

trailer world

BPW's Customer Magazine

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Keep **cool**

Fresh, cold, or fluid: Temperature-controlled transports



»Keep a cool head during temperature-controlled transports«



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Some like it hot, others are going to become inedible at high temperatures – many goods rely exclusively on a temperature-stable transport environment. Flowers, medicine, or food: Safe transport of temperature-sensitive goods is challenging for both man and machine.

This issue of trailer world takes a close look at temperature-controlled transports, in order to show what challenges they pose to the entire supply chain and all companies involved. Whether they are restaurant chains or businesses from the pharmaceuticals industry, customers expect their logistics provider to offer maximum product safety and transport quality. Innovative solutions by BPW help vehicle manufacturers and operators keep a cool head during temperature-controlled transports. The integrated smart telematics solution for trucks and trailers by our subsidiary, idem telematics, enables logistics companies to perfectly and efficiently control temperatures and monitor goods during

transport, as well as provide the documentation required by law. It is a big plus for forwarders and haulage companies on a highly contested market, for which precise cost calculation models are of paramount importance.

Each new day on the road shows which potential our telematics systems have and precisely which added value they offer – and at the beginning of May, the Leading International Exhibition for Logistics, Mobility, IT, and Supply Chain Management, transport logistic, will showcase them in Munich. During the trade fair, we will present to you our integrated solutions to evidence our innovative capacity and our market experience, also regarding temperature-controlled transports.

Have a fresh start into the summer months and have a good read of trailer world!

Carlo Lazzarini





Horses on board



16 degrees Celsius: That's how cold it got in the cargo hold of a Lufthansa Cargo machine, in order to make the special passenger feel as comfortable as possible during its journey. Together with its 64 companions, it was flown from Frankfurt in Germany to the Iranian capital, Tehran, in four and a half hours. Lufthansa Cargo has its own lounge in Frankfurt, at which animals can be checked in and be prepared for the trip. On board the plane, the breed and sports horses stood in 22 padded, non-slip boxes, which filled the entire main deck of the Boeing 777F. The group was accompanied by an able team of five horse caretakers and one veterinarian. They provided more than enough hay, water, and loving care – and also paid attention to the accommodation not getting too hot for their noble four-legged friends.



Lufthansa
ALLO
40005 LK

Lufthansa Cargo
ALLO
40005 LK

BPW and ADETE join forces for the future



BPW enhances its development capabilities in plastics processing. On 1 January 2015, the company bought ADETE – Advanced Engineering & Technologies, based in Kaiserslautern. The new acquisition specialises in designing and manufacturing innovative plastics and fibre-composite solutions. It has been a successful player on the market since 1999.

BPW and ADETE have already had a close collaboration for several years. As recently as the IAA 2014, they showed their jointly developed and improved prototype of a lightweight axle made of fibre-reinforced plastic. "There is huge potential for using plastics in truck and trailer components. To continue with the development of innovative solutions, we enhanced our capabilities in this area," Dr Bert Brauers, Member of the Board of Management Design/Development/Testing at BPW, says. "This also means that we are the right choice for vehicle operators in meeting their requirements for safe and efficient route planning." Both companies see advantages in ADETE's wide variety of development projects. "Our experiences and the seamless continuation of projects even outside of the commercial vehicle



Michael Pfeiffer (middle), General Partner at BPW, welcomes Dr Markus Steffens (left), Managing Partner at ADETE, and Frank Anna (right), Division Head Calculation and Design at ADETE.

industry – in the mechanical engineering sector, in marine technology, in energy or in medical equipment – will also benefit the BPW Group," Dr Markus Steffens is convinced.

6,000

new truck parking spaces are going to be set up at German motorways by 2017 - in addition to the current 43,000 spaces. The federal government has made EUR 500 million available for the construction of motorway services between 2013 and 2017.

Training by pros for pros



► 2015 is the first year during which BPW will offer training sessions in truck and trailer telematics systems by idem telematics and for system components from the entire BPW Group. There will also be seminars on axle and running gear systems, maintenance and repair of ECO Disc and rear steering axles, trade parts (for commercial and agricultural



vehicles), and technologies used in agriculture. The sessions and seminars address vehicle fleet operators, purchasers, route planners, as

well as employees from customer service, garages of forwarders, and service garages. They will take place regularly at the German BPW company location in Wiehl and in the regions of Berlin, Saarbrücken, Bremen, Leipzig, and Ingolstadt. You will find more information on dates, places, fees and contents, as well as online registration, at www.bpw.de/en/support/seminars

DATES

2–4 June
automechanika Dubai
Dubai, UAE



26–28 June
Truck Grand Prix
Nürburgring, Germany



10–14 November
Agritechnica
Hanover, Germany



Changes in the BPW management team

› Uwe Kotz has retired from his management position after 46 successful years of working for the BPW Group and turning it into a globally operating company with more than 50 trading and manufacturing subsidiaries.

The Board of Management will now be headed by Michael Pfeiffer, General Manager at BPW. The other general managers are Uwe Frielingsdorf, Achim Kotz, and Markus Schell.

Together with the extended management board consisting of Dr Bert Brauers, Barbara Höfel, and Carlo Lazzarini, they will continue leading BPW Bergische Achsen KG as a haulage industry partner for transport and system solutions.

M. Busch GmbH & Co. KG receives ZF Supplier Award

› M. Busch GmbH & Co. KG, a subsidiary of BPW Bergische Achsen KG, was presented with the ZF Supplier Award by ZF Friedrichshafen AG for the best supplier in the Production Materials category. "The award honours and motivates us at the same time. We are proud to have been able to collaborate with ZF for several decades," Wolfgang Krappe, Managing Director of M. Busch GmbH & Co. KG, said, gratified about the praise and recognition by the awarding company.



Wolfgang Krappe (left) accepts the ZF Supplier Award during the ZF Materials Management Congress, which takes place regularly.

A jury consisting of ZF Friedrichshafen AG employees from Purchase, Logistics and Quality Management decided who ranked among the top suppliers of 2014. Besides its on-time delivery, M. Busch GmbH & Co. KG impressed the jury particularly with its flexibility and consistently high quality. How good the collaboration between the two companies ZF Friedrichshafen and M. Busch really is could be seen in the joint development of new products, such as the cPower gearbox and the installation of a new production line for the piston project of the multiplate brake. This high-performance brake is often used in construction vehicles and shows almost no wear and tear.

Considerably more freight thefts

› Preliminary data by the Transported Asset Protection Association (TAPA) shows that 255 cases of freight theft were reported in Germany over the past year. This is 27.5 per cent more than in 2013, when TAPA reported 200 thefts – back then, the figure was 61 per cent above the one from 2012. Around one-third of the thefts last year (80) occurred in North Rhine-Westphalia, followed by Baden-Württemberg (30), Hesse (28), Bavaria (24), and Saxony (17).

The TAPA figures are based on data collected from members, prosecution agencies, insurance companies, and the media. TAPA, however, says that there is a high number of thefts that simply are not reported. The things that are stolen include anything which can be sold later: electronic devices, vehicle parts, metals or pharmaceutical products, but also cosmetics, clothes, cigarettes, and food.



BPW Group website

› As of recently, the companies and brands of the BPW Group can also be found on www.wethinktransport.de. The website shows why BPW and its subsidiaries from around the globe are the go-to partner for innovative products and services to safely transport and load goods, as well as efficiently manage logistical processes.

"We would like our customers to have even better access to the products and comprehensive services offered by the BPW Group," Carlo Lazzarini, Member of the Board of Management at BPW, explains.

www.wethinktransport.de provides information on the companies and brands of the BPW Group, on product development and manufacturing, as well as on the global BPW service network. It also shows current company news and videos. Product details, such as technical data, will still be available only on the firms' own websites.

As **good** as always!

To maintain the quality that their customers expect, restaurants need food logistics providers that do more than just deliver goods. Meyer Quick Service Logistics and the Cool Chain Group have very different target groups – but both understand their business to be all-inclusive.





