

DACHSER magazine

The world of intelligent logistics _



02/2024

Everything in its own time

"Time is money" is a much-quoted aphorism often attributed to American statesman Benjamin Franklin. Sometimes things have to go faster so that it's cheaper-but sometimes quality is worth waiting (and paying) for.

12 hours is currently the average transit time of the Panama Canal due to the heavy traffic. Under normal circumstances, the trip takes eight to ten hours. The artificial waterway between the Atlantic and the Pacific shortens the route by 15,000 kilometers and saves ships from having to sail around the notorious Cape Horn, where dangerous sea conditions prevail.





millisecond

or less is the latency of data processing in the 5G mobile communications standard.

Real-time communication is a prerequisite for the internet of things, which in logistics helps monitor and automate processes in warehouses and production. It also provides support for people in their work and lightens their load.

45 minutes on average is how much earlier in the morning short-distance transport vehicles were able to start in an @ILO pilot test at the Dachser transit terminal

in Unterschleißheim, Germany. This gain in time and efficiency when processing the nighttime long-distance inbound traffic is just one of the many advantages of @ILO. The award-winning digital twin is now being rolled out step by step across Dachser's European network.





46 hours is how long the hydrogen-powered FLIRT H₂ passenger train was able to travel without refueling

or recharging. On a test track in Colorado, the hydrogen train covered

2,803 kilometers in this time, setting a world record – and possibly marking the beginning of a new, emission-free era of rail.

hour **17** minutes

is how long Dubliners spent each day in 2023 driving their ten-kilometer commute in the morning and evening rush hour-an international record. Analyzing traffic flows with the help of big data could provide a remedy here. With up-to-date GPS location and movement data, it would be possible to, say, control traffic lights such that traffic flows smoothly. This would result in less pollution, CO₂, and particulate matter.



Message from the CEO

Dear readers,

The world around us is changing. Markets are changing. Our customers are changing. We must also change while remaining true to our core: forward-thinking, stable, reliable, and focused on quality.

And how do we do this? Through innovation. Our innovations begin at our local branches, which ensures they are close to our market. We then develop and pilot these innovations before implementing them throughout the network. In this way, we use our integrated, highly standardized network—the backbone of our company—as the source and setting of continuous innovation.

Here we always follow the principle of "preservation through change." As a family-owned company, we purposefully build on proven knowledge. That way, we can design innovations that will safeguard the bedrock of our company well into the future.

That thread runs through this issue of the DACHSER magazine. The cover story profiles our approach to the education and training of professional drivers. Other articles explain how cobots are helping out in our warehouses, and how new and enhanced Fashion Logistics is becoming quite the trendsetter.

In a world that is all too often concerned with the here and now, long-term thinking and action create meaningful prospects. At Dachser, we see this both as our responsibility and as the privilege of a family-owned company.

Kind regards,

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Burkhard Eling, Dachser CEO



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Crossdocking Links to the digital world of Dachser



Publishing information

Published by: DACHSER SE, Thomas-Dachser-Straße 2, 87439 Kempten, internet: www.dachser.com Overall responsibility: Christian Weber Editorin-Chief: Christian Auchter, tel.: +49 831 5916 1426, fax: +49 831 5916 81426, e-mail: christian.auchter@dachser.com Editors: Theresia Gläser, Andrea Reiter, Christian Weber Sales and address management: Andrea Reiter, tel.: +49 831 5916 1424, e-mail: andrea.reiter@dachser.com Publisher: Schick Kommunikation, Kerschensteinerstraße 25, 82166 Gräfelfing, e-mail: info@schickkommunikation.de Project management: Marcus Schick Layout: Ralph Zimmermann Photos: all photography Dachser except Frank Schinski (pp. 1, 4, 6, 7, 8, 9, 10), Matthias Sienz (pp. 32, 34), Julia Laatsch (p. 21), Stefan Gergely (pp. 4, 22, 23), Fraunhofer IML (p. 31), Gettylmages (pp. 2, 5, 12, 13, 14, 16, 17, 31) Printer: Holzer Druck und Medien Druckerei und Zeitungsverlag GmbH, Fridolin-Holzer-Str. 22-24, 88171 Weiler im Allgäu Print run: 24,000/64th volume Publication: 3 x per year Languages: German, English, French, Spanish Translation: Klein Wolf Peters GmbH, Munich. This product is made from FSC®-certified and other responsibly sourced materials.

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A career with a future for Samuel Duah Boateng and Henrie Eisleb

Professional truck drivers: The road to a profession with a future

The logistics industry doesn't have enough young drivers. What it needs are appealing training concepts. For ten years, DACHSER Service und Ausbildungs GmbH has been setting standards in the training of drivers in the logistics sector. The Bremen branch was part of this endeavor from the very beginning.

It may be "just" a truck, but the new arrival at Dachser's Bremen logistics center on Senator-Blase-Strasse has already achieved the status of a "silent star" after only a few weeks. "Silent," because the 16-ton battery-electric truck from Renault glides almost noiselessly through traffic in and around Bremen, with zero local emissions, making it a quiet and environmentally friendly transport solution. And it's a "star" for the drivers as well as for the recipients and passers-by. "It's the lower noise level in particular that many people notice immediately. And our e-truck is also very maneuverable, making it ideal for city centers," says Michael Schrader, General Manager European Logistics Dachser Bremen, who's delighted with the newcomer at his branch. \rightarrow



Sustainable logistics will be determined by quality—of both the service and the people who provide it on a daily basis.

Alexander Tonn, COO Road Logistics at Dachser

"Intelligent technology is one thing," says Schrader, "but the people who operate it are at least as important. A high-tech vehicle also needs quality in the driver's cab and at the wheel." But this is precisely where a structural problem has been emerging for some time: the freight forwarding industry is running out of young drivers. According to a study by the International Road Transport Union (IRU), as many as 62 percent of carriers in Europe complain that they are having major problems recruiting people to drive their trucks.

Germany alone already has a shortage of 70,000 skilled workers, with jobs at the wheel going unfilled at a rate of some 20,000 per year. "We mustn't allow the driver shortage to worsen," warns Umberto de Pretto, Secretary General of the IRU. "Freight forwarders are doing their best, but governments and authorities need to step up their efforts to improve working conditions and access to the profession."

Putting a job description to the test

This sets the agenda for policymakers. But to continue to provide customers with reliable and predictable transport and logistics services, there's also work for logistics companies themselves to do. The following kinds of questions stand front and center: How do we recruit young people to enter this challenging yet also attractive profession? How can we redesign a job description that has often been perceived negatively and make it appealing to men and women alike? How do we increase mutual trust and appreciation for the people "out on the road" and their duties? And how do we get the ball rolling with targeted training measures that, ideally, are ultimately scalable and thus pave the way out of the shortage?



Dachser was one of the first logistics companies to take up this challenge: in 2014, it launched its own qualification offensive by founding DACHSER Service und Ausbildungs GmbH. The aim is to attract young people to the driving profession, inspire them, train them, and secure them for the market over the long term—perhaps with them later becoming independent transport subcontractors themselves.

