

INFORMER

THE FELBERMAYR GROUP MAGAZINE, 1/2021

INNOVATIVE

DAM RENOVATION FOR THE
CENTRAL ISAR CANAL

PREMIERE

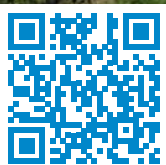
NEW 1,000-TONNE
CRAWLER CRANE IN ACTION

AT ONE GO

GANTRY CRANE RELOCATED
WITH SPMT



PHOTO: FLIGHTKINETIC



To the video

ARRIVED

NEW FELBERMAYR COMPANY HEADQUARTERS MOVED INTO



By generations, for generations

Dear Ladies and Gentlemen,

With the move to our new company headquarters and its appearance, we have now also visualised the successful development of Felbermayr. And that is not all - the move has also made it much easier and more economical for the roughly 700 employees at the site to work together. Something that will certainly also contribute to even better communication with our branches.

I am therefore grateful that this construction project – so brilliantly initiated by my father – has been implemented with such courage. I would like to express my utmost appreciation to the entire management team and each individual employee in this regard; an outstanding

effort has been made by everyone over the past weeks and months in very difficult times. I would also like to thank my family, whose entrepreneurial courage, willpower and willingness to invest turned this great project into a reality. All of this was made possible not least by companies with whom we have been working in partnership – sometimes for decades – on the route to success.

But aside from the efforts that have gone into the new headquarters, outstanding achievements were also accomplished in the operative business. Thanks to the efforts and dedication of our employees, we have been able to achieve exceptional success in an exceptionally tough year.

For this, too, I would like to express my greatest appreciation and respect.

From a financial perspective, we are in very good shape and we can look to the future with optimism. I am quietly anticipating that the situation regarding massive price increases and supply bottlenecks in procurement will also ease again.

I would like to wish you a pleasant end to the summer and once again thank everyone who has contributed to the construction of the new Felbermayr company headquarters. All those involved have made a major contribution to our project – by generations, for generations.

Warm regards,

Horst Felbermayr



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The new Felbermayr company headquarters



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COMPANY

Felbermayr recognised as 'Top Employer'

In the employer ranking of an assessment carried out in cooperation with the business magazine Trend, Statista, Kununu and Xing, the family-owned company Felbermayr was the industry winner. And that in two senses at once – in the categories of transport and construction.

For the Best Employers 2021 ranking, more than 1,300 Austrian companies with at least 200 employees in 20 sectors were evaluated and about 220,000 judgements were reviewed. According to Trend, the core of the assessment was an extensive and independent survey of employees by the statistics portal Statista.



'SOLID' AWARD

Deployment with 1,000-tonne crane wins main prize

Solidbau, the Austrian special interest magazine, annually awards the best companies in the industry with the Bautechpreis. At this year's tenth edition of this coveted award, Felbermayr won the top prize in the category of construction machinery use with a crane deployment of the LR 11000 from Liebherr. You can read more about this demanding assignment – for the Herne combined cycle power plant in Germany – on page 18 of this Informer.



From left to right: Margaret Schramböck (Federal Minister), Thomas Grabuschnigg (Felbermayr ITB Divisional Management), Wolfgang Schellerer (CEO of Felbermayr Transport- und Hebetechnik), Harald Mahrer (WKO President).

EXPORT PRIZE

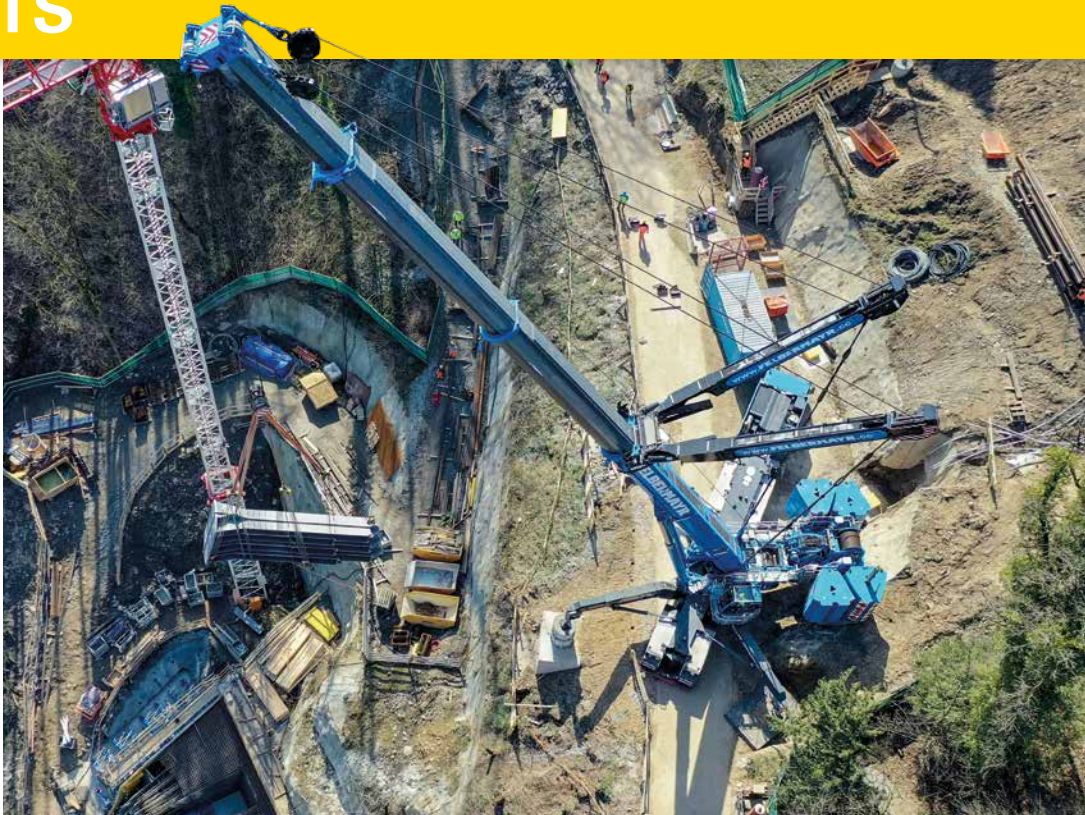
Felbermayr awarded prize in the Transport and Traffic category

The WKO Export Prize – an award for Austria's best exporters organised by the Austrian Chamber of Commerce's Außenwirtschaft Austria – is presented annually to Austria's best export companies. At this year's Export Prize awards ceremony, Fel-

bermayr was awarded second place in the Transport and Traffic category. The award once again underlines how the company's further development is driven by international commitment, which also enables Europe-wide success.

