

K»MOBIL

THE KIRCHHOFF GROUP MAGAZINE



Dr Johannes F. Kirchhoff, CEO of KIRCHHOFF Ecotec AG: "IFAT 2024 was an absolute highlight. I am very impressed by the large number of technologies and innovations that were presented here. With our two brands FAUN and ZOELLER, we impressed with innovative, sustainable products." [Read more on page 064](#)



Content



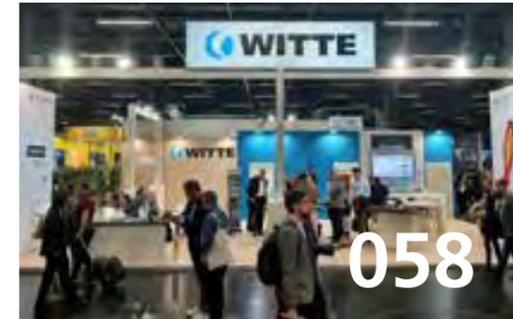
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004 Editorial

SUSTAINABILITY

- 010 Virtually emission-free
- 012 Awarded silver
- 014 Hot forming as the key to more sustainable automotive production
- 018 City of Zurich: Well calculated

020 He runs and runs and runs...

022 GO GREEN.THE BLUE WAY.

DIGITIZATION

024 The red card for wrong waste

FOCUS ON EMPLOYEES

- 027 Lifelong Learning...
- 030 It's never too late
- 034 Shared experience, shared participation

KIRCHHOFF AUTOMOTIVE

- 040 New Products on the Road
- 046 Excellent
- 050 Continued upswing
- 052 Supplier of the Year
- 054 Heavy Metal...

KIRCHHOFF MOBILITY

056 „I can only enjoy my mobile freedom thanks to the conversion“

WITTE TOOLS

058 Growth markets expanded and potential key accounts met

KIRCHHOFF ECOTEC

- 062 Best Managed Company!
- 064 Welcome to Home of Originals
- 070 Pretty big, the new MINI
- 072 More than just a gadget
- 074 Rethinking processes
- 076 Empire State of Mind
- 078 Bremen Bound: Hydrogen the future of transport
- 080 Mission accomplished: the new ENGINIUS BLUEPOWER is on the road
- 082 It's not just the brooms that turn
- 084 The best of both worlds
- 086 Välkommen till
- 088 ZOELLER TECH is worth a trip
- 090 ZOELLER also in pole position visuallyn
- 092 Good prospects: expansion of the portfolio





Confidence, especially now!

Dear customers and friends
of our group of companies,
dear employees,

We have been in crisis mode since coronavirus. Looking into the near future, it seems to be becoming a permanent state. There are wars again with a noticeable impact on our society, be it in Ukraine or the Middle East. Economic tensions between the USA, China and Europe are increasing rather than decreasing. And in order to stop climate change, changes are needed that will affect the economy and all citizens, some of whom are worried. All these uncertainties are dampening the mood in society, even though a spirit of optimism and confidence are needed to overcome the challenges. »

Germany and Europe need better economic framework conditions

Solutions are certainly on the horizon. Europe must emancipate itself not only in terms of security policy, but also economically. We must not allow ourselves to be torn between the USA and China, nor must we give in to the threat posed by Russia. We must get used to the fact that the governments of these countries, regardless of their political leadership, think and act first and foremost in their own interests, for the benefit of their own country. That is why Europe, and Germany in particular, must finally improve its own economic framework conditions again, so that companies based in Germany can not only remain here and be successful on the global market from Germany. We must also succeed once again in attracting investment and qualified workers from abroad to our country. Direct investment from abroad has been falling year on year since 2020. Inflows have not been as low as last year since 2014. To change this, we in the European Union must remain a country that is open to the world and offers companies and workers from all over the world a home. And that means a clear rejection of populist parties such as the AfD, whose aspirations for Germany to leave the EU would mean a significant loss of prosperity

and the loss of around half a million jobs for North Rhine-Westphalia alone. Anyone who thinks that the AfD can solve today's complex problems with a few populist proposals is very much mistaken. In this super election year, we are clearly backing the democratic parties and warning against the populists in particular.

In view of the prevailing labor shortage and the large number of unfilled vacancies, demands for ever shorter working weeks and shorter working lives are completely incomprehensible. In order to enforce this, the whole of Germany was paralyzed by strikes in the spring, at great cost to the companies. Unfortunately, the main topic of public debate was whether these strikes were appropriate. The demands for further reductions in working hours are going in the completely wrong direction if we want to secure economic strength and prosperity in this country in the long term.



Set for e-mobility

An important framework condition for the automotive industry is not only to have a clear roadmap for how we want to make mobility in our country CO₂-neutral, but also to stick to it. We are already building attractive e-vehicles and this year we will be adding more and cheaper ones. It should be noted that German manufacturers are gaining market share, at least in Europe. However, this will only continue if users are relieved of their range anxiety. In Germany, and even more so in most other European countries, we are a long way from actually being able to put the planned and necessary charging stations for e-cars into operation.

Nevertheless, it would be completely wrong to fundamentally question the switch to e-mobility. The industry has long since prepared for this and now needs planning certainty. And we cannot afford any more uncertainty, such as the overnight cancellation of the purchase premium at the beginning of the year. It has led to a dramatic drop in sales figures for purely electric vehicles, at least temporarily. The result is volatile parts call-offs from our customers, to which our plants have to constantly readjust. This makes production planning a particular challenge in day-to-day operations. »



On the way to climate-neutral production

We were particularly pleased to receive the EcoVadis silver medal in the spring. EcoVadis is the global standard for the sustainability assessment of companies. The EcoVadis assessment evaluates 21 sustainability criteria in four core areas: environment, labor and human rights, ethics and sustainable procurement. More than 85,000 companies worldwide have been assessed with EcoVadis. KIRCHHOFF Automotive achieved 65 out of 100 points in this ranking, putting it in the top 14 percent worldwide. Of course, our company still has a long way to go to achieve climate-neutral production, especially when you consider that 90 percent of our CO₂ footprint is attributable to the steel and aluminum materials we use. This is where we have the greatest leverage for greater sustainability.

This is why we have entered into partnerships with the largest European steel producers to develop CO₂-free or CO₂-reduced steel. We support and cooperate with companies such as ArcelorMittal, Thyssenkrupp Steel Europe, SSAB and H2 Green to validate the new steel grades and thus bring car body parts to series production. At the same time, we are securing this coveted material for ourselves and our customers, without which there will be no CO₂-neutral cars in the future. Thanks to this cooperation, series production of a safety-relevant component made from „green“ steel is already planned for a major premium manufacturer this year.

In focus: combining sustainability and safety

The importance we attach to combining sustainability and safety is impressively demonstrated by our pre-development work. As an expert in safety in car body construction, we initially presented a steel crash management system (CMS) for newly developed electric vehicles at recent trade fairs, which fully meets the requirements of the pole test. The central pole test for vehicle bodies is carried out in the middle of the front of the vehicle. It poses a particular challenge to the structural integrity of CMS systems, as it is carried out at higher speeds of between 50 and 60 km/h (depending on the vehicle manufacturer). In our steel concept, a comparatively heavy bumper absorbs the crash energy. By further developing this component in aluminum, we have already achieved a weight reduction of 20 percent while maintaining the same performance, thus helping to reduce energy consumption during driving. Our R&D department is currently working on a variant with press-hardened steels, which will enable further weight and cost savings. This example should make it clear to you that we are not only aware of the major challenges that lie ahead of us, but that we face them every day with great commitment and all our experience and creativity.

Dear customers and friends of our company, dear employees, in this issue of K>MOBIL you will find further exciting articles on our activities relating to the important topic of sustainability on the following pages. Thank you for your commitment and flexibility, which are particularly in demand in these times. And above all: stay confident.

We wish you a wonderful summertime with a hearty "Glück Auf"!

Yours

J. Wolfgang Kirchhoff



Virtually emission-free

KIRCHHOFF Automotive has signed a 7-year contract with the Swedish company H2 Green Steel for the supply of near-zero emission steel. With this collaboration, KIRCHHOFF Automotive is taking further steps to decarbonize its supply chain and achieve its sustainability goals. The contract agreement has a volume of 130 million euros.

**AUTHOR: EVA RADEMACHER
COMMUNICATION & MARKETING SPECIALIST KIRCHHOFF AUTOMOTIVE**

KIRCHHOFF Automotive is working very ambitiously on the sustainability of the company and its supply chain, in which steel is the main product component and accounts for 50 percent of material purchases. 90 percent of the CO₂-footprint is currently determined by the use of conventionally produced steel and aluminum. Based on orders from international car manufacturers for future vehicle generations, KIRCHHOFF Automotive assumes that the demand for safe and sustainable body components will rise sharply in the coming years.

The agreement that has now been concluded provides for green steel from the H2 Green Steel plant in Boden/Sweden to be supplied to KIRCHHOFF Automotive plants throughout Europe from 2027. As early as 2022, KIRCHHOFF Automotive began to determine the location of greenhouse gas emissions in its supply chain (Scope 3), both upstream at suppliers and downstream at customers.

The overarching goal is to establish a high level of sustainability in the supply chains of the automotive industry, which is also reflected in the fact that KIRCHHOFF Automotive is one of the founding members of the „Responsible Supply Chain Initiative RSCI e. V.“ association.

„Suppliers to the automotive industry must align themselves with the ambitious plans set out by progressive car manufacturers. But we also have a group of companies that are ahead of the others because they follow their own compass. KIRCHHOFF Automotive is one such company. They combine their impressive heritage with a strong focus on the future, where sustainable products are both a competitive advantage and important for the climate and sustainability goals,“ says Stephan Flapper, Head of Commercial, H2 Green Steel.

H2 Green Steel is committed to complying with Scope 1, Scope 2 and upstream Scope 3 requirements as defined in the Greenhouse Gas Protocol. The company has committed to a gross carbon emissions intensity per ton of steel in its customer contracts. The ongoing work to reduce emissions will have an impact on KIRCHHOFF Automotive's material supply chain and its upstream Scope 3 emissions.

The two companies will also collaborate on a circular economy initiative with the aim of returning at least 30 percent of steel scrap to H2 Green Steel's electric arc furnaces in Boden for recycling. ■



Looking forward to future collaboration: Vilhelm Mann (Senior Legal Counsel H2 Green Steel), Stephan Flapper (Head of Commercial H2 Green Steel), Michael Rank (Global EVP Procurement KIRCHHOFF Automotive), Lina Håkansson (Chief Sustainability & Corporate Affairs Officer H2 Green Steel) and Henrik Henriksson (CEO H2 Green Steel).



KIRCHHOFF Automotive and the Swedish company H2 Green Steel have signed a 7-year contract for the supply of virtually emission-free steel. Michael Rank, Global EVP Procurement KIRCHHOFF Automotive, left, and Henrik Henriksson (CEO H2 Green Steel), after signing the contract.

H2 Green Steel produces green steel at its plant in Boden, Sweden, using hydrogen produced with fossil-free electricity. This enables the company to reduce CO₂ emissions by up to 95 per cent compared to conventional steel production.

EcoVadis Rating has validated KIRCHHOFF Automotive's commitment and performance in the area of sustainability. In the category „Manufacture of parts and accessories for motor vehicles“, we are among the 5 percent of the best rated companies.



Awarded

silver

KIRCHHOFF Automotive has been awarded a silver medal for its commitment to sustainability by one of the world's largest providers of sustainability ratings, EcoVadis. The company is among the top five percent in the „Manufacture of parts and accessories for motor vehicles“ sector and among the top 14 percent worldwide out of a total of 85,000 companies assessed.

AUTHORS:

ANNA SZKLARZ, GLOBAL DIRECTOR CSR & SUSTAINABILITY KIRCHHOFF AUTOMOTIVE

EVA RADEMACHER, COMMUNICATION & MARKETING SPECIALIST KIRCHHOFF AUTOMOTIVE

As a traditional family business, the sustainability of KIRCHHOFF Automotive's business activities has always been one of its core values, particularly with regard to future generations. Sustainable management is also a strategic success factor. Under the coordination of Peter Schmidt (VP Corporate Accounting and Reporting), sustainability initiatives are implemented throughout the KIRCHHOFF Group.

„This independent assessment confirms our conviction that we are on the right path to sustainability. It is not only proof of our commitment to environmental and social issues, but also confirmation that our efforts are recognized by experts. However, the EcoVadis silver medal is not only a success, but also an incentive to further improve our sustainability practices,“ says Anna Szklarz, Global Director CSR & Sustainability.

KIRCHHOFF Automotive has already implemented numerous projects and activities relating to sustainability. In the sustainability assessment, the topics of environment and corporate ethics scored best. However, the initiatives in the „Sustainable Procurement“ category, and in particular the introduction of the KIRCHHOFF Automotive guideline for sustainable procurement and supply chains and the code of conduct for suppliers, had a particularly positive impact.

„Sustainability and environmental protection have always been deeply rooted in the values of KIRCHHOFF Automotive. But now we need to step up our activities. This is our responsibility for future generations, and as a family business we understand this very well,“ says J. Wolfgang Kirchhoff, Chairman of the Board and CEO of KIRCHHOFF Automotive.

KIRCHHOFF Automotive takes every important social challenge very seriously. Its „Vision and values“ book and the Code of Conduct set out how it deals with important ethical, social, environmental and corporate policy aspects. By prioritizing aspects such as diversity, inclusion, employee well-being, the environment or corporate governance, the company creates a „safe space“ for employees. Employees should feel comfortable at work.

EcoVadis is one of the world's largest providers of sustainability ratings for companies. The ratings show how well a company has integrated the principles of sustainability/corporate social responsibility into its business and management system. The EcoVadis assessment comprises 21 sustainability criteria in the four main issues of environment, labour & human rights, ethics and sustainable procurement. (Source: EcoVadis)

„We have always emphasized that honesty and open communication are important values in our company, which is why we have our own guidelines and communication channels for whistleblowing. Our employees, but also external partners, have the opportunity to report any kind of concern at any time,“ says Anna Szklarz. ■



Scan the QR code and watch a video about sustainability at KIRCHHOFF Automotive.

Hot forming

as the key to

more sustainable

automotive production

AUTHORS: PROF. CHRISTOPH WAGENER
VICE PRESIDENT RESEARCH & PRODUCT DEVELOPMENT KIRCHHOFF AUTOMOTIVE
MARKUS LOECKER
TECHNOLOGY DEVELOPMENT SPECIALIST KIRCHHOFF AUTOMOTIVE

KIRCHHOFF Automotive shows that the use of hot forming does not increase the CO₂ footprint of a component, but reduces it.

The CO₂ footprint is a key issue in the automotive industry today. While hot forming has sometimes been seen as a CO₂ driver due to its energy consumption, a new study proves the opposite. Research by KIRCHHOFF Automotive, the specialist for safety-relevant body parts, and the steel producer thyssenkrupp Steel shows that innovative manufacturing processes such as hot forming can even play a decisive role in reducing emissions. Markus Loecker, Technology Development Specialist at KIRCHHOFF Automotive, provides valuable insights into the advantages of hot forming.

„This process makes it possible to work with thinner materials, which leads directly to a reduction in the overall weight of the vehicle. This weight saving plays a role in reducing CO₂ emissions when driving a vehicle with a combustion engine and also in reducing the energy requirements of an electrically powered vehicle,“ explains Markus Loecker. However, the reduction in material compared to the use of cold-formed steels is of the greatest importance. This is because the greatest influence on the CO₂ balance of a component lies in the amount of material used. While the processing technology itself causes emissions by heating the steel, reducing the amount of material used is an effective way of lowering the carbon footprint. „Hot forming allows us to achieve more with less material. This is particularly important as the automotive industry is constantly looking for ways to minimize its environmental impact,“ adds Markus Loecker.

For example, KIRCHHOFF Automotive uses hot forming for the production of safety-relevant body parts such as crash management systems and A and B pillars in order to use thinner material while maintaining or even improving performance. This technology enables the production of very high-strength and resistant steel parts that perform particularly effectively in crash situations and thus make a decisive contribution to the passive safety of vehicles.

The RCAR bumper test is one of the relevant tests for the design of crash management systems. **Figures 1 and 2 show the influence of the material quality on the wall thickness.** A material thickness of 2.1 mm is required for **the cross member made of press-hardened material** MB-W 1500. The mass of the cross member is therefore 4.716 kg. A material thickness of 2.7 mm is required to achieve the same performance with a **cross member made of cold-formable steel** grade HR700Y950T-CP. This variant therefore has a 32 percent higher mass with the same geometry. Hot forming thus leads to greater safety and at the same time to a reduction in CO₂ emissions, thereby also supporting the sustainability efforts of KIRCHHOFF Automotive.