In Bremen, the concept fell on fertile ground right from the start. Schrader played an active role on the steering committee in setting up and developing the training organization. He then placed the practical implementation at the Bremen site in the hands of his fleet manager, 40-year-old family man Christopher Trettin. Trettin sees the training and support of drivers as his "baby," to a certain extent. A fitting image, considering that children usually go through "growing pains," so to speak. "In 2015, we were able to recruit just one apprentice. Later on, there were three, but none of them made it through the whole program," Trettin reports. The dropout rate in professional driver training has always been high, often over 50 percent. "But we didn't get discouraged. We kept going and continued to work on ourselves. At some point, word got around that the quality and content of training at Dachser is very good, and today, we have between six and twelve trainees across all three years of the program."

Training that sets a precedent

Every year, around 100 trainees in Germany begin their training as professional drivers at DACHSER Service und Ausbildungs GmbH. Within ten years, it's become one of the leading education and training companies for professional drivers in Germany. "We professionalized the provision of TQ1 truck driver training and took a careful look at all processes relating to the world of drivers," says Alexander Tonn, COO Road Logistics at Dachser. This included, for example, hiring fleet managers at every Dachser branch in Germany to deal specifically with drivers' needs. "At Dachser, every employee at each level of operations is important and deserves to be valued," Tonn emphasizes. "For professional drivers, this kind of appreciation and work culture finds expression not least in working conditions that are as pleasant as possible. That includes addressing topics such as healthy eating, exercise, and addiction prevention."

"It's crucial not only to find good drivers, but also to retain and motivate them over the long term," says Hendrik Jansen, Managing Director of DACHSER Service und Ausbildungs GmbH. The fact that people's attitudes to work have changed should also be taken into account. Nowadays, topics such as work-life balance, changing communication, and rewarding,





Intelligent technology is one thing, but the people who operate it are at least as important.

Michael Schrader, General Manager European Logistics Dachser Bremen

meaningful work play an important role. "By sparking a cultural change and cultivating greater appreciation for the driving profession, we can help ensure that drivers remain satisfied and motivated in the long term."

A culture that creates cohesion

For fleet manager Trettin, the key to successful training lies not only in high professional and technical quality, but also in an authentic corporate culture. This is apparent in several respects. "Our driver teams stick together. We provide fresh fruit for them every week, we occasionally set up a barbecue grill for the drivers, and the Dachser team is also happy to have a gift ready for birthdays," Trettin says. "When people are perceived and accepted as human beings, they're more willing to perform, more cooperative, and therefore happier and more content."

Torsten Heiber remembers starting his driver training in Bremen as a young man back in 2015. His excellent progress delighted his fleet manager, but at some point, he decided to pursue a different career option and dropped out of training. However, he returned to Dachser in 2018, completed his training with flying colors in 2020, and worked for a while as a task force driver. This is a standby service that Dachser offers to support its service partners. Torsten is now 26 years old, has matured both professionally and personally, and has moved into fleet management. Alongside Trettin, he puts his heart and soul into looking after the driver trainees at the Bremen branch. "It was a real stroke of luck for us to recruit Torsten for the training program. He's familiar with the demands of training and day-today driving, and from his own experience, he knows all about the prejudices and seemingly attractive temptations that can stand in the way of a driving career," Trettin says. "We and our trainees really appreciate that."

One of these trainees is Henrike Eisleb. Now in her second year of training, the 20-year-old aspiring professional driver is already a valued member of the Bremen team. That's not a given: women drivers are still rare, with an industry average \rightarrow

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Tr

Professional truck drivers maintain a dialogue

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Finding good drivers is only half the battle. Keeping good people and motivating them further is just as important.

Hendrik Jansen, Managing Director, Dachser Service und Ausbildungs GmbH

of just 2 percent. Trettin believes one reason more women don't become drivers is the image of them as "kings of the highway"; i.e., still a very male-dominated group. Another is that the task is considered physically demanding. "Naturally, you sometimes have to get physically involved when on a tour; for example, when it comes to extending a swap body's supports after maneuvering it into place," Trettin explains. However, there are now many ergonomic aids that support the lifting of heavy loads, as well as electric pallet trucks that make it much easier to move and stow pallets. "The idea that none of this is possible for women is plainly a myth. Eisleb is doing a great job in her training, and we've had nothing but the best experiences with our women drivers."

A demanding profession

In general, professional drivers today need more brains than brawn; for example, when it comes to making optimum use of the equipment. Studies have shown that special training courses can reduce fuel consumption and carbon emissions by up to 14 percent. That's something the drivers find appealing. For them, it often becomes a fun challenge in their day-to-day work to make their driving as efficient and climate-friendly as possible—and to compete with their colleagues.

"Our trainees often get to drive the electric vans and e-trucks used in short- and longdistance transport," Jansen says. "They're curious and fascinated by new technology. As 'first movers,' they receive self-confidence as well as the certainty that they're on the right path for the future." In Bremen, one of the vehicles the thirdyear trainees are allowed to drive is the brandnew all-electric E-Tech D16 from Renault Trucks. "Eisleb is already looking forward to it. Being entrusted with state-of-the-art technology always gives our trainees a bit of pride," Trettin says.

And rightly so, since these prospective drivers are entering a demanding field. Legal and administrative know-how is no less important than the technical and driving skills; for example, with regard to road traffic regulations, dangerous goods, or securing cargo. "All this calls for a certain kind of personality," Trettin says. "Professional drivers aren't auxiliary staff, but skilled workers who are willing and able to take responsibility for the vehicle and the goods they're transporting. They have to drive carefully in traffic and be capable of handling their vehicle, even in narrow streets and alleyways." Last but not least, they also need particular social and communication skills for, say, their daily dealings with dispatchers, warehouse managers, and target customers. "With an average of 16 stops and 16 separate points of contact, they meet a wide variety of people, all of whom have different moods and attitudes. So they have to have presence and personality," Trettin says.

Setting new training standards

With a view to the critical role of professional drivers and with all the experience gained from ten years of training, the agenda of DACHSER Service und Ausbildungs GmbH is clear: "In an increasingly challenging labor market, it's more important than ever to work together as equals in a spirit of trust, provide attractive working conditions for drivers, and ensure strong and sustainable cooperation with our service partners," Tonn says.

This year, the Road Logistics business field launched another initiative dedicated to continuing the fair and respectful cooperation with transportation companies. Its starting point is a Service Partner Code of Conduct, which is intended to serve as a uniform cultural guideline for collaboration. Dachser is also installing coordinators in the branches specifically to serve as an interface between the branches, their service partners, the drivers, and the Head Office.

All these concepts and measures aren't enough to solve the structural and global shortage of drivers, but they at least set the course. "Sustainable logistics will be determined by quality—of both the service and the people who provide it on a daily basis," Tonn says. "The decisive foundations for this are laid in education and training." And then it's not only the latest generation of vehicles that are the stars, as in Bremen, but the drivers, too. **M. Schick**

To ensure sufficient transport capacity even at peak times. Dachser set up a task force of drivers. Managed by Dachser Service und Ausbildungs GmbH. the task force's members work on a temporary basis for Dachser service partners and support the branches as required. As part of the company's service partner initiative, it is also installing coordinators to improve service quality in a targeted manner. Dachser will start rolling this out at its service partners in Germany, France, and Iberia, and plans to expand the initiative to all of Europe over the long term.

