

K»MOBIL

THE KIRCHHOFF GROUP MAGAZINE



**LICENCE
TO
CLEAN**

FAUN and ZOELLER exhibited under the motto „Licence to clean“ the newest products and innovations during IFAT, the world's leading trade fair for environmental technology. More about the exhibition from page 76.

IFAT
resources. innovations. solutions

K·MOBIL

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Digital revolution changes the world

4  The digitisation of our world is an opportunity for greater growth, improved efficiencies, and extremely flexible forms of cooperation.

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

The global economic development in the first few months of 2014 has been positive and this trend is set to continue throughout the year with forecast growth of 3.6%. This was helped in particular by positive economic data from the United States and China, as well as a slight recovery in Europe.

Overall, this is pleasing for our group of companies as our activities are concentrated in these markets. Despite these positive underlying trends, we remain preoccupied about the potential limitation of our commercial relationship with the markets that are influenced by Russia due to the Ukrainian crisis. The continuing destabilising activities carried out by Russia

prior to and unfortunately also after the Ukrainian elections by no means supported the independence of the country as provided by national and international law. The partially discernable de-escalation efforts following Russia's annexation of Ukraine, which was questionable under international law, give hope that the situation would improve, since the Russian President nevertheless is willing to accept the president's election in the Ukraine as well as the outcome.

In addition to this troublesome topic, we are also concerned, as a German company, about the two central plans of the grand coalition, i.e. pensions at the age of 63 and the reform of the German Renewable Energies Act (EEG).

Pensions at the age of 63 will place a burden on subsequent generations

If the current proposal for pensions at the age of 63 is retained, EUR 230 billion of additional pension and follow-up costs will bring about over the next 16 years a burden by a generation that is already better cared for than any other to follow. Furthermore, the allowance for all unemployment time that is still included in the draft law counteracts promises made during the election campaign to grant retirement at the age of 63 provided that 45 years of contribution payments have been made. Such a burden, which must be borne by our future generations, is



unacceptable. Our well-educated successor generation needs a reasonable, freely available income so that they are highly motivated to generate innovative and efficient growth in our country and in our industry in order to achieve greater prosperity and more self-determination.

The mix matters—conventional and renewable energy production

The urgently required reform of the EEG must be dealt with much more strictly than the path of compromise that emerged in the last few weeks. The EEG is already speeding up the de-industrialisation of Germany. The cost of electricity for industry is more than

twice the global level; as a result, energy-intensive companies in particular have either already relocated their factories or are seriously considering doing so. An intelligent mix of conventional and renewable energy production can rectify pricing here from a market perspective. The prerequisite for this is decisive political action.

This means a drastic reduction in subsidies for all types of power generation. At the same time, an appropriate legal framework introduced in order to bundle the service offering of conventional



and renewable energy generation with regard to security of supply and pricing within a free market.

Appropriate market models and concepts already exist to combine the generation of conventional and renewable energy. Only the desire to implement them remains unfulfilled.

Digital revolution and networking offer huge opportunities

The networking of our world with digital technology will play a growing role in helping us to convert to renewable energy sources. In addition to strengthening our pioneering role with regard to power generation systems, the intel-

ligent use of digitised networks and the parameter-dependent control of timed supply and use can produce significant advantages, all the more so from a cost perspective.

By using IT to link all the technology in a building with mobile terminals and public utilities, huge savings can be achieved with synchronised use that is not only in line with generation but also geared towards demand. Freezers and refrigerators as storage devices that are cooled down with sunshine and wind, heating and stand-by devices that are turned down or switched off when nobody is present and activated accordingly via smartphone shortly before use, are just a few examples.

The increase in innovations triggered by the "digital revolution" (key word: Industry 4.0) ensures more growth and employment in those companies and economies that are consistently making a contribution in this respect. The clear focus is on raising the efficiency potential.

The digital network can prevent accidents and improve efficiency. Not just in relation to the generation and use of energy, but also to cars, which are a core of our business activities. When road users, vehicles, pedestrians, etc., are connected within the general communication network, then on-board intelligence, for example in connection with stationary navigation computers and traffic master computers, proposes

a traffic-free, fuel-efficient route to the destination, or prevents a potential collision with another road user.

The consistent use of digital networks and connecting structures also offers huge opportunities for our business activities. It has thus been possible to connect almost all the waste disposal vehicles produced by our company FAUN and ZOELLER, with a central IT-based control system. This system carries out efficient route and use planning, directly records collected weight, and processes this data further. The households that have received a collection and the kilometres that have been swept can be documented if required.

In the future, we could press ahead with IT networking in our global plants in order to improve the quality and efficiency of our processes and products by means of benchmarking across plants and countries.

However, the progress made by the digitisation of our world has a wholly different meaning when it comes to the people who work with us, not only in

our Company, but also at our customers and partners. Work that is digitally networked is no longer restricted to a fixed work location, nor does it necessarily have to be performed at fixed times, or always require the simultaneous physical presence of a team. The temporal and spatial flexibility gained is not only a source of motivation for our younger generations who are striving to achieve more self-determination in their professional and private lives. It also meets the requirements of a globally active company, namely to ensure accessibility of our employees independently of the time zones.

One of the greatest challenges is to assign great significance to data security, data protection, and the interests of the individual as part of this digital revolution.

Let us therefore be at the forefront in the use and ongoing development of the digital revolution. However, we should not lose sight of the human aspect: cooperation, the development of friendships, personal contact without screens and smartphones. Business will

still always be generated by and between people and not by computers. They only serve to support us in the process.

Wishing you a wonderful summer and a cordial good luck.

Yours,



Dr. Johannes F. Kirchhoff

The comfort running board

FAUN has developed a comfort running board for refuse collection vehicles.

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About two years ago reports appeared among our customer base, which stated that the average age of the staff manning refuse collection vehicles is constantly increasing. As is well known, ageing is not necessarily conducive to good physical fitness. The use of running boards demonstrates considerable physical exertion in conjunction with the rear-loading refuse collection vehicle. The running boards are usually found at a height of 450 mm, which corresponds to the seat height of a normal chair. You can therefore easily test what it would mean to be negotiating this height several hundred times a day: 10 x climbing up on a chair, and getting back down again is an interesting exercise.

In order to improve this situation, we have designed a height-adjustable comfort running board. This installation considerably reduces the physical strain on the person loading (loader), as it travels down to a height of approx. 160 mm above street level, which corresponds approximately to the height of the curb. In this way, the loader can step from the curb onto the running board with practically no difference between the two heights, and with the board being no more than the height of one step above street level. The board then automatically ascends to the height required for driving, without physical exertion on the part of the operator.

The board's ascent is triggered via monitored handles: As soon as the loader grips the handles provided for this purpose with both hands, the board rises to a height of 450 mm. It is only in this upper, drive setting that the refuse vehicle can drive at the permitted 30 km/h. If the loader does not hold on tightly, the running board remains in its lower setting, and the speed is then limited to 6 km/h.

This concept which appears simple is more involved from a technical perspective:

- It must be ensured that the speed limitation functions under all circumstances. To this end, sensors with an extremely low failure probability are required. The MTBF (= Mean Time Between Failure) for these sensors is approx. 2,300 years!
- When the comfort running board is in its lower position, it must be ensured that it does not touch the ground—even when the vehicle is in an awkward position. Here ultrasonic sensors are used, which are similar to those often used in cars for reverse parking.
- All functions and sensor signals must be processed by an in-vehicle computer, and must be monitored.
- The running boards must reliably be able to ascend carrying a weight of 150 kg, in order to prevent limitations in their use.
- Even in the case of a 150 kg loader, no undue distortions may crop up.

- The running board itself must be trimmed down to an extremely lightweight construction so that it does not have a negative influence on the payload of the refuse collection vehicle.
- According to the motto "the first taste is always with your eyes", an appealing design that blends in well with the appearance of the vehicle is required.

Shortly before the IFAT trade fair, the first two prototypes were completed and mounted on a vehicle that was exhibited on the FAUN fair stand. Here, customer reactions were to be noted, with the core issue being whether, in the point of view of the FAUN customer, there was a market opportunity.

After the trade fair, this question can be answered with a resounding "yes": The reaction of our customers fluctuated between "ok, if it's not too expensive" and "yes definitely, we would like this". Consequently, the development team in the TEC centre face the exciting task of developing the comfort running board so that by the end of the year it is ready to go into mass production. The necessary functionality has been checked through the prototypes; the next step is that both reliability and costs must be made market-ready, through "design to cost" planning.

Ulrich Helfmeier



The new, ergonomic comfort running board



WE.MOVE.FUTURE.



KIRCHHOFF
AUTOMOTIVE

WE.MOVE.FUTURE.

10-55



Global growth and stability

— Arndt G. Kirchhoff, Managing Partner and CEO of KIRCHHOFF Holding, talks in an interview about his assessment of the global situation and the development of the automotive industry.

Andreas Heine: Arndt G. Kirchhoff, 2014 is predicted to be an excellent year for the automotive sector, at least according to the analysts. Does this assessment also apply to KIRCHHOFF Automotive? I would now like to dis-

cuss different regions with you and look at the developments that you anticipate for our Company. The first region is North America, where we expect a record year. Is this a sustainable development?

Arndt G. Kirchhoff: I think so, because we are noticing that the situation in America is becoming more and more stable. We are seeing a great deal of customer investment, particularly in plants in the south of the United States, but a growing number of vehicles are also being manufactured in and exported from Mexico. We are very well positioned here, with our 11 plants up and down the country. I believe that we will experience stable business in the long term. Incidentally, the American industry as a whole is investing in new plants and new machines. They have recognised that their country, if I may say so, needs to be updated, so that they are once again able to provide state-of-the-art technology, processes, and products.



ARNDT G. KIRCHHOFF

"After six years of decline in Europe, I believe there is now a large backlog. However, I still do not expect amazing growth, because the sovereign debt crisis is not yet resolved, particularly in southern Europe."



Andreas Heine: According to forecasts, over 30 million vehicles will be produced in China in 2020. This is roughly twice the amount produced last year. This year, we will open our third plant in Shenyang. How will China develop for us in the next few years?

Arndt G. Kirchhoff: I believe that it will continue to move forward in a robust manner. When I say robust, we will of course experience a slight deceleration in economic growth, which is merely a statistical effect because the economy in China is growing at a considerable rate.

The automotive sector grew by 23% last year and so the growth rates in this area will also be somewhat lower. This year, they will be just over 7%. This is still an excellent figure, especially given that China is roughly the same size as Europe. We expect that the forecasts may be correct for the automotive industry and its sales. We will construct further plants depending on our customers' wishes and where they expand their capacities. It is conceivable that they will be in the south, but it is also possible that we will undertake further construction in western China.

Andreas Heine: At the moment, Chinese business makes up around three to four per cent of our total turnover. How high could this grow?

Arndt G. Kirchhoff: It is difficult to say, because we must ensure that our technology is protected. As China is still such a vast empire for us, we may not necessarily win out over domestic suppliers. We are far too small to achieve this and are only able to protect ourselves by offering products that cannot be produced by Chinese suppliers, as far as possible. This is something that we are aware of and that determines our growth. However, we are not pursuing growth. We want to have stable and profitable relationships in China.

Andreas Heine: In the last few years, very strong growth has been attributed to two regions: India and South Asia. Do you think that KIRCHHOFF Automotive will invest in these two new regions in the near future?

Arndt G. Kirchhoff: "In the near future" is a relative term. After the initial hype, we found that things could not be achieved that quickly. I therefore believe that we must act with circumspection. We would do well to refrain from



ARNDT G. KIRCHHOFF
Managing Partner and CEO
of KIRCHHOFF Holding.

investing too quickly in these countries. Anyway, we must focus on our customers. And we are noticing that our customers, too, are experiencing difficulties with sales in these markets. These markets are not growing as rapidly as, for example, the people there would like or as we would like.

Andreas Heine: There were once business model forecasts for us in Russia and in Brazil. How do things look in these countries?

Arndt G. Kirchhoff: The momentum in Brazil also declined in the last year. It remains an unstable country. In this respect, we will remain very cautious, as we have been since 1996. We have our office in Brazil and are able to continue working with licensed production. In my opinion, if we were to open up a plant again, this should be dependent on a more stable situation in Brazil. I view Russia differently; Russia is a strong market for Europe. Indeed, the political situation is not entirely stable here at the moment either, but we are monitoring this very closely. We are currently considering whether to supply our customers as part of a cluster of

several suppliers in order to jointly build up our capacity in Russia. I believe that Russia will one day become a very important market for us in Europe.

Andreas Heine: We now come to Europe. Difficult years are behind us. Have we passed the lowest point in economic terms and for the automotive industry in particular?

Arndt G. Kirchhoff: We have seen six years of decline in Europe and I also believe there is now a large backlog because the number of end-of-life vehicles has increased. I still do not expect amazing growth, because we have not yet resolved the issue of the sovereign debt crisis, particularly in southern Europe. This means that consumers, especially young people, do not have the money to invest in a car. However, it appears that these markets are also becoming increasingly important for the procurement of spare parts or even for the used car market.

Andreas Heine: The proportion of vehicles that are exported out of Germany will also continue to fall in the future. An increasing number of smaller mod-

els are being produced where they will end up being sold. How can we safeguard our main plants in Europe in the long term?

Arndt G. Kirchhoff: This does not mean, however, that the value of exports from Germany is falling. As we saw last year, this value has increased. This is because the higher-value vehicles, the premium vehicles, are being manufactured in Germany and will also not be readily localised. However, they create value that has, until now, led to an increase in the figures. Incidentally, this also applies to the suppliers, who are well advised to operate accordingly in this segment.

Andreas Heine: The keyword is lightweight body construction! An increasing number of new materials are used with some degree of hybrid construction in a growing number of new models. Are we well equipped for this development?

Arndt G. Kirchhoff: Yes, on the one hand we have built up our own research and development department in the last few years. Not only in Germany

but also worldwide. Our development network, as we also like to call it. On the other hand, we are also involved in competence centres such as the Automotive Center Südwestfalen, which is completely dedicated to lightweight construction. And this leads me to believe that we are already at the forefront of multi-material and hybrid construction. Incidentally, we have already been manufacturing plastic/metal hybrid components for 20 years.

Andreas Heine: The vast majority of our production consists of the forming and joining of steel. How do you think that this area will develop?

Arndt G. Kirchhoff: Recently, mobility has also become a question of costs, and the more we integrate higher-value materials, i.e. lightweight construction materials such as non-ferrous metals or even plastics and fibre-reinforced plastics, into the car, the more expensive the car becomes. And if we now look at the global market, the majority of the cars sold on the global market are affordable, i.e. small or medium-sized cars. If I want to keep them in this sec-

tor, I have to rely primarily on working with steel grades because steel remains the most economical and environmentally friendly material. Unlike aluminium or plastic, steel can be reused and recycled on a one-for-one basis. This is our objective, because we want to be as raw-material-independent as possible, especially in highly industrialised countries, which do not have as many raw materials as other regions of the world, and we want to do this by collecting and recycling materials. We therefore believe that all grades of steel will be used in vehicles for a long time.

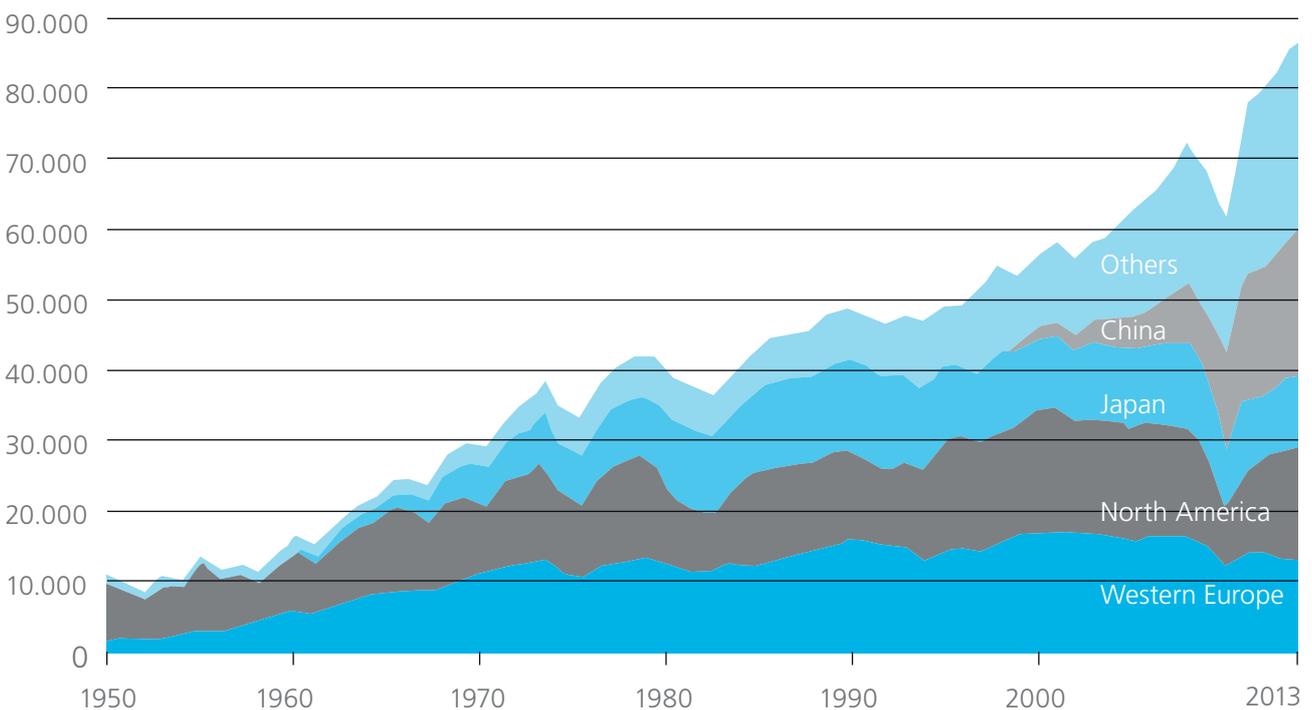
Andreas Heine: At the moment, a vehicle's environmental impact is essentially determined by its fuel consumption and CO² emissions. What you have just mentioned relates to recyclability and energy consumption during production. Do you think that these factors will be included in the calculations at some point?