Markus Loecker is convinced of the importance of hot forming for the future of the automotive industry: „Contrary to what you might think at first glance, hot forming is a key element for sustainable automotive engineering. It helps us to reduce our environmental impact by using and processing materials more intelligently.“ ■

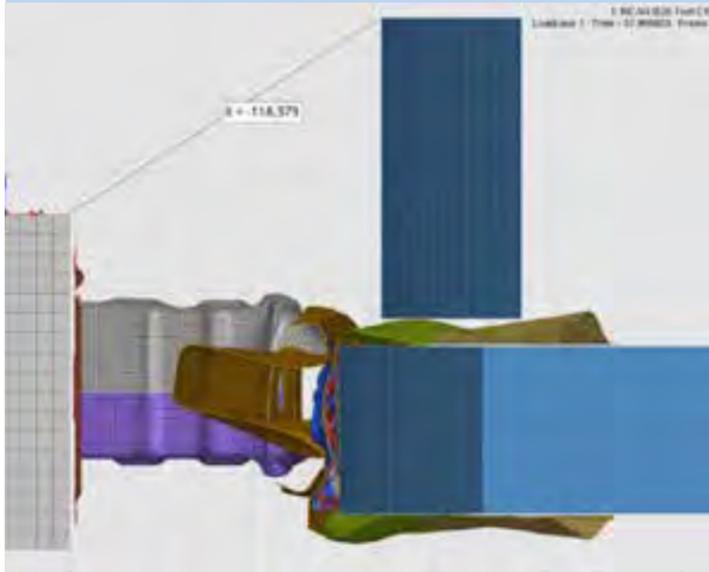


Figure 1: Press-hardened cross member with 2.1 mm material thickness

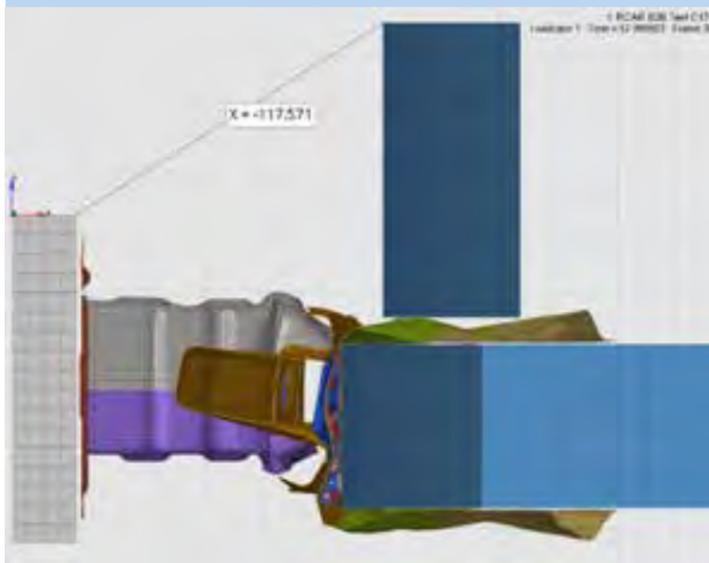
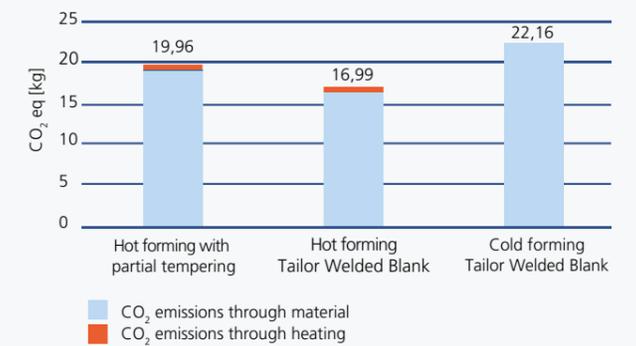
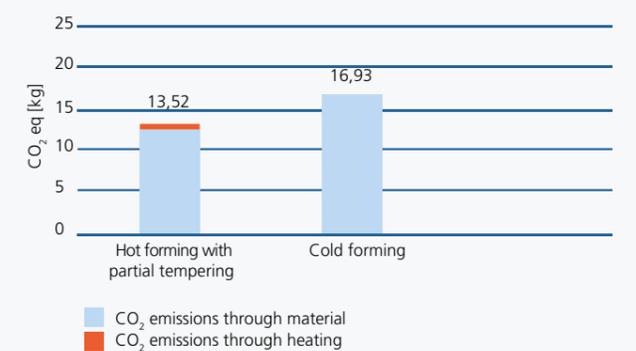


Figure 2: Cold-formed cross member with a material thickness of 2.7 mm

CO₂ emissions B-pillar when using green electricity



CO₂ emissions bumper shell when using green electricity



Conclusion CO₂ analysis:

B-pillar: The cold forming process chain emits 30 per cent more CO₂ than hot forming.

Bumper shell: The cold forming process chain emits 26 per cent more CO₂ than hot forming. The higher use of materials is the main driver of CO₂ emissions.

Conclusion weight saving::

B-pillar: A weight saving of 3 per cent is possible through hot forming.

Bumper shell: A weight reduction of 32 per cent is possible thanks to hot forming, which requires less material.

An **RCAR bumper** is used to carry out low-speed crashtests at impact speeds of up to 10 km/h and simulates vehicle damage to the front and rear. Bumpers are often the first part of the vehicle to absorb the impact in the event of a collision.

City of Zurich: Well calculated

Switzerland is taking part in the EU's Green Deal: zero greenhouse gas emissions by 2050. In Zurich, the country's largest fleet of electric refuse collection vehicles will soon be ensuring the best possible circular economy. And that pays off twice over.

AUTHOR: SABINE KÄMPER, EDITORIAL OFFICE ZOELLER GROUP



Less noise,
less vibration,
less odour

That means more comfort at work for Marco Gattiker, Ramiz Ismajli and all their colleagues. Here with the Stummer Medium XL V19b on Designwerk LowCab 450.

Lift me up, baby!

The underfloor crane lifts containers and environmental protection to another level.



„This is unique in Switzerland,“ says Urs Zahner. „It's never happened before!“ According to the fleet manager at Entsorgung + Recycling Zürich (ERZ), ordering 26 vehicles in one go is already exceptional in itself. But the city of Zurich is also focussing exclusively on electromobility. The vehicles will be delivered by Contena-Ochsner in three „batches“, and after the second one in 2025, Zurich will already have the largest municipal e-fleet - at least in Switzerland. And by 2027, a total of 37 electrically powered refuse collection vehicles will be on the road.

Admittedly, this is not entirely voluntary. Zurich wants to be climate-neutral by 2040. „Net zero by 2035“ is therefore the target for the city administration.

ERZ put the first vehicle into operation in 2020 - to test it and gain experience, as Urs Zahner explains. And as is often the case with a marriage of convenience: it can turn into love. „The vehicles are much more comfortable,“ says Zahner. „Less noise, including the cockpit, and the operating personnel is exposed to fewer vibrations as well as to significantly less polluted air, with the ‚Clean Option 2.0‘.“ There are now already eight Medium XL and Medium XL-S on DW LowEntry chassis, based on an eEconic Glider, on the road as refuse collection vehicles for rubbish, paper and cardboard, as well as two Medium as underfloor vehicles with a crane for container collection.

Zurich has many narrow streets, tight bends, inclines or roads that have been narrowed to calm traffic. From next year, collection here will be even more convenient with „the manoeuvrable“ X4. With

Agile, lively, efficient

its compact design and very short wheelbase, it is ideal for urban terrain and also complies with noise regulations.

„It was also important that the battery capacity was sufficient for normal trips and did not need to be recharged during the day,“ explains Fleet Manager Zahner. ERZ obtains the electricity from the city's own recycling plant. The Hagenholz waste-to-energy plant converts up to 700 tonnes of combustible waste into CO₂-neutral heat and green electricity every day.

Economic electricity instead of diesel and low maintenance costs - that makes the e-fleet attractive. Even with a purchase price that is about three times the cost of a diesel vehicle.

In addition, there is no LSVA (lastabhängige Schwerverkehrsabgabe), the load-dependent heavy goods vehicle charge. For a three-axle truck with 26 tonnes, this amounts to 30,000 euros per year for a Euro 6 standard, and as much as 70,000 euros for a Euro 4 standard. Everything adds up: „After seven to eight years, the break-even point is reached,“ says Zahner. That is the net zero of the vehicles, so to speak. ■

AUTHOR: CLAUDIA SCHAUE, COMMUNICATION & MARKETING MANAGER FAUN



He runs and runs and runs...

...clean and quiet

Circular economy and sustainability are an integral part of a modern corporate culture. How ecological and economic responsibility is ultimately implemented in practice depends on the business in question. At FAUN, we like to take unusual paths and think holistically. Even when it comes to sustainability.

That is why we also want to make our contribution to the traffic turnaround in After Sales Service. That's why our customer service technicians are on the road to customers in environmentally friendly ID BUZZs. There are now 14 locally emission-free buses cruising through Germany.

The highlight: sustainability bonus

While the fitters are working on the refuse collection vehicle or sweeper, the ID BUZZ can be charged and the customer receives a flat-rate sustainability bonus of €50.00. All we need is a 16 amp socket. Work, charge, get in and drive on, with no charging breaks along the way. The customers think it's a great idea and the fitters are also delighted with their electric companion. The range can be extended, but the driving experience makes up for it. ■



AUTHOR: CLAUDIA SCHAUÉ
COMMUNICATON AND MARKETING MANAGER FAUN

GO GREEN. THE BLUE WAY.

With emotion to lower emissions: our path to a climate-neutral trade fair presence



FAUN has been honoured as a GoGreen pioneer. Mark Speckenbach (Graphics & Design FAUN) and Claudia Schaué (right, Marketing & Communications Manager FAUN) receive the certificate from Janina Nowack (2nd from right, Exhibition Manager IFAT Munich) together with Gabi Vorsatz (Owner Messecatering Munich).

Designing a 1,500 m² exhibition booth outdoor, with a 400 m² tent and 20 vehicles in a climate-neutral way? Yes we can. We have also set ourselves the goal for IFAT 2024: **our trade fair presence should be climate-neutral.**



CATERING

Our standards for catering:
Reusable. Plastic-free. Regional.

Here we pay attention to regional and seasonal products, if possible in organic quality and completely dispense with disposable tableware. Our cutlery napkin is 100% bio-based, with binders made from food industry waste, such as lemon peel and corn, and contains no fossil components.

TRAPPINGS

We do not use printed brochures. Transport crates made from pallets and frames become planters during the trade fair. The untreated wood chips are cleaned and reused.

The remaining emissions that cannot be avoided are calculated precisely and offset through the purchase of recognized climate protection certificates. This finances high-quality climate protection projects which, in addition to reducing greenhouse gases, demonstrably make a positive contribution to sustainable development locally and regionally. ■

A climate-neutral exhibition stand. This means rethinking familiar processes and breaking new ground. This can sometimes be inconvenient and cost additional time and money. But in the end, we are proud of what we have achieved. We were awarded the GoGreen Pioneer certificate by Messe München for our approach to a climate-neutral trade fair presence. This makes us one of the 12 IFAT exhibitors to have received this certificate.

HOW TO

We have taken every component and tried to make it more sustainable.

CONSTRUCTION

Avoidance. Reduction. Compensation.

For example, we avoid materials and special constructions that are only used once. We work exclusively with regional partners who are just as committed to sustainability as we are. Non-recyclable materials and other materials of natural origin are recycled in the stand builder's own pellet heating system.

100 % climate neutral.

100 % FAUN.

Find out more:



The red card for wrong waste

AUTHOR: SABINE KÄMPER
EDITORIAL OFFICE ZOELLER GROUP



RegioEntsorgung in Eschweiler is using DeepScan technology, combined with an extensive educational campaign, to implement the amendment to the Organic Waste Ordinance as effectively as possible. The result: lower costs and better compost quality.

Residents in Alsdorf and Herzogenrath may have been a little taken aback at first when green information tags appeared on their organic waste bins for the first time. They contained a factual explanation of what belongs in organic waste and what does not. These green tags were attached to every bin for two collections. After that, bins with problematic contents were marked „yellow“. If the sorting behaviour had not changed after the next two collections, a „red card“ was issued and the bin was left standing. It could either be re-sorted or registered for special emptying for a fee.

„We deliver the organic waste to a fermentation plant,“ explains Stephanie Pfeifer, Director of RegioEntsorgung. „In 2022, the operator began evaluating and categorising the waste delivered in order to prepare for the new Organic Waste Ordinance. If organic waste with too many foreign substances is delivered, it must be disposed of elsewhere for a fee. Unfortunately, we discovered in 2023 that 70 per cent of our deliveries were only of medium to poor quality and were therefore priced higher by the fermentation plant. It was obvious that we had to do something.“

Only organic waste in the bin

After trialling two different detection systems, the DeepScan technology from SCANTEC was chosen - accompanied by an extensive information campaign. 17 towns and municipalities from rural to urban belong to the association's area. The campaign initially focussed on urban areas with a high level of pollution. „We noticed that the quality of the organic waste has improved. Before using DeepScan, for example, the degree of contamination in one district was 2.9 - on a scale of 1 - 5. After the test phase with its five collections, the value was 2.1,“ explains Pfeifer's fellow board member Heinz Heinen.

Data security and environmental protection

The area has around 360,000 inhabitants. „Surprisingly, there is little feedback from the residents,“ says Stephanie Pfeifer. „There are a few residents who feel controlled and scrutinised, while others see environmental protection and added value in using the technology.“

Initially, RegioEntsorgung has ordered two more DeepScans. Five would be needed to cover the entire area. In addition, the containers, which are already chip-tagged, could be linked to data records in the system - so that reminder emails can be sent, for example. But that, says Stephanie Pfeifer, is still a long way off. ■

Technology of the future: waste goes AI

DeepScan utilises electromagnetic detection that responds to electrically conductive material within the entire container. It enables individual settings and correlation analyses between scanned material and contaminants. Emptying can then be stopped if the analysis is negative. Integration is possible with most lifting devices from companies of the KIRCHHOFF Ecotec Group and third-party suppliers. DeepScan can be installed ex works or retrofitted.

SmartScan is generally used on real-end Lader and analyses the waste composition on the basis of optical digital data. The scanning process begins after the waste has been loaded and records the waste composition in the hopper.

The images captured by the scanner are classified with the help of AI so that a precise statement can be made about the composition of the contents of each individual waste container. The system is not only used for biodegradable waste, but also for residual waste, paper and recyclables.





ONE OF US

Stephanie Wells is a passionate engineer and an inspiration to other women to enter the profession. She started as an apprentice toolmaker 22 years ago and is now a respected leader in the Corporate Manufacturing Engineering Tooling Team in Aurora/Canada. She owes this success to hard work and her talent. But also to her work environment, which has supported her at every step of her career and encouraged her professional development. **She advises women who want to enter the engineering field: „Let your passion guide you, stay steadfast at the beginning of your career and don't get discouraged.** Engineering and toolmaking offer exciting tasks and so many opportunities to implement your own ideas and drive innovation. If you follow this path, you will have a rewarding career.“

Lifelong Learning...



... characterizes many of our employees. Their many years of experience and their unique knowledge are the key to the continuous optimization of our processes and the successful development of our divisions. »



01

Many employees not only take part in professional development programs, but also attach great importance to further development. Employees from the various divisions have shared their personal impressions with us:

Nikodem Borowski, a graduate of the tool-making school at the KIRCHHOFF Automotive site in Mielec/Poland, reports: "The practical relevance is the greatest added value, the key to success. The program is tailor-made for our company. The most important thing is that after the training you have the certainty of being able to apply what you have learned in practice."

"I often heard about this program of the tool-making school and really wanted to be selected for it," says **Dulce Navarro Rosario García from Mexico(01)**. "Now I am very grateful to be able to take part and hope that I can be a role model for the women of the next generations."

Łukasz Duszlak works as an FEA representative at the KIRCHHOFF Automotive plant in Mielec/Poland (02). For him, sport is his greatest passion, which inspires and drives him. "I've enjoyed cycling and swimming for as long as I can remember. I have been training for amateur triathlon competitions for four years now. I measure my progress and set myself new goals. Regular sport gives me a lot of satisfaction and helps me to stay fit at work and at home."

Péter Miklovicz, shift supervisor at the KIRCHHOFF Automotive press shop in Esztergom/Hungary (03), says: "I wanted to develop my leadership skills and broaden my horizons. Together with my supervisor, we developed many skills during the Leadership Development Program that I need for my position, such as conflict management and communication with team members."