People & markets

On the brink

Why do we tremble when we're high above ground? When we're traversing metal mesh walkways or looking out of skyscraper windows? The answer usually lies in human evolution. For our ancestors, fear of falling was a survival instinct. Today, many people seek out this sensation for fun. Adventurers with a head for heights may want to check out the Bach Long (which means "white dragon") bridge in Vietnam-the world's longest glassbottomed bridge. But those unwilling to walk the 632-meter path some 150 meters above the valley between two mountains could benefit from some exposure therapy. An interdisciplinary research team at the University of Basel has developed an app to help people gradually conquer their fear of heights. It works in combination with a virtualreality headset to allow people to experience a range of vertigo-inducing 3D scenarios.





Full transparency

Glass is made of opaque materials including sand, soda ash, and limestone. So how come it's transparent? The answer lies in its amorphous solidified melt structure, which possesses neither a crystalline composition nor free electrons capable of absorbing light. "Unlike other solids, such as metals that disperse light through reflection and absorption, glass allows light rays to pass through it unimpeded," explains Christoph Weder, Professor of Polymer Chemistry and Materials at the University of Fribourg in Switzerland.

A new kind of "traffic light"

Who goes first? Should the pedestrian wait, or is it safe to cross in front of the car? Today, a simple nod or hand gesture is enough to resolve this matter. But in the future, new solutions will be required for when pedestrians encounter autonomous vehicles. Holographic projection systems could provide an answer by allowing these vehicles to communicate with their surroundings. Researchers at the Fraunhofer Institute for Applied Optics and Precision Engineering IOF in Jena, Germany, have developed a dynamic micro-projector. This employs laser technology to project pictograms and dynamic elements onto the ground around the vehicle that are recognizable even on sunlit streets. The illuminating communication system's compact size means it can be installed in any automotive sill.





A spotless solution

Silicone covers help prevent smartphone and tablet screens from getting scratched and cracked. Over time, however, they can yellow and become unsightly. But before you throw them away, try enlisting the help of an everyday household item: baking soda. Dissolved in water, its alkaline properties can neutralize many organic residues and impurities on the surface of the silicone without damaging its structure. After soaking the protector for around two hours, simply rinse with clean water and dry it off—done!

Managing transparency

When ChatGPT became available to everyone for free, artificial intelligence had definitely reached a broad audience—and sparked a heated debate. Does AI really deliver greater transparency in our data-driven world? Or does the technology pose a threat to our basic rights, data protection, and personal safety? Even those who study and develop AI warn of the potential dangers, especially from autonomous AI systems. As a result, there's mounting pressure for greater risk awareness. The EU, for example, is responding with the world's first AI law. Everyone stands to benefit from the resulting transparency. The law includes a stipulation that AI-generated content must be identified as such, as well as strict rules for high-risk applications and certain bans—including on mass surveillance.



Panorama



Throughout history, people have tried to predict the future—occasionally using some rather bizarre means. Today, statistical methods frequently provide accurate forecasts. But even supercomputers can't work out how social systems function.

In the sixth century BCE, Lydia's King Croesus strode confidently into war against the emerging Persian empire. Before he did so, he had consulted the Oracle of Delphi. The Oracle told him that he would destroy a great empire should he cross the border marked by the Halys River. But instead of the anticipated victory over the Persians, Croesus experienced a crushing defeat. It actually spelled the end of his influential kingdom.

Regardless of how disastrous the Oracle's pronouncements could be, rulers in and around ancient Greece frequently sought its reassurance. In his book "History of the Future," French historian Georges Minois characterizes the period as having a veritable "futurocracy": a regime based on the (purported) future, with some 230 different fortune-telling techniques in common use.

But that was by no means the only period in history when people tried to see into the future—employing all kinds of methods to do so. Early humans interpreted their dreams and looked for signs in the entrails of sacrificial animals. Celtic druids studied the flight of birds, while ancient Babylonians looked to the movements of the planets. Throughout human history, people kept on recycling, varying, and augmenting these methods. The famous practice of gazing into the crystal ball emerged as recently as the 19th century.

From Delphi to data

In today's knowledge societies, this kind of hocus pocus has at best entertainment value. But the desire to get a glimpse of the future remains as powerful as ever. In place of crystal balls, we now have mathematical models that use statistical data to calculate the probability of future events. In 1972, the Club of Rome caused a stir by asserting that the global economy's pursuit of growth was incompatible with the world's limited resources. Its report "The Limits to Growth" was based on calculations made using the most advanced mainframe computers of the day.

While not all the conclusions the economists drew turned out to be accurate, the mathematical-technical approach they used was then adopted in more and more sectors and disciplines. Even when it comes to complex weather events, high-performance computers and sophisticated models are now producing relatively reliable forecasts. Today, artificial intelligence is driving qualitative leaps forward by identifying complex patterns, trends, and correlations in massive datasets. And this is improving a lot more than just weather forecasts. Al can be used to more accurately predict consumer behavior, customer requirements, and much more besides. It appears that in the age of big data, everything can be calculated.

Probabilities that count

And yet, despite all this technical sophistication, we still have to cope again and again with unpredictable events and their consequences—whether it's the coronavirus pandemic, the war in Ukraine, or natural disasters. Sports and elections will occasionally see underdogs win against all odds, and regular surprises in the stock market prove that even the most experienced analysts can be caught unawares. Satirists are fond of a witticism that has at various points been attributed to Mark Twain, Niels Bohr, and Winston Churchill: "It's difficult to make predictions, especially about the future."

But that doesn't mean that it's all for nothing. In many fields, the remaining uncertainty is tolerable—what counts is probability. Through predictive maintenance, for example, it's possible to tell when parts are likely to wear out and to replace them before they do. In trade, demand predictions help optimize retail inventories and in logistics, they help proactively plan routes and freight capacity. This enhances both resource efficiency and quality.

Predictions alter the course of events

Even when presented with the most exacting and detailed predictions, however, people often choose to follow their own logic—including when it goes against their better judgement. That's why the alarming reports and analyses issued by the Intergovernmental Panel on Climate Change don't lead directly to changes in policy and behavior. People have no trouble finding reasons to doubt forecast models ("It won't turn out as bad as that") and avoid making the necessary changes. But that can be pinned on the individual and their immediate interests, and not on the allegedly inadequate forecast models, computing capacity, or artificial intelligence. It seems that mathematical models aren't yet powerful enough to understand certain human behaviors.

As we've seen, even ignored and rejected predictions have an impact on future events. That's something they have in common with the oracles of antiquity. The difference is that the latter were phrased in such flowery and ambiguous terms that they could never be entirely wrong. Even in the case of Croesus, the priests were able to hide behind this scope for interpretation. At the end of the day, a mighty kingdom did fall—just not the one the inquirer had in mind. **S. Ermisch**

Coming up with solutions for the European market

Back in play

Four years ago, the UK left the European single market, and its trade relationship with the European Union had to be completely redefined. An unprecedented challenge, for which Dachser has developed its own solution: Smart Border Connect.

"Game changer" is a big word (okay, two words). Lately, however, the meaning has often been stretched in an attempt to draw attention to even the tiniest product alteration or improvement. But if anyone knows what a real game changer is, then it's Mark Rollinson, Regional Managing Director of Dachser UK and Ireland, and Mark Cosgrove, Regional Sales and Commercial Manager UK and Ireland. We met up with them at Dachser's Northampton logistics center, where the mood was jubilant. "We've achieved something big," Cosgrove says. "A game changer for us and our customers." Tell us more!