Arndt G. Kirchhoff: I believe that the entire process must be assessed. After all, we have to ensure that we use less energy in the production process. For

us, this relates primarily to the source materials: steel, aluminium, and plastic. These normally involve fairly heavy use of energy. In this respect, the old rule applies: if we use less material, we also use less energy. Of course, we also have to ensure that the use of energy in our processes, pressing technologies, and joining methods does not spiral out of control. This is not just a question of costs but also of the responsibility that we have towards the environment.

The interview was conducted by Andreas Heine, Head of Corporate Communication & Marketing KIRCHHOFF Automotive.

Worldwide automotive production of cars and commercial vehicles in thousand



Source: VDA

New products on the road

KIRCHHOFF Automotive strengthens its partnerships with OEMs thanks to its expertise and innovations.

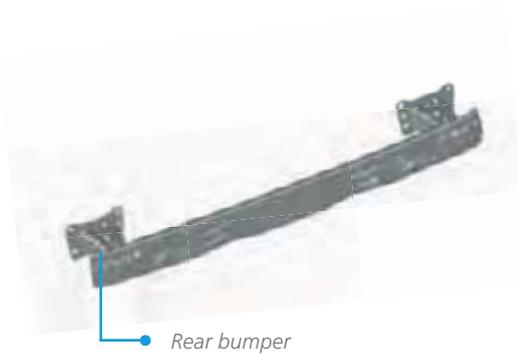
In the future, KIRCHHOFF Automotive will supply a major package of structural parts for the body in white of the new Mercedes C-Class. Besides higher-strength cold-formed parts, the Company will also contribute hot-formed components from the hot forming lines in Esztergom/Hungary and from

its headquarters in Iserlohn/Germany. The entire process chain is employed to manufacture these products that are optimised for weight and crash performance: from direct hot forming, laser or heat trimming, and welding, through to cathodic dip painting. The products are then used at the Mercedes C-Class pro-

duction locations in the United States, South Africa, Germany, and China.

KIRCHHOFF Automotive supplies numerous formed parts and assemblies as well as the rear bumper for the new Ford Transit Connect, which has been manufactured in Valencia/Spain since

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Rear bumper

Technologies:

Forming, spot welding, MAG welding, CDP coating

Production plants:

Ovar/Portugal; Cucujães/Portugal

Capacity/year:

170,000

Customer/vehicle:

Ford Transit Connect



A pillar and pot pedal system assembly

A pillar technologies:

Blank cutting, direct hot forming, laser trimming

Pot pedal system technologies:

Blank cutting, direct hot forming, laser trimming, screw welding

A pillar production plants:

Mielec/Poland; Esztergom/Hungary; Attendorn/Germany; Iserlohn/Germany

Pot pedal system production plant:

Iserlohn/Germany

Capacity/year:

350,000 each

Customer/vehicle:

Mercedes-Benz C-Class

2013. All parts will be produced in the two Portuguese plants Ovar and Cujães. The rear bumper is an essential crash management component for the absorption of energy in the vehicle. The entire value chain of KIRCHHOFF Automotive is used in its production, starting from the forming of the bumper beam from high-strength material as well as the associated brackets, via spot and MAG welding, through to surface treatment in the CDP process.

We successfully supported the production start-up of the new Mini Cooper in Oxford with a series of cold-formed components. We realise these projects on transfer presses of between 1,000

and 1,600 to at our plants in Germany, Poland, and Hungary. In addition to the forming of components, some made from high-strength materials, we were able to fulfil customer requirements with regard to challenging thermoforming properties or the simultaneous use of different fixing elements.

KIRCHHOFF Automotive will be represented by various structural parts in the new Porsche Macan. Besides CDP-coated stiffening struts in cold-formed steel for the engine compartment, we supply a package of hot-formed components that are produced on the hot forming line in Esztergom/Hungary. Products that are optimised for weight and crash

performance are manufactured using direct hot forming, laser trimming, welding, and cathodic dip painting, and are used at the Macan production location in Leipzig/Germany.

Dr. Thomas Steinhaus

Strut top



Rear strike plate tunnel



Rear cross member front seat



Spring supports



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Rear cross member front seat and support top

Technologies:

Forming, welding, direct hot forming, laser trimming, CDP coating

Production plants:

Esztergom/Hungary; Gliwice/Poland; Iserlohn/Germany; Attendorn/Germany

Capacity/year:

90,000 vehicle sets

Customer/vehicle:

Porsche Macan



©BMW AG

Spring supports and rear strike plate tunnel

Technologies:

Forming, deep drawing, automatic simultaneous supply of more than one fixing element

Production plants:

Attendorn/Germany; Esztergom/Hungary; Mielec/Poland

Capacity/year:

300,000

Customer/vehicle:

BMW Mini



The project team in front of the new G-Class and the side members manufactured by KIRCHHOFF Automotive. F.l.t.r.: Knut Stinn, Annette Grün, Peter Kowalczyk, Michael Valentini, Dr. Jochen F. Kirchhoff, Timo Müller, Benjamin Henrich, Jens Schragner, Benjamin Ruwoldt, Katharina Urban, and Dieter Wlochowicz.

An unrivalled success story

— The similarities are numerous! Reliability, durability, robustness, and the constant readiness to improve on something that is already good. These are the hallmarks of the Mercedes-Benz G-Class and of KIRCHHOFF Automotive.

The unrivalled success story of an exceptional vehicle started in 1979 and thus also the manufacture of the side members at the then new location of KIRCHHOFF Automotive in Iserlohn-Sümmern/Germany. The car in question is the Mercedes G-Class, which is assembled in Graz/Austria at Magna Steyr (formerly Steyr-Daimler-Puch). As early as 1976, Dr. Jochen F. Kirchhoff was awarded the manufacture order for side members in Iserlohn. By doing so, he wrote history,

because this was the first product to be produced in the new location following the Company's relocation from the centre of Iserlohn to Sümmern. Subsequent orders for the side members of light to medium-weight commercial vehicles ensued.

The specifications for the G model stipulate absolute off-road capability even under difficult conditions. This requirement is met thanks, amongst others, to the lead frame, which has been used

since series ramp-up. The side member, which is manufactured from two half shells welded together, was co-developed and supplied from the outset by KIRCHHOFF Automotive. During the bidding phase, the planned manufacturing layout was presented to our customer in the form of a Lego model.

Today, over 230,000 vehicles have been sold. In addition to off-road fans, the G-class is supplied to the armed forces, fire brigades, and civil protection

With the first Mercedes G model on board at 'Skijöring' on the Söllner grasslands in the Gastein Valley in winter 1980/81.

Dr. Johannes Kirchhoff as driver and his brother Arndt are preparing for the race with the Mercedes G 280.



services. It now achieves a power output of over 600 hp.

After Mercedes-Benz decided to extend the service life of the G-class at least to 2019 and to make further substantial investment in the reworking of the vehicle as well as in its manufacturing plant in Graz, KIRCHHOFF Automotive was also able to reach a long-term agreement with regard to the future supply. The Company will supply the side members to Starkom in Maribor/Slovenia, a wholly-owned subsidiary of Daimler AG, up to and including

2019. This is where the full lead frame will be manufactured, and, following CDP coating by a service provider, subsequently delivered to Magna Steyr, where the complete vehicle will be assembled.

The facilities and tools employed in Iserlohn have been used since the start of series production in 1979. In order to keep up with growing quality and capacity requirements – approximately 12,000 vehicles were built in 2013 – an entirely new welding facility is currently being manufactured and will be com-

missioned in Iserlohn from the middle of this year. A new workshop has already been built to optimise the changed production processes at the location and this is where the welding facility will be installed in the future. Other improvements have already been made to the tools that are more than 30 years old. We will report on the commissioning of the new facility in its new environment in the next edition of K>MOBIL. The success story continues!

Knut Stinn



'Skijöring' (a race in which skiers have themselves towed by a horse, a husky or a motor vehicle) with Mercedes G 280 on the ice runway in Gastein Valley.



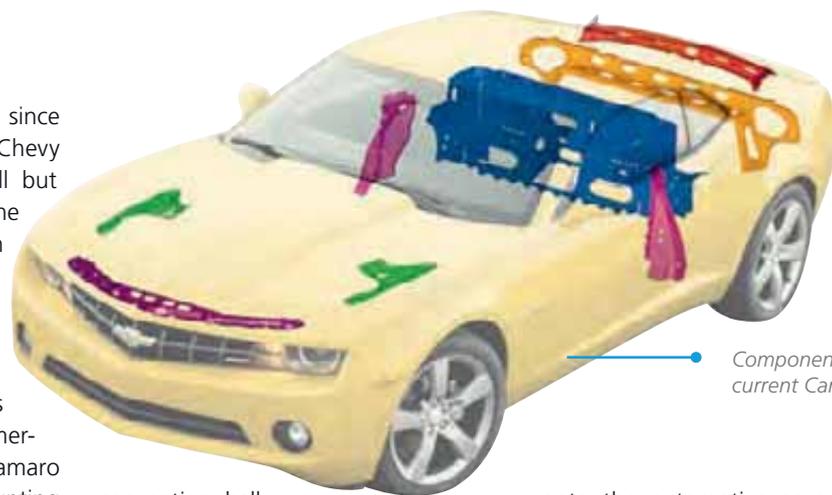
2011 Chevrolet Camaro

Great involvement in a 6th generation cult vehicle

20

— The right mix of core products and core competencies of KIRCHHOFF Van-Rob were the driving force behind the sizeable award of a mega package of parts for 2016 GM Chevrolet Camaro Coupe / Convertible.

'Despite passing its rival in sales since its resurgence in 2009, the Chevy Camaro's existence has been all but defined by the Ford Mustang. The Camaro was first introduced in 1966 for the sole purpose of competing with the Mustang, but it has since exceeded those expectations and grown to be recognized as one of America's iconic muscle cars. The TV commercial that introduced the 1967 Camaro showed it emerging from an erupting volcano. For 35 years, an unforgettable lineup of fun-to-own, fun-to-drive Camaros emerged from that metaphoric volcano. In 2002, the mountain went dormant. Then, at the 2006 North American International Auto Show in Detroit, a new Camaro concept emerged to a standing ovation from the media and fans packing the

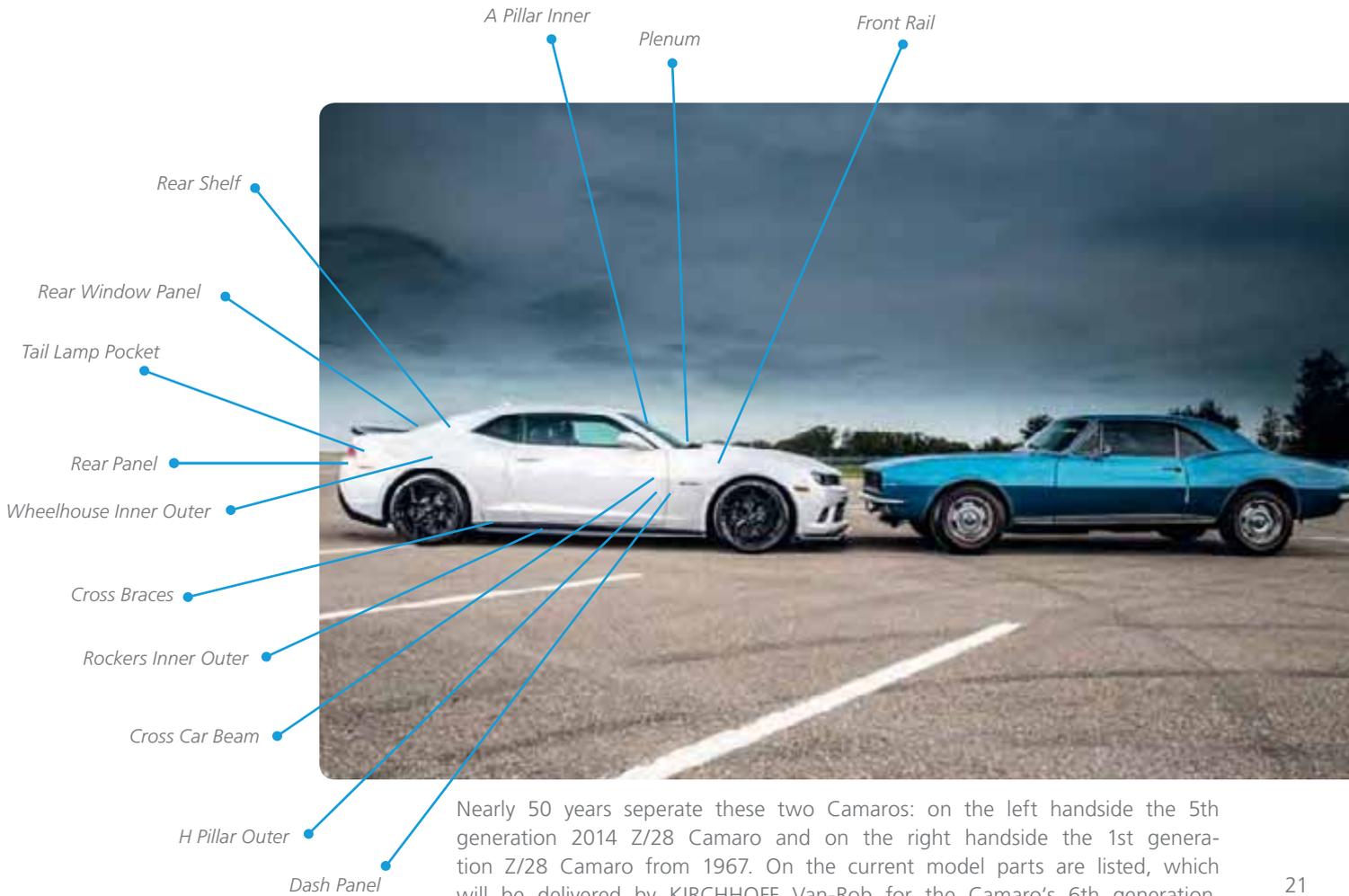


Components of the current Camaro-Model

convention hall—and rekindled the passion of the iconic 1969 Camaro. After the concept Camaro upstaged what looked like several volcanoes worth of pyrotechnics and special effects in the 2007 film, *Transformers*®, the pressure to put it into production intensified. Much to the delight of Camaro enthusiasts everywhere, the new Camaro that emerged

onto the automotive scene for 2010 was wonderfully faithful to the concept design—and to the spirit of the original. Source: Chevrolet.com

2012 marked the 45th anniversary of the Camaro. On December 19, 2012, GM announced that the Camaro would return to being made in America, as production of the Camaro would be



Nearly 50 years separate these two Camaros: on the left handside the 5th generation 2014 Z/28 Camaro and on the right handside the 1st generation Z/28 Camaro from 1967. On the current model parts are listed, which will be delivered by KIRCHHOFF Van-Rob for the Camaro's 6th generation.

shifted to the Lansing Grand River Assembly Plant in Michigan, citing „lower capital investment and improved production efficiencies“ as „key factors“ in the move. This move is expected to start in late 2015 or early 2016.

Where the history of Camaro runs deep dating back to the late 1960's, Van-Rob's history with the Camaro is much more recent. Camaro's first four generations were built at the General Motors Assembly Plant in St. Therese, Quebec, Canada. Starting in 1996, Van-Rob supplied parts for the F-Car Platform. "Class A" Headlamp Covers made specifically for the Pontiac Firebird, the sister vehicle to the Chevy Camaro were produced in the Richmond Hill facility. These parts included an embossed "PONTIAC" on the left headlamp cover for all Firebird vehicles. Van-Rob also produced the Hood Hinge Assemblies from the former Scarborough, Ontario,

Canada facility. For the current production vehicle the company supplies the Aluminum Hood Reinforcements and the Seat Back Assembly.

In comparison KIRCHHOFF Van-Rob's involvement in the Camaro's 6th generation vehicles is significantly much more extensive. Already in Q4 of 2013 the company was awarded with an expected launch date of October 2015. As part of the sourcing agreement KIRCHHOFF Van-Rob has agreed to locate in the immediate vicinity of the GM Lansing Grand River Assembly Plant, Lansing, Michigan, USA. This KIRCHHOFF Van-Rob facility is expected to be approximately 100,000 to 150,000 square feet in size, and to employ 200 people with a negotiated commitment of two life cycles from General Motors.

In the future there will be utilized several different welding processes: MIG

Welding in both Aluminum and Steel, Spot Welding, including our first experience Welding with "Quiet Steel". Furthermore, High Speed CNC Bending equipment on the Rocker Panels and Drawn Arc Welding on the Front Wheelhouse Assemblies will be applied. The range of parts produced by KIRCHHOFF Van-Rob will be from the simplest stamping parts to the most complex Aluminum Cross Car Beam, with Aluminum Stampings and Extrusions. WIP parts will be provided from several KIRCHHOFF Van-Rob facilities.

We assume that KIRCHHOFF Van-Rob will be racing at full speed in the second quarter of 2016.

Cary Mancinone, Rick Burchett, Denise Mayrand



The crew responsible for the plant setup in front of the new plant in Dallas

22

New production plant in Dallas was built within only one year

— The plant in Dallas could successfully support the start of production in the nearby plant of General Motors at the beginning of this year.

In just one year an 8,700 square meter empty building was converted into a fully-fledged manufacturing facility. The target was to support the start of production at the General Motors Plant only 50 kilometers away on January 21, 2014. Therefore, equipment needed to be put in place, systems had to run and a crew needed to be developed to steer the ship.