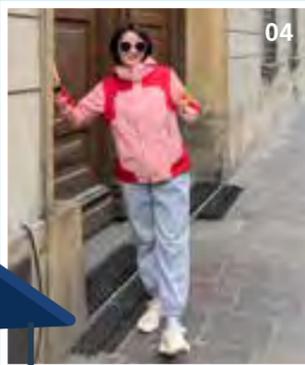
Zoe Wang, Inside Sales Specialist at KIRCHHOFF Automotive Suzhou/China (04), has been spending an hour a day reading and 30 minutes a day learning English since 2022. "After 500 days of learning English, my spoken English has improved a lot, and in the future I will choose more suitable means and methods to motivate myself to continue. I believe that you have to keep learning for a lifetime."



02



03



04

Julian Reinbott from Zöller-Kipper is now head of the Mainz workshop (05). He first completed his master's degree in precision mechanics at night school and then went on to study business administration. The knowledge he acquired in the process also helps him in his new position with staff motivation, team building and conflict discussions with customers. "And personally," he says with a laugh, "I now also understand my tax return much better." **Julian's deputy, Lukas Brodhäcker (06),** also goes to school after work with the support of his employer: he is currently completing his master car mechanic's certificate.

Irina Riffel, Head of Human Resources at Zöller-Kipper (07), knows first-hand how effective further training can be. In her spare time, she trained as a systemic coaching and change manager, which was sponsored by Zöller-Kipper. "This further training complements my degree in business psychology very well." Colleagues benefit from this in their day-to-day work, especially in difficult situations. According to Irina Riffel, she also uses the knowledge to advise on the implementation of innovative change processes.

Norbert Eiteljorg, IT administrator at KIRCHHOFF Mobility (08) has been a passionate photographer for 40 years, and not just in his spare time. He has gone through the analog times of slide and black-and-white photography right up to today's digital photography and has acquired a great deal of specialist knowledge. "I'm happy to pass on my knowledge," he says. "From time to time, I support my colleagues at photo shoots for vehicle conversions or vehicle handovers. I'm particularly pleased that my pictures are on display at our head office in Hilden." ■



05



06



07



08



It's never too late

AUTHOR: DANIELA VOLLMER-NAGEL
HR MANAGER KIRCHHOFF AUTOMOTIVE

In view of digitalization and demographic change, the qualification of employees is becoming increasingly important. A project run by the Federal Employment Agency in Iserlohn/Germany offers low-qualified employees the opportunity to acquire a vocational qualification retrospectively. Six colleagues from KIRCHHOFF Automotive are taking part - two of them are even promoting it in a short film. ▶

Final check: everything in the box for the promotional film for the qualification project.

Ergün Ayhan explains why he is taking part in the support program and what concerns he had before starting his training as a machine and plant operator.



“Added value through qualification”

is the motto of the project “Me” to promote employment. It is aimed at low-skilled employees who have not completed vocational training and would like to acquire a vocational qualification at a later date.

Six KIRCHHOFF Automotive employees from the logistics, processing and forming departments have decided to acquire a vocational qualification at a later date. Two of them have started training as warehouse specialists and four have opted to train as machine and plant operators. Two thirds of the training is completed during the regular training period. The employees receive the individually calculated average salary of the last twelve months as their training allowance. This enables them to maintain their standard of living, which was an important factor in their decision to take part in the project. The Federal Employment Agency in Iserlohn finances the program and promotes further training for employees regardless of their education, age or company size.

From forklift truck driver to “actor”

Plant logistics specialist Ergün Ayhan and forklift driver Muhammed Albayrak are not just participants in the training project. They also star in a short film that promotes the project in the region. The film was shot at the KIRCHHOFF Automotive plant in Iserlohn/Germany. Exterior shots, scenes in the warehouse, in the training workshop and in the press shop as well as several interviews were on the shooting schedule.

For the first video shot, forklift driver Muhammed Albayrak scans consignment notes and moves racks. He has started training as a warehouse logistics specialist. Ergün Ayhan, who is training as a machine and plant operator, removes finished parts from a press after forming. Interviews follow. Ergün Ayhan and Muhammed Albayrak explain why they are taking part in the support program and what concerns they had.

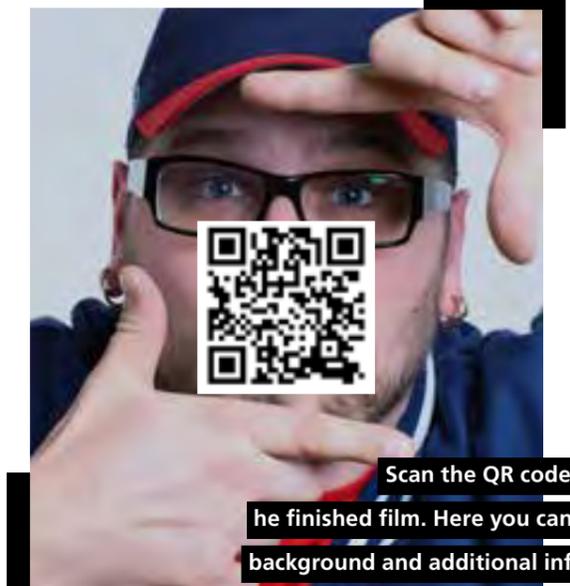
Daniela Vollmer-Nagel, Head of Human Resources and Social Affairs, and Ali Kaya, Chairman of the Works Council, talk about the background and the individual steps of the project. “It was important for

us to give other companies a clear picture of the content and timeline of the qualification project. We also wanted to make it clear that the project was implemented jointly by the works council and HR department,” they explain. ‘The video shoot was an exciting new experience,’ report Muhammed Albayrak and Ergün Ayhan. “We were nervous, of course, but we both really enjoyed it.”

The film will be shown at events to promote the project. “With the six participants from our company, we are pioneers in the region and would like to encourage other companies to offer their employees this kind of training,” says Daniela Vollmer-Nagel. “This further qualification offer is a real unique selling point for us.”

And it’s never too late. “Lifelong learning is becoming increasingly important. It means a personal willingness to adapt to changing conditions in all areas of life, to remain curious and to play an active role in shaping one’s personal and social environment,” says Daniela Vollmer-Nagel. “This is not intended to be a one-off project, we want to counteract the shortage of skilled workers and the consequences of demographic change in the long term. That’s why we want to support and encourage our employees on their path to a secure professional future.” ■

„The ‚Project Me‘ is aimed at low-skilled employees who would like to subsequently acquire a vocational qualification. We are pleased to be able to offer six employees this opportunity. After all, you never stop learning and we want to support and encourage our employees on their path to a secure professional future,” says Daniela Vollmer-Nagel (center), HR Manager at KIRCHHOFF Automotive in Iserlohn.



Scan the QR code to watch the finished film. Here you can also find background and additional information on the qualification project.

For the first time, KIRCHHOFF Automotive employees from Iserlohn, Hagen and Attendorn and FAUN and Zoeller employees from all over Germany have collaborated on a new large-format photo calendar "Nature 2024". Under the guidance of photographer Gerd Greczka and Thomas Kirchhoff, impressive landscape images were created in all seasons.



Summer poppy field in Menden/Germany, photo: Eva Rademacher, Iserlohn

Shared experience, shared participation...



AUTHOR: PROF. THOMAS F. KIRCHHOFF
CULTURAL REPRESENTATIVE OF THE KIRCHHOFF GROUP

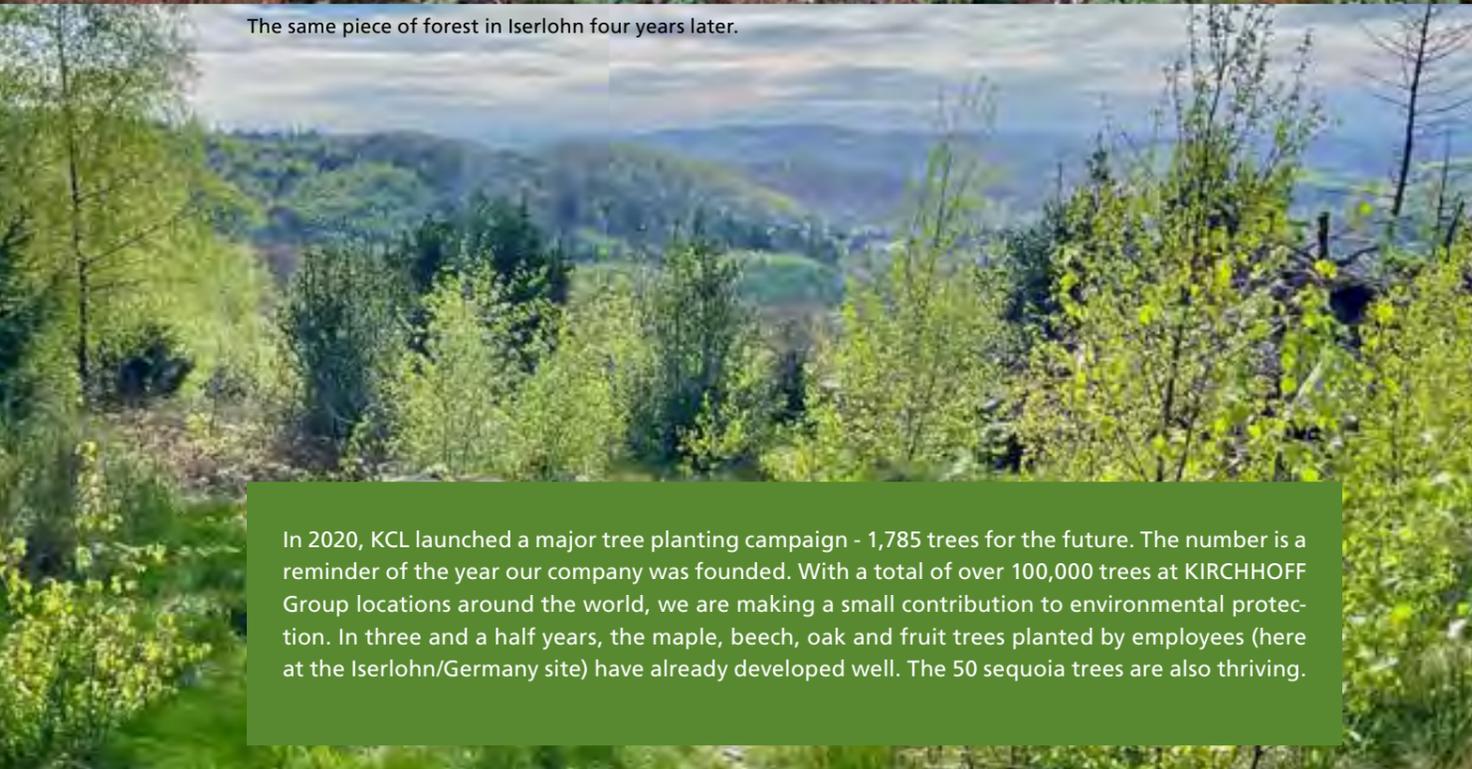
... This is at the forefront of all KIRCHHOFF Culture Life (KCL) activities. Great events from this cultural initiative have taken place and will continue to take place in 2024.

At KCL's surprise event at Zoeller in Rekowo/Poland, where the focus was on singing and drumming together, the DrumConversation from Frankfurt/Germany and the Uwaga! ensemble delighted the audience. Our cultural representative Prof. Thomas F. Kirchhoff (on the left in the small picture) also picked up the strings and played together with the Polish world-class guitarist Lukasz Kuropaczewski.





A wooded area in Iserlohn/Germany before the 2020 tree planting campaign.



The same piece of forest in Iserlohn four years later.

In 2020, KCL launched a major tree planting campaign - 1,785 trees for the future. The number is a reminder of the year our company was founded. With a total of over 100,000 trees at KIRCHHOFF Group locations around the world, we are making a small contribution to environmental protection. In three and a half years, the maple, beech, oak and fruit trees planted by employees (here at the Iserlohn/Germany site) have already developed well. The 50 sequoia trees are also thriving.



Ten large-scale pictures have already been created in our plants in Poland, Hungary, the Czech Republic and Germany. The history of the company at each location is depicted in 60 individual pictures. A good 180 adults and children painted this 12 m x 3.20 m picture on April 20 in Ovar/Portugal.



KIRCHHOFF Culture Life is a unique company initiative for employees at many KIRCHHOFF Group locations, with the focus always on the well-being of the employees - the aim is to show culture in all its diversity for everyone. KIRCHHOFF Culture Life has become a brand for sophisticated, yet always entertaining, exciting, serious and humorous events, to which our employees and their families are always invited. Well over 7,000 employees and family members have accepted our offers to date.

New Products on the Road

AUTHOR: SABINE BOEHLE
COMMUNICATON & MARKETING MANAGER

KIRCHHOFF Automotive has once again demonstrated its many years of expertise in the manufacturing of safety-relevant components. In addition to the application of proven production methods, new technologies are also used. The usual high quality guarantees smooth assembly at the customer's site.



GM Chevrolet Traverse: B-pillar, front and rear wheelhouse assemblies, lower plenum, spare tub assembly, front of dashboard protection

Technologies

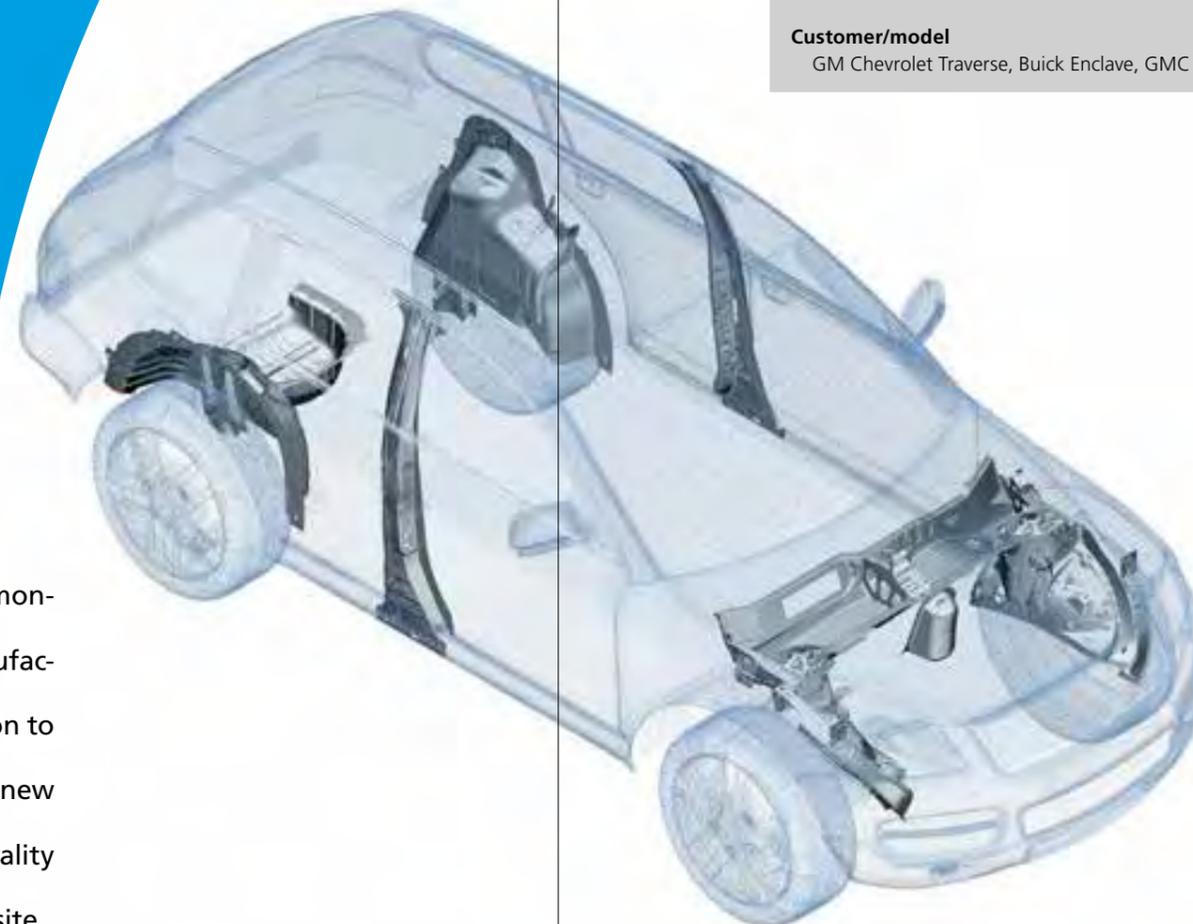
Forming of high strength Gen 3 steel, spot- and projection welding