The two are referring to Smart Border Connect, a new logistics service developed by Dachser. Available as two different service options— Connect40 and Connect42—it clears many of the hurdles now in place at the UK border, which in turn gives British exporters straightforward access to the EU market. "We've come up with a tailored customs solution that, for UK exporters trading on DDP incoterms, returns to the historical drivers of logistics purchasing: short transit times and service quality. And all at competitive prices," Cosgrove says. "Smart Border Connect is a tailored solution that Dachser developed to help UK exporters minimize the effects of Brexit for their EU customers," says Alexander Tonn, COO Road Logistics. "Thanks to preclearance, they can now offer their European target markets transit times similar to the pre-Brexit era." For EU member countries, seamless groupage logistics throughout Europe sounds like the most natural thing in the world. In 2023, the Dachser network alone transported more than 64 million shipments within Europe—without domestic market borders, which meant no customs clearance and none of the considerable administrative and regulatory expense that goes with it.

But this natural order was (in)famously upset on June 23, 2016. That was the day of the referendum in which 52 percent of Brits voted in favor of leaving the EU. This triggered a political earthquake that led to the resignation of then Prime Minister David Cameron and left many politicians at first completely stumped. On March 29, 2017, the UK invoked Article 50 and formally gave notice to the European Council in Brussels of its intention to withdraw from the EU. This started a two-year clock counting down to the end of March 2019, by which time the two sides planned to complete Brexit negotiations. There followed an unprecedented back-and-forth between the UK and the EU as regards the conditions, deadlines, and terms for Brexit. "Everything was suddenly completely up in the air, with no quick fixes anywhere in sight. The only thing we knew for sure was that the bedrock of free trade was about to undergo a fundamental shift. But no one knew exactly what this would mean for UK imports and exports," Cosgrove recalls. "The clock was ticking and the stress was palpable. Trading partners, freight forwarders, and customs officials needed solutions for which there was no blueprint."

Many sleepless nights

Several international companies that were able to began relocating their UK operations to the European mainland. "But this simply wasn't an option for many small and medium-sized enterprises. Instead, they had to find their own solutions for dealing with the new, complex, and at first entirely confusing consequences of Brexit," Rollinson says. "People at those companies endured many sleepless nights, as did I. We certainly didn't want to lose our connection to Dachser's European network as a result of customs hurdles."

December 20, 2019, brought some certainty: the UK House of Commons approved the Withdrawal Agreement Bill by a vote of 353 to 243. A little over four weeks later, on January 31, 2020, the UK left the EU at 11 p.m. local time (midnight CET) yet remained in the single market until the end of that year. "That at least gave the logistics industry a little more time to get a handle on the new situation and establish suitable conditions for the new system for transporting goods between the UK and the EU. Then the coronavirus pandemic happened, and the nightmare was complete," Rollinson says. "I could never have imagined such a scenario. It was like something out of a disaster movie, except it was really happening. We just had to make the best of it."

Looking back now, Rollinson and Cosgrove can still recall how crazy things were at the time. "All rules, processes, and procedures were being reexamined. That knocked out many of the UK's companies and medium-sized freight forwarders. But we had considerable expert, financial, and above all emotional support from Dachser, its shareholders, and the Head Office," Rollinson says.

Experts wanted

To prepare for life in the post-Brexit era, Dachser UK first had to build up expertise in the new conditions for imports and exports. "We needed customs experts, but there were essentially none out there to be had. So in 2021, we started working with the Dachser Head Office to train some ourselves," Rollinson says. In addition to getting to grips with the new customs requirements, the team had to train additional individuals in matters of compliance, operations, cash flow, and much more besides. The plan worked, and within a very short time, the team of customs experts grew from 16 to 150. "But then the challenge became providing all these people with somewhere to work, meaning office space and the necessary technical equipment. Another massive effort, but one that paid off," Rollinson says.

And that brings us back to Smart Border Connect. In response to Brexit, Dachser had already introduced a special portal for customs



Since we introduced Smart Border Connect, we've experienced a surge in demand from existing and new customers alike.

Mark Cosgrove, Regional Sales and Commercial Manager Dachser UK and Ireland





Many small and medium-sized enterprises needed a solution for dealing with the complex and confusing effects Brexit had on exports.

Mark Rollinson, Regional Managing Director Dachser UK and Ireland

documents and assisted its own customs hub in expanding shared service center structures for various countries. Building on this work, and incorporating many ideas generated by the Dachser UK think tank, the Smart Border Connect solution was developed over a period of 12 months and launched in February 2024. It provides a framework for Dachser to transport goods on behalf of UK customers mostly via the French smart border and on to the rest of Europe—quickly, reliably, and smoothly while also handling all matters relating to customs, taxes, and duties. What's more, transit times for regular groupage services are roughly what they were before Brexit. Exporters in the UK using this service can breathe a sigh of relief.

Preclearance to minimize transit time

All this is based on the use of the delivered duty paid (DDP) Incoterms. Since DDP makes the sender responsible for customs clearance duties and VAT, the customer no longer has to pay to receive the shipment. The goods can then be delivered in free circulation just like a domestic shipment and seamlessly integrated into Dachser's European network with its connections to all EU countries—with no increase in transit time or administrative effort.

"Since we introduced Smart Border Connect, we've experienced a surge in demand from existing and new customers alike. Many customers decided to adopt DDP Incoterms for their shipments in order to benefit from Dachser's transit times, which are the shortest on the market," Cosgrove says. "We really struck a chord here."

"Smart Border Connect is of interest not only to the UK," Rollinson adds, "but to third countries as well—for instance, to integrate additional non-EU countries like Switzerland and Norway. It's going to get really exciting when Dachser integrates its European Logistics and Air & Sea Logistics business fields even more closely with a view to offering a global door-to-door groupage solution. With Smart Border Connect in the toolbox, this knowledge has the potential to bring old and new growth markets around the world closer together and make them more efficient." Cosgrove adds, "It's definitely going to be another game changer." Is that an exaggeration? Perhaps—but if anyone knows, it's the people of the UK. M. Schick

Future lab

The future of the hydrogen truck

Hydrogen trucks are considered a promising alternative for emission-free road freight. But before they can be rolled out in large numbers, several technological and economic questions still need to be answered.

Hydrogen (H₂) can be used to power heavy commercial vehicles with practically zero emissions—in other words, without direct emissions of greenhouse gases (especially CO_2) and air pollutants (nitrogen oxides, soot, etc.). That's why hydrogen trucks are legally defined as zero-emission vehicles in the EU, which means they are given preference when it comes to things like truck tolls or bans on entering city centers.

Yet hydrogen trucks are still lagging behind battery-electric vehicles (BEVs) in terms of technology and implementation. BEV trucks are gradually becoming available as production vehicles for short-distance transport; as of 2025, there will also be long-distance BEV trucks with a range of up to 500 kilometers. In contrast, hydrogen vehicles are available only as prototypes or, in the best case, produced in very small batches. It's still unclear which hydrogen drive and which refueling method will prevail.

A basic distinction is made between hydrogen trucks with an internal combustion engine (HICEVs) and those with a hydrogen fuel-cell electric powertrain (FCEVs). HICEVs make use of existing combustion and diesel technology: hydrogen is injected into a piston engine and ignited, and the energy released is converted into motion and heat. This technology has its pros and cons. On the pro side, it's based on today's mature combustion technology. Right now this is an advantage, but with the increasing shift toward electric-vehicle platforms, it may ultimately prove to be a disadvantage, as OEMs will focus on a single platform in the long term. In addition, HICEVs emit minimal residual quantities of CO_2 and air pollutants. Of the major commercial vehicle manufacturers, MAN, Volvo, and DAF have announced their intention to press ahead with the development of hydrogen ICE technology.

