The power of cooperation
Working together for greater success
Meeting the complex challenges of the transport and logistics industry calls for maximum flexibility and competence from all actors involved. It is thus all the more important to pool resources and know-how, with the aim of identifying and exploiting any potential for optimisation.

This issue of trailer world looks into the power of cooperation and recounts success stories of effective cooperation. This includes the work of the cooperatively organised Edeka Group or the collaborative implementation of mammoth projects such as the upgrading of the A7 motorway carried out by project corporations, as well as diverse forms of joint action taken within the BPW Group.

As a strong partner, we offer a complete portfolio for vehicle manufacturers and vehicle operators, joining forces to deliver efficient and safe solutions that benefit everyone.

Throughout, we attach great importance to constructive dialogues. Our aim is not only to inform, but to get all parties involved to talk to each other. This is because innovations are always the result, amongst other things, of working with customers and suppliers. With this in mind, we send employees from Application Engineering to South Africa to explore the load-bearing capacity of our running gear systems, and in the field of composite applications, we benefit from an extensive network of experts that also includes our development specialists ADETE.

We will continue to make targeted use of the power of cooperation, so as to get many things going for you and with you, and to move forward together. Experience the very best of collaborative partnership – with BPW and in this issue of trailer world. Have a good read!

Carlo Lazzarini
The Photo

Joining forces

Weighing 60 tonnes and a considerable 5.30 metres high and also wide, this dumper truck was transported to its new operating site in Rohrdorf in the Bavarian Pre-Alps. Moving construction machines of such dimensions is a matter of teamwork. In this case, BigMove, a pan-European network for special and heavy goods logistics, commissioned Scheuerle Fahrzeugfabrik with the construction of a special semi-trailer boasting seven BPW axles: the 7-axle EuroCompact low bed. The freight with a total height of six metres and a weight of 102.5 tonnes was transported by the Wallek haulage company.
The next generation of trailer telematics

With Cargofleet Trailer Gateway, idem telematics – a member of the BPW Group – is launching an inexpensive and flexible telematics solution for towed vehicles. The basis of this new trailer telematics is TC Trailer Gateway, an on-board computer that processes data from so-called hubs. Each hub has a specific function and can be flexibly connected to TC Trailer Gateway. In the basic package, functions include monitor/tank/silos, as well as vehicle construction and distribution. BPW is aiming to use the topic of special vehicles, for example, to support employees with priority areas in the fields of timber transport, low loader trailers, heavy goods, car transporters and swap bodies. In addition to these new courses, BPW continues to offer tried and tested seminars on the topics of telematics, fleet management, repair of ECO Disc brakes or the parts trade. Depending on the size of the team, trainers will also travel to the respective headquarters to give individual courses.

Registration can be completed online, and the entire package with dates and content can be found in the Support section at www.bpw.de/en.

GATEWAY BOX EFFICIENCY HUBS QUALITY HUBS SECURITY HUBS

Range of functions can be adapted as required, at any time.

For further information please visit the Support section at www.bpw.de/en or contact the BPW reception area at the headquarters in Wiehl, Germany.
Cover Story

here do the peppers that end up in our supermarket trolleys actually come from? Israel, the south of France, or perhaps Spain? Many are indeed grown in hot countries. But far from every plant of the Solanum genus sold in Germany will have travelled such a long distance: for some years, large quantities of peppers have been cultivated in the region of Lake Constance. To be precise, 3.1 million units per year. This is because the mild climate in the southernmost vegetable-growing region in Germany is enough for high-yield cultivation.

In 2009, when the Edeka Southwest regional company approached Reichenau-Gemüse eG with the idea of growing peppers on the island of Reichenau, five local horticultural businesses decided to join forces and constructed a large greenhouse in the Hegau area by Lake Constance. “Without this coalition, there would be no pepper cultivation here,” says Stefanie Glönkler, junior manager and specialist at the Glönkler horticultural company. “Previously, the vegetable growers on Reichenau were lone operators.”

Almost all of the peppers harvested from March to November in the Hegau growing region on Reichenau are sold to the Edeka Southwest regional company. Under the brand “Unsere Heimat – echt & gut” (Our home – authentic & good), these vegetables catch the customers’ eye as soon as they enter their local store. In woven baskets and with

Working together for greater success

Good and trusting working relationships with your partners enable you to deliver not only high quality but also to continually follow new avenues. As the largest alliance in the German retail sector, Edeka stands for an active partnership between retail and wholesale.
their own special stands, they are explicitly displayed as a regional product. Whole-salers assist individual stores by providing ideas and materials regarding product presentation. This cooperation is part of a larger whole: “We work very intensively with the merchants, in keeping with the cooperative principle that is behind the Edeka alliance,” says Martin Lampe, operations manager at Edeka Southwest in Ellhofen. The merchants contribute their own equity and hold a stake in the cooperative.

Volume bundling in purchasing

The purchasing alliance was founded as far back as 1888. But it was more than 20 years later, in 1911, that the merchants decided to operate their businesses under the shared Edeka brand. The close association of the cooperatives is under development, covering several stages and combined with checklists. One producer sends only one pallet while another delivers 30 – how can quantities, in their proportions, be meaningfully broken down for the partners involved? “A prerequisite for this is total transparency and the full confidence of all group members between themselves,” says Vallette. Forming an alliance is worth the effort, explains the scientist: if food retailing bundles its shipments, costs are reduced because routes can be optimally planned. Some producers have already recognised this and have teamed up. For example, the three frozen food manufacturers Roncadin, Coppenrath & Wiese and Appetito have had a cooperation of this kind in place since 2004.

The shelves of an average-sized supermarket hold between 20,000 and 25,000 products. Between 18,000 and 20,000 of them are handled for Edeka Southwest at the logistics centre in Ellhofen, while other products are sourced from third-party vendors or in-house. Because the regional merchants view their customers as partners, they also purchase goods from local agricultural enterprises. “Especially here in the Swabian-Franconian wine-growing region, many outlets order their wine from local wineries,” says Lampe of the autonomy enjoyed by the tradesmen. “We have no intention of centrally controlling this deep-rooted regionalism.”

