. The Collaboration App allows us to solve plant issues directly and jointly together with the customer. It’s quick and straightforward.”

Service without borders

From Germany to China and the whole world. Grendebach secures its service through innovative ways. From upgrades via new product developments up to commissioning, Grendebach experts are also at the customers’ side in unusual times. “True to the motto of ‘You will never walk alone’ – we feel connected to our customers and want to collaborate with them even more closely. We want to be a sought-after partner to our customers,” concludes Eydt. 

Robert Crangle, US Geological Survey

US gypsum trends during the Covid-19 pandemic



Above: Robert Crangle has worked at the United States Geological Survey (USGS) since 2001 and for its National Minerals Information Center (NMIC) since 2008. He is the 29th gypsum specialist since the USGS was founded in 1882. The USGS collects data regarding the non-fuel mining and mineral processing industries in the US, including on mineral production, consumption, recycling stocks and shipments. For gypsum, the data is sourced using voluntary anonymous surveys, along with data from the Gypsum Association (GA), US Energy Information Administration (USEIA), Mine Safety and Health Association (MSHA) and the American Coal Ash Association (ACAA).

USGS gypsum specialist Robert Crangle looks at crude gypsum, synthetic gypsum and wallboard trends in the US during 2020, a year like no other...

What about natural gypsum?

The first question when looking at the US gypsum sector in 2020 is: How productive were the country's gypsum mines during the Covid-19 era? To estimate this, we can look at the publicly-available data provided by the Mine Safety and Health Association (MSHA). Specifically, we can look at the number of hours worked in 2019 as a proxy for the volumes of gypsum produced. Unfortunately, we have to extrapolate the first two quarters of 2020 into the third and fourth quarters. This may not give a true representation for an individual mine across the whole of 2020. However, across the US' vast crude gypsum industry, these will average out.

For example, if we have hypothetical Mine A, which reported 11,000hr worked during the first and second quarters of 2020, we simply take those and multiply by two to get the full year projection, 22,000hr. Then we can compare this estimated full year projection to what Mine A reported in 2019. To provide some real-world examples, we estimate that the USG Plaster City mine in California saw a 23% fall in hours, and hence production, in 2020 compared to 2019. Another mine, this time in Indiana, was down by around 12%. The Republic Pit in Oklahoma, the Georgia Pacific Sweetwater mine in Texas and the Empire Mine in Nevada were all flat or slightly down. Others were up year-on-year in the

first two quarters of 2020. This included a 6% rise at the Pabco Mine in Nevada, an estimated 5% rise in hours at Phoenix Cement's Verde Mine in Arizona and a 4% rise in hours at the USG Sweetwater Mine in Texas.

In some regions this was due to enforced shut-downs, which were more extensive at the start of the year. It is certainly possible that some of the mines that were halted during this period will have been able to catch up slightly. Making adjustments like this requires very granular knowledge of the situation on the ground in a large number of local jurisdictions. Unfortunately, this was not something the analysis could reasonably take into account. Indeed, the difference between the two Sweetwater mines shows that this may not even be useful.

What about synthetic gypsum?

Before the Covid-19 pandemic, the production of flue gas desulphurisation (FGD) gypsum in the US had seen a sustained and steady decline, which began in around 2008. The biggest contributor to this is the falling price of natural gas due to fracking, which has reduced US dependence on coal over the past 10-15 years. This led to the closure of some 550 coal-fired power plants between 2010 and 2018. While many of these have been closed, others have been converted to burning natural gas.

So how does this tie in to projections for synthetic gypsum in 2020? At the time of writing, the proportion of natural gas used for power generation had risen to 39% from 37% in 2019. Gas prices are down a little bit in 2020, so we see that this trend will develop further in future.

The flip side is continued decline in coal use for energy production, down to an estimated 26% in 2020 according to Energy Information Administration (EIA). In summary, the Covid-19 pandemic has done



Right: Extraction of natural gypsum appears to have been relatively unaffected by Covid-19 in 2020.



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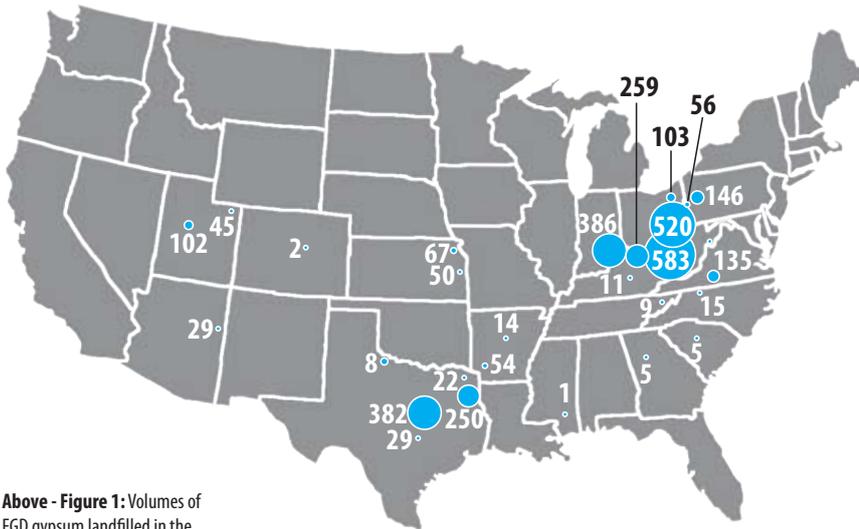
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Above - Figure 1: Volumes of FGD gypsum landfilled in the US in 2017. Numbers shown are thousands of metric tonnes. **Source:** EIA Form 923 Schedule 8. Power Plant Operations Report 2018.

- = 100,000t.
- = 200,000t.
- = 500,000t.

little to affect the continued decline in the production of FGD gypsum.

One thing to keep in mind, however, is that the utilisation rate of the FGD gypsum that was produced and actually used has climbed in recent years, as the production rate falls. In 2015 the amount used was 50% of that available. In 2020 it was more like 70%. The utilisation rate will continue to climb.

Figure 1 is a map that shows the FGD gypsum known to be landfilled in 2017, with volumes ex-

pressed in thousands of metric tonnes. It is from the EIA. It provides an idea of where there are small, medium and large reserves of synthetic gypsum. These are reserves that are not just unused but, in some cases, land-filled at considerable cost to FGD gypsum producers.

Wallboard production

As far as wallboard plants themselves go, they are actually fairly well laid out and somewhat pandemic-proof. They are large places, some might even describe them as 'airy', and not very many people work in them. In the US they are highly automated. This contrasts fairly well with other facilities, for example car manufacturing plants, which have many more workers operating at close quarters.

