Cement | Construction Minerals | Concrete Solutions | Road & Traffic

01 | 2021

KIRCHDORFER NEWS

For Employees, Customers, and Partners
of the Kirchdorfer Group

FROM OBERNDORF TO THE WORLD.

A visit to the PHONOBLOC®
Noise Protection Competence Center
of the Road & Traffic Division.
S. 23 — 25

TOP EMPLOYER

The Kirchdorf cement plant stands out on the Kununu job application platform.

P. 6

NATURAL GIFT

Concrete is regional, natural and durable. Contrary to its widespread image.

P. 16 — 18

LARGE ORDER

MABA Prefa manufactures prestressed beams for a new TESLA battery plant.

P. 20 — 21

Foto: © Sissi Furgler

EDITORIAL

A STABLE SHIP IN UNCERTAIN TIMES

In the second year of the coronavirus pandemic, it is now possible to state with a little more clarity: Our diversified group of companies has not only demonstrated impressive cohesion, but also great flexibility in dealing with the volatile market and general conditions.

Even if, by its nature, the construction industry tends to hold some delayed effects and consequences for us, we have essentially weathered the storms of the past year and have proven ourselves a stable employer to our employees and a reliable partner to our customers. The fact that in spite of everything that has transpired, we were able to generate a more than satisfactory result despite the threatening crisis confirms the validity of our chosen path.

In this, the 15th issue of our employee, customer, and partner magazine, we are once again able to report on numerous events and achievements by our individual companies that are worthy of recognition - as well as on the people behind them who give their best every day to make it all possible. So now, with heartfelt thanks for their stalwart commitment, may I once again wish you much reading pleasure!

Yours sincerely,
Mag. Erich Frommwald

MATTHIAS PFÜTZNER TAKES OVER CHURCH LEADERSHIP

FROM PROFESSION **TO CALLING**

As the initiator and former head of Kirchdorfer Corporate Communications, Matthias Pfützner has contributed a reat deal to the growing together of our corporate group - not least by launching the Kirchdorfer News Magazine. In the leadership of the New Apostolic Church, he is now following his calling for serving his community.

Even though his professional mission was far from complete after two decades in the Kirchdorf Group - when the call came to take over the leadership of the New Apostolic Church in Austria, Slovenia, and eastern Switzerland, Matthias Pfützner's decision to hang up his managerial job and follow the call of his longtime spiritual home was not all that difficult.

Of course, the various management tasks have in a way followed him into his new position to a great extent - because as an ordained "apostle" he is responsible for both the administration and the spiritual agendas in his church districts: Thus, around 400 priests and deacons now follow not only his advice and example, but also his administrative portfolio.

His long-standing maxim "Appreciation is value creation" (Wertschätzung ist Wertschöpfung), meaning that words of appreciation automatically bring value into the world, will certainly continue to live on in this and future editions of Kirchdorfer News that he started - because with our staff magazine we of course want to further strengthen the Kirchdorfer community, as well as strive for mutual respect and appreciation of each person's work.

In this sense: A heartfelt thank you for the many years of dedicated work. It has certainly brought about many things.

Matthias Pfützner: The 44-year-old civil engineer ended his managerial career and is now following his calling.

MATERIAL CYCLES PROTECTING THE ENVIRONMENT

Environmental protection is not only a corporate value that shapes many investment decisions in the Kirchdorfer Group, but is also a fixed component of its core business. Thus, numerous material cycles within the group of companies are incorporated into the business model!

The Kirchdorfer Group's contribution to environmental protection goes far beyond the usual and expected measures and is at the heart of business activities for some Group companies: For example, the **WIBAU Group** disposes of valuable construction waste with its container service. This waste is separated, processed, and ground by the subsidiary **UWT Umwelttechnik GmbH** in Linz. A considerable part of it is used as a substitute raw material in clinker production at the Kirchdorf cement plant and thus re-enters the material cycle. WIBAU also collects industrial waste, which is processed, for example, by the Group's subsidiary **SRP Sekundärrohstoffproduktion GmbH** at the Pöchlarn site and is thus available again as fuel for cement production in Kirchdorf. The same applies to used tires, which are collected throughout Austria and recycled by **KIAS GmbH**. In addition to the thermal recycling of the textile components, they are also processed for further use in various new applications.


2760
LL 176 FH

EMPLOYER WITH TOP EVALUATION

Satisfied employees are more productive and the best workers therefore deliberately choose the most attractive companies. The fact that the Kirchdorf cement plant is rated among the best employers has now also been objectively confirmed: With top marks on the Kununu rating platform.

Hildegard Vrana not only looks after the well-being of employees, but also their continued education.

In the case of hotels and restaurants, it has long been common practice to base the quality of the offering on the ratings given by guests. This trend is also becoming increasingly widespread among companies. For example, nearly one million companies have already been rated on Kununu.com, the largest employer rating platform in the German-speaking world. And the Kirchdorf cement plant is not only well above the industry average in terms of employment conditions, but even among the absolute best!

Dual distinctions of "Open Company" and "Top Company"

Only 4% of all companies receive the coveted "Top Company Seal", and as an "Open Company", Kirchdorfer Zementwerk is now even among the 1% elite of all employers evaluated. This confirms the open approach and excellent communication among its employees in particular, as well as the classic evaluation criteria such as salary, career opportunities and benefits.

In 2020, the delivery of bagged goods reached a new all-time high: During the Covid pandemic more private construction was undertaken than seen in a long time!

SACK DISPATCH AT THE KIRCHDORF CEMENT PLANT

HOUSE BUILDERS ENSURE **RECORD SALES**

The delivery of cement in the classic 25 kg bag broke all current records in the pandemic year of 2020. Not since the early 1980s has so much cement been demanded by private house builders.

With just under 73,000 tons of cement in sack form, 2020 probably went down in the annals of the cement industry as the "Year of the Home Builder" - picking up where the high levels traditionally left off until the early 1980s: After all, the Kirchdorf cement plant did not start delivering bulk cement to concrete mixing plants and other commercial customers until 1963. Until then, all cement production had been delivered in sacks or, even earlier than that, in drums.

Trend reversal in the 1970s

It was not until 1970 that, for the first time, more cement was delivered in bulk than in bags, at 136,000 tons. Since then, the proportion of loose cement, which mainly leaves the cement plant in silo trucks, has continually multiplied. Sacked cement, on the other hand, has consistently lost ground - a clear sign of the shift in the construction industry towards commercial suppliers. And not least a sign of the triumph of the concrete mixer truck over the mixing machine.

Working from home in Corona year 2020

Last year apparently saw not only the birth of the "home office" trend, but DIY builders made a sensational comeback, firing up not only the computer but also the old mixer!

Powerful and universal: The classic cement bag made a big comeback in 2020.

With the newly installed Flash Dryer, **plant manager Christian BREITENBAUMER** now has greater flexibility in the use of refuse-derived fuels. Light fractions and other alternative fuels already represent 90% of the energy sources used.

KIRCHDORFER ZEMENTWERK HOFMANN GMBH

INVESTMENT IN THE NEW FLASH-DRYER

The Kirchdorf cement plant continues to expand its pioneering role in the use of alternative raw materials and fuels. The installation of the new vertical dryer, a so-called "flash-dryer" for alternative fuels such as plastic waste and textile lint, is boosting flexibility in the choice of fuels.