And the team has done a great job. The most daunting task was the setup of

the e-coating line that consumes 1,900 square meters of space and took nearly seven months to complete. In the next step, various systems were launched such as logistics and quality. Van-Rob Dallas is the first North American plant to fully utilize SAP and its logistics functions as well as the Hydra production software.

To staff the plant for mass production, new employees attended a two week training program on at least three op-

erations. New people will join the plant until each of the 159 positions is filled.

Now production is at full volume and the plant is firing on all eight cylinders. The crew responsible for the plant setup looks back with pride—since one year ago the current factory building was completely empty.

Ron Laing

Dallas—Facts and Figures

Dallas is the third-largest city in the state of Texas and the ninth-largest in the United States. The metropolis covers an area of 997 km² and has 1.24 million inhabitants. 18 of the 500 global companies with the highest turnover (Fortune 500 companies) (source: Fortune business magazine) and seven of the best-known companies worldwide are located in Dallas. Dallas is a city for sports fanatics. Five professional sports teams are located here: Dallas Cowboys, Dallas Stars, Dallas Mavericks, Texas Rangers, and FC Dallas. Many NASCAR and Indy races are held at the Texas Motor Speedway. And Dallas is the home of J.R. Ewing, the character from the popular TV series "Dallas".



The latest technologies for the Jeep® Grand Cherokee

— Prior to the start of production in 2010, Chrysler Group LLC defined ambitious sales goals for the brand-new Jeep® Grand Cherokee and its sister programme, the Dodge Durango. The initially planned production volume was set at 270,000 vehicles per year.



Lower dash reinforcement assembly for the Jeep® Grand Cherokee and Dodge Durango

24

As the fourth generation of the Jeep® Grand Cherokee, the vehicle has retained the classic styling of the original 1993 model while incorporating many enhancements to overall performance, convenience and appearance.

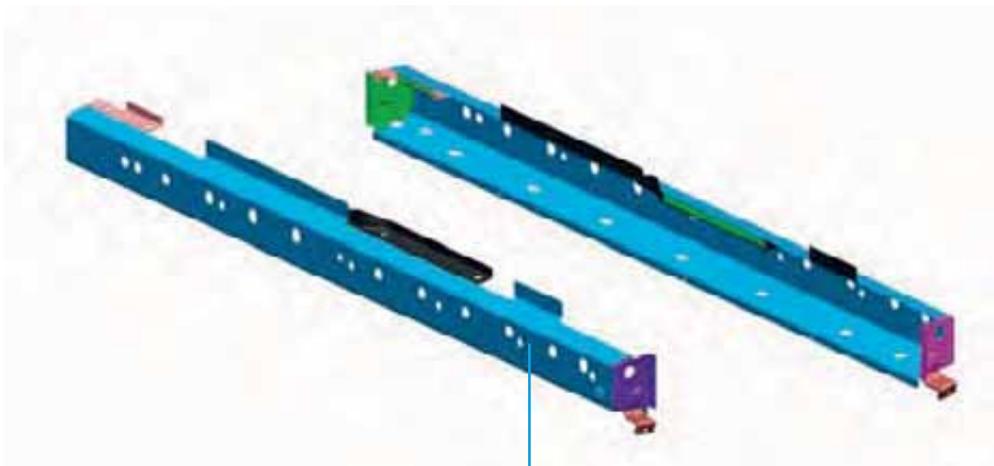
Van-Rob in Tecumseh, Michigan/USA, provides five welded assemblies for the two vehicle lines, including the lower dash reinforcement and an outer sill panel. Each of these products is

manufactured using the latest materials and processing technologies. The lower dash is made from high-strength dual-phase steel, which is increased in strength during the forming process. As a result, the deep-drawn component performs better and weighs less. In order to produce this quality component within the specified tolerances, we closely collaborated with the tool shop and the material supplier during the development phase. We also uti-

lise high-strength steel for the outer sill panels. The main rail structure of this assembly is manufactured in a customised high-speed CNC bending process. This process facilitates the production of large cross sections, with extremely tight tolerances, in a matter of seconds. Stamped features such as holes, trim changes, and so forth are successively incorporated into the steel plate prior to bending. Benefits to the customer include light weight, improved dimen-



The brand-new Jeep® Grand Cherokee. Jeep® is a registered trademark of Chrysler Group LLC.



● Outer sill panel assembly for the Jeep® Grand Cherokee

sional stability, and low tooling investment compared to alternative manufacturing processes.

Owing to the success of the vehicles within the market, Chrysler Group LLC has introduced additional shifts at its Jefferson North assembly plant to maximize production output. The production volume is 50% higher than originally anticipated. In 2014, the quantity of vehicles sold is expected to reach 375,000. The Tecum-

seh plant has also increased its manufacturing capacity to support production at Chrysler Group LLC. This summer, we will be adding a third spot welding cell for the lower dash assembly. Furthermore, we will employ an existing flexible robot cell in the outer sill panel assembly process. Both processes will reach full production capacity by September.

Due to the recently introduced new 2014 model Van-Rob Tecumseh is look-

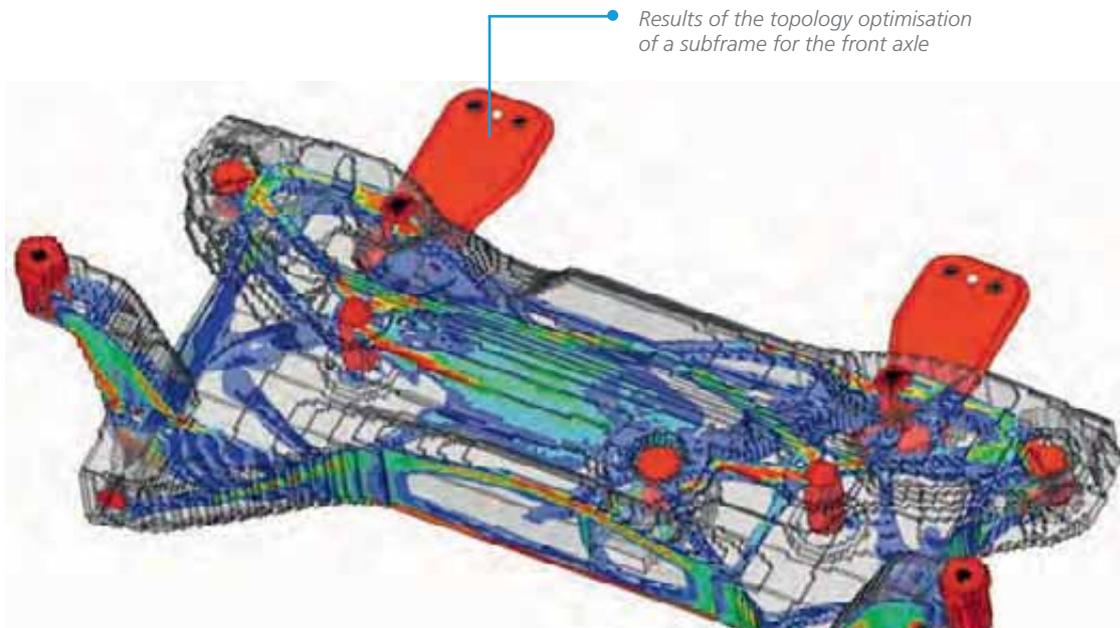
ing forward to strong sales figures for several years. Thanks to the combination of product design and material, process, and capacity management, we are able to provide the customer with a successful program.

John Hamel

Product development with the help of topology optimisation

Topology optimisation is used in product development at KIRCHHOFF Automotive to obtain proposals for the first design drafts of components.

26

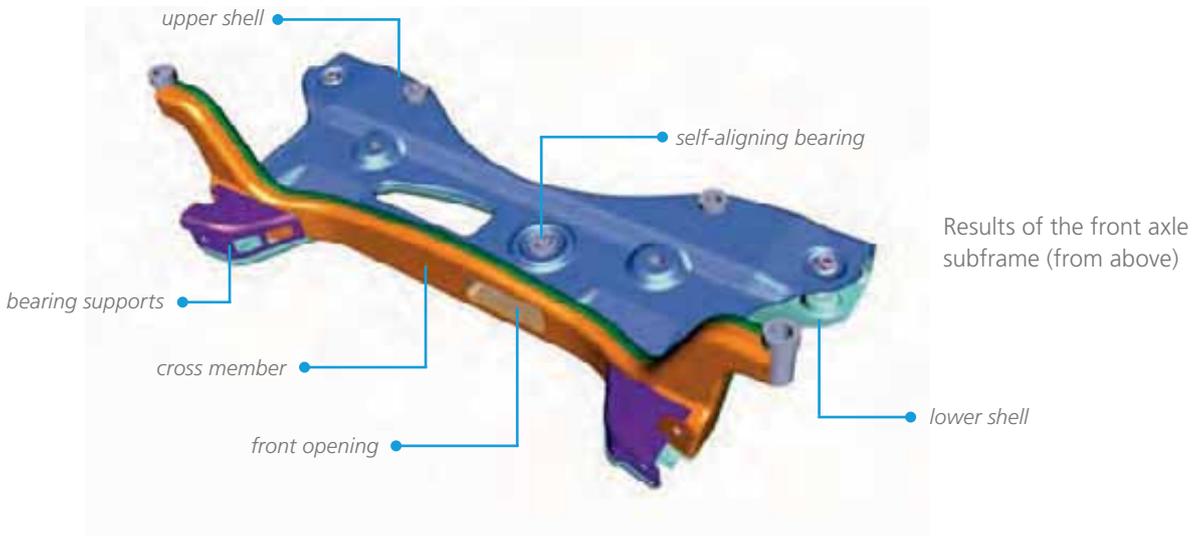


Results of the topology optimisation of a subframe for the front axle

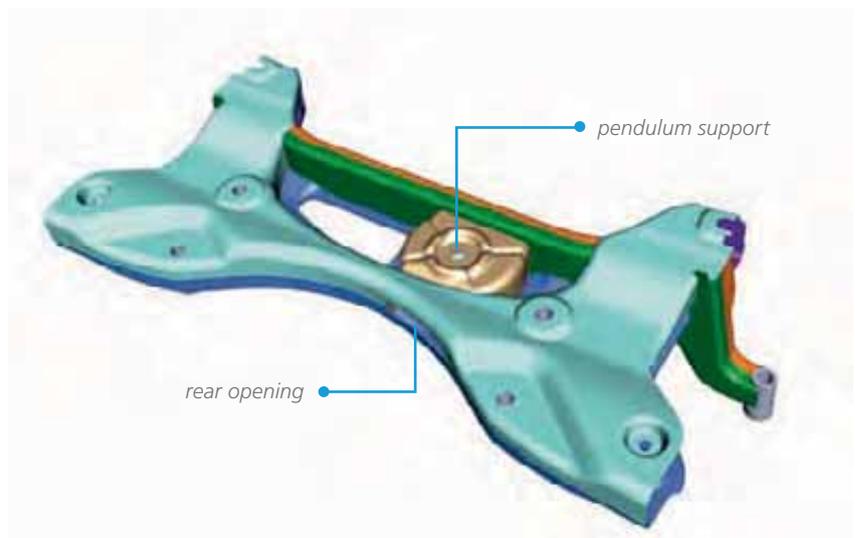
The methodology essentially consists of the following steps: Initially, the maximum available space for the components to be optimised is determined in a CAD system. Depending on the requirements, this may be the total installation space for the creation of a design for a complete assembly. Equally, subareas can be used for the optimisation of individual parts (e.g. cast nodes). The objective is to find a design that

meets all optimisation objectives while minimising mass. These conditions are mostly requirements set out in the customer specification and may include static stiffness, strength, and natural frequencies. The software calculates an optimal design proposal based on this input data. This is not, however, a finished design that can be manufactured, but a type of framework

(see left Figure) that shows the load path in the available space. To allow development to continue, the geometry output can be converted into a CAD dataset. Finally, this proposal can be used by the product developer as a draft for an initial design concept. The design is now created according to the output from the topology optimi-



Results of the front axle subframe (from below)



sation, taking into account savings in weight, costs, and component manufacturability. The design shown here consists of a cross member connected to an upper and lower shell. A pendulum support and bearing supports complete the subframe. The compact construction of the pendulum support causes substantial local stiffening of the engine mount. As a result, the shape and weight of adjacent components can be reduced, and reinforcing plates are not required. Thanks to the front and rear opening in the cross

member and upper and lower shell, the self-aligning bearing is ventilated through the pendulum support. This produces a tunnel effect by means of which heat is transported to the outside. The open design means that dirt and stone particles are routed to the outside, thereby preventing the build-up of residue.

Josef Bartzik



Members from the areas of Controlling, IT, Finance, HR, and SAP form the centralised financial service team of KIRCHHOFF Automotive in China.

Increased efficiency thanks to central service centre

Since 1 January, KIRCHHOFF Automotive in China has had a centralised financial service: the China Share Service Center (CSSC). It covers the areas of Financing, IT, HR, and Purchasing, and can be expanded if required.

The Chinese market has been growing at a rapid pace for 30 years. This growth is declining and costs are soaring. Our focus must therefore shift from targeting growth to enhancing productivity and introducing sustainable controls. The China Share Service Center (CSSC) should help to achieve this.

In 2007, KIRCHHOFF Automotive constructed the first of its three plants in China. As of 1 January 2014, we centralised the Finance functions of Gen-

eral ledger, AP and AR, Fixed Assets, Treasury, and part of Controlling & Tax declaration in this location.

The process standardisation achieved with the Share Service Center increases our efficiency and improves data management. The SSC can also cover new locations quickly with controllable operating and personnel cost. The IT team provides support: payment transactions and the creation of account statements are fully automated.

Our objective is to integrate our databases and rationalise the entire business process. We are certain that this development signifies a successful future in the Chinese market for KIRCHHOFF Automotive.

Maggie Zhang

Innovative product development makes an impression during Daimler visit

During the visit of the Daimler Truck purchasing team, KIRCHHOFF Automotive presents its innovative solutions for reducing weight and emphasises its position as a strategic supplier of frames and frame components.

As part of an extensive tour of the plant in Iserlohn/Germany, purchasing managers Udo Strzewinski, Daimler Truck Purchasing Department Manager, and Ante Zorica, Daimler Truck Purchasing Team Leader for the Chassis Department, marvelled at the technical performance in the field of forming and joining technology for sophisticated high-strength steel components with material strengths of up to >10 mm. One of the highlights was the tour of the 2,500 ton transfer press from Schuler that was commissioned in 2012.

Investment was made in this ultra-modern installation with a focus on realising various new orders for the new generation of Actros, Antos, and Arocs. It is specifically designed to process large material thicknesses. Cross members, tank consoles, and cabin suspension components, as well as other products, are manufactured here.

In Attendorn/Germany, Udo Strzewinski and Ante Zorica found out about current projects relating to advance and product development. Christoph

Wagener, Head of Research and Development, presented innovative solutions for the reduction of weight. At the top of the agenda were material combinations of steel and plastic, as well as the various joining technologies used. At the concluding tour of the Tec Center and the recently commissioned tool manufacturing facility, our visitors were able to admire our capability in the fields of prototype production and tool making.

Knut Stinn

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The two purchasing managers from Daimler, Udo Strzewinski (2nd from left), Daimler Truck Purchasing Department Manager, and Ante Zorica (3rd from left), Daimler Truck Purchasing Team Leader for the Chassis Department, in Iserlohn with the responsible persons Knut Stinn, Eckhard Rubarth, and Frank Buchholzki



15 years of success in Poland

— Around 15 years ago, the first parts were produced in Mielec/Poland and shipped to customers. An order for the structural components of the Opel Agila frontend increased the significance of the Polish location. In the meantime, three additional plants have been added in Poland to complement the first plant in Mielec. They are still making a major contribution to the success story of KIRCHHOFF Automotive today.

30 KIRCHHOFF Automotive's first green-field project commenced in 1999 with the founding of the first KIRCHHOFF Polska Sp. z o.o. location on the EURO-PARK MIELEC Special Economic Zone site in Mielec. A second location was added in Gliwice in 2004, where metal structures and metal/aluminium combinations for body and chassis are now manufactured using core forming and welding technologies. Over the years, the operations in Mielec have been expanded several times.

This is surely reason enough to celebrate the 15-year anniversary of the Polish location in June. This year will be very exciting for the Polish plants:

investment of around EUR 17 million is planned for 2014. In Mielec, the existing workshop will be expanded with an additional production area of 1,200 m². The new area will include an underground scrap removal system as well as a large bridge crane (overhead conveyor system). In a year's time, an additional Servo transfer press with a pressing force of 1,000 t is to be installed here. New welding equipment for General Motors and Volkswagen products will also be added. There are plans for the Gliwice location too, where new welding equipment will be installed and converted for the BMW 5 series, 6 series, and 7 series frontend, as well as for different welded components for GM.

KIRCHHOFF Polska Sp. z o.o. commenced its operations in Gliwice in 2004 at a leased workshop in one of the mechanical plants of Bumar Łabędy. As early as 2005, the move was made to the company's own facilities at the Katowice Special Economic Zone site, where metal structure parts for body and chassis are welded together into assemblies and their surface is coated in a CDP process.

The two KIRCHHOFF Automotive operations in Poland have ultra-modern, automated technologies that are currently competitive and will remain so in the future. In order to meet the growing challenges, the lean manu-



Mielec location

Foundation:
1999

Total surface area:
26,000 m²

Headcount:
900

Turnover:
approximately EUR 126 million (in 2013)

Technologies:
forming, joining



Press line in Mielec

facturing philosophy will continue to be developed in the areas of production and administration as part of KIRCHHOFF Automotive Production Systems (KAPS). As a pilot plant, Mielec will use KAPS to implement an ambitious programme for the reorganisation of administrative processes.

The Polish production locations provide a substantial degree of support to the global group of companies with regard to innovative processes for fundamental supply chain activities. This support mainly covers the development and manufacture of tools in the tool making facilities, where more than 50 people are employed. Furthermore, the

Polish organisation plays a key role in the exchange of information with other foreign subsidiaries and acts as a competence centre in this respect—also known as a “Share Service Center” for sales, project management, production engineering, QA management, design calculations in accordance with FMEA, and personnel management, as well as purchasing, finance, and controlling.