Special focus: The fuel cell

When it comes to hydrogen technologies, most of the leading commercial vehicle manufacturers are turning instead to fuel cells. In a fuel cell, a catalytic reaction takes place that relieves hydrogen atoms of one electron. This generates electricity that is either consumed directly by the electric powertrain or stored in a backup battery. In combination with the oxygen drawn in, the reaction produces water vapor (H₂O) and heat as waste products. The FCEV truck is based on e-mobility platforms and the technology is more efficient than comparable hydrogen ICE drives. Daimler Trucks, Volvo, and Iveco in particular are working on FCEV concepts for truck tractors and already have prototypes on the road. However, genuine production vehicles with an associated service network won't be announced before the end of the decade. South Korean manufacturer Hyundai is currently producing a small batch of FCEV trucks featuring the XCIENT Fuel Cell, and Dachser has been using a Hyundai hydrogen vehicle and trailer in two-shift operation for over a year. With a range of over 400 kilometers, the vehicle usually commutes between its home base in Magdeburg (the state capital of Saxony-Anhalt) and Berlin without any problems.

Three systems in comparison

Fuel-cell technology itself is already quite mature in trucks; what's missing is a standard for storing hydrogen in the vehicle. Three systems are jockeying for position here: Storing gaseous hydrogen in gas cylinders pressurized to 350 bar is standard in city buses and, for example, in Hyundai trucks as well. The 350-bar technology is tried and tested, and the number of filling stations using this technology is correspondingly high. However, it has one major drawback: the compressed gas cylinders require quite a lot of space, so that with the given vehicle dimensions, achieving ranges of over 500 kilometers is virtually impossible without sacrificing cargo space. This means that at 350 bar, there's no direct range advantage over BEVs.

Manufacturers such as Daimler and Iveco are therefore looking to 700-bar technology. Stored in gas cylinders at a higher



pressure, the hydrogen enables ranges of around 750 kilometers without any loss of cargo space. The requisite network of 700-bar filling stations for trucks is to be built on the EU's core highway network by 2030 on the basis of the AFIR regulation.

Daimler is pursuing the most ambitious hydrogen storage technology. Hydrogen that has been liquefied under pressure at cold temperatures (LH₂) can be stored in special containers as a liquid. It's comparable to LNG technology, where natural gas is liquefied under similar conditions. The high energy density of LH₂ technology should allow truck ranges of over 1,000 kilometers. However, as the liquefaction process consumes so much energy, this hydrogen storage technology is currently still the furthest away from widespread availability.

Costs make the difference

Hydrogen technology is also still lagging behind BEV trucks in a direct cost comparison. Because they are not yet in volume production, FCEV trucks cost more than twice as much to purchase (capex) as comparable BEV trucks. As for operating costs (opex), the factors that are particularly relevant are the vehicles' energy consumption and the price of green hydrogen or electricity, including the costs of the refueling and recharging infrastructure. Price levels vary widely across Europe, however.

When operating times or ranges of well over 500 kilometers play a role in the calculation, hydrogen trucks could have an economic advantage over BEVs. If, for example, a lack of available fast chargers ties up valuable driver time for recharging BEVs, or if it's not possible to operate BEVs 20 hours a day, then the hydrogen truck could have the edge in terms of overall costs due to its short refueling time of around 15 minutes.

Providers of hydrogen trucks urgently need to clarify the refueling standards so that investments can be made in expanding the infrastructure and volume production can begin. This is the only way for the hydrogen truck to do its part in mitigating global warming. In Dachser's view, logistics needs all the zero-emission technologies that have been approved for road freight in the EU. The discussion of the merits of BEVs versus hydrogen vehicles can often be heated, but one thing holds true: it's not a question of "either/or," but rather of "both, please."

Andre Kranke, Head of Corporate Research & Development at Dachser The "Future lab" feature presents findings from the Corporate Research & Development division, which works in close collaboration with various departments and branches, as well as the DACHSER Enterprise Lab at Fraunhofer IML and other research and technology partners.

Opportunities in logistics

Lisa Ederer (left) passes on her expertise to others

The pioneer

The position of transit terminal trainer is still very new at Dachser, and Lisa Ederer is one of the pioneers. She makes sure the teams and processes in the transit terminal in Graz dovetail smoothly. This requires a high level of professional acumen as well as the human touch.

At first, she didn't really know what to expect. And how should she? Lisa Ederer, from the Dachser branch in Graz, Austria, was one of the first to apply for the completely new job of transit terminal trainer. In January 2023, she went to Dachser's Head Office in Kempten to take part in the very first three-day course to learn the basics of this newly created position: a "broker" of knowledge and expertise in the transit terminals. That was just one and a half years ago, yet the transit terminal trainers—there are now more than 50 across nine countries in the Dachser network—soon came to be considered indispensable.

"I deal with 16-year-old trainees as well as the older generation who are about to retire. I want to be a good point of contact for everyone," Lisa Ederer says. The 22-year-old's role in the transit terminal in Graz is a little bit like conducting an orchestra, at a time when the rate of change in logistics is accelerating. She is also responsible for the Dachser branch in Stans, in Tyrol, which she visits regularly.

People and know-how in demand

DACHSE

"My job is very exciting and full of variety. I impart a lot of specialist knowledge, but I'm also there to reach out to our colleagues and to listen to them when they have problems," Lisa Ederer says. In this job, the human touch is just as important as expertise and knowledge of new applications or processes. The tasks span a wide range: on-site onboarding for new transit terminal employees, identifying areas where training is needed, and organizing training sessions for logistics operatives. The transit terminal trainers also keep an eye on work processes, make practical suggestions for optimization where necessary, and support the rollout of new tools and technology. "The logistics operatives in our transit terminals are the cornerstone of almost every production-relevant process," explains Eva-Maria Marcour, Head of Competence Development & Expert Programs for Road Logistics. "That's why we make sure they're properly integrated into the team, provide them with specific training, and offer opportunities for further development. Such activities are essential to the success of our core groupage logistics business as well as to the steady growth of our company."

With this in mind, Lisa Ederer looks after 35 employees in Graz and 17 in the Stans branch. "Every two to three months, we hold workshops to discuss new developments and refresh important topics. For example, at what point we document damage with photos, how we should check that the cargo is secure, and how we need to secure goods and lift-trucks," she says.

Ongoing process optimization

Twice a year, Lisa Ederer also asks employees how they think the processes at their transit terminal can be further improved. "This gets a lot of good suggestions, especially when new tools are introduced." Amid all the technological modernization and further development, it's just as important to keep the company values in mind. "Dachser really is like a family. I would never have expected the team spirit at work to be so strong," she says. She also does a fair bit herself to bring this about, as her door is always open to all transit terminal employees.

Lisa Ederer has the full support of the Dachser network for this challenging task. Once a month, she takes part in a virtual classroom meeting, as do all transit terminal trainers at the family-owned company. There they learn about and discuss the most important innovations and information. They also have the opportunity to receive separate training on specific topics. "My colleagues and I have built up a really great TT trainer community in which we share our knowledge and training materials," Lisa Ederer says. "Learning with and from each other is fun and provides an extra dose of motivation."