Production plants

Lansing/USA, Aurora/Canada

Customer/model

GM Chevrolet Traverse, Buick Enclave, GMC Arcadia



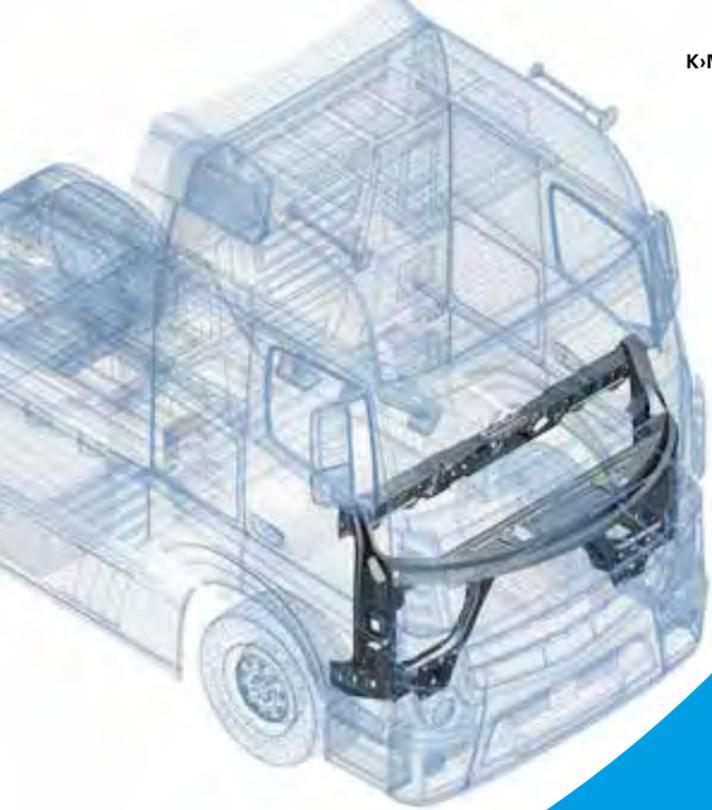
Advanced materials for GM's second-generation SUVs

In 2018, GM began production of its **Chevrolet Traverse** and **Buick Enclave** full-size SUVs. The KIRCHHOFF Automotive plant in Lansing/USA is located just 15 minutes away from the GM Lansing Delta Township Assembly Plant and as such, we were able to win orders for key assemblies for all vehicles including: front and rear wheelhouse assemblies, lower plenum assembly, spare tub assembly and a front of dash stamping. In February 2024, the second generation of these vehicles launched with an addition, the GMC Arcadia. We have expanded our production capacity in Lansing/USA to cover this volume as well.

We were also able to win orders for additional structural parts for the GM's second-generation SUVs. One of these is the B-pillar, a safety-relevant component that we produce at our plant in Aurora/Canada. This assembly consists of five individual stamped parts. After a lengthy testing phase in which our research and development team proved the manufacturability of B-pillars with advanced, high-strength third-generation steel (Gen 3 steel), this material was used for the first time in series production to manufacture the GM B-pillar.

Gen 3 steel offers significant benefits, including high strength that increases vehicle safety, particularly in structural components such as the B-pillar to protect occupants in the event of a side impact. In addition, Gen 3 steel supports sustainability goals by enabling minimal material thicknesses without compromising performance and represents a breakthrough in the high-strength body-in-white market that balances innovation and environmental responsibility.

We now also manufacture the front wheelhouses, which were previously produced in-house by GM. This complex assembly consists of 17 components that are welded together in individual welding cells.



Volvo Heavy Trucks Cabin Firewall & Cockpit Carrier

Technologies

Stamping, Projection Welding, E-Coating

Production plants

Cabin Firewall: Aurora/Canada
Cockpit Carrier: North York/Canada

Customer/model

Volvo Heavy Trucks – VNR and VNL



Safety-relevant components for Volvo Trucks

Two customer projects were successfully realized (completed) with a great deal of commitment and new technologies. For example, recently, cockpit carriers, specifically for the **Volvo truck models VNR and VNL**, have been delivered from our plant in North York, Canada to the Volvo plant in the New River Valley (NRV) in Virginia/USA. The cockpit carrier is a safety-relevant component that increases the stability and crash safety of the instrument panel. The assembly is designed for 100 percent accuracy of fit and is constructed in such a way that it can later be easily connected to the main cockpit panel with the help of connecting elements already fitted to it. High quality standards are crucial for the subsequent smooth installation of the cockpit carrier at the customer's location. The stamping tool used in production has been specially developed to allow customization for an exact fit. The assembly also has 36 additional fastening elements. Here, electronic sensors integrated into the assembly cell check the correct installation of all fasteners.

In addition, the KIRCHHOFF Automotive plant in Aurora/Canada is supplying 22 components for the cabin firewall, which acts as a fireproof barrier to prevent the spread of fire from the engine compartment to the driver's cab. The manufacturing process for the individual components includes punching, spot and projection welding as well as the application of sealants and adhesives. Final assembly takes place at Volvo's truck production facilities.

KIRCHHOFF Automotive was able to successfully utilize its many years of expertise in the application and integration of various manufacturing technologies in the production of the cockpit carrier and the cabin firewall, demonstrating its ability to manufacture high-quality automotive components.



Ford Transit Courier: Formed parts and welded assemblies

Technologies

Forming, spot and projection welding, sealer application

Production plants

Mielec/Poland; Pitești, Craiova/Romania

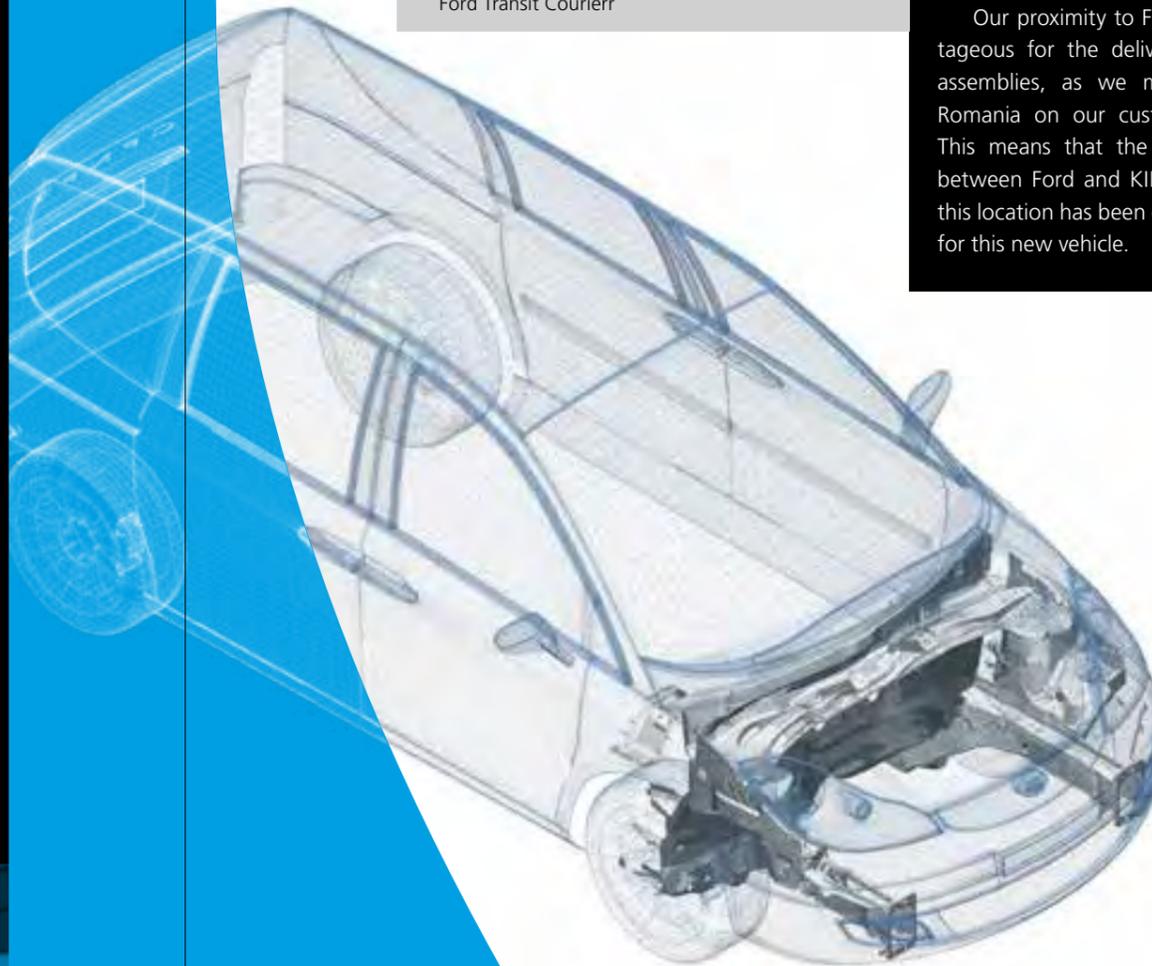
Customer/model

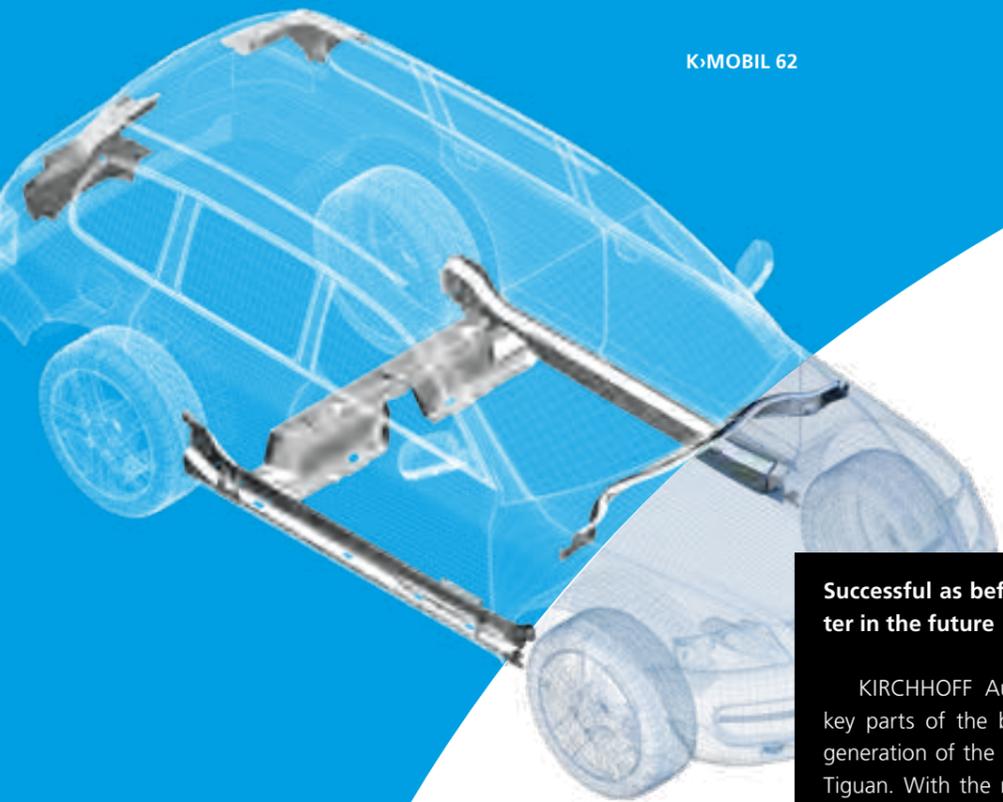
Ford Transit Courierr

Continuation of years of successful cooperation

Since fall 2023, the new Transit Courier has been manufactured on the Puma platform at the Ford plant in Craiova/Romania. We produce various formed parts and welded assemblies for this vehicle at our plants in Mielec/Poland, Pitești and Craiova/Romania. We use forming, spot and projection welding as well as sealer application manufacturing processes.

Our proximity to Ford is particularly advantageous for the delivery of complex welded assemblies, as we manufacture in Craiova/Romania on our customer's production site. This means that the successful co-operation between Ford and KIRCHHOFF Automotive at this location has been continued for many years for this new vehicle.





VW Tiguan and Škoda Kodiaq: Water tank, sill, heel section, node part C pillar

Technologies

Forming, hot forming, spot and projection welding, gluing, e-coating, assembly foam and plug-in seals

Production plants

Tiguan: Iserlohn, Attendorn/Germany; Mielec, Gliwice/Poland
Kodiaq: Gliwice/Poland, Esztergom/Hungary

Customer/model

Volkswagen – VW Tiguan, Škoda Kodiaq

Successful as before – even more and better in the future

KIRCHHOFF Automotive is also supplying key parts of the body structure for the third generation of the completely newly developed Tiguan. With the new **Tiguan**, Volkswagen is placing its best-selling SUV on the basis of the revised MQB evo modular transverse matrix. The Tiguan III and the other models in the MQB evo family will not only be larger, but also more comfortable and much more digital.

The perfect interaction between the KIRCHHOFF Automotive plants will become increasingly important in the future supply of all vehicles on this platform. Everything is optimally coordinated – in terms of capacity, quality and logistical proximity to the customer's locations. Our plants in Iserlohn/Germany, Gliwice/Poland and Esztergom/Hungary each produce hot-formed components. Stamped parts are prefabricated in Mielec/Poland, Attendorn/Germany, and Esztergom/Hungary. Four locations in Germany, Poland and Hungary also act as final assembly sites: the sill and the heel section from the floor assembly are still delivered to Wolfsburg/Germany from Attendorn – adapted to a new design, technical requirements and depending on the type of drive.

Our plant in Esztergom/Hungary has started a specialized production line for the supply of plug-in hybrid components for the new Tiguan. The water tank front panel – completely renewed – will continue to be supplied from our Gliwice/Poland site as a future one-piece, painted component with two sealing elements. The node part C pillar is a new welded assembly from our Polish site in Mielec.



Stellantis CMP Smart Car front bumper, lamp holder and front mounting bracket, various holders and junction box holders

Technologies

Forming, spot, MAG and projection welding, e-coating

Production plants

Esztergom/Hungary, Pitești/Romania

Customer/model

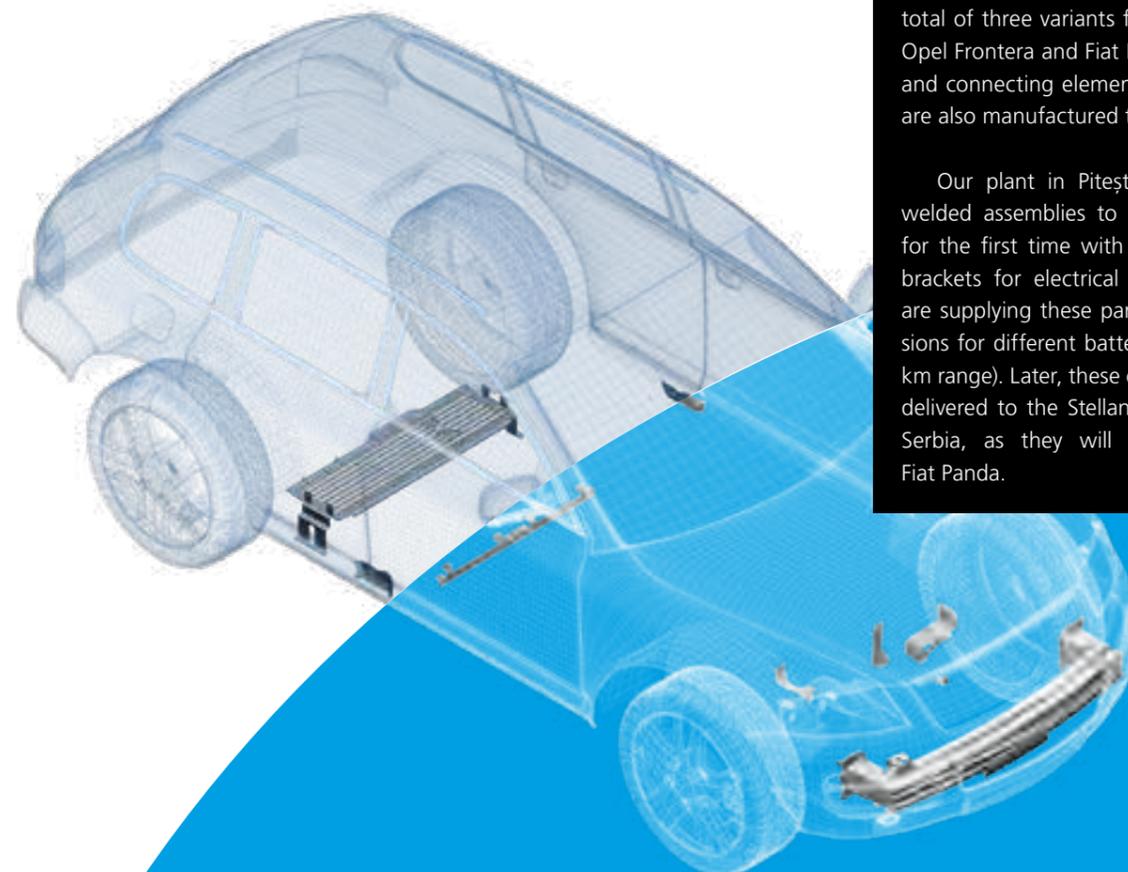
Stellantis (CMP Smart Car) – Citroen C3, C3 Aircross, Opel Frontera, Fiat Panda

Stellantis Smart Car platform launches with seven new models

The Common Modular Platform (CMP), which made its debut in 2018, has been given a new extension called "Smart Car". This means that a total of seven additional models on this cost-effective platform will offer customers all types of drive systems. Stellantis wants to compete against the considerable number of Chinese vehicle models that will soon be available on the European market for the first time.

