

CELEBRATION

The Kirchdorf cement plant celebrates its 135th anniversary of foundation.

PP.08-09

SUSTAINABILITY

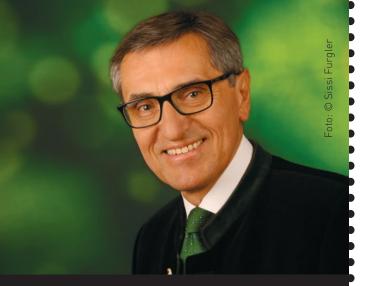
Efficient prefabricated construction ensures sustainable quality.

PP.16-17

NOISE PROTECTION

Elegant, innovative and sustainable noise protection solutions for ASFINAG.

PP.22-23



EDITORIAL

LOOKING BACK TO THE FUTURE

A look at the first issue of the KIRCHDORFER NEWS 10 years ago clearly shows the passage of time: some of the seeds that were sown back then have developed magnificently, while others have not. Only in retrospect do we see what develops and what withers.

So every year is full of surprises - but the "whole", the garden, has developed just as splendidly as hoped at the time. As long as we sow, fertilize, nurture and harvest sufficiently and continuously, our aspirations will come to full fruition.

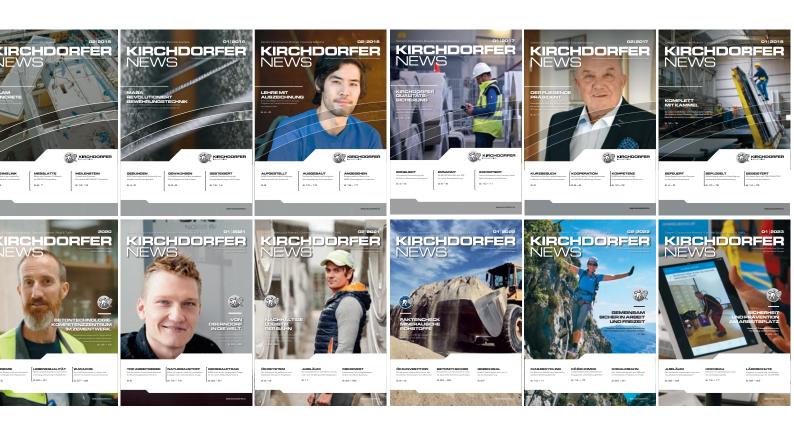
Therefore, on the occasion of the 135th anniversary of the Kirchdorfer group of companies, we are once again allowed to take a snapshot of the present as well as our ideas for the future on the following pages. I hope that the 20th issue of our corporate magazine will once again arouse your interest in the developments of our many companies and ventures, and I hope you enjoy reading it.

Yours sincerely Erich Frommwald





The very first issue of "Kirchdorfer News" was published in the fall of 2013 and focused on "125 Years of the Kirchdorfer Group". On a total of eight pages it reported, among other things, on the acquisition of a majority shareholding in the WIBAU Group, on the imminent start of construction of a MABA prefabricated house subdivision in Wiener Neustadt, and on the increasing use of alternative raw materials and substitute fuels in the Kirchdorf cement plant. The cover story was devoted to an overview of seven eventful periods in the 125-year history of the company and the development of the Kirchdorfer Group in the form in which we know it today. The topics were rounded off by short reports on the tunnel lining elements production at the Boßler tunnel, a new conveyor belt line at a Bulgarian gravel pit, and an interview with the chairman of ASKÖ Kirchdorf soccer club.



10 YEARS OF KIRCHDORFER NEWS

Exactly a decade ago, the first issue of "Kirchdorfer News" was presented to mark the 125th anniversary of the founding of the Kirchdorfer cement plant. Since then, the Kirchdorfer Group's employee, customer and partner magazine has become a popular and valued source of information twice a year, recording the important events, milestones and developments of the multifaceted group of companies. As a "company chronicle in real time" it has also contributed to the formation of a stronger sense of Group identiy.

When Kirchdorfer News saw the light of day 10 years ago, Kirchdorfer Group was just at an interesting crossroads: the era of great "diversification" that began with some major acquisitions in the mid-1980s had by and large come to an end. What had only just begun, however, was the era of coming together and forming a sense of group identity ...

Integration instead of diversification

With 47 companies and 1,500 employees in 13 countries, the peak in company start ups and acquisitions was more or less reached in 2013. Since then, the number of companies has remained stable, the number of employees has grown by around a third - while sales have almost tripled. What had happened?

Over the past 10 years, the Kirchdorfer Group has gradually come together from a collection of companies into a proper group. From com-

panies with common owners to a corporate family with a shared mission.

Company chronicle in real time

The milestones of this development are documented in the past 19 issues of Kirchdorfer News. In addition, the employee, customer and partner magazine, which is now published in 3 languages with a circulation of 3,500 copies, has achieved something else: With shared stories, images and aspirations, Kirchdorfer News has not only reported on, but contributed to this very growing together!

Stories, history, identity

We all think in stories, we all perceive practically our entire reality in the form of "stories". And so it is precisely these stories that define a common identity! Why else would an excavator driver in Sofia be interested in a noise barrier in Stockholm, if the only thing connecting the-

se two worlds was merely a shared heraldic animal or common ownership ...

How it began and how it continued

Back in 2013, on the occasion of the 125th anniversary, the Movemus Advertising Agency was commissioned to design the first issue. Since the second issue, Christoph Rieger, our "external editor", has been interviewing our colleagues in different places, taking lots of pictures and putting the stories on paper.

Approximately 300 interviews, 15,000 kilometres driven (from the Czech Republic to Bulgaria and from Wiesing to Varpalota) as well as five camera generation upgrades later, the Kirchdorfer News magazine is now entering its second decade. And there is still plenty of companies left to visit and plenty of stories left to cover!

GROUP-WIDE SUSTAINABILITY PROJECT

THE STAKEHOLDERS HAVE SPOKEN

The definition of the Kirchdorfer Group's sustainability strategy has been completed and submitted to the management board for implementation. In addition to the intensive training and analysis phase, an extensive stakeholder survey was also part of the ambitious project.

With around 2,500 working hours committed, accompanying training courses, and the collection of input from numerous experts and stakeholders, the Group-wide sustainability project, launched at the end of June 2022, was successfully completed on schedule within just 9 months.

Under the project management of KCM division head Armin Richter, the challenge was multi-layered: In addition to considering all sustainability activities of the Kirchdorfer Group, analyzing all input and output flows, surveying energy requirements, and preparing for future reporting based on the GRI standards, the project also included intensive consideration of the 17 "Sustainable Development Goals" (SDG) of the United Nations.

After identifying the 10 SDGs relevant to the Kirchdorfer Group and the topic areas derived from them, these were ranked and prioritized in an in-depth analysis and in equal weighting both by experts from the Group and by internal and external stakeholders of the Kirchdorfer Group.

Questionnaires plus expert interviews

"We sent out online questionnaires in 12 languages and 22 countries for our stakeholder analysis," deputy project manager Andreas Hermann, whose expertise in sustainability goes back many years, explained to us. More than 15 years ago, as an employee of MABA FTI, he became a trained and certified "Sustainability Manager". Since moving to what is now Kirchdorfer Industries Group Services Gmbh in 2009, he has gradually established an excellent quality management system there, which has been expanded step by step over the past few years to also include the topics of occupational safety and environmental protection.

When it came to formulating the Group-wide sustainability strategy, his many years of expertise were therefore a very important input. But the objective of the ambitious project went much further than a typical task force appointed by the Group management, as Andreas Hermann emphasizes: "The Kirchdorf sustainability strategy will drive the sustainable development of our Group and

should therefore be based on the broadest possible consensus. For this reason, we not only surveyed 73 internal experts from a wide range of specialist areas, but also a quite substantial number of internal as well as external stakeholders - first and foremost, of course, our employees, but also a large number of customers and partners of the Kirchdorfer Group."

With over 500 responses, the stakeholder analysis was able to provide valuable results and insights for the formulation of the sustainability strategy. In relation to the ten SDGs relevant to the Group, six target directions were defined in the core areas of economy, social affairs and environment and submitted to the Executive Board: 1. finished products, 2. occupational safety, 3. emissions, 4. secondary raw materials, 5. workforce and 6. energy. Later this year, the Group strategy will be broken down into specific target definitions for the individual Group divisions. In the fall issue of the Kirchdorfer News we will report on how these targets are to be implemented by each division.



PORTRAITS OF OUTSTANDING EMPLOYEES

FACILITY MANAGEMENT IN GOOD SPIRITS

For 10 years now, we have had the privilege of reporting on outstanding achievements and outstanding employees time and again in this magazine. For the "premiere" of a new ongoing series, we visit the man who literally makes sure that the lights stay on at the operational headquarters!

"What would we do without Mr./Mrs. [suchand-such] ..." - With this question, we are now on the lookout for those highly esteemed colleagues who are not usually in the foreground as leaders, but who often do extraordinary things quietly in the background. Personalities with heart and soul who, with their reliable commitment, keep our many operations running smoothly day in, day out ...