Producers encouraged to cooperate as well

A number of food producers are also sounding out the possibilities of cooperation, although still rather tentatively. Here, costs can be saved by combining shipments. But how are these savings handled? This question has been taken up by Prof. Dr. Franz Vallette of Münster University of Applied Sciences. “Current forms of cooperation are suffering from the fact that there is still no model for a fair distribution of both savings and the input from partners,” says Vallette. At his university department, such a model is under development, covering several stages and combined with checklists. One producer sends only one pallet while another...

Optimising processes

The Bundesverband Materialwirtschaft, Einkauf und Logistik e.V. association (national association for materials management, purchasing and logistics, BME) is also occupied with this topic. It has established a working group on the subject of collaboration between logistics service providers and customers. “To date, suppliers still have an inferior position at the loading ramp. If they are five minutes late, they have to join the end of the queue in incoming goods,” criticises BME logistics manager Gunnar Gubrek. The BME working group is looking for ways to more efficiently mesh processes in the transport chain so that both haulers and customers can save costs. Here...

“One of the five Edeka Southwest logistics centres is based in Ellhofen, a community near Heilbronn, Germany.”

“IT is always an issue,” explains Lampe. “It’s often still the case that the electronic connection ends at the supermarket loading ramp. This is going to change in the future.”

“Unsere Heimat – echt & gut” (Our home – authentic & good).
the current approach, with its focus on regionalization and freshness, is the right one. Nevertheless, there are a number of challenges. “Regional, organic, vegan – we want to improve in these areas,” stresses Lampe. In addition, customers should receive more support during their daily shopping and with food-related issues. With this in mind, wholesalers are offering training for supermarket employees so that they can provide nutritional services as well. They can then assist customers in the store by providing them with information and advice about a balanced diet, exercise and relaxation. More than 1,000 employees have already seized this opportunity at Edeka Southwest.

Ensuring a range of fresh products

Edeka Southwest has outfitted 50 of its 200-strong fleet of trucks with telematics from idem telematics. The system monitors the temperature in the trucks used for refrigerated transports. Martin Lampe and his colleagues can call up this data online. “Previously, we only had temperature sensors, so we didn’t have permanent access to the necessary information,” says the operations manager. This has changed with the new system: if the temperature in the truck drops to within the critical range, the fleet dispatcher receives an alert on their smartphone. In four years’ time, if all goes to plan, every Edeka Southwest vehicle will be equipped with this innovative technology.

Another telematics application helped to significantly reduce fuel consumption across the truck fleet. This solution assesses the driver’s driving style – how they accelerate, brake or change gears – and awards a score between 0 and 10. A 10 indicates optimal driving behaviour. “We started four years ago with an average score of 6.5. We’re now at 9.1,” pronounces the operations manager proudly.

The next stage envisaged by Lampe is to link the telematics systems with the aim of combining all the information in a single system. Here, an important aspect will be the connection of the telematics system to the loading ramp: “If the merchant has adjusted their own system accordingly, they can automatically transfer this data into their merchandise management system,” says Lampe of the planned IT network. Importantly, the data is scanned into the IT system even before shipment to the stores, thus getting directly into the database of the respective Edeka store. This means that both wholesale and the local Edeka outlets can immediately work with the same data pool. For the peppers from Reichenau, this means that in the near future, they can be accepted on the loading ramp without the need for manual entries made by employees. Nevertheless, manual work is unlikely to disappear completely – at least on the island of Reichenau. There, the vegetable farmers turn their peppers by hand every 14 to 18 days, thus ensuring uniform ripening. After the harvest, each pepper is individually placed in shipping crates. Horticulture graduate Stefanie Glönkler, who is familiar with the modern IT methods in her sector, does not anticipate any fully automated cultivation of vegetables. Ultimately, one important factor is beyond technical control: the weather. “Despite all the technology, we horticulturists are extremely dependent on nature.” (dh)
For companies in the transport and logistics industry, the BPW Group is a strong partner that takes account of their individual situation and uncompromisingly supports them in meeting their needs and addressing their challenges. As an experienced international mobility partner and system partner, the BPW Group follows new avenues with its customers and provides a comprehensive service package from a single source. Three practical examples demonstrate the benefits of such cooperation.

**Perfect teamwork**

Thanks to support provided by BPW, Spanish vehicle manufacturer Lucasfrio has developed a new business area: “For around two years, the company pursued the idea of manufacturing refrigerated trailers all on its own,” says Susanna Esser, Managing Director of BPW’s Spanish subsidiary Trapaco S.L. “The system partnership with BPW has significantly facilitated the vehicle manufacturer’s move into self-production.” The family-run company has been on the market since 1890 and for a long time exclusively specialised in refrigerated boxes, as body structures, while purchasing compatible running gears from other Spanish manufacturers. Things are different today: the BPW Group enables Lucasfrio to procure components such as the ECO Disc brake, the ECO Air Compact air suspension, as well as supports, in the volumes required for production. Accordingly, Lucasfrio doesn’t have to operate its own warehouse – a significant financial saving. “Today, with the components from BPW, Lucasfrio can build 300 to 400 refrigerated trailers every year,” says Esser.

The truck rental firm BFS – Business Fleet Services has maintained a steadfast cooperation with BPW for around 30 years. BFS has customers in Germany, Switzerland and Croatia and, as part of its international mobility partnership with BPW, now also makes use of the new PSP – Partner Service Package maintenance contract. “The maintenance contracts enable us to better calculate the cost of the vehicles we rent out, and they give us the security of knowing that virtually nothing else will be added on top,” explains Managing Director Jan Plieninger. What to him is the most important feature of the Partner Service Package is that the maintenance covers the entire trailer, regardless of the manufacturer, from the axles and the electrical system to the body structure. The full service applies when the trailer includes a BPW running gear. “That’s why we’re going to conclude maintenance contracts, in stages, for all of our vehicles,” says Plieninger.

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While industry is producing ever heavier engines, turbines and transformers, infrastructure is unable to keep pace. The transport of such goods calls for intelligent logistics solutions. The Kahl Group counts on heavy-duty modules that use axle suspension units from BPW.