With the attendance of Provincial Councilor Achleitner, representatives from the municipality of Kirchdorf, and the entire workforce, a new addition was ceremonially commissioned at the Kirchdorf cement plant on September 22, 2020: the 1.5 million euro investment in a "flash dryer" will significantly increase the plant's flexibility and economic efficiency in the use of alternative fuels at the main combustor.

While the rotary kiln at the heart of the cement plant used to be fired to the required process temperature of 1,450 °C using mainly coal in the old days, alternative fuels such as tire lint or lightweight plastic fractions have been increasingly used for many years and now constitute the bulk of the energy source. However, in order to maintain the complex chemical processes involved in clinker production within the required parameters, those fuels must be carefully selected.

With the new plant, which consists of a 40-meter-high riser pipe among other innovations, up to 3 metric tons of refuse-derived fuels are now transported every hour through hot air from the clinker cooler through the pipe toward the main combustor. In this process, the moisture content of the material is reduced from 15% to 5% within just 3.5 seconds. Heavy materials contained therein such as metals and coarse impurities are separated by gravity, while the remaining material is separated in a cyclone as well as a downstream filter, and then blown directly into the main combustor. This process of drying and removing impurities expands the range of possible fuels. It is now possible to react with more flexibility to the availability and market prices of the respective materials. As there was a supply shortage of tire lint last winter, the new flash dryer has therefore already proved its worth. Further investments, for instance, in a new calciner, are also in the pipeline.

The light fraction used as substitute fuel is pre-dried and filtered on its way through the 40-meter-high riser pipe (left picture) and then injected into the rotary kiln via a separate, "satellite combustor". Right picture: Rotary kiln main combustor with separate satellite combustor (the smaller, concrete-encased pipe on the right).

SUNSHINE & CONCRETE **FOR THE REGION**

Question: What do a cement plant in Hallein, a master builder from Ulrichsberg and a building materials producer from Hartkirchen have in common with the Kirchdorf cement plant? Answer: Martini Beton GmbH & Co. KG in St. Martin im Mühlkreis - a jointly operated ready-mix concrete plant that has been supplying the region for more than two decades now.

When the Kirchdorf cement plant decided in 1999 to expand its activities in the ready-mix concrete business in Upper Austria, the already existing concrete plant at the St. Martin site was acquired from the Weber company and renamed "Martini Beton". After a short time, the ideal partners for the operation of the new location were found in the Leube cement plant, the Brüder Resch master builder company and the Hans Arthofer building materials producer. Today, nine employees deliver up to 30,000 m³ of ready-mix concrete annually from a range of more than 250 different formulations. In addition to private and commercial customers in the rural area, the stable clientele increasingly includes construction projects by industrial companies, which are building ever more plants there at a safe distance from the traffic horror of Linz.

Incidentally, Ing. Hans Arthofer and DI Armin Richter, as the joint managers of Martini Beton, are currently planning a spectacular lighthouse project for the entire region: "We want to install a 180 kWp photovoltaic facade system on our striking, 33m free-standing tower. This would not only cover Martini Beton's own needs, but would also feed around 50% of the generated solar energy in this way into the public grid, thus contributing to the greening of Upper Austria's energy production", explains Richter. And the company logo, which already includes a yellow sun circle, will then really shine on the photovoltaic surface!!!

36 meters long and always in top condition: With a modern concrete pump and a fleet of mixer trucks, Martini Beton is a reliable partner on construction sites throughout the Mühlkreis region.

ŠEVĚTÍN QUARRY

THE SMART CATERPILLAR AND THE **OLD FOX**

In a quarry where incredible record quantities of rock are extracted year after year, everything just has to be perfectly coordinated: competent and experienced employees as well as reliable and powerful machinery. That's why the latest investment in a super modern and super smart CAT excavator at the Ševětín quarry of Czech KÁMEN A PÍSEK wouldn't be worth much on its own. But it is in the interaction with the outstanding quarry manager Karel Dvořák and his team that the most is made of the potential.

Karel Dvořák has now been employed at the quarry in his home community for 30 years - the Ševětín native was born 63 years ago in the South Bohemian quarry community and started as a plant electrician at the age of 32. KAP Managing Director Ing. Pavel Fučík, who incidentally is also celebrating his 30th anniversary with the company this year, remembers the early years: "I was the manager of the Ševětín quarry until 1998, and Karel Dvořák was always my right-hand man even back then and constantly had good suggestions on how we could improve the quarry's operation."

At that time, 200,000 tons were mined per year – since then, the volume has increased almost tenfold! So his suggestions were obviously pretty darn good, and Karel Dvořák was also entrusted with the management of the quarry in 2004. During these 16 years, he was awarded "Manager of the Year" no less than 10 times.

What else can be said except that the company can be glad that the new D3 highway is fortunately being built in the middle of his delivery area! As long as he is healthy, he would like to continue contributing his experience to the company. He also enjoys traveling the world and learning what he can about many cultures and continents. Perhaps one day he will even make it to Deerfield, Illinois - the home of the world-famous yellow caterpillars that have been gnawing their way through his quarry for decades. He is particularly pleased with the investment in the latest top model - one of the first of its kind in the entire Czech Republic. Equipped with a touch display, a host of safety features, and an economical and quiet power delivery adapted to the conditions on the ground, the new workhorse has already done phenomenal work. Just like Karel Dvořák, the old fox!

The new Cat 352: 425 hp, used quietly and fuel-efficiently depending on the terrain.

Smart technology, experienced personnel: The new excavator automatically alerts its operator in case of overloading or leaving the secured areas. Quarry manager Dvořák takes care of the rest!

WIBAU HOLDING GMBH

Ready-mix concrete in any quantity and for any requirement:
The traditional company enjoys the absolute best reputation in Upper Austria.

THE **RELIABLE SERVICE PROVIDER** IN THE LINZ CENTRAL REGION

What began in 1946 as a purchasing association among Linz master builders is today a diversified group of companies with an excellent reputation and a wide range of services: ready-mix concrete, gravel and sand extraction, waste disposal and recycling - in other words, everything you could need for a well-ordered construction site!