The pearl in facility management

What would we do without Mr. Gal?" was the question asked by Renate Grill (and our editors), herself a "good spirit" in the MABA management office. And along with her, an entire "fan club" of the native Romanian, who has been taking care of the office infrastructure at the operational group headquarters in Wöllersdorf and at the production site in



MABA anno 1994: Istvan Gal started as a forklift driver at the Wöllersdorf site 30 years ago.



Istvan Gal: In his proverbial "second life," the 59-year-old family man finally switched from production to facility management in 2019 after convalescing from a life-threatening brain anorism and has kept the office infrastructure in Wöllersdorf and Sollenau running smoothly ever since.

Sollenau for almost five years, is probably asking the same question. This has not only to do with the fact that the certified "jack-of-all-trades" with dozens of different assignments is available every day for anyone who needs help, but above all with the fact that he always does so with a smile!

Toilet clogged? No problem. The dishwasher goes on strike - Mr. Gal can fix it. Moving from Wöllersdorf to Sollenau? Istvan Gal helps with the settling, packs up the old office, paints the new one and also wires up all the technology. From garbage disposal to new light bulbs, from shoveling snow to hoisting flags, from reading water levels to filling first aid kits - there is practically nothing Istvan Gal can't do or doesn't do.

And that is considerable, because his "kingdom" consists of 8 kitchens, 20 WCs, 80 offices and whatever else belongs to it in the rotunda in Wöllersdorf alone. Not to mention additional guest appearances at DELTABLOC International as well as in Sollenau.

Cheerful nature with heavy fate

With his many talents ("I also built 99% of my house myself"), Istvan Gal not only saves

the company a lot of money, but also ensures a good working atmosphere with his good humor. At the same time, we owe his job to a tragic case of illness that almost cost him his life: when he was on a visit to his Hungarian-speaking homeland in Transylvania in 2017, he suffered a life-threatening brain anorism. Emergency transport by helicopter to Vienna General Hospital was followed by two long years of treatment and convalescence. To this day, the hemiplegia has not been completely overcome.

A positive attitude to life and a healthy lifestyle finally enabled him to return to work. However, after 25 years as a forklift driver, crane operator as well as in production, the physical strain at the MABA production site was no longer advised. So Istvan Gall finally joined Facility Management at the end of 2018 - and since then has been bringing smiles to Wöllersdorf every day with his motto of "honesty, friendliness and respect".

Do you also have a personal work hero? Let us know: leo@kirchdorfer.eu

LEO+S SAFETY CAMPAIGN



ACCIDENT PREVENTION & WORK SAFETY

With ongoing training measures, intensive support and the use of the necessary resources, great attention is paid to the topic of occupational safety in the Kirchdorfer Group. For the first time, a prevention workshop with AUVA experts was held at a plant in the precast division.

With the comprehensive LEO+S safety campaign, the Kirchdorfer Group management has been placing an even greater focus on this important topic since last year. In addition to generally raising awareness, concrete on-site work and training directly at the individual production plants is the key to avoiding occupational accidents as well as health impairments of all kinds. This is not just about dangerous activities and accidents: "Almost half of all sick days are related to back problems in one form or another," explains Stefan Sykora, who is employed as a safety specialist at MABA Fertigteilindustrie GmbH. This finding, which is surprising at first glance, comes from the anonymized evaluation of all sick leave days at production sites, which is carried out by the Austrian Health Insurance Fund. It is therefore no wonder that AUVA (Allgemeine Unfallversicherungsanstalt - General Accident Insurance Fund) is very interested in taking preventive action here.



1st safety day at the Gerasdorf site

Accident prevention – i.e. the avoidance of occupational accidents and sick leave – was the focus of the first "Safety Day" held by MABA together with AUVA at the end of January 2023. The precast plant in Gerasdorf near Vienna was chosen as the first venue, as there had been an increasing number of accidents there recently. And judging by the interest of the participants, the event was a huge success: Long gone are the days of boring lectures and teachings – instead, the AUVA experts, together with Stefan Sykora and Ingrid Weixelbaumer (LEO+S), set up a whole course of test and exercise stations where the most important safety and prevention aspects could be trained and analyzed with the workers.

Particularly fascinating was the realization of all the things you can do wrong when simply lifting and carrying: Because purely intuitively, we usually put much more strain on our spine than necessary. With a few simple tricks - especially bending the knees - the back can be effectively protected. The perfect posture for lifting and carrying was monitored by AUVA experts using a tablet and special software and analyzed together with the participants.

In addition, for example, the participants had to try out their coordination and reaction times on an "intoxication carpet" - with special glasses that simulate the impairment caused by a blood alcohol level of 0.05 percent BAC. In this way, the participants were able to experience first-hand how dramatically alcohol reduces the ability to react and what dangers arise as a result - not only at work or in road traffic, but in general.

Balance and coordination were also in demand on the "balance board," on which various exercise tasks had to be mastered for one minute. Since many accidents at work are simply caused by falling and twisting an ankle, it is important to feel on one's own body how easily one is thrown off balance when the attention wanes - especially when one is not necessarily aware of any danger.

When handling knives and other hand tools, on the other hand, people are aware of the danger but often underestimate what a difference the use of safe tools and the wearing of protective gloves can make. The participants were able to try out special safety knives to find out how best to protect themselves against the risk of cuts.

For Stefan Sykora and the workers at the MABA precast plant in Gerasdorf, the safety day was a great success. By the way, all col-

Prevention Day in Gerasdorf: Stefan Sykora, safety specialist at MABA Fertigteilindustrie, supervised the plant workers at the joint workshop with AUVA.



Open the door: With special intoxication goggles, the impairment caused by alcohol was impressively simulated and evaluated.



Just don't let it throw you off balance: Balance board with exercises on the computer test responsiveness.



Safety tools should be handled correctly: Preventing cuts with the correct use of safety knives.



Posture scores for correct lifting and carrying: A case of mineral water and special analysis software reveal common posture errors.

leagues who completed their LEO+S stamp pass by participating in the lecture and the set-up stations received a bulging backpack in the design of the Kirchdorfer Group to take home.

As a side-note to our colleagues: all production sites interested in organizing their own safety days in cooperation with AUVA are welcome to contact Ingrid Weixelbaumer / Group Marketing Department (Kirchdorfer Group Services GmbH).

E-Learning Terminals with Safe.PRO®

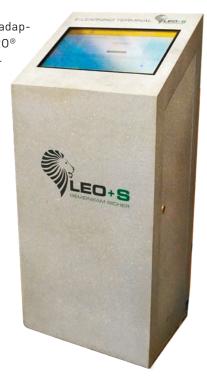
In addition to occasional events and campaigns on the subject of occupational safety, it is of course primarily the ongoing supervision of each individual employee that guarantees a good level of safety in a company. Here, too, a lot has happened in recent years. The Kirchdorfer Group was able to gain a top expert in Stefan Sykora, who has been responsible for all sites, production facilities and safety-related topics in the MABA precast industry as a safety specialist since 2020: The trained electrical systems engineer was already the "youngest safety specialist in Austria" at the age of 21.

At MABA, he has, among other things, integrated the time-honored "safety instructions" into a brand new e-learning platform, as he explains to us: "In cooperation with the Association of Austrian Concrete and Precast Plants (VÖB), we have created up-to-date instruction documents and integrated them into our e-learning platform. Instead of lengthy instructions and a piece of paper to

sign, there are learning units on individual topics followed by a test - and the whole thing at regular intervals."

The training materials have already been translated into 7 languages so that as many employees as possible can complete their training units in their own native language at the e-learning terminals in the precast plant.

Incidentally, the specially adapted version of the Safe.PRO® documentation and instruction system not only knows who, for example, has already completed the new fire extinguisher training, but also when the next examination is due for the welders. And so the company is always perfectly up to date in terms of safety!



KIRCHDORFER CEMENT



Celebration with birthday cake: (from left) Margarete Machanek, Managing Director Erich Frommwald and Eva Hofmann celebrated the anniversary of the traditional family business with a cake befitting the occasion.

KIRCHDORFER CEMENT PLANT CELEBRATES 135 YEARS

Employees, owners and guests of honor of the Kirchdorf cement plant celebrated the 135th anniversary of the tradition-rich company on May 12, 2023.

At the atmospheric celebration in the entourage room, Managing Director Erich Frommwald not only had the pleasure of welcoming the workforce and the shareholders of the cement plant, but also a number of guests of honor. In addition to the mayors of the municipalities of Kirchdorf, Schlierbach and Micheldorf, representatives of the Chamber of Commerce, the Chamber of Labor and the district administration were

also present on the premises of the plant, which was founded in 1888 and has shaped the economic development of the region like no other.

Anchored in the region

The good understanding with the population, politics as well as the interest groups has a long tradition at the Kirchdorf cement plant - as was also expressed in the speeches of Klaus Aitzetmüller (WKO) and District Governor Elisabeth Leitner. This is an understanding that Managing Director Erich Frommwald has also always cultivated during his many years of service.

High award

In recognition of this, Erich Frommwald was able to accept the "JULIUS Award" of the Upper Austrian Business Association from the hands of Klaus Aitzetmüller, chairman of the WKO district office. This award, which is presented to outstanding companies and entrepreneurs in Upper Austria, commemorates Wirtschaftsbund founder Julius Raab, who went down in history as the architect of the Austrian economic miracle of the post-war years. A value-oriented economic history that will continue to be upheld at the cement plant in the future.