CONNECTING 100 tonnes for suspension bridge

Two blades of 52.7 tonnes each, which will serve as attachment points for the guy wires of a new suspension bridge over the Danube, were lifted into place at the end of March. To use the Liebherr LTM 1750 mobile crane with tele-guying and 204 tonnes of ballast, an access road was specially constructed and a foundation was built in the slope to support the crane. Getting all the equipment through the Linz city area was a challenge – nevertheless, the Felbermayr lifting technology specialists were able to complete the lift successfully in just one day.



Karol Świercz, Felbermayr
Poland management

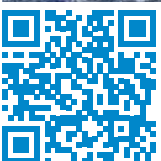
SPECIAL RAIL TRANSPORT ITB expanded sphere of action

With the takeover of the Polish subsidiary of the French Daher Group by Felbermayr, Karol Świercz was entrusted with the overall management of Felbermayr's railway activities in Poland – a function Świercz had already held for Daher. The merger was also sealed operationally at the beginning of January with the rail transport of a 220-tonne transformer. The heavy transport by rail was realised using ITB wagons from Felbermayr's division for international low-loader rail transport.

ENVIRONMENTAL TECHNOLOGY Scour and flood protection

Following the successful trial pile driving for the new replacement construction of the Wieblingen weir on the Neckar, the measures for scour protection in the tailwater are now almost complete. Most recently, a sheet pile wall extending six metres was driven into the riverbed for this purpose. The main work on the water will be completed in the autumn.

These measures from the Felbermayr subsidiary Hagn Umwelttechnik have secured the riverbed from being washed out again and also made a contribution to flood protection in the region. Incidentally, the replacement construction of the Wieblingen weir is scheduled to begin in 2026.



To the video

EXPANSIVE

Felbermayr is expanding its range of construction and maritime logistics services

A few weeks ago, the joint **participation of Felbermayr Holding and its subsidiary Haeger & Schmidt Logistics in the Belgian terminal operator PSA Breakbulk NV** was agreed. Now, PSA Breakbulk NV has also been awarded the contract to operate a 14-hectare port site at Churchilldock South by the Port of Antwerp.

The contract award was preceded by PSA Breakbulk NV's participation in a public tender. The concept presented by

the shareholders PSA, Felbermayr and H&S was convincing due to a project cargo ecosystem with a logistics hub and a one-stop shop for large project cargoes. The planned use of a crane with a load capacity of 750 tonnes was also a decisive factor in the Port of Antwerp's decision to award the contract. The aim is to position the port of Antwerp even more strongly in the project cargo business and for heavy load activities.

Felbermayr-Bau took over the Wels-based construction company WEST-ASPHALT on 22 June. The core competences of WEST-ASPHALT are paving works and laying natural stone. The company remains operationally independent, although it is organisationally integrated into Felbermayr Tiefbau. The solid company has operated successfully on the market for several decades and was up for sale due to the succession planning of the founder and managing director Reinhold Wersching. According to Wersching, several tenders had been examined, but in the end he had come to the conclusion that Felbermayr was the best option for the company he heads. For Wersching, this was also the best solution for his 40 employees.



With the takeover of the traditional Upper Austrian company Danner Landschaftsbau in April, landscaping has now also joined the Felbermayr construction trades of structural engineering, civil engineering and hydraulic engineering. Operationally, the Danner company remains independent and also retains its name.

For the former owner of the landscaping company Reinhard Danner, the sale to Felbermayr was a logical consequence in terms of succession planning. There are synergies, for example, in the use of cranes for roof planting or the need for earthworks in large landscaping projects in infrastructure construction.



MAKING NEW FROM OLD Demolition at Kaiser-Josef-Platz in Wels

Felbermayr was responsible for the demolition work and the laying of new cable conduits for the redesign of Wels Kaiser-Josef-Platz. It took about a week to demolish the core of the bus turntable. Two excavators, several trucks and a total of ten Felbermayr construction specialists were in action in mid-March. The underground car park underneath – which was not taken out of service – did not make the work any easier. The vibrations that occur during demolition work had to be kept as low as possible.

LIKE A FAIRYTALE FST constructs the Schlossgalerie in the Tyrolean Oberland

Felbermayr Spezialtiefbau (FST) of the Stams branch office is working on rock and stonefall protection for the new construction of the Landeck Schlossgalerie in the Tyrolean Oberland. Large drilling rigs, drilling excavators and work platforms are being used for the rock and slope stabilisation work and for the pile foundations of the rockfall protection gallery. The key figures of the construction site are impressive. The length of the construction site extends to about 700 metres. Also remarkable: Approximately 13,000 linear metres of piles are being installed for securing the gallery ceiling and the foundation of the gallery's support footings. The construction work started in April last year and is expected to be completed early next year.



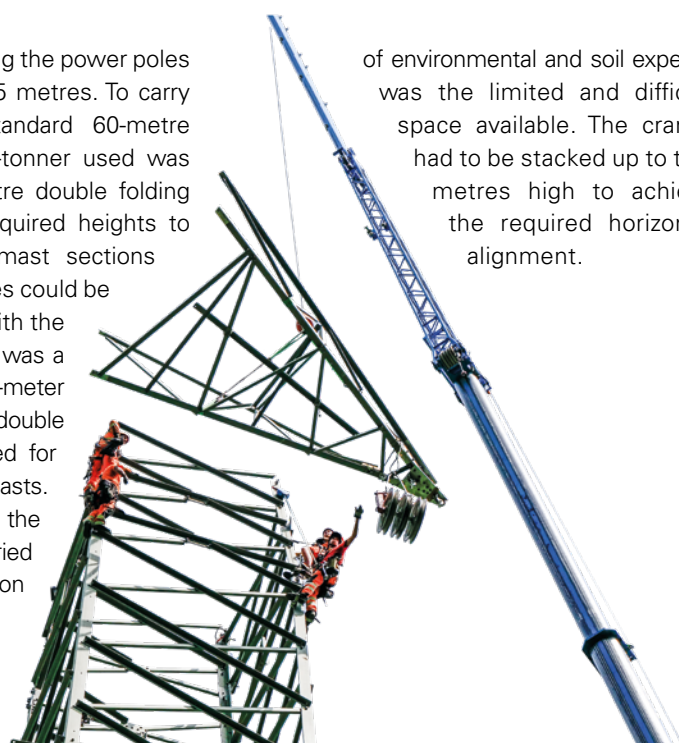
ENERGISED Crane operation for reliable power supply