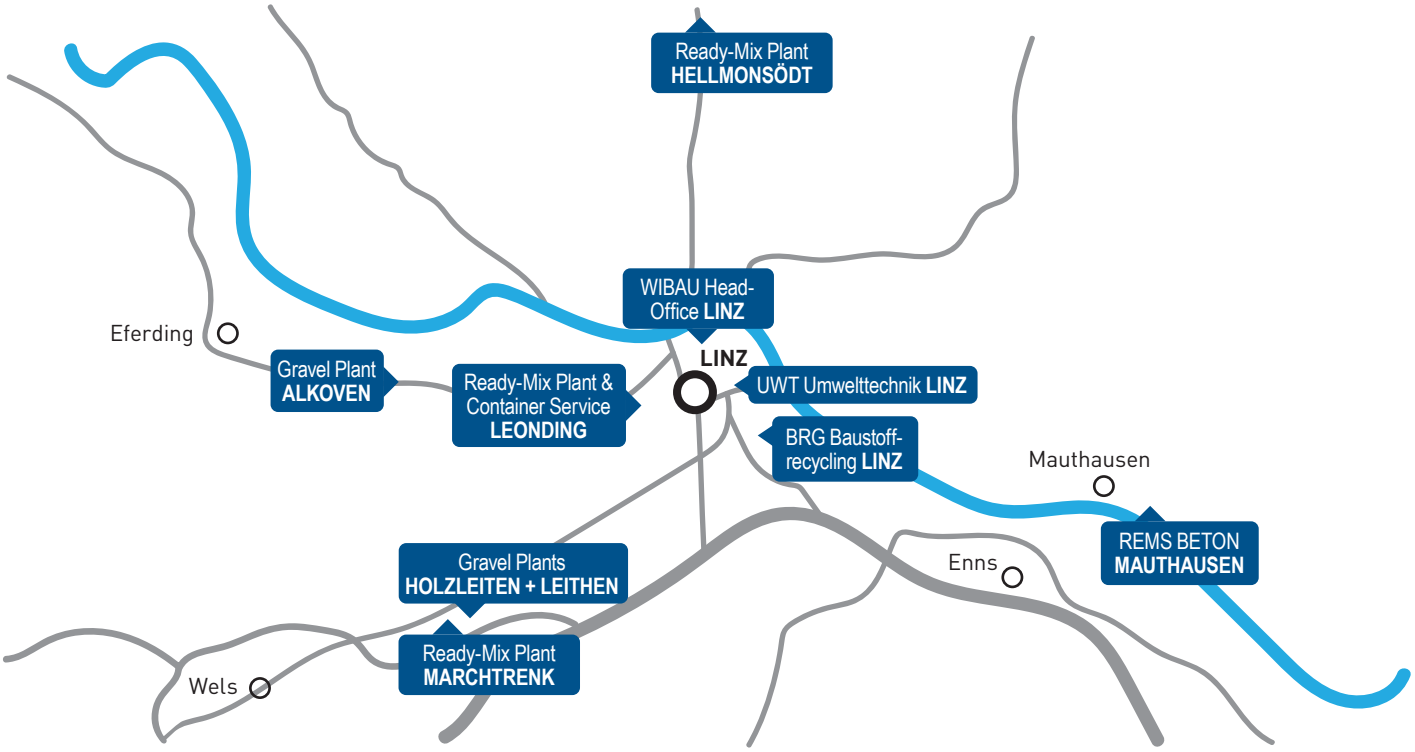
Even though the ready-mix concrete business is not always the easiest, the Kirchdorf Group decided more than 20 years ago to secure cement sales from the Kirchdorf cement plant by entering ready-mix concrete plants both in Upper Austria and in the neighboring Czech Republic. At the end of the 1990s, the transformation of WIBAU from a "Wirtschaftsgenossenschaft des Bauwesens" (economic cooperative of the construction industry) into a modern corporation finally provided the opportunity to acquire successively larger shares in the company, which was then managed by Kommerzialrat Ing. Ernst Richter. Thus, in the first decade, just under 50% of the shares were acquired, and in the last few years they were successively increased to over 98%.

Diversified supplier in the central region

With its three own ready-mix concrete plants, WIBAU Kies und Beton GmbH not only supplies concrete to construction sites in the central Upper Austrian region around Linz, Wels and in the upper Mühlviertel, but also extracts the corresponding aggregates: several hundred thousand tons of gravel, sand and high-quality chippings are extracted and processed in the Group's own six gravel plants. Moreover, the Group also holds interests in Alkoven Kies GmbH & Co KG and Rems Beton GmbH in Mauthausen, which supplies the entire lower Mühlviertel region and the Enns-Perg area with high-quality, ready-mix concrete.

But this is by no means the end of the diversification: because, especially during the complete halt of commercial construction sites in the first coronavirus lockdown in March 2020, the company's own container service became a real hit: the Upper Austrians were busy disposing!

With a total of around 140 employees, the WIBAU Group under the management of Mag. Gerhard Kraus is also involved in two large recycling companies in Linz, through which valuable waste from the container service is reintegrated into the appropriate material cycles. Thus, WIBAU with its distinctive yellow-blue fleet of trucks has not only proven to be a reliable "local supplier", but also an environmentally conscious "disposal company".



Picture above: **Cable excavator in 1978**. Armin Richter, the 4-year-old son of the then managing director, proudly poses by the very first excavator purchased for the Holzleiten gravel plant. Of course, today, Armin Richter is better known as the head of Kirchdorfer's raw materials division.

Left: **Gravel production at the Hörsching site**. Since the 1960s, the gravel plant "Holzleiten" has been part of the WIBAU, which at that time was still a purchasing cooperative of regional contractors.

Transport fleet for construction site supply: The large ready-mix concrete plant in Linz-Leonding has been in operation for half a century.

The increasingly important **container service** disposes of not only construction waste, but also commercial waste.

New bridge on the B54 in Gleisdorf: The 30-meter-long supporting structure was opened to traffic one month earlier than planned.

LONG LIVE THE PRECAST-BRIDGE

Structures made of precast concrete elements stand out in every respect: optimum quality due to controlled production conditions, and a high degree of prefabrication and thus lightning-fast assembly, which overshadows any other choice of material or construction method. Only the weight of the precast elements is a limiting factor ...

When RAUTER Fertigteilbau GmbH installed a new, elegant pedestrian bridge in its home municipality of Niederwölz in 2015, the local politicians came to celebrate the installation - from the mayor to the members of the state parliament. The first talks about the technical masterpiece were not even over when the 25-meter-long monolithic concrete piece was already put in place.

"Of course, a bridge like this is hooked up in a quarter of an hour," RAUTER managing director DI Wilfried Klade comments on the event at the time. In the meantime, precast bridges are already part of the standard repertoire of the Upper Styrian precast artists. This is because the province of Styria is particularly open-minded when it comes to the innovative construction and design of bridges - in recent years, well over a hundred precast bridges have been produced by RAUTER and installed throughout the province.

The advantages are obvious: the orderly production process enables the highest quality and an almost maintenance-free service life of at least 50-60 years. In comparison, bridges made of steel and wood - a thoroughly popular construction method for many pedestrian and bicycle bridges - have a significantly shorter service life. They also need to be inspected, maintained and, if necessary, refurbished and painted annually. They also offer no real price advantage when it comes to acquisition. For the large number of old wooden bridges that now have to be replaced on an ongoing basis, a precast concrete bridge is therefore the ideal alternative. The only limiting factor with precast bridges is, of course, the transport weight or dimensions of the individual precast elements. And, while in-situ concrete bridges require traffic to be blocked for weeks or even months, precast bridges are installed in virtually no time at all.

KCS COOPERATION

TIBA & RAUTER build **GIANT SHAFT**

The many visitors to the MABA headquarters who travel from the south are familiar with the rest stop with the McDonald's restaurant immediately before the Wöllersdorf exit. Recently, travelers in the other direction of travel are now also being supplied with burgers & French fries - at the Föhrenberg rest stop. To ensure that the huge quantities of frying oil and other wastewater from the service station can be disposed of properly and on an industrial scale, the builders of the new restaurant naturally asked the market leader TIBA for an appropriate concrete shaft - and not just any old ordinary shaft, but a real XXL version!