JULIUS Award of the Upper Austrian Business Association:

(from left) Doris Staudinger, Deputy District Chairman of the Kirchdorf Business Association, presented the coveted award for outstanding companies in Upper Austria to Eva Hofmann, co-owner of the cement plant, and to the Managing Director Erich Frommwald.



Under the sign of the lion: On July 24, 1888, the company "Portland-Cementwerk Kirchdorf, Hofmann & Comp." was officially entered in the commercial register. While the cement plant and the associated quarry initially formed the group, a regional energy supplier was founded in 1908 with the Steyrdurchbruch hydropower plant. In the midst of the severe economic crisis in 1933, the spun concrete plant was built in Micheldorf. In 1984, the major diversification of the Group began with the takeover of MABA Betonwaren Gesellschaft m.b.H. & Co. KG. The entry into the Czech Kámen a písek (1992) laid the foundation for today's internationally active raw materials division. In 2019, "Kirchdorfer Road & Traffic" around Deltabloc International GmbH derived from the booming precast devision and has since formed the fourth corporate division alongside cement, raw materials and precast elements.







STARTPLATZ MIT ZUKUNFT

AUSZEICHNUNG VORBILDLICHER LEHRBETRIEB 2022-2025

WKO-

OUR APPRENTICES SHINE LIKE GOLD

During the comradeship evening 2023 at the Kirchdorf cement plant, six apprentices were awarded gold medals.

A "symbolic" gold medal is often awarded for excellent performance. Holding the real precious metal in one's hands however is an additional sign of genuine appreciation!

At the Kirchdorf cement plant, for example, five apprentices who completed their voca-

tional school class with "excellent success" were recently rewarded with a 1/4 ounce of fine gold each: Manuel Lattner, Sebastian Steindl, Marcel Thieser, Lukas Lasch and Paul Limberger were delighted to receive the Philharmonic medal worth around 500 Euros. Xaver Wintereder, who passed his final apprenticeship examination in electrical engineering/plant and operating technology with "good success", was also pleased to receive a gold ducat.

Additional award for apprentice training

The cement plant, on the other hand, received only "paper" - but in the form of a very gratifying award from the Upper Austrian Chamber of Commerce: The plant was honored with the "ineo" award, which stands for innovation, sustainability, commitment and orientation – for its exemplary commitment to apprentice training.



RECORD BREAKING WINTER REPAIRS

With a total of 100 tons of refractory kiln bricks, the rotary kiln of the Kirchdorf cement plant was prepared for the new kiln journey - in a record-breaking 9 layers. Production foreman Gerhard Guntendorfer and plant manager Christian Breitenbaumer set the last bricks.

After the scheduled annual winter repair, the rotary kiln plant – the heart of cement production – was sent on a new, long "kiln journey" on February 10, 2023. For plant manager Christian Breitenbaumer, it was the last winter repair – he will be taking his well-deserved retirement in the fall. We will of course report in detail on the generation change in the plant management in the fall edition of the Kirchdorfer News.

R.I.P. Gerhard Guntendorfer

It was also the last kiln repair for our long-time production foreman and he, too, was to retire in the fall after 46 years of work, 33 of them at the Kirchdorf cement plant. Tragically, Gerhard Guntendorfer was suddenly and completely unexpectedly taken from our midst on April 12, 2023 - our sympathy goes not only to his family, but also to the colleagues who were allowed to accompany him in his highly valued work at the cement plant.

He would have well deserved his forthcoming retirement: Born

in Kirchdorf, he first entered the service of the cement plant as a "jumper" in production, followed by 13 years in the laboratory, where he was responsible for quality assurance in shift operation. Since 2006, Gerhard Guntendorfer has been at the forefront of day-to-day operations as production foreman. And thus also responsible for the entire production process - from coordinating deliveries and firing operations to troubleshooting. The staff of the Kirchdorf cement plant will always honor Gerhard Guntendorfer's memory.



Final stone of a record-breaking repair: Plant manager Christian Breitenbaumer expertly placed the last stone.



"Special inspection" of the Hörsching gravel plant: Managing Director Gerhard Kraus (left) acted as tour guide for the shareholders of the Kirchdorfer Group, leading them through (almost) all of WIBAU's extraction sites in the central Linz region.

GRAND GRAVEL PIT RALLY

With no less than 8 stages, i.e. locations, in less than 8 hours, the two owner families of the Kirchdorfer Group toured the realm of WIBAU in September 2022.

Managing director Gerhard Kraus cannot remember having seen an extended and joint visit by all owners to the WIBAU Group in the central region of Upper Austria. At least not since he has been working there - and that is already two decades. The shareholders obviously couldn't remember either - that's why they expressed the wish last year to visit ALL locations at once.

Since this cannot be accomplished in a single day, the choice fell on 4 gravel plants, 2 ready-mix concrete plants (including a concrete laboratory and the main workshop for the truck fleet), the construction waste processing plant of UWT Umwelttechnik in Linz as well as the new, prominent "container station" in Stahlstraße. Enthusiastic about the adver-

tising value of the up to 500 bright yellow WIBAU construction waste dumpsters on display opposite the entrance to the steel mill, they inspected the new 5,000 square metre transshipment station.

With a total of 1,300 containers based there, the site is an important new hub in the regional recycling economy in Upper Austria to which WIBAU is contributing significantly. Because right next door, at UWT Umwelttechnik, the construction waste delivered by the company's own container service, among others, is professionally separated and processed. Part of it is then delivered to the Kirchdorf cement plant as a substitute raw material.

Mud battle at the mining sites

The stop in Linz - immediately after the lunch break - was still one of the easier ones for the visitors (and their chauffeur). In the morning, the tour bus not only drove over hill and dale, but also - in wet conditions - through the softened access

roads to the gravel plants in Alkoven, Holzleiten and Trindorf (Hörsching). At the Langenstein gravel plant in the afternoon, the bus almost got stuck on the way to the excavation site of the cable dredger there. But with over 60 trucks and 25 heavy construction machines in daily use at WIBAU, a rescue operation would certainly not have been a problem ...

A look inside the concrete mixer

A rare and for many of the participants first look deep into the mixing technology of a concrete mixing plant was finally on the agenda at the end of the intensive tour at the REMS concrete plant in Mauthausen, which also belongs to the WIBAU Group. Afterwards, it was back to the hotel for relaxation and dinner. Because with with the large shareholders' meeting in Kirchdorf scheduled for the next morning, there was of course a whole new challenge to complete for the owners of the Kirchdorfer Group.



Nicolae Ceauşescu and his wife Elena loved the black andesite stone from the Seini quarry so much that they spared no effort or expense and had it transported in large quantities to the capital, almost 700 km away. There, it is on display, among other things, in the "House of the People" - today's Palace of Parliament, one of the largest buildings in the world.

Three decades after the end of the dictatorship and the communist planned economy, there is of course no more money available for such extravagances. Instead, the exceptionally high-quality rock is used to build infrastructure in the northern Romanian "three-country corner". Incidentally, the quarry's managing director comes from the 4th country in the border region along the Carpathians - Slovakia, which is also not too far away.

Since 2012, the experienced miner Dusan Cellar has been in charge of the difficult mining operations of Piatra si Nisip s.r.l. in Seini, where the valuable rock material is wrested from the mountain blast by blast with skill, patience and a focus on the miners' safety. When he had a rock sample

analyzed at a laboratory in Slovakia a few years ago, the reaction was one of utter amazement. "You do realize, Mr. Cellar, that we have nothing remotely comparable in our latitudes!" he was told. With a value of only 13 on the so-called "Los Angeles Index" (a value for rock quality - the lower, the better!), the andesite from Seini blasts the highest quality class, which normally starts from values of 15 upwards. This freak of nature - volcanic rock brought to the surface by movement of tectonic plates - is, by the way, already again a completely different affair a mere 10 km away ...

Difficult year

30 km away, the situation is again completely different: Ukraine begins there. Even if the bordering area is far away from the war fronts, the situation in northern Romania is extremely tense. No one knows what will happen next, which is why virtually all investments have been at a standstill since last year. Virtually from one day to the next.

Not even during the Covid pandemic was the slump in business so dramatic. At that time, Sergiu Stebel, who was responsible for sales, literally outgrew himself and

[SL]
Košice
[UE]
Debrecen
SEINI
Baia Mare

Cluj-Napoca
[RO]

Timișoara
Sibiu

continued to supply the region under the most difficult conditions. At present, however, the market is in a complete coma. The team had to be greatly reduced after the outbreak of war.

For 2023, the management is planning a production of 200,000 tons. We can only hope that the geological jewel of the Maramures region will survive this crisis. But after more than 130 years of mining history, the chances are good!



EXCAVATED SOIL LANDFILL TRINDORF

THE OFFICE IN THE WHEEL LOADER

The Linz-based WIBAU Group's excavated soil landfill is filled with up to 300,000 tons of excavated material each year - by a single employee who, with an office in the wheel loader, also handles the entire process. The digitization of the delivery note generation now makes things easier.