The salad at the buffet is crispy and colourful: iceberg lettuce, corn, olives, tuna, pepper, onions, and tomatoes – Tim Fritzsche, a 26-year-old student, stacks the healthy ingredients onto his plate. It is Wednesday evening in a Pizza Hut store at the Potsdamer Platz in Berlin. "I get here straight after my part-time job. I work in the restaurant business too," he says. "After a long day at work, I'm hungry and I want to have a meal that is tasty and ready in no time. That's why I'm going into a restaurant like this one." The restaurant chains promise their customers an all-inclusive package of quality, reliability, and freshness, as well as a fine eating experience and service in their chain stores. How is the salami pizza that Fritzsche now has on his plate? "As always," he says, smiling. "As good as it always is. If I'm in the mood for this kind of pizza, I can be sure it will taste exactly the same today as it did last time."

Perfectly integrated into company operations

To replicate the eating experience, a company needs high-quality raw materials, trained personnel, and perfectly aligned logistics services. Pizza Hut cooperates with Meyer Quick Service Logistics (QSL), a specialised full-service logistics provider. The supplier faces many challenges: For example, the food must be stored and delivered in different temperature ranges. Cheese and vegetables are transported at 1 to 4 degrees Celsius to the 70 plus chain stores across Germany. Pizza dough, however, likes it cold – it needs a temperature of minus 18 degrees.

The key to transport quality is adherence to the cool chain: Only if goods are stored in the vehicle at their designated temperatures will they keep their high quality. But the goods must not only be cooled during transport – in addition, very little time must pass between taking them out of the vehicle's cold store unit and putting them into the store's refrigeration chamber.

QSL ensures an uninterrupted cool chain, for example, by offering customised supply solutions for restaurants located in only partially accessible areas, or by temperature telematics, which enable the planner at QSL to monitor temperatures at all times. André Unkelbach, Managing Director of Pizza Hut Germany, explains: "We expect from our distribution partner that they seamlessly integrate into our operations and guarantee goods availability without negatively influencing business." Of course, all of these requirements must be met in addition to compliance with Pizza Hut's quality standards.

Comprehensive services – customised

No issue for QSL: The company manages the entire goods flow of restaurant chains. Product flow not only entails fresh items, but all others as well – from kitchen equipment and coffee mugs to plates and the sheet of paper on them. QSL's service offer covers warehousing, storage and handling, distribution – delivery and route management – as well as administrative tasks. This kind of complex undertaking is tailored to the individual requirements of each customer. The concept is called one-stop shop: Full-service logistics supplies all in one delivery. The restaurants will have already finalised strategic sourcing, so that the goods, the quality, and the prices will have been specified in advance. "It means that we purchase the goods ourselves and in our own name at designated suppliers," Markus Bappert, Managing Director of Meyer QSL, explains. "We select the quantities we need and take over planning of the required volumes." Existing stock and supplies are monitored systematically. After the purchase, the company transports the goods to its four storage locations across Germany. From there, the fleet of sister company Meyer Logistics, which operates around 1,200 multi-temperature vehicles, delivers the goods to restaurants. →

There is no trade margin added onto the purchase: Meyer QSL only functions as a logistics company which also takes over the role of the trading business. "We see ourselves as a logistics provider for restaurant chains and not as a fresh food network open to all," Bappert says. This business area is also the industry segment to which the company traces back its roots and into which it entered after it had won Burger King as its first customer in 2007. The fast food chain is still QSL's biggest client and entrusts the logistics company with its entire supply chain, including operational procurement.

Think too and think ahead

QSL anticipates a good deal of its customers' wishes. This goes as far as contacting clients whenever there is a large event happening nearby and during which they will have to expect a lot of people coming in. Usually, restaurants are only stocked for one week in advance. But, of course, the service provider and its clients can respond with flexibility to particular events. "Consumption strongly depends on the individual restaurant," Bappert says. "We are keeping tabs on consumption and will order accordingly. The proposed list of purchases will then be sent to the restaurant. If more is needed, the restaurant can intervene as well and order additional supplies."

The drivers deliver everything in a single package to the agreed pick-up location. The customer has three hours to inspect the delivery. It is called Drop and Go and requires complex organisation

in the background. The pallet with the ordered goods is put together, packaged, and photographed at the warehouse before the products are completely wrapped in plastic from a wrap machine and labelled with a barcode.

Always the latest technology

The offer encompasses all goods in all temperature ranges, delivered in one package from one single source: "When it comes to temperature-controlled food transportation, we pride ourselves on always using the latest technology available, for example, regarding trailer bodies and refrigeration units," Bappert says. Telematics plays a particularly prominent role in this process: Temperatures are constantly measured across all three of the vehicle's temperature ranges, and the data is sent to the data processing centre. A special monitoring system analyses this data and notifies the drivers of any irregularities in one of the temperature zones, e.g., by sending a message to their smartphone. "This translates into rapid response times to technical difficulties," the managing director explains. "But should it already be too late, we will provide and pick the replacement parts."

QSL takes over responsibility for the entire transport, with regard to both financial issues and proper goods quality. Hence, the logistics provider also processes returns: "If problems arise, we'll take the goods back. We also talk to the manufacturer and solve the issue."



Meyer Quick Service Logistics is a full-service logistics supplier to restaurant chains (left). The picture shows how food is being delivered to a Pizza Hut store. The cuisine of luxury restaurants (top right) has different requirements, but it needs the same perfect logistics chain in the background.



A pleasure eating

In the fast food restaurant, the napkin is a thin sheet of paper. In the luxury restaurant a few metres away, it is made of firm white fabric. Newly strengthened and decoratively folded, it is put on the plate. Here, the customer also expects quality and good taste – but at an entirely different culinary level.

The beef arrives directly from the farm in the US, the shrimps from the fishing boat on the Atlantic, and the imported mango is flown in by plane from Thailand: Such exquisite culinary delights require an eye trained on quality, freshness, and speed – in short, a professional partner like the Hessian Cool Chain Group (CCG). A glob-

ally operating network, the corporation has specialised in providing services to the luxury restaurant segment and transporting temperature-sensitive goods under optimal conditions. Since its foundation in 2005, the group has rapidly and continually expanded into the market. It has around 600 staff and generates a turnover of about EUR 135 million a year. CCG, which is headquartered in Kelsterbach near Frankfurt am Main, has subsidiaries in Germany, Austria, Switzerland, Poland, and South Africa.

It serves as both logistics and trading partner to top restaurants and the hotel industry: With Rungis express AG, it also possesses one of the largest trading companies for first-class food. CCG delivers just-caught fish, select fruit and vegetable deli-

cacies from all over the world, and flowers and plants with all their freshness safely to the target destination.

No detours

"We offer top products from superb sources and a perfect monitoring of the cool chain," Carsten Glos, Chief Operating Officer of CCG, says. "We avoid detours in the supply chain – for example, on the way from the lobster farm to the customer – and gain precious days." The rule-of-thumb: The shorter the way to the kitchen, the fresher the food. "The customer can then use the food much longer." →

Through its own trading company for high-quality food, Rungis express AG, the Cool Chain Group offers its customers "one-stop" to get professional logistics services and required supplies.



Trust in precious goods **being safe and sound**

Food is valuable. TCS Thermo Control Services offers customers to professionally safeguard their sensitive freight. Achim Bundschuh, Managing Director of TCS, explains how it works.

TCS combines expertise in safety and logistics – how did this partnership come about?

Our company is a joint-venture of two firms: TKV is from the refrigerated transport segment, CSM is an expert in safety transports. TCS has two key areas of expertise: On the one hand, we feel at home in temperature-controlled logistics. On the other, we have extensive experience in the area of safety transports. The combination of the two meets the increased demand for solutions which actively monitor and track

deliveries. We use, amongst others, systems by idem telematics to monitor vehicles from our ISO-certified food safety centre around the clock.

Which goods require this kind of sophisticated monitoring?

These are especially products from the pharmaceuticals industry, in which one load can easily be worth EUR 500,000 or more. But we are also increasingly monitoring food transports. For example, we monitor meat de-

livered by food-processing companies to distribution centres. Here, one trailer may transport goods worth EUR 50,000 to 80,000, or even much more if the load is fish and seafood. If an alarm is triggered, we have several options to intervene. One of them is for TCS headquarters to call the forwarder or directly contact the driver. Our employees speak many languages, and some of them are even court interpreters.

What are your customers' requirements?

They need high supply chain safety: They

Of course, this means the highest level of professionalism in all business areas: For example, drivers are specially trained to understand the needs of the chef to whom they deliver the goods. Trading and delivering high-quality food is a matter of trust. "Many customers grant our drivers access to the kitchen," Glos says. "They walk in on their own and re-stock the fridge with their delivery. You know, all chefs have one thing in common: They never have enough time."