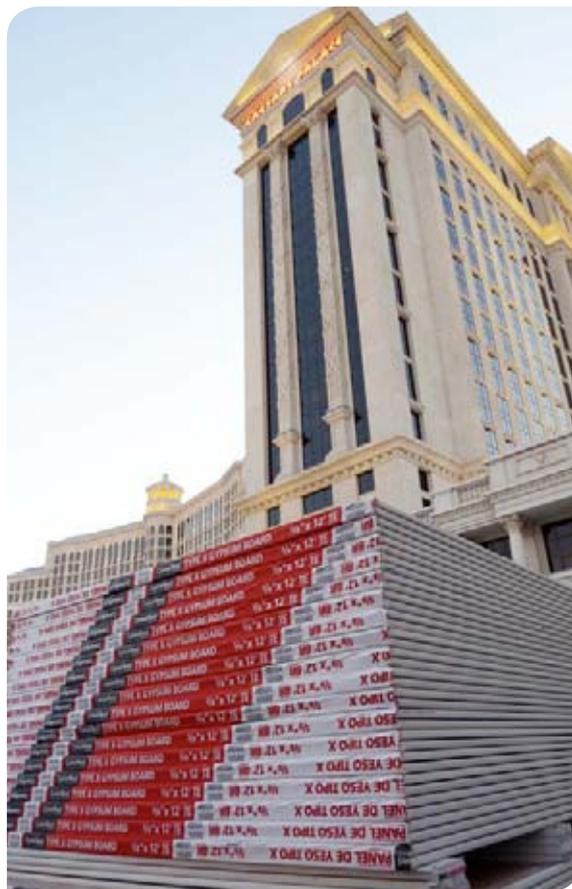
To get a handle on wallboard production in 2020, we have used data from the GA, which has so far provided data for the first and second quarters of the year. We have also taken into account data from the construction and related sectors as a proxy for consumers of gypsum and wallboard products. In the first half of 2020, the US made 1.18Bnm² of wallboard. It was surprising to see that this was *identical* to the amount made during the first six months of 2019. That figure is slightly up on the first half of 2018, when 1.17Bnm² was produced, which in turn was slightly higher than in 2017 and 2016 (both 1.13Mm²). So, if we are looking for Covid-19 effects in the wallboard production, there are no 'smoking guns' to be found. The first half of 2020 looked entirely 'normal'.

What about construction activity?

We can look at data for residential construction, new home permits, residential home sales and commercial construction as a proxy for wallboard consumption. Firstly, there were 921,000 new home permits in the first eight months of 2020, according to the US Census Bureau. This looks pretty healthy, indeed it represented a 1.7% increase compared to the first eight months of 2019, when there were 906,000 new home permits granted.

Commercial construction dollars spent was essentially the same in August 2020 as it was 12 months prior. In August 2020 around US\$7.15bn was spent on commercial construction, according to the US Census Bureau, whereas it was US\$7.16bn in August 2019. On the residential sales side, existing home sales reached a 14 year high in September 2020 and single family housing starts reached their highest level in

Right: Wallboard outside the Caesar's Palace hotel and casino in Las Vegas, Nevada. While gypsum mining and wallboard production held steady in 2020, the next 12 months could be more of a lottery.





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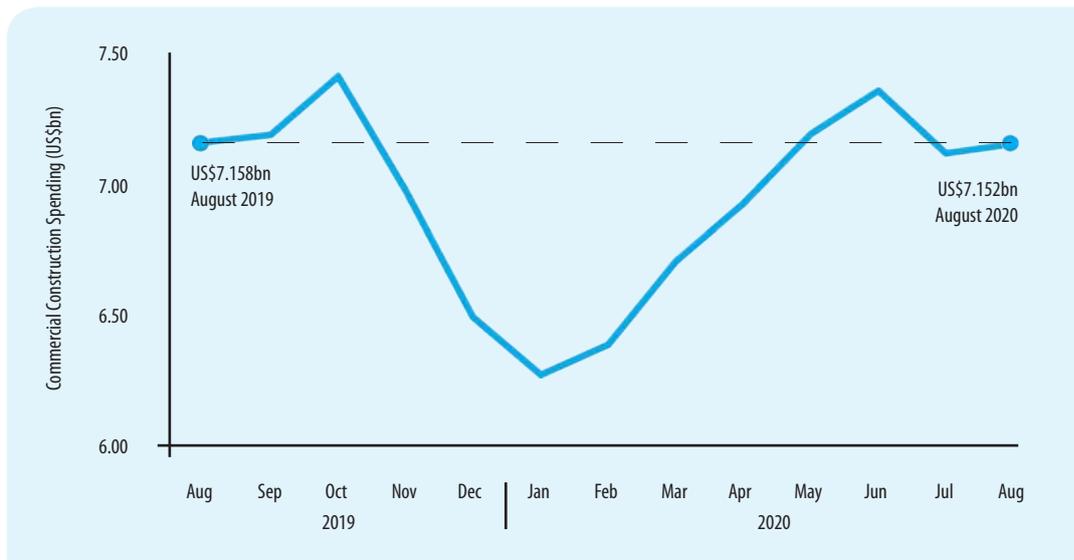
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Right - Figure 2: Monthly spending on commercial construction in the US, August 2019 to August 2020. The market is highly seasonal due to harsh winters in many States. **Source:** US Census Bureau.



13 years, according to Reuters. On the whole, the reference points we usually use are looking robust. The big question is: *Can this continue?*

Credit crunch 2.0?

Perhaps the biggest potential area for uncertainty is with regards to credit, specifically, commercial mortgage backed securities, known as CMBS bonds. These are complex investment vehicles that, right now are estimated to be worth US\$500bn. Those bonds consist of multiple branches of varying risk and are very similar to the mortgage backed securities, which played a significant role in the 2008 fiscal crisis. While the value of the CMBS is less than half that of the mortgage-backed securities, it's fair to say that many are worried about them.

In October 2007 about 16% of all sub-prime mortgages at that time were 90 days or more delinquent. In August 2020 about 20% of all lodging in retail, commercial mortgage backed security loans were 30 days or more delinquent. This is not quite

as bad as the situation seen in 2007, but they are not heading in a good direction. Loans in foreclosure, and in those CMBS bonds doubled from June 2020 to September 2020 from about US\$2bn to US4bn. Another thing to consider is that commercial real estate loans today, right now constitute approximately 20% of all US bank portfolios. This has been concerning since the start of the pandemic. While this hasn't yet taken a big bite out of wallboard demand, it is certainly something to keep an eye on going forward. Other challenges include the fact that 9% of all commercial loans were delinquent as of September 2020.

Concluding remarks

In conclusion, the credit markets are certainly not as healthy as the gypsum mining and wallboard production sectors. They are not in sync. If this continues, it will be simply a matter of time before something breaks. Will the threats to the credit markets convert into decreased future construction activities? One big weapon in our arsenal is the current ultra-low interest rates set by the US Federal Reserve. Will they be enough to provide a foundation for construction activities? If not, higher unemployment would be expected to drive down labour costs. While that would be a small benefit to construction firms, it would be a bad deal for those employed on lower wages. There would also be a smaller pool of people and companies that would qualify for property-related loans in the first place, dampening wallboard demand.