"Fortunately, we have Mr. Maschler," WIBAU Co-Managing Director Gerald Otasek remarks. "Without him, we would need two employees in our excavated soil landfill anyway ...": Equipped with a wheel loader and a bulldozer, Siegfried Maschler tidies the region's excavated soil in the Trindorf gravel pit, which is thus properly refilled. And tidiness is an important part of his job - because the material delivered from construction sites in the Linz central region must first be appropriately accepted, documented, and checked before it is finally installed - after interim storage and partial inspection by a laboratory - to fill the pit, which is up to 12 meters deep.

Since the excavated soil landfill is a "one man show", Siegfried Maschler until recently also had to write numerous delivery bills by hand every day, take them to the gravel plant for the "house mail" and, on top of that, keep complicated Excel lists on his cell phone to make sure that the maximum permitted total quantities that he is allowed to accept from a single construction project are not exceeded.

So after a long day at work, Mr. Maschler often sat at the kitchen

table at home in the evening to transfer his various lists from his cell phone to the computer and check them. This is now finally a thing of the past, because in a small but important digitization project, the creation of delivery notes and the checking of quantity limits will soon be transferred to a special tablet equipped with its own software, which is precisely tailored to Siegfried Maschler's job and connected to the WIBAU server via WiFi using an antenna on the vehicle.

Instead of manual delivery bills, customers receive a receipt after virtual weighing and data entry, which is printed out directly in the wheel loader. And Mr. Maschler now no longer has to worry about anything else and can instead devote his full attention to filling up the excavated soil landfill. If the material taken over from a single construction site reaches the permitted limits, an automatic message is sent out beforehand.

The folder and paper collection in his wheel loader is now finally a thing of the past. And so - following the successful digitization of the truck fleet in the container service in 2022 - another WIBAU business activity has become simpler and more efficient. Digitalization, meanwhile, continues step by step: right now, the Linz facility is working on a 24/7 online ordering process for waste containers on a trial basis.





Tablet instead of paperwork: In addition to the digital delivery bill, printout for the customer and electronic forwarding to invoicing, the maximum delivery per construction site is also monitored.



Siegfried Maschler: The folders in his wheel loader are now a thing of the past.

KIRCHDORFER CONCRETE SOLUTIONS



Another serial product for the Czech precast plant: The certification of the newly developed platform edges by Czech Railways (CD) and a major initial reference project opens up an important market opportunity for the future.

"PRAGUE SPRING" FOR **PLATFORM EDGES**

MABA's Czech sister company has been supplying platform edges to Austria for 20 years. Now, for the first time, the opportunity arose to score on the home market with a product development for the Czech railroad. An opportunity that Managing Director Radek Svacek and his team were able to seize with flying colors.

In the past, the production of platform edgings was defacto dominated by a single manufacturer. Recently, however, there have been the first signs of a willingness to diversify - both from the government side and from the implementing construction companies. MABA Prefa spol. s r. o. did not hesitate and immediately took the opportunity to develop innovative platform edgings in cooperation with "České dráhy" (Czech Railways), which optimally meet the current requirements in terms of geometry and installation.

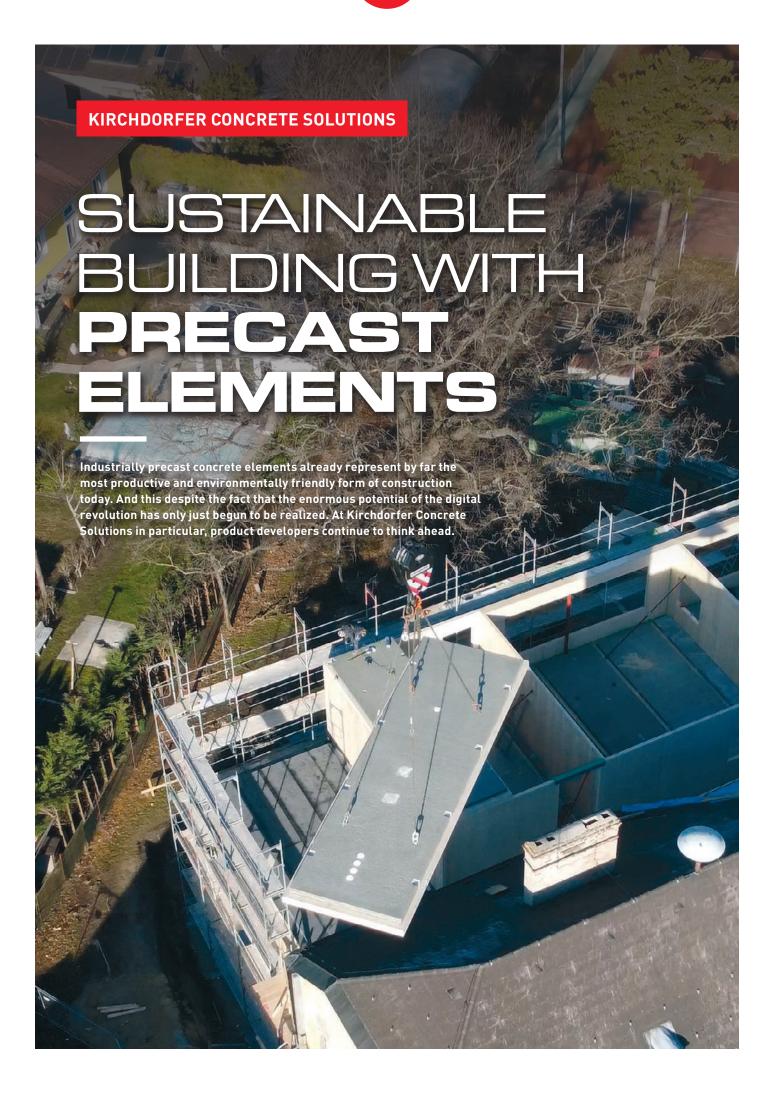
In March 2023, the time had finally come - official certification by the state rail operator was achieved and MABA Prefa now joined the group of listed suppliers. The first important reference project has also already been signed and sealed: In Kladno, a statutory town with 70,000 inhabitants in the northwest of Prague, a total of 1,000 of the new, innovative platform edges are already in use. They will be manufactured in two stages at the plant in Veseli nad Luznici later this year.

Together with the certification, this reference project is an important

milestone that will provide the key to future market success on the network of the state rail operator. And this market promises great potential: the construction or modernization of 10-20 stations per year is planned for the coming years!



Non-slip & elegant: The new platform edges make a good impression.



Building with precast elements - this stands not only for optimum quality under controlled conditions, but also for high productivity, rapid construction progress and - what is often forgotten - resource-saving construction through optimum use of materials.

Listing all the advantages of precast construction could easily fill the entire present issue - instead, we would like to concentrate here on two topics that are not only part of the public discussion, but are currently also particularly in the focus of Kirchdorf's precast division: Greening and digitalization.

Less material, more usable space

"On the construction site, the so-called 'scaling iron' is often used - in other words, it is better to put in too much reinforcement for fear of not enough! In the precast plant, on the other hand, everything is of course precisely optimized: From the reinforcement to the wall thickness to the concrete quality. All in all, this makes a huge difference in the use of materials," explains MABA Managing Director Christian Nageler. But it is not only the rough approximation that is responsible for the fact that more material than necessary is used on the construction site. The production of precast elements opens up completely different possibilities, as Christian Nageler explains:

"In residential construction, we can meet all requirements and wishes - statics, noise protection, etc. - with a slim 15 cm solid wall. The gain in space of around 5% that results in the interior due to the slimmer walls - these are precious square meters! And the optimized use of materials also saves valuable resources. In our factory, robots and sophisticated production systems ensure that the reinforcement is optimized and that the necessary recesses in the wall are also already taken into account according to the plan."

Advantage for digital planning

BIM (Building Information Modeling) and advancing digitalization are gradually leading to a rethinking process in planning. The goal is a comprehensive, detailled 3D model of the entire construction project before the first excavator moves out - a ditital twin.

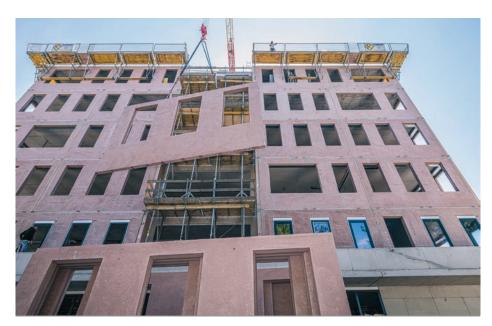
In practice, however, things are still quite different for the most part, as master woodworker Paul Heidenreich explains: "Planning

during construction has never been an easy topic in the world of industrial prefabrication and has been marginalized even more by digitalization. Digital plans are sent back and forth, but no one has a complete overview anymore. Hence the important trend toward a general planner."

It's a job he's been doing for 15 years. As general planner, he is the first as well as the last to visit the customer, ensures that nothing is left out of the planning and coordinates the activities of the various trades. This is a function that also holds new potential for improvement for precast suppliers - be-

cause it is not uncommon for the recess for the socket, which the formwork robot could automatically take into account, simply not to be in the plan. Or the opening for the duct line is in the wrong place ...