Always reliable and on time

The most important customer demands: be punctual, deliver at the agreed date, and be reliable – precisely what has been ordered has to be delivered too. "Every day, we pur-

chase goods from 80 countries around the globe. Customers will see a certain standard offer and additionally what the producers grow during each season. One may picture our company as a small stock exchange," Glos says. "Our warehouse must be empty by evening. This is why we contact our customers up to four times per day and offer them the freshest, most recent deliveries." CCG's service package also includes full support for end customers – even advice on what menu to offer.

The group avoids using subcontractors as much as possible. It is the reason why CCG operates its own fleet of 125 vehicles. "Food is unforgiving," Glos says. "The technology monitoring the cool chain must really be reliable all day every day." CCG's vehicles have three chambers accommodating five temperature ranges. "Even if

goods can be stored at the same temperature, they may have to be separated, as some products can absorb other products' smells: This is true for flowers and fish or coffee and cheese." Planning is accordingly complex.

Glos is certain that the cool chain will become more transparent to the end consumer as well. "In the future, customers will receive all information on the products they request. Track & Trace – which has been a part of the package industry for a long time – will reach the food industry as well." He also believes that the sector will consolidate even further. "Not everybody buys everything anywhere, but you look for strong partners." (jg)



You will find more information on www.quick-service-logistics.de, www.coolchaingroup.com, and www.tcs-control.com

want to be immediately notified of any diverging temperatures, in order to guarantee the best possible response times. Transport damages result in financial loss – but they can also tarnish a company's reputation.

Are you open to any kind of telematics system?

Yes, we can work with all systems, regardless of who manufactured them. Still, the share of idem telematics systems in current vehicle monitoring is quite large. We have access to the relevant databases. In addition, we consider ourselves as mediators



between all body manufacturers involved.

Safety is an important issue nowadays. Where do you see the industry heading regarding safety transports?

Until now, production and haulage information on individual products has hardly ever been correlated. I believe that there is great untapped potential here – in combining data to enable lot tracking during transport, and this for each individual package. For example, I could imagine using indicators fitted with printed electronics.

Anything but ordinary

Body manufacturer Rohr from Lower Bavaria in Germany is an important supplier to big retail chains. The company's employees know their customers inside out.

We don't build ordinary vehicles," Michael Lanik, Managing Director of Nutzfahrzeuge Rohr GmbH based in Straubing, explains. "We are not eager to compete with the big trailer manufacturers and their cost structures." Especially when it comes to refrigeration vehicles for food delivery, Rohr is nonetheless the large trading companies' go-to supplier in Germany. Edeka, Kaiser's Tengelmann, Lidl, Netto, and Rewe deliver their fresh service offering in Rohr's vehicles across Germany. Refrigeration vehicles make up one of the two key business areas of the company, with the other being the manufacturing of road tankers and aircraft refuellers. The first products were launched more than 40 years ago. Today, the company serves its clients by offering customised vehicle designs. The 260 employees of Rohr manufacture around 700 units per year. Engineering the vehicles involves a lot of effort: Around 10 per cent of the staff works in the engineering department. These engineers collaborate closely with the vehicle fleet technicians.

More capacity and easy to use

The drawbar combination is one of Rohr's complex haulage solutions: It convinced the Edeka logistics centre in nearby Ingolstadt. This road train is 18.75 metres long, and consists of a truck and a trailer. The trailer offers room for 38 Euro pallets or 63 mobile

pallet boxes, which puts it five Euro pallets or nine mobile pallet boxes ahead of other trailers commonly used in the industry. When loading, the drawbar combination still needs only one space at the loading bay. After being directly connected to it, the refrigerated vehicle can be loaded and unloaded without uncoupling its parts. This is made possible by special technology allowing the loading and unloading of goods through the road train bodies: The driver of the tri-axle drawbar trailer reverses into the loading bay space and a hydraulic cylinder in the coupling's drawbar pulls the tractor unit towards the trailer – protecting the expensive superstructures during parking. An opto-electronic system monitors the situation. The crossover from the road train to the bay is now being thermally insulated as well. In the end, the vehicle keeps its cool. Only when the electric roller shutters are moving up at the vehicle does the refrigeration unit turn itself off. All of these steps are intended to minimise temperature losses when loading the trailer, therefore saving energy and CO₂ emissions.

With comparable technology to load and unload but even more haulage capacity, the 25-metre-long Jumboliner can hold 51 pallets or 84 mobile pallet boxes. Its special feature: A tandem trailer coupled to the tri-axle articulated truck. Two deliveries with this vehicle equal three routes using conventional trucks. Another logistical advantage for operators: The tractor unit and the trailer can be operated individually. The manufacturer promises fuel savings of 30

per cent. And because the Jumboliner was designed with 60 tonnes in mind, but only weighs 40 now, the lower axle loads considerably reduce the impact on the road.

Focused on long life-cycles

The undercarriage of the trailers was manufactured by the company itself. The chassis frame made of fine-grained steel is being treated with zinc to protect it against fire hazards – which, by the way, is a process that the company has employed for many years, even before it had become common practice. High-quality components are used to ensure long life-cycles, for example, by incorporating BPW running gears – because especially trailers often remain in the customers' vehicle fleet for ten years and more. The body base consists of a steel sandwich box. The boxes are worth taking a closer look at because they have been customised: Here, one finds meat hooks or dividers for mobile pallet boxes and different loading safety equipment – there is hardly any limit to what the refrigeration units can be used for. The market shows growing demand for split-temperature chambers. "For example, large supermarkets are being supplied simultaneously with fruit and vegetables, milk products, and freezer food. Each of these product groups has to be transported within its own individual temperature range," Rudolf Bornschlegl, who is responsible for retail chains as Rohr's →



ROHR: SUCCESSFUL IN A NICHE MARKET

Nutzfahrzeuge Rohr GmbH can trace back its roots to a blacksmith from 1850. Industrial production, first of trailers used in agriculture, started in 1945 after the end of the Second World War. By choosing to specialise in tankers (beginning of 1960s) and refrigerated boxes (1972), Rohr has been able to operate mostly independent of the ups and downs of the market. Nowadays, the company from Straubing has three core business areas: It provides road tankers and aircraft refuellers, as well as cooling vehicles for road logistics. Rohr's customers are mainly located across the German-speaking region. With its product mix of 700 refrigerated and 200 fuel vehicles (in both areas, around $\frac{2}{3}$ are pulled and $\frac{1}{3}$ pulling units), the group generates a turnover of around EUR 50 million a year.

The decision on the future direction of the company was made in 1972: The first Rohr box body was mounted onto a Hanomag Kurier.



Rohr's own controlling tool on the fascia: A uniform component for vehicle, body, and trailer operation, regardless of the vehicle manufacturer or vehicle type.



Distribution Manager, explains. The complicated multi-compartment technology can be divided by width or length. "Our city supply is undergoing some changes right now. The markets' long opening hours require several deliveries. Often, the only solution is to deliver at night," Bornschlegl says. Of course, this is not without consequences for vehicle technology: It means that the trucks have to be exclusively ones which operate at low noise levels. Extremely quiet motors, maybe even driven by electricity, and insulated load beds – an electrical unit would then cool the vehicle. The E-Force electric truck at the IAA Commercial Vehicles last autumn showed how it could work in the future without disturbing the neighbours' sleep: Swiss startup E-Force, refriger-

ation machinery specialist Frigoblock, and Rohr pooled their resources to develop an 18-tonner driven by an electric battery.

In-house electronics expertise

Regarding electronics and telematics, body manufacturer Rohr has its own new centralised controlling tool. With it, drivers operate and monitor the additional functions of their drawbars, of course, including bodies. They can control the trailer brakes and the drawbar, as well as turn off the refrigeration units and raise the lift axles. If the road gets slippery, the driver can also equip the driving axle with automatic

tyre chains at the push of a button. Before uncoupling, the support legs of the tandem trailer will be pulled out – Rohr gets the customer what he needs and wants. The key advantage of the system is its operating unit, which is uniform across the entire fleet of vehicles, regardless of the manufacturers or types of vehicle used.