Once a year, each transit terminal trainer is also invited to a training week. These take place at different Dachser locations in different countries, giving experts like Lisa Ederer the chance to get to know a range of process variations.

"The training courses have also helped me develop my own skills—for example, how to present myself well or speak persuasively," she says. She recalls one thing in particular from the personality workshops that were part of her initial three-day course: the "lotus blossom" principle. "We learned how to be like a lotus blossom and let stress and anger just roll right off. This has helped me a lot in finding the best way to respond to different types of people and in managing difficult situations when I need to." L. Becker Ideally, transit terminal trainers have completed training in warehouse logistics and gathered relevant professional experience in freight forwarding. They also need a thoroughly process-oriented mindset, experience in analyzing logistics processes, and good communication skills.





Cobot the coworker

At the Dachser branch in Dissen, people and machines work side by side. Flexible "cobots" assist employees and relieve them of repetitive and monotonous tasks. This cooperation is proving its worth.

A brief hissing sound is heard as the compressed air exits the suction cups. The gripper has a secure hold on the eight food packs and lifts them out of the crate. Next, the swivel arm rotates and gently places the parcels on a conveyor belt. "We have to make sure the pressure in the suction cups isn't too strong; otherwise they'll leave marks or, in the worst case, even damage the product packaging," says Daniele Andreano, Team Leader in Corporate Contract Logistics Technology Solutions at Dachser, about the challenge of using robots.

Here at the Dissen branch on the A33 highway in Germany's Teutoburg Forest, everything revolves around food. In addition

to handling goods for transport within the region, Germany, or Europe, the multiuser warehouse has almost 39,000 pallet spaces at its disposal. The branch also offers value-added services such as building displays, packing assortment boxes, and printing best-by dates. For the latter, the products of a Dissen warehouse customer have to be placed individually on the conveyor belt and their packaging stamped with the desired text. In this case, the product is a meat substitute made from plant-based proteins. The conveyor belt takes each item today, it's "Like Gyros"—past a printer, which enters the correct best-by date in the space provided.

Cobots pitch in

For this printing process, the products must be removed from the plastic crates in which they are delivered, have the text printed on them, then be placed in shipping cartons, and finally stacked on pallets. Previously, these activities were carried out by employees from the contract logistics team, but now they have the support of two coworkers called "cobots." The cobots are robotic arms that perform their tasks alongside people. "We see this as an important step in automation, but by no means one that replaces people," says Michael Mayer, who heads Corporate Contract Logistics Consulting at Dachser's Head Office in Kempten and is deeply involved with warehouse processes. Repetitive and physically monotonous tasks, such as removing products from the boxes and placing them on the conveyor belt, aren't exactly what makes a job attractive to employees. "Doing this for eight hours straight is simply very tedious," Mayer says.

Stop on contact

The process in the Dissen warehouse was perfectly suited for this automation project. Together with the local contract logistics colleagues and the site's safety officer, the Contract Logistics team at the Head Office in Kempten developed a concept for safely working with machines. "We knew that industrial robots were out of the guestion," Andreano says. Due to the risk of accidents during operation, such robots work in enclosed, protected areas. The cobots, on the other hand, react "sensitively" to the presence of people, much like the rear door on the back of a modern car: the gripper arms will stop moving. "To further increase safety, we work with light curtains. If a light beam is interrupted, the gripper arm slows down its movement or stops completely," Andreano explains.

In addition to ensuring the correct air pressure in the suction cups for the gripping process, the temperature must also be taken into account, as some food must be stored chilled. "The temperature in the food logistics hall is between two and seven degrees Celsius, which can cause condensation to form on the packs," says Andreano, describing one of the technical challenges. Liquid can be sucked in through the suction cups and then has to be drained via the plastic pipes. Within a week, the team had implemented the entire process and the associated contingencies with the two cobots. "Our employees can make changes to the system on-site using a tablet, and since that doesn't require any programming knowledge, they're not dependent on the help of a service provider," Andreano says. For the process to run smoothly, however, it's important

that packaging sizes, material, and weight remain unchanged. "Automation depends on standardization," Mayer says.

Automation enhances quality of work

But not every work step is easy to automate, a truth that is also evident in Dissen. After the best-by date has been applied, the products are placed in a shipping carton before the second cobot gripper arm positions the cartons on a pallet. "Placing the products in the shipping cartons is a complex challenge for the cobot," says Andreano. This task still requires human hands for now, but the in-house consultants already have it on their to-do list. Meanwhile, the cobots have been well received in the contract logistics warehouse in Dissen. For Timo Prielipp, General Manager of the Dissen logistics center, they have long been more than just welcome helpers in day-to-day logistics: "I think it's really exciting and cutting-edge to be involved in robotics. I believe it will help shape our future, and it's fun to be a part of that."

Everyone involved at all levels has already been able to gain plenty of valuable experience from the project, which is now being evaluated and developed further together with researchers from the DACHSER Enterprise Lab. Mayer's team also wants other branches to benefit from this on their automation path in the future: "Wherever it makes sense, we want to increase the quality of work with the support of machines and make life easier for our colleagues. In the end, this is beneficial for everyone in the process." **D. Kunde**

<complex-block>

This video shows how two collaborative robots, or "cobots," work in close proximity to people at Dachser in Dissen and how they are received by employees













A question of **style**

Individual and tailor-made, yet off the rack: this may be a challenge for fashion designers, but it doesn't need to be a contradiction in logistics. International fashion brand Digel is experiencing this firsthand with the DACHSER Fashion Logistics industry solution.

For many years now, trend cycles in fashion have been getting shorter and shorter. Customers who focus on quality might soon get what they're looking for even faster. In early 2024, the US National Retail Federation's fashion and retail trade fair in New York explored the influence of artificial intelligence (AI) on the fashion industry. Al could one day calculate what fashions will be popular in the coming weeks and set the necessary processes in motion straightaway.

High-quality fashion by modular design

Manufacturers of high-quality apparel have recognized the signs of the times and the potential on offer. One such manufacturer is Digel from the German town of Nagold, some 50 kilometers southwest of Stuttgart. Founded in 1939, today the international fashion company has more than 1,000 employees. Since its earliest days, Digel has been a complete outfitter producing high-quality menswear collections. Its focus is on a wide range of suits, jackets, shirts, and accessories for men. With a strong emphasis on fit, material quality, and design, Digel has carved out a solid niche in the international fashion world over the course of its 85-year history.

Digel CEO and managing director Jochen Digel, who's the third generation to run the family business, aims to have Digel keep scoring points with quality as the market leader for "modular suits." He's also expecting the recent strong growth in exports to neighboring European markets to continue. \rightarrow

The exclusive Roll&GOH container can transport both hanging and flat goods throughout Europe. Goods can be removed while still on hangers and remain crease-free. Further advantages include the high level of reusability, a noticeable increase in efficiency within the supply chain, and the option of transparent tracking. The logistics of high-quality fashion come with special and demanding requirements, in warehousing as well as in transportation. A properly tailored logistics solution must help ensure that the textile items arrive in the stores on time, crease-free, and as efficiently as possible. And that's precisely why Digel has been relying on the DACHSER Fashion Logistics industry solution since summer 2021. Jochen Digel sees this as a significant advantage for his international fashion brand: "Dachser's extensive and well-functioning network is highly impressive. It not only ensures speed, but also provides safety and security for deliveries."