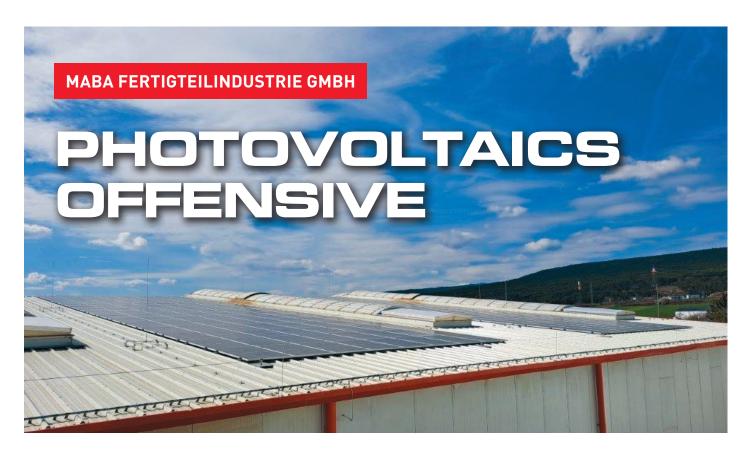
This is how inefficiencies arise that can be eliminated with competent general planning - particularly at the hands of the precast manufacturer. For a manufacturer like MABA Fertigteilindustrie knows from years of experience how to ensure the optimum construction progress as well as which product to use for each specific requirement.



Office tower with best working atmosphere: The UNIT Tower, a seven-story office and commercial building in Gleisdorf (Styria) was realized with 2,300 square metres of precast "Ziegelit" walls as well as precast stairs and balcony slabs. Only 3 working days were required per floor!



Optimal mix of materials from a single source: In Moosbrunn (Lower Austria), an elementary school building was extended using mixed precast construction. With double wall elements and element slabs, the basement was realized in concrete and the floors above in a combination of wood and precast wood-concrete composite elements.



With investments of around 2 million euros, MABA Fertigteilindustrie is catapulting itself from 0 to 100 in record time in terms of electricity generation.

80% of the electricity generated via photovoltaic installations at all four MABA sites from 2023 onwards is intended for the company's own consumption, while the remaining 20% will be fed into the grid. Or in the words of MABA Managing Director Franz Buschmüller: "We don't want to become an energy supplier, but we have surveyed our load profiles and derived from them which system sizes make the most sense for our plants."

The result: With installations in the order of 500 to 600 kWP at MABA's three large and energy-intensive sites (Wöllersdorf, Gerasdorf and Sollenau, where TIBA Austria is also supplied), the precast manufacturer will in future be playing in the self-sufficient top league. At the Micheldorf site in Upper Austria, on the other hand, the company is able to get by with a smaller 120 kWP plant.

The group-wide purchase decision last fall also included PV systems for the TIBA/LUIKI site in Leoben (100 kWP) as well as three smaller systems for sites of the WIBAU Group in Linz and the surrounding area. The photovoltaic investments by MABA Fertigteilindustrie had been planned for some time as part of the sustainability strategy, but were initially put on the back burner due to other multi-million euro investments in the modernization of production facilities. In the meantime, some of Kirchdorfer Concrete Solutions' sister companies have already been able to gain valuable initial experience - for example, a 200 kWP system was installed at KAMMEL two years ago. RAUTER Fertigteilbau GmbH has also entered the photovoltaic race in 2022 with an even larger plant (500 kWP).

Our own PV power supply is part of our vision to keep the corporate carbon footprint of our sites as low as possible.

Franz Buschmüller

Managing Director MABA Fertigteilindustrie GmbH

Photovoltaic installation at the main plant in Wöllersdorf: The system installed on the roofs of the halls supplies power not only to the plant, but also to the rotunda office building which, in addition to the MABA offices, also includes the operational group management and the premises of Kirchdorfer Group Services GmbH. The newly built, adjacent DELTABLOC International headquarters were already equipped with PV in the course of construction.

MABA REDUCES ITS ,,CO2 BACKPACK"

A comprehensive survey of the ${\rm CO_2}$ footprint of both the products and the entire production site has shown that 94% of the ${\rm CO_2}$ emissions are already taken over as a "rucksack", as it were, from the preliminary products. Now this baggage is being reduced step by step.

As part of the "30 to the power of 3" initiative of MABA Fertigteilindustrie GmbH, which aims to achieve a 30% optimization in each of the areas of aggregates/recycling, use of binders, and transport, a comprehensive CO_2 footprint of both the Wöllersdorf production site and the most important product categories was recorded over the past year. This now provides the reference data against which all further developments will be measured.

Thus, the "Corporate Carbon Footprint" (CCF) was first analyzed at the Wöllersdorf plant on the basis of the entire business activity and collected for one year (from energy and heating requirements to service vehicles). At the same time, the "Product Carbon Footprint" (PCF) was calculated for the comprehensive product portfolio. For this purpose, a proprietary software was developed in cooperation with Christian Plas (Denkstatt.at), with the help of which the specific PCFs for thousands of MABA's subproducts can be precisely quantified. With the reliable database in hand, MABA Managing Director Franz Buschmüller's focus is now fully on optimizing products, processes and production facilities. The analysis has also brought to light a not entirely surprising but nevertheless significant challenge, as Buschmüller explains:

"Our survey has shown that a total of 94% of the $\mathrm{CO_2}$ input of the

MABA precast industry comes from a backpack that we already get delivered to the house, so to speak, via the use of concrete, and here in particular the binders, as well as the required reinforcing steel. Our primary objective is therefore to keep this backpack as small as possible," says Franz Buschmüller, describing the challenge.

"In concrete terms, this means for us to use concrete already in product development only where it is statically required. Furthermore, we want to optimize the concrete formulations and packing densities to such an extent that as few binders as possible are used," Buschmüller explains the next steps.

The fact that further optimization is possible here is already shown by an initial pilot project in the area of railroad sleepers, which was started last year in cooperation with Roland Fischer (ÖBB-Infrastruktur AG) and together with the concrete technology experts of the Austrian Federal Railways: Thus, it was possible to save almost 30% of CO_2 by changing the concrete mix for the production of the L2 sleeper. At the beginning of 2023, all concrete technology test results were already available and production of the optimized sleepers is underway. ÖBB has already selected a corresponding test line for operational testing.

As far as the remaining 6% of MABA's CO2 footprint is concerned i.e., the part that MABA causes "itself" - a lot is already happening here as well: for example, with the large-scale photovoltaic offensive (see article on p. 18) and investments in e-mobility.

30 YEARS OF **SPECIAL OCCUPATIONS**

Herbert Sternberger, most recently Head of the Railway Business Area, has taken his well-deserved "retirement" after 30 years of service at MABA Fertigteilindustrie. We thank him for his great commitment!

"I had the great fortune to start 30 years ago at a company that was innovative and hit the ground running," the enthusiastic sportsman tells us. After starting as a production manager for civil engineering products in Wöllersdorf, all kinds of special orders came his way over the years, which he carried out with great enthusiasm. So he not only built up the MABA sleeper plants in Hungary, Romania and Turkey, but also spent a lot of time at all kinds of MABA "outposts". As well as searching for new business opportunities - from Kazakhstan to Serbia to Libya. He is now approaching his retirement at a similar pace: In the first month, there was plenty of action on the agenda with snowboarding and kite surfing (in the ice-cold Lake Neusiedl), followed by a hike lasting several days. Why downshift after 30 years of full throttle ...





An important part of the TIBA product portfolio is proudly produced by hand in Tillmitsch in southern Styria. The comparatively small, but sworn-in troop not only manufactures manholes in special sizes, but also large containers weighing up to 13 tons for TIBA Umwelttechnik.

With just two dozen employees, well hidden as subtenants on the production site of another building materials company and rented into the hall of TIBA's predecessor Frühwald, the employees at the Tillmitsch site achieve almost unbelievable things with comparatively modest means: "In contrast to the machine-based series production at other TIBA sites, special sizes as well as the entire environmental and separation technology are largely manufactured by hand at our site. And we are constantly growing ...", plant manager Georg Schleich explains to us.

And since practically every day brings new challenges in the production of manholes with diameters of up to 2 meters, flumes up to 120 mm and the huge tanks for the separation and sedimentation systems of TIBA Umwelttechnik, which are in ever-increasing demand, plant manager Schleich is in the plant himself with great passion. Not only the complex manual production requires constant attention. The machinery also needs to be kept in good shape with particularly careful maintenance so that the production volumes of manholes, conical rings, manhole bases and cable troughs can keep pace with increasing sales.

Rising export business

Only a few kilometers south across the border, there is just enormous pent-up demand for sewer systems, which is now really taking off with significant EU funding for municipalities in Slovenia



Schacht production in Tillmitsch: A large part of the production already goes to the southern export markets.



Oil separators for service stations: The gigantic containers are now also used by the Slovenian PETROL Group.

and Croatia (see also the following article on TIBA Hrvatska d.o.o.). "At the moment, about 65% of our sewer manholes are already crossing the border, and we are also currently delivering some of the large oil separators to PETROL, which is represented throughout the former Yugoslavia," Georg Schleich tells us.