Telematics systems already play an important role in Rohr's business. The specialist in chilled transports relies on the modular components offered by idem telematics. They cover everything from the basic function of temperature monitoring, to operational data, locating, or the technical analysis of vehicle components – the customers decide how much telematics they need to gather vehicle information. There is almost no option that cannot be implemented: idem telematics can even connect an electric door contact to Rohr customers' telematics systems.

Rohr starts manufacturing vehicles only after orders have been placed – but customers still don't have to wait long. Christian Dietl, who manages the order processing centre, calculates: "After a binding order, we need around six to eight weeks to get the parts. Production takes eight to ten weeks. Then, customers can pick up their Rohr vehicles, of course, including labelling if requested." Rohr can assist customers even in really urgent cases, for a last minute order or when an accident calls for replacement parts. Truck manufacturers Mercedes-Benz, MAN, and Scania have so-called call-off vehicles available for testing purposes. Depending on demand and suitability, however, they can also be requested for common business tasks. (wt) 



"We develop our transport solutions in collaboration with our customers," Michael Lanik says. The picture shows Lanik, Managing Director of Rohr Nutzfahrzeuge GmbH (middle) together with Rudolf Bornschlegl (Distribution Manager Food Trading Companies, left), and Christian Gietl (Manager Order Processing Centre, right).



You will find more information on www.rohr-nfz.com



Cool and safe: Pharmaceutical transports

New EU-wide rules tighten regulations governing pharmaceutical transports. Actively temperature-controlled haulage solutions, with which goods are always handled and delivered at ideal temperatures, could become commonplace over the next few years. The quick delivery service of trans-o-flex is pioneering. The company has established a countrywide logistics network for pharmaceuticals.



Many products for the health care industry react badly to changes in temperature. They pose particular challenges to haulage companies. Last year, logistics group trans-o-flex created "ambient", a special offer that covers the temperature range between 15 and 25 degrees Celsius, complies with GDP, and can be used for packages, as well as pallets. The offer requires no additional thermal packaging – saving time and costs, and benefiting the environment.

trans-o-flex ambient was created because of the increased demand for speedy ambient-temperature transport solutions. It entails transport and goods handling at air-conditioned and temperature-controlled locations, as well as special vehicles, in which an active temperature control system chills the goods or keeps them warm. This system makes transports much safer than passive solutions, by which goods are delivered in boxes with cool packs.

The vehicle fleet is entirely multi-purpose: Depending on customer requirements,

trans-o-flex employs trucks with thermal bodies or conventional transport vehicles with actively controlled thermo-boxes. The temperature of the pharmaceuticals is being monitored and documented throughout the entire transport chain. The ambient-temperature goods can be delivered to six completely air-conditioned sorting centres across Germany – for example, in case returns have to be temporarily stored during the weekend. A tracking system shows the individual temperature curve of each delivery, enabling the system to comply with →



»We expect transports with active temperature control and continuous temperature monitoring to become standard across the industry in two years' time.«

Christian Knoblich, Managing Director of trans-o-flex Logistics Group

the tightened rules of the Good Distribution Practice (GDP). This EU regulation has been in force since 2013 and aims at "good distribution practice" for drugs, guaranteeing safe-and-sound product delivery to the customer.

It took six months of planning and preparation, as well as one month of testing under real-life conditions to establish the nationwide trans-o-flex network ambient. The pilot-phase customer was renowned drug producer and research company Berlin-Chemie. "Every day dur-

ing the pilot project, trans-o-flex sent someone to our Berlin location to pick up two semi-trailers filled with temperature-sensitive goods and delivered them through the new ambient network," Bernd Kühn, Manager Domestic Distribution at Berlin-Chemie, explains. "We were very satisfied with the entire process chain and documentation, and especially the high-quality of the deliveries." In the meantime, numerous other clients besides Berlin-Chemie have chosen the innovative pharmaceuticals logistics solution.

Investment in countrywide network

The trans-o-flex group has invested several million euro in its GDP-compliant network. In addition to infrastructure investments, the company bought 150 actively temperature-controlled semi-trailers for commercial goods transport, 60 fully temperature-controlled trucks for pallet pick-up and delivery, as well as around 1,500 distribution vehicles with fixed climate-controlled box installations. The climate-controlled storage boxes come in

TAILORED INDUSTRY SOLUTIONS

The success of logistics group trans-o-flex, which operates all across Europe, is based on three segments whose services can be combined if and as much as is required: quick delivery service, ThermoMed, and logistics. The quick delivery service offers a network spanning across all of Germany, in order to safely and efficiently transport packages and pallets. This includes many express and additional services, such as hazard goods transport. At the same time, as board member and partner of the Eurodis network, trans-o-flex provides the safety of multi-freight haulage across all 34 European countries. The logistics provider has developed many special industry solutions, for example, for the pharmaceuticals industry or the entertainment and households appliances sectors.

Through a special network with active temperature control, trans-o-flex delivers temperature-sensitive goods primarily in the range between 2 and 8 degrees Celsius. In addition, ThermoMed offers transports with active temperature control through the Eurotemp network to 15 countries in Europe. The logistics service develops and implements comprehensive logistics solutions, from storage and picking to value-added services, such as setting up hoardings or electronic devices and customised transport networks. The group, who employs around 1,800 people, generated an annual turnover of about EUR 505 million in 2013. trans-o-flex has been a 100% subsidiary of the Austrian Post since June 2008.



The logistics provider owns a large distribution centre of 37,500 m² floor space at its Herford premises in East-Westphalia.

three sizes from 711 to 2,400 litres. They increase route planning options by optimising the share of temperature-sensitive goods on each route. They also empower businesses to store goods with and without active temperature control in the same vehicle – a decisive plus in flexibility, especially on the last mile of the transport chain. "Hence, we can respond to an eventually growing demand and adjust our transport capacities accordingly," Christian Knoblich says. Knoblich is Managing Director of the trans-o-flex Logistics Group and is responsible for the company's pharmaceuticals division.

Continuous temperature monitoring

As a logistics provider specialised in a certain industry, the company had already had experience in actively temperature-controlled drug transport. "It was a clear head-start for us, so that we could implement the system in such a short time. In one step, we more than doubled our previous GDP-compliant capacity in the 15 to 25 degree range," Knoblich adds.

Key to the sales success of the system has been its continuous temperature control, monitoring, and documentation. Temperatures are monitored and logged

during the entire transport. The repeatedly taken measurements make it possible to show a temperature curve of every room a package has to go through. Each 15 minutes, the system transfers the average of the last quarter-hour. trans-o-flex had all of its actively temperature-controlled vehicles, climate-controlled storage boxes, and storage facilities equipped with the relevant sensors and an innovative telematics software program by BPW subsidiary idem telematics. Now, the company can prove to its customers that temperatures were kept stable throughout the entire process chain.

Implementation in record time

It was a real challenge for idem telematics to implement these plans and create the customised software package – particularly, considering the short time frame. There was only half a year left in between the first consultation in spring 2014 and the start of the pilot phase. idem telematics immediately established a project team bringing together experts from product development and product management. At its peak, the team had twelve members in total. "Because speed was of the essence, it was all the more satisfying to see that

each requirement could be met in time and that the customer can now enter the market tapping into its potential," Mario Lenz, Assistant to the Board of Management of idem telematics, explains. "It also confirms how fast we can realise ideas and customise our standard solutions."

Active temperature control as tomorrow's standard

According to EU GDP requirements, precise temperature control is important to all pharmaceutical products which require a certain storage temperature. Since the start of the nationwide system, trans-o-flex was able to win over numerous other well-known customers with its ambient solution. "We expect transports with active temperature control and continuous temperature monitoring to become standard across the industry in two years' time," Knoblich says. Industry experts agree that because of the authorities' increased number of inspections, the passively temperature-controlled logistics solutions still used in the industry today will have certainly disappeared by then. (hs)





Drinks logistics as the customer would want it

Be quick, be reliable, and be transparent – these are the key requirements for drinks logistics. They are especially important if business has been as successful as for Winkels Getränke Logistik GmbH in Sachsenheim near Stuttgart.