Whatever happens next, the foundations of US gypsum and wallboard seem to be holding on, certainly in terms of production. Hopefully this will continue to be the case. We do need to keep a watch on the credit markets. Nobody wants a credit crisis on top of the pandemic.



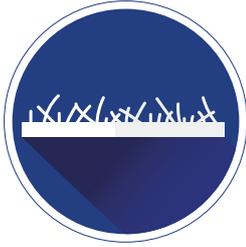
Below: Could Covid-19 yet come to bear on the US wallboard market in 2021?



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Jacob Winskell, *Global Gypsum Magazine*

Gypsum in Germany, Austria & Switzerland

Global Gypsum investigates the German, Austrian and Swiss gypsum wallboard industries as they emerge from a disruptive 12 months. How did producers and suppliers react to the changes and what does the new normal have in store for this usually stable market?

Right: A road closure due to the Covid-19 outbreak in Vorarlberg, Austria, near to the triple border of Germany, Austria and Switzerland.
Source: Shutterstock.

Europe's trio of majority-German-speaking nations represent a modern tradition of peace, trade and integration both within (Germany and Austria) and outside of (Switzerland) the European Union (EU). In 2019 the three countries' combined value of goods exports totalled Euro1.50tn, compared to Euro1.36tn for the US and Euro2.13tn for the entire EU.¹ Production quality is key - 'German,' 'Austrian' or 'Swiss' are all synonymous with 'global' standards. All three countries are active in global gypsum wallboard production, either directly or through the supply of raw materials or equipment.

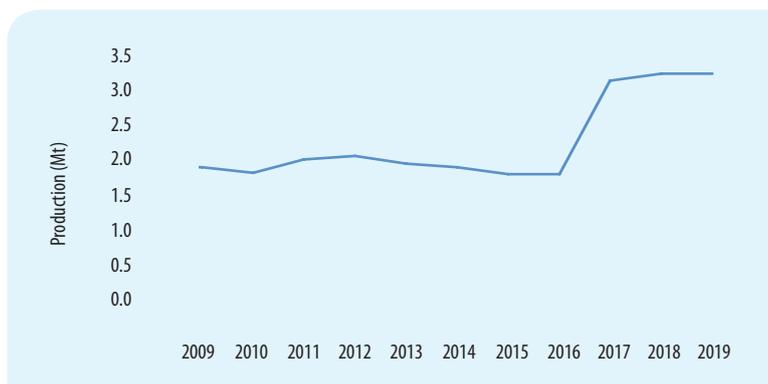
The Federal Republic of Germany's reemergence from the ruins of war in the mid-twentieth century is termed the 'Economic Miracle.' In the late 1950s, Gross domestic product (GDP) grew by 8% annually - a benchmark for rapid development ever since. GDP fell by 3% to Euro3.19tn in 2019, from Euro3.28tn in 2018 after three consecutive years of growth.² A decade has passed since China overtook Germany as the world's lead exporter of goods, but Germany retains the world's second-highest balance of trade.³ Its National Industry Strategy 2030 centres on global innovation leadership. Giants like Siemens often overshadow the nation's small and medium-sized enterprises, which contribute over half of the economic output.⁴ In the building materials sector, companies with fewer than 50 employees produced Euro12bn-worth of goods in 2018, 35% of the total of Euro34bn. Gypsum production accounted for 4% of this figure, at Euro1.3bn.⁵



Germany



Below - Figure 1: Mined gypsum output in Germany, 2009-2019.
Source: United States Geological Survey.



Gypsum supplies

Germany's gypsum consumption is 10Mt/yr and growing.⁶ The gypsum wallboard sector faces major changes to the domestic gypsum supply over the next two decades.

Germany lies in an area of fascinating gypsum and anhydrite geology. The Upper Permian Zechstein formation contains numerous gypsum karsts and covers all of northern Germany and a central band down to northern Baden-Württemberg and southern Rhineland-Palatinate. Underground mines work the gypsum reserves at Breitenstein and Lamerden in northern central Germany and at Kreuzhalde, Obrigheim and Ralingen in the South West. There is also open-pit mining in both regions. The eastern state of Saxony-Anhalt contains some of Europe's most spectacular anhydrite caves.

Domestic natural gypsum production supplied the gypsum wallboard industry with 3.2Mt of gypsum in 2019, consistent with 2018 levels and 70% higher than the 1.8Mt produced in 2016 (See Figure 1). In January 2019, a government commission proposed more than tripling extraction to 10Mt/yr. Public opinion limits the possible future expansion: the Minister President of the gypsum-rich state of Thuringia said that the proposal would mean levelling the Harz mountains, and the Green party voiced its conservation concerns in the German parliament. The commission in question was the Coal Commission.



Gypsum production by flue-gas desulphurisation (FGD) at coal-fired power plants began in West Germany in the 1980s and quickly became the main source of gypsum for domestic wallboard production. In 1983, FGD became a mandatory feature of new coal-fired power plants in the country. Following reunification in October 1990, scrubber installation began in earnest across the German Democratic Republic's brown coal (lignite) power stations. These intensely polluting power plants were still the source of over 75% (5.4Mt of 7.2Mt) of German FGD gypsum in 2013.⁷ In July 2020, parliament intervened again - this time to tell the 38GW-capacity industry that it had had its day. The government is paying compensation for voluntary closures; full shutdown will be enforced after 2038.

The government will publish its review of the coal exit measures in August 2022. Currently, gypsum-rich Germany is presented with the prospect of a medium-term gypsum shortage. A switch to imports and the concomitant increase in gypsum wallboard production's carbon footprint may be a disheartening outcome of Germany's coal exit.

One innovative route open to producers is recycling waste gypsum from production, construction and demolitions. France-based Saint-Gobain subsidiary Rigips and Canada-based New West Gypsum Recycling Germany's Gelsenkirchen, North Rhine-Westphalia, gypsum wallboard recycling plant processes waste wallboard from across the Rhine-Ruhr region and northern Rhineland-Palatinate. New West Gypsum Recycling Germany also operates a 90,000t/yr facility together with Schulz Baustoffe in Hürth, North Rhine-Westphalia. The plant supplies gypsum extracted from waste from Cologne, Düsseldorf and the southern Netherlands to Rigips' Scholven gypsum wallboard plant in nearby Gelsenkirchen.

Wallboard sector

Germany occupies third place in the European gypsum wallboard production capacity rankings at 349Mm²/yr, behind the UK at 405Mm²/yr and France at 368Mm²/yr. Capacity is spread across seven of the country's 16 federal states. Five gypsum wallboard plants are located in the states of the former East: three in Brandenburg and one each in Saxony-Anhalt

and Saxony. Table 1 displays each wallboard-producing state's number of plants and total production capacity.