With a length of 8.7 meters (!), such a component naturally exceeds the production lines of the civil engineering specialists, which are designed for efficient serial production. Therefore, nothing less than a special outsized prefabricated part was required - and such parts are, of course, always produced at RAUTER in Niederwölz. Suitable formwork was therefore constructed there and filled with sufficient concrete (22 tons for the base slab alone), while TIBA took care of the remaining civil engineering installations on the site of the service station.

Today, however, the visitor unfortunately sees nothing at all of this efficient cooperation because the gigantic components are buried deep underground ...

Buried under the site of the Föhrenberg service station on the A2 in the direction of Graz is a gigantic shaft structure that was produced jointly by the Kirchdorfer Concrete Solution family as a special precast element.

Freight Train Derailment: **MABA & TSF-A SAVE THE DAY**

When a freight train derailed at St. Valentin station in Amstetten on All Saints' Day weekend 2020, the catastrophe was monumental: the Westbahn line, the "superhighway" of the Austrian Federal Railways, was blocked and two switch systems completely destroyed.

Athanasios Herzog, site manager in sleeper production in Sollenau, was alerted on Saturday. He immediately pulled out all the stops and after the plans were received at midnight, they were finalized on Sunday. The first sleepers in stock were delivered as early as Monday morning. The remaining turnout sleepers were produced on Monday and delivered to voestalpine in Zeltweg for assembly on Tuesday. As a result, ÖBB was able to repair the damage in record time and resume regular operations - thanks to the exemplary rescue efforts of colleagues at the Sollenau plant.

ENVIRONMENT & SOCIETY

CONCRETE: NATURAL BUILDING MATERIAL

When it comes to the question of what building material is most "in harmony with nature", the discussion quickly turns academic: Is renewable wood automatically better and more ecological than inorganic stone? Or is it rather a question of an all-too-superficial image that makes a purposeful discussion almost impossible?

Concrete has literally been synonymous with progress for thousands of years. From the very first "concrete mixes" of the incredibly inventive Romans to the current and explosive triumphal march in megacities in Asia, it is simply impossible to imagine our modern infrastructure without concrete. Unless one consciously or unconsciously wants to indulge in the illusion that concrete is the outright opposite of everything we associate with nature and environmental protection - a fallacy that is not only wrong, but increasingly obscures the view of solutions to ecological problems.

But what do we actually mean when we talk about nature conservation? And what exactly do we mean by ecological construction?

To clear up the general misunderstanding, we probably need to look a little deeper into the argument, as well as the human psyche.

Myth of nature

Since time immemorial, the all-important "story" of our existence has been a proverbial battle against nature: Together we slay the dragon that threatens our existence. We fight the flood, protect ourselves from the volcano as well as from a virus. And we cut down trees, use them to build homes and keep warm. And so on, for all eternity ....

So, in truth, do we ever "live in nature"? Let's assume you live in a romantic mountain village. All around are only meadows, pastures, and forests. And now you look out of the window: a nicely mowed lawn, a few fruit trees, and a small vegetable garden. None of this has sprung from nature, but all from our interaction with what we have already found. The pastures - cultivated for centuries. The cows - imported thousands of years ago. The forests? Managed and reforested by man. Of course, we all love nature and want to be part of it - but let's not fool ourselves: We live predominantly in the city, put a flowerpot on our desk and go to the organic shelf

Successful architecture, excellent quality of life: In the Krieau in Vienna, concrete shows its best side. Functional, aesthetic and durable.

Natural building material in abundance: Neither the sand nor the other natural ingredients in concrete are running out in the foreseeable future.

Dead wood, living architecture? When it comes to the question of ecological building materials, things get philosophical right away ...

in the supermarket. These are all purely "symbolic actions" - a psychological trick that we have perfected beyond recognition. Now what does all this have to do with concrete, you may ask. Is concrete an enemy of nature? Is the desecrated nature simply and literally "concreted over" by us without protection?

Concrete is a purely mineral building material that consists of 100% natural rock! Lime, the sediment of marine animals from past geological eras that has turned to stone, is burned to cement, and mixed with water, sand, and rock to form concrete. It doesn't get any more natural than this - and no living creature has been harmed. Even if huge quantities of certain chemical additives play a role in the mixing process - these additives react with the water and the cement and literally dissolve into thin air.

So the contradiction "nature versus concrete" does not arise at all in reality: Rather, we live in a "cultural landscape" that we have been shaping to suit our wishes and requirements for thousands of years. And the natural and almost infinitely available mineral building material that we call concrete today has quite simply proven to be predominantly practical, infinitely shapeable, and formable and, what's more, outstandingly durable. The question that rather arises is this: What do we do with it, and how do we best use which building material?

Intelligent infrastructure

Michael Wardian, Managing Director of KCS, sums up the problem: "If we seal a parking lot the size of several soccer fields with asphalt somewhere near a ski lift in the middle of our idyllic alpine landscape, that is of course madness. Much more intelligent and also more ecological is, for example, a compact parking garage with several floors made of precast concrete elements! Unless you want to arrive on foot or ban access to our beloved mountains altogether ..." - so the real problem is not the building material, but what we do with it.

Today, for example, thermally activated (i.e., piped) concrete components can be used to heat and cool a residential building in the healthiest way ever invented in the history of mankind – for both humans and Mother Nature! But if we look at the unjustly less-than-desirable "image" of concrete, the probably true core of the problem suggests itself. Could the many and partly unspeakably ugly building sins of the past, to which this versatile and so easy-to-use building material has seduced us (especially in the last hundred

years), perhaps be the true reason for the inherent image problem? And if so, who is actually the sinner here - man or concrete?

Building material versus design

Legions of monstrous "concrete bastions", as well as an almost unrestricted urge to concrete our living space on a grand scale, have ultimately led to the building material being increasingly demonized - instead of us humans, who have apparently not always given it the most appealing form and function. Because if we haven't thought about this question long enough, we may unconsciously and unintentionally fall into a far-too-simplistic reversal that doesn't get us anywhere either. If we want more nature, why don't we just cut down all the trees and bring them into the city ...

More wood for more nature?

Don't get us wrong: wood, the "natural" counterpart to concrete, so to speak, is indeed as "ingenious" in many respects as the Austrian timber industry's famous advertising campaign has been proclaiming for years. But this does not mean by any stretch of the imagination that the unreflective use of wood "on a grand scale" automatically brings more ecology and nature into our cities. Yes, wood grows back, and in Austria in particular there are supposedly more forests every year. But let's not be misled by the fact that an astonishingly large amount of wood is imported over long distances, while "our" wood is now even exported to the USA. In contrast, a single limestone quarry (which is re-naturalized after exhaustion), a cement plant and a few gravel pits can sustainably supply an entire region with concrete - with minimal transport distances. While countless tons of highly toxic adhesives have to be used in the production of cross-laminated timber, the rock in concrete is simply bound by lime and water. Of course, all this does not mean that it is not possible to build with wood - quite the contrary, but we simply have to take all the facts and arguments into account.