The **C3 Aircross** is the first compact class car to be built in Trnava/Slovakia. At the Hungarian plant in Esztergom, KIRCHHOFF Automotive produces the front bumper in a total of three variants for the C3, C3 Aircross, Opel Frontera and Fiat Panda. Various brackets and connecting elements for the electric drive are also manufactured there.

Our plant in Pitești/Romania is supplying welded assemblies to our customer Stellantis for the first time with various multifunctional brackets for electrical connection boxes. We are supplying these parts in two different versions for different battery types (300 and 400 km range). Later, these components will also be delivered to the Stellantis plant in Kragujevac, Serbia, as they will be used in the new Fiat Panda.





Interview, board member Dr. Thorsten Gaitzsch

AUTHOR: ANDREAS HEINE
GLOBAL EVP COMMUNICATION & MARKETING

Excellent

In recent months, KIRCHHOFF Automotive has received significant awards from its customers. Just recently, we were recognized by General Motors as one of the best suppliers worldwide. How important are these awards for our company or are they just a form of winning "beauty contests"? Answers from board member Dr. Thorsten Gaitzsch:

”

What significance do the awards have for our company?

For our teams

For our teams, they are a sign that the hard work and consistent compliance with customer requirements as well as our own KIRCHHOFF Automotive standards have paid off.

For our reputation on the market

These awards are not only recognized by the respective customer who honors us, but by the entire industry. They therefore have a positive influence on our image. Our discussions in the market confirm that KIRCHHOFF Automotive is valued as a reliable and reputable contractual partner. »

What do these awards mean in terms of the customer-supplier relationship?

The awards in recent months and years underline the excellent relationship with the car manufacturers. I am particularly pleased that we have received awards from many of our customers, whether in Europe, North America, China, Japan or Korea, and in very different categories such as quality, delivery reliability, innovation, excellent cooperation or sustainability.

What do we take away from this and what do the awards mean for our future collaboration with OEMs?

The automotive industry is currently characterized by numerous uncertainties such as the war in Ukraine, the continuing lack of semiconductors, the uncertainties regarding electromobility, fluctuating energy costs, etc. As a result, some of our market competitors are experiencing considerable difficulties. This is why our customers are looking for reliable and stable partners, especially today. And it is precisely these awards mentioned above that set us apart from our competitors and demonstrate our strength.

The awards mentioned above are not the first/only ones, but our customers have repeatedly honored our locations in the past for their special achievements in terms of quality and cooperation. How did we achieve this and what in particular contributed to it?

The original prerequisites are, of course, the outstanding quality of our products and very reliable adherence to deadlines. However, the close, trusting and respectful relationship between our employees and our customers' contacts should not be underestimated. Here we benefit from the fact that our colleagues have often been with the company for a very long time. In many cases, the contacts on both sides have known each other for more than a decade.

What measures does KIRCHHOFF Automotive take to promote a culture of continuous improvement in quality processes?

KIRCHHOFF Automotive has established standards across the entire process chain that demand the highest global quality characteristics from the processing of inquiries through to series production. These are monitored and checked in our project management system, whether in sales, product or process development, purchasing, industrialization (manufacturing engineering) or subsequently in the manufacturing plant.

What role did the cross-functional collaboration between the various teams play in this success?

In the vast majority of cases, winning an award is not an individual achievement of a plant, a department or a central division. The kind of top performance that we achieve every day is only possible when all parts of the company work together. This interdisciplinary cooperation characterizes KIRCHHOFF Automotive and I am particularly proud of it.

How do we keep up to date with the latest technologies in order to improve our products and our quality standards?

It is important for us to exchange information. Product and process optimizations in particular are only possible through discussion. This was difficult to implement in times of COVID19 and I am very happy that such an exchange, especially in person, can take place again today, whether with colleagues, customers, suppliers, universities, external institutes, associations or at trade fairs. Our excellent contacts in the industry are a great help here.

We have received most of our awards from our customers. There were also awards for great HR marketing in Hungary and from EcoVadis for our efforts to improve sustainability. How do you rate the silver medal from EcoVadis?

The topic of sustainability has been on our minds for several years now. Customer wishes, or rather customer requirements, are constantly increasing and will continue to grow. To see that we are already one of the leading companies in Germany in this area is a great success and encourages us in our efforts to play a leading role in all areas.

Does this award also help us in our cooperation with our customers?

In the medium term, our customers will demand that we meet the EcoVadis targets or regard them as a prerequisite for awarding contracts. We are therefore well advised to fulfill these requirements to the best of our ability today. ■

Awards in recent months:

- Chery Jaguar Land Rover Decade Achievement Award
- Mercedes-Benz Vans award as preferred supplier
- Mercedes-Benz Supplier Circle Quality Award
- Subaru of Indiana (SIA) Superior Excellent Performance Award
- Li Auto Best Supply Award
- Hyundai CZ Recognition Award
- GM Supplier of the Year Award
- Ecovadis Sustainability Assessment Silver Medal



Continued upswing

Due to increased customer demand, the KIRCHHOFF Automotive site in Hungary is expanding its capacities with a new hall in Esztergom and a further production facility in the neighbouring town of Dorog.



The KIRCHHOFF Automotive plant in Esztergom/Hungary is now located at Kirchhoff-Allee 1 ('fasor' in Hungarian). The name of the street is in memory of the late Dr Jochen F. Kirchhoff. He was not only the father and grandfather of the current owners of the KIRCHHOFF Group, but also an outstanding entrepreneur and the Chairman of the Advisory Board of the KIRCHHOFF Group.

Welding line at the new site in Dorog/Hungary.

The new plant in Esztergom/Hungary

**AUTHORS: HOLGER FISCHER, DIRECTOR MANUFACTURING ENGINEERING EUROPE & ASIA
LUTZ LEIBE, MANUFACTURING ENGINEERING MANAGER
GYÖRGY SZOLLOSI, MANUFACTURING ENGINEERING MANAGER
ANDREAS DENSO, GLOBAL DIRECTOR MATERIAL PLANNING & LOGISTICS
GERGELY LIKO, LOGISTICS MANAGER**

New location in Dorog

Not far from the main KIRCHHOFF Automotive plant in Esztergom, Hungary, a new production site has been built in the neighbouring town of Dorog. In the future, an aluminum lightweight assembly for a German premium vehicle will be manufactured in the rented hall complex covering approx. 6,500 m². In addition to several arc and spot-welding production cells, Dorog also features the new technology of hollow punch riveting. This is used to mechanically join the individual parts of the lightweight aluminum assembly in two and even three-layer joints with a total of 88 rivets and 3 different rivet types. Three-layer hot-formed joints and automatic unloading into customer containers are technically challenging.

Increasingly complex component structures require further development of the logistics storage areas and load carriers. At the Dorog plant, the standardised tigger train technologies were further optimised and significantly larger special customer load carriers with lower filling quantities and higher turnover rates were used. Despite the high variance in load carrier dimensions, we have developed universal equipment that supports cost-optimised quantity scalability.

Esztergom plant extension

The development concept was organised in such a way that the new plant can also be expanded in the future. The plant is connected to the existing KIRCHHOFF Automotive plant by a corridor. A new internal road will ensure the supply of internal pressed parts to the new plant. "The planning phase, our so-called 'layout and design phase', is a very important process. It forms the basis for the subsequent result, in particular for building utilisation and thus the efficiency of our processes," says Lutz Leibe, Manufacturing Engineering Manager, adding: "Taking into account our standard cell layouts together with

2.4 x 1.6 m customer racks and AGV compatibility, for example, a new standard hall width of 32.5 m was developed."

The new factory hall, which covers an area of 7000 m², was completed within one year. One aim of the construction work was to minimise the 'ecological footprint'. The buildings are heated and cooled using heat pumps. The electricity required is generated by a photovoltaic system installed on the roof of the hall. The LED lighting is daylight-controlled and is dimmed or switches off when sufficient light enters through the installed roof light strip. The building is heavily insulated, which not only saves energy but also reduces operating costs.

Another goal was to supply the production facilities with components and load carriers automatically and autonomously. For this purpose, a customised AGV (Automated Guided Vehicle) concept is used in our production halls, which 'communicates' directly with the welding cells with regard to the demand request and control without 'human interfaces'.

A synchronised tigger train system is used to supply the hall extension with press shop components via the outside area in line with requirements. "One of the key AGV challenges is the high-precision transfer of the customer's special load carriers to the robot-controlled transfer areas of our welding cells. AGVs with an integrated lifting system are used, which ultimately also make trolleys superfluous in the system – a first for KIRCHHOFF Automotive," says Andreas Denso, Global Director Material Planning & Logistics. ■

Supplier of the Year

AUTHORS: EVA RADEMACHER, NATASHA PHILPOTT
COMMUNICATION & MARKETING SPECIALISTS

"Their innovation and support are critical to our ability to deliver the world-class vehicles our customers expect," said Jeff Morrison, Vice President, Global Purchasing and Supply Chain General Motors, in recognizing GM Suppliers of the Year. The award, which is the 15th from General Motors for KIRCHHOFF Automotive, recognizes the company's outstanding performance in the area of structural metal parts.

The award ceremony in Miami, Florida/USA took place as part of an event that focused on the limitless opportunities for collaboration between suppliers and General Motors. Jeff Morrison praised the innovative strength of the award-winning suppliers and emphasized their contribution to the transformation of the company. "We are honored to work with these top suppliers who have made a remarkable contribution to our transformation. Together we are pushing boundaries, pioneering new technologies and redefining what is possible. Their innovation and support are critical to our ability to deliver the world-class vehicles our customers expect," he said.

Out of 20,000 GM suppliers, 83 were honored. This puts KIRCHHOFF Automotive in the top 1 percent of all GM suppliers worldwide. At the award ceremony from left to right: J. Wolfgang Kirchhoff (Chairman & CEO KIRCHHOFF Automotive), Peter Layer (Executive Director, Chassis, Propulsion Structures General Motors), Josh Forquer (EVP Sales & Technical Development KIRCHHOFF Automotive North America), Larry Hagood (President & CEO KIRCHHOFF Automotive North America)

J. Wolfgang Kirchhoff, Chairman & CEO KIRCHHOFF Automotive, together with Larry Hagood, President & CEO KIRCHHOFF Automotive North America, and Josh Forquer, EVP Sales & Technical Development KIRCHHOFF Automotive North America, accepted the award for "Supplier of the Year 2023 in the Creativity Team of Structures". "KIRCHHOFF Automotive was recognized out of 20,000 GM suppliers worldwide for the 15th time this year. It is a great achievement and award for all employees in our

plants and in the corporate departments, which we accepted on their behalf. I would like to congratulate and thank all employees," said J. Wolfgang Kirchhoff. Larry Hagood added: "At KIRCHHOFF Automotive North America, we know that our employees are the greatest resource we have. Only by unleashing the creativity and ambition of our employees and empowering them to do their jobs to the best of their ability will we have a chance to reach our 'limitless' potential." ■

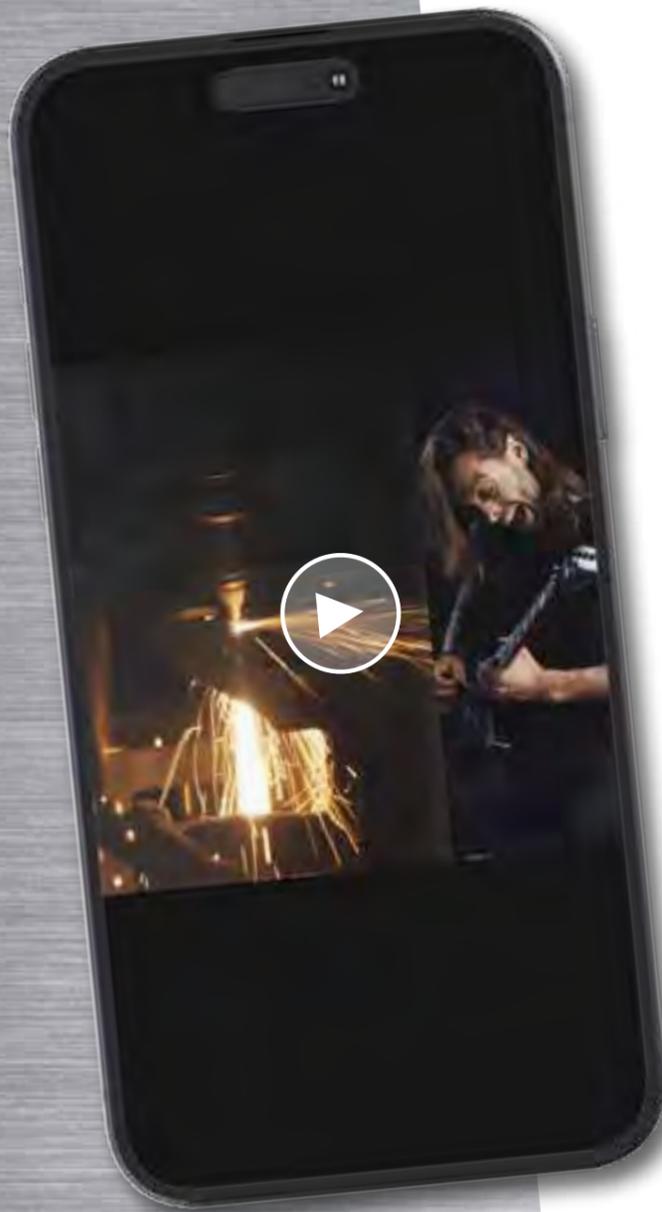


In addition to the Supplier of the Year award, General Motors has honored the North American KIRCHHOFF Automotive plants in Aurora, Dallas, Lansing, North York, Querétaro and Tecumseh with the "2023 Customer Care and Aftersales On-Time Shipping Award" for its delivery reliability.

Heavy Metal...

...is the basis of our products, but also a very popular style of music. The HR managers at the KIRCHHOFF Automotive plant in Esztergom/ Hungary came up with the idea of combining the two and turning it into an employee recruitment campaign. This idea received a lot of recognition and even gold in the end.

**AUTHOR: GABRIELLA SLIVA
COMMUNICATION & EVENT SPECIALIST**



The Hungarian KIRCHHOFF Automotive team received the most prestigious HR award in Hungary for its exceptional recruitment campaign: the HRBest Award 2023.

Previously, the jury of the professional competition had evaluated almost 90 submitted case studies on special HR solutions and achievements. This year, the HRBest award was presented in six categories and with three special prizes, making it undoubtedly the most comprehensive recognition for HR professionals in Hungary. At the award ceremony on 9 April, 20 case studies were honoured.

The Hungarian KIRCHHOFF Automotive team made a special impression with its "Heavy Metal" campaign and received the gold medal in the "Talent and Employee Recruitment" category. In this category, successful projects for approaching potential employees, recruiting and hiring new staff were evaluated.

A great achievement that the team can be proud of! ■



The HR Best in Talent Attraction Award was accepted by Viola Kiss (HR Manager KIRCHHOFF Automotive Hungary, centre) as well as by Izabella Jámbor (Marketing Consultant) and András Kánai (Creative Director) for Meraki Marketing.