Taking 1,000 tonnes over seven bridges

Onlookers bustle at the roadside, photographers compete for the best places: there’s always a great deal of interest when the Kahl Group sends a heavy goods transport on its way from their Moers site in North Rhine-Westphalia. Recently, the new G²/K600 side girder deck has been the subject of particular attention. This innovation makes it possible to cross bridges and overcome obstacles that are not at all designed for heavy loads, as for example in late November 2015 when two 475-tonne transformers successively set out to travel from Mönchengladbach to the Emsland region.

Soon after departing, on a ten-kilometre section between Korschenbroich and Kaarst, the transport had – quite literally – to ‘bridge’ a total of seven bridges that are not designed for loads of this kind. This was done by deploying the new transport system: the running gears were connected in such a way that, due to hydraulic axle load compensation, the possible record-breaking gross weight of 909 tonnes was evenly distributed across all axles of the 110-metre-long trailer. The two running gears, which carried their loads on side members, were each equipped with 22 Goldhofer centre lines. A total of 88 BPW axle suspension units ensured stability, while 352 wheels kept everything moving. “Due to the exceptionally favourable ratio of unladen weight and payload, we can reduce the axle load to twelve tonnes and even less for extremely heavy freight,” explains Group Managing Director Rainer Kahl.

Six hours for just ten kilometres

Two four-axle tractor units, each with 650 hp, kept this remarkable heavy transport moving and helped guide the two running gears through numerous bottlenecks with millimetre precision. The procession took six hours to cover the ten kilometres. Beforehand, Kahl employees had accurately measured the section and computer-simulated the transport progress along the route. This showed, for instance, which traffic lights would require dismantling. Even relatively small heavy transports with a weight of only 20 tonnes demand absolute precision work – on narrow roads, for example. “Either we dismantle the gate or we lift the load over,” says Marcus Pieper, Managing Director of Pieper Schwertransporte GmbH. Since 2009, the company has been a member of the Kahl Group, which currently has a workforce of around 150.

Service before and after the transport

Today, the Moers-based Group includes four legally independent logistics companies; they specialise in various applications and handle demanding logistics and heavy cargo projects together. “Lone wolves,” says Rainer Kahl, who runs the Group with his brother Andreas Kahl and the other partners, “are not having an easy time of it today.”

One of the company’s strengths is its focus on special assignments. Another is its ambition to increasingly provide customers with solutions and services that go beyond the actual transport of goods. If required, the specialists can move heavy cargo to the loading points in the factory, and place it on the foundations at the final destination. “As far as possible, we fulfil every wish for our customers. If necessary, we charter an Antonov, one of the largest cargo aircraft in the world,” says Marcus Pieper. Moreover, since 2010, the companies have jointly operated the Heavylift Terminal in the port of Duisburg, whose rail, road and water links allow various transport modes to be used.

Heralding a new era

The Kahl transport system is setting new standards. The side girder deck, which can accommodate machines, transformers and generators, amongst others, is a unique feature – also internationally. Moving a total weight of 1,000 tonnes and more over roads and bridges is anything but commonplace, but in ever greater demand from customers. Due to high production depth and precision, manufacturers increasingly prefer to fully assemble their products in their own factory and only to install them at the customer’s. For example gas turbines: during manufacturing, the blades can be precisely adjusted down to a thousandth of a millimetre, before the finished product is tested in live operation. “They cannot be disassembled and then reassembled at the
BPW axle suspension units provided the necessary stability during the transport. "It is important to us that we mainly incorporate BPW solutions. BPW stands for quality and reliability that we can depend on at all times," says Marcus Pieper. Kahl frequently holds roundtable talks with vehicle manufacturers and experts from the BPW Group to find optimal solutions for specific requirements. Together, they plan the vehicle and match options and components. This close cooperation also extends to practical operations: BPW regularly equips Kahl vehicles with test axles. These field trials enable BPW to gain important insights into the behaviour of the axles. This is because deployment by the heavy goods experts is completely different from deployment by long-distance hauliers. "There's less mileage with us, but a greater weight load," says Kahl. As goods are getting increasingly heavier, nearly every transport now poses its own challenge – for people and technology alike.

"We have a very broad line-up, including swivel axles, single wheel suspensions, as well as positive steering and self-steering axles for low loader trailers and special vehicles. We can offer the right running gear for almost every application," says Hans Werner Kopplow, head of the Special Vehicle Systems business unit at BPW. The product range spans from the usual road applications, with typical axle loads between four and twelve tonnes, to extremely heavy-duty off-road and mining deployments which can involve axle loads of up to 60 tonnes.

For the engineers, the meticulous work invested in further optimising the running gears, axles and braking systems is never finished. The majority of swivel axles are currently undergoing further technical development. The focus is on achieving a significant weight reduction and making them more maintenance-friendly. The new generation of swivel axles will be on show for the first time at bauma 2016.

"The majority of swivel axles are currently undergoing further development." Hans Werner Kopplow, head of the Special Vehicle Systems business unit at BPW

A specialist in heavy tasks

When the going gets particularly tough, BPW gets transport moving: for heavy goods haulage, the company offers a comprehensive range of products and services for every application. Close cooperation with vehicle manufacturers and hauliers guarantees the highest quality.

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New paths with new concepts

As the main north-south connection in Germany, the A7 motorway in the greater Hamburg area is completely overloaded. In order to improve the tight situation, it is planned to add several lanes by 2018.

In the course of the expansion, the project corporation Via Solutions Nord (VSN) will be working to keep traffic flows around the construction site as disturbance-free as possible.

Today, the massive construction site on the A7 motorway in Hamburg and Schleswig-Holstein is a part of everyday life for road users. Many have come to terms with the undesired side effects of the upgrading, which include congestion and noise. In the meantime, the expansion to six or eight lanes in the greater Hamburg area is progressing without major difficulties. The project corporation Via Solutions Nord (VSN), composed of the company Hochtief PPP Solutions, the Dutch Infrastructure Fonds and Kemna, is in charge of implementation. This project corporation is not only responsible for the upgrading of the motorway, but also ensures that traffic continues to flow as smoothly as possible, despite constraints.