In the last 15 years, KIRCHHOFF Automotive in Poland has become one of the largest investors. The company holds a top position among Polish suppliers to the global automotive industry and makes a major contribution to the export of goods in this sector. General

Motors and Ford have been two of its largest customers for many years. Nevertheless, also new customers such as the VW Group with Audi, Škoda, and Porsche as well as BMW, Daimler, PSA, and Renault/Dacia are responsible for a substantial proportion of the significant delivery increases seen in the last few years.

The total investment by KIRCHHOFF Automotive in Poland since 1998 is in excess of EUR 150 million. Today, around 1,400 employees work in the Polish operations of KIRCHHOFF Automotive.

Janusz Soboń, Bogusław Wytoszyński



Gliwice location

Foundation:
2004

Total surface area:
30,000 m²

Headcount:
535

Turnover:
approximately EUR 100 million (in 2013)

Technologies:
joining, CDP coating



Paul Dilworth (3.f.l.) Executive Vice President Global HR, J. Wolfgang Kirchhoff (4.f.r.) COO, KIRCHHOFF Holding and Dennis Berry (3.f.r.) CEO Van-Rob, with staff members of the Van-Rob plant in Hermosillo

Awarded for good quality and delivery performance

— During their visit to the Querétaro, Puebla and Hermosillo plants J. Wolfgang Kirchhoff, Dennis Berry and Paul Dilworth were able to witness the effort that is made in order to meet with high quality standards and delivery deadlines.

"I'm sure there is a generation in Mexico that is providing important changes and I'm glad to know that a part of that generation belongs to our company. I would like to thank you for being a part of the KIRCHHOFF family and also for the time, enthusiasm and effort you give every day." During his visit in Mexico J. Wolfgang Kirchhoff

convinced himself of the efforts of the employees at Van-Rob's plants in Querétaro, Puebla and Hermosillo.

Together with Dennis Berry, CEO of Van-Rob, Kirchhoff's COO assessed the improvements regarding cleanliness and organization at the Querétaro plant. The implemented suggested

improvements in this plant, lead to the fact that the good maintenance status retains.

In October 2013 Ford awarded the Q1 award to VRK Puebla, this coveted award is Ford's highest honor for its suppliers. In order to be awarded it's necessary to meet strict requirements

that concern Ford's supplier excellence in the areas of safety, environmental, quality, manufacturing and timely deliveries. Having committed 100% with these points and worked for it during two consecutive years is what led the Puebla plant to be creditor of this distinction. J. Wolfgang Kirchhoff was very happy with the great results that are being currently achieved, and stated that he would work even harder to find new projects and investments for the plants in Mexico.

In Hermosillo J. Wolfgang Kirchhoff acknowledged the personnel's ability to maintain a steady production pace

and the efforts being made to have this plant at the level which it stands in a prompt and professional manner. During his visit, accompanied by Dennis Berry and the Executive Vice President Global Human Resources Paul Dilworth, he spoke to the employees and motivated them to keep on surpassing the expectations of our customers and to support to the aims and maintenance of the company's current standards. With this commitments it is possible to have an optimistic view in the future. The new production system is meant to provide useful support: "With the implementation of the new KIRCHHOFF Automotive Production System (KAPS)

we are certain we will be one of the leading manufacturers in the automotive industry worldwide. I urge you to be part of this system, to commit and promote improvements, since that will guaranty our client's satisfaction, the future of our company and our employment."

Eckla Cordova, Jessica Celada



Great joy about the Q1 award at the Van-Rob staff at the Puebla plant

Worldwide and standardised

Many individual development steps were needed, but it paid off: the product creation process (PCP)/gate structure has now been successfully implemented in the central information platform (CIMDatabase/PLM system).

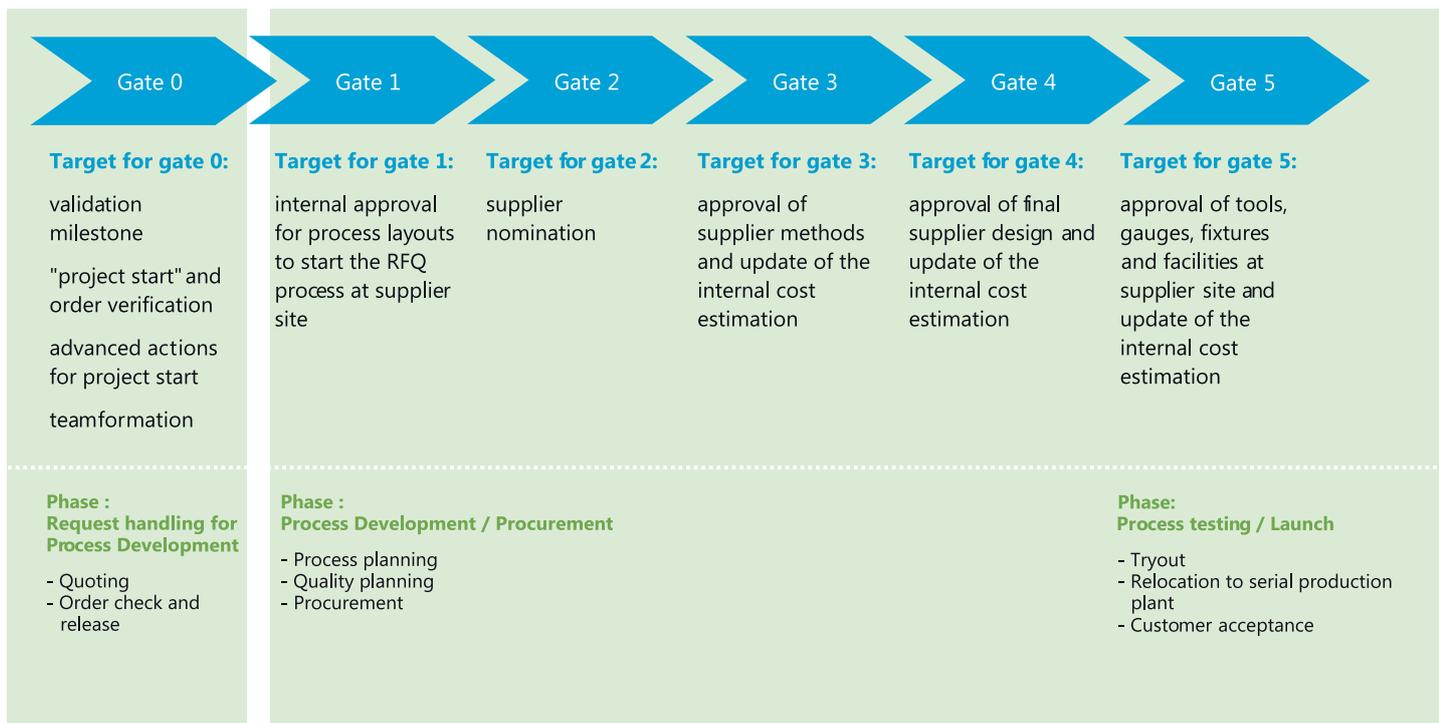
The PCP (product creation process) at KIRCHHOFF Automotive was created in 2009 and has since been continuously adapted to meet the Company's changing requirements. In October 2012, the Board of Directors signed off the PCP, concluding an intensive two-year development phase with international and national workshops. During this

phase, the PLM project team developed a user-friendly, transparent, lean, and standardised project structure, which will apply to all customer projects worldwide from now on.

The primary objective was to replace the Excel-based function matrix that was used until now to manage

customer projects, and to integrate a system-supported mechanism in CIMDatabase. Other core goals of the PCP/gate structure are to achieve a standardised global product creation process, a global standard system and uniform concepts, a transparent project overview (cost, time, and quality), and automated reporting.

34



Overview of PCP/gate structure with standardised customer milestones and project phases.



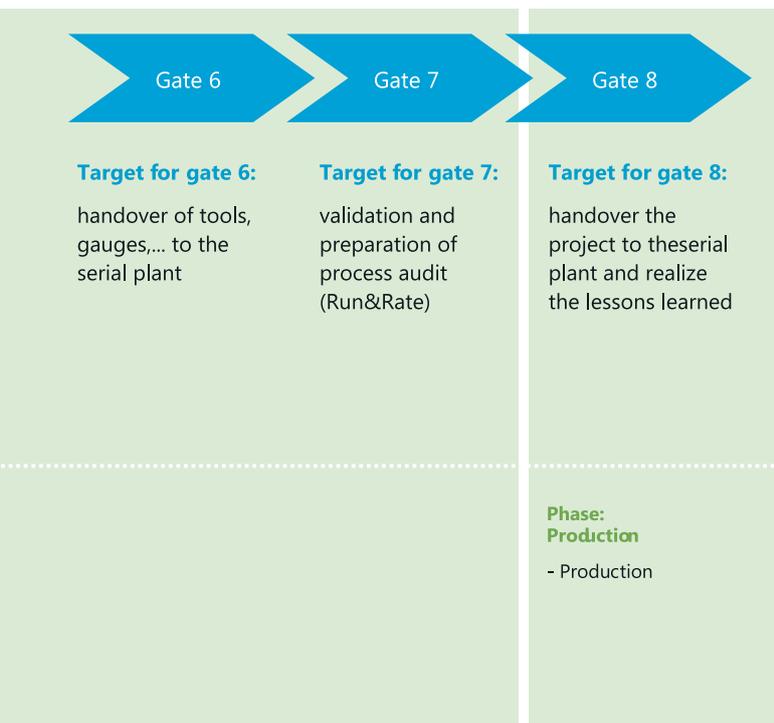
Looking to the future! International CIMDatabase key user PCP/gate structure training for go live

Since October 2013, six pilot projects have already been in operation in order to test the new functions in the CIMDatabase production system. The experience gained in these projects was used to fine-tune the structure prior to the go live, in order to make the live structure as user-friendly as possible. This pilot test phase included the fol-

lowing projects: hot-formed parts for Daimler at the Iserlohn/Germany location and bumpers for Ford at the Ovar/Portugal location.

Global user training for all specialist departments involved in the project started in spring 2014. The project team trained a total of 450 employ-

ees in all locations, thereby allowing the go live to take place in June 2014. In addition to the user training and to achieve ongoing communication in this area, every site has a PCP mentor. These mentors train employees on the content, assume joint responsibility for the ongoing development of the process, and serve as points of contact for all



CIMDatabase (PLM system)

The CIMDatabase, or the Product Lifecycle Management (PLM) system, will be used at KIRCHHOFF Automotive as a central information platform integrated with several CAD and office applications as well as SAP. In addition, a sales database was implemented for business development planning. The multi-project management enables programme managers to handle all customer projects in accordance with a standardised process and analyse the project progress and associated tool costs according to clearly defined milestones. At KIRCHHOFF Automotive the term PLM system is used to refer to central document, project, product, and process management.

queries relating to PCP/gate structure at the locations.

With the PCP/gate structure, we have achieved a milestone in standardised global programme management. We would like to thank everyone involved for their commitment and support.

Christine Gipperich

Advantages of the integration of the PCP/gate structure in CIMDatabase:

- Transparent process for successful programme management
- Current project status available at any time
- Automated reporting
- Earlier visibility of project issues
- Solutions can therefore be found more rapidly and at a lower cost
- Ongoing sustainability
- Avoidance of errors in the future
- New employees can be trained more quickly and more effectively



The KIRCHHOFF Automotive Executive Board celebrates the successful implementation of the PLM system. Image (f.l.t.r.): Janusz Sóbon, Chief Strategy Officer; Andreas Haase, Chief Financial Officer; Dr Thorsten Gaitzsch, Chief Technology Officer and Stefan Leitzgen, Chief Operating Officer and Executive Board spokesperson



Centralisation of purchasing in China

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— Since January 2014, the Asia Purchasing Center at KIRCHHOFF Automotive in Suzhou has provided a joint platform for purchasing activities in China.

The Asia Purchasing Center was set up to achieve a variety of objectives: Firstly, it aims to support the purchasing departments of KIRCHHOFF Automotive in Europe, as well as Van-Rob, in increasing purchasing volumes in China and Asia. The supplier base for purchased parts and tools in particular is to be expanded, managed, qualified, audited, and regularly monitored. Furthermore, it is hoped that cost savings of at least 20% will be achieved for KIRCHHOFF Automotive and Van-Rob. Expenses and travel costs are expected to fall. In addition, the Asia Purchasing Center is to work closely with Central Purchasing and Central Manufacturing Engineering (CME).

At the same time, it should not only open up business relationships with

low-cost suppliers but also take responsibility for supplier performance management and the associated reporting. It will create a local procurement strategy and production procurement process. Technical and commercial conditions will be negotiated with suppliers. The performance of suppliers in terms of service, delivery reliability, quality, and accuracy in particular will be closely monitored and controlled. Where necessary, measures to improve the service of a supplier are to be implemented. The centre will assess performance using agreed KPIs and report regularly to the management team.

The advantages of the Asia Purchasing Center are improved communication between supplier and KIRCHHOFF Automotive or Van-Rob, the negotia-

tion of more favourable purchase prices, and improved control of quality and delivery reliability. Furthermore, there is ONE joint platform for ALL procurement activities of KIRCHHOFF Automotive and Van-Rob in China; the purchasing volumes of the two divisions are combined.

The head of Asia Purchasing Center is Wen Leyendecker. She is supported by new buyer Emil Lai, who has worked for KIRCHHOFF Automotive since 14 January (see image above). The recruitment of another buyer is planned for the third quarter of 2014.

Wen Leyendecker



The new production plant in Shenyang

Short ways to our customers— the new plant in Shenyang

Shenyang has been strategically selected as a site location: the new plant in Northeast China, approximately 700 km from Beijing, is located close to our customers in North China.

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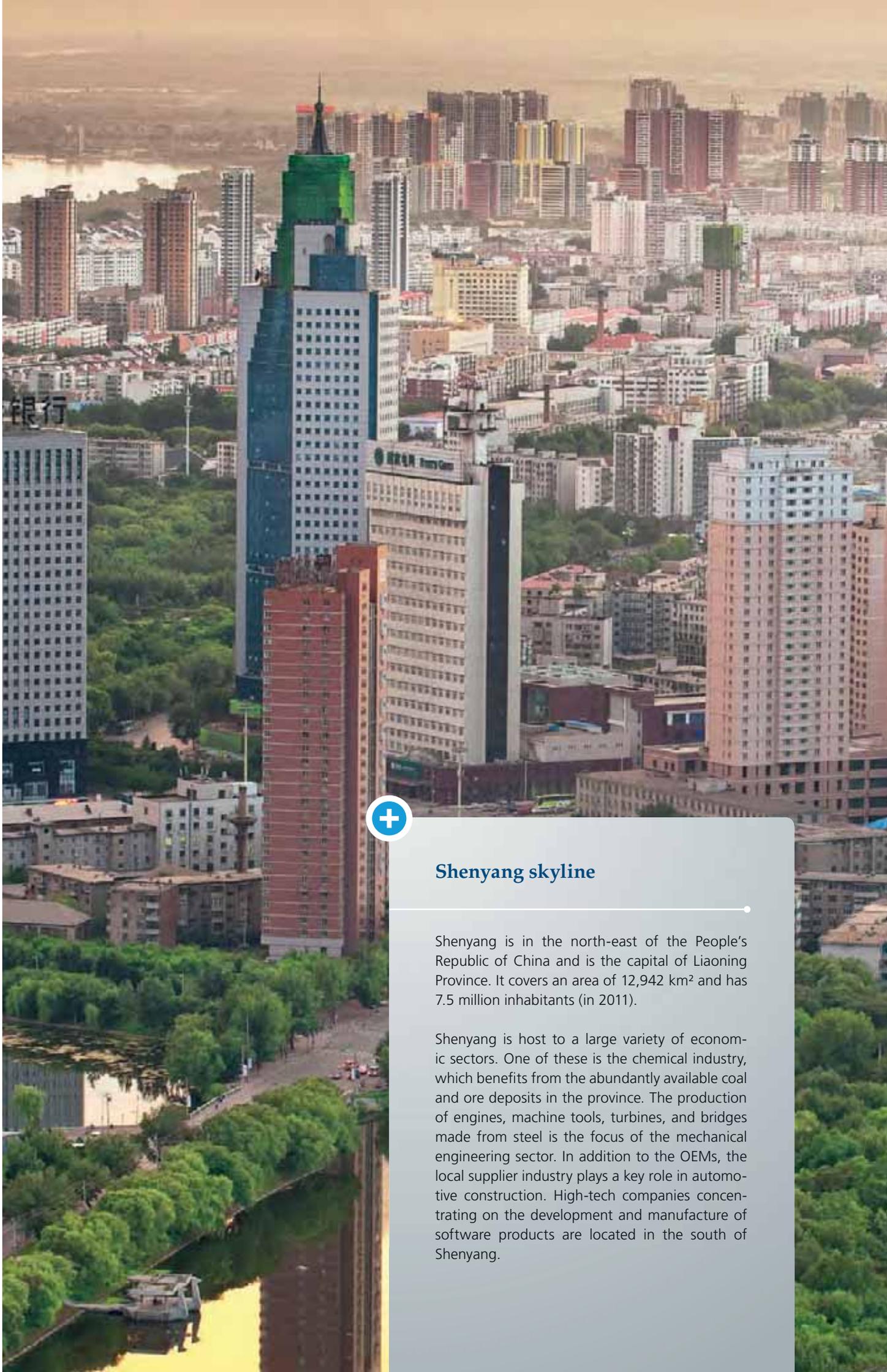
Members of the team at the plant in Shenyang

The plant is well connected to Shanghai-General Motors and is equally well positioned for serving the two Brilliance BMW plants. The first customer inspections of the JIT production plant took place as early as January 2014. In future, around 120 employees will work in Shenyang on a three-shift basis. An internationally experienced team from

various fields of expertise actively and successfully supported the employees at our plant in China to set up the facility. In terms of organisation, the new plant in Shenyang is affiliated with the site in Suzhou. Our Plant Manager in Shenyang is Tom Bi, who previously had great success in his role as Production Manager at the main plant in Suzhou.