Building with wood AND concrete – simply ingenious

And now we come - via a long detour - to the highly gratifying resolution of all contradictions: the innovative wood-concrete composite element!

A great and extremely elegant application, with which the complementary optical and physical properties of wood and concrete can be combined in an esthetically pleasing way to create a recently industrially prefabricated component that simply checks all the boxes: vibration damped, noise protected and in spans that inspire architects and planners to real enthusiasm.

Because wood is truly ingenious -
when used in sensible combination with concrete!

Strong connection: KCS HYBRID XC® CONSTRUCTION

"XC" stands for X-Lam Concrete - a clever material composite of industrially prefabricated, surface-shaped wood and concrete elements. The system opens up completely new dimensions in residential construction ...

Combining the many complementary material properties of wood and concrete is nothing new in itself - although hardly common due to the complexity involved in the cooperation between the various trades. However, the innovative KCS hybrid construction system is now a true "game changer": the entire complexity has been developed by resourceful engineers into a sophisticated hybrid modular system. For this purpose, a joint venture "MMK Holz-Beton-Fertigteile" (MMK wood-concrete prefabricated parts) was entered into with the leading manufacturer of structural wood components (Mayr Melnhof). As a result, the user on the construction site works with customer-specific, prefabricated, precision-fit elements that do not require an underlay, which for the first time enable composite building construction on a large scale - such as the **HoHo in Aspern, Vienna**, which was erected in 2018 as the largest wooden high-rise building in the world and contains 1,475 XC® elements with a total surface area of 16,000 m2.

MABA FERTIGTEILINDUSTRIE GMBH

RAPID CONSTRUCTION WITH A SYSTEMATIC APPROACH

For decades, the so-called "MABA residential construction system" has been one of the classics in the trade. This is largely down to the customer-specific, yet highly standardized production and assembly of precast walls and ceilings enables incredibly fast and efficient construction - from single-family homes to multi-story residential complexes.

If MABA Fertigteilindustrie GmbH had to be reduced to a single core competence, it would probably be the "systematic approach" of its product lines: a cleverly thought-out system that defines not only rapid planning and smooth production flow, but above all the efficient, time-saving, and economical assembly of the supplied parts from the customer's point of view - whether it involves concrete guide walls, transformer stations or fish migration aids, to name just a few examples. This approach is of course particularly valuable in building construction. After all, who wants to build slowly, expensively and in a complicated way!

In residential construction in particular, the combination of storey-high solid walls, solid residential floorboards and, depending on requirements, stairs, arcades, and balcony slabs from a single system introduces invaluable advantages for builders. In addition to normal concrete, the lightweight concrete building material Ziegelit® is becoming increasingly popular. And with the innovative XC® composite ceilings, wood as a building material is now also finding its way into the coveted MABA residential construction system.

The MABA residential construction system not only cuts a fine figure in the large gap fill projects in Vienna, but also in the time-saving construction of single-family homes and smaller residential complexes.

MABA PREFA SPOL. S R. O.

KCS production for precast elements in any dimension at the Veseli nad Luznici site, approx. 30 km north of Ceske Budejovice.

SPECIALIZED IN **GIGANTIC PARTS**

A race is currently taking place in Germany to see who can build the world's largest battery production facility for the coming e-car revolution. The Czech company MABA Prefa is right in the thick of the action - after all, it's also about who can erect the biggest halls the fastest!

Large factory halls are a familiar topic for MABA's Czech sister company: its own production site was expanded to 140,000 square meters by the Czech government at the time in order to also produce precast concrete parts for the construction of the Temelin nuclear power plant, which is about 30 km away. Since the plant was taken over by the Kirchdorfer Group in 1996, some of the halls have even been demolished again. One of the most important advantages of the large-scale infrastructure is the possibility of producing prestressed reinforced concrete beams weighing up to 50 tons - a particularly interesting component for the construction of industrial halls. And this is precisely what MABA Prefa is currently demonstrating on the German market.

China versus California: the big battery factory race

While the whole world is gearing up for the coming e-car revolution, Germany is currently developing into a hub for battery production: In addition to its own automotive giants, foreign manufacturers are also playing an important role. Last year for instance, the Chinese company CATL in Erfurt already started the initial construction

Managing Director Radek Sváček is pleased about the orders for the German automotive industry. The graduated mechanical engineer was himself previously employed in the supplier industry for BMW and Mercedes-Benz.

Pre-stressed TT ceiling panels for industrial halls: The core competence of MABA Prefa is currently especially desired in the German market.

Huge halls, large product range: from concrete guidance elements to platform edges, there is little that MABA Prefa cannot do.

phase of the planned largest battery factory in the world in Erfurt. And, on behalf of the German construction giant GOLDBECK, MABA Prefa was already extremely busy with the production of beams over the past winter. In the meantime, the well-rehearsed team has now also been commissioned by Elon Musk himself to, with the first "TESLA Gigafactory" on European soil, show the Chinese that it is possible to build even faster and bigger! In addition to the battery cells, a vehicle optimized for the European market is to be designed and produced in Grünheide near Berlin in the future.

Thus, MABA Prefa - spurred on by the e-car race - has already processed 4,000 cubic meters of concrete into 900 "TT slabs" since September last year. The parts, which are up to 16 meters long and weigh 20 tons, result in a slab area of almost 30,000 square meters.

Continuous expansion of the service portfolio

Since Radek Sváček, who started at MABA Prefa 12 years ago in controlling, SAP, and finance department, took over the management about four years ago, work has been done not only on the old halls, but also on product quality and the expansion of the portfolio: Many an old formwork has been reactivated, as well as old contacts. By intensifying the development of the Czech market, as well as a number of export products, the company is consistently approaching the profit zone again. Currently employing around 100 permanent and 50 temporary employees, the company offers not only various series products but also complete packages in the field of building construction - with its own design office, structural engineers and assembly services. At present, about 30 truckloads of precast concrete elements leave the plant every day. By the way, 80% of which was produced with Kirchdorf cement.

SPOTLIGHT ON **EXPORT SUCCESS**

For the second time, DELTABLOC International GmbH was awarded the prestigious "Export Prize" by the Austrian Chamber of Commerce (WKO). This year, the award ceremony was only virtual, but the 7-hour filming day for a detailed TV report was all the more real.

Every year, the WKO awards Austria's "Hidden Champions": companies that are particularly successful in export markets. Even though DELTABLOC® is also highly present on domestic roads thanks to Kirchdorf Concrete Solutions, DBI's export share is an unbelievable 92% - for which the silver medal in the trade category is of course absolutely deserved. As was the great publicity on ORF on the occasion of the award. The TV crew around presenter Andreas Jäger was busy filming for about seven hours - no wonder, the successful company has a lot to show!

Despite the online award ceremony, **CEO Thomas Edl** was also able to welcome the head of the WKO foreign trade organization **Mag. Michael Otter** for the TV shoot with **Andreas Jäger**.