State	Plants	Capacity (Mm ² /yr)
Brandenburg	3	113
Bavaria	2	87
Lower Saxony	2	46
North Rhine-Westphalia	1	43
Saxony-Anhalt	1	20
Baden-Württemberg	1	20
Saxony	1	20
TOTAL	11	349

Left - Table 1: Gypsum wallboard plants in German Federal States.
Source: *Global Gypsum Directory 2021.*

Wallboard producers

Three players feature in German domestic wallboard production. Knauf, a German multinational founded at Perl an der Mosel in 1932, operates five plants with an installed capacity of 173Mm²/yr via its subsidiary Knauf Deutsche Gipswerke. Rigips (Saint-Gobain) owns three plants with a combined capacity of 118Mm²/yr, while Belgium-based ETEX subsidiary Siniat's three plants total 57Mm²/yr in capacity.

Figure 3 (overleaf) shows producers' shares of domestic production by capacity.

Knauf: Knauf more often makes the *Global Gypsum* news in faraway places than in its native Germany. In October 2020, the group bought Australia-based Boral's 50% stake in Singapore-based USG Boral - gaining 100% ownership of the leading Asia-Pacific and Middle Eastern gypsum wallboard supplier.

The company produced its first gypsum wallboard at its Iphofen, Bavaria, plant in 1958. Alongside the 70Mm²/yr-capacity Iphofen plant, Knauf Deutsche Gipswerke today operates smaller plants at Stadtoldendorf, Lower Saxony, (33Mm²/yr), Spremberg, Brandenburg, (30Mm²/yr), Lauffen, Baden-Württemberg, (20Mm²/yr) and Rottleberode, Saxony-Anhalt, (20Mm²/yr).

Left - Figure 2: Gypsum wallboard plants in Germany. States are colour-coded by production capacity. NRW = North-Rhine Westphalia.
Source: *Global Gypsum Directory 2021.*

Knauf Deutsche Gipswerke

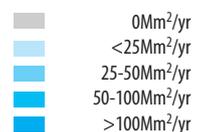
1. Spremberg, Brandenburg, 30Mm²/yr.
2. Rottleberode, Saxony-Anhalt, 20Mm²/yr.
3. Iphofen, Bavaria, 70Mm²/yr.
4. Lauffen, Baden-Württemberg, 20Mm²/yr.
5. Stadtoldendorf, Lower Saxony, 33Mm²/yr.

Rigips (Saint-Gobain)

6. Brieselang, Brandenburg, 63Mm²/yr.
7. Bodenwerder, Lower Saxony, 13Mm²/yr
8. Gelsenkirchen-Scholven, North Rhine-Westphalia, 43Mm²/yr.

SINIAT (ETEX)

9. Peitz, Brandenburg, 20Mm²/yr.
10. Hartershofen, Bavaria, 17m²/yr.
11. Lippendorf, Saxony, 20Mm²/yr.

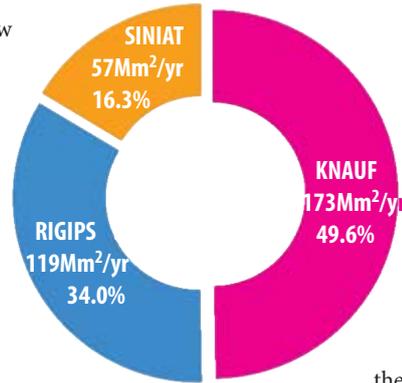




Right - Figure 3: German domestic gypsum production capacity by producer.

Source: Global Gypsum Directory 2021.

Globally, Knauf's range now encompasses gypsum, plaster, insulation and other building materials. Its gypsum wallboard production capacity across all global operations of more than 3Bnm²/yr in 2021 gives it control of over 20% of the global total of 14Bnm²/yr, making it far and away the largest gypsum wallboard producer outside of China.



Saint-Gobain reported a 60% year-on-year decline in group activity in April 2020, which it attributed to the effects of the coronavirus pandemic. Activity in Germany remained below 2019 levels at the end of the first half of 2020, but a third-quarter performance closer to previous levels limited the decline over the first nine months of the year.

In Uzbekistan on 20 March 2020, Knauf revealed plans for a second line at its 20Mm²/yr Bukhara gypsum wallboard plant in Bukhara region. Trend News reported that the company also plans to invest Euro2.2m in an additional gypsum mixture line at its nearby Bukharagips dry building mixes plant.

Saint-Gobain: Founded as Manufacture Royale de Glaces de Miroirs in 1665, France-based Saint-Gobain had grown into a diversified global corporation before it entered the German gypsum wallboard market in its 340th year in 2005. Alongside its original domain of glass production, the company produces ceramics, plastics, abrasives and gypsum wallboard. Its acquisition of Rigips resulted from its takeover of UK-based British Plasterboard (BPB), which had owned Rigips since 1989.



Rigips began life as Vereinigte Baustoffwerke Bodenwerder amid the ruins of the Lower Saxony town of Bodenwerder in 1945, with the aim of contributing to the post-war reconstruction of Germany. It redoubled its efforts in 1949 with the start of wallboard production at its Bodenwerder gypsum wallboard plant. A second line opened at the plant in 1958 and its current capacity is 13Mm²/yr. The company's present name dates back to 1961, and recognises its earlier merger with a Latvia-based wallboard producer, based in Riga. This gave it the 'Rig' part of its name, while 'Gips' is German for gypsum. Rigips produces gypsum wallboard at its 62Mm²/yr Brieselang, Brandenburg, plant (established in 1996) and its 43Mm²/yr Gelsenkirchen-Scholven, North Rhine-Westphalia, plant (established in 1989), as well as at its 13Mm²/yr original Bodenwerder, Lower Saxony, plant.

Right: Uniper's Scholven, North Rhine-Westphalia, power plant (left) has supplied Rigips' Gelsenkirchen-Scholven gypsum wallboard plant (right, white roofs) with FGD gypsum since 1990.

Source: Uniper website.



ETEX: Unlike its competitors, ETEX subsidiary Siniat is not a home-grown German business, but hails from its parent company's native land of Belgium. ETEX, formerly Eternit, established its first fibre cement board plant near Brussels in 1905. It entered gypsum wallboard production in 2011 upon its 80% acquisition of France-based Lafarge's gypsum wallboard assets, and launched Siniat in 2014. In Germany, it has plants in Bavaria (Hartershofen, 17m²/yr), Brandenburg (Peitz, 20Mm²/yr) and Saxony (Lippendorf, 20Mm²/yr).



Northwest Europe was an area of particularly reduced sales for Etex's building performance division in the first half of 2020. However the region contributed a 'significant recovery' in June 2020.