Apple juice, mineral water, or beer: Winkels from Baden-Württemberg supplies large trading companies, drinks retailers and wholesalers, petrol stations and restaurants with over 3,000 products from breweries, the juice industry and its own production. The company's core business could be best explained by following the route of a bottle: It all starts with the bottle being filled at the producer. Winkels places an order and may pick up the goods to store them temporarily at one of its four delivery locations for a short time, until customer orders are com-

ing in by phone, fax or email. An employee of the respective warehouse will make certain that the products are ready for delivery at the requested date. Item picking is done without paper – a pick-by-voice system tells pickers from which bin they need to take which quantity. Winkels uses its own vehicle fleet to deliver the goods to the locations at which end consumers can buy them.

There are two systems for deposit on bottles and crates in the drinks industry: Single-use and multi-use. They differ in which type of bottles can be returned where and especially, how they will be recycled. Multi-use bottles are made of glass or polyethylene tere-

phthalate (PET) and are mainly transported in plastic crates. A multi-use bottle goes several times through the same cycle from filling to end consumer, whereas single-use bottles – made of PET and mostly sold in a pack of six wrapped in foil – do not.

After being returned to the store, single-use bottles are either compressed to reduce transportation costs and to cancel the deposit on them, or they are shipped by Winkels to a so-called counting station to cancel the deposit. The machines at the station will read the bar codes and determine at which location the deposit was originally paid. Afterwards, the material will be re-



»Our customers need their products quickly –
speedy delivery is a must.«

Udo Leitenberger, Manager Vehicle und Building Technology



cycled. Empty multi-use bottles and their crates are transported by Winkels back to the warehouses. Special sorting machines in the warehouses will then sort the bottles and crates by drinks producer, before they are returned to their respective source. Multi-use bottles made of glass are re-used up to 50 times, ones made of PET up to 25 times.

Consolidating logistical resources

Winkels has consistently increased its turnover in past years and has used acquisitions

to, again, significantly improve potential and customer base. Despite a growing variety of brands and products, customers nowadays expect ever-shorter delivery times. Of course, such expectations have an effect on transport and logistical processes – Winkels has already reached full capacity in different areas.

The company decided to consolidate some of its activities in Östringen in the Karlsruhe region. From autumn 2015 on, it will move the logistical services currently provided from Karlsruhe-Durlach and Mannheim to the new location. "Both locations no longer meet

the requirements of modern drinks logistics," Winkels' Managing Director, Gerhard Kaufmann, says. "With the drinks manufacturers' huge number of new products flooding in, our product offering has already grown to twice its previous size, from 1,500 to 3,000 items, over the last decade alone."

The new drinks logistics centre in Östringen will have a total area of 110,000 square metres. On the new premises, Winkels has acquired an existing high-shelf warehouse with 35,000 pallet spaces, as well as another hall with an area of 10,000 m². Both combined are expected to provide enough room for future deliveries. The new location →

halfway between Karlsruhe and Mannheim also guarantees an optimal base of operations to supply Winkels' customers across the region.

Satisfied customers and reliable technology

In addition to using its own capacities, Winkels entrusts reliable technology partners with the task of enhancing internal processes. "How much good does it do to steadily increase the throughput of your logistics centres, in order to deliver more quickly – and then the truck breaks down at the next corner?" Udo Leitenberger,

Manager Vehicle and Building Technology at Winkels' headquarters in Sachsenheim, says. "We need first-class materials if we want to guarantee our customers the same high quality every time." Over 90 per cent of Winkels' fleet of vehicles is equipped with BPW running gears. This includes all drawbar combinations and most of the road trains and articulated lorries. In 2014 alone, Winkels bought or equipped BPW products for or in 80 vehicles. "We are completely satisfied with our collaboration," Leitenberger says. "And should a car actually break down on the road, we benefit from quick spare part delivery through the extensive BPW service network, so that interruptions in goods deliveries can be kept to a minimum." And this benefits Winkels' customers too.

Since 2005, Winkels has consequently switched over from loading and unloading by forklift to loading at the bay, in order to permanently reduce throughput times at the logistics centres. The previous loading area is now only used for the forklift loading and unloading of part of the goods, as well as empty bottles and crates. "Our customers need their products quickly – speedy delivery is a must," Leitenberger says. By letting drivers directly pick up the products at the loading bay, we can greatly speed up our internal processes." A prerequisite, however, are pick-up locations at the loading bays. They are also planned for the new location in Östringen. (tw) 



You will find more information on www.winkels.de

WINKELS' DRINKS LOGISTICS

Winkels Getränke Logistik GmbH based in Sachsenheim in the German state of Baden-Württemberg, is the distributor of the Winkels group. Family-run Winkels was founded in 1930 for the production of alcohol-free drinks. Today, Winkels' three business areas are drinks from its own production and luxury brands for trading companies, drinks logistics, and supplies to food businesses. In 2013, the company and its around 700 staff members generated a turnover of EUR 330 million (excl. holdings). Seven machines at four production sites fill more than 365 million bottles a year. Among the company's own product lines are such well-known brands as Alwa, Griesbacher, and Fontanis. With its four logistics centres and a fleet of around 170 trucks, the Winkels group is the biggest drinks logistics company in southern Germany, according to the company's own statements.



A network with taste

The foundation of the European Food Network at the transport logistic fair in Munich in June 2013 was a milestone in the company history of Dachser Food Logistics. The logistics provider transports food in the above-zero temperature range across 29 European countries.



German food enjoys a great reputation all over the world – and margins are comparably high. The domestic food industry uses its good sales position abroad: "It is becoming increasingly rare to see transport and central warehouse structures being tendered nationally. Instead, tenders are invited from all over Europe or from regions across national borders," Alfred Miller, Managing Director of Dachser Food Logistics, explains. "Logistics companies are expected to provide matured European logistics solutions from a single source, ideally increasing efficiency compared to current processes. That was our approach," he says. Miller still sees great potential for the European Food Network.

The goal is clear: Dachser is to grow internationally at double-digit rates over the coming years.

As a globally operating logistics provider and as one of the heavyweights of the European food logistics industry, Dachser has the know-how and experience needed to establish and manage a European network. All members of the network view the company, which has recently changed its legal status to a Societas Europaea (SE), as the undisputed leader in system technology – which means Dachser is the driving force behind the multilateral cooperation. The European Food Network has clearly stated internal standards, which are the same for all members. To ensure a consistently high-quality service offer-

ing for cross-border haulage, the twelve partners have signed an agreement which is almost 50 pages long. In the agreement, they confirm their adherence to an (even more elaborate) network guidance manual, which describes and regulates the areas of collaboration in detail. They include operative, as well as administrative, but also informational processes, such as liability, documentation, interfaces, quality management, or offsets of mutual payables.

In addition, they feature an IT environment which ensures internal data exchanges – and with it, the information services of the transported products. "We believe that the special features of our haulage solutions, including additional system-supported information services, make up one of the →



»karldischinger has been Dachser's regional partner for over 15 years, and we have a close collaboration in the food industry. Although our family-run business is in reach of three different countries, it was the European Food Network which really opened up Europe for us. The telematics systems by idem telematics allow us to continuously monitor our vehicles and their precious cargo at all times and along the entire transport route.«

Karlhubert Dischinger, Managing Director of karldischinger Logistikdienstleister GmbH & Co. KG

THE NETWORK

The European Food Network currently consists of twelve partners: Bakker Logistiek (Netherlands), Brummer Logistik (Austria, Slovenia), Fresh Logistics/Raben Group (Poland, Czech Republic, Lithuania, Latvia, Estonia), Galliker Transport & Logistics (Switzerland), Spedition Heidelmann (northern Hesse, Germany), H. P. Therkelsen (Denmark), karldischinger (Black Forest region, Germany), Liegl & Dachser (Hungary), Papp Italia (Italy), Peter Green Chilled (Ireland, UK), Jens Thomsen Spedition (Norway, Sweden, and Finland), as well as Dachser Food Logistics (Germany, Belgium, Luxemburg, and France).

European Food Network's most important competitive edges," Miller says.

Joint standards

As the leader in system technology, Dachser oversees adherence to the joint standards. One thing to assist the company in its role is the uniform product world vivengo, which was introduced in October 2013. It consists of three product lines: vengospeed, vengofix, and vengoflex. Each of them stands for a combination of logistics and IT services. Globally, the basic products are vengoflex for time-insensitive items, vengofix for deliveries on agreed dates, and vengospeed for daily transports during precisely calculated

periods. Customers get a precise delivery time to all destinations in all countries. For example, Dachser enters the postcodes of the pick-up station and the recipient into web application Productpilot. According to company information, vengospeed's market penetration is going to be increased gradually – since 2014, the product has also made it to Poland and Denmark. So far, vengospeed has been available in ten countries.