DELTABLOC SVERIGE AB **OFF TO THE START**

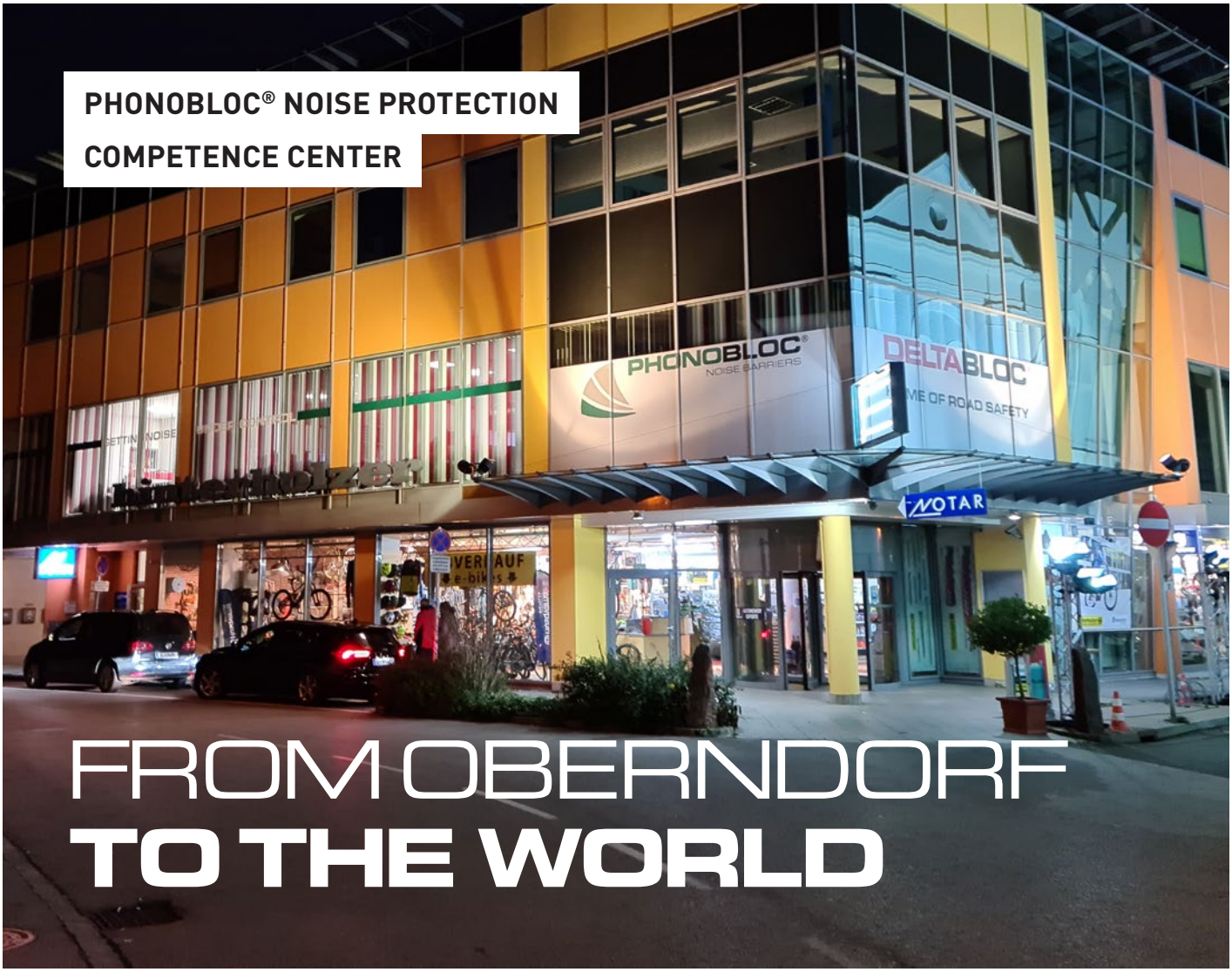
With a newly opened subsidiary in southwestern Sweden, DELTABLOC® is strengthening its activities in the important growth markets in the far north.

Niklas Zellner starts as National Sales Manager in Sweden.

As was the case in so many countries before, a successful project and production partner was the source for another high-caliber addition to the DELTABLOC® family: Niklas Zellner worked his way up from cleaning concrete mixers to plant manager at Benders, a large traditional concrete brick manufacturer. Building up Benders' complete infrastructure business since 2014, Zellner finally became interested in DELTABLOC® in 2018 and was subsequently able to acquire large projects in Gothenburg and Ljungby within a very short time - as well as two-thirds of the major "Stockholm Bypass" tenders.

From license partner to project implementer

With the new DELTABLOC® subsidiary, Niklas Zellner wants to play a direct role in expanding the project business in Scandinavia: "The Stockholm bypass project has shown that there is definitely a market for permanent installation projects here. The opportunities arising from the worldwide DELTABLOC® community are simply fantastic. For example, a special solution for light masts in Stockholm is now based on a project that was previously successfully implemented in Senegal. That's pure magic!"



PHONOBLOC® NOISE PROTECTION COMPETENCE CENTER

FROM OBERNDORF TO THE WORLD

For one day a year, Oberndorf near Salzburg is the navel of the world: when the most famous Christmas carol of all times resounds from the small "Silent Night" chapel, an audience of millions follows the charming custom. But if things continue as they are, Oberndorf will soon be the center of attention 52 weeks a year: at least as far as the development and implementation of innovative noise protection solutions are concerned!

When the Kirchdorfer Group decided in 2014 to expand the emerging noise protection sector, the company was on the lookout for a noise protection expert with a strategic vision and all the necessary contacts to export the group's PHONOBLOC® noise protection portfolio all over the world – following in the footsteps of the successful DELTABLOC® international roll-out.

With Ralf Dirnberger, born in Oberndorf near Salzburg in 1970, a proven expert came onboard and a small branch office specializing in noise protection was established in his hometown – virtually right at the gateway to the important German market. From there, DELTABLOC International GmbH began not only to develop the German market (and subsequently half of Europe), but also to incrementally build up a world-class portfolio of noise protection technologies at the same time.

Light and stable - the holy grail in noise protection

Concrete noise barriers are extremely strong, low-maintenance and durable - but these advantages come at the price of high weight. The challenge, especially in view of a flourishing export business, is therefore to retain as much of these strengths as possible while simultaneously reducing weight. The Kirchdorfer Group's entry into the noise protection sector more than ten years ago was already an important milestone in this direction: Pile-porous lightweight concrete - originally developed for attempts to realize a noise-absorbing "slab track" for railroads - has improved noise absorption significantly through its open-pored structure, while still offering the stable performance of a purely mineral noise barrier at lower weight.

The wood-concrete innovation

In cooperation with the newly founded Noise Protection Competence Center in Oberndorf, work on even lighter materials was intensified and a wood-concrete alternative was developed that provided particularly lightweight and export-friendly panels. Awarded the "natureplus®" seal of quality, these panels, which essentially consist of fresh wood chips bound with cement, could also be produced in many different surface structures that had previously been developed for the lightweight concrete products. As a result, this material innovation made it possible to achieve

a significant reduction in noise pollution, allowing them to be used in the highest absorption class A5. The wood-concrete panels can either be arranged directly in the formwork system and concreted along with it, or they can be fixed to the respective wall or support structure with adhesive and bolting or with the help of an aluminum substructure. The outstanding stability of the new Kirchdorf wood-concrete panels was confirmed not least by the first approval obtained for high-speed railroad lines up to 250 km/h for the Austrian Federal Railways.