Starting in the second half of the year, our colleagues will produce parts for the new Shanghai GM models there. They will have 4,500 square metres of production space at their disposal—with a number of options for expansion in the event of further orders.

Simon Stephan



Shenyang skyline

Shenyang is in the north-east of the People's Republic of China and is the capital of Liaoning Province. It covers an area of 12,942 km² and has 7.5 million inhabitants (in 2011).

Shenyang is host to a large variety of economic sectors. One of these is the chemical industry, which benefits from the abundantly available coal and ore deposits in the province. The production of engines, machine tools, turbines, and bridges made from steel is the focus of the mechanical engineering sector. In addition to the OEMs, the local supplier industry plays a key role in automotive construction. High-tech companies concentrating on the development and manufacture of software products are located in the south of Shenyang.

Operating in a multicultural environment

As a globally acting company the successful merger of Van-Rob and KIRCHHOFF Automotive was of a very high importance. It turned out successfully to combine two family-run companies to one multinational entity with common vision, mission and aligned values.

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In order to become a true global organization, it is essential to understand and respect the cultural values of the various demographic areas that an establishment operates in. Understanding the cultural norms and values are the fundamental building-blocks to effective global teams. Today's modern globalized business world needs multicultural teams. For the companies' success it is imperative that these teams are equipped with the right set of skills and mindset to deal with cross-cultural teams effectively. Only this way the collaboration in cross-cultural teams can be successful.

The term "global mindset" denotes the capability to create and nurture business relationships across the globe. Academic research indicates that organizations with a global mindset foster a culture that respects its employees and encourages open communication channels. They aim at developing their leadership potential specifically in cross-cultural context.

The culture and people at Van-Rob and KIRCHHOFF Automotive have operated in absolute synergy even prior to

the merger. The employees used the chance as part of working together, to learn from each other, and treated each other fairly and with respect. After the merger in 2011, the management at both companies took the initiative to arrange for an "Integration Workshop." The fundamental aim for the workshop was to provide an avenue for the executives, directors and managers at both companies to actually strategize and embed an ideology which would prepare us to meet and exceed our customer's expectations.

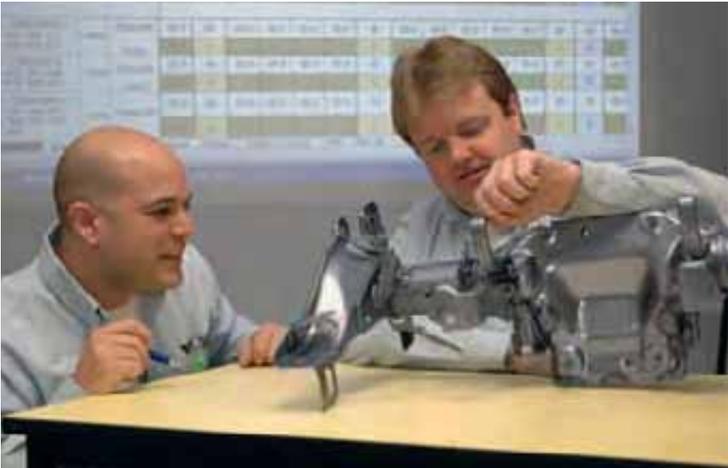
The most important element with such workshops is that while the executives may discuss and analyze the strategic decisions and scope of future operations, inevitably the teams from both companies become familiar with each other's culture. Hence they begin to respect each other and foster an environment that breeds long-term collaboration and motivation. In order to hone the benefits of a true multicultural organization; the crucial element are our employees, and how they are managed.

To address this issue, Paul Dilworth (Executive Vice President of Global Human

Resources) and Stefan Leitzgen (Managing Director and COO) along with the CEO and the COO of the KIRCHHOFF Holding, Arndt G. Kirchhoff and J. Wolfgang Kirchhoff as well as Van-Rob's CEO Dennis Berry decided to undertake the Global Human Resources Project. The primary aim of this project is to fully utilize the complete global resource of the organization which of course includes the most important resource: our people.

It is vital to mention that by constantly fostering them and strengthening the common understanding of our cultures we as an organization will become an exemplary multicultural organization.

Asher Jaffri





The KATE team with Arndt G. Kirchhoff in Attendorn/Germany and the KATE team in Gliwice/Poland

42

Personnel development—we give our employees strength

— In the KIRCHHOFF Automotive talent management programme (KATE), talented individuals within the workforce have the opportunity to take part in a three year internal development programme.

One of the leadership principles for personnel development at KIRCHHOFF Automotive is: “we give our employees strength”. It is important for us, on the one hand, to provide development programmes but, in return, we expect all employees to take the initiative to actively address their own development. An example of how programmes are rolled out globally on a step-by-step basis is the talent management programme KATE (KIRCHHOFF Automotive Talent Education). Over three years, individuals who have been identified as

talented have the opportunity to take part in an internal development programme. The programme consists of a series of training sessions and projects, as well as the opportunity to participate in discussions with the Executive Board, known as “Top Talks”. Arndt G. Kirchhoff, Managing Partner and CEO of KIRCHHOFF Holding, took time to discuss the subject of corporate values at KIRCHHOFF Automotive in person with the German group during the last module, “culture and values”.





The KATE team in Mielec/Poland and the KATE team in Ovar/Portugal



This programme is already running successfully in Germany, Poland, and Portugal. KATE is only one of many HR processes that will be aligned more globally in the future. Under the management of Paul Dilworth, Executive Vice President Human Resources, a series of global projects will be implemented within the framework of the Company's strategic alignment. "The advantage for the global project teams is not only that we are

creating and integrating processes that are specifically tailored to our Company but will also encourage the exchange of experiences between colleagues. By doing this, we are creating a sustainable successful network that enables us to learn from one another on a daily basis", he says.

Lisa Kitterer



The KIRCHHOFF Automotive stand (designer's image) at the IAA Commercial Vehicles in Hanover

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We are there—IAA Commercial Vehicles in Hanover/Germany and IZB in Wolfsburg/Germany

Complex metal and hybrid structures for the body in white and chassis for the international automotive industry—these are the core competencies of KIRCHHOFF Automotive. The focus of both trade fairs is on lightweight construction and new joining methods for the vehicles of the future.

IAA Commercial Vehicles 2014

The automotive commercial vehicle world will meet at the IAA Commercial Vehicles in Hanover from 25 September to 2 October 2014. The leading trade fair organised by the VDA on mobility, transport, and logistics is the biennial meeting point for exhibitors and specialist visitors from various sectors. As a traditional supplier to the commercial vehicle sector, KIRCHHOFF Automotive will be in attendance once again. With our motto WE.MOVE. FUTURE. we will showcase the latest

technologies in the field of metal forming as well as various innovative multi-material concepts (plastic/steel hybrid) that contribute to lightweight automotive construction and thus to a reduction in weight and CO₂. At the same time, we will present ultra-modern production and joining methods within the framework of global manufacturing. Discover product innovations for lightweight body construction in the commercial vehicle sector and marvel at our expertise. We look forward to seeing you at our stand C42 in hall 13.





IZB 2014—International Suppliers Fair in Wolfsburg/Germany

The eighth IZB takes place between 14 and 16 October 2014 in Wolfsburg. It is the leading European trade fair for the automotive supplier industry and has come to be greatly respected by international experts. Over 700 well-known suppliers with different areas of interest are participating this year. KIRCHHOFF Automotive will present its products to the public at a 90 m² stand. The key focus is on designs for body components—optimised for weight and crash performance—made from metal/plastic and steel/aluminium combinations for lightweight automotive construction.

It is important for us to have direct contact with our customers. We therefore invite you to visit us at our stand 7105 in hall 7.

Sabine Boehle



The KIRCHHOFF Automotive stand (designer's image) at the IZB in Wolfsburg

Boreas Racing Team triumphs at the German Championship

KIRCHHOFF Automotive supports the winning student team from Iserlohn/Germany in the international “Formula 1 in Schools” competition. The technology competition, which has been organised by the South Westphalian Chamber of Commerce and Industry (SIHK) since 2008, brought together 25 teams from across Germany this year.

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“We are delighted to be ranked first place in the German F1 Championship”, said the Boreas Racing Team. The 16 to 18-year-old students from the Gymnasium An der Stenner school in Iserlohn won the German Championship of the “Formula 1 in Schools” competition as Team Boreas on 10 May at the Autostadt in Wolfsburg/Germany and, at the same time, received tickets to the World Championship in Abu Dhabi, the capital city of the United Arab Emirates.

Since its inception in summer 2013, the student team has been working on the multidisciplinary tasks included in the competition. Besides managerial tasks such as marketing, the creation of a business plan, and a presentation about the team and its racing car, the project mainly concerns the creation of

a miniature Formula 1 racing car with the help of CAD software, its manufacture, and finally the racing of the car. The prerequisite is for the chassis of the racing car to be cut out of a block of balsa wood by means of a CNC milling machine.

The technology competition, which has been organised by the South Westphalian Chamber of Commerce and Industry (SIHK) since 2008, brought together 25 teams from across Germany this year to qualify for the World Championship. Each year, it takes place in preparation of a Formula 1 Grand Prix and is the ultimate destination of the scientific journey for these young researchers.





The successful miniature Formula 1 racing car of Boreas Racing.

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Peter Zimmermann, Teammanager of Boreas Racing, is waiting full of excitement for the start permission of the decisive race.

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The Boreas Racing Team students were actively supported by KIRCHHOFF Automotive during the development of their miniature Formula 1 car. The development department offered specialist support in the preparation phase, provided input and suggestions, and accompanied the students with appropriate expertise along the way.

Test models were created using a 3D printer and tested in the wind tunnel at TU Dortmund University. As a result, the students from Iserlohn developed a racing car model, which achieved the best track time at a speed of around 100 km/h on the 25-metre race course thanks to its aerodynamics, paint finish, and technical characteristics. The vehicle, which, apart from its size, is deceptively similar to a Formula 1 racing car, is powered by small CO₂ gas cartridges.

The five students put many hours of work into the project, during which attention was always paid to the appealing look of the model alongside the technical work. In order to take the lead, the team must also master professional marketing methods, present an

innovative and informative “pit lane”, and showcase the entire package to a strict jury. Team Boreas also received professional support from local companies such as KIRCHHOFF Automotive in this respect. Following the German Championship, Boreas Racing is now honing the fine details of its racing car in order to pursue its final objective at full throttle. And this is very clearly defined in its slogan: “Ahead of the wind”, because Boreas is the Greek god of the north wind itself. This is how the team would like to successfully represent Germany at the World Championship of “Formula 1 in Schools”.

KIRCHHOFF Automotive will continue to support the students on their way to the World Championship and wishes the team all the best to bring the title of “Formula 1 in Schools World Champion” to Germany this year.

Sabine Boehle



German Champion of "Formula 1 in Schools": Boreas Racing with the team members (f.l.t.r.): Benedikt Roder (Marketing Manager), Julia Pereira (Graphic Designer), Peter Zimmermann (Team Manager), Katja Schidor (Production Engineer), Nick Neubert (Designer)

Successful with the best

— The “Supplier of the Year” award is given by KIRCHHOFF Automotive to honour the suppliers who have demonstrated outstanding performance in terms of quality, logistics, and service in the past year. The categories assessed are “raw materials” (steel strip), “subcontracting” (surface treatment), and “purchased parts” (plastic injection).



Successful together—KIRCHHOFF Automotive and its 2013 Suppliers of the Year for the German locations. The title of “Supplier of the Year” for each product category is awarded on the basis of the annual average of the monthly supplier assessments. This is derived from the assessment of performance in terms of quality, logistics, and service, as well as the status of the quality and environmental management systems of the suppliers.

The current winners of the award are ArcelorMittal Flat Carbon Europe S.A. in the "raw materials" product category, VDL Laktechniek bv in the "subcontracting" category, and Lahme GmbH & Co. KG for "purchased parts".

In his address, J. Wolfgang Kirchhoff, Managing Partner and COO of KIRCHHOFF Holding, highlighted the continued global growth in the automotive sector and the associated challenges and development opportunities for the companies that were present. "We face further market changes and new trends such as e-mobility. Please take this as a positive and view change as an opportunity rath-

er than a risk. For ongoing success in this fast-moving world, we need the support of first-class suppliers."

Klaus Lawory, Authorised Representative and Purchasing Manager at KIRCHHOFF Automotive, stresses the close partnership with these companies. "On the supply side, we welcome intensive cooperation with global companies such as ArcelorMittal, as well as with mid-sized partners such as VDL Laktechniek and Lahme. The prerequisite for this successful cooperation is a relationship of trust and positive business development, irrespective of the size of the respective companies.

The companies selected in 2013 have once again proven themselves in impressive style. This accolade is a reward for their performance and that of their employees, and acts as an incentive for everyone to further intensify their successful cooperation with KIRCHHOFF Automotive."

Michael Fischer, Global Account Manager at ArcelorMittal Flat Carbon Europe S.A., Wim van Bakel, Assistant Director at VDL Laktechniek bv, and Karsten Lahme, Managing Director at Lahme GmbH & Co. KG accepted the awards on behalf of their companies.

Klaus Lawory



The awarded Suppliers of the Year 2013:

For raw materials:

ArcelorMittal Flat Carbon Europe S.A. (Germany)
 POSCO (Suzhou) Automotive Processing Center Co., Ltd. (China)
 Dutrade Zrt. (Hungary)
 Becker Stahl Service GmbH (Ireland)
 ThyssenKrupp Stal Serwis Polska Sp. z o.o. (Poland)
 ThyssenKrupp Materials Ibérica, S.A. (Portugal)

For purchased parts:

Lahme GmbH & Co. KG (Germany)
 Suzhou Yeswin Manufacture Industry Co., Ltd (China)
 Benteler (Spain)
 Bimex-Böllhoff Sp. z o.o (Hungary)
 Nedschroef UK (Ireland)
 Srubena Unia S.A. Zywiec (Poland)
 Gebr. Wielpuetz (Portugal)
 Pecol (Portugal)

For subcontracting:

VDL Laktechniek bv (Germany)
 Shanghai Rongsheng Coating Co., Ltd. (China)
 KATA (Spain)
 Uni-PP Kft. (Hungary)
 Galvotech Ireland (Ireland)
 Zakłady Metalowe "POSTĘP" SA (Poland)

Investment in the future: school sponsorship programme in Romania

— Inspired by the Dr. KIRCHHOFF Foundation, KIRCHHOFF Automotive is participating in the “Sponsorship for Local Secondary Schools” project in Romania together with companies, authorities, and technical schools in the region.



First meeting of teachers, parents, companies, and non-governmental organisations in January 2014

This national educational project serves to promote social responsibility. The beauty of this project is its sustainability and measurability. Within three years, technical secondary schools should become more integrated into their social environment. The method that they use is the recognised “Action Reflection

Learning” coaching procedure. The objective is to sustainably improve school grades, absence rates, integration into the job market, and social integration.

Schools that are suitable for the project are distinguished by mutual support, open discussion between pupils and

teachers, and voluntary social commitment. Pupils as well as teachers are proud to say: “that’s my school!”

This applies to Craiova’s Auto Technological High School. Around 200 pupils from classes 9 to 12 are taking part in the project. The first ten-month phase

started in January and is oriented towards coaching and team building. Running parallel to this, informal courses will take place in August for pupils, teachers, and parents. With tree-planting campaigns or the collection of food and clothing for those in need, the pupils support their community and learn to assume responsibility.

During the programme, pupils participate in practical training events at all partner companies. They receive a grant for this. The subject area covered by these activities depends on the type of company. For example, there are events for industrial managers or tool mechanics. At the end, the pupils are given the opportunity to start work at the respective company. Besides

KIRCHHOFF Automotive, Ford Romania SA, Cummins Generators Technologies SRL, Popeci Utilaj Greu SRL, and Sitco SRL are also involved in the project.

As the project is progressing successfully, the school has become a competence centre within the project duration of three years. A core team of 15 local moderators and two mentors is now providing support to the school in order to repeat this success.

Our Company's compliance guidelines state that: "our employees guarantee our profitability and competitiveness—we work with people for people." This sponsorship programme is a good example.

Gabriel Porojan



Left: first meeting of pupils, their parents, teachers, and representatives of the local companies in October 2013



A practical introduction— fostering our young talent

— KIRCHHOFF Automotive provides young people at school, in apprenticeships, or at university with numerous activities and measures to ensure a successful future career. We work with a network of schools and universities to provide job application training, company visits, internships, and other measures in order to make young people aware of potential career options at an early stage. Should young people opt for a career at KIRCHHOFF Automotive as apprentices or as students at co-operative universities, they can expect a combination of theory and varied practical topics—because you never stop learning.



1. The practical stage at KIRCHHOFF Automotive for six new students at co-operative universities has been running since February. It commenced with a session in which participants exchanged their experiences of studying at a co-operative university. 2. Job fairs: At the Soest career day, students and job applicants had the opportunity to find out about career opportunities at KIRCHHOFF Automotive on campus. 3. + 4. Trial internships provide the perfect hands-on opportunity to find out more. 5. Girls' Day at KIRCHHOFF Automotive: the young girls forgot all about their school work for a day and enjoyed taking on the role of a tool mechanic, demonstrating a great deal of ambition and enthusiasm.



CUSTOM-MADE CARS



KIRCHHOFF MOBILITY

Custom-made cars —
for handicapped people.

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The all-rounder among wheelchair accessible vehicles

Thanks to its ample proportions, the new Ford (Grand) Tourneo Connect with rear entry offers sufficient room and comfort even for larger wheelchair models.