Easier to track

The forwarders still process orders at their own locations. But the establishment of the network has allowed them to offer their customers greater reach. For example, when goods

are to be delivered from Hungary to a central warehouse of supermarket chain Ahold in the Netherlands, they will pass predefined export or import stations – in this case, Dachser's stations in Neufahrn near Munich and Disen near Osnabrück. From there, they will enter the target country. The local partner, here Bakker Logistiek, will now deliver the goods, together with national packages, to Ahold. The exporting partner must only advise the station of the delivery on loading day. The European Food Network has considerably improved delivery services: The sender decides how quickly the goods must arrive or whether there is a fixed date on which the goods have to be at their destination. Tracking & Tracing keeps everyone up to date on the delivery, as it documents every step up to the acceptance of the goods by the recipient.



EUR 1.4 billion turnover

In the meantime, the network partners have generated a turnover of EUR 1.4 billion. The number of exports has increased by a notable 17% during the last quarter of 2014 compared to the same quarter in 2013. "We don't know of any market player among Europe's chilled-food logistics companies which can offer the same kind of road coverage and product variety," Miller says. The network has made considerable progress, especially in eastern Europe. There have been regular deliveries to Croatia, Bulgaria, and Romania since last year.

Each network member is legally and economically independent of the others. Like Dachser, Polish system partner Raben Group, the second-largest company within

the European collaboration, shows barely any overlaps or even dependencies between the industrial goods segment and the one of temperature-controlled food. Raben calls the latter Fresh Logistics. "At the end of the day, it is important that we both share the aim of offering our customers the best food network in Europe. Raben cannot accomplish that goal in Germany without Dachser's help – and we cannot achieve the same thing in Poland without Raben," Miller says. Both partners remain competitors in non-food products.

New buildings in Erlensee

In the future, daily food deliveries will

go through Dachser's new transport hub in Erlensee. On 70,000 m² in the suburb of Langendiebach in the Main-Kinzig region, Dachser is setting up a European transport hub for cross-border food deliveries by all partners of the European Food Network. The investment amounts to around EUR 25 million. Operations will start in late autumn of 2015, according to an announcement by Dachser. The hub is thought to replace the company's site in Offenbach. "Construction progress is in line with planning," Miller says satisfied. Further details will not be divulged until this year's transport logistics fair in Munich in May. (tof) ○



You will find more information on www.dachser.com

Is the asphalt burning yet?

To ensure roads maintain their good condition, the asphalt must be processed at the correct temperature. Fixed measurement systems should therefore monitor transport. Road construction company Strabag has tested these systems.

Potholes and cracks in the asphalt are not only irritating, but can be dangerous too. The damages show how much stress roads must withstand and how important it is to guarantee the best possible quality when constructing them. Whether a road remains in good condition depends on many factors, such as material, environmental factors, and machines used. But above all, there is the asphalt temperature: If it is too low or not balanced, quality will decrease.

Issue gains in importance

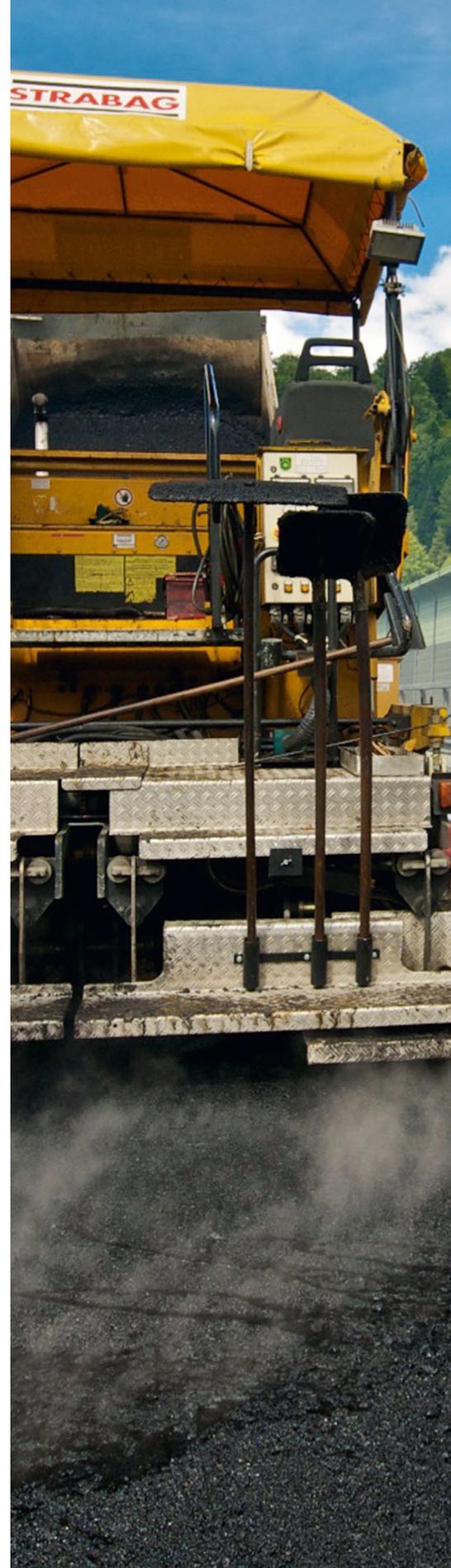
"The correlation between temperature and quality has been a familiar one to many in the construction industry for a long time, but now the issue is growing in importance: Because an increasing number of construction projects must be extended into the winter months, the question of the correct temperature pops up much more frequently," Martin Muschalla, Project Manager at TPA, says. The lab organisation is part of Strabag, a road construction company operating across Europe. As a service provider, TPA is, of course, interested in optimal material qual-

ity – and hence, looks for systems which can monitor asphalt transport.

In cooperation with the BMVI, the German Federal Ministry of Transport and Digital Infrastructure, Strabag invited vehicle manufacturers in autumn 2014 to test its technology on a section of the B184 near Dessau-Roßlau in the federal state of Saxony-Anhalt. "We wanted to offer manufacturers the opportunity to employ the prototypes of their digital measurement systems. We later compared their measurement data with our own," Muschalla says. idem telematics, a BPW subsidiary, participated in testing with its system TControl ConStruct, which was integrated into a body manufactured by Langendorf. All in all, four systems were put to the test.

New regulation

The reason for the prototype tests is a change in government rules. At the beginning of 2015, the BMVI published new guidelines: Now, asphalt used in road construction can only be transported in thermally insulated bodies. The new regulations are intended to prevent temperatures from dropping too low before the material arrives at the construction site. Forwarders must measure asphalt





Road quality depends, amid other things, on the asphalt being hot enough during processing. Moreover, the material should not show any ups and downs in temperatures.

Photo: Strabag

temperatures during the entire transport route and, from 2016 on, they must document them as well. The required values have been specified in the ZTV, the additional contract terms for technical installations, which are mandatory for all construction projects in Germany – during transport, as well as other processes, such as rolling. For example, the rolling pattern depends on materials used, layer thickness, and the narrow temperature ranges specified in the ZTV.

Implementing the BMVI's recent transport guideline changes, however, has so far been a very difficult undertaking. The ministry does specify at which points the temperature is to be measured, but under real-life conditions, the requirements are often too imprecise. For example, last September, the Federal Association of Road Haulage, Logistics, and Disposal, BGL, called the measures "unworkable in practice", because they did not specify how far

the sensors have to be away from the surrounding material or the outer hull.

Minute-by-minute documentation

Throughout the Strabag test, asphalt temperatures were documented each minute during transport, from the start at the mixing plant to incorporation into the road. To enable measurements, technicians drilled holes into the sides of the vehicle at the measurement points designated by the ministry. With the help of sensors, temperatures were then measured 5, 10, and 15 centimetres behind the load area. The technicians documented the temperatures both when driving, while waiting at the construction site, at different points in the asphalt paver, and finally on the road, directly behind the screed. The Strabag testers also noted down route times and environmental factors, as nothing was to be left to chance. "There are many small weaknesses which can have an effect on quality. We wanted to detect them during the test," Muschalla says.