"Logistics for the fashion industry is complex," explains Uwe Riechel, Department Head DACHSER Fashion Logistics. "For example, companies require that their products arrive free of wrinkles and creases, and they want the fastest possible collection of returns and faulty goods. In addition, the industry requires the rapid exchange of products between individual stores through shop-to-shop services."

Reaching stores creaseand wrinkle-free

According to Riechel, hanging shipments have been in decline in recent years, especially because consumers were demanding more casual and sporty fashion instead of luxury. Yet all signs now point to a renaissance in style and elegance and with it, the need for crease-free hanging shipments, especially for high-quality apparel.

A core element in the careful handling of high-quality fashion is Dachser's own Roll&GOH rolling container, which has been in use since 2019. "GOH" stands for "garment on hanger." In this container, hanging goods can be transported throughout Europe and brought directly from the truck to the clothing racks in the store.

The major advantage of the rolling containers is that they have the same dimensions as a standard euro pallet—an important detail for Riechel. "This enables us to handle the containers just as we would regular euro pallets," he explains. Roll&GOHs are ideally suited to Dachser's closeknit groupage network, he continues: "We don't have to set up a separate network to offer fashion logistics, but instead can leverage our large and established network."

Sustainability also plays a key role for fashion customers. "We're aiming for zero emissions in local transport as well," says Kerrin Bertram-Fahrholz, Business Development Manager at DACHSER Fashion Logistics. This will be made possible by the increased use of battery- and hydrogen-powered trucks and delivery vehicles, particularly for deliveries in city centers.

Digel designers are constantly thinking about the latest fashion trends—and Dachser is working on new models, too. "We saw that we needed to optimize the previous Roll&GOH system," Riechel says. The first version, developed in 2019, was







An extensive and well-functioning network not only ensures speed, but also provides safety and security for deliveries.

5

Jochen Digel, CEO and managing director of Digel AG

still a typical rolling container with side walls that needed to be slotted into a base. A high-quality hood provided protection from rain and dust, "but that was time-consuming to set up and dismantle," Riechel explains. Especially at the point of sale, meaning stores in shopping malls and outlets, there was a need to improve on the previous solution, as its many individual components made it tricky to handle.

A customized container

The new version of the containers is more elegant and practical. "They're easier to handle, more durable, and of higher quality," Riechel says. Now the rolling container is a completely closed unit made of metal, and its parts are firmly connected to each other. The boxes can be folded and unfolded in just a few intuitive steps. "This makes for easier handling and saves space when dealing with empties," he adds. A lock on the new container helps protect high-value goods from unauthorized access or soiling. Dachser has also developed a special model half the size of a pallet for smaller delivery quantities.

To make optimum use of the space in the container, cases and boxes containing textiles or shoes can also be stowed in the Roll&GOH on an intermediate shelf and on the floor of the container. Once in the store, the suits need only be taken out of the container; they can then be presented to customers immediately without any further preparation. "In addition to optimum handling and fast delivery times, the Roll&GOH system also improves the carbon footprint by using less packaging material," Bertram-Fahrholz says.

Digel has been working with the Roll&GOH system since 2021. A large proportion of the suits, shirts, and shoes that leave its warehouse in Nagold do so in this special transport carrier. In total, this comes to around 6,000 hanging garments per day. "Depending on the season, we handle 40 to 120 containers per month for our customer," says Daniel Kramp, Sales Executive at Dachser Rottenburg. Jochen Digel says, "Roll&GOH is popular with our customers because the goods are delivered quickly and in good quality. The rolling container offers a real alternative to previous options."

Digel sends out a total of some 1,200 parcels every day, and considerably more at peak times. A good 35,000 items are delivered to retail partners every week. Dachser transports a large proportion of these garments to Digel sales outlets throughout Europe via its Road Logistics network. Just as many items come into the warehouse from Digel's own state-of-the-art production facility in Izmir, Turkey, and from manufacturers throughout Europe. Jochen Digel sees good prospects for both sides in the collaboration: "We'll continue to strengthen the partnership between Dachser and Digel, and we're constantly examining further possible applications for the Roll&GOH." Network expertise



Food Logistics: A plus **for Europe**

Dachser is acquiring Brummer Logistik GmbH in Germany and Brummer Logistic Solutions GmbH & Co KG in Austria. This move strengthens Dachser's network for the transport and storage of food in Europe.

The acquisition of the Brummer Group comprises the entire operational business relating to the transportation of temperature-controlled food between Germany, Austria, and neighboring countries.

In 2023, the companies owned by the Brummer family generated revenue of around EUR 128 million, putting them among the leading food logistics providers in Central Europe. Brummer was one of the founding partners of the European Food Network in 2013, which spans 34 European countries under Dachser's system leadership. This network offers manufacturers, suppliers, and retailers in the food market access to unparalleled network coverage for groupage transports within Europe. "In Brummer, we're acquiring a company that has an excellent reputation as a quality leader. Moreover, we're delighted to be expanding our own food logistics network in Central Europe. Along with our recent acquisitions of Müller Fresh Food Logistics in the Netherlands and Frigoscandia in northern Europe, this reinforces our position as one of the leading food logistics companies in Europe," says Burkhard Eling, Dachser CEO. After completion of the purchase, Brummer will be gradually integrated into the Dachser Food Logistics network.



More logistics space

Dachser is expanding its logistics space in the greater Leipzig-Halle area with a new warehouse. The new facility features around 25,000 pallet spaces and is scheduled to go into operation at the beginning of 2025. Dachser will store industrial and consumer goods as well as food for its customers on a total area of 17,200 m² in the vicinity of the Leipzig/Halle logistics center. Contract logistics is also growing in France: Dachser recently put two new facilities into operation in Roissy (greater Paris area) and Nîmes in the Occitania region of southern France. In total, warehouse space in France has expanded by around 100,000 m² over the past three years.

Tested IT security

Dachser has obtained TISAX[®] Level 2 certification. This internationally recognized standard for information security and data protection in the automotive industry is becoming increasingly important in protecting automotive supply chains against cyberattacks. "Success in the TISAX assessment is yet further confirmation that Dachser provides a high level of information security," explains Stefan Hohm, Chief Development Officer at Dachser, who has direct responsibility for IT security. The assessment included certification of Dachser's Corporate IT, which manages IT services for all branches and country organizations worldwide from the Head Office in Kempten, Germany. "This is an important step in the further digitalization of the information flow along our customers' supply chains," says Stefan Dahnken, Department Head of DACHSER Automotive Logistics.





A retired mastermind

Prof. Michael ten Hompel, Managing Director of Fraunhofer IML and co-founder of the DACHSER Enterprise Lab, has retired. A recipient of multiple awards throughout his career, the electrical engineer has been one of the key pacesetters in the logistics sector over the past decades. Together with the DACHSER Enterprise Lab team, Prof. ten Hompel recently received the German Logistics Award for @ILO, the digital twin of a transit terminal. He was succeeded as Managing Director of Fraunhofer IML on April 1, 2024, by Prof. Alice Kirchheim.