More than 150,000 vehicles every day

Of course, there are frequent traffic jams on this busy stretch of motorway. However, the traffic problems are not exclusively due to the many construction sites along the route. Rather, the four-lane motorway in Schleswig-Holstein and the six-lane stretch in the Hamburg area have been, and continue to be, seriously overloaded. If, at peak times, more than 150,000 vehicles daily cause an overload of up to 60 percent, then compensation efforts during construction times have an even smaller chance of being effective, thinks Gerhard Fuchs, traffic coordinator for the A7 in the German federal states of Hamburg and Schleswig-Holstein. In Fuchs’ opinion, the fact that traffic nevertheless keeps moving is due to the long-term traffic management and information concept developed at the office for transport, and to the “facilitators” at VSN. “Again and again, this team manages to identify and openly communicate problems in good time,” says Fuchs. This is confirmed by Christian Merl, head of communications at Via Solutions Nord. “Open dialogue between participating companies and stakeholders is essential. We address difficulties directly and work together to find efficient and beneficial solutions.”

Collaborative partnership

The construction consortium (Arge), which is responsible for the construction of the A7, has arisen as a highly capable group within the VSN. It comprises the companies Hochtief Infrastructure, Kemna Bau as well as the subsidiary Tesch Road. “Everyone is working together on a joint basis,” says Merl. According to the participating companies, key positions in the Arge are not allotted proportionally to the number of partners, but according to professional criteria as well as management and project experience.

While one partner is occupied with the mounting of armatures in the noise protection tunnel known as the Schnelsen Deckel (Schnelsen tunnel cover), others are demolishing existing buildings or removing old layers of concrete. Further on in another section, the new layer is already being paved. “A great deal of coordination is needed. Every morning, there are workflows to align, materials and equipment to be shipped to the right places, companies to be briefed,” says Merl. Experienced and reliable staff are vital if all these steps are to be carried out precisely.

All of the eight stages have their own construction managers that coordinate the work on site. They report to a number of senior site managers, who are respectively in charge of track construction, new structures, redevelopments of existing buildings, and the construction of the Schnelsen tunnel cover. In turn, these report to two key people, one of whom is responsible for track construction and the other for all civil engineering works. Both report directly to the technical and commercial project management of the Arge, which is in continuous communication with the official contractor VSN. After tendering, the project corporation received a contract as part of a public-private partnership (PPP). Alongside construction, the project corporation also secures interim financing. Furthermore, in this model, the VSN is responsible for the operation and maintenance of the A7 until 2044. The project corporation Via Solutions Nord Service was specifically founded to fulfill this function. The subsidiary operates the section of motorway with its own staff and fleet and is also in charge of tasks relating to traditional motorway maintenance.

Motorway must be available

The contracting entity in this PPP model is the project management company DEGES. The mammoth A7 project is being implemented on behalf of the German Federal Government and the states of Hamburg and Schleswig-Holstein, and tasks include contract awarding, inspection and approval of construction projects, availability checking and the safeguarding of accounting.

EXPANSION PROJECT – THE FIGURES

65 km total length
72 bridge structures
100,000 m² of noise barriers
70 traffic sign gantries and beams
10 service stations
1 motorway maintenance depot
30-year contract duration
1,800 project members

Infrastructure

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21
Success through participation

The traffic coordinator for the A7 in the states of Hamburg and Schleswig-Holstein, Gerhard Fuchs, has accompanied the work on Germany’s largest building site since the very beginning.

What is unique about this construction site?
The A7 is the main traffic axis for the north of Germany. All long-distance freight transport to and from Scandinavia runs along this route, as well as the globally important port city of Hamburg and all related transport movements and city traffic, which makes the A7 take on the character of an urban motorway. The result is that, at peak times, the motorway has to cope with an excess load of nearly 60 percent, making the expansion an absolute necessity.

Projects of this kind are often accompanied by protests, but in this case it has remained surprisingly calm. How did you manage to create a positive image?
From the outset, it was important for us to provide comprehensive information for the general public and all groups affected by the construction site, such as commuters, resident commercial enterprises and transport companies. To this end, we ran a series of information events even before the start of the works. Thanks to this active communication strategy, we were able to gain supporters, understandings, diminish reservations, and even pick up and implement a number of suggestions from road users and residents. A closely interlinked traffic management plan and communication concept was critical to this success. For example, we have built longer entrance and exit ramps than legally required. In addition, at a width of 3.25 metres, the right lane is wider than required, as is the centre lane around Hamburg. Even the left lane is 2.85 metres wide – more than required. This approach helps us to avoid numerous minor accidents. With our concept of multiple construction site sections and the so-called recovery phases in between, we have managed to limit the prolongation of total driving time to just ten minutes in low or medium heavy traffic.

The 65 kilometre long building site is a public-private partnership project. Was that the right decision?
In this case, definitely. The project corporation Via Solutions Nord receives a bonus in case of early completion and full availability for users. However, deductions will be made from the regular payments should extensions to the construction period be necessary or defects occur.

Projects with strict limits
Projects with strict limits as defined by duration, number and length, with VSN receiving reduced compensation if the set limits are exceeded. “For this reason, it is in our own economic interest to ensure a maximum availability of the motorway. All project managers are working according to the highest construction standards so as not to compromise the economic efficiency of the project as a consequence of repairs,” emphasises Merl. Ultimately, this benefits all parties. (jb)
BPW subsidiary has been active in the market for almost 30 years. Alongside original BPW parts, it also stocks products from other relevant brands for trucks and trailers. "Our customers benefit from the fact that we can offer excellent alternatives within the Group," says Thorsten Winterberg, CEO of Besko GmbH. Dirk Hoffmeister adds: "The BPW Group provides vehicle operators with appropriate solutions over the entire useful life of their vehicles – at any time, made to measure, and in line with the age of the fleet."

The average age of commercial vehicles has been increasing for years, not least thanks to high-quality spare parts. Hoffmeister explains: "Our customers include companies with very different structures. At the same time, the spare parts market is extremely price-driven. In the case of a rather young fleet, hauliers will generally use original parts because that preserves the warranty, and the value of the individual vehicle remains stable." Owners of older vehicles, on the other hand, tend to be more price-sensitive, according to Thorsten Winterberg: "They are more likely to opt for the cheaper brand-neutral spare part components delivered by BPW and its subsidiary PE Automotive in high quality as well."