Strabag and the ministry hope that the results of the test will reveal how precise the four test systems measure temperatures and in which areas they still need improvement. Additionally, the results will show how the ministry requirements are to real-life conditions. idem telematics received positive feedback for its measurement unit. "It was a reliable system," Muschalla says. A detailed listing will be published soon – and the industry is anxious to see the test results. (pb) ○

T CONSTRUCT BY IDEM TELEMATICS

The T ConStruct System by idem telematics empowers businesses to measure asphalt temperatures during transport and prior to unloading, as well as store them in digital form. The solution is based on an enhanced TControl unit with analogue sensors, an analogue/digital converter, and a display component. The user can gain access to information such as the required five temperatures, the average temperature, date, time, vehicle ID, and geographical position, for example, by email or smartphone.



You will find more information on www.strabag.de



Fruit with sensitivities

Potatoes are robust, easy to store, and highly resilient? Far from the truth: Agricultural experts consider the potato tuber to have many sensitivities. It wants to be handled with care during harvest, storage, and transport. For over 80 years, the Grimme Group from Damme in Lower Saxony has designed and manufactured machinery for the potato industry – and has been the global market leader in this segment.

Before potatoes can be bought in the supermarket or served as crispy chips in a restaurant, they have already travelled a long way. And each part of their journey poses dangers which may diminish their quality: The tubers could be damaged if they fall onto the ground or bump against something. Clods of earth or stones brought in with the harvest may damage the peel, and too high a temperature during storage can also cause quality to decrease. And when the already processed potatoes are being transported as frozen food, the cool chain must, of course, not be interrupted.

Needs careful handling

The Grimme Group has a customised solution for every step of the agricultural process chain. The machinery coming from Damme in the Oldenburger Münsterland accompanies the potato from seeding to harvest and storage. And it does so with the attention

that the plant rich in carbohydrates and vitamins requires. "Potatoes need to be handled really carefully – they are much more sensitive than wheat or many kinds of vegetables," Jürgen Feld, Grimme's Marketing Manager, explains. Any mechanical stress could damage the potatoes and reduce the yield. "This means that quality assurance is priority number one when harvesting table potatoes. It is more important than other factors like speed. At the same time, farmers expect us to deliver machinery that is absolutely reliable during the short season."

Such a business requires experience. The Grimme Group has come to know the particularities of the moody tuber over seven decades. It is this kind of competitive edge in knowledge and know-how which has made the company a popular partner of the global agricultural industry. Grimme traces back its roots to the 1930s, during which it developed the first potato harvester – still pulled by horses. Even back then, the company had a knack for marketing: "Unerreicht" (Unrivalled) was the name of the first production series, a storage basket, which already

reached four-digit production figures. Potato harvesters pulled by tractors followed in 1956. The first hydraulic functions then started a technological revolution, which culminated in 1966's harvesting unit Europa Standard. "Whilst at that time, it was the hydraulics which allowed easy handling and better efficiency, the new pioneer work is in electronics," Feld explains.

Harvest helpers on the smartphone

Current potato harvesters are highly complex machinery, literally stuffed with electronic systems and microchips – and rarely usable without comprehensive product training. Grimme has its own academy at which it trains employees in correctly operating the machines. Nowadays, even the smartphone assists during potato harvest: After downloading the free app GrimmeTools, the user can determine tramlines, seed quantity, yield, and range, as well as harvesting performance. →



The table potato wants to be handled with care. It poses special challenges to planters and harvesters.



Naturally, the basic process has changed very little. Everything starts with preparing the ground, from which stones or clods of earth must be removed. Depending on local conditions, bedformers and separators play important roles in preparing the ground before the potato seeds can even be put in.

Seeding and harvesting had already been fully automated decades ago. Grimme offers a broad variety of products, which are all tailored to specific customer requirements, whether for smaller European farms or for large agricultural properties such as in the US. "Whilst in Germany, tractor width is limited to a maximum of 3.3 metres, machines in the US can be up to 6 metres wide," Feld says. The performance data of today's harvesters is impressive. For example, one machine can unload 5.5 tonnes of potatoes within 45 seconds – and this as gently as needed.

Regarding running gear technology, Grimme has traditionally relied on BPW solutions. In addition to high quality, the company from Lower Saxony considers the

tried and proven development partnership with BPW to be a valuable asset: "Engineers from both sides work closely and successfully together, and even special machinery solutions are being jointly realised," Feld says.

Sensitive storage goods

Grimme machinery is not only used to harvest, but also to transport the potatoes to the storage facility. Hoppers, grading machines, warehouse and box fillers, as well as conveyor belts have been part of Grimme's offering for years. Here, the same is true as for harvesting: Touching the tubers just a bit too much may endanger the entire yield. On the conveyor belts, the potatoes begin their next journey – from storage to logistics chain, to retail, or to food-processing companies.

For the agriculture professionals from Lower Saxony, the potato has never lost its appeal: Ultimately, it is a centuries-old crop. Like rice, wheat, and corn, it is one of the most important staples – eaten all around the world. "In middle Europe, potato consumption has been stagnating for years," Feld says. "But the tuber is gaining in importance in Asia, particularly in India." One of the potato's advantages is its versatility: Whilst the classic boiled potato is becoming increasingly rare in German cooking, processed products are growing in sales volume. Whether as chips, spicy crisps, or as a supplier of carbohydrates for Asian glass noodles: The potato has many applications. (os)

POTATO EXPERTISE

Over 80 years of experience in manufacturing machinery for the potato industry, distribution to 120 countries worldwide, and over 2,000 employees: The Grimme Group is the leading partner of the global agricultural industry. Established in 1861 as the blacksmith in town, Grimme began to specialise in agricultural machinery in the 1930s. Today, the company group consists of Grimme Landmaschinenfabrik, North-American potato machinery manufacturer Spudnik, beet machinery producer Kleine, and Danish vegetable machinery specialist ASA-LIFT. With over 150 types of machines, Grimme offers the modern agricultural industry a wide variety of products – from ground preparation and planting technology to harvesting machinery and storage solutions. The family-run business has its own distribution and service subsidiaries in the most important potato regions around the world: in the UK, France, Denmark, Poland, Ireland, the Netherlands, Russia, the US, China, Belgium, and Turkey.



You will find more information on
www.grimme.com



From the fjord onto the plate

Norway's Bring Frigo AS delivers freshly caught fish to the counter in no time.

The main company product is juicy salmon.

Skogsvåg, 30 kilometres south of the town of Bergen in Norway. It is Monday, almost seven in the evening. Steinar Aasen's work week has just begun. He opens the backdoors of his trailer, then climbs onto the driver's seat, and reverses the last meters against the loading bay of the Norwegian company Sekkingstad. The family-run business, which is one of the many regular customers of Bring Frigo, has specialised in selling whole fish and refining fish products – it ships fresh salmon and trout to over 120 clients in Europe and the world.

Sekkingstad's premises are bustling with people. Living salmon is being sucked in from fish pens in the fjord and transported through big pipes into the factory halls. Each day, the company processes around 100 tonnes of salmon. After harvesting, the fish is inspected and weighed, sorted, covered in ice, and ultimately prepared for shipping. The boxes full of fish are made in such way that redundant water from the thawing process can run off. A robot stacks them onto pallets.

During loading, Aasen gets help from a colleague of his. The men must hurry be-

cause the salmon is supposed to be at the customer in Oslo early Tuesday morning. Norway's capital is 500 kilometres away, and no-one knows how the weather and the driving conditions in the mountains will be. Down at the fjord, the ground looks normal, it is only a few degrees below zero. But up in the Fjell, the snow is metres high. Taking the route means competing with strong winds. In the worst case, the road will be closed for a few hours, sometimes even for several days. Aasen signs the bill of lading and meticulously compares the number of boxes on the paper to the number →



actually loaded onto the trailer. He closes the doors and adjusts the temperature at the refrigeration unit – now, the journey to the east can begin.

Difficult conditions

Night has set in and the area around him is turning pitch-black. The grandiose landscape that during Nordic light and warm summer nights mesmerizes even experienced tourists is gone. The snow in front of the headlights is coming down thicker and faster. Aasen is now driving only 40 kilometers per hour. The hill is steep, so are the bends. Then, the drive wheels start spinning. Aasen lifts up the tag axle of the tractor unit to achieve more pressure on the drive axle. The wheels regain their grip on the road.