In June, two cranes from the Vaduz branch in Liechtenstein were used for installation work on an extra-high voltage power line in the Swiss canton of Graubünden. The order

was primarily for replacing the power poles with heights of up to 75 metres. To carry out the work, the standard 60-metre main boom of the 100-tonner used was deployed with a 19-metre double folding jib. This enabled the required heights to be reached, and the mast sections weighing up to 2.5 tonnes could be precisely manipulated with the crane. The second crane was a 60-tonne crane with a 48-metre main boom and 16-metre double folding jib. This was used for correspondingly lower masts. The biggest challenge of the project, which was carried out under the supervision

of environmental and soil experts, was the limited and difficult space available. The cranes had to be stacked up to two metres high to achieve the required horizontal alignment.



REISSECK POWER STATION Peak performance for peak power

The Felbermayr heavy installation department has been in action since the spring for construction measures at the Reisseck power plant group in Carinthia. Support measures for the order with a planning period of half a year are also being carried out by the Felbermayr Crane Hire and Transport divisions.

The challenges of the project are not the dimensions but the confined space on the construction site. The order started with abnormal loads of two filter containers, each weighing 45 tonnes. After transport, starting from the Gföllner plant in Grieskirchen (Upper Austria), they were lifted into place at the construction site using a 450-tonne crane. They were then placed on the foundation by the Linz branch's moving-in team using a hydraulic shifting track. Another part of the contract was the installation of the foundations for an 87-tonne transformer that was transported from the Czech Republic to the construction site by low-bed vehicle and then delivered by SPMT. The foundation of this voltage transformer, with a length of about five

metres, was erected by means of a lifting frame. A mobile crane was then used again to lift two 12-tonne switch cabinets. The contract is expected to be completed at the end of August with the installation of an 87-tonne motor to drive the pump for the storage power station. For this, the men of the Moving-in Department will use a hydraulic shifting track and equipment for longitudinal and transverse shifting of the load. Here, too, Felbermayr employees will once again give their best, so that the performance

that has so far been assessed as 'simply the best' on the part of the client ABB-Hitachi and the end customer Verbund, will continue to apply!



KREFELD There's no such thing as can't

The trimodal port terminal in Krefeld is always the setting for 'great' projects. For example, part of the 40,000 square metre Felbermayr site was rented for the final assembly of a 'filling machine'. After completion, this unit was craned onto a parallel-controlled SPMT with 2x

12 axles for the production of coke using a crawler crane. It was then driven to the quay and subsequently handled by the crawler crane for onward transport on inland shipping. Due to the weight of 232 tonnes of the filling machine and a maximum radius of 28 metres, the LR

1750 crawler crane with a ballast truck was used. Also in April, a transformer of more than 400 tonnes was transshipped by rail and transferred onto inland shipping. In terms of warehousing, the heavylift terminal is currently used for railway sets.



To the video



LOOKING FORWARD Blasting work after massive rockfall

Felbermayr was in action at the beginning of the year because of a rockfall at Attersee. With geologists at their side, the colleagues from Specialised Civil Engineering are working on securing measures. At the beginning of March, the first blasting was carried out with 25 kg of explosives – blasting about 75 m³ of rock. To protect the workers on the slope, about 300 linear metres of cable barriers were installed in advance. In total, between 2,000 and 3,000 m³ of the rock wall are still being removed on an ongoing basis, so that no more stones will fall from the sky in the future.



To the video



FULL SERVICE Abnormal load and lifting technology

Felbermayr delivered up to 50-tonne concrete trusses and pillars for the construction of a new logistics hall in Wels at the beginning of March. In addition to a 250-tonne truck-mounted crane and a mobile construction crane, rotor forklifts and a dozen scissor and telescopic platforms were also used for installation work on the large construction site. The working heights of the equipment used were usually around 30 metres. The flexibility and readiness for use of Felbermayr platform hire is greatly appreciated by the client, so that equipment can also be used on the construction site within a very short time if required.

OFF TO THE SOUTH Marine engines transported to Italy

Four marine engines, each weighing 47 tonnes, were transported from Augsburg via Walserberg and Arnoldstein to Italy in March. Four identical vehicle combinations with low-loaders were used for this purpose. One challenge for these heavy transports was the delivery time, because the engines had to be delivered to the Italian port of 'La Spezia' within a defined time window. The heavy transport specialists from Wimmer Maschinentransporte and Felbermayr were able to complete the project successfully and on time!



PHOTOS: MARKUSWEICKINGER (2), MARKUS LACKNER, MARC SCHELLERER



WORLD PREMIÈRE Delivery of four-axle heavy-duty tractor accepted

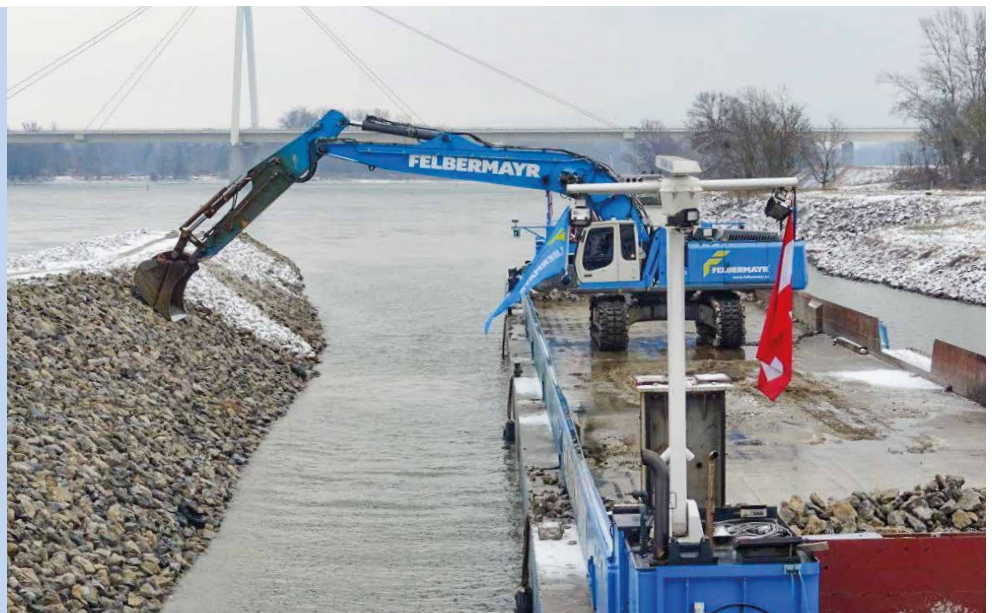
Felbermayr is the world's first owner of the most powerful series-produced semitrailer tractor with 770 hp.