Expansion of office space

While plant manager Schleich is mainly to be found in the hall, his assistant looks after things in the newly adapted office container. The containers were originally taken over from the temporary segment plant at the Boßlertunnel near Stuttgart and recently more than doubled in size to a total of 250 square metres. In addition to the various social rooms and changing rooms, as well as 45 square metres for plant management and expediting, the Tillmitsch site also houses the central logistics for the entire TIBA Austria. The two employees in the scheduling department control the impressive network of TIBA carriers

throughout Austria and neighboring countries. And thus also the many legendary vehicles branded in the TIBA look. Colorfully branded vehicles that transport the impressive products from the Tillmitsch plant to their destinations across the country and beyond.

TIBA HRVATSKA D.O.O.

TIBA ESTABLISHES ITSELF IN **CROATIA**

After the export share of the TIBA products produced in Southern Styria got bigger and bigger, it was time to establish a Croatian sales representation last year. This year, "TIBA Hrvatska d.o.o." moves into a representative company headquarters together with their local partner.

Since Christian Nageler started almost 10 years ago with TIBA Austria to work the civil engineering market across the border in Slovenia and Croatia, a lot has happened: Especially in the last 3-4 years the export turnover has grown from a few hundred thousand

Euros to several millions. In 2022, TIBA's CEOs Christian Nageler and Norbert Schuster therefore founded a Croatian subsidiary in Chacovetz, 120 km southeast of TIBA's headquarters. In a partnership with LADIĆ-VIT d.o.o., a local building materials distributor. In order to accommodate the emerging business, Mario Ladić, who is also on the management board of the Croatian sales subsidiary, is currently investing in a new company headquarters, where TIBA Hrvatska is also represented with offices and storage space. This means that TIBA is ideally equipped to take advantage of the market potential in Croatia and Slovenia.





Successful partnership with new headquarters: Mladen Hasija (left, TIBA Austria Sales) and building materials distributor and TIBA Hrvatska Co-Managing Director Mario Ladić (right) inspect the construction site of the new joint location in northeastern Croatia.



THE "PANTA RHEI" OF NOISE PROTECTION

"Everything flows" $(\pi \acute{a} \nu \tau \alpha \ \rho \epsilon \widetilde{\imath})$ - with this formula Heraclitus, forefather of the Greek philosophers, went down in history. With the "flowing noise barrier", the Kirdorf Group has also written history. And for sure, in noise abatement everything is really in flux at the moment!

Nothing persists, everything fades - except the "idea itself": the concept of a noise barrier along heavily trafficked routes is a good idea in any case. So good, in fact, that legislators are mandating more and more of them! The Austrian freeway and expressway operator ASFINAG therefore not only devotes a great deal of attention to the subject, but also actively promotes the rapid further development of the technologies used.

Noise protection on the rise

Wherever groundbreaking developments are required, the Kirchdorfer Group with its innovative precast division is happy to help. And this is particularly true in the field of noise protection, which has seen explosive growth in Austria since an amendment to the law 15 years ago. Since the introduction of PHONOBLOC® wood-concrete panels at the latest, the Kirchdorfer Precast Division has finally

become a major player in state-of-the-art noise protection installations - to the delight of road and rail operators, road users and residents, as well as architects. ÖBB and ASFINAG attach particular importance to the good appearance of Austria's traffic infrastructure and repeatedly invite entries to architectural competitions.

"Landscaping" trend - ask the architect

We asked Martin Wakonig what the trend towards landscaping in the design of noise barriers is all about. The Viennese architect has helped shape the harmonious adaptation to the surroundings through changing colors and shapes like no other. His interest in the high-quality architectural design of infrastructure buildings goes back decades, as he recounts: "I started as a young architect in the Domenig Eisenköck office, and my first experience back then was in the design of Vienna's southern bypass. Infrastructure construction has developed into an essential part of my core competence to this day."

The "flowing noise barrier" in the Tyrolean Inn Valley

The "magnum opus" of Martin Wakonig's philosophy is a noise protection installation along the A12 near Telfs/Rietz, which was

realized last fall by Katzenberger Fertigteilindustrie in Wiesing. Wakonig describes the good cooperation with the innovative and open-minded precast plant, which has proven to be "particularly tough" when it comes to production challenges, as a "pure stroke of luck".

For from his pen came "flying arches" that naturally clashed hard with the necessity of angular formwork. At the end of the intensive collaboration, however, there were exemplary radially cut absorber stones in changing colors and a beautiful, continuous comb structure that perfectly underlines the pulsating line effect of the flowing structure both as seen at 130 kilometres per hour from inside a car as well as by the stationary residents of the spectacular Inn Valley (see cover picture).

"The colleagues at the Katzenberger plant in Wiesing have really done a great job of implementing this," the architect is pleased to say, "harmonious as in a picture book." It's not so much about a visual gimmick, of course, but primarily about the subtle psychological effect on drivers: "These walls take up the shape, material and color of the surroundings and thus become part of the passing landscape. The harmonious natural shades of the wood-concrete absorbers have a calm, flowing and stimulating effect. This is optimal from the point of view of the road user - one feels safe and comfortable. Because monotony on the other hand leads to the notorious tunnel vision, and too much design is distracting and alarming. Both are a safety risk, as psychological studies show."

From aesthetics to new functionality

Arno Piko, head of the BAU WEST department at ASFINAG, shares the joy about the beautiful noise protection installations. He is responsible for more or less the entire highway and expressway network west of Bruck an der Mur and St. Pölten. Now that the aesthetic direction of the noise protection installations has been defined with this impressive milestone, the native of Carinthia is currently working intensively on another function that noise protection walls should fulfill in the future: As potential carriers of photovoltaic installations!

"Generating our own electricity is currently a big topic at AS-FINAG. We already have several small power plants in operation



We do not want to create a "minimundus" along the highway. The aim is rather to guide the attention of road users with a harmonious change of colors and shapes.

and have also recently had the potential of our properties and facilities evaluated with regard to photovoltaics and wind energy. You have to consider that, for example, the Felbertauern Tunnel alone (5.2 kilometres long, single-tube, note) with its around the clock lighting and ventilation consumes as much electricity as a thousand single-family homes."

"Noise barrier power plant"

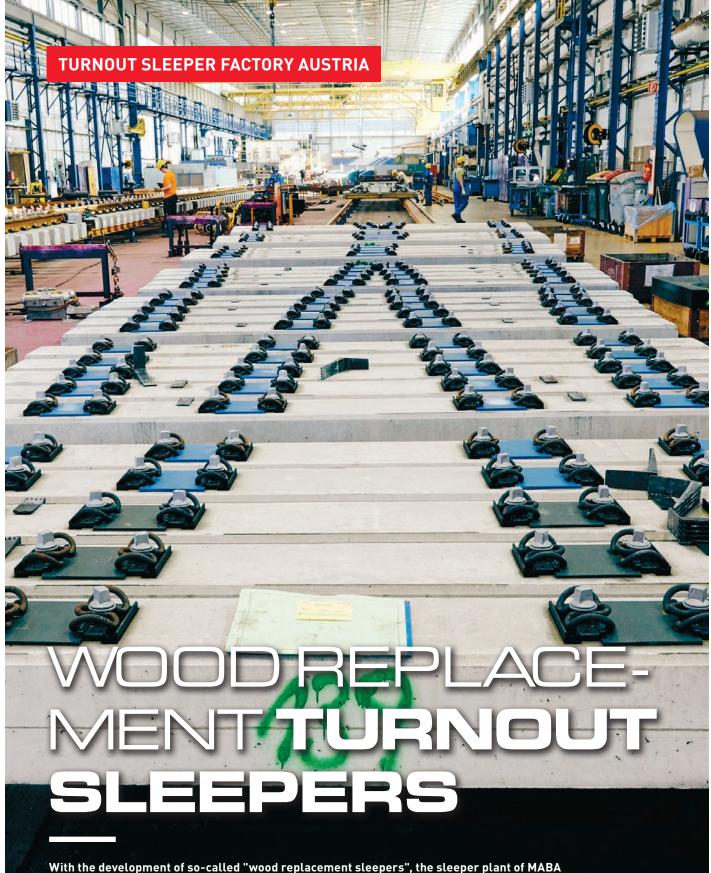
For this reason, photovoltaics are now already standard on the tunnel portals. Finally, two years ago, a competition was held for the implementation of PV installations on noise barriers. The winning solutions - including those of MABA Fertigteilindustrie - were then installed on a test field along the S1 in Vienna. Since then, the further development, which already started at MABA parallel to the competition as "Power Plant Noise Barrier", is running at full speed. Many details still have to be evaluated and tested. In any case, the potential is great - and the demand for electricity on the part of ASFINAG is just as great: "By 2030, we want to install a total of 100 MW peak output," explains Piko. It only remains to hope that once the technical requirements have been solved, the aesthetics of the implementations will also become an issue again. This would mean that Martin Wakonig would once again be called upon to transform the necessary functionality into an appealing form. So that in the future, not only the electrical current flows through those walls, but also elegant visual lines ...

We are already among the European leaders in noise abatement. Another 500 million euros will be invested in the next 5 years. Sustainability will certainly become the overriding trend here.