Norwegian vehicle and trailer specifications differ from European standards. One key difference is the axle lift. Trucks with a tag axle are exempt from the axle weight limit in certain situations. The axle can

also be lifted when the truck is fully loaded. In 2012, the Norwegian authorities tried to introduce the European Union's axle weight limit across the country. It led to a heated debate in the press and professional circles and ended with an intervention by the transport minister, who ensured that the traditional Norwegian solution stays in place. Lifting the tag axle and exercising maximum pressure on the drive wheels regardless of the total weight is essential to driving on the mountains' snow or ice-covered road surface.

Only few vehicles drive over the inhospitable plateau. The white surroundings do not make it easy to see the road signs – and taking a wrong turn up here can have severe consequences. Around 120 kilometres before Oslo, traffic is suddenly coming to a halt. Cars are waiting in line as far as the eye can see in this weather. There is a tipped-over truck on the opposite lane, and it has to be pulled up first.

Aasen calls the first customer and informs him that the salmon delivery might arrive later than expected. He agrees that he will call again if he cannot reach his destination

before six in the morning. But only an hour later, the emergency services have cleared the road and at 5.15 am, Aasen arrives at the fish market in Oslo's city centre. Pallets are being exchanged, as are humorous comments. Now, the goods are forwarded to customers in all parts of Norway. The rest of the load has to be delivered to the Bring Frigo terminal in nearby Skårer. There, Aasen finds an empty loading bay space, reverses into it, and uncouples the trailer. When the work day starts for the terminal employees and the office personnel, his day ends after a long journey. Aasen is satisfied: Another load of fresh salmon delivered on time!

Modern industry

Today, there are about 30 salmon-processing companies in Norway. Modern cargo ships pick up the fish from special breeding farms on the entire shore. Pumped up and sorted on board, the salmon is then transported alive to the companies. The ships report what they have caught – which means

Each salmon is first inspected and weighed. Then, the catch is sorted, covered in ice, packed and loaded onto the trailer. To guarantee high-quality fish, the refrigeration unit must maintain the correct temperature during transport.

A team for tasty fish:
Regional Manager Bengt A. Nilsen,
Production Manager Tore Wallestad,
driver and trustee Steinar Aasen
and Operations Manager
Stein Erik Gurigard (from left).



that the salmon can be sold before it has even arrived the fish factory. The daily production of a fish processor is around 100 to 400 tonnes. "The fish farm industry grows rapidly, but transport prices have fallen," Tore Wallestad, Production Manager of Bring Frigo, says. He has acquired extensive knowledge in the trade, which helps him organise the fish transports from the coast. "Customers only have to talk to one person –

BRING FRIGO

In 1957, Øystein Stie began to transport goods under the name Sties Termo-Transport. The company's first vehicles had insulated bodies and dry ice as the cooling agent. In 2004, the logistics provider was bought by the Norway Post (Posten Norge). In 2010, it changed its name to Bring Frigo. Today, the company has 220 staff and has a global reach. In Europe, Bring Frigo has its own terminals in France, the Netherlands, and Spain.

we will take over the rest." The company group works closely with forwarders in Oslo and across Norway. Everything is being centralised. "It is important that we share information and keep everyone up to date. Daily video conferences keep us informed of the latest developments."

The salmon arrives from all across Norway. In the course of one week, 2,000 tonnes of salmon go through the terminal in Skårer. "We start on Monday. On Tuesday, the goods arrive. The suppliers sell the salmon, and we receive the picking lists, including invoice and export customs duties. Afterwards, we plan where to ship the fish next. On Sunday, the storage rooms are empty," Wallestad explains.

Good work environment

The mother company of Bring Frigo, the Norway Post, is currently working on a new, land-based terminal structure. All logistical activities are said to be consolidated in Alnabru near Oslo. The buildings should be ready by 2017. "We are setting up a terminal for freight

handling at the railways. Even today, 80% of all deliveries going north are transported by train. This also applies to 30 to 40% of deliveries from the largest cities," Wallestad says.

"To preserve the environment, we are trying to use railway transport for as many packages as possible," Operations Manager Stein Erik Gurigard says. "Additionally, we have 42 vehicles and around 150 trailers. The vehicles are being replaced every three years. The company's fleet covers around 20 to 25 per cent of transport demand. Select contract partners take over the other deliveries. All bodies with refrigeration units have been fitted with a monitoring system connected to the web. This means that the cool chain can be documented at any time. We engage 55 drivers, with all of them having been in the business for many years," Gurigard says. "We place great emphasis on safety and economical driving. And that the number of sick days was below five per cent last year obviously shows that we were able to create a good work environment." (mv) ○



You will find more information on
www.bring.com

Accident prevention is a goal worth fighting for

Since 1998, the Aktion Kinder-Unfallhilfe e. V. has supported children and young people after road accidents and promoted measures to prevent them from re-occurring.



In 2013, one child under the age 15 was injured in a road accident every 19 minutes, according to the averaged figures by Germany's Federal Statistical Office. Fifty-eight of these 28,143 accidents had fatal consequences – 15 less than in the year before. Over the long term, it is a relief to see that fewer and fewer children die from road accidents each year. In the 1950s, the figure was at more than 1,000 annually, and it dropped to below 500 during the 1990s. 2013 was already the fourth year in which fewer than 100 children were fatally injured. The Aktion Kinder-Unfallhilfe e. V. was an important contributor to this positive development.



Nurseries, day cares, and schools can order safety products, such as cycling helmets and reflective cycle collars at the association at no cost to them.

if they lack the resources for therapeutical activities, and it finances trips and adventure weekends. One example is the billiard table awarded to a rehabilitation centre, in order to allow the young victims of accidents to train their fine motor skills.

A joint initiative

All founding members have close ties to the road: entrepreneurs, representatives from road traffic cooperatives, BG Verkehr, magazine VerkehrsRundschau, as well as the KRAVAG insurance company. Claus-Oscar Herzig, founding member and today one of the three board members of the association, explains his motivation as follows: "It was very important to me to call on the social responsibility of our road-based industry and establish a fund for the most vulnerable of all road users: the children."

KRAVAG pays all administrative costs. Dr Jan Zeibig, department head at KRAVAG and managing director of the association, explains: "All donations and voluntary member fees go, without any

Support and promote

After its foundation in 1998, the association's work was primarily focused on providing assistance after accidents and it still assists parents who do not have the financial means to accompany their children during the healing process. The Kinder-Unfallhilfe also supports hospitals, medical rehabilitation centres, and associations

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The next issue of **trailer world** will appear in **September 2015**.



Every two years, the Kinder-Unfallhilfe awards prizes for ideas and projects for accident prevention.

deductions, directly to projects and to the children.“

The tenth anniversary of the association also extended its prior goals: Since then, the Kinder-Unfallhilfe has been promoting measures for accident prevention, especially by organising road safety events and providing road safety education. Nurseries, day cares, and schools can order safety gear, such as reflective armbands, cycle helmets, and reflective cycle collars, at the association at no cost to them. Since 2010, the most visible result of the association's work has been the Red Knight, a prize awarded every two years.

Creative ideas from all federal states

Ninety-four projects from private initiatives, schools, associations, and police departments competed in 2014 for prize money of EUR 28,000. The Red Knight was awarded to, amongst others, the Road Safety Days in Ravensburger Spieleland, during which children were able to complete a pedestrian training led by Käpt'n Blaubär (a popular German TV figure) and officers of

the traffic police. It was also awarded to a project by vocational schools, throughout which trainees for the job of professional driver showed school children how to behave in a bus and at the bus stop, as well as to a theatre project, during which police officers and children helped a lost zebra find its way through urban traffic.

Anyone can lend a helping hand

There are numerous options to support the association: from a one-time donation to regular membership. For example, BPW Bergische Achsen KG and its subsidiaries F. Hesterberg & Söhne GmbH & Co. KG have supported the Red Knight during the XXL advent calendar event by vehicle factory Bernard Krone. Anniversaries, birthdays, or farewells may also provide the right opportunity for companies and individuals: Many refrain from wishing for presents at these events and rather ask that their guests donate to charity. (jws) ○

 You will find more information on www.kinderunfallhilfe.de

we think transport