Equipment suppliers

Germany's many industrial centres host numerous engineering companies which supply the global gypsum wallboard industry. Gebr. Pfeiffer (Kaiserslautern, Rhineland-Palatinate), Grenzbach (Asbach-Bäumenheim, Bavaria) and Claudius Peters (Buxtehude, Lower Saxony) all equip gypsum wallboard producers, alongside other industries.

In June 2020, Knauf awarded Jürgens Maschinenbau first place at its Supplier of Excellence awards for its cooperative successes with Knauf subsidiary Knauf Engineering. The supplier is based in Emsdetten, North Rhine-Westphalia and provides fully-automatic automation and packaging machines for film and non-woven rolled goods.

Hamburg-based Currax and Munich-based Siemens announced their planned collaboration on a mill operations digitisation project at a gypsum wallboard plant in Germany in March 2020. The pilot project uses the Simotics Connect 400. The equipment collects operational data with a view to increasing efficiency and component life. By increasing digitisation, the companies said that they hoped to make the gypsum wallboard plants of the future more resilient to crises such as the coronavirus outbreak.

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Austria



Below right - Figure 3: Map of Austria, Switzerland and Liechtenstein showing gypsum wallboard plant locations. Austrian states are colour-coded by wallboard production capacity. **Source:** *Global Gypsum Directory 2021.*

1. **Knauf Österreich**, Weissenbach bei Liezen, 33Mm²/yr.
2. **Rigips Austria**, Bad Aussee, 30Mm²/yr.

- 0Mm²/yr
- <25Mm²/yr
- 25-50Mm²/yr
- 50-100Mm²/yr
- >100Mm²/yr

Below - Table 2: Wallboard plants closest to Switzerland. **Source:** *Global Gypsum Directory 2021.*

Company	Location	Capacity (Mm ² /yr)	Distance to... (km)
Siniat	Ottmarsheim, France	18	Basel = 30
Saint-Gobain Placoplâtre	Chambéry, France	40	Geneva = 91
Knauf Deutsche Gipswerke	Lauffen, Germany	20	Zurich = 230
Fassa SpA	Spesiano, Italy	30	Lugano = 320
Knauf GmbH	Weissenbach, Austria	33	Chur = 455

Austria is a land of music, edible delicacies and wine - though its Red Bull energy drink is its more widely-known export. Its citizens' inventions include psychoanalysis, printed circuit boards and the alkaline battery. Its 8.9m people generate a per-capita gypsum wallboard demand of 3.3m²/yr.⁸

Wallboard producers

Both Knauf and Saint-Gobain are active in Austrian gypsum wallboard production. Between their two plants, the country commands a gypsum wallboard production capacity of 63Mm²/yr. Knauf subsidiary Knauf Österreich operates 33Mm²/yr (52%) of capacity at its Weissenbach bei Liezen, Styria, gypsum wallboard plant, while Saint-Gobain subsidiary Rigips Austria operates 30Mm²/yr (48%) at its Bad Aussee gypsum wallboard plant, also in Styria. The Bad Aussee plant, established in 1969, is Rigips' second-oldest gypsum wallboard plant and was its first outside of Germany. Knauf established Knauf Österreich one year later in 1970, and gypsum wallboard production began at its Weissenbach bei Liezen plant in 1972. Due to the effects of the coronavirus pandemic, Saint-Gobain's sales in Germany and Austria in the first nine months of 2020 were 4.5% below those seen in 2019.

Equipment suppliers

On 24 February 2020, Rigips hired shipping software specialist Sixfold to increase visibility across its logistics network with real-time delivery data coverage. The supplier said that the product removes the need for customers to call carriers, creating savings of up to 30%. Rigips' other transport partner is Germany-based Transporeon, which relies on Sixfold for 100% of its network visibility services.

Switzerland



Switzerland's 26 cantons exist both at the centre of and outside Europe: an independent enclave within the EU, it has never been a member state. Nevertheless, it participates in the Single Market. This enables the non-gypsum-wallboard-producing nation to rely on imports across its open borders to serve its 1.4m²/capita gypsum wallboard consumption.⁹ Table 2 lists the nearest gypsum wallboard plants and their distances to Swiss population centres. In international trade, the 8.55m-strong population has the advantage of variously speaking French, German and Italian, in addition to Romansh.

Additives supply

Besides other industries, Sika serves the global gypsum wallboard sector from its headquarters in Baar, Zug Canton, with advanced chemicals as additives. Its range includes gypsum liquifiers and retarders. The company recorded net sales of Euro7.29bn in 2020, up by 3% year-on-year on a like-for-like basis. Chief executive officer Paul Schuler praised the success in the challenging environment.

Conclusion

As we cross the 12-month mark of coronavirus lockdown, the German, Austrian and Swiss gypsum wallboard industry is not thriving, but it is surviving serious market disruptions. If 2020's crisis becomes the 2020s' crisis, then the sector - unaccustomed to growth, let alone decline, will have to find a new dynamism - or face decline.

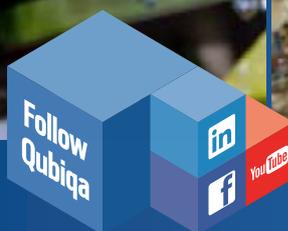


References

1. Eurostat, 'International trade in goods,' 9 October 2020
2. World Bank Data, 'GDP (US\$) - Germany,' 20 January 2021.
3. Wikipedia, 'List of Countries by Exports,' 20 January 2020.
4. John Kampfer, *Why the Germans Do it Better*, 3 October 2020.
5. Bundesverband Baustoffe, *bbs-Zahlenspiegel*, 21 January 2019.
6. Tagesspiegel, 'Kohleausstieg gefährdet Gipsversorgung,' 19 August 2020.
7. Baustoff Wissen, 'What is REA gypsum?' 17 January 2017,
8. Eurogypsum, 'Raw Materials: Gypsum Data,' 9 November 2009.
9. *Ibid.*



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US: Owens Corning hit by Covid

Owens Corning's full-year consolidated net sales were US\$7.06bn in 2020, down by 1% year-on-year from US\$7.16bn in 2019. Its loss before interest and taxes was US\$124m, compared to earnings before interest and taxes (EBIT) of US\$753m in 2019. Earnings were negatively affected by a non-cash pre-tax impairment charge of US\$987m related to its insulation division, recorded in the first quarter of 2020 and driven by the economic uncertainties associated with the Covid-19 pandemic. Insulation sales fell by 2% to US\$2.61bn from US\$2.67bn. Insulation EBIT rose by 10% to US\$250m from US\$230m. Sales from its composites division also fell but rose for roofing.

Chair and chief executive officer Brian Chambers said "Our global team demonstrated great flexibility and resolve to deliver strong financial results in an unprecedented year. These results showed the strength of our businesses and the earnings power of our company. In 2021, we will continue to focus on the health and safety of our teams, serving the needs of our customers, and positioning the company for long-term success."