However, the new "BHB" wood-concrete noise barriers generated great interest and achieved successful project completions within a truly short time not only along railroad lines, but also on highways. These included a number of significant installations not only in Austria, but also on numerous export or license markets from Slovenia to Scandinavia. With high regional added value – because, in many cases, the solid sound-absorbing concrete cores are regionally produced near the place of use. Furthermore, additional variants are available in the form of "AHB panels", which are attached to a support structure made of aluminum frames and heavy-duty plywood panels. This extremely lightweight system is used, for example, on bridges and, thanks to its high degree of prefabrication, is also particularly easy and quick to install.

Maximum system integration with concrete safety barriers

Since the Kirchdorfer Group entered the noise protection segment, the classic "LSW" (noise barrier) - the integrated solution of noise barriers and DELTABLOC® vehicle restraint elements - has been an important anchor point in the entire product range. Based on more than a decade of experience with a number of successful reference projects, especially on Austrian highways, the Oberndorf competence center was able to develop a new generation in this area as well, which advances the integration of the two systems even further and puts them on an entirely new footing: Instead of integrating the separate DELTABLOC® restraint elements in the lower area of the noise barrier in the most space-saving way possible, the steel supports for the new "DB NBF" noise barrier are now cast or bolted directly into specially developed restraint elements during installation.

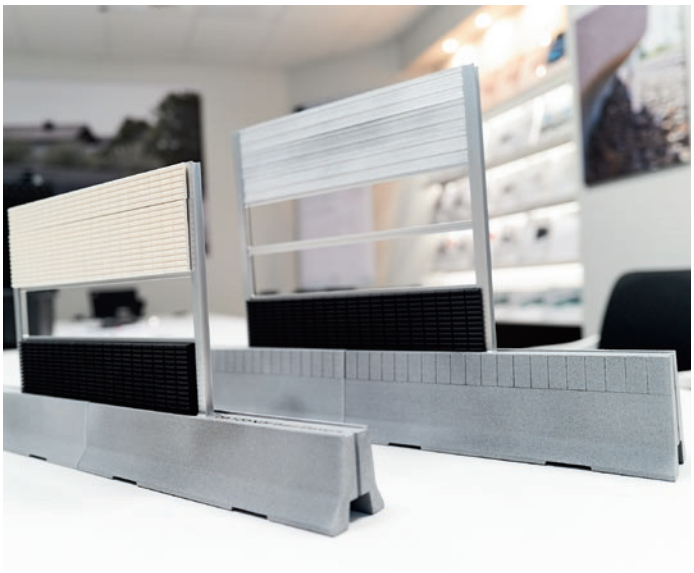
The end result is an enormously stable and compact, inseparably connected integrated system that can achieve a total surface mounted height of up to 6 m with no foundations, and thus cuts a fine figure for both permanent and temporary use on construction site sections.

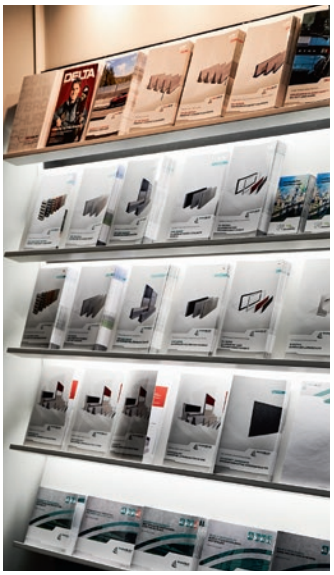
Even sloping ground can be elegantly compensated for by a certain flexibility when mounting the steel supports. The wall elements mounted above can be combined with great flexibility in terms of material and design. With this DB NBF product series, which has been crash-tested for the highest restraint classes, the PHONOBLOC® portfolio has a unique system in every respect. It can be installed both on the verge of the lane and on the central reservation and also provides escape doors and other requirements via special corresponding elements.

Because if the successful international project experience of Kirchdorf's Road & Traffic division holds any lesson, it is this: the devil is often in the details! There are, of course, countless suppliers with just as many noise protection systems - but it is often the demanding challenges, the transitions between different systems, a difficult topography or the exact placement of light masts or gantries that tip the scales in favor of one system over the other. And therefore it is all the more important that the solutions offered fit together as well as possible, like a completed Lego set, and have a flexible answer in their quiver for any special case that may arise.

The logical way to a full range

Flexibility was therefore logically also the major theme for the further expansion of the PHONOBLOC® portfolio: in addition to lightweight concrete and wood concrete, aluminum and acrylic were naturally also added to the material mix relatively quickly for the noise protection panels. Here, an already existing and well-established range was purchased in Salzburg, thus taking into account the fact that transparent visible surfaces in particular are nowadays an indispensable element for any well-assorted noise protection provider. However, in Oberndorf, not only current trends are served, but also future developments ...





Practical demonstration, comprehensive portfolio: On the left, a handy model of the DB NBF noise barrier that customers can assemble themselves. Even the inclination of the supports before pouring can be demonstrated. Middle: A complete range of brochures and manuals is standard. Right: Whether aluminum or wood concrete, the flexible choice of materials and diverse assembly techniques are available.

The ultimate in terms of lightness

In the eternal quest for lightness in noise protection, the latest innovation may now have reached a peak that can hardly be surpassed: The brand new "Whisper® Absorber" is not only a proven whisperer in terms of noise absorption, but also weighs just 1 kg per square meter. This is made possible by an ultra-light solution based on polyethylene foam. The normally closed PE cells are opened up for sound absorption in a post-processing step. The fully recyclable, panel-shaped elements can be placed virtually anywhere sound absorption is desirable - even on round columns. Or as a filler material in aluminum or wood panels instead of rock wool. And, of course, on any conceivable panel or wall.

A young team builds on competence

Only 6 years after the competence center was founded, the company now has a complete portfolio optimized for export with lightweight absorbers and locally producible precast concrete parts. While the business has developed far beyond the high expectations, the Oberndorf competence center has of course also grown along with the requirements, both in terms of space and personnel: Thus, the move to a larger office was due last year. Now the Kirchdorf noise protection experts reside in a central location at Kirchplatz No. 6 - directly on the side of the beautiful parish church.

And Ralf Dirnberger is increasingly assuming the role of mentor: With his "boys and girls" - the competence center now already has nine predominantly young employees - he is now in the business of shaping the next generation of highly competent specialists in various areas - from the multitude of different products and the respective project planning and handling to the professional processing of tenders.

Thus, with installations from Croatia in the south to Oslo in the north, an international network of PHONOBLOC® noise protection installations is being created step by step. In this way, the experts in Oberndorf are not only giving the world a "Silent Night" on Christmas Eve, but a generally quieter time along our many traffic routes - around the clock and 365 days a year!

From wood concrete to aluminum and a brand new PE foam Innovation: **Ralf Dirnberger** and the engineers of the Kirchdorfer Group have brought the PHONOBLOC® portfolio to a world-class level.

View across the Salzach to Germany: Oberndorf-born **Robert Edelmann** is responsible on behalf of DELTABLOC Deutschland GmbH for the German PHONOBLOC® market.