With a total towing weight of around 180 tonnes, the Scania 770 S optimally complements the fleet and is used for international heavy goods transport.

The powerhouse is driven by long-time Felbermayr driver, Andreas Hintringer, who was personally handed the key by Felbermayr procurist and head of the Heavy Transport department, Günther Trauner. Incidentally, Hintringer drives around 90,000 kilometres a year for Felbermayr and has done so for 30 years without a single accident.

MAINTENANCE Harbour spur to be redeveloped

Felbermayr's Hydraulic Engineering division was commissioned to renovate the approximately 125-metre-long harbour spur in Bad Deutsch Altenburg. This will be extended downstream by about 50 metres. The Felbermayr heavy load vessel "Horst Felix" is being used for the hydraulic engineering work. In addition, the existing bollards used for mooring ships and boats will be replaced by eleven new ones and six new steps will be built to facilitate access to the bollards – these will be integrated into the embankment of the spur with foundations. The work will be completed by the beginning of June 2021.



PROTECTIVE Fire engines for Morocco

At the beginning of February, Felbermayr transported eight 'Panther 6x6' fire-fighting vehicles from Leonding to Nordhafen for the fire-fighting equipment supplier Rosenbauer – the final transport destination is Morocco. The transport specialists from Felbermayr mastered the challenge of simultaneously using the many low-bed vehicles – that can be widened to the required three metres and telescoped to twelve metres – with flying colours, and thus transported the new fire engines safely to the port.





It's done – new company headquarters moved into

Around 18 months passed between the ground-breaking ceremony and the completion of the new Felbermayr headquarters in Wels/Oberthan. In the meantime, the employees have already moved in and, with a floor space of about 28,000 m², the building has been handed over for its intended use.

We have made a good start says a pleased CEO Horst Felbermayr, who, as head of the company, also advocated for the earliest possible completion of construction. Due to Corona, however, a delay of about six weeks had to be accepted: "But I'm very pleased that the relocation has now also been successfully completed," says Felbermayr speaking in

high terms of the project team leaders Benedikt Linimayr, Thomas Schimpfhuber and Dieter Swoboda: "I can hardly put into words what has been achieved here with the involvement of our employees in the Transport and Lifting Technology and Construction areas." But, of course, thanks also go to the suppliers of external trades, whose selection had obviously also demonstrated their expertise.

18,000 m² of hall space

The commercial area comprises a total of three halls with an overall area of approx. 18,000 m². Hall 1, located to the west, houses the transport and lifting technology. This will also house one of a total of ten overhead cranes with lifting capacities of up to 30 tonnes.

The middle hall is optimised for the central workshop and has an overall area of 9,000 square metres. Maintenance and service work on the vehicle fleet is carried out there. To optimise the work processes, the inventory includes equipment with scissor lifts and lifting platforms. This can be used, for example, to lift whole heavy-duty tractor units. "This makes it easier to change tyres, for example" explains Benedikt Linimayr, who acted as the owner's representative during the construction phase. The first and second floors contain storage areas accessible by heavy-duty lift. In keeping with state of the art, the workshop also features underfloor heating.



The central workshop is equipped with the latest technology and has a generous amount of space with more than 9,000 m².



The petrol station, the social building and two-part office wing dominate the external appearance of the new Felbermayr company headquarters.

The technical equipment in the sense of simplifying work processes is also reflected in the design of the 181 linear metres of assembly pits. Thus, so-called 'energy columns' were also stationed at these dimensions that are impressive by their length alone. "There, the technicians in the pit can directly take out service materials they need, such as engine and hydraulic oil or compressed air" explains Linimayr, pointing out that this makes the work easier.

Like Hall 1, Hall 3 is about 4,500 m² in size and mainly houses a wash box and car wash for trucks as well as a paint shop. In addition, an extra-wide and 'heavy-duty' brake test stand is also available.

A football field-sized open-air warehouse with parking space will house the vehicle fleet. There is also a construction warehouse as well.

A petrol station with ten fuel pumps is also worth mentioning, Linimayr says, arguing that this will also make traffic jams a thing of the past when filling up with fuel.