UK: SIG sales start to recover in second half of 2020

SIG recorded full-year sales of Euro2.1bn in 2020, down by 13% year-on-year on a like-for-like basis. In the fourth quarter of 2020, sales rose by 5% in the EU, by 2% in the UK and by 4% overall. The group said that this reflects the initial impact of its Return to Growth strategy. The strategy has delivered increased organic sales, supported by 'robust demand' in the Repair, Maintenance and Improvement segment. The company noted France and the UK as robust markets within the segment. It said that profitability improved throughout the second half of 2020, with 'solid' performance in the EU. Estimated full-year costs were Euro25m.

The group said "Whilst the evolving Covid-19 backdrop will continue to create uncertainty in the short term, the fundamentals of the group's markets remain sound and the strong recovery in demand across territories and sectors through the second half was encouraging. Providing there is no material disruption to either our business or end markets as a result of the pandemic, the board expects the near-term benefits of the actions taken in 2020 to deliver organic revenue growth in 2021, including market share gains. The benefits of this will become increasingly evident as the year progresses and should enable us to return to underlying operating profitability during the second half."

Denmark: Rockwool's 2020 sales and profit drop

Rockwool recorded net sales of Euro2.60bn, down by 4% year-on-year in local currency terms. Profit for the year fell by 12% to Euro251m. Sales were supported in regions where construction was able to remain active throughout the coronavirus lockdowns. The company noted a strong recovery in the fourth quarter of 2020.

Chief executive officer Jens Birgersson said "Looking back on a turbulent year, we are proud of how well our colleagues handled the many challenges. Our teams ensured employees were safe while quickly adjusting operations, sales and service to the changing needs of our customers."

The company plans to make Euro370m of investments, excluding acquisitions, in 2021. Planned investments include a new plant in the US and a plant relocation in China, in addition to capacity expansions for its Rockfon and Grodan stone wool businesses.

The group said "The underlying medium to long-term structural growth drivers for stone wool products are even stronger today than at the start of 2020. On top of fundamental trends like urbanisation and increasingly tighter building regulations, we expect that several other trends will continue driving growth in our business. For example, the growing focus on energy efficiency, fire safety and circularity continues to influence the decisions of consumers, the building industry and policymakers, with the pandemic accelerating these trends in multiple ways."



Turkey: Assan Panel launches new insulation products

Assan Panel has added two new insulation boards to its product range. Its new Assan-Board insulation boards consist of a polyurethane (PUR)-polyisocyanurate (PIR) mix, while its new AssanWool insulation boards are made of stone wool. The company says that both boards are suitable for roof trapezoidal sheet, seam system, cassette and curtain wall system use, as well as for use in acoustic applications and fire compartment applications.

US: Stepan acquires Invista’s aromatic polyester polyol business

Stepan has acquired Invista’s aromatic polyester polyol business and associated assets. The business produces polyols for use in polyurethane (PUR) and polyisocyanurate (PIR) foam insulation. It operates two production sites, at Wilmington, North Carolina, US and at Vlissingen in Zeeland in the Netherlands. Its annual sales are US\$100m. Stepan plans to finance the acquisition with cash on hand and expects it to be accretive to its 2021 earnings before interest, taxation, depreciation and amortisation (EBITDA) margins.

Chair and chief executive officer Quinn Stepan said “We are excited to add Invista’s polyester polyol capabilities to Stepan. This acquisition expands our manufacturing capability in both the US and Europe, enhances our business continuity capabilities for the market and supports the growth of our global rigid polyol business. We expect that Invista’s available spare capacity, plus debottlenecking opportunities in both plants, will allow Stepan to support market growth in a capital efficient way. We believe the long-term prospects for rigid polyol use in insulation remain strong as energy conservation efforts and more stringent building codes should continue to drive market growth. Additionally, we believe the acquired technology will accelerate our product leadership initiatives, drive manufacturing efficiencies and output, and create increased value for the overall market. We look forward to providing the highest level of service to our new customers and are excited to add the new employees and the two new sites to our global polyester polyol manufacturing network.”



Austria: Austrotherm’s façade insulation used in renovation work

Austrotherm says that its Resolution Façade foam insulation product is being used for exterior renovations in Vienna’s many pre-1919 apartment blocks. These kinds of jobs require thin insulation to maintain a building’s profile.

Sales director Robert Novak said “An apartment building built before 1919 has a heating requirement of 120 - 250kWh/m². They are therefore five times worse than newly-built residential complexes, which have had to meet the lowest energy house standard across Europe since 1 January 2021.” He concluded “There is still a lot of renovation potential in this building category.”

Buildings of this period currently house 500,000 people in Vienna and number 30,000, 20% of the total number of residential buildings. 20,000 are in the Wilhelminian architectural style, known for its façades.

Denmark: Rockwool sets new CO₂ goals

Rockwool has received approval from the Science Based Targets Initiative (SBTI) for its new decarbonisation goals. The goals consist of a planned 38% reduction in plant greenhouse gas emissions and 20% reduction in absolute lifecycle greenhouse gas emissions between 2019 and 2034.

Chief executive officer Jens Birgersson said “These new targets build on the strong foundation that we are already a net carbon negative company. Though not many companies can make that claim, we also know it’s not enough, which is why we have committed to this ambitious decarbonisation pathway.” He added “Achieving these emission reduction targets will be an important step in realising the global ambition to reduce society’s greenhouse gas emissions to net zero by 2050. By demonstrating that an energy-intensive manufacturing company can achieve these targets, we hope to inspire others to take actions to help create a greener, more sustainable future.”

US: Owens Corning on Climate Change and Water Security A List

The Carbon Disclosure Project (CDP) has named Owens Corning on its Climate Change A List of companies that took actions to cut emissions, reduce climate impacts and help build the low-carbon economy in 2020. 270 companies won the top status from a pool of 5800 applicants. The CDP also named the company amongst 106 companies on the 2020 Water Security A List.

Johns Manville Slovakia, a.s.I - A Berkshire Hathaway Company

New thermal recycling unit for glass fibre waste

Johns Manville Engineered Products recently launched a thermal recycling unit for glass fibre waste at its Trnava plant in Slovakia.

Johns Manville (JM), a Berkshire Hathaway company and a leading manufacturer of continuous filament glass fibres, has announced the successful launch of a thermal recycling unit for waste glass fibres in its Engineered Products plant in Trnava, Slovakia.

Project timeline

Waste generation is a very common problem among industrial plants across the globe. Finding the best solution requires a combination of problem solving and a strong passion for continuous improvements within production processes. At the Trnava plant, JM's team was eager to rise to the challenge of waste fibres, which could not be recycled on-site. Several of its experts thoroughly analysed the waste problem at the plant from several perspectives.