"







With the development of so-called "wood replacement sleepers", the sleeper plant of MABA Fertigteilindustrie in Sollenau has achieved a major breakthrough in recent years. Now, the replacement of highly toxic wooden sleepers is increasingly becoming an issue for turnouts as well. The "Turnout Sleeper Factory Austria" (TSF-A), a joint venture of the Kirchdorfer Group with voestalpine, the world's leading manufacturer of turnouts, is carrying out groundbreaking development work.

As the link between rail and ballast, railroad ties fulfill enormous requirements: Depending on the speed, curve radius and axle load of a train, they transfer enormous forces evenly to the ballast bed. They have to last a long time, maximize the maintenance intervals for the necessary re-tamping of the track ballast and, what's more, be produced in an environmentally friendly manner and with the least possible use of materials.

Until not so long ago, wood was the first choice for meeting these requirements. With one crucial flaw: the required durability of the wooden sleepers of 30 years could only be achieved by impregnation with highly toxic creosote. Since the introduction of the EU's first biocide directive in 2008, the use of this carcinogenic distillate from coal tar oil has therefore only been permitted where no alternative is available. And this was - until a few years ago - surprisingly often the case: For example, only 10 years ago the proportion of wooden sleepers in the Austrian rail network was still over 40% - and for turnout sleepers even 70%! The industry was now called upon to develop appropriate alternatives - a challenge that MABA Fertigteilindustrie took on with great enthusiasm.

The challenge of replacing wood

While concrete sleepers have been gradually gaining acceptance for decades as the optimum solution for many applications, wooden sleepers are still widely used today - especially for narrow curve radii, mountain tracks, and not least for turnout sleepers. With the introduction of the L6 wooden replacement sleeper in 2015, the MABA sleeper plant in Sollenau already achieved an initial breakthrough with wooden replacement sleepers, which have already become firmly established since then. Based on the knowledge gained at that time and further intensive research work, it was finally possible in 2020 to present the WS 175, a high-performance replacement for the many wooden turnout sleepers that are still in use in particular on the low-ranking network and on branch lines.

With an optimized height of only 175 mm (compared to 220-240 mm for other manufacturers), the turnout sleeper developed by TSF-A

GmbH together with ÖBB is now rapidly establishing itself on the market: While 19 turnouts with the new WS 175 were installed for the first time in 2020, this figure was already just under 70 last year, and 149 (!) sets of turnouts were already delivered in the 1st quarter of 2023 alone. This corresponds to almost 30,000 linear meters of turnout sleepers, which were delivered from Sollenau to voestalpine's turnout plants in Zeltweg (Styria), and Wörth (Lower Austria), for final assembly.

Research cooperation at the highest level

The managing directors of TSF-A, Franz Buschmüller (Kirchdorfer) and Markus Lerchbacher (voestalpine), have laid the foundation for another resounding success product with the wood replacement sleeper - not only in Austria, but far beyond: of the approx. 130,000 linear meters of turnout sleepers manufactured in Sollenau last year, 50% already went to voestalpine Turnout Technology's many export markets. The turnout manufacturer, which was founded in Zeltweg in 1851, is the undisputed world market leader in this field in cooperation with more than 50 voestalpine turnout plants around the globe.

But the Kirchdorfer Group's research expertise has nothing to hide either: With numerous, "groundbreaking" product innovations, an outstanding development partnership with Austrian Federal Railways, and participation in numerous research projects as part of the EU-wide "Shift2Rail" initiative, the Kirchdorfer Group is involved at the forefront of development.

For example, the IN2TRACK research project, which involves rail operators, research institutes and industrial partners from ten European countries and is specifically concerned with the optimization of switches, has now entered its third round, in which the research results are being evaluated on the basis of the installed prototypes. The next product innovations are thus already on the verge of establishing themselves on the market.



Production in Sollenau: The WS 175HE wood replacement turnout sleepers are produced at the sleeper plant in Sollenau.



Assembly in Zeltweg: The complete set is assembled "Plug-in ready" at the production site of TSF-A joint venture partner voestalpine.



MABA PROVIDES FOR **TUNNEL SAFETY**

Safety in the event of a disaster is a particularly sensitive issue in tunnel construction. MABA Fertigteilindustrie GmbH is causing a stir with a new development for railroad tunnels that has already won an award from a jury of experts: Safety doors made of HPFC.

A spectacular, if not revolutionary, new development was recently achieved at the MABA site in Micheldorf, Upper Austria: tunnel escape doors made of HPFC (High Performance Fiber Concrete). The patented idea of implementing the door leaves in concrete with carbon reinforcement and polypropylene fibers was the brainchild of plant manager Markus Schmidt together with Biprotec GmbH. The advantage: While escape doors made of stainless steel deform relatively quickly in a tunnel fire and are no longer tight due to the heat generated, the HPFC door panels withstood a 2-hour fire test, as project manager Gerhard Rinnhofer explained to us. The escape doors are completed with seal, mechanics, control, drive and frame by the international market leader and project partner Ludwig Elkuch GmbH in Liechtenstein. Meanwhile, MABA is already working with Elkuch and Biprotech on another innovation that could further improve tunnel safety, as Rinnhofer explains: "A stable, pressure-neutral swing door made of concrete would be a real improvement on conventional door concepts!"

Award at the SOLID Construction Technology Prize 2023

Even before the first installation took place, the new Kirchdorfer Concrete Solutions product had already been awarded the "Recognition Innovation 2023" by an expert jury of the Austrian industry magazine SOLID. Managing directors Robert Binder (Biprotech), Michael Wardian (KCS) and Christian Nageler (MABA) accepted the award (see cover picture, from left).





Fire-resistant tunnel door: The HPFC innovation from Micheldorf in a successful fire test and in its first application in Denmark.



First use in the "Great Belt Tunnel": Biprotec GmbH developed its own equipment for moving the 60 innovative double doors between Slagelse and Nyborg in Denmark.

KIRCHDORFER ROAD & TRAFFIC



On a mission to save lives in the former Yugoslavia: from left Miran Klemar, Rolando Zaksek, Boštjan Kolmanič and Nino Bertlanič.

FOUR ACES TO WIN

For many years, small Slovenia has been consistently among DELTABLOC International's most successful markets. More than ever, the sales company in Murska Sobota is the key to the successor states of the former Yugoslavia.

The unbelievable success story of DELTABLOC Slovenia has a leading actor who has been commanding the highest respect and recognition in industry circles for decades: Miran Klemar. As plant manager of a license partner, the 57-year-old Slovenian from Murska Sobota was so enthusiastic about the patented safety barriers from the very beginning that he after a short time decided to leave his job as plant manager and join the still young DELTABLOC International as a salesman. From there, as a "one-man-show", he supervised well over 50 traffic safety projects. Originally responsible for the whole of the former Yugoslavia, the work soon became too much and he concentrated purely on his home country of only 2 million inhabitants. But the volume of orders grew and grew, until in 2016 it finally became inevitable to set up an independent national company and take on an additional employee.

Constant growth, success in the neighborhood

Since then, DELTABLOC varnostne in protihrupne ograje, d.o.o. (the "Protection and Noise Barriers Ltd.") has not only grown in terms of personnel, but is also on the road to economic success. "We are now 4 aces, and with us you get everything completely from one source," Miran Klemar tells us: "Boštjan, as project manager, is responsible for the construction sites, Rolando makes all the offers and the handling with me, and Nino, our assembly worker, makes sure that everything fits perfectly!"

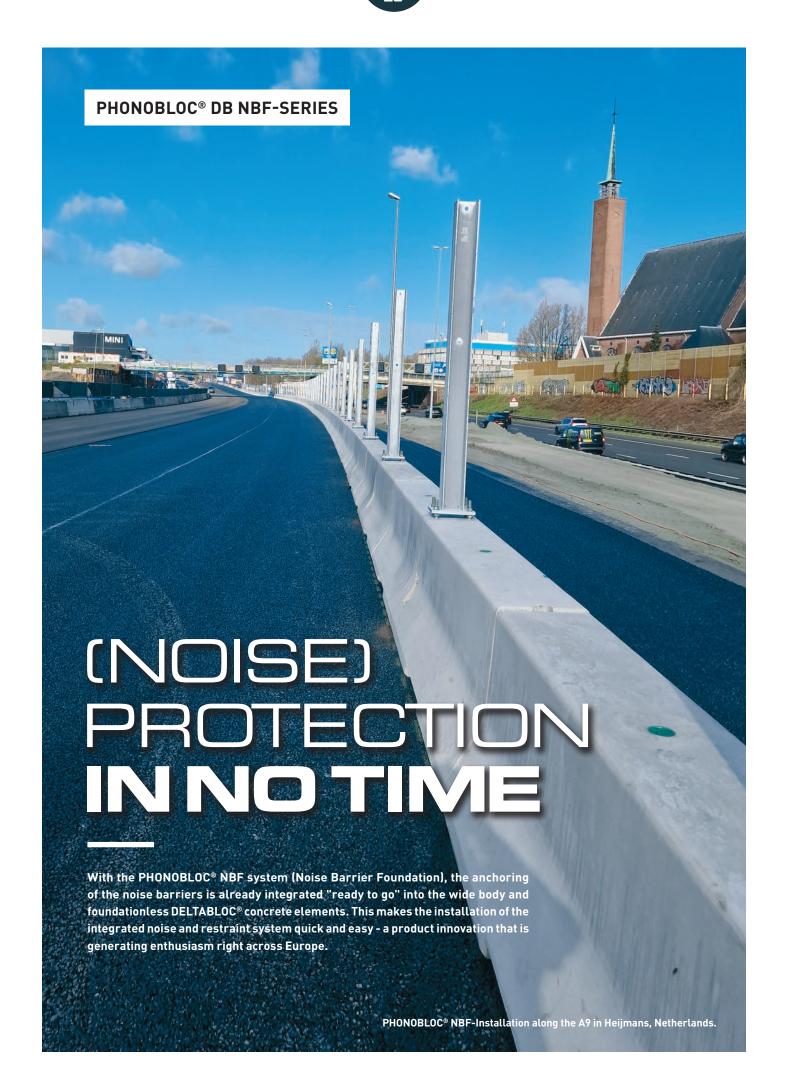
So in the six years since our last visit to Miran, his office plant from the old days and the new employee (article KIG News 1/2017), a lot has happened: a new office with a large storage area in front of the door, lots of new orders (noise protection is becoming more and more important!) and a new, old focus on the entire former Yugoslavia: "On the island of Krk, in the port of Rijeka, in Serbia ... we have already realized projects almost everywhere."