Building its own networks
With strong trading partners such as Besko, the BPW Group is positioning itself to cover all of Europe. As a service provider, it is already present in over 20 markets: the networks in Finland, Sweden, Denmark, Great Britain, Austria and the Baltic states, for example, are almost fully developed, with other markets to follow. "In some countries, we also work with external trading partners," says Hoffmeister. "Customers have to be able to rely on us, no matter where they are. And they should know that they will always get more than just a spare part from BPW. "Product-related services are at least as important. As an aftermarket service provider, we aim to be close to our customers. Apart from rapidly providing the required parts, we must be competent and provide technical advice. Because we know the products best, we can offer concrete assistance with repairs."

Thorsten Winterberg adds: "The best spare part is useless to me if it’s not there where I need it to be, and quickly, too. Thanks to our streamlined structure, we can ensure constant availability, and can deliver a number of products two, three or even four times a day. This is primarily possible on account of the BPW Group’s close cooperation with the workshops."

As Thorsten Winterberg points out: "Customers are only satisfied when you offer the right service and the best quality." Dirk Hoffmeister, too, sees the spare parts business as a ‘people business’. "It is a business between people – and I say this as an engineer," he explains. "It’s a daily challenge. We have to demonstrate again and again that we are aware of our customers’ requirements. This is what joint success hinges on, and it’s also precisely what keeps me excited about this industry."

Major changes underway
The aftermarket has changed significantly over the past decade. Before, the offer was rather small, and manufacturers often had difficulties delivering: it was quite common to wait a long time for a spare part. For transport companies, this could mean serious financial losses. The focus was clearly on the original equipment, and the aftermarket only slowly gained in importance. Moreover, little attention was paid to alternative brands for spare parts. Things are different today. BPW has recognised this development and come up with an impressive response, supported by strong partners such as PE Automotive, a leading provider in the independent parts market. In the autumn of 2015, BPW acquired a majority stake in the company and is now looking to use its own manufacturer brand to expand the range for older vehicles, building on PE's extensive range of spare and wear parts from all common truck, trailer and bus manufacturers. "We can achieve more together because we have combined our expertise in the commercial vehicle aftermarket and are realising our growth objectives more quickly," says Dirk Hoffmeister.

Back in the Ruhr area, the workshop service team has arrived at the construction site. The replacement only takes about 45 minutes, including set-up time, after which the tipper is fighting fit once again, and work can continue. (jg)
ADEVTE has been a member of the BPW Group since the beginning of 2015. What competences did the company bring along?

We belong to the development specialists in the Group. Our customers want to clarify whether it is possible and advantageous to replace components or entire assemblies made of metal with equivalents made of composites, or fibre-reinforced composites. To this end, we conduct feasibility studies, develop the new components on the computer, in virtual form, and then run simulations to test whether they are practicable.

The major advantage of simulation is that, because you can examine variants and simulations to test whether they are practicable. To this end, we conduct feasibility studies, develop the new components on the computer, in virtual form, and then run simulations to test whether they are practicable.

We are currently analysing a range of components to see what can be improved through the use of composites. In addition to running gear components, we are currently looking into the design of doors and frame elements.

So, it’s not only BPW that benefits from your know-how, is it?

That’s right, because we also have customers from other sectors than the commercial vehicle industry. For example, we develop innovative composite solutions for objects ranging from an implant used in brain surgery to a protective cover for a submarine antenna. Traditionally, however, our customers come from the fields of mechanical engineering and vehicle construction.

What’s so special about ECO Vision?

With the ECO Vision air-sprung running gear, we have successfully manufactured an entire axle beam, including the swinging arms, out of glass fibre-reinforced composite, or FRC for short. This reduces the weight of the axle by up to 80 kilograms. Moreover, FRC is particularly resistant to corrosion and features high damping. This has a positive effect on lifespan during vehicle operation, as well as on road stress.

So, it’s not only the trailer manufacturer that benefits, but also the customer?

Exactly. ECO Vision is a good example of how the BPW Group, as an international mobility partner and system partner of the transport industry, works to support vehicle operators and manufacturers with dependable solutions for transport and loading processes. Above all, ECO Vision is lighter, and less weight means more payload. This will please both hauliers and forwarders.

What does the future hold?

Together with the BPW Group, we want to push the use of lightweight plastics in commercial vehicles. After all, we can contribute ideas from projects undertaken with customers from very different sectors. One example: we first encountered the type of plastic that is set to find use in future generations of disc brakes in entirely unrelated applications. Conversely, we can also take along experience gained in BPW projects and put it to use in other industrial areas. Our submarine customer, for example, benefits from a manufacturing process that is basically similar to the one used for ECO Vision. The great thing about our membership in the BPW Group is that we’re not in anybody’s way, and all sides can benefit. (abob)
The benefits of communication

From traditional hauliers to globally active logistics companies – the customers of TIP Trailer Services all come with a wide variety of requirements. To help them master their specific challenges, TIP counts on digitisation and communication.

As a specialist in renting out semi-trailers, tankers and other commercial vehicles, TIP Trailer Services offers its customers a broad portfolio, ranging from fleet management to maintenance and repair services. “The more digital that our business becomes, the more manufac- turers or banks, the rental and leasing services, damage repair, fleet management. Independent of manu-
factual knowledge, and so when we go to customers, we often take a technician and an IT specialist along. That’s how you get into project management in no time.”

Individually tailored technology

The TIP fleet in Germany comprises around 12,500 vehicles, more than 3,000 of which are outfitted with telematics. The company also provides support in managing its customers’ own telematics systems. TIP is currently working on a platform that will be able to handle this variance even better. “The issue of ongoing development affects us every day,” explains Oliver Dietrich. “We notice in discussions with our customers that there’s a tremendous amount of uncertainty: ‘Where should I be next year, and the year after that?’ For us as a company in the services sector, this means that the value added has to come from the system – from our knowledge and our processes.”