Office and social building with 9,000 m²

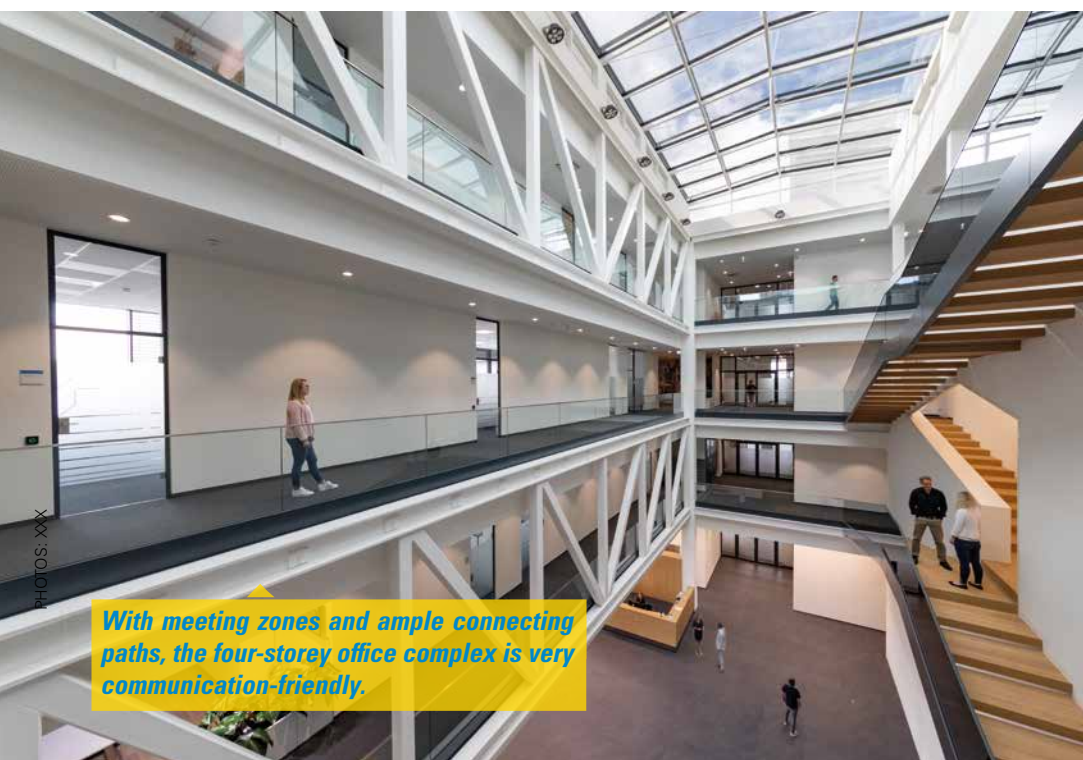
The office and social building is almost the size of a football field with a total of 9,000 m². "The office complex comprises three floors with a total of 8,300 m² and offers space for about 250 office workplaces" Linimayr adds. For the staff, there will be a meeting zone with a kitchenette on each floor. The social building, which can be reached via a connecting corridor, is individually situated and houses a freshly-cooked meals kitchen and a staff restaurant with around 120 seats. A childcare facility is located on the first floor. This also includes a 360 m² playground on the roof of the



The photovoltaic system is installed above the workshop building and produces around 500,000 kWh of electricity annually.

property. An exercise room for strength and endurance training is also available to the staff.

In terms of optimising energy technology, a photovoltaic system was also taken into account in the planning of the new building. This is located on the roof of the workshop and consists of 1,400 modules with 350 watts each. "This allows us to produce around 500,000 kWh of electricity annually" Linimayr explains. This is roughly equivalent to the electricity consumption of 150 households. Heating and cooling is energy-friendly by means of a heat pump. This provides the staff with a pleasant indoor climate in summer and winter. This is also the best basis for a good working environment. But that has always been good at Felbermayr and will probably only get better at the new premises.



With meeting zones and ample connecting paths, the four-storey office complex is very communication-friendly.







The construction work in the Natura 2000 conservation area took place in close consultation with the water rights and nature conservation authorities.

A wealth of innovation for dam renovation

The Felbermayr subsidiary Hagn Umwelttechnik was commissioned with the renovation of a section of the Mittlere-Isar Canal by Stadtwerke München. Thanks to a wealth of innovation and ingenuity, it was possible to complete the dam renovation in the allocated time. And this was despite unfavourable circumstances such as suspected explosive ordnance from the Second World War and difficult-to-predict damage to a canal that dates back roughly a century.

To the north of Munich, part of the Isar River is diverted into the Mittlere-Isar Canal, before flowing back into Bavaria's fourth longest river around 60 kilometres further downstream. A roughly 100-metre drop in altitude occurs between these points, which is used to generate electricity in seven power stations. However, the canal- which was built around 100 years ago- is getting on in years. Dam renovation measures are therefore necessary from time to time; usually with demands that are close to the

limits of feasibility in terms of construction technology.

Damage to the canal

During the periodic condition survey, the public utility company Stadtwerke München identified an increased need for renovation at position 5 of the canal, meaning that repair measures were necessary. The damage was primarily identified in a canal section in the area of the Moosburg reservoir, where the old



In the course of the renovation measures, the barrier structures were also strengthened with sprayed concrete.

works canal flows into the Mittlere-Isar Canal. „Damage had occurred to the canal lining of the branch canal island,” explains Hagn Umwelttechnik site manager Florian Pieringer. The dam lining was partly broken and leaking in places, a condition that could lead to erosion in the long run.

Difficulty of site access

„Our task was to develop and implement a concept to ensure stability, operational reliability and safety for at least 50 more years, in order to prevent the need for any further closures and dam renovations in this area,” Pieringer explains the assignment. But even accessing the construction site was problematic. For example, the bridge leading to the area requiring renovation had a maximum payload of nine tonnes. For construction reasons, it was necessary for heavy goods vehicles weighing 60 tonnes to access the site. The customer therefore planned to initially spend two weeks constructing an access embankment. Furthermore, in order to drain the construction site a so-called cofferdam with surface sealing was required in the run-off water. From here, access to the construction site was also made possible via a ramp. In order to facilitate this, it was also necessary to restore a one-kilometre-long embankment back road. Only then was it possible to start the actual dam renovation work.

Construction concept for canal renovation

Because it is not possible to renovate such structures with standard solutions available from classic construction companies, the inventive spirit and innovative potential of Hagn Umwelttechnik was particularly in demand here. Numerous solutions were therefore discussed and feasibility-tested together with the customer, in the search for the most economically expedient option and the fastest realisation.

Particular problems in this respect were the maximum load capacity of the existing dam body of only twelve tonnes and the development of a special concrete for the surface seal. „The concrete had to be suitably soft to ensure optimum installation and surface properties, but still sufficiently resistant to the applicable mechanical stress,” Pieringer describes the problem. Working in cooperation with the planners and the Technical University of Munich, a concrete formula was developed that

would deliver these characteristics. The properties of the concrete were tested for their suitability in practice in three trial areas on the steep embankments, and the resultant findings were positive. It was therefore possible to start the comprehensive renovation measures.