A slightly different recruiting campaign

To attract employees to the Hungarian KIRCHHOFF Automotive plant, the Hungarian HR managers made creative videos with employees and heavy metal musicians. While employees talk about their jobs and scenes from the plant are shown, an electric guitarist appears on a split screen and accompanies the scenes with heavy metal music. The video is captioned: "It will be like music to your ears when you find out what KIRCHHOFF Automotive in Esztergom has to offer." Listen and see for yourself: <https://youtu.be/bJrlwW1qqf4>, <https://youtu.be/2Lzzmfthlm4> or scan the QR codes.



AUTHOR: SOUSCHA NETTEKOVEN-VERLINDE
MARKETING KIRCHHOFF MOBILITY

"I can only enjoy my mobile thanks to the conversion"

...says Angela. She is thalidomide-impaired and depends on a vehicle specially adapted to her needs. In this interview, she explains why she made a conscious decision in favour of an electric car and the conversion by KIRCHHOFF Mobility.

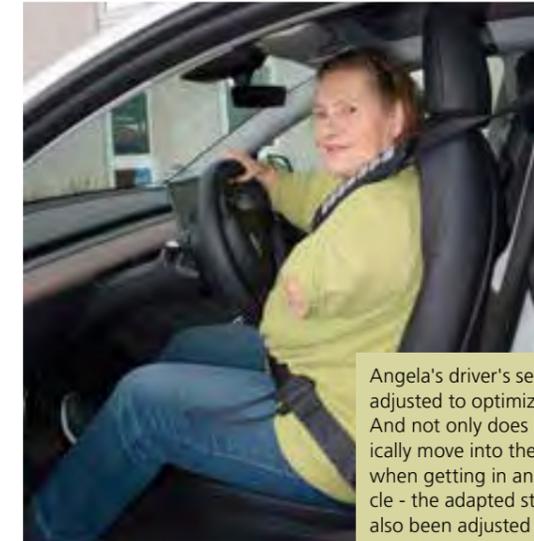


The conversion was tailored precisely to Angela's needs. KIRCHHOFF Mobility combined custom-made products with the latest technology: automatically extending handles, a seatbelt whip extension, an electric sun visor, foot sensors for easy opening and closing of the trunk, etc.



When we arrive for our on-site interview at the KIRCHHOFF Mobility headquarters in Hilden, Angela appears relaxed and confident. We quickly move on to the subject of her new Tesla Model Y, which she not only appreciates for its quieter driving, but also the second trunk at the front - and of course the individual conversions.

We want to know why she chose KIRCHHOFF Mobility. KIRCHHOFF Mobility assured her that it would be able to implement all her conversion wishes in the way she would want to drive and operate her vehicle, says Angela, and "because my wishes were taken into account during the conversation and the conversion specialist also added good suggestions, I felt that I was in good hands with KIRCHHOFF Mobility."



Angela's driver's seat has also been adjusted to optimize driving comfort. And not only does her seat automatically move into the correct position when getting in and out of the vehicle - the adapted steering column has also been adjusted so that it moves in and out.

In the course of the conversation, Angela takes us to her converted vehicle and proudly explains what modifications have been made. Foot sensors have been installed in the rear so that a single foot movement opens or closes the trunk. Angela also benefits from an automatic retractable handle system developed for the Model Y. This technology enables the door handles to extend automatically as soon as the vehicle is unlocked, the P button in the vehicle is pressed or the remote key (Key Fob) is within range.

At the front of the driver's area, a tailor-made console was installed on the driver's door for the power window switches, the door opener switch and the hazard warning lights. The door is closed using a pedal, which was fitted in the right size at the bottom right of the door.

Further modifications were made to the interior to ensure an optimal and safe ride. For example, the steering column was extended for Angela, the car seat was made to measure and the seat belt whip was lengthened.

"I'm really happy with the conversion," says Angela. "My extensive search for a suitable vehicle converter has paid off." And she is happy to recommend KIRCHHOFF Mobility: "The staff are very committed, competent and friendly. It's only thanks to the conversion that I can really enjoy my mobile freedom". ■

Happy and satisfied with her conversion: Angela with KIRCHHOFF Mobility consultant Adem Okutan.

AUTHOR: MARTHA SOBEK
SALES & MARKETING LATIN AMERICA



Growth markets expanded and potential key accounts met



For WITTE Tools, the international hardware fair in Cologne offered an excellent opportunity to present products and make valuable business contacts.

With over 3,000 exhibitors from all over the world, the International Hardware Fair from March 3-6 in Cologne offered an important platform for industry-internal exchange and provided information on current developments and trends. The trade fair also offered WITTE Tools an excellent opportunity to present its products and make valuable business contacts. »



The robust heavy-duty screw holder for long wood screws is safe and easy to use. The on-site test convinced the visitors.

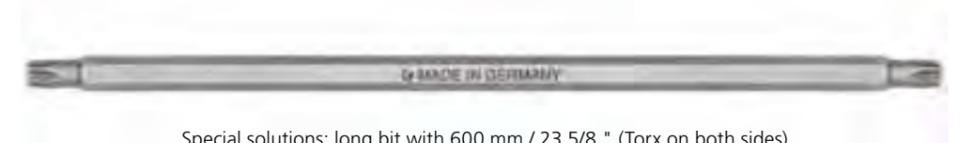


The WITTE Tools team, f.l.t.r.: J. Wolfgang Kirchoff (Managing Partner of the KIRCHHOFF Group), Karolina Pik (Domestic Sales), Christian Piccari (Area Sales Manager), Nina Packwitz (International Sales), Sabine Grams (International Sales), Martha Sobek (Sales & Marketing Latin America), Virginia Gröbner (Domestic Sales), Nadine Polak (International Sales), Alexander Hingst (Head of Sales & Marketing).

The spectrum of the numerous exhibitors ranged from tools and accessories to construction and DIY supplies, fittings and fastening technology.

"This year's trade fair was on a similar level to two years ago, but still fell short of our expectations because, for example, visitors from other European countries, Africa and the Gulf region were under-represented. Nevertheless, WITTE Tools was able to make some new contacts, expand existing ones in future growth markets and even hold initial product presentations for new potential major customers," summarizes J. Wolfgang Kirchoff, Managing Partner of the KIRCHHOFF Group.

Our great strength is an extensive selection of WITTE and private label bits as well as ergonomic screwdrivers, which visitors were particularly interested in. The high-quality products manufactured with great precision include, for example, long bits up to 600 mm, which can be used to reach screws that are difficult to access. These are used, for example, in the maintenance of agricultural vehicles. The patented robust heavy-duty screw holder for long wood screws also attracted the attention of end users. This product is safe and easy to use. ■



Special solutions: long bit with 600 mm / 23 5/8 " (Torx on both sides)



13 seconds "in action":
the MAXX heavy-duty screw holder for extra-long wood screws



The patented screw holder is equipped with five flexibly mounted neodymium magnets that firmly fix both pan head and countersunk head screws. The retaining ring in the holder anchors interchangeable bits with drives TORX 40-50.



AUTHOR: GLENDA LANGE
MARKETING ASSISTANT OF
MANAGEMENT KIRCHHOFF ECOTEC

Best Managed Company!

KIRCHHOFF Ecotec AG is the winner of the Best Managed Companies Award 2024. Honored and appreciated with an award and seal of quality for outstandingly managed companies.

The Best Managed Companies program is a competition and seal of quality for successful medium-sized companies. The vision is to build a national and global ecosystem of excellently managed SMEs.

A key unique selling point of the Best Managed Companies program is its internationality: this program was launched by Deloitte in Canada in the 1990s and has now been successfully introduced in more than 45 countries. The basic requirements for participation in the Best Managed Companies Award are a minimum annual turnover of 150 million euros and the company's headquarters in Germany. In addition, companies must be medium-sized or family-run and be able to demonstrate successful economic development in recent years.

Each participating company goes through a multistage application process in which an online questionnaire must be completed in the first step. This asks for basic company data and highlights the general positioning in relation to the core content areas of the award. In the second phase, following an initial assessment of the application documents, selected companies are invited to a personal interview. In interviews lasting several hours, the companies were examined in detail with regard to their performance in the four core areas of strategy, productivity and innovation, culture and commitment, and finance and governance.

Based on the application documents and the evaluation of the personal interviews, the Best Managed Companies Award's expert advisory board defines the



Jury member Holger Lösch - Deputy Managing Director of the Federation of German Industries and the moderator of the evening Ms. Susanne Schöne.

shortlist, from which a jury consisting of renowned representatives from business, science and the media then selects the award winners. The initiators of the award are Deloitte Private, UBS, the Federation of German Industries (BDI) and the Frankfurter Allgemeine Zeitung. ■

Dr. Johannes F. Kirchhoff, CEO of KIRCHHOFF Ecotec AG, accepted the prize at the award ceremony at the end of May from jury member Holger Lösch (Managing Director of the Federation of German Industries e.V.) and the evening's host Susanne Schöne.

“My entire team and I are delighted to receive this special award. For us, it is a reward for the continuous development of our work for the benefit of our customers, our employees and our social environment. At the same time, it is an incentive to use our love and passion for the continuous search for improvement potential and its realization.”



WELCOME TO HOME OF ORIGINALS

This year's IFAT in Munich was a meeting place for all kinds of originals - trucks and the people behind them. »

AUTHOR: CLAUDIA SCHAU
 COMMUNICATON AND MARKETING MANAGER FAUN



Our idea of a modern, safe refuse collection vehicle: VARIOPRESS with Safety & Performance System



All safety features on one place:



Malte Sonnenburg (left) and Peter Knüfermann proudly accepted the honour of 2nd place at the VAK Innovation Award on behalf of the team for the Safety User Display (SUD).

In the more than 1,500 square metre trade fair experience world, every product and every player was given its own space and was able to showcase its strengths.

In addition to all the originals, the main focus was on safety for operating personnel and people. The refuse collection vehicle of the future with the Safety & Performance System, a refuse collection vehicle designed for absolute safety, the self-driving TROMBIA FREE sweeper, the new CITYJET sweeper and the new generation of ENGINIUS BLUEPOWER hydrogen refuse collection vehicles. There was even a sweeper to see from the inside. Using VR technology, visitors were able to experience a sweeper from a completely new perspective. FAUN also provided information about offers for leasing and rental lorries or after-sales services, such as training or the prototype for a service chat.

Our focus: sustainable with safety

'The safety and comfort of operators and people in everyday life is our top priority,' says FAUN CEO Patrick Hermanspahn, explaining the refuse collection vehicle of the future. The rear loader is equipped with a variety of technical details, including the brand new Safety User Display (SUD), for which we were honoured with 2nd place in the Innovation Award by the Association for Work Equipment and Municipal Vehicle Industry (VAK).

The Safety User Display, which is currently available for our VARIOPRESS and ROTOPRESS in combination with the FAUN SKYLIFT X, offers the operating personnel additional perspectives thanks to two monitors and three cameras. This gives the loading personnel a comprehensive view to the front, rear and inside the vehicle.

Particularly exciting:

The front-view camera, which provides the operator with a clear image of the direction of travel. It activates automatically when the vehicle is travelling forwards and the running board is stepped on. This eliminates the risk of having to lean into moving traffic in order to recognise the surroundings.

The rear-view camera works like a rear-view mirror and gives the operator an insight into the area directly behind the vehicle during the stopping process. This gives the loader an overview of what is happening behind him and enables him to act accordingly. ▶



Sweeping revolution: TROMBIA FREE is the world's only autonomous, electric sweeper system.



One Team. One Love: FAUN



FAUN has what it takes. We received an award from the association for our commitment to the 'Blicki blickts e.V.' transport initiative.



You can't drive here without them. Dream team and VAK show grenades with social media star and FAUN mate Keno Veith.

Everything about FAUN x IFAT 2024 and the HOME OF ORIGINALS



Also installed on the refuse truck of the future:

AI-supported rear area monitoring (prototype), illuminated hand grips, a glove dryer or the Smart Compaction System (SCS) for automatic compaction of waste in the refuse vehicle's collection container. Control based on various measurement parameters guarantees optimum loading while minimising energy consumption and wear on the vehicle. The new, electric powered footboard uses AI to react to the loader's hand movements and thus folds down or up. AI helps, for example, to precisely recognise and analyse objects and people in the vicinity of our vehicles.

FAUN also presented its new generation of sweepers, the CITYJET: 'It combines the best of both worlds: Extremely manoeuvrable and easy to operate for municipal use thanks to its exceptionally compact design. And thanks to its powerful drive, strong suction power, robust design and large volumes for sweepings as well as fuel and water supply, it is also ideal for heavier applications,' says Patrick Hermanspann. ■

Servus in Munich from 4 - 8 May 2026.



The new ENGINIUS BLUEPOWER
Many detailed improvements and a new fuel cell.



Clean conditions worldwide: The CITYJETs are already being used successfully in large parts of Europe. In Italy, France, Spain, Germany, Great Britain and even Australia, they are already sweeping up spick and span.

AUTHOR: SABINE KÄMPER
EDITORIAL OFFICE ZOELLER GROUP



Pretty big the new MINI

ZOELLER presented its new MINI series for the first time at IFAT. A change of production location from Poland to Italy provided a good opportunity to revise the small vehicle according to the latest findings. **The result: molto bello!**



070

Winding alleyways, narrow streets and hidden courtyards - Italy is famous for its picturesque old towns, which - by their very nature - are difficult to access for large vehicles. So it's no wonder that FARID in Vinovo Torino has enormous expertise when it comes to small refuse collection vehicles. "A large part of the market there are small refuse collection vehicles - 3.5 tonnes to 15 tonnes. Many, many different types in large quantities - we are now having the MINI built there," explains Sven Walter from ZOELLER. This is more efficient, more effective and expertise is pooled. ZOELLER TECH in Poland is more of a specialist for the X Family.

More payload, more volume

ZOELLER has also used the change of manufacturer to reorganise the MINI series and incorporate new findings and solutions. "The tare weight of the MINI is now significantly lower," says Sven Walter. "And less weight means more payload."

The new vehicle models have around 300 kg more payload. In addition, instead of three MINIs, the series now comprises just two models: the MINI and the MINI XL. However, with body sizes of 9-12 m³ and 12-18 m³, they cover the entire spectrum and can also be equipped with various lifters. Also new: the bodies are smooth-walled - as is already the case with the X Family - which makes cleaning easier and makes labelling much simpler.

Despite all the innovations, the MINIs naturally remain ZOELLER through and through. The entire hydraulics and control concept has been adopted from the familiar MINI series for the new vehicles. Sven Walter: "The design at FARID is very similar to that of ZOELLER and customers will still find ZOELLER controls, it's all ZOELLER as usual - just optimised."

A live experience

Of course, Sven Walter, Head of Internal Sales, who oversaw the project from start to finish, knows the vehicles like the back of his hand. "I knew all the individual components, saw drawings and so-called renderings and then also pictures of the fully assembled vehicle. But here at the trade fair, I'm seeing the MINI live for the first time and I'm simply thrilled with the result! I'm sure our customers will be too." ■

Controls, lift variants, hydraulics - it's all ZOELLER as usual. Just optimised.



071

More than just a gadget

Try & error or testing & experimentation. This is everyday life at KIRCHHOFF Ecotec Center.



AUTHOR: ANDRZEJ SYGIEL
DIRECTOR TEC-CENTER KIRCHHOFF ECOTEC

In today's dynamically changing technological world, the key to success lies not only in innovation, but also in the testing and effective implementation of new ideas. The team at the KIRCHHOFF Ecotec Center in Poland meets these challenges and offers customers a comprehensive range of services. From concept development to implementation, everything is possible. Test laboratories are the heart of innovation. At the KIRCHHOFF Ecotec Center, we have a state-of-the-art laboratory that enables detailed testing.

Running simulations instead of prototypes has several advantages: Environmental Control: In the laboratory, we can precisely control environmental conditions such as temperature, humidity, pollution, etc. This allows for isolating and precisely assessing the impact of each factor on machine performance, which is essential for obtaining reliable and repeatable results. In real outdoor conditions, it is often difficult to maintain these conditions at a constant level, which can affect test results.

Safety: Testing in the laboratory is safer, especially for prototypes that may contain untested or potentially dangerous elements. This reduces the risk of accidents that can endanger lives or damage property.

Testing Extreme Conditions: The laboratory can simulate extreme conditions that are rare or difficult to achieve in reality but are important for testing the limits of machine operation.

Time and Cost Savings: Simulations in the laboratory can be faster and cheaper than tests in real conditions. For example, simulating extreme weather conditions or mechanical loads in the laboratory is often easier and less expensive than organizing such conditions outdoors. We avoid costs associated with organizing field tests, such as transport, site security, or additional equipment.

Test Repetition: In the laboratory, test conditions can be exactly repeated, which is key for scientific validation of results. In real conditions, many parameters can change in an uncontrollable way.