Digitisation and telematics come with numerous benefits in invoice process automation, for example, as well as simpler documentation. At the same time, the technology should always be individually tailored, because not every customer has a need for everything, and also in view of costs, you should define exactly what is actually needed, says the sales manager: “I think this is going to be the major challenge in the next few years for all of the companies on the market. It’s not just about producing big data, but also about finding out what you can really accomplish with big data.” From the parcel sector, for example, customers are familiar with the complete documentation of transports all the way to the precise time of delivery. “Soon, customers in the commercial vehicle sector will no doubt expect such transparency as well, but if a company operates a fleet of several thousand vehicles, it also means that you have to coordinate, prioritise and properly integrate all of the resulting information in the operational procedures.”

A better understanding of the fleet

Another important issue for TIP is preventive maintenance. “We work very hard to gain an ever better understanding of the

digitisation, for example, as well as simpler documentation. At the same time, the technology should always be individually tailored, because not every customer has a need for everything, and also in view of costs, you should define exactly what is actually needed, says the sales manager: “I think this is going to be the major challenge in the next few years for all of the companies on the market. It’s not just about producing big data, but also about finding out what you can really accomplish with big data.” From the parcel sector, for example, customers are familiar with the complete documentation of transports all the way to the precise time of delivery. “Soon, customers in the commercial vehicle sector will no doubt expect such transparency as well, but if a company operates a fleet of several thousand vehicles, it also means that you have to coordinate, prioritise and properly integrate all of the resulting information in the operational procedures.”

A better understanding of the fleet

Another important issue for TIP is preventive maintenance. “We work very hard to gain an ever better understanding of the

fleet, so as to meet unplanned downtimes as effectively as possible,” says Dietrich. “This presents huge challenges, amongst others with respect to interfaces and the management of goods.” To guarantee this service, the employees at TIP are in some cases involved in the customers’ own scheduling. This particularly applies to time-sensitive planning: “In the case of documents for dangerous goods, for example, we don’t talk about a time frame of a month or a week, but about a very specific date by which it has to be done. Everyday business, however, continues in parallel.”

The so-called Customer Service Delivery team at TIP offers particularly comprehensive support for customers. “One of our clients is in the business of transporting natural gas, and we have three employees handling everything on this client’s behalf. After all, these transports have to be completely reliable, because among the end customers are hospitals where you simply can’t say, ‘Sorry, no delivery today.’” Accordingly, the employees at TIP bear a high responsibility. Because the company knows its customers so well, it can also provide support in ongoing efforts to boost efficiency. “For example, when we look at data from the electronic braking system and notice that from 100 units, only a certain number are regularly on the road, then we can advise the customer accordingly and put together a tailor-made flexible offer that combines long and short-term rental agreements,” explains Oliver Dietrich. “Ultimately, we want to build up a lasting relationship with our customers, and preferably grow with them, too.” (gg)

Oliver Dietrich spoke at the Wiehl Forum 2015, a BPW customer event, on how digitalisation can help fulfil customer requirements.
In South Africa, trailers are being put to work in the toughest conditions. Bernd Rhein, who is responsible for Application Engineering at the Vehicle Systems Business Unit at BPW, was on site to find out how well the materials can withstand the strain.

Pushing the limits every day

In South Africa, trailers are being put to work in the toughest conditions. Bernd Rhein, who is responsible for Application Engineering at the Vehicle Systems Business Unit at BPW, was on site to find out how well the materials can withstand the strain.
The vehicles in Loeriesfontein perform truly exceptional feats: the unconventional four-trailer configuration alone places huge forces on the materials. The vehicles are loaded with many tonnes of gypsum and at the same time have to cope with uneven terrain. “They drive almost exclusively on dirt roads,” says Rhein. “The weather conditions are likewise tough: it’s hot, and it rains very frequently poor roads, but also because these vehicles have a higher centre of gravity. And because it is common to hitch up several semi-trailers one after the other, the use of side tipper trucks is also typical. The so-called interlink vehicle combination usually consists of a three-axle truck, a ‘leader’ semi-trailer with two axles and a ‘follower’ semi-trailer, also with two axles. “For the vehicles, however, this means a greater strain because there are additional lateral forces acting on the running gears. We don’t encounter this in Europe,” says Rhein.

The vehicles in South Africa are a highly developed country where transport operators attach great importance to cost-effectiveness and sustainability. As a general rule, companies work with more robust vehicle models – not only because of the climatic conditions and the frequently poor roads, but also because these vehicles have a higher centre of gravity. And because it is common to hitch up several semi-trailers one after the other, the use of side tipper trucks is also typical. The so-called interlink vehicle combination usually consists of a three-axle truck, a ‘leader’ semi-trailer with two axles and a ‘follower’ semi-trailer, also with two axles. “For the vehicles, however, this means a greater strain because there are additional lateral forces acting on the running gears. We don’t encounter this in Europe,” says Rhein.

Technology as the key to success

On his journey through South Africa, Bernd Rhein learned a great deal about how the BPW Group’s vehicle systems behave in such extreme conditions: “The customers are very open and told me many important details. Moreover, the fleet operators that I met are extremely pragmatic, thorough and solution-oriented. And they have a sure grasp of vehicle technology.”

Technology is generally viewed by the companies as the key to success and as a means of differentiating themselves from competitors. “That’s why they’re always interested in ongoing developments, of course,” says Rhein. He experienced South Africa as a highly developed country where transport operators attach great importance to cost-effectiveness and sustainability. As a general rule, companies work with more robust vehicle models – not only because of the climatic conditions and the frequently poor roads, but also because these vehicles have a higher centre of gravity. And because it is common to hitch up several semi-trailers one after the other, the use of side tipper trucks is also typical. The so-called interlink vehicle combination usually consists of a three-axle truck, a ‘leader’ semi-trailer with two axles and a ‘follower’ semi-trailer, also with two axles. “For the vehicles, however, this means a greater strain because there are additional lateral forces acting on the running gears. We don’t encounter this in Europe,” says Rhein.

As a team, what do you offer your customers? Karl-Rainer Lang: Together with our sales colleagues, we advise vehicle manufacturers in all technical matters relating to our products – with regard to both end application and special solutions in terms of vehicle technology. There are colleagues with similar tasks in the BPW Group subsidiaries: we are networked and engaged in an ongoing exchange.

Bernd Rhein: The BPW Group offers a wide range of products, including numerous standardised designs as well as highly specialised designs for unconventional requirements. We can propose the optimal version of a product from our overall range to a customer, or we can work together to develop an individual solution. We also pick up a great deal of input for product development through our discussions with vehicle manufacturers and vehicle operators.