DB NBF system in a crash test: The top product in the portfolio of the Kirchdorf Road & Traffic division combines the tried-and-tested DELTABLOC® impact protection with noise protection elements, which can be integrated with flexible design and choice of materials.

The team at the **Noise Protection Competence Center Oberndorf** regularly lends a personal hand, especially with new prototypes - thus generating important input for the many different tasks - from product development to the design of the manuals.

Showcase project in northern Bavaria: On a length of just under 6 km, a highly complex project was impressively mastered on the A9 near Marktschorgast. At the moment, however, there is a bureaucratic slowdown in the awarding of new contracts ...

SLOWDOWN ON THE GERMAN HIGHWAY

If you like to drive fast, you immediately think of the non-existent speed limits on the famed German "Autobahn". But at the moment, unfortunately, there is kind of a traffic jam - because the commissioning and approval procedures for the maintenance and expansion of the highway network have been delayed since a restructuring of the handling authorities. Of course, this also affects DELTABLOC Deutschland GmbH. Fortunately, however, the large subsidiary is perfectly adapted to all kinds of challenges. And a good challenge is precisely what Ingo Stoffels and his employees love anyway!

For some time now, the Kirchdorfer Road & Traffic division has been getting used to one record year after another. A lion's share of this, of course, has always been attributable to the strong German subsidiary, with which the successful internationalization of the product range has really taken off over the past 10 years. Back then, DBD's share of global sales was practically 50 percent - and the company was already represented in numerous other foreign markets at that time.

Today, on the other hand, the German share is only 20 % - for Ingo Stoffels, Managing Director of DELTABLOC Deutschland GmbH, this is a good sign. As the internationalization officer on the management board of DBI, he is also, so to speak, the Godfather of many of the foreign subsidiaries that are so successful today. But more on that later - because at the moment he is confronted with some challenges in his own country. Which basically all comes down to the newly formed "Autobahn GmbH des Bundes".

Slowing down on the German Autobahn

What sounds like a good idea on paper - a central handling authority instead of a myriad of individual state companies from Bavaria to Schleswig-Holstein and from Saxony to the Rhineland - turned out to be a problem in practice. The calculation was made without the well-established civil service workforce and two years after the start of the restructuring, the new Autobahn GmbH still lacks no less than 5,000 employees! Which essentially means that the tenders and contracts have stalled somewhat.

Now, of course, postponed is not canceled, but the usual sales in the context of the well-funded German infrastructure offensive remain absent for the time being. Fortunately, however, there are 300,000 km of subordinate roads in Germany in addition to the 13,000 km of highway network. And apart from that, there is also plenty to do in several new business areas as well as in cooperation with other countries.

Making good use of the waiting time

Ingo Stoffels and his team have made the best possible use of the decline in orders through no fault of their own, which already began in 2019 and continued to rise in the 2020 pandemic year, to make the entire organization even more efficient and powerful. The growing noise protection sector, which now already accounts for a third of total sales, was also further developed. And last but not least, it is important to respond continuously to changing conditions anyway. For example, the once massive rental business with temporary restraint elements in Germany is becoming increasingly uninteresting - not least due to massive (and capital-strong) competition that has opened up a merciless price war with dumping methods.

Interestingly, however, the rental business is becoming increasingly important just beyond the national borders in neighboring Eastern Europe. And this is where Ingo Stoffels is finding their footing again: As an international business developer on the management board of DELTABLOC International, he holds down another role, which, in synergy with the large German company, is typically a key factor in the further development of the DELTABLOC® family.

As previously practiced in other markets such as England or France, the rental elements (often from Germany) are placed in the neighboring countries like an "icebreaker". Over the course of time, and after consistent market development, fixed installation then also became increasingly established, especially on the highways.

Now the same pattern is developing in Poland, the Czech Republic and elsewhere. Just recently, DELTABLOC Germany opened a small branch office in Prague. So the German colleagues – even if Autobahn GmbH has still put on the handbrake in their own country – are still in the thick of the action when it comes to the expansion into new markets and countries. And when the postponed highway projects all come to fruition at once, Neumarkt in der Oberpfalz will once again be saying: Fasten your seat belts!

DELTABLOC Germany headquarters in Neumarkt in der Oberpfalz: Since the company was founded in 2006, the German subsidiary has not only achieved impressive growth, but has also contributed a great deal to the development of other foreign markets.

The company's own installation team with seven experienced installers is in demand for projects such as the one on the A9 near Marktschorgast, in order to cope with the complexity of permanent installation projects.

Potsdam branch: Christian Qualmann and his team specialize in tenders and acquisition for permanent vehicle restraint as well as noise protection systems throughout Germany.

A VISIT WITH EVA HOFMANN

60 YEARS AND NOT A BIT QUIET

Eva Hofmann (60) and her daughter Maria Christina manage the 700-hectare "Hofmann'sche Forstverwaltung" - in the midst of countless dogs, horses, shaggy cattle, woolly pigs, shaggy sheep, chickens, quail and even water buffalos.

For the employees of the Kirchdorf Group, she is the (somewhat distant) "majority owner" – however, at home on her organic farm near Natternbach in the Hausruckviertel region of Upper Austria, she is simply "the boss". With the help of her daughter and a dozen employees, Eva Hofmann is not only responsible for the professional and nature management of the 700 hectares of arable land, meadows and, above all, woodland, but also for the well-being of hundreds of domestic and, in some cases, rare species of birds. She is also responsible for the well-being of the hundreds of domestic and farm animals, that roam the idyllic estate – some of which are quite rare.

"The whole thing has escalated a bit, so to speak," the young-at-heart hunter and farmer likes to describe her sprawling estate: 42 years ago, she took over the former weekend retreat her ancestors' owned and, through ongoing acquisitions and additions, has developed it into an award-winning nature-oriented and stylish model farm. And her plans don't end there either. While the infrastructure for animal-friendly farm slaughtering has just been put into operation, the next stable building is already being tackled.

Her daughter, Maria Christina, who is doubly blessed with strong forestry genes through her paternal grandfather, is already taking on more and more responsibility in addition to her studies. Although it is certainly a challenge to keep up with the jubilarian who grew up in Madrid. The editorial staff of the Kirchdorfer News wishes Mrs. Hofmann and her family all the best on the occasion of her 60th birthday!

WE LOOK FORWARD TO **YOUR FEEDBACK** ON THIS ISSUE OF KN:
KirchdorferNews@kirchdorfer.eu

KIRCHDORFER GROUP

MEDIA HOLDER AND PUBLISHER Kirchdorfer Industries GmbH, Hofmannstraße 4, A-4560 Kirchdorf · **PHONE** +43 5 7715 100 0 · **MAIL** welcome@kirchdorfer.eu, www.kirchdorfer.eu · **EDITORIAL BOARD** Kirchdorfer Gruppe · **CONTACT** Marlene Mies, MA · **PHONE** +43 5 7715 101 123 · **MAIL** marlene.mies@kirchdorfer.eu · **TEXT & DESIGN** Dr. Christoph Rieger, A-8141 Premstätten · **FOTOS** as labeled on the pictures, otherwise: Archive Kirchdorfer Gruppe · **COVER** Dr. Christoph Rieger. June 2021.