The KIRCHHOFF Ecotec Center is an independent development and test centre with 30 specialists. As such, we analyse customer requirements on an order-related basis and offer innovative and efficient solutions. We endeavour to stay ahead of the technological curve and constantly develop our services further, to meet future challenges. We accompany our customers throughout the entire innovation process and our customers with our knowledge, our experience and our modern technologies. We are also happy to your ideas into reality.

Contact:

info@kirchhoff-ecotec-center.pl und
www.kirchhoff-ecotec-center.pl

Efficiency of the Testing Process: Simulations allow for quick implementation of changes and testing of different variants of the machine or its components. Parameters can be easily modified and the effects observed, which is more difficult in a real environment.

Data Collection and Analysis: In the laboratory, data can be precisely collected and analyzed, which is crucial for understanding machine operation. In real conditions, collecting and controlling such a large amount of data can be much more difficult.

Intellectual Property Protection: Testing in the laboratory ensures confidentiality of the process, protecting new technologies from premature disclosure and competition.

Why it's not worth doing everything yourself: Many companies do not have the capacity to carry out R&D projects themselves. The focus is usually on production. In such cases, working with an external partner who specializes in R&D services can be an effective solution. This is because companies gain access to advanced testing technologies, purchase know-how for the implementation of extensive research projects and receive technical and analytical support. By using external service providers,

companies can concentrate on their core competencies and at the same time benefit from the knowledge and infrastructure of the service provider. In addition, investments and financial burdens are reduced. Such collaboration offers the flexibility to scale research activities without the fixed costs of an in-house research laboratory. In addition, you gain access to the latest industry trends and can gain a competitive advantage. ■



AUTHOR: DOMINIQUE BARTH
HEAD OF MARKETING & COMMUNICATION CONTENA-OCHSNER AG

Rethinking processes

KOCO Solutions AG develops smart complete solutions for process optimization in the recycling and waste disposal industry. More than 2,500 vehicles are already using KOCO's innovative telematics systems. Below we would like to introduce you to the KOCO-online platform and selected modules.

KOCO-online, the holistic solution for sustainable process optimization

Based on the KOCO-online platform, 12 different modules can be used to develop customized solution concepts that make life easier for every waste service provider. KOCO-online is aimed at local authorities or cities, for example, as well as private companies that want to optimize their processes sustainably.

One particularly interesting module is KOCODispo. With KOCODispo, tasks, orders or collective tours can be easily and transparently created, allocated, processed and monitored online. In addition, the required resources such as vehicles, drivers or loaders can be planned and scheduled. An all-encompassing planning tool that combines numerous processes and resources on one platform.

Breaking new ground with the KOCOCustomer module

With an independent web platform, the KOCOCustomer Portal, KOCO Solutions AG offers an interactive communication platform. Nowadays, the processing of chargeable waste transactions is often opaque. The transmission of information to end customers, whether private individuals or companies, remains a particular challenge. One of the reasons for this is that there is currently no user-friendly communication platform through which waste management companies can communicate with their customers.

This is precisely where KOCO comes in with its customer portal. The KOCOCustomer module is a digital platform for companies that want to provide their customers with important information such as weighing data, receipts or invoices online. The customer portal thus offers maximum transparency, can be accessed at any time and simplifies processes - both for the company and for the end customer.

One special function offered by KOCO's customer portal is the on-demand function. This is a particularly innovative and, above all, efficiency-enhancing service for waste disposal companies and municipalities in rural areas. With this service, empties and collections can be planned and ordered on demand or as required. Specifically, private individuals and commercial enterprises can pre-register their containers by cell phone and conveniently order collection at any time and from anywhere. This means that remote locations, for example, are only visited as part of the regular rounds when it is really necessary. This saves resources in the long term and protects the environment. It also enables the waste disposal company to expand its range of services and strengthen customer loyalty through efficient and user-friendly processes. ■

Empire State of Mind



In May 2023, KIRCHHOFF Ecotec company FARID, which belongs to ZOELLER, received information that the city of New York was interested in changing its waste disposal system to solve the problem of plastic bags on the sidewalks and the many rats. In particular, the use of large containers (3000L) and European side loaders were of interest.

In a video call with the DSNY (Department of Sanitation of New York), it was explained that there was a concrete interest in testing the concept of large containers and side loaders that FARID offers with its FMO. After further phone calls, an offer was made for the FMO in combination with the preferred truck in New York, the MACK LR64R. The chassis were to be supplied by Gabrielli Truck Sales. In the course of this process FARID contacted Vasso Waste Systems, to commission them with the assembly of the FMO side loaders and customer service.

After a meeting in New York with all interested parties, the specifications of the side loaders were discussed and agreed upon, after which DSNY ordered two FMOs through Garbielli Truck. Farid finalized the engineering and specifications to match the side loader superstructures to the MACK chassis and the New York City work environment. The two side loader superstructures were shipped in October and installed on the chassis at Vasso Waste Systems. FARID technicians traveled to New York to assist the local Vasso technicians in assembling the units and making the electrical connections.

On February 1, 2024, the time had come. The first side loader drove through Manhattan in New York and caused a sensation. DSNY has already ordered 12 more FMOs so that the pilot project can start in spring 2025. Once the pilot is complete, an evaluation will be conducted and a decision will be made on whether to deploy the sideloaders throughout New York. ■

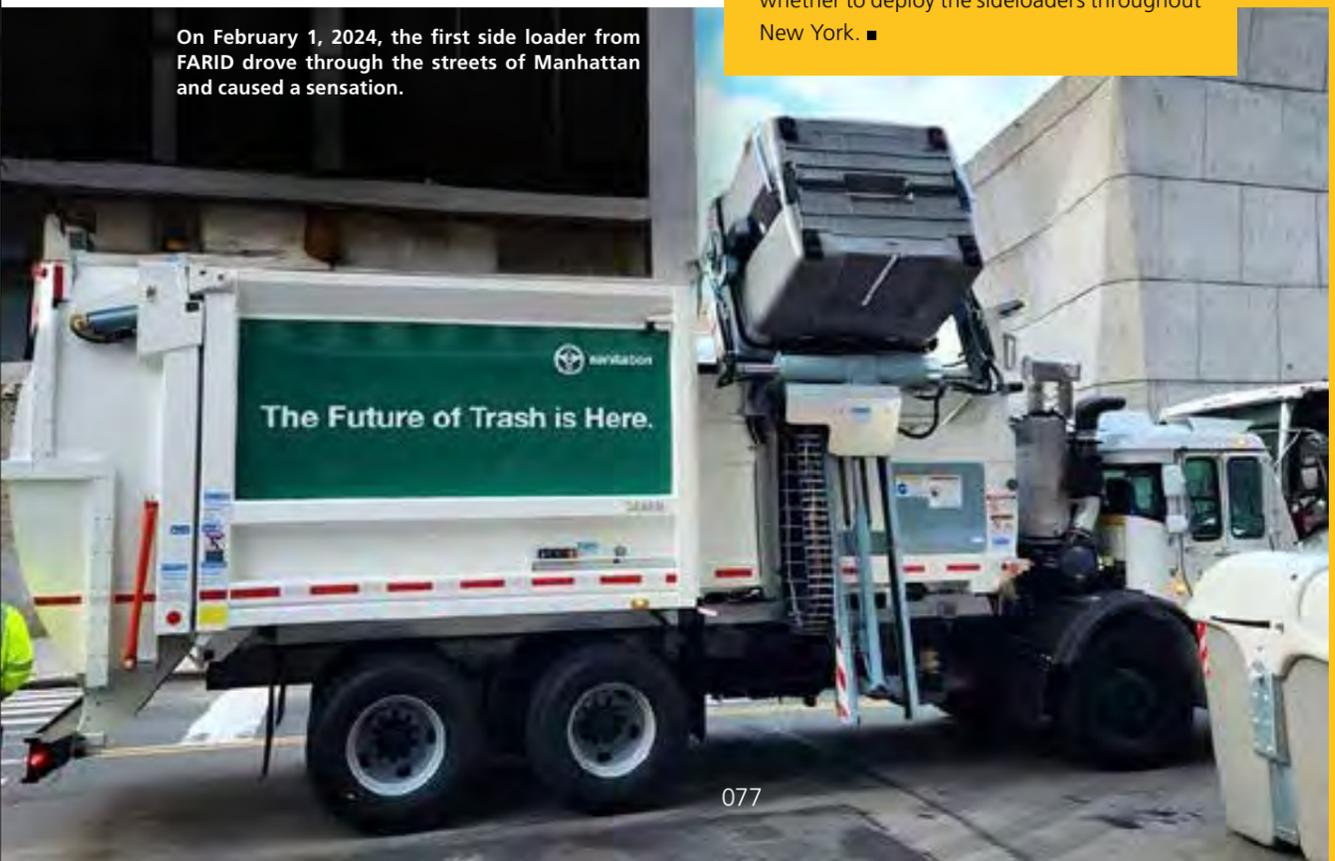


Mayor of New York Eric Adams

On February 1, 2024, the first side loader from FARID drove through the streets of Manhattan and caused a sensation.

AUTHOR: GLENDA LANGE
MARKETING ASSISTANT OF MANAGEMENT KIRCHHOFF ECOTEC

“This is the most significant progress toward clean streets that New Yorkers have seen in generations,” said New York Mayor Eric Adams as the dumpster was lifted by the new side-loader garbage truck and the song line, "Concrete jungle where dreams are made of, there's nothin' you can't do" played in the background.





Bremen Bound: Hydrogen the future of transport

The hydrogen community is growing. In February, ENGINUIS UK invited 50 industry experts from the UK to Bremen for a professional exchange and networking.

Five Minutes with @ENGINUIS
on commitment to hydrogen.
(youtube.com)



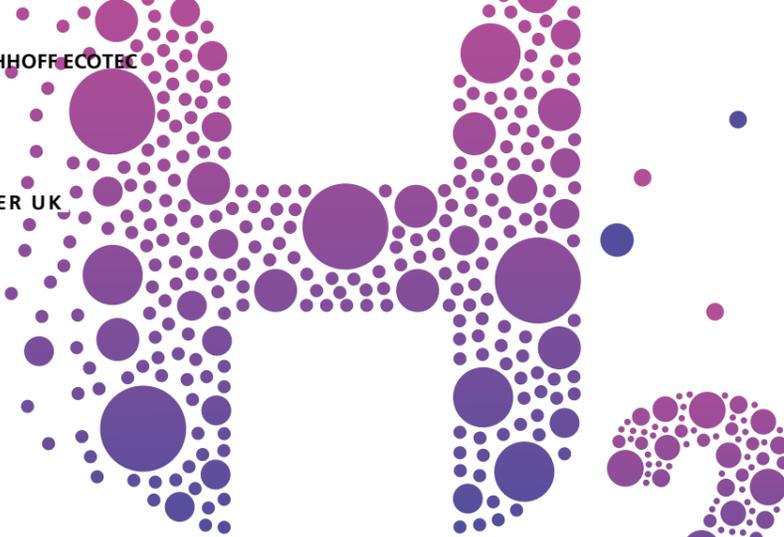
AUTHOR: LUKE FISHER
TRAINEE PR & COMMUNICATION FAUN ZOELLER UK

FAUN-Zoeller UK recently held an event at the ENGINUIS GmbH production facility in Bremen, Germany. It was an insightful and innovative trip where attendees were able to test drive the future of transport, which comes from our hydrogen fuel cell vehicles. All attendees currently work in either haulage, logistics or waste management and were given an in-depth factory tour. One session involved a talk on training engineers and how to better equip your workforce with hydrogen knowledge.

Chief Technical Officer at ENGINUIS, Florian Brandau, provided further insight into the green funding session. He said, "The transition towards new technologies requires all stakeholders in the value chain to come together and discuss the best way possible to seed and grow new technologies in the market. The result was an astonishing atmosphere and showed a strong drive to make the Hydrogen in transportation solution happen. We're looking forward to the next project discussion and will support all parties, to make Hydrogen in transportation work today." Worldwide, it is essential to recognise that using these hydrogen vehicles will help to make a better future by cutting carbon emissions, improving air quality and reducing noise. These some of the positive impacts and benefits of hydrogen technology.

The success of the first UK vehicle project in St Helens CC in the North of England was shown to the attendees. From its original consultation with the client, through to its delivery in 2022. A true success for all involved. The launch at university will 24/25th September 2024 and they will be creating a new academy together with ENGINUIS UK Ltd to create a new curriculum for EV and HFCEV qualifications from apprenticeships to degree level. Also, FZUK will be working with them as our training provider.

ENGINUIS will continue to act sustainably and ethically, trying to encourage communities and others to turn green, raising awareness and spreading positivity of hydrogen vehicles for future transport. ■



MISSION ACCOMPLISHED: the new ENGINIUS BLUEPOWER is on the road

The new ENGINIUS BLUEPOWER: a major architectural update makes it even better.



ENGINIUS® BLUEPOWER
HYDROGEN MOVES US



The new ENGINIUS BLUEPOWER with Hyundai fuel cell is here. FAUN is presenting the new ENGINIUS BLUEPOWER for the first time at IFAT 2024. The hydrogen refuse vehicle has been given a major architecture update with many improvements.

Many detailed improvements and a new main component

The biggest change is the fuel cell from Hyundai, which was developed according to the latest automotive standards and promises increased efficiency. There are also updates to the cooling system of the fuel cell, which is now operated with high-voltage fans and controlled pumps. This reduces the number of energy conversion steps.

The complexity of the vehicle's electrical supply has been significantly reduced. Energy distribution has been optimised and the installation of components has been improved based on field experience.

AUTHOR: FLORIAN BRANDAU
CHIEF TECHNICAL OFFICER ENGINIUS

Overall, the complexity has been reduced by a good 300 components, which also has an impact on the unladen weight of the vehicle.

GSR2, greater variance and new business areas

The vehicle package in particular, with a significantly reduced refrigerated body and more variability in the wheelbases, provides the opportunity to address new business areas. The first vehicles will be delivered in autumn 2024.

One milestone is the achievement of the current regulatory amendment General Safety Regulation (GSR2). To this end, company processes and documentation have been established to provide better protection against cyber security attacks. ENGINIUS & KIRCHHOFF Ecotec are the first companies to achieve this certification.

A functional prototype of the new BLUEPOWER has been running since November 2023. The hydrogen truck travels through seasons and tracks, providing our engineers with information on the maturity of the components and system processes. ■

The next generation:

- Hyundai fuel cell: higher efficiency, lower maintenance costs
- Increased efficiency through optimisation of the overall system and energy management
- Reduced maintenance costs for the drive system
- Revised mechanical design: lower weight
- Complexity reduction: elimination of approx. 300 parts list items
- GSR 2 compliant

IT'S NOT JUST THE BROOMS THAT TURN

AUTHOR: CLAUDIA SCHAUE
MARKETING & COMMUNICATIONS MANAGER
FAUN GROUP

Tobias Badtke took over the management of FAUN Viatec GmbH in April. He succeeds Helmut Schmeh, who is moving to the role of CTO for sweepers after 24 years as Managing Director.

Growth must be tangible

Tobias Badtke loves family businesses: "I like the dynamism of family businesses. Appreciation, the joy of innovation, coupled with creative freedom and a down-to-earth attitude - that's what appeals to me."

His path to FAUN Viatec in Grimma led him to study business administration, corrugated cardboard packaging, a component manufacturer for conveyor belt technology and a global market leader for electron beam technology. In a managerial role and as Managing Director, he successfully managed strategy processes in Germany and abroad. 'I have to feel growth, something always has to move and turn,' says Badtke, describing his motivation.

At sweeper manufacturer FAUN Viatec, he has moved directly into the new production plant that will be built in 2023. Badtke's agenda includes items such as further stabilizing production processes, strengthening the international orientation of FAUN sweepers and shaping transformation processes. 'I'm still on my honeymoon, so to speak, and I feel very comfortable. The welcome was honest and open and I'm looking forward to working with the team,' says the amateur basketball player. ■

Tobias Badtke is thus taking over the baton from Helmut Schmeh, who will be responsible for the support and further development of the Viatec, Trombia and VAL AIR sweeper brands as Technical Manager of the Cleaning Division. Helmut Schmeh has been rooted in Grimma and FAUN sweepers since 2000 and is passionate about this task. His FAUN highlights include the construction of the new production plant last year.

The best of both worlds

The new generation of sweepers combines plenty of power with easy handling.

The new CITYJET sweeper. A manual suction unit is installed on the roof for cleaning sumps or manually picking up piles of leaves.

The FAUN sweeper range has a new addition: CITYJET sweeper.