Although the stability of the branch canal island had been previously secured with sheet pile walls in 2013, within the framework of urgent remedial measures, further damage to the construction fabric - which dates back over a century- had to be repaired after the canal was drained. „When building on existing structures, in particular those that were constructed around the turn of the century, it is often

difficult to assess the works beforehand,” Pieringer knows from experience. For example, the water-side embankment of the branch canal island had to be fundamentally rebuilt. This required significant additional time. „However, thanks to our commitment to planning and coordination, we succeeded in further consolidating the reputation of Hagn Umwelttechnik among customers and engineering firms,” Pieringer is happy to report. It was therefore possible to meet the deadline of the end of 2020 for filling the canal, which also allowed the resumption of unrestricted power generation. To the great satisfaction of the customer and the Hagn Umwelttechnik team. ■



A cofferdam with surface sealing was constructed in order to drain the construction site.



An access ramp was built to open up the construction site.

A 300 tonne, 18 metre-tall crane was moved to its new work area 700 meters away using two SPMTs with twelve axis lines and one power pack as a drive.

Engineered Solutions moves gantry crane with self propelled vehicle

In mid-December, Felbermayr relocated an approximately 18-metre-high gantry crane in the port of Duisburg. Thanks to a solution from Felbermayr's new Engineered Solutions division, it was possible to move the 300-tonne crane in one piece using a self-propelled vehicle. This eliminated time-consuming and costly disassembly and mounting work.

In mid-November, Felbermayr's Engineered Solutions division, which was founded in October last year, received an order to relocate a gantry crane in the port of Duisburg. Usually, such a relocation is associated with great effort. An effort that is also detrimental with costs in terms of the crane's standing time. However, this was prevented by a solution from Felbermayr-Engineered Solutions. "This meant the actual relocation of the crane took only about two hours."

SPMTs and heavy duty towers in combined use

"The core of the solution was the combination of self-propelled vehicles or "SPMTs" (in Engl.: SPMT – Self-Propelled Modular Transporters), with what are known as heavy-duty towers," explains Divisional Manager Kees Kompier. This type of operation was used for the first time at Felbermayr and required meticulous preparation in terms of the forces acting. It meant that the interaction of the technology used had to be taken into account through engineering know-how. This was the only way to ensure that



The heavy-duty towers were stabilised using steel cables and tensioning devices.

the crane could be moved safely.

Two parallel SPMTs were used, each with twelve axle lines and a Powerpack as a drive. On top of this were two heavy-duty towers at the front and two at the back, with steel girders set up parallel to the SPMT to lift the load. These were connected to the second SPMT with two horizontal steel pipes each at the top and bottom. The structure was additionally stabilised with diagonally braced steel cables. The transport configuration thus reached the external dimensions of a

cuboid with a side length of about 20 metres. "Calculating the suitability of this configuration was somewhat of a challenge," Kompier notes, adding that the heavy-duty equipment used also had to be modified for practical implementation due to the lack of attachment points.

In the end, however, it was possible to drive under the portal of the 51-metre-wide GANTRY and lift it hydraulically with the SPMTs. The self-propelled vehicles then set off with the approximately 300-tonne load. Since the new crane tracks are



To the video

about 170 centimetres above the ground level, a temporary embankment was built at the new crane parking area. Raising the 300-tonne load again put the configuration to the test, but thanks to correct engineering, it was perfectly executed. Thus, the crane reached its new

“workplace” without having loosened even one screw on the lifting device.

“From lifting to setting down on the crane’s new track, about 700 metres away, only about two hours had passed,” enthuses Kompier, proud of “his boys’” achievement.

The operation, which was carried out on behalf of the Port of Duisport, became necessary due to the construction of a new warehouse by the Felbermayr subsidiary Haeger & Schmidt and the resulting change in the layout of the site.



In October of the previous year, Kees Kompier (centre) founded the Felbermayr Engineered Solutions division. Since April, Roel Aarts (left) has also joined the team as Technical Manager; on 1st May, Alexander Herholz succeeded him as Sales Manager.

PHOTOS: JEROEN MULDER (2), MARKUS LACKNER, ALEXANDER HERHOLZ

Premiere for new Felbermayr 1,000-tonne crawler crane

For building of a gas- and steam power plant in Herne, Germany, the Austrian heavy transport company Felbermayr deployed a new Liebherr LR 11000 fresh from the factory. In addition to this 1,000-tonne crawler crane, SPMTs (self-propelled modular transporters) and low loaders were deployed in large numbers. The contract lasted about three months and ended in mid-February.

Huge components with unit weights up to 457 tonnes are not an everyday affair, even for a heavy transport company like Felbermayr. But it's known all over that the heavy transport specialist's employees and fleet are up to challenges like this. However, when a 1,000-tonne crawler crane is first put to use, not only does the load rise, but so does the excitement. So the deployment on the Rhine-Herne Canal was awaited with great anticipation in the Rhein-Ruhr metropolitan region of Germany's state of North Rhine-Westphalia.

The four immense components departed from the Siemens factories in Berlin,

Mühlheim an der Ruhr, and Nuremberg. "The transportation to the transshipping location not far from the construction site were awarded by Siemens and the main contractor Züst & Bachmeier Project GmbH. They were partially handled by waterway by Felbermayr subsidiary Haeger & Schmidt," reports Project Manager Susan Pichl.

Züst & Bachmeier contracted Felbermayr to transship these large components and to transport them to the power station construction site. In addition, Züst & Bachmeier brought 20 heat surface modules all the way from China by sea and inland waterway to the

transshipping location in Herne.

Crawler crane with total weight of 1,000 tonnes

For shipping the heavy lift cargo, the transshipping location first had to be properly adapted. "Otherwise, it would not have withstood the enormous pressure," says Pichl, describing the configuration of the crawler crane: "The equipment used for the Liebherr LR 11000 included a 42-metre main mast with a derrick boom, a 260-tonne revolving platform ballast and a 320-tonne suspended ballast. "However, the latter was merely stacked after the heavy-lift components had been attached



For the "on-carriage" from the transshipment point to the power plant construction site, a self-propelled unit with 18 axle lines coupled in parallel and two power pack units with a total of around 1,000 hp drive power was used.



The LR 11000 with an operational weight of 1,000 tonnes and 450-tonne generator on the hook block.



To the video

by an auxiliary crane and served as a necessary counterweight." Thus, including the lifting gear, the crane had a total weight of more than 1,000 tonnes.