In 2018, the team identified four different options for an 'in-house' recycling method that would eliminate landfilling. Each of these methods was supported by analyses of environmental, health and financial impacts. The environmental impact assessment analysed possible influences on soil, water, air, emissions, energy consumption, emergency situations and the efficiency of existing process flows.

After prioritising the establishment of a closed production loop solution that did not affect the quality of the final product, glass fibre rovings and chopped strands, JM invested in thermal recycling technology.

Challenges

The 18 month period of project planning was full of challenges. For example, when the Covid-19 pandemic hit at the start of 2020, construction of the unit was in full swing. Martin Macejch, senior project engineer and recycling line project coordinator, had to cope with many problems. For example, it took a month to precisely plan and execute the positioning of the rotary kiln. The team managed to bring the kiln into the hall with just a few millimetres to spare. Thankfully, no roof opening was needed.

However, the progress of the technology supplier's team was partially slowed by strict hygiene rules in the plant, with the health of JM's employees and visitors to the Trnava plant of the highest priority. Despite all these constraints, testing operations were launched in November 2020.

Right: Feeder with waste glass fibres at the new recycling unit.





Above: Waste fibres enter the shredder.



Above: The rotary kiln heats the fibres.

New system

The new unit consists of a warehousing area, feeding and transportation equipment, shredder, burning chamber and milling section. It has a projected recycling capacity of more than 3t/hr. After processing, the recycled glass powder is free of organic particles and is re-fed as raw material into the glass production process on-site, thus achieving a closed production loop. The project will keep more than 10,000t/yr of waste out of landfill, the equivalent of a large truckload every day. This will reduce the plant's glass fibre waste volumes by 97%.

This project is part of JM's response to the European Commission's zero waste program and is also in line with its overall targets for sustainable management of the planet's natural resources driven by the UN climate action strategy.

Comments

"The primary goal of this investment is to achieve a tangible positive environmental impact by drastically reducing the landfilling of glass fibre waste," said Elena Hrivikova, JM's Manager for Environment, Health and Safety for Europe/Asia.

Martin Nywlt, Director of Global Operations for JM's Engineered Products business, added, "We have invested nearly Euro10m into state-of-the-art technology and made sure the recycling capacity will allow further glass fibre production capacity growth in Trnava. The investment is another milestone in Johns Manville's strong commitment to environmentally-responsible manufacturing operations."



Below: Panoramic view of the new fibre recycling facility.





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Money money money...

Peter Edwards Editor, *Global Gypsum Magazine* (peter.edwards@propubs.com)



In its report *The Inequality Virus*,¹ the charity Oxfam highlighted one of the most startling figures of the Covid-19 pandemic so far: US\$500bn. This is the amount by which the world's 10 richest men added to their wealth from April to December 2020. Read that again: *Added* to their wealth! In an effort to put a scale against this figure for us non-billionaires, Oxfam says this amount would be enough to vaccinate everyone on the planet against Covid-19 and to ensure that nobody ended up worse off due to the outbreak.

So where did this money come from? Well, you don't need to look beyond the cardboard box on your doorstep to see why Amazon's Jeff Bezos gained a tidy US\$70bn in 2020. Elon Musk saw his wealth grow five-fold to US\$170bn as shares in Tesla jumped 650% on hopes that the pandemic would speed up electric mobility. As online communication boomed, Facebook's Marc Zuckerberg saw his company grow by 30%, taking his wealth past US\$100bn.

This is great for the stock markets, which following the immediate pandemic shock spent much of 2020 seemingly unaffected by the real economy outside. In the real economy, millions have lost their jobs and surviving businesses have lost orders. According to *The Inequality Virus*, it could take the world's poorest countries until 2035 to recoup their Covid-19-related losses. The IMF estimates that these require a combined US\$2.5tn.² So far they have received around US\$100bn, 1% of what has been spent by the world's richest economies.

The effects of the pandemic are uneven between economies, but also within them. In the US, the world's largest economy, 44 million people lost their jobs in the second quarter of 2020. In that country and elsewhere, research has repeatedly found that those in lower-paid professions, for example in retail and hospitality, have been more likely to be laid off due to outlet closures or, if fortunate, put on government job-retention schemes. Higher earners, often in computer-based professions have been able to continue working from home, with relatively limited disruption to their well-being. Like the billionaires, they were more likely to hold onto their jobs, incomes and their pre-existing savings than those in lower paid sectors.

The effects of Covid-19 on wealth inequality have reinforced pre-pandemic disparities in many countries. Women and ethnic minorities, over-represented in low-paid jobs, have borne the brunt.

The disconnect between the theoretical economy of the stock market and the economy 'as lived' was highlighted earlier in 2021. In January Wallstreetbets, a Reddit-based group of small-scale investors, noticed that shares in videogame retailer GameStop were being borrowed by large hedge funds, which were then selling them with a promise to buy back at a later date. This process, known as short selling, relies on the share price falling over the lending period and routinely turns a profit for well-placed hedge funds.

It would have worked if members of Wallstreetbets hadn't stepped in to 'defend' GameStop by buying up shares. This took the price from ~US\$20 to ~US\$350, flipping the hedge funds' expected profits into huge losses. While this provided profits for those that sold at the right time, many others lost out when the share price returned to its long-term value. Some claimed that this was a price worth paying to see the hedge funds suffer. GameStop didn't get anything out of the situation either, as it continues to close stores and shed jobs, the kind of jobs that lower paid workers rely on. The share-price rollercoaster was entirely unrelated to its fundamental prospects.

It is the hedge funds' losses that put the spotlight onto GameStop. Now illuminated, it brings wider attention to some of the methods by which wealthy entities can manipulate the economy to their advantage, sucking money out of GameStop, its employees and others like them. Oxfam, the World Economic Forum and others are now calling for progressive taxes, debt relief for developing economies and wide-ranging investment in the lives of the world's poorest to build an economic recovery from the pandemic that benefits as many as possible. This will cost a lot of money. Maybe we should ask Bezos, Musk, Zuckerberg, et al...? 