What personal background do you bring to your work? Roland Berghaus: As graduate engineers, we are qualified in vehicle technology and mechanical engineering, and all three of us come from the fields of design, development and testing. We’re also known to get to work on vehicles ourselves during customer visits. Moreover, each of us has more than 20 years of experience in the trailer sector, which always comes in handy when we advise customers.

Rhein: Application Engineering is a complex undertaking. We have to have a very good knowledge not only of our products, but also of international contexts. Because we are active worldwide – in Europe, of course, as well as in Africa, Japan, India and China, for example – there’s always the challenge of cultural particularities. Throughout, the diversity of our customers is as fascinating as their various requirements.

Lang: This also applies to the different sizes of our customer companies. There is, for example, the manufacturer that builds 30 vehicles a year with ten employees that sometimes requires highly specific solutions. And then there’s the mass production plant that manufactures 100 vehicles every day, where production-ready assembly is usually more important.

Don’t customers already have a good grasp of BPW Group products? Rhein: Our customers are highly professional and know exactly how to deploy our products. But there are limits, above all with new developments or modifications. In addition, the BPW product range, which includes telematics, body structure and lighting systems, composite solutions as well as services, extends far beyond running gears, meaning there’s a greater need for advice. Berghaus: Yes, the customers usually come with strong expertise. Nevertheless, the running gear in particular is an advice-intensive product. The range is so extensive that not all of the versions are featured in the catalogue.

Lang: When our customers order a particular version, we can maybe see that there’s an alternative with less variance. If we intervene in this way, it’s also a welcome contribution towards standardisation for the customers.

If customers require special technical assistance, they can turn to Bernd Rhein, Karl-Rainer Lang and Roland Berghaus. Together, these three staff members in the Design & Development department form BPW’s Application Engineering team.
Guido Nussbaum: Peter, good to see you!

Peter Lindner: Good morning, Guido! Our departments have been working together for almost ten years now – and very successfully, too. Together, we have achieved a great deal that we in no way could have managed alone. Also personally, I always look forward to our meetings. Much has been happening on the market in that time, and we have mastered a number of challenges.

Nussbaum: Yes, I totally agree. About a decade ago, manufacturers of agricultural vehicles recognised that they can only achieve sustained success in Europe by concentrating on niche products. Today, too, the market is steadily developing, and so it is important for all of us that we provide consistent support for this specialisation. In the Benelux markets, we see our task as recognising and acting on this demand, discussing it with vehicle manufacturers and passing it on to our development department. This much we have in common.

Lindner: And that’s precisely what our customers appreciate. As a BPW sales subsidiary, you can provide a valuable service that, alongside development projects, also includes collaboration with application engineering. In particular in the Benelux countries, you have the relevant experience as you’ve known the market for many years.

Nussbaum: The set-ups of our customers vary a great deal. There are large companies with distinctive structures that we visit every two months, as well as smaller and very simply structured manufacturers where the managing director also serves as purchaser and sales manager, taking most of the decisions himself. That’s why it’s essential to have regional sales staff who know their customers and their needs very well. They have to go to the customers and engage in a personal dialogue.

Lindner: We wouldn’t be able to manage this from Germany for cultural reasons alone. To do this, you have to talk to the company representatives at eye level but also to ‘speak their language’ in the figurative sense, meaning you have to understand the mentality of a region. This customer proximity is also a solid basis for developing products together with manufacturers – products that meet the genuine needs of the farmers and that provide them with solutions.

Nussbaum: That’s right. In our business, it’s particularly important to have a good instinct for people.

Lindner: You’re doing much more than simply selling products: you get the stock in place and know the product variants that your customers need, as well as when and where. And you know their individual needs and requirements. Ultimately, your customers – the manufacturers of agricultural machines – have also changed: from manufacturers of agricultural machines to industrial companies that have a far broader set-up and offer a large number of additional solutions.

Nussbaum: Yes, exactly – and that’s why we think hard about the new challenges faced by our customers and how we can offer appropriate solutions. In many cases we even develop the solutions in collaboration with the customers.

Lindner: As, for example, with the manufacturer who came to us with a unique design for a new field sprayer. They wanted to develop the product together with us, and were counting on our experience and know-how. We sat down with our colleagues from application engineering, design and sales, and we jointly worked out some improvement proposals. In the process, not only did we develop the product, but are now trying it out at our testing station in Hungary. It is even being fine-tuned for serial production, and is now in frequent use in Belgium, for example.

Nussbaum: For us, the guiding principle is to always keep an eye on the feasibility of new products and on customer benefits, above all with a view to having products and services that are in line with market requirements. Ultimately, we have to succeed against strong competition, and that is only made possible by economic efficiency, reliability, availability and service.
Nussbaum: Absolutely! It’s not just about running gears, axles and the correspond- ing supports, but an all-round package with other components such as steering systems, mudwings, lights, braking systems, landing legs, coupling systems, and so on – includ- ing maintenance services.

Lindner: And this includes our broad package of services for vehicle manufac- turers, from braking and FEM calculations to measurements and road tests with test vehicles. And the local availability of our products: just-in-time deliveries are part of everyday business.

Nussbaum: For us, having our own pro- fessionally managed warehouse is always a major plus point. It is tailored to local de- mand, enabling us to provide optimal sup- port for customers in keeping their own in- ventories as low as possible. Indeed, despite the large number of models and versions in the agricultural sector, we are generally able to deliver required parts from our stock.

Lindner: In my opinion, this is one of the great strengths of BPW and BPW BENE- LUX in this area: we know our customers extremely well and can thus have precisely those items that they actually need at the ready.

Nussbaum: As well as stocking running gears and components for the manufac- ture of agricultural vehicles, however, we can also deliver all spare parts for repair and maintenance at short notice. Moreover, thanks to our own customer service, we can provide a local guarantee that machines equipped with our running gears will, in case of a defect, be returned to working or- der as soon as possible. This applies both to locally manufactured machines and to im- ported products. For our customers, that is the vehicle manufacturers, and for the end customers, that is the vehicle operators, this means maximum mobility and thus optim- al economic efficiency.