The main four components included a gas turbine weighing in at 457 tonnes, a generator at 450 tonnes, a transformer at 442 tonnes, and a 145-tonne steam turbine. "Due to the limited spatial geometry at the transshipping location, the crane could not swing sideways after taking up the load" says Pichl, explaining that an approximately 50-meter-long track made of bongossi wood had therefore been laid out for the crane. This ensured that the crawler crane could back up about 20 metres under load to make room in front for the SPMT — the load was then placed on that and secured for the ride to the power station construction site.

Moving on the SPMT

"The transport on the self-propelled unit to the power station construction site about two kilometres away took several hours and was done at night," reports Pichl, specifying that, "The SPMT was configured with 18 parallel-coupled axle lines and two power pack units. This meant that the weight was well distributed on the roadway. In addition, steel plates had also been laid out at critical points such as curbs. Furthermore, a specially designed and constructed bridge crossing system was used to cross a bridge with insufficient load-bearing capacity. In the middle of February, Felbermayr finished its part of the contract for transporting the heat surface modules weighing about 212 tonnes each.

The gas-fired power plant with heat and electrical cogeneration should be complete by the end of next year. It will cover the heating needs of 250,000 households and also generate environmentally friendly power.



The power plant components were unloaded by means of a lifting frame.

The total transport length of 65 metres made numerous traffic-steering measures necessary.



Heavy transport for energy storage

In mid-April, Bau-Trans transported two heat storage tanks from an industrial container manufacturer in Bavaria to a power station in Zurich. For this purpose, two lifting lever bridges were in use at the same time. Wimmer Maschinentransporte provided a 350-tonne mobile crane for loading the heavy lift cargo onto the transport sets.

The challenge of this special transport lay in planning the route reports Transport Manager Markus Meusburger. Employees at the transport and lifting technology company in Lauterach spent six months meticulously planning the most efficient transport route. At the start of April – once the preparations were complete – the lifting technology specialists at Wimmer Maschinentransporte arrived on the site of the industrial container manufacturer to begin loading the heat storage tanks

onto the two transporters with the help of a 350-tonne mobile crane. The cargo was then sufficiently secured for heavy haulage. With a length of 65 metres, a width of almost five metres and a total weight of around 220 tonnes, the cross-border journey of the heat storage tanks started in the Swabian district of Donau-Ries. The experienced staff of the Bau-Trans projects department also decided to use two lifting lever bridges. The use of this heavy transport equipment simplifies and enables the passage of roundabouts,

crash barriers or similar, as it allows the load to be lifted and thus guided over the obstacles.

Lifting lever bridge in action for heavy transport

The vehicle technology of the lifting lever bridge was a great help in ensuring successful and speedy delivery of the transport. Thanks to the lower transport height, it was possible to cover part of the route through Switzerland on the motorway, which accelerated the process significantly and had almost no impact on traffic and infrastructure. However, the access road in Zurich proved to be a final challenge; it was necessary to dismantle some sets of traffic lights, and remove numerous road signs, concrete posts, lane dividers and traffic signs along the last section of the route.

After five nights in transit, the entire convoy finally reached the Hagenholz waste-to-energy plant and the heat storage tanks could be lifted into place. Installation of the storage tanks was finalised in mid-April, in order to absorb the power peaks and conserve fossil fuel. The energy generated is now no longer continuously distributed in the Zurich area, but can be stored in the heat storage tanks during periods of low thermal loads.



Thanks to the lifting lever bridge, the load can be lifted and obstacles overcome.

Green light for special transport

In mid-February, the employees of Felbermayr's Lanzendorf subsidiary, near Vienna, mastered a rare task. A sycamore tree 22 metres tall and 12 metres wide had to be moved by special transport from downtown Vienna to a site about 350 metres away. Two mobile cranes and a low loader with a semi-tractor were deployed.

It was around 1940 when the 22-metre-tall sycamore first rooted in Vienna's eighth municipal district. Now, about 80 years later, it had to make way for construction of a subway station. The previous year, a tender was announced throughout Europe for transplanting the tree. Some declined on grounds of infeasibility, while others made offers that were too expensive for Viennese Lines, the city's public transport company. But after many interventions by nature lovers, the tree was to be rescued at the last minute and find a new location. Felbermayr's special transport department in Lanzendorf got the contract to transplant this 22-metre-tall sycamore. And because an evaluation showed the majestic 42-tonne tree to be in transplantable condition, Felbermayr deployed two imposing mobile cranes to the site.

Special transport and crane deployment in the wee hours

It took only about three weeks to prepare for this massive night-time deployment, which also required numerous permits. According to Thomas Daxelmüller, the biggest problem was the tree's height: "Transporting it horizontally would have been easy, but was out of the question because so many branches would have broken," explains Daxelmüller, who is also head of Felbermayr's crane department in Lanzendorf. This meant a concept had to be worked out for moving the sycamore the 350 metres to its new location with its head held high.

The tree was packed for transport by erecting a sheet pile wall crate around its root area. This was then attached to the crane pulley using textile loops and a lifting frame. "Together with the steel



construction, the tree reached a weight of 55 tonnes," Daxelmüller describes. If one adds the weight of the low loader and the tractor unit, the weight came to almost 86 tonnes. "In static terms, that came close to the road's permissible load tolerance," Daxelmüller says, pointing out the existing subway, which is only 1.4 metres under the road, and to the numerous underground lines under the

transport route and the crane location. Safety therefore called for live monitoring in the subway tunnel to document any changes that may occur.

At long last, everything went according to plan, and the 80-year-old sycamore reached its new home near the law court in Vienna's 1st district, before the morning traffic started.



Christoph Weiß

DI Wolfgang Zwicknagl

Hashem Rahsepar-Hashemi

CAREERS

Transfers and promotions at Felbermayr

Around 200 new employees started work at Felbermayr in recent months. Whether as a professional on the construction sites, a heavy-duty driver, a crane operator or a senior employee, we appreciate every single one of them and wish them much enjoyment and success in their work in the team of opportunities. We introduce new employees with cross-departmental functions below.



Christoph Macheiner

Since April, **Christoph Macheiner** has been responsible for the **fleet management of Felbermayr's Specialised Civil Engineering division**. His areas of responsibility in the MTA include everything to do with Felbermayr's machines, equipment and vehicles. For example, the father of two supports the specialist departments in the procurement of equipment or collects information for an inventory.