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With the support of Ford, Jelschen GmbH from Bad Zwischenahn/Germany has successfully developed a conversion system for the transportation of wheelchair users specifically for the new Tourneo Connect. Following a one-off vehicle modification, the flexible second row of seats can be very easily converted into a three-seater with space for a wheelchair in just a few manual steps. The new Ford Tourneo Connect offers outstanding driving comfort, high-quality materials, and a comfortable and relaxed driving experience. People with reduced mobility also benefit from the two sliding doors that come as standard. The wheelchair area at the rear of the vehicle is easily accessible by means of a collapsible aluminium ramp, and its ample proportions

offer sufficient room and comfort even for larger wheelchair models.

In December 2013, press representatives were able to see the convincing work carried out by the Jelschen employees for the first time at the "Fahrzeuge für Menschen mit Mobilitätseinschränkungen" ("vehicles for people with limited mobility") presentation initiated by Ford in Cologne/Germany. Jelschen's first fully converted "development mule" on the market was extensively inspected and tested, and the conversion was deemed a success.

The attendees unanimously agreed that, in comparison with other converted vehicles, the impressive cargo area alone makes the Grand Tourneo

Connect a very suitable vehicle for wheelchair users. In addition, the comparatively smooth driving quality substantially improves the level of comfort for wheelchair passengers. Journeys are therefore much gentler now than in the past.

With the Ford Tourneo Connect, Jelschen GmbH has developed another family-friendly vehicle for the wheelchair accessible market, bringing additional flair and driving enjoyment to the segment. The modified Ford has what it takes to conquer the wheelchair accessible vehicle market – this car will enable Jelschen to make history again. Jelschen—moving differently!

Jörg Brach



Specifications— after conversion

Wheelchair area: approx. 1,450 x 810 mm

Headroom: approx. 1,400 mm

Clearance height: approx. 1,410 mm

Ramp length: approx. 1,100 mm



In comparison with other converted vehicles, the impressive cargo area alone makes the Grand Tourneo Connect a very suitable vehicle for wheelchair users. In just a few manual steps, the flexible second row of seats can be very easily converted into a three-seater with space for a wheelchair.

More than just sporting spirit

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— Roman Weidenfeller, the Borussia Dortmund goalkeeper, is funding a wheelchair conversion by KIRCHHOFF Mobility for a six-year-old boy.

Wearing the yellow and black shirt of Borussia Dortmund, Colin patiently waits with his parents for Roman Weidenfeller. The national goalkeeper and number one in Jürgen Klopp's team strolls in through the glass doors of the Reha Group a few minutes later casually sporting a denim shirt, chinos, and trainers. He greets the Heuser family and six-year-old Colin with a smile.

Colin, who has been in a wheelchair since birth because of a severe disability, constantly relies on the help

of others. The top-ranking sportsman gave him and his parents a very special present by covering the EUR 15,000 cost of the wheelchair conversion of the family's own people carrier. "It is important for me to give something back and support people who are not as lucky as I am", says Roman Weidenfeller. He found out about the Heuser family's difficult situation from his mother and was immediately prepared to help out. "The most important thing is to make daily life easier for the family", stresses the successful goalkeeper. He

appointed Reha Group Automotive, the specialist company based in Hilden, to convert the vehicle. Within one week, the specialists had installed a hydraulic ramp in the boot to lift Colin and his wheelchair into the car.

Until now, every time they went out in the car, his mother had lifted him into a child seat and then loaded the wheelchair. "But he now weighs 22 kilos and I have to take him to the clinic quite often", says Tanja Heuser. The petite lady has already suffered a slipped disc and



Bundesliga star Roman Weidenfeller insisted on presenting his gift to the Heuser family in person. From left to right: Sascha Heuser, Roman Weidenfeller, Tanja Heuser with son Colin, Adem Okutan and Andreas Kassette.

recently she has increasingly found that she is not strong enough to move Colin. "We have three other children and until now it has been very difficult to travel as a family", adds Sascha Heuser.

It means a great deal to Roman Weidenfeller to be able to help Colin and his family in person. "We do not always have to look abroad. There are plenty of people on our doorstep whom we can help", says the 33-year-old. Tanja Heuser first had to practise using the hydraulic ramp, the safe-

ty devices, and the motorised boot lid. Adem Okutan, the Reha Group Automotive sales representative, gave her a full, step-by-step explanation of each individual button. Beforehand, he had discussed every detail with the family in order to equip the vehicle in line with their requirements. "We are very pleased with the new technology. It will save me a lot of effort", enthuses Colin's mother.

The Bundesliga star deliberately took the time to present the gift himself.

"I've come straight from training, but Colin was allowed to stay up a bit longer than usual, so it all worked out." After taking a detailed look at the technology, the sportsman cheerfully signs autographs for company employees and their relatives, poses for photographs, and chats and laughs with the Heuser family.

Adem Okutan





When function and effect are in line.

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The new look of the trade fair stand at the Hardware Cologne

Focus on marketing—measures to strengthen the brand

— New packaging design, “Brazil 2014” sales campaign, new Internet site, and online shop—since the start of this year, WITTE Werkzeuge has significantly increased its marketing activities in all areas.

The extensive changes to the marketing of WITTE Werkzeuge serve to optimise the sales of its high-quality tool range. This is a step that has been received very positively by all partners and customers.

With its new colour scheme, the redesigned screwdriver set packaging is now welcoming and appealing. Along the same lines, the manufacturer of professional hand tools has developed three new sales aids in the form of displays for screwdriver ranges. The trade

fair stand at the Cologne Eisenwarenmesse (International Hardware Fair) was also given a light and attractive new look. Together with optimal presentation of the exhibits, this made the stand a real visitor magnet.

In view of the upcoming football World Cup, WITTE Werkzeuge commenced the “Brazil 2014” sales campaign.



The 5-part screwdriver set with bottle opener and fixture list goes down very well with football fans.

These marketing measures are rounded off by a new, informative Internet site and the

clearly structured WITTE Werkzeuge online shop.

Derya Dilan Tas, Oliver Fries



Left: all with one click – the new Internet site, clearly structured and vibrant at www.witte-werkzeuge.de.

Right: “A craftsman is only as good as his tools.” Anyone will quickly be able to find the tool they need in the new WITTE Werkzeuge online shop.



The football World Cup is even more fun with the new promotional “Brazil 2014” set.



The new design is evident despite the change in the colour of the packaging.



New Displays



A complete success—thanks in part to the trade fair stand's new look

Between 9 and 12 March, WITTE Werkzeuge showcased innovative premium tools at the 39th International Eisenwarenmesse (International Hardware Fair) in Cologne. The stand's new, clearer image, as well as the top products on show, increased the attractiveness of the trade fair presentation.



A total of 2,783 exhibitors from 53 countries were represented at the International Eisenwarenmesse. Managing Partner and COO of KIRCHHOFF Holding, J. Wolfgang Kirchhoff, highlighted this in his capacity as Chairman of the Advisory Board of the Cologne trade fair: "It is particularly pleasing that many companies have returned. This underlines the fact that the International Eisenwarenmesse is and remains the most important international purchasing and communication platform for the hardware world."

With almost 50,000 trade visitors from 136 countries, the trade fair saw an increase in visitor numbers. At the end, exhibitors and organisers were able to reflect on a positive experience. Particular praise was given to the high quality of the talks given at the trade fair.

WITTE Werkzeuge showcased three of the product highlights from its continually growing product range. The new products included the "PROTOP VDE slim" screwdriver (Fig. 2), which

expands the range of premium tools in the electronics and electrical engineering sector. The "PROTOP VDE slim" has finely tapered blade tips and reduced blade diameters that make it possible to reach deep-set and hard-to-access screw and spring elements. The insulated tip also offers protection when working with voltages of up to 1,000 volts. In addition to this range of screwdrivers, WITTE Werkzeuge also presented its practical "WITTE-KIT" (Fig. 3) tool bag at the trade fair.



The WITTE Werkzeuge trade fair team, from left to right: Martin Milewski, Oliver Fries, Margot Buchholz, Nina Packwitz, Sabine Grams, Derya Dilan Tas, Virginia Gröbner, and Alfons Bolling. Below left: high-quality new sales displays | WITTE Werkzeuge's presentation at the International Eisenwarenmesse in Cologne saw a large number of visitors and interesting discussions.

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This basic set of high-quality tools was specifically created for domestic use. The compact bag featuring a window can also be secured in various ways, depending on the work being carried out.

The "BITCOMMANDER" (Fig. 1), which was developed for discerning craftsmen, provides a special type of tool storage. The sets are available in two different versions and offer storage options for bits and sockets, a magnetic holder, and a 1/4" reversible ratchet. The handy, robust plastic module enables a higher degree of mobility and flexibility in all application areas. Numerous discussions were held with international and national customers as well as partners about the expanded product range.

It quickly became clear that the general mood in the market, even in southern European countries, has significantly

improved. WITTE Werkzeuge was able to secure several new contacts in markets where the screwdriver specialist is not yet represented.

The positive response to the showcased new products as well as the presentation of the new, high-quality sales aids/ displays even led to some new orders for WITTE Werkzeuge being taken during the trade fair. The sales team is looking optimistically to the future and expects to receive further major orders soon.

Oliver Fries, Derya Dilan Tas



1. The BITCOMMANDER with its practical leather loop. **2.** The “PROTOP VDE slim” with its finely tapered blade tips and reduced blade diameter for use with deep-set and hard-to-access screw and spring elements. **3.** The basic equipment for domestic use, perfectly tailored to the needs of the discerning DIY enthusiast: the WITTE-KIT.

Super team, excellent products— but we need a different type of marketing

— Interview with Alfons Bolling, who has headed up the sales department of WITTE Werkzeuge since the start of the year. The 48-year-old has extensive knowledge of the sector and many years of sales experience both in Germany and abroad.

As area sales manager at Stahlwille, Alfons Bolling was responsible for the southern European, and Central and South American countries. In his spare time, the music lover and amateur photographer enjoys karting with his son and working on his old Audi TT Quattro—with screwdrivers and bits from WITTE Werkzeuge from now on, of course!

Andreas Heine: What do you believe makes a good tool?

Alfons Bolling: A good tool is durable, appropriate, light, and ergonomic.

Andreas Heine: Now that you view them from a professional perspective as a sales manager, what do you like about the products of WITTE Werkzeuge, or what would you improve?

Alfons Bolling: The tools of WITTE Werkzeuge correspond exactly to the criteria that, in my opinion, make a good tool. The products are fantastic.

The MAXXPRO-Plus screwdriver alone is unique in terms of its handle and blade. Very high torques can be achieved thanks to the patented flocking on the handle, the blades do not warp, and the profiles do not break. I have already verified this for myself at

the Matco in-house exhibition in San Antonio/USA, where our “made in Germany” screwdrivers are classified as the best in the US and Canadian markets. During my trip to Mexico in February, I visited the largest Mexican tool manufacturer, where we carried out comparative tests and reached the same positive result.

It is difficult to improve on a classic. I believe that we can already achieve a great deal with our current products by introducing variants in terms of colour and presentation.

Andreas Heine: What is your strategy with regard to the interplay between price and quality?

Alfons Bolling: Because of the high price pressure, I believe that German manufacturers should sit around a table and consider cooperation. Each German manufacturer specialises in a selection of products, for example, Knipex in the pliers sector, Hazet in the automotive sector, and Stahlwille in the torque sector. This is exactly how Asian manufacturers work together and they are able to act much more aggressively, i.e., they join together, specialise in a group of tools, and, because of the quantities involved, can therefore manufacture at much lower costs than we can.



Interview with Alfons Bolling, new sales and marketing manager at WITTE Werkzeuge

Andreas Heine: Will there be any new products aside from bits and screwdrivers?

Alfons Bolling: Even with just screwdrivers and bits, we will find it very difficult. We have to round off our product range with appropriate, complementary tools and because of this we also have to source the necessary core expertise externally. In other words, we must put together appropriate sets and from time to time purchase an item to



complement our range. I am thinking of the quarter-inch range: bit ratchets, torque screwdrivers, and ratchet ring spanners, to name just a few.

Andreas Heine: Does WITTE Werkzeuge therefore need a different type of marketing?

Alfons Bolling: Yes, absolutely, we urgently need a different type of marketing. By concentrating on “private label” or OEM business, we have somewhat neglected our WITTE brand and, as a result, have major gaps in our market presence.

Measures to strengthen our brand include, for example, a new catalogue featuring the new items, construction of an online shop, Internet presence, improving attractiveness to retailers by means of sales aids, retail displays, pushing ahead with recurrent sales campaigns, creating application videos to demonstrate product advantages, and, to start with, designing attractive sales packaging in new, vibrant colours.

Andreas Heine: What about a name? Do we need another name?

Alfons Bolling: Not at all. I don’t believe that we would be convincing with

another name. Experience has shown that well-known tool manufacturers have wasted money on a second brand. Subsequently, the second brand suddenly sells better than the premium brand on account of the price, and this naturally causes margins to fall.

Andreas Heine: How should the WITTE Werkzeuge team prepare for your arrival as the new sales manager?

Alfons Bolling: I have found a super team at WITTE Werkzeuge. Not just in sales but in administration and technology, too. By this I mean that my new colleagues are technically competent and are also very human. From the outset I have been given a very collegial welcome. I really enjoy my work with the employees here.

Personally, I like “flat hierarchies” and strive to foster teamwork. Every employee has personal strengths and abilities to contribute, and I want to support them in doing so. I expect a certain degree of independence, personal responsibility, and identification from all employees in the sales team. We must be free to focus on realising the required projects and measures that I have already discussed. And this can only happen with the support of every single employee.

We can only achieve joint success with a strong team!

Andreas Heine: How important is it for us to be a mid-sized family-owned company with a long family history?

Alfons Bolling: Despite the size of this company, we feel like we are part of a large family that values its employees. In my opinion, this is also something that comes across strongly in our actions. Unfortunately this is not often the case in mid-sized German companies because the group structures are just too dominant. I am therefore very pleased with my decision to transfer and am happy to be a KIRCHHOFF Group employee.

The interview was conducted by Andreas Heine, Head of Corporate Communication & Marketing.





KIRCHHOFF
ECOTEC

FAUN
KIRCHHOFF GROUP

RELIABLE PROGRESSIVE

ZOELLER
KIRCHHOFF GROUP

Technik entscheidet

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VÄLKOMMEN JOAB

FAUN and ZOELLER enter into cooperation with the Swedish refuse collection vehicle manufacturer JOAB.

In order to gain a stronger focus on the northern European region, in the spring, FAUN and ZOELLER closed a distribution and service contract with the Swedish construction manufacturer JOAB. The collaboration will cover the marketing and service of ZOELLER and FAUN products in cooperation with JOAB in the countries of Scandinavia.

Dr. Johannes F. Kirchhoff, CEO of the KIRCHHOFF Group explained: „We are now offering our excellent products and our corporate group’s comprehensive service to Scandinavian customers as well. The aim should be to further underpin our market position.“ Since its establishment 51 years ago JOAB has developed into one of the leading providers of hook lifts, swap-body systems and refuse collection vehicles. The company employs 200 people across four locations. For JOAB Managing Director Peter Olsson, this cooperation is a positive and promising step. „This cooperation provides us with access to the well-known FAUN and ZOELLER brands. We will profit from collaborative development activities, sensibly expand our range of products, and increase our own assembly and service capacities.“ Scandinavia offers great potential and we can offer our customers even more support and a comprehensive service.“

Claudia Schae

MMEN
OAB!





Our name is FAUN and our mission is your success. FAUN were exhibiting the latest refuse collection vehicles and road sweepers at IFAT that will enable you to perform your waste disposal task perfectly.

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Licence to clean

At the IFAT 2014 from 5th to 9th May 2014, the FAUN Group exhibited the newest trends in waste disposal logistics and road cleaning, and left the fair with 50 orders.

FAUN went to Munich with 28 exhibits and lots of innovations. We were able to demonstrate an unprecedented range of novel products and product improvements for the industry professionals. For example FAUN had an impressive presence again amongst the one-man systems with the new SIDEPRESS, and with the new VIAJET 8 FAUN closed the gap between the VARIO class and the POWER class of the VIAJET road sweepers. With its choice of trade fair exhibits, FAUN deliberately focused on user-oriented ve-

hicles and technical solutions which are already being implemented. Whether it is the efficient SIDEPRESS MSTs or the mobile transfer station ROTOPRESS XL. But FAUN also displayed developments in terms of the classic vehicles, such as the new design on the ROTOPRESS, the height-adjustable running board or a new operational device at the rear of the VARIOPRESS. The visitors could therefore gain an insight into the variety and the high degree of specialisation at FAUN. Under the motto „Licence to clean“, FAUN displayed many technical

highlights on the 1,100 m² display area. At the daily live shows, FAUN, along with its James FAUN, catapulted a further nine municipal vehicles into the limelight. The FAUN trade fair team returned home with 50 client orders, new contacts, and confirmation that they can count on a first-rate team worldwide. Bravo and thank you to everyone involved.

Claudia Schaeue



The FAUN apprentices were on a culinary mission, providing hospitality services for trade fair visitors. The FAUN demo drivers and James FAUN were entertaining the products and themselves. Great stuff!



**LICENCE
TO
CLEAN**



The FAUN booth at IFAT 2014



IFAT more successful than ever

With approximately 135,000 visitors from 170 countries, the Munich trade fair brought the IFAT 2014 to a close. 3,081 exhibitors from 59 countries displayed 230,000m² of innovations and trends in the environmental technology sector. This makes IFAT the world's leading trade fair for environmental technology. The next IFAT will take place in Munich from 30.05.16 – 03.06.16. www.ifat.de





Left top: Eugen Egetenmeir (Managing Director Messe München GmbH), Dr. Johannes F. Kirchhoff as well as Klaus Dittrich (Chairman and CEO Messe München GmbH) f.l.t.r., were really pleased about the success of the exhibition IFAT. **Left down:** The family KIRCHHOFF visited the FAUN booth during IFAT and were accompanied by Burkard Oppmann (left) and Patrick Hermanspann (4.f.l.) **Right:** The double chamber vehicle SELECTAPRESS with new lifter triple LEVATOR and hybrid option HYDROPOWER. Unbeatable in this combination.