Lindner: What further distinguishes us from the other market players is that we conduct product training. Alongside applic- ation consulting, we make recommenda- tions on the deployment of products, and can provide instructions for maintenance and repair.

Nussbaum: Yes, our team is happy to assist if customers want training for our products – this applies to installation and use, as well as maintenance. Furthermore, we keep our customers systematically up to date on our development activities and product innova- tions. All this is undertaken in cooperation and after consultation, and we’re grateful for the support that you give us from Wiehl!

Lindner: We’re only too glad. Speaking of innovations, what are your plans for the fu- ture?

Nussbaum: Of course, we hope to maintain and expand our good market share, and we’re also going to direct our attention to axles with a low axle load. With the support provided by the sales management and the agricultural department in Wiehl, we are very well positioned to deal with future challenges.

Lindner: You can be sure of that – guaran- teed!

The BPW Group offers a wide range of products and services. A new online tool called Solution Finder, or SoFi for short, presents this large range at a glance to everyone, at www.wethinktransport.com. Customers and interested parties can quickly and eas- ily find information about the BPW Group as an inter- national mobility partner and system partner.

Comprehensive information

Using SoFi is straightfor- ward and makes it great fun for experimenting and combine. First, select one of four classic vehicle types – curtainsider, box, tipper or tank. Then continue with the corresponding prod- ucts and services. For the semi-trailer trac- tor with tank trailer, the BPW Group offers running gear systems, support systems, truck and trailer telematics, cable and lighting sys- tems, but also maintenance contracts and financing and leasing deals, among oth- er items. The solutions are displayed in a 3D view at up to five levels, and users can choose from three perspectives to see details from the front, rear or top. The online tool is

Discover solutions

Whether on a PC or tablet, the BPW Solu- tion Finder makes it easy to start right away and find all the information. Those who already have something specific in mind, can search directly for products and servic- es. The comprehensive overview provided by SoFi is unrivalled: the tool skillfully ex- plains the benefits of a digital platform and uses examples to present the BPW Group’s solutions in an innovative and illustrative manner. This way, it demonstrates how the company assists its customers in their everyday transport business with a perfectly co- ordinated product and service package.

“Much more than just the running gear”

“The BPW Solution Finder proves once again that the companies in the BPW Group are working hand in hand for the benefit of their customers, delivering so much more than just the running gear,” says Daniela Kamper from BPW’s Corporate Commu- nications. “With SoFi, you can gain a quick overview and discover new solu- tions.” (gg)
Full throttle into practical application

In Karlsruhe, students can join the KA-RaceIng association and construct their own racing cars, even competing internationally: in the Formula Student.

construction your own racing car and putting it to the test in an international competition! Now that’s exciting stuff.

In Karlsruhe, this dream is being lived by students who have joined KA-RaceIng, an association affiliated with the Karlsruhe Institute of Technology (KIT). “We construct two vehicles every year – one with a combustion engine and another with an electric drive. We then take part in the Formula Student, an international competition for students,” explains Paul Leo Lochner. As a former student participant since 2007. KA-RaceIng’s biggest success was recorded in Hungary in 2015 when their electric vehicle achieved overall victory. Their construction was judged to be the best vehicle in terms of acceleration, endurance and design.

The KA-RaceIng team has around 80 members, mainly mechanical engineering students but also undergraduates from other disciplines such as electrical engineering, computer science, industrial engineering, business management, and physics. The team comprises a number of sub-teams, each focusing on a specific area, for example the running gear or the engine. “The vehicles are technologically highly complex, and we construct all parts ourselves,” says Paul Leo Lochner. “We developed the entire running gear parts ourselves,” says Paul Leo Lochner. “We developed the entire running gear ourselves, and also the engines.”

The Formula Student originated in the US where it was held for the first time in 1991. The event came to Germany in 2006 under the name Formula Student Germany, and the Karlsruhe team has been participating since 2007. KA-RaceIng’s biggest success was recorded in Hungary in 2015 when their electric vehicle achieved overall victory. Their construction was judged to be the best vehicle in terms of acceleration, endurance and design.

A CV highlight

KIT is a joint venture of the Karlsruhe Research Centre and the University of Karlsruhe. The project work performed by participants, however, does not count towards their studies. “It’s a hobby for us that we pursue alongside our studies. Nevertheless, the association has strong support from the university; the competition is well known in industry, and participation is no doubt a minor CV highlight,” says Joseph Suppanz.

Mechanical engineering student Joseph Suppanz takes care of coordination in the team.

Alumnus Paul Leo Lochner looks after new team members.

many supporters, the students can make use of a fully equipped workshop and top-quality materials. With partners such as BPW, there is technological cooperation as well. “We meet regularly with representatives from the company, exchange knowledge, and can ask all our questions,” says Lochner. “It’s extremely valuable and inspiring.” BPW also benefits from the cooperation, especially with regard to know-how in the field of e-mobility – an important topic in the commercial vehicle sector which BPW invests in a number of projects.

Each team member is responsible for a specific task or component. Over the past year, Joseph Suppanz, a 24-year-old mechanical engineering student in his seventh semester, focused on the battery of the electric vehicle. “My primary task was to package the elements and fit them in the vehicle so that they are safely stowed away, whilst also keeping to the strict competition rules.” This season, Suppanz is in charge of organizational management, coordinating the team, amongst other things, and representing it to the outside world.

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For him, it’s all about the practical experience that he can gain here: “At university, there’s often a lack of practical relevance. The KA-RaceIng project not only boosts my practical skills but also increases my options as a mechanical engineer. It shows me the wide variety of engineering work and also draws my attention to job profiles at companies that could be quite exciting for me.” (jg)

Jury also examining profitability

The vehicles themselves pack a real punch: The turbocharged combustion engine of the KIT15c takes it from 0 to 100 kilometres per hour in a mere 2.99 seconds, while its sibling, the KIT15e, powered by four electric motors, manages the same in just 2.5 seconds. As well as proving that their creations are fast, safe and manoeuvrable on the track, the students must submit the cars for critical examination by experts. The competition consists of two disciplines: the dynamic part of driving and the static part. The jury, for instance, also assesses the extent to which teams keep an eye on costs, as well as the viability of their business plans for mass production.

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