Safety first! True to this motto, **safety specialist Hashem Rahsepar-Hashemi** has been working at Felbermayr since April and deals with safety-related matters within the framework of employee protection regulations. In his day-to-day

work, the native Persian likes to motivate people to work safely – in his free time, he is very ambitious when it comes to sports. His dream is to complete the 'Ironman World Championship' as a triathlete in Hawaii.



Dieter Reuberger

Dieter Reuberger has already gathered almost a quarter of a century of experience in the sector of work platform and lift truck rental. Since February this year, he has been in charge of **work platform and lift truck leasing department in Lanzendorf**. You always learn something new – also about other topics and work areas. "That's what he likes about his work" says Reuberger, who finds a balance in his free time by playing tennis.

We are pleased to have **Bernhard Strasser** with 25 years of civil engineering experience in the team as **Division Manager for Civil Engineering Austria**. As such, he is responsible for road, road surfacing and earthworks as well as



Bernhard Strasser

demolition, sewer channel renovation as well as infrastructure and landscaping construction.

"**Facility management** is one of the most important, but also one of the most underestimated industries" says Felbermayr's new facility manager **Christoph Weiß**. Since August of last year, the man from Mühlviertel has been working in the background to ensure that everything – whether in the office buildings or production facilities – runs as it should. In his spare time, Weiß also likes to run the engine of his Harley-Davidson.

Tyroleean-born **Wolfgang Zwicknagl** has been responsible for optimising digital processes and managing the entire Felbermayr IT landscape as **IT Manager** since February. Zwicknagl and his team have made it their mission to put processes on a stable, secure and, preferably, digital basis. In his large garden in the district of Braunau, the amateur photographer and passionate diver likes to unwind with his two sons.



Mag. Dietmar Rosenberger

Dietmar Rosenberger succeeds Friedrich Rametsteiner as Commercial Business Manager at Felbermayr Bau as of 1st September.

After his studies, the business economist worked in banking and tax consulting as well as in industrial companies in a managerial capacity – most recently as a member of the management board of a major Austrian construction company. Rosenberger's goal is to continue Rametsteiner's successful path and to expand it further in order to

provide Felbermayr Bauwesen with the best possible economic support in the future. In his free time, the married 49-year-old keeps fit with sports and chess.

With effect from 14th July, Alexander Kücher replaced Harald Stutz, the Commercial Business Managing Director of the Felbermayr subsidiary IS Baubetrieb, who is going into part-time retirement. Kücher started his career at Felbermayr as a finance manager after working for several years as a controller for a large Austrian construction group. After completing his part-time doctoral

studies at the Institute for Controlling and Consulting at JKU-Linz in 2018, Kücher's area of responsibility was continuously expanded; so that he has now also been appointed Managing Director. In his private life, the 33-year-old enjoys sports, hiking and sharing his love of good food with his wife.



Dr. Alexander Kücher, LL.B.

RETIREMENTS

Entering a well-earned retirement

Many thanks and recognition due to each of our colleagues who will shortly be retiring.

Arthur Adelff – Crane/Wels · **Dieter Bogacz** – Civil Engineering/Hydraulic Engineering/Hagn Umwelttechnik/Hengersberg · **Raimund Brecher** – FST/Stams · **Siegfried Dojak** – Platforms/Linz · **Uwe Eifrig** – Installation/Wimmer Maschinentransporte/Sulzemoos · **Max Ertl** – Civil Engineering/Hydraulic Engineering/Hagn Umwelttechnik/Hengersberg · **Lothar Fleischer** – Divisional Management/Lausitz · **Falk Franke** – Civil Engineering/Hydraulic Engineering/Hagn Umwelttechnik/Hengersberg ·

Reinhard Gimuweit – Transport/Wimmer Maschinentransporte/Sulzemoos · **Adam Gombar** – Transport/Bau-Trans/Lauterach · **Johann Gössler** – Crane/Graz · **Gabriele Guttman** – Glazier/IS Baubetrieb/Linz · **Hans-Peter Hassler** – Port Operations/Haeger & Schmidt/Duisburg · **Peter Hansen** – Port Operations/Haeger & Schmidt/Duisburg · **Anton Haritzer** – FST/Salzburg · **Manfred Hintermeier** – Crane/Lanzendorf · **Karl Inreiter** – Carpentry/IS Baubetrieb/Linz · **Stipo Ivanovic** – MTA/Wels · **Nedyalko Ivanov Ivanov** – Crane/Felbermayr Haskovo · **Romy Jarmer** – Insurance/Haeger & Schmidt/Duisburg · **Manfred Kastner** – Workshop/Wels · **Gerd Kissner** – Civil Engineering/Hydraulic Engineering/Hagn Umwelttechnik/Hengersberg · **Manfred Kranz** – Administration/Haeger & Schmidt/Duisburg · **Petar Manolov**

Kisyov – Crane/Felbermayr Haskovo · **Eduard Kopáčík** – Crane/Bratislava · **Evelyne Langer** – Civil Engineering/Hydraulic Engineering/Hagn Umwelttechnik/Hengersberg · **Heinz-Joachim Langer** – Civil Engineering/Hydraulic Engineering/Hagn Umwelttechnik/Hengersberg · **Gerald Mittendorfer** – HIK/Wels · **Reinhold Puttinger** – Piece Goods/Wels · **Josef Raab** – HIK/Wels · **Herbert Rammel** – Transport/Linz · **Sándor Lukács** – Transport/Bau-Trans Ungarn · **Winfried Saring** – Crane/Kamenitz · **Johann Schmidt** – MTA/Wels · **Thorsten Schubert** – Crane/Dresden · **Hermann Steinbichler** – Heavy Transport/Wels · **Hartmut Tobias** – Crane/Bautzen · **Peter Wesselak** – Civil Engineering/Hydraulic Engineering/Hagn Umwelttechnik/Hengersberg · **Dieter Wulf** – Installation/Wimmer Maschinentransporte/Krefeld

READ AND WIN

15 non-cash prizes await you

Please send in the right answer with your postal address to us by email at informer@felbermayr.cc. The deadline for entry is 31st October 2021. All decisions are final and not subject to legal appeal.

Prize question:

How many months passed from the ground-breaking ceremony to the completion of the new Felbermayr company headquarters?

1. prizes:

An MK140 mobile construction crane scale 1: 50.



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