Reliable and progressive vehicles

— At the IFAT in Munich, FAUN displayed many product innovations and improved options in the vehicles, which have a positive impact on the loader and disposer.



The new SIDEPRESS. Perfectly shaped, elegant and highly efficient.

The new SIDEPRESS

It had been quiet on the development front with regard to side loaders at FAUN for a while; therefore the new SIDEPRESS was an absolute highlight at the trade fair. Very elegant and extremely efficient, this is the new generation of side loaders. The new design of the body, which is similar to that of the new rear loader bodies, and the new pendulum compactor with the elegantly clad lifter form a harmonious whole.

The new lifter is mounted further inside and has a motion path with a very small envelope curve. The lateral kick-out, the space needed beside the vehicle for the uptake and the pivoting of the waste container, is thus reduced. Collection is therefore also possible in narrow streets. The lifter is operated from the driver's seat using a joystick, and right or left-handed control is possible. In the new pendulum compactor, the waste falls into a loading chamber which is double the size of the one

on the predecessor, so that several classic waste bins up to 1.1 m³ can be picked up, one immediately after the other. In addition, the hopper volume is designed for the new style of large container with a capacity of 2.2 to 3.2 m³. The pick-up capacity in comparison to 1.1 waste bins is doubled or tripled with the same cycle time. The waste is compacted in the new pendulum compactor on the way to the next stopping point. The low-wear rotation is driven by externally located pressing

cylinders. Both the bearings and drive are protected under a cover, but are in an easily accessible location outside the dirty area. This means a lot less wear and, as a result, less frequent and faster maintenance on the bolted packer plate. In addition, the compactor is completely sealed, so that none of the water that is pressed out can escape. This prevents the troublesome escape of liquid when going around corners, even in the case of problematic organic waste. The new container with smooth side walls and the frame made of roll-formed profiles has a capacity of 28 m³, which is again 2 m³ more than its predecessor. This is ideal for achieving high payloads, even when collecting light recyclable materials.

The new ROTOPRESS—making organic waste management more attractive, the classic vehicle appears in a new, modern look with height-adjustable running boards

Due to its unique rotary drum principle, the ROTOPRESS is already in a class of its own. Minimum operating costs, a high payload and perfect axle load distribution in every load condition have ensured this classic has had its loyal fans for decades now, not only for organic and domestic waste, but also for paper and light fraction. With its new body shell, the classic vehicle slips into IFAT in a sleek, new, but as usual low-maintenance outfit. Some aspects of the internal qualities have also been modernised. The ROTOPRESS is now equipped with the FAUN Control System (FCS) just like all FAUN vehicles, and it can be fitted with options such as fraction-optimised compaction. The driver can use this for fine adjustment of the compaction performance to the type of waste to be removed at the touch of a button and so set it for optimum payload and the required conservation of recyclable materials for treatment. In Munich, with the ROTOPRESS, FAUN also presented

innovative running boards for loaders on its exhibit, which are made of GFRP in warning colours. These are particularly slip-resistant and easily visible for the loading staff and drivers in their rear-view mirror. If a collision does nevertheless occur when manoeuvring in narrow streets, the new running boards can flexibly distort over a large area and then take on their original shape again. As a contribution to the health and safety at work debate and the improvement of ergonomics in the workplace, FAUN presents its innovative, highly-adjustable running board. Conventional running boards are attached at a height of up to 45 cm above the road surface. This means the loaders must always to some extent go up the equivalent of two steps in one go, to climb on. This could change in future, because the new running board automatically drops to a lower level when the speed is below 6 km/h, so that loaders can get on easily. If the vehicle picks up speed, the running board rises up again, so as not



This is how the ROTOPRESS will appear, as standard, from 2015. A new design of a traditional product.

to collide with any uneven parts of the road. (Please read as well page 8.)

The new VARIOPRESS

With the new, elegant and lighter body, the VARIOPRESS is an all-rounder that offers an even larger payload and overall a better performance and more satisfied users as well, thanks to the many clever options. The new body with smooth surfaces is reinforced in the corners by roll-formed profiles which are invisibly incorporated into the elegant design. The rounded shape of the body inhibits the formation of dirt clusters and the ejection plate with its all-round seal ensures that there are no residues left behind after emptying. Fraction-optimised compaction gives the driver the option of adjusting the compaction to the materials that are being collected and therefore of exploiting the greater payload potential of the lighter body, even with difficult material. The optional ActiFit Air axle load control supports the driver in precise monitoring of the permissible axle weights. If it becomes apparent that the rear axle load is being exceeded, the control system intervenes and distributes the payload further forwards. When the payload limits are reached, the system switches the compaction mechanism off as a safety precaution, if desired.

The new LEVATOR

What loaders will appreciate about the new lifter LEVATOR is that the translation and rotational movement does not produce any kick-out. The whole width of the compaction mechanism is available with the low-level bulk chute which is automatically lowered for manual insertion. The LEVATOR loads two- and four-wheeled waste bins on automatic mode. Also unique are the integrated running boards in the SELECTAPRESS that pneumatically fold down when a sensor detects the hand movement of the loader.

New operational unit

In the new, ergonomic operational unit of the VARIOPRESS not only are all the

functions within reach, there is also a stable, safe place for loaders to keep their drinks bottles.

VARIOPRESS to go—Transport-optimised export version of the best seller

The transportation of a waste collection vehicle body for mounting onto a local chassis after export mostly comes with high transport costs. FAUN has therefore adapted the export version of the VARIOPRESS for overseas transport in the standard 40" ISO containers. In addition to the hardware, the package includes appropriate instructions, training and support, along with quality control during assembly for the local partner.

FAUN attaches great importance to the same quality standards applying to export vehicles as those applicable in the domestic market. The same materials, same material thicknesses, perfectly welded by robots. Having a portion of supplies which is local—which is often desired—is enabled by mounting the body onto the chassis on site. FAUN implements the concept in the same way with its road sweepers too, and has already been able to celebrate great successes internationally with this.

Claudia Schae



Top: The new VARIOPRESS with the new lifter LEVATOR. **Down:** The VARIOPRESS is available as a kit system for a local chassis, transported in 40" Hi-Cube containers



Manfred Wittek, Edwin Huber (Munich Contracting Authority), Reinhold Bauer (Waste Management Plant, Munich (AWM)), Minister of State Dr. Marcel Huber, Helmut Schmidt (2nd Plant Manager at the Waste Management Plant in Munich), Burkard Oppmann (Director Sales Germany) and Markus Engbert (Sales)

Because clean is not enough

Hybrid systems save fuel and lower emissions, reduce the noise and preserve your nerves as well as your bank balance. Under the name ECOPOWER, customers at FAUN receive hybrid options for all waste collection vehicles, and for all requirements.

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It drives up quietly, barely making a sound. In addition, the new DUALPOWER VARIOPRESS gleams in the glorious weather, as Bavarian Minister of State Dr. Marcel Huber personally hands over the vehicle's key to Helmut Schmidt (2nd Plant Manager at the waste management plant in Munich). A total of two hybrid waste collection vehicles now belong to the Munich fleet.

Munich is just one example of the active implementation of hybrid vehicles. FAUN now offers three hybrid options for waste disposal vehicles. The variations, HYDROPOWER, E-POWER and DUALPOWER, mean FAUN has the appropriate hybrid solution in its portfolio for a variety of application scenarios and different requirements. Vehicles with the DUALPOWER option switch the chassis engine off completely during collection operations and are then electrically driven and braked. The braking energy is stored in supercaps. These are special capacitors which can take up large amounts of electric

cal charge quickly with little loss, and then release it again. If more energy is needed for the motor than the acquired braking energy can provide, this is produced by a small and energy-efficient TDI diesel motor. There is no limitation of range with DUALPOWER, unlike with battery vehicles. The small, highly efficient motor is driven at the optimum operating point. In combination with the high torque of the electric drive, the short but energy-intensive acceleration is achieved more quickly and economically on collection operations than with conventional diesel drives. Collection is ultra-efficient, and saves—depending on the type of tour—up to 40 % of fuel. The POWERBOX's excellent soundproofed enclosure makes the DUALPOWER the quietest refuse collection vehicle of all with a noise level of under 90 dB(A).

HYDROPOWER is the name FAUN gives to its implementation of the KERS hydraulic accumulator which is well-known in motor racing. The decelera-

tion of the refuse collection vehicle is hardly perceptible for the driver and is achieved via the hydraulic pump, which accumulates this energy in a gas pressure tank, instead of in the conventional way via the engine and service brake, allowing the braking energy to be released as heat. The lifter is now operated from the accumulator, without the main engine supplying any energy. Waste collection vehicles make an average 14 % fuel saving during collection operations with HYDROPOWER. In the E-POWER option, the whole body of the refuse collection vehicle is operated electrically via a battery pack instead of via the main engine. The fuel saving is 20 % on average. These high savings rates apply to the cumulative payload, so that extra weight and extra costs due to the additional equipment are already included in the calculation.

Claudia Schaeue

myFAUN

Cost control and increased efficiency in waste logistics

myFAUN is an individually configurable telematics system with a modular structure, which opens up new possibilities in waste logistics to waste disposal companies. The various data types accumulated during the vehicles' journeys are stored on a real-time basis via the mobile phone network in myFAUN. An internet server belonging to myFAUN makes the data available at any time for further processing and

evaluation. The system reads both collection, vehicle and operational data which can be used in a wide variety of ways to make improvements and so increase overall efficiency. For instance, reading the operating data enables an early response to wear, which means failures can be minimised. Precise route tracking via GPS data allows the best possible route to be established. In addition, the optional navigation

system can be used, in order to navigate collection routes exactly. With the various myFAUN options, the customer can choose the system which suits his or her needs. With myFAUN, waste disposal teams master profit and costs.

Claudia Schae

Your benefits with myFAUN



LOW-PRICED SAVINGS

- Comprehensive information about running your vehicles enables extensive operational improvements
- Time and fuel savings



MORE FLEXIBILITY

- Easy retrofitting
- Optimisation of collection operations and rerouting of drivers in real time via the navigation system



ABSOLUTELY RELIABLE

- Organisation of maintenance and spare parts
- Reduction of downtimes to a minimum

A fresh wind blows in German Sales

Customers in northern Bavaria and North Rhine-Westphalia have a reason to be pleased, in the form of Daniel Vick and Julian Neuhaus.

Since 1st March, Daniel Vick is the new point of contact for our customers, for the FAUN waste disposal vehicles in northern Bavaria and Thuringia. Due to his previous occupations, the skilled wholesale and foreign commerce merchant brings with him a comprehensive knowledge of the sphere, as well as many years of operational experience in similar positions. Daniel Vick took over

in the Sales area from Peter Sielmann, who is retiring after 37 years in the industry.

Another new addition to the FAUN team is Julian Neuhaus. The skilled commercial vehicle mechatronics engineer comes from the vehicle sector, and after finishing at the college for master craftsmen worked as a salesman. At FAUN,

the engineer from Bremerhaven will be selling FAUN products in southern Lower Saxony, North Rhine-Westphalia, and in parts of Hessen. Both colleagues look forward to the tasks ahead of them, to paving new paths, and building success. We wish them every success in this.

Jean-Paul Berndt

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Daniel Vick

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Julian Neuhaus is your man in North Rhine-Westphalia



Reliable service must be predictable and target-oriented

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— Planning reliability for waste disposal companies with the FAUN Fleet and Full Service

With the Fleet and Full Service offers from FAUN, our customers can concentrate on their tasks, and FAUN takes care of the necessary servicing and repairs. The planning efficiency which is gained here - due to scheduled, monthly service advice - provides our customers with the opportunity, resource, and staff to distribute core business efficiently and to target.

The FAUN Fleet Service, i.e. maintenance and inspections, as well as regular structural checks, ensures the stability of the vehicle. Within the framework

of the FAUN Fleet Service, our customers' vehicles are checked at regular intervals – at least four times yearly, by an experienced service team from FAUN, and signs of wear are recognised in sufficient time. High repair costs due to signs of wear that have been overlooked, and any essentially avoidable damages which would result, are eliminated by early detection.

With the FAUN Full Service, we go one step further, and offer our customers an all-inclusive carefree package with regard to maintenance, inspections,

and wear. Within the Full Service, FAUN doesn't just undertake the necessary inspections and maintenance; it also takes care of any noticeable signs of wear at the same time. The vehicles are therefore always in a reliable condition and ready for rigorous operations, due to scheduled monthly servicing advice.

Christian Bremer

Licence to sweep

With its new Streamline Generation, FAUN offers future-oriented road sweepers with optimal vacuum capacity and maximum efficiency, protecting the environment through low fuel consumption and nearly dust-free air circulation.

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The new Streamline Generation of FAUN road sweepers has arrived. Following on from the VIAJET 12 Streamline, a road sweeper with a 3-axle chassis, which is available exclusively with hydrostatic drive; the road sweeper manufacturers from Grimma presented the new VIAJET 8 Streamline at the IFAT. The machine joins its big sister VIAJET 12 in the POWER class. The buyers of these special sweepers can be found amongst companies specialising in cleaning road construction sites and other special tasks, or customers who value the container volume of 8 m³ (in compliance with DIN EN 15429), due to lengthy journeys to emptying sites. The „newbie“, like her sister, is equipped with a two-part water tank, the basic version of which can hold a total of 2,200 litres of water. The VIAJET 8 excels in terms of vacuum capacity, with almost 50 % greater air speed than the VIAJET 6 Streamline. For this reason, the diameters of suction hoses have also been increased. A suction hose with Ø 300 mm, as well as a blower hose with Ø 200 mm are therefore now utilised. The tried and tested sweeping faculties were adopted - with the exception of the larger suction and blower hoses - from the smaller model range. The VIAJET 8

Streamline is available now, in either the hydraulic (H) or hydrostatically driven variant. As an optional extra, surface suction devices can be ordered as part of the substructure, as well as accompanying high-pressure water installations with a system pressure of up to 300 bar. With this machine, FAUN closes the gap between the VARIO class (VIAJET 6 & 7) and the VIAJET 12. In order to optimally utilise the efficiency and the motorisation of the chassis usually found in this class, the engineers have consciously decided not to develop a version with an additional engine. This is because, on the one hand, auxiliary engines, which in this power class would have to provide more than 120 kW through complex exhaust systems in order to reach exhaust-emission standards, are not less complex than a hydrostatic drive. On the other hand, it is due to the fact that the exhaust systems of the modern chassis would be forced to regenerate particle filters far more frequently - due to insufficient engine speeds and too little power output - which would in turn have the effect of raising fuel consumption. The final reason is that a large auxiliary engine weighs a hundred kilogrammes, and takes up a great deal of space. By eliminating the



VIAJET 6 Streamline with VW auxiliary engine



VIAJET 7 Streamline

auxiliary motor, it became possible to use a „lighter“ chassis.

In terms of the VIAJET 6 Streamline and VIAJET 7 Streamline, which belong to the „VARIO“ class, FAUN will focus on „downsizing“ technology from Germany, as regards future fuel efficiency. From now on, all VIAJET 6 and 7 models are equipped as standard with one of the specially developed industrial engines by Volkswagen. The spin-off of the 2.0 TDi engine, which was technically adapted especially for this purpose, enables the VIAJET 6 and 7 to be fitted with the largest water tank in its class. VIAJET 6 equipped with VW additional engine can therefore hold large water tanks with a max. of 2,200 litres and a VIAJET 7 a max. of 2,500 litres, without having to increase the wheel base of the chassis or to reduce the volume of the container. The primary water tank is, as usual, securely mounted on the auxiliary frame beneath the container, which guarantees a low centre of gravity. The secondary tank is mounted in front of the engine housing, and simultaneously serves as

the front wall of the dirt container. In this way, exceptionally low noise values can be achieved, which makes this machine class the perfect tool for the city. Through the conversion to VW engines and further optimisation in the road sweeper's suction system, it has been possible to lower fuel consumption by a further 20 - 30 % compared with the engines that have been used up to now.

In addition to the new VW engine, the road sweepers 5 to 8 are also available with a hydraulic, and a hydrostatic drive system. Depending on the area of application of the machine and the chosen engines, the hydraulic drive in particular can save a further few litres of fuel, thus protecting the environment as well as the bank balance. A control system for the hydraulically driven VIAJET road sweeper, which has been specially developed by FAUN, communicates constantly with the vehicle engine. If the driver varies the engine speed, the system reacts at lightening speed and regulates the speed of the suction/blower accordingly. In this way, unnecessary noise pollution is pre-

vented, and the system is simultaneously protected against any damage. With the hydrostatic drive, FAUN offers three different hydrostats, depending on the vehicle class and engine power. For the vehicles in the classes for up to 18 tonnes gross vehicle weight and approx. 300 HP engine power, the HS 1000 is available, and the HS 2000 is also on offer. For all 3-axle chassis, the new HS 3000 has also been available since the beginning of 2014. Going against the trend of some manufacturers who install increasingly larger engines and blowers, which consequently use more fuel and blast more emissions into the atmosphere, the engineers from Grimma chose another path. „Minimise wastage“ was the motto. Through seemingly small alterations, the machines could be improved, and therefore made more efficient. In conjunction with the most modern chassis of the EURO 6 Generation, FAUN's VIAJET road sweepers ensure clean streets, and protect the environment.

The subject of „PM10“ still preoccupies communities and local authorities. In

the face of drier and warmer winters, the situation is not set to improve. Here, the FAUN air circulation system proves its worth, with extremely low levels of water consumption and perfect efficiency in sweeping and maintaining dust-free exhaust air. Next to no dust is expelled into the atmosphere from the system. To

meet special requirements, FAUN also offers road sweeping machines with a special exhaust air filter - the FILTAIR - which filters up to 99,9 % of dust particles from the exhaust air. In addition, the unique FAUN air circulation system enables the use of the water in the suction and blower shaft in ambient temperatures reach-

ing approx. -5°C , without the need for additional anti-freeze solutions or heating systems.