New project worth millions with VOC Celje, d.o.o.

Another EUR 1.7 million complete package has just been signed with one of the largest construction companies in Slovenia: 7 km of temporary safety barriers (SB 50 as well as SteelPro 500), 4 km of permanent DB 120 concrete safety barriers, and installation of STEELBLOC steel guardrails over a length of 6 km. The four aces, who are constantly in charge of five to ten construction sites at the same time, are never bored. After the challenging Corona period, this year they will really come up trumps again: "Last year was already very good, this year we want to double the turnover again!" We wish the Slovenian Aces continued success!



Noise protection: 40,000 m² installation between Marburg and Graz.

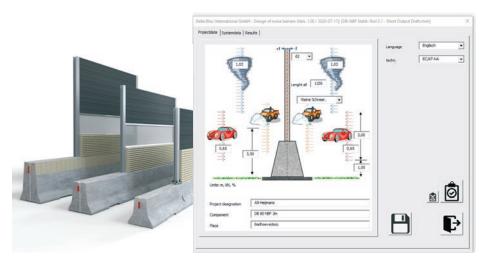


With the PHONOBLOC® NBF system, the Kirchdorfer Group once again highlights its role as an innovation leader in crashtested vehicle restraint systems with an integrated noise barrier. And it shines not only with its minimal space requirement, but also with its incomparably simple and efficient installation: After moving the DB NBF base elements (either pinned or completely surface mounted), the columns can be bolted in place immediately and the noise protection panels inserted. The NBF system is thus an even more efficient and simplified further development of the classic LSW noise barrier with DELTABLOC® elements.

Rapid market success

Initiated just a few years ago and developed at the noise protection competence center in Oberndorf near Salzburg, the system is already spreading rapidly throughout Europe. Since last year alone, a total of around 15,000 linear meters have been installed in Estonia, Sweden, Latvia, Italy, Croatia, Slovenia, Germany, the Netherlands and Switzerland. Since 2023, the system has now also been sold by MABA Fertigteilindustrie on the Austrian home market.

"Part of the good market success can also be attributed to the extremely simple structural design," explains product manager Alexander Handlechner, who is responsible for



Simple installation, even simpler planning: The dimensioning of the system, according to the specific requirements, is carried out using specially created software. This saves the trip to a structural engineer, which in practice shortens the project process by several days.

the entire PHONOBLOC® range in the noise protection competence center Oberndorf.

Specially developed software enables precise dimensioning of the noise protection system according to all relevant parameters, such as expected wind loads. This eliminates the need to consult a structural engineer, saving time and money during the installation. There is a choice of three different basic elements with heights of 80 cm, 100 cm and 150 cm.

In the heaviest weight class, the 6 m long

base element weighs 12.5 tons and has been tested for wall heights of up to 6 meters (!). In addition, there are plenty of options, such as a barrier-free escape door covered by a steel hood that is easily opened by a crank.

The appeal of the NBF range - as with so many products from Kirchdorf's Road & Traffic division - lies in the "whole system approach": Ease and efficiency from calculation and production to simple installation.



Hands-on expertise: As an important part of the company's philosophy, those responsible for the product are always lending a hand themselves, for example when setting up the impact test arrangement. Pictured (from left): Alexander Handlechner (Product Manager) and Ulrich Hölzl (Technical Service).





Rapid installation: 2,500 linear meters of DB 100 NBF TA were installed within a very short time on the A81 in Sindelfingen (DE).



ROUNDABAOUTS IN ROMANIA

Since 2019, the largest single order in DELTABLOC International's history has been handled in Romania. After some delays it is finally entering it's final year. In addition, another follow-up order for the protection of traffic circles was won.

When the framework contract with the state road authority CNAIR, won in a giant tender, was signed in March 2019, a new era in road safety dawned for Romania: With comparatively few highways but a 17,000-km-long and highly dangerous network of "national roads," Romania was tragically at the bottom of Europe's accident statistics. With the installation of contemporary DELTABLOC® protection elements at the many hazardous points, the national roads are now already a lot safer. Even if it took a little longer than originally planned ...

Hundreds of kilometers over several years

With the framework contract under its belt, DELTABLOC Romania S.R.L., founded in 2018, advanced practically from scratch to become a big player in restraint systems in just a few years. Called off in several tranches, the major project was actually to be completed as early as 2022. But delays occurred, which are now being made up for in the final year of the framework agreement.

New follow-up orders, new product

"The year 2023 is going to be great," explains the national company's office manager, Ramona Oprea: "We've also already received a follow-up order for another 150 km, as well as a new framework contract for the protection of traffic roundabouts."

Incidentally, the contract for the roundabouts involves the first use of brand-new "round" DELTABLOC® elements developed at the headquarters in Austria. They can be used to secure traffic islands with different diameters in several gradations from 10 to 24 meters.





Ramona Oprea has been the Office Manager of DELTABLOC Romania since 2018 and takes care of project management and commercial agendas.



50% LESS CO₂ WITH GREEN TECHNOLOGY

On the "Road to Green" launched in 2022, the Kirchdorf Road & Traffic division is moving with giant steps towards "Zero ${\rm CO_2}$ ". A new product generation has now been presented.

Since March 1, 2023, it is official:

the "green DELTABLOC®" - a new generation of concrete safety barriers developed on the basis of DELTABLOC "Green Technology" - is a reality. The first element, which was produced in a group-wide effort with the support of KAMMEL GmbH in Eastern Styria, MABA Fertigteilindustrie in Wöllersdorf and the Kirchdorf cement plant, now stands painted in bright colors in front of the DELTABLOC®

company headquarters. The green DELTABLOC® is the result of intensive research work - on the concrete formula, on the reinforcing steel, and on the entire the entire manufacturing process.

Shining example

The Kirchdorf Road & Traffic division is thus setting a shining example for the entire industry. The green DELTABLOC® is already being used in the first international projects in 2023. And beyond that, DELTABLOC® continues with great enthusiasm in enviornmental protection: from photovoltaic panels on the roof to e-mobility and a flower meadow in front of the "Home of Road Safety".



Picture left

The "green DELTABLOC®" is here. With an optimized concrete formula and a new production method, it achieves 50% CO₂ savings compared with standard elements.

Picture above, from left:

Wolfgang Ganster, Joao Paulo Pereira da Silva, Thomas Edl and Peter Rossegg present the green DELTABLOC® in front of the Home of Road Safety in Wöllersdorf. WORLD CUP BETTING GAME

PRIZES FOR OUR SOCCER PROS

With the largest field of participants ever - 268 employees from 12 companies and 26 teams - the traditional betting game for the 2022 FIFA World Cup took place at the end of last year. With great expertise, lots of fun and great prizes.

The winning team from Styria demonstrated sporting expertise as well as lion-strong team spirit: The actual winning team (Lukas Pfeifer and Jürgen Pöcklhofer) gave up 1st place in favor of the second-placed 4-person team, and Jürgen Pöcklhofer donated his additional prize from the individual evaluation so that no less than six **KAMMEL** colleagues can look forward to a match of the Austrian national team together with tickets, jerseys, food and drinks.

The victory in the individual ranking also goes to Styria: **Norbert Schuster** can now prove his ball skills with a Playstation 5. And because women are becoming increasingly important not only in soccer, second-place winner **Ingrid Weixelbaumer** is now setting the pace at home in Burgenland with a cool drill. Third place went to **Stefan Wollte**, who is already looking forward to the next barbecue season with a stylish fire bowl.



KAMMEL with the strongest teams:

Franz Strobl congratulates the successful team and individual players from Grafendorf be Hartberg, who won a joint trip to a match of the Austrian national team



Erich Frommwald with participants from the Kirchdorf cement plant. Michael Wardian congratulates the winners of the individual ranking from TIBA Austria and KIGS.

Even for 17th place, an attractively filled sports bag still went to Leonding.



WE LOOK FORWARD TO **RECEIVING YOUR FEEDBACK** ON THIS ISSUE OF KN:

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