This sweeper was developed to meet the increased cleaning requirements in cities. The CITYJET combines efficiency with ecological responsibility. Our aim was to develop a sweeper that works effectively both in inner-city areas and in demanding applications. The compact design of the CITYJET sweeper enables exceptional maneuverability, making it easier to maneuver in the tightest of spaces. The powerful drive, the newly developed suction fan and the generous capacities for sweepings and operating materials ensure the best sweeping performance, even in demanding applications. This is how we combine the best of two worlds.

AUTHOR: ACHIM JACKISCH
PRODUCT MANAGER SWEEPER FAUN VIATEC

What sets the CITYJET series apart:

- Efficient sweeping performance with low operating costs
- User-friendly and ergonomic controls
- Durability and reliable FAUN quality

Shhhh

The CITYJET was developed in accordance with the highest environmental and sustainability standards and achieves top values for dust and noise emissions.

- 4-star certification for PM10 and PM2.5 particles
- Noise emissions of 106dB(A)
- Stage V certified superstructure engines (Stage IIIA available for export)
- Water tanks made from 100% recyclable plastic
- Waste water recycling
- Certified electromagnetic compatibility

Innovative & intuitive operation

Modern and intuitive operation inside and outside the sweeper enables safe and, above all, easy handling. In the cockpit, the driver can see all settings, diagnostic functions and the image from the reversing camera on the 7" main display. During the sweeping process, the driver navigates using the controls on the side of the driver's door. He can switch between different sweeping modes to adapt the sweeping performance to the requirements.

- Two-hand operation for closing the tailgate in the rear area
- Everything in view thanks to radio remote control for controlling the unloading process
- Automatic, multi-stage safety support
- White noise warning tone for container movement and reversing
- Warning if the container is not fully lowered or closed

"The CITYJET sweeper is our answer to modern environmental standards and is already being used successfully in several European countries and in Australia. By the end of the year, 100 vehicles will already be ensuring cleanliness."

The CITYJET sweeper is currently available in two sizes:

CITYJET 5

- 5.5 m³ body
- 1,500 litre fresh water supply
- for 12 tonne chassis

CITYJET 6

- 6.5 m³ body
- 1,900 l fresh water supply
- for 15-18 tonne chassis

Antriebsvarianten

- auxiliary engine
- Hydrostatic drive types HS1010

Välkommen till

The newest member of the FAUN Group is FAUN Nordic AB in Sweden. Although the company was only founded in 2023, a very experienced team works here. The 14 employees have more than 135 years of combined experience in the waste disposal vehicle industry.



FAUN Nordic AB is a wholly-owned subsidiary of the KIRCHHOFF Group, based in Kalmar in the south-east of Sweden and with service workshops in Kalmar and Stockholm. As Managing Director, Thomas Thuresson leads the team, which started work in September 2023. The first orders for refuse collection vehicles are on the books and the first vehicles have already been delivered. FAUN Nordic AB also offers servicing for waste collection vehicles of various brands and sells spare parts.

The demand for multi-compartment waste disposal vehicles will rise sharply on the Nordic market. The reason for this is a new EU directive on the sorting of household waste. Denmark was the first country to fully implement the directive and has opted for a two-chamber solution for waste collection. In Sweden, implementation is in full swing and

many municipalities have opted for a four-chamber solution. With the FAUN MF 4 Nordic, FAUN offers a four-compartment refuse collection vehicle in whose product development the FAUN Nordic team played a leading role. Four- and two-chamber refuse collection vehicles will form the main focus of the FAUN Nordic portfolio. There is also a market for conventional rear loaders such as the ROTOPRESS, whose unique design makes it ideal for waste disposal tasks in Scandinavia.

The annual sales volume of refuse collection vehicles on the Scandinavian market is estimated at 450 to 500 units. Thomas and the 14 employees are happy to be part of the FAUN family. With a committed team, a strong product portfolio and the support of the FAUN group everything is possible. ■



ZOELLER TECH is worth a trip

AUTHOR: SABINE KÄMPER
EDITORIAL OFFICE ZOELLER GROUP



Postponed for four years and now finally realised: At the end of April, the General Meeting of the Association for Work Machinery and Municipal Technology in Germany (VAK) took place in Sopot near Gdansk, Poland. The reason for choosing this venue: ZOELLER TECH in Rekowo Górne.



Who we are and what we do: CEO Rainer Rohler explains the individual production stations during the tour.



State-of-the-art technology and maximum precision impressed the visitors.



Production can be this colourful! The workshop for chassis preparation. In the background: a picture that the employees and their families created together as part of "Kirchhoff Culture Life" in May 2023.



The northern Polish town of Sopot, picturesquey situated on the Baltic Sea, offers a whole range of attractions: Spa houses, a sandy beach and a pier that juts out into the Bay of Gdansk. However, the 70 visitors to the VAK General Meeting were particularly interested in one attraction: the ZOELLER TECH plant in Rekowo Górne.

A tour of the then new plant was originally planned for 2020. "Unfortunately, the lockdown came about and we had to cancel the trip and the General Meeting. We have now finally made up for it," explains VAK Managing Director Anna Breimer.

Under the guidance of CEO Rainer Rohler and COO Sebastian Jamrozik, the tour of the entire plant was organised in two groups. From prefabrication and small parts assembly, to single part cutting production, the fully automated welding production, through to surface technology, warehousing and assembly, the participants learnt about the most important production processes in a detailed and clear way.

The unanimous opinion: it was worth the wait and the journey! Anna Breimer: "The modern production was indeed particularly impressive. I heard that from almost all the participants. Above all, the specially programmed software and the vertical range of manufacture left a lasting impression." ■



Modern plasma cutter for difficult contours.

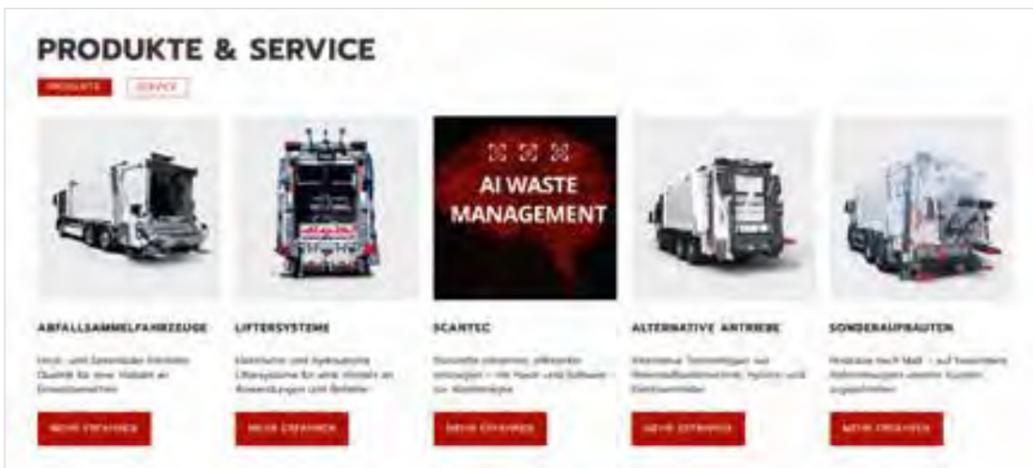
ZOELLER: ALSO IN

Pole Position visually

ZOELLER has revised its corporate design and is presenting itself with a new website, among other things. STUMMER, ZOELLER TECH and other subsidiaries of the group will follow suit. The fresh appearance not only ensures greater visual unity, but also symbolises the inner solidarity and team spirit of the ZOELLER GROUP across national borders.



BIG PLAYER: Generous and expansive - the design also reflects the size of the ZOELLER GROUP.



FOCUS ON THE ESSENTIALS:

Lots of white space, a tidy layout, the fonts are clean and unadorned. The look reflects what characterises the ZOELLER GROUP: precision, honesty and sustainability.

AUTHOR: SABINE KÄMPER, EDITORIAL OFFICE ZOELLER GROUP



More about:
www.zoeller-kipper.de

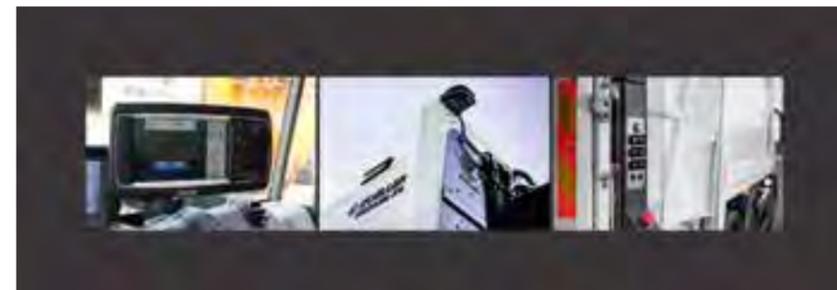


QUICK FACTS

- Alternative Antrieb
- Volle Leistung
- Null Emission
- ...



THE VISUAL WORLDS - DYNAMIC & PRACTICE ORIENTATED: On the superordinate category pages the interested user gets insights into the range of applications: For which area of application is a vehicle made for? This symbolised, for example, the super manoeuvrable X4 Narrow in a residential area or the Micro in the pedestrian zone.



PURE & DETAILED: On the product pages, the focus is fully on the respective vehicle. Clean and technical - nothing should distract. Close-ups of the relevant details provide a good, quick overview.

„ZOELLER used to sell itself visually short. Now the website reflects what the company really is.“
Nadine Krüger,
Senior Art Director Alsterbuben



WHO IS WHO: We show who makes ZOELLER what it is: The people behind the brand! Contact persons can be seen in the portrait. Authentic, natural, open: The ZOELLER GROUP stands for customer proximity and service-orientation.

Good prospects: expansion of the portfolio

AUTHOR: KRISTINA LERCH
EDITORIAL OFFICE ZOELLER GROUP

At the beginning of the year, the ZOELLER GROUP acquired parts of the assets of the Dutch Geesink Norba Holding. CEO Thomas Schmitz comments on the latest addition to the Group.

What were the reasons for the takeover?

Geesink Norba had filed for insolvency. This jeopardised a considerable fleet of refuse collection vehicles in the market for our customers in terms of service, repair and spare parts supply, and the acquisition of Geesink Norba's assets ensures the safe and long-term continued operation of these vehicles for our customers. In addition, Geesink Norba's product range is very attractive and closes gaps in the ZOELLER GROUP's portfolio.

What does the takeover mean for the management and workforce of Geesink Norba?

As a matter of principle, the ZOELLER GROUP takes a long-term and sustainable approach to all investment decisions. We have been able to take over a significant part of Geesink Norba's workforce and assume that we will be able to expand our business activities and realise continuous growth. After many years of Geesink Norba's crisis-ridden existence, the workforce now has a stable and long-term perspective for the future.

What does the takeover mean for existing customers?

The ZOELLER GROUP focusses on innovation, high-quality products and service. For this reason, a catalogue of tasks for the further development of the product portfolio was drawn up in parallel with the restart of production and is now being systematically implemented. Geesink Norba will have access to all the innovative technologies of the ZOELLER GROUP in order to test and utilise them in the Geesink Norba portfolio.

What are the plans for Geesink Norba? What are the forecasts for the future?

We will continue to develop the GPM IV, MF-2 and MF-4 product ranges, which are different collection vehicle superstructures, and establish them as absolute "top of the class" products with our digitalisation innovations. We assume that our customers will honour this and that we will be able to achieve healthy growth.

Geesink Norba has been incorporated into your group of companies under the HALLER brand. How is the integration going, are you satisfied with the progress?

The HALLER brand has been known throughout Europe for many decades for very consistent, top-quality products. With all the actions that have been decided and initiated so far, Geesink Norba is living up to this market claim. We are very pleased that the employees of the Geesink Norba Group are facing up to this challenge with enthusiasm, motivation and great commitment.

What is the biggest challenge of the takeover? How are you overcoming it?

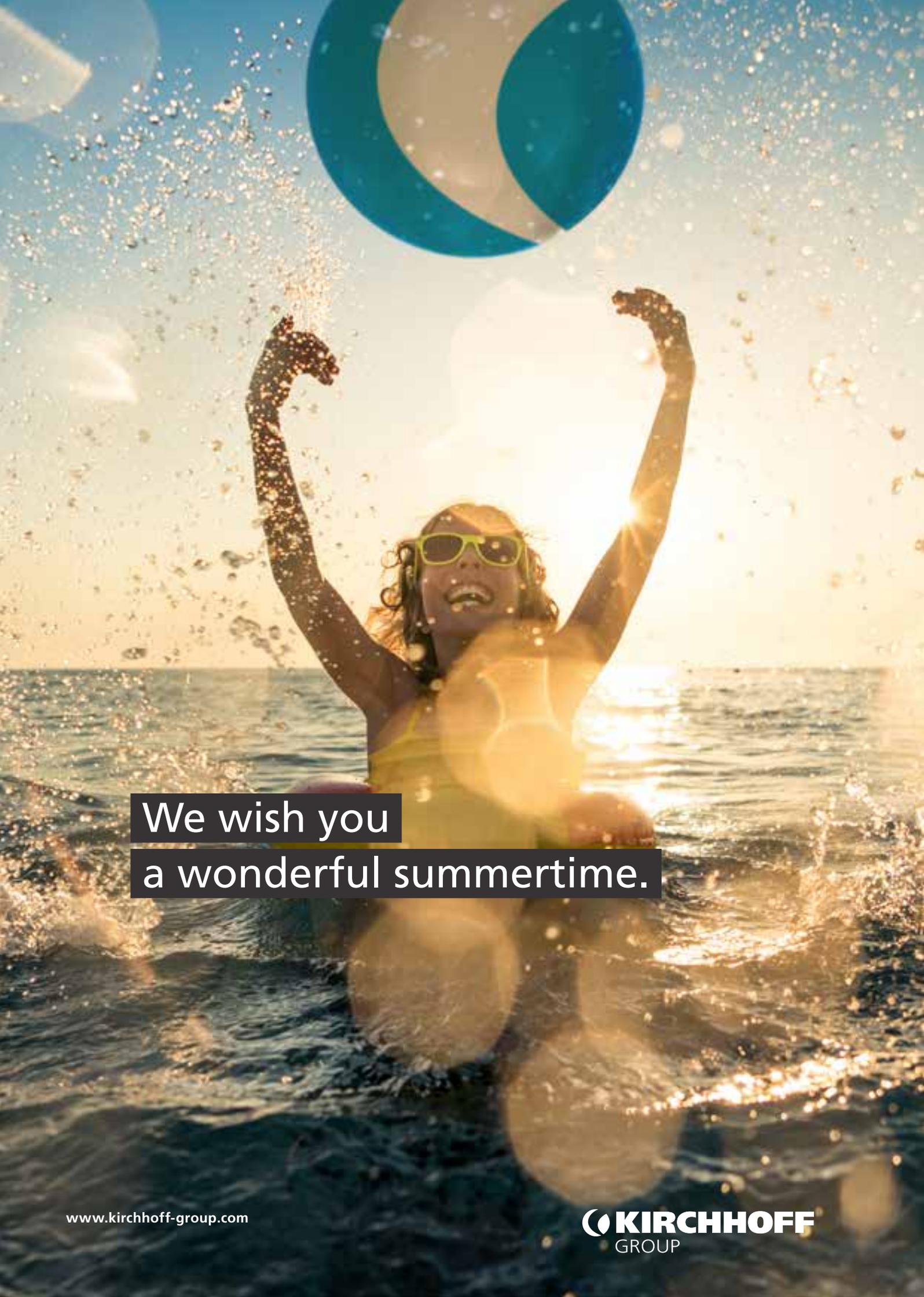
Due to the volume strategy and the associated price strategy of the management in the past, customers have categorised Geesink Norba in a low-cost segment. Geesink Norba does not belong there with its high-quality products. Our big task is to convince customers of the real value of the products.

Where do you want to go overall? What are the priorities in the growth strategy and what are the most important growth drivers for the ZOELLER GROUP?

Customer value is the fundamental motivation for our actions and investments in technical innovations, especially the digitalisation strategy. Increasing customer value is the basis for securing the long-term and sustainable future of our company. ■



Thomas Schmitz
CEO ZOELLER GRUPPE

A vibrant, high-angle photograph of a woman with curly hair, wearing a yellow one-piece swimsuit and bright yellow sunglasses. She is captured mid-jump in the ocean, with her arms raised high in a joyful gesture. The scene is filled with dynamic water splashes and droplets, creating a sense of movement and fun. In the upper center, a beach ball with teal and white segments is visible. The background shows a clear blue sky and the horizon line of the sea, with a bright sun creating a lens flare effect. The overall mood is cheerful and summery.

We wish you
a wonderful summertime.