Mario Ringl



Brand new and well-equipped for construction sites: the VIAJET 8 Streamline



VIAJET 12 Streamline with AQUATHERM

Hoop Schwiiz

— New company Contena Ochsner AG – for a cleaner Switzerland



Products made in Switzerland

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Since April, Swiss waste disposal is now being overseen by Contena Ochsner. The company is an alliance of the two long-standing companies J Ochsner AG and Contena AG, which have been active and well-known in Switzerland for 160 and 40 years respectively. FAUN and Contena proprietor Kurt Heiniger, are equal shareholders in the new company. The 40 strong team is lead by Renato Heiniger. „I’m looking forward to the tasks ahead of me. This was the

right step at the right time. For it is only together that we can approach the challenges in the small but highly competitive Swiss market, and offer the customers the best service,” explained Renato Heiniger as the motivation for the union. „We are of course also looking for a larger, collective site from which the employees and the customers can profit,” further clarified Heiniger. Tim Collet, in his position as Director of Sales in Exports and up until now also

Managing Director of the J. Ochsner AG, is concentrating with immediate effect entirely on the export markets, but remains on the Board of Directors for the new-old company. For the customers there will be only advantages from the fusion. The product programmes will continue as they are, or will be further supplemented and flanked by a strong service. Alongside the FAUN and Stummer waste disposal vehicles and the new FAUN road sweeper machines,



The Contena Ochsner AG team



The new Swiss Patent Ochsner pail

the portfolio is enhanced by sieve and shredding machines by Doppstadt, set-down and roll-off tipper trucks by Hyva, and container cleaning systems by Feistmantl. For the group's refuse collection vehicles, weighing systems and lifters will be obtained from Switzerland. An original, traditional Swiss product also belongs to the range of supplies – we couldn't imagine doing without it: the Swiss Patent Ochsner pail. This belongs in every household,

either as a waste container, or as a designer furniture piece.

Claudia Schaeue



POWERPRESS for Israel

Since 2010 there has been a partnership between FAUN and Amnir Recycling.

Amnir Recycling, a company in the Hadera Paper Group, has been Israel's market leader in the waste collection sector for over 40 years. The company employs more than 400 employees in two paper recycling plants, and collects more than 360,000 t of paper waste every year. For the efficient planning of waste collection routes, they use cutting-edge technology, and work in

accordance with the international ISO standards. FAUN Export Manager Jürgen Thirase oversees Amnir Recycling and is proud of this great partnership. Together with Uzi Carmi (CEO of Amnir Recycling) he develops relevant vehicle concepts. Uzi Carmi: "Our satisfaction with the vehicles supplied, and the good cooperation between the two companies has led to the fact

that Amnir Recycling is extending its waste paper collection throughout the whole country, and has been able to increase the proportion of recycled raw materials within the country." The Israeli waste disposal company now has a fleet of 140 waste collection vehicles.

Lea Stern



About Amnir Recycling

The waste collection company Amnir Recycling collects more than 360,000 t of paper and cardboard waste every year. The collected waste is brought to the Hadera Paper Group and recycled. This comprises the largest paper recycling plant in the Middle East.



VARIOPRESS in the Persian Gulf

FAUN receives award of Qatar contract for 190 waste collection vehicles.

In a true long distance race for the delivery of rear loaders in the emirate Qatar, FAUN prevailed in the end, along with the chassis manufacturer RENAULT, winning a contract for more than 190 VARIOPRESS.

The vehicles will be delivered in batches to the Persian peninsula in 2014 and 2015. FAUN Export Manager Nicolas Malaplate skilfully negotiated for months, persuading the client of the advantages of the new VARIOPRESS, until the business was home and dry.

In addition to the partnership of many years between the local RENAULT dealer Al Attiya and FAUN, a further collaborative success story emerges. "Meeting the demanding specifications of the waste disposal company MED was a hard nut to crack, but in the end, also the key to success," said Sales Director Export Tim Collet. "The realisation of the project within the team, in close coordination with construction and production, worked very effectively, and with innovative proposals we were able to score points with the client."

In the end, the contract was awarded to FAUN. In the future, 190 VARIOPRESS, with container sizes 12 m³ and 16 m³ respectively on 2.30 m and 2.50 m chassis, fitted out with the new joist lifter Zoeller 359, will remove waste in the capital Doha. In this way, Qatar will gain the most up-to-date technology, and FAUN underpins its technological leadership in the region.

Claudia Schaeue



The Heavy Ground Mobility System (HGMS) from TRACKWAY is suited for ground mobility requirements.

Three times a charm for FAUN TRACKWAY

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FAUN TRACKWAY has secured a 1.6 million Euros order with the Irish Defence Forces for its Heavy Ground Mobility System (HGMS) – its third in less than a decade.



TRACKWAY is suitable for snow, mud and sandy terrains.

Building long-term partnerships with armed forces to support their ground mobility requirements is at the heart of what we do, so TRACKWAY is pleased to announce we have extended our relationship with the Irish Defence Forces. Ireland has placed a new order for FAUN TRACKWAY's Heavy Ground Mobility System (HGMS) worth 1.6 million Euros. In the latest contract, we were called on to supply HGMS Spool-

racks. Each Spoolrack is used to store and transport additional lengths of TRACKWAY, which can then be transferred for deployment through a spool-to-spool system. The client needed the order quickly and asked if we could turn it around in just three months. Our dedicated team of engineers and manufacturers worked hard to deliver the whole order to Ireland on schedule. As one of the participating nations in

the European Union Battlegroups, it means HGMS could be also used in EU humanitarian and disaster relief missions. FAUN's aluminium roadways are popular with armed forces worldwide thanks to their ability to stop military vehicles becoming bogged down or stuck. Ireland's order is the latest endorsement of our products.

Rachel Roberts

Building a global network of international agents

— To extend our global footprint and tap into key markets, FAUN TRACKWAY USA relies on an established network of sales agents. We spoke with John Mercer, one of the company's representatives, based in Washington D.C.

To support FAUN TRACKWAY's operation on US shores, we have partnered with John Mercer, Mercer LLC, a specialist defence, aerospace and energy consultancy that helps companies trade in the country. We are currently working with John on a strategy which will see FAUN branch out from defence and into the commercial sector. One of the main areas where John is assisting FAUN TRACKWAY USA is in engaging key distributors and end users and supporting our presence at major trade exhibitions,

such as the construction industry's CONEXPO and Shale Insight Conference 2014. Already we're seeing significant interest from the civilian market for our new Medium Ground Mobility System – Beam Dispenser (MGMS-BD) and MGMS-BD LITE. These dispensers can be fitted to a wide range of frontend loaders to quickly deploy TRACKWAY and protect the ground beneath. While the MGMS-BD features a 180 degree rotating head, the MGMS-BD LITE is a static, cost-effective option suitable

for those who don't need this level of flexibility. We're anticipating considerable demand from the timber industry, energy and mining sectors, thanks to these systems being rapidly deployable, hard-wearing and competitively priced.

Rachel Roberts

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Left: MGMS-BD prevents vehicles from getting bogged down. **Right top:** MGMS-BD LITE, a lighter, cost-effective option. **Right down:** A standout feature of the MGMS-BD is its rotating head, allowing the system to be rotated 180 degrees so the plant can fit through smaller gaps, further aiding forces' manoeuvrability.





The first half of the year at FAUN in pictures 1. Good atmosphere at the 15th ski trip with cosy ski hut charme in March 2. In January, the FAUN company sports group football team won the KiKu (Kinderhaus Kumasi) Cup. By participating, we supported a project helping orphaned children in Ghana. 3. FAUN employees giving a donation to a Kindergarten in Osterholz-Scharmbeck and in Hambergen as well as to the School Support Association of Hambergen Primary School in January. 4. In April, our trainees Michelle Kahrs (left) and Saskia Meyer were in Porto at KIRCHHOFF Automotive for an internship abroad. 5. The FAUN crane truck shines with its new-found glamour on the BDE (Federal Association of German Waste Disposal Industry) Tour in May. 6. In December 2013 we handed over the 10,000th FAUN vehicle since the start of production in 2002 to the company Nehlsen. 7. Happy faces after the training in the new VIAJET 7 in Abu Dhabi in February. 8. At the beginning of the year, we trained the drivers in Abu Dhabi in the new SIDEPRESS MSTs.



Technik entscheidet at the IFAT 2014

— ZOELLER – still on the rise – is presenting a selection of innovations from the field of refuse collection vehicles and lifter systems at the trade fair IFAT 2014 in Munich.

With a total of fourteen vehicles, ZOELLER presented ideas, concepts and innovations to its customers. Eight vehicles lined the outdoor fair stand, and with six more, ZOELLER were a constant feature of the „VAK – Truck in Action“ demonstrations.

In the core field of household refuse vehicles of the type MEDIUM X2 and MEDIUM XLS, ZOELLER can cater to the individual wishes of the customers and exhibited three strong vehicles with smoothed side bodies and with frame holder, which offers about ten percent more collection volume in the extension version, which is 200 mm higher with the same wheel base.

In the „Commercial“ section, visitors were impressed by two sturdy vehicle bodies of the type MAGNUM X1 with ZOELLER lifter systems adapted to them.

The segment of small refuse collection vehicles was represented by the MICRO HG and MICRO XL. The MICRO HG, with a body volume of 5 m³ and two insertion doors on the left and right, is equipped with a lifter system arranged on the right side, which is in optimal for use in inner city areas. Its big brother, the MICRO XL offers a body volume of 7 m³ and is entirely equal to a large refuse collection vehicle with its compacting unit, consisting of a support plate and

compacting plate. This fair and future show vehicle is equipped with a plug-in system from the manufacturer BANKE. This version is also particularly suitable for inner-city disposal orders, because low noise levels and reduced CO₂ values play an important role here.

A study on the two-chamber vehicle MEDIUM XLS SPLIT with vertical division and smoothed side bodies drew the attention of many visitors. A new generation of the ZOELLER ROTARY III impressed with its integrated design, with a slight overhang at the end of the vehicle and the potential to reduce the weight of the whole system at the most sensitive position, the rear axle.



1. MEDIUM X2 with ZOELLER-DELTA 2301 PREMIUM 2. MEDIUM XLS with integrated lifter ZOELLER-ROTARY III, Low-Level with hinged chute 3. MICRO HG with a lifter system arranged on the right side 4. ZOELLER-DELTA-2307 PREMIUM, electric lifter with 24-volt motors



MEDIUM XLS with integrated lifter ZOELLER-ROTARY III, Low-Level with hinged chute

Footboards that can be pneumatically extended and retracted offer the greatest possible ground clearance in inter-urban driving use.

In the field of work safety, ZOELLER is presenting a new barrier concept: the air barrier. Tubes filled with pressurised air cordon off the hazardous area and are monitored by laser. In practice, during shunting and with tight turning circles, these flexible elements offer the advantage that no impact damage occurs to parking vehicles.

The ZOELLER MEDIUM XLS WASH COMBI impressed in the demonstrations with its ability to empty and wash containers in the same work step. This system is equipped with two fresh water tanks, each containing 1,000 litres, and two tanks for used water, each containing 650 litres. Two washing heads, each mounted on an independently functioning robot arm, offer the waste loader the advantage that the container lid does not have to be opened before emptying. This task is taken over by the robot arm, which also

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MEDIUM XLS Split with footboards that can be pneumatically extended and retracted

cleans the container lid from the inside at the same time. Each cleaning of a container requires three to four litres of water, giving a cleaning capacity of around 500 two-wheeled large waste containers (LWCs). Two-wheeled LWCs are automatically recognised and can also be cleaned. A hot water supply is also available as an option.

The lifter pavilion in the entrance area of the ZOELLER fair stand repeatedly proved to be a magnet for visitors. Six ZOELLER lifters from the model series High-Level-Lifter DELTA and Low-Level-Lifter ROTARY were presented. The systems could be tested independently or under the knowledgeable guidance of the ZOELLER sales team. In direct conversation with the customer it was pos-

sible to explain the products in detail to the customers and interested visitors and to work out the advantages and individual benefits of functions together.

The DELTA series was represented by the ZOELLER-DELTA-2301 PREMIUM, in the hydraulic standard version and a manual version. The latest generation of the ZOELLER DELTA 2307 in the electrical version with 24-volt motors attracted particular attention from the visitors.

The ROTARY series in the latest generation of integrated low-level lifters demonstrated its advantages clearly: a slight overhang and reduced weight with the potential of a high performance system of the future. Here too,

an electrical version is available with 24-volt motors in a DIN-style design.

Technik entscheidet. With a total of almost 70 sales and service employees, who represent the ZOELLER Group from Austria and abroad, ZOELLER presented itself to the increasingly international fair audience as a strong partner, advised active customers capably and won over interested visitors as future customers. For many visitors, the themed events at the ZOELLER fair stand every evening were the culmination of many good conversations.

Sven Walter



MEDIUM XLS WASCHKOMBI with view into the tailgate / Swing door with washing heads on robot arms



Arrival of the first vehicles at Abu Dhabi, at the site of West Coast Saubermacher Environmental Services.

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On the move on desert sand

Stummer supplies 60 municipal vehicles to Abu Dhabi.

In April 2013, the Austrian disposal company Saubermacher Dienstleistungs AG received the acceptance of their bid to carry out separate collection and cleaning at all public places and collection points in the Western Region in Abu Dhabi. Their partner is the West Coast Cleaning and Environmental Services Company LLC from the United Arab Emirates (UAE). Together with Saubermacher they have founded the joint venture West Coast Saubermacher Environmental Services.

In its procurement of the vehicles and bodies, the company has shown confidence in Stummer Kommunalfahrzeuge, with which a partnership has existed for decades. Out of the approximately 100 new vehicles, Stummer supplied a total of 60 waste compactor vehicles, roll-off tipplers and skip loaders, trailers and special bodies.

“Together with the people responsible at Saubermacher and the Operation Manager on site, we have defined and

realised the respective custom-made items for the desert, so that the vehicle bodies will do their job even under the most difficult conditions. We are proud to have received this major order and hope to be able to use this order as a springboard for our further expansion in the Middle East”, said Stummer CEO Johann Streif, who is also the Project Manager for Abu Dhabi.

He continued: “The vehicle bodies were manufactured and partially

assembled at our production sites in Germany, Poland and the Netherlands. Stummer carried out the assembly of around 25 vehicles at the Bischofshofen site in Austria. The whole handling and coordination of the order and the shipping of the vehicles was also organised by Stummer."

All the vehicle bodies are equipped with the latest, stable high technology. Each vehicle has a weighing balance with RFID container identification, on-board computer for data recording, route planning by GPS and much

more besides. It is a complete solution, specially tailored to the requirements and vehicles.

"We are therefore able to analyse real-time reports at any time and to report to our client about which collection vehicle has collected how much, when and where", explained Walter Schiefer and Peter Schmid, responsible for the Abu Dhabi project at Saubermacher.

Johann Streif



Top: Courses for mechanics and drivers (carried out by Stummer Customer Services Manager Josef Reichl, 2nd from left) at the respective sites of West Coast Saubermacher. **Bottom left:** Official acceptance of the vehicles in front of Schloss Klesheim: left to right: Walter Schiefer, Peter Schmid (Saubermacher Dienstleistungs AG), Johann Streif (CEO Stummer), Bashar al Mahaini (CEO West Coast Co. LLC), Hans Roth (company founder and Chairman of the Supervisory Board of Saubermacher), Gerhard Ziehenberger (Member of the Board of Directors at Saubermacher). **Bottom right:** part of Stummer's new fleet of vehicles, mounted on Scania and MAN, for Western Region in Abu Dhabi (UAE)



Stummer Medium XL S with body volume of 13 m³, Stummer Bin Lifter SK 351 ECO-Premium and glass collection box 4 m³ with side lifter mounted on MAN TGM, 18 t total weight, wheel base 4,400 mm

Box on Board

— One box – lots of possibilities: the Stummer multi-purpose box for collecting biodegradable waste or glass

In Scandinavia the multipurpose box is normally used exclusively for the collection of biodegradable waste. Not at the company Nairz in Seefeld/Austria: there they have set themselves the goal of creating a waste vehicle with additional volume that can collect glass directly from the respective household on each collecting trip, without causing high additional costs.

The Stummer compactor body MEDIUM XL S collects residual waste, biodegradable waste and recyclable materials (paper, packaging) in alternation, in the well known winter sports region of Seefeld/Tirol.

At every collection the citizen and/or household has the opportunity to hand over the glass that they have collected. This is then quickly, quietly and

efficiently emptied into the glass box. In order to keep the dropping noise as slight as possible, the box is equipped with special sound reduction. The glass box is entirely leak-tight.

The multi-purpose box is emptied from the side by means of two hydraulic cylinders, which turn the box approx. 130 degrees. The side lifter can accept and unload containers from 80 to 360 litres.

„The glass box has an active collection volume of 4 m³ and the waste collection structure of approx. 13 m³. The whole body thus fits onto a 2-axle chassis with a total weight of 18 t and a remaining payload of 4.8 t. Of course, the glass or bio box can also be mounted on a 3-axle chassis“, says Stummer CEO Johann Streif.

The advantage of this collection method is that one can offer an even better, citizen-oriented service. The recycling rate can be increased again, in comparison with the conventional glass collection system, without causing massive additional costs – an important contribution to our environment.

The Stummer MEDIUM XL S is equipped with the new STUMMER LIFTER SK 351 with ECO guidance. The lifter works entirely without increasing engine revs, with the same speed and lifting force. Due to this, 5 % of the fuel or approx. 15,000 euros or 33 t CO₂ can be saved. The sound level is reduced by more than 50 % from 85 dBA to 76 dBA (-6 dBA represents a halving of the sound level). Every emptying helps the environment!

Johann Streif



Bio or glass box in tipping position, for lateral emptying. The bio box is also available in a stainless steel version.

We wish you a great
summer season!