Expansion of the e-truck fleet

Dachser is gradually expanding its fleet of e-trucks. In Würzburg, an all-electric Volvo FH Electric has gone into service for the food company Danone, which operates a plant in the German town of Ochsenfurt. The zero-emission vehicle commutes four times a day between the Danone site in Ochsenfurt and the Dachser warehouse in Kürnach. In Bremen, a 16-ton battery-electric vehicle from Renault Trucks was put into regular operation. It now transports goods in and around Bremen with zero local emissions. Dachser is also pressing ahead with the electrification of its transport operations at the Dortmund branch, where three new battery-electric trucks have been in regular operation since the beginning of March. A 19-ton Mercedes-Benz eActros handles distribution in and around Dortmund, and two 42-ton Volvo swap-body vehicles are used during the day for customers in the region and at night for long-distance transport.



Sustainable Start-up

THE PARTY

Realising the values in reusable materials

Five years ago, a youth exchange program between Germany and Zambia led to the idea for an exciting start-up in Southern Africa: Trash4Cash—a local value chain for recyclable refuse. Its young operators recently made another visit to the Dachser Head Office, bringing with them a wealth of new experiences and even more entrepreneurial spirit.

For many years now, Dachser has been working with the children's aid organization terre des hommes and local project sponsors to offer a brighter future to young people in Southern Africa, including in Zambia. Their efforts also address the question of how entrepreneurial activities can offer young people a chance to earn a living with a view to building a career.

In 2018, Dachser and terre des hommes launched an exchange program that generated some fresh ideas for how this might work. The program gave young people from Germany and Zambia the chance to expand their horizons by getting to know each others' worlds. First, a group of Dachser trainees and students visited a social project run by local terre des hommes partner "Environment Africa" in Livingstone, southern Zambia, near the world-famous Victoria Falls. Later on, a group of young people from Zambia came to Germany. This visit provided them with numerous opportunities to learn more about living and working in Germany: they became familiar with many aspects of the local culture and natural environment-as well as public transport, digitalization, and trash processing.

The guests were particularly fascinated by visits to a local waste management company and a recycling center. Up to that point, trash processing and recycling had played no part in their day-to-day lives. However, they immediately recognized the necessity of recycling and raw material cycles, as well as the opportunities these offer. Trash is a major problem where these young people live. Most of it is simply dumped in the surrounding area, making it an environmental issue. Livingstone and its approximately 180,000 inhabitants alone generate no less than 90 metric tons of trash every day. Over half of this is either burned by households or simply ends up in landfills. In addition to posing

a danger to people's health and the environment, this is a problem for tourism, which is a major source of employment in Livingstone.

After visiting Germany and exchanging ideas with the Dachser trainees and employees, the Zambia team returned home with an entrepreneurial idea and a positive vision for their future. The result: the foundation of the Trash4Cash start-up, which these young people own and operate.

A company takes off

Within a short time—and with active support from Dachser, terre des hommes, and Environment Africa—the young Zambian entrepreneurs have successfully established a local value chain for recyclable trash. This covers everything from trash collection, transport, and sorting to further processing of the reusable materials. In addition to being good for the environment, the endeavor provides everyone involved with a regular income and opens up opportunities for advancement.

However, the young entrepreneurs first had to convince their families, friends, and neighbors that what they were doing made sense, and encourage them to change their habits. By providing an incentive in the form of a little money for everyone who collects trash, the group motivated more and more people to start collecting raising environmental awareness in the process. Dachser and terre des hommes have been an active part of this development from day one, essentially helping the founders of the start-up to help themselves.

"Recently, we were able to join Livingstone's mayor to celebrate the opening of a new recycling center, which is currently run by a team of 160 people and collects just under 20 percent of the city's recyclable plastic, textile, and paper refuse," says Bernhard Simon, Chairman of the Dachser Supervisory Board. Simon has been a driving force behind the projects Dachser and terre des hommes collaborate on since 2005, making regular visits to project sites to see for himself how work is progressing.

In May 2024, five years after Trash4Cash was founded, eleven young entrepreneurs from Zambia—including six "pioneers" from the original exchange—traveled to Kempten accompanied by a representative from Environment Africa and another from the Livingstone city government. At the Dachser Head Office, the group were greeted by Bernhard Simon and Joshua Hofert, Executive Board Member Communications at terre des hommes Germany. "You've managed to go from participants in a social project to successful → Dachser has been working with terre des hommes on development projects in Southern Africa. South Asia, and Latin America for almost two decades now. In addition. Dachser funds and supports other projects, including current efforts in Ukraine to provide psychotherapy support for children and their families who have been traumatized by war. At the end of 2023, a long-term collaboration was established between Dachser, terre des hommes, and climate protection organization myclimate to launch new climate action projects around the world and expand existing ones.

entrepreneurs who are generating an income for yourselves and your network of local trash collectors," Simon said to the guests. "We're immensely proud to be associated with you and plan to continue supporting the development of Trash4Cash."

Enthusiastic engagement

What most interested the Trash4Cash group on their return visit to Germany were the numerous ways of reusing recyclable refuse, the related value chains, and how sustainable waste management affects nature and the environment. On a visit to Kempten's ZAK waste management association, the Zambian contingent gained practical insights into modern refuse processing and even had a go themselves at the nearby recycling center in Sonthofen.

They also attended workshops on trash separation and the circular economy, visited local schools and media organizations, and toured a biogas plant operated by one of Allgäu's major waste management companies. Another highlight for the young entrepreneurs was a visit to IFAT 2024 in Munich, the world's leading trade fair for water, sewage, waste, and raw materials management. Trash4Cash itself is already attracting some international attention. "Even the German Embassy has now heard of the project. In the future, we want to collaborate with the German Federal Ministry for Economic Cooperation and Development," Simon says.

For Dachser, Trash4Cash is now something of a showcase project. "I'm incredibly proud of the six start-up founders," Simon said at the meeting in Kempten. "They belong to a grand tradition of entrepreneurial spirit; the same spirit that motivated my grandfather Thomas Dachser to found his own transportation company during the global financial crisis of 1930." The watchword back then was the same as it is now: selfemployment. There are many reasons, he continued, that made it worthwhile for these young people from Livingstone to start their own enterprise: they're generating their own income, creating jobs, and helping all others who collect and sort trash in these neighborhoods to earn a little extra money. This has already provided starting capital to launch other entrepreneurial initiatives. Moreover, the project has improved the local environmental and hygiene situation. Simon says this is indicative of the kind of corporate responsibility that Dachser also upholds: commitment to the company's prosperity, to its people, and to creating a bright future. M. Schick



FERCAM

Reuse adds value

ERCAN

FERC

Every good idea has a future: FERCAM and Dachser & Fercam Italia plan to continue running Echo Labs together. Designed as a "social innovation laboratory," since the end of 2021 the nonprofit has been dedicated to the circular economy and the upcycling of packaging material from day-to-day logistics. Echo Labs by Fercam & Dachser, as the organization is now known, uses discarded disposable wooden pallets or packing crates to build beehives, insect hotels, wooden furniture for indoor and outdoor use, planters, or decorative items—and they do this together with schools, social institutions, and vocational integration facilities for asylum seekers. seekers. This commitment to the integration of refugees was recently recognized by the UN Refugee Agency UNHCR.



Partnership built on trust and driven by fairness.

DACHSER Service Partner Initiative

Fostering long-term relationships with our service partners is the main goal of the DACHSER Service Partner Initiative.

Together, we unite in facing challenges in the transport and driver market by cooperating at eye level. Our commitment extends to ensuring an integrated supply chain to uphold high quality standards for all customers despite the industry's volatility.

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