1. <https://www.oxfam.org/en/press-releases/mega-rich-recoup-covid-losses-record-time-yet-billions-will-live-poverty-least>

2. <https://www.weforum.org/agenda/2020/10/covid-19-is-increasing-multiple-kinds-of-inequality-here-s-what-we-can-do-about-it>



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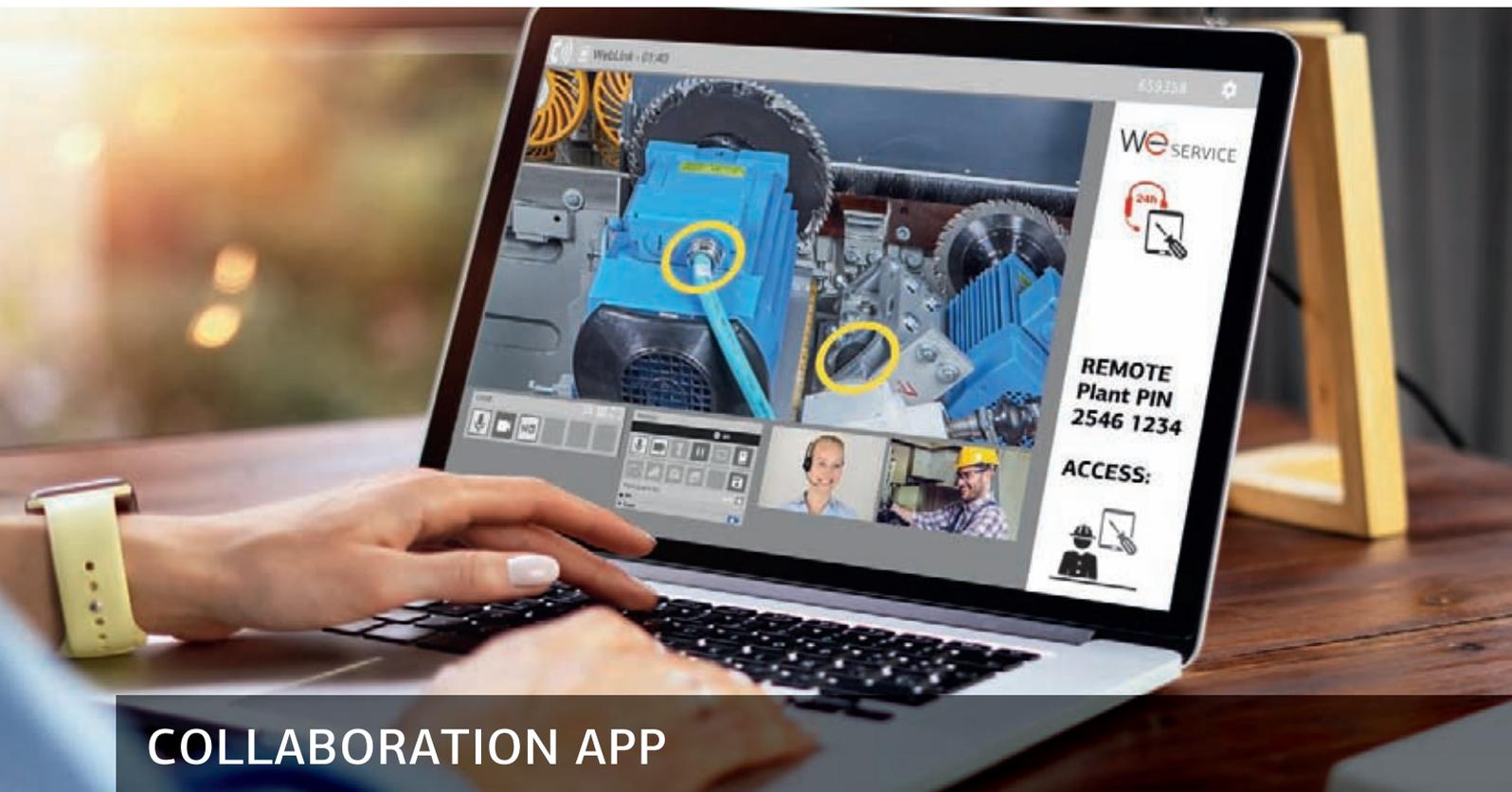
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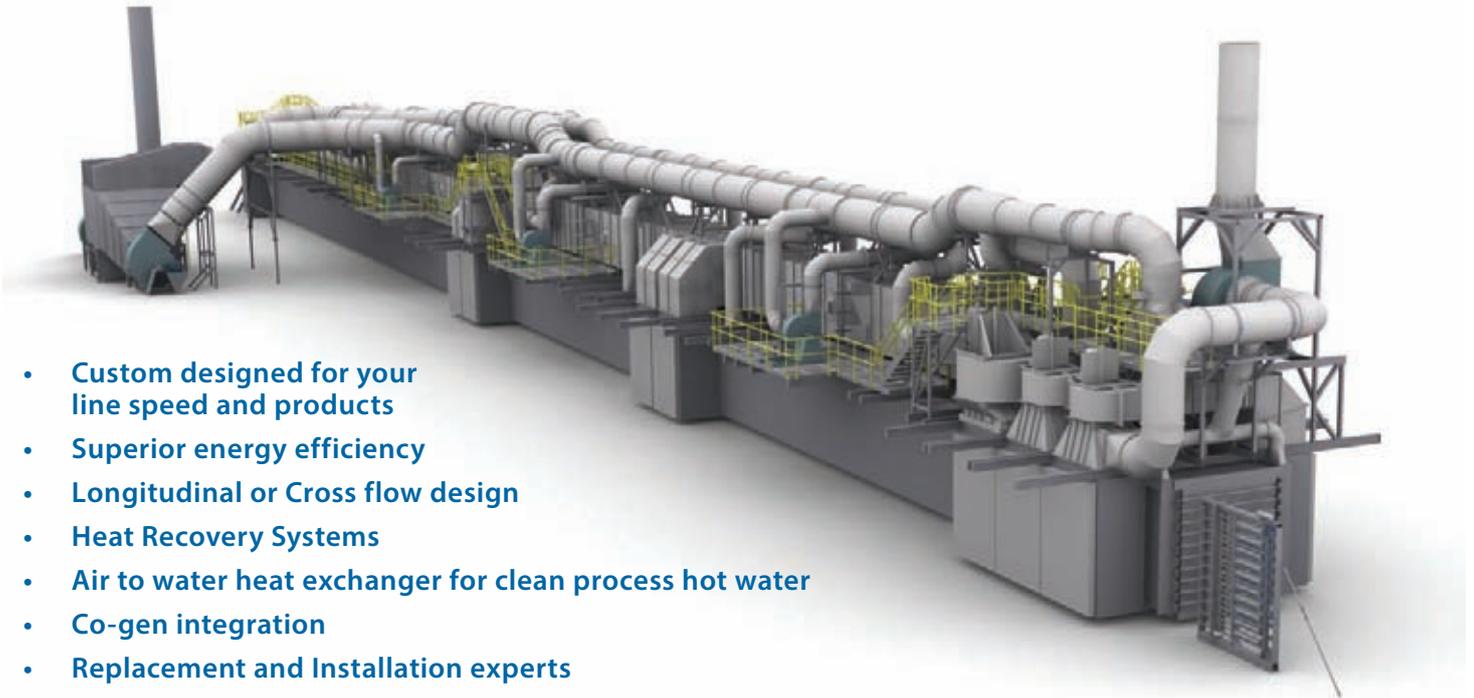
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