

DACHSER magazine

The world of intelligent logistics ■

Megatrends in logistics

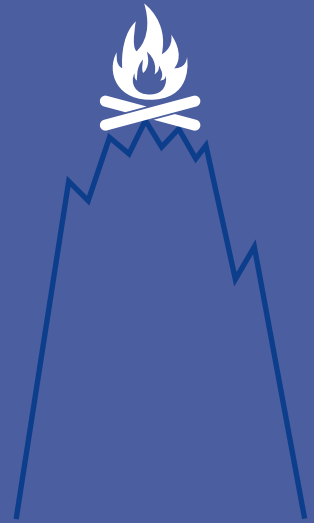
Five **milestones**
on the path to the **future**



“Air lines”

Moving messages and goods from point to point via the air has always inspired humankind. What was once an adventure is now taken for granted.

550 km was the distance of the chain communicating news about the fall of Troy. In his drama “Agamemnon,” the Greek poet Aeschylus told of stacks of wood placed on the highest mountains for this purpose and ignited one after the other following a victory. This meant the news of the triumph over the Trojans reached Greece within one night. That’s what “real-time communication” meant back then.



5,000 BCE is when, according to the latest findings, the first carrier pigeons were used to send short messages, initially in Egypt. “Pigeon Twitter” was popular throughout antiquity. The Greeks and Romans also repeatedly relied on the feathered message service to announce coronations and victories.

90 kg of colored silk in neat bundles were transported by the Wright Brothers in their airplane on November 7, 1910, from the US town of Dayton, Ohio to Columbus—a distance of 105 kilometers. It was the world’s first cargo flight, and was also a promotional race with an express train on the ground. The aviation pioneers won the competition hands down. The triumphant advance of air freight had begun.



16.5 hours is how long British aviation pioneers John Alcock and Arthur Whitten Brown needed to fly nonstop from Newfoundland to Ireland in an open-cockpit airplane and wearing electrically heated suits. They accomplished the transatlantic flight in June 1919, with a mailbag containing 197 letters. And yet by the time Charles Lindbergh flew from Paris to New York in 1927, Alcock and Brown had already vanished from the public eye; the American is the one history remembers.

11,700 short tons

of critical supplies were flown by the famous “candy bombers” into blockaded West Berlin within a 24-hour period from April 15 to 16, 1949. A total of 1,398 flights flew in the so-called “Easter Parade,” deflating Soviet hopes of eventually pressuring the city’s Western occupation zones through land and waterway closures. By the time the blockade ended in May 1949, more than two million metric tons of goods had been flown into West Berlin via the Berlin Airlift.



Message from the CEO



Dear readers,

Welcome to the first issue of the DACHSER magazine in 2022. You'll notice right away that we've given it a fresh new look and optimized its readability in line with our brand presence, which we've updated over the past few months.

We're still featuring content that's as varied and high-quality as ever, and we're thrilled to provide you with yet another issue packed with fascinating insights into the world of Dachser and intelligent logistics. The fact is, demand for intelligent solutions is higher than ever. As the pace of life keeps accelerating, we're making Dachser, and thus our customers' global supply chains, fit for the future. Read the cover story to discover how we're doing this by building on the latest technologies, digitalization, and connectivity, while never losing sight of the human aspect: our employees.

After all, they're the ones who can be counted on to maintain a high level of quality and implement new, flexible solutions time and time again—even under exceptional and challenging circumstances. Authentically living the Dachser values provides the essential foundation for this, especially in times of unrest and upheaval.

Kind regards,

A handwritten signature in blue ink, which appears to read 'B. Eling'. The signature is fluid and stylized, with a long horizontal stroke at the end.

Burkhard Eling, Dachser CEO



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Move the world. Move your future.

What's it really like to do an apprenticeship in logistics? Apprentices and work-study students from different branches present Dachser's special Move trainee and dual-study program in a unique video.

<https://bit.ly/Dachser-training-dual-study-program>



Charter program expanded

Dachser Air & Sea Logistics is ensuring reliable air freight capacity between Asia and Europe. From January 2022 until March 2024, the logistics provider will be operating a Boeing 747-400F at fixed times on the Hong Kong–Liège route.

<https://bit.ly/Dachser-charter-activities-long-term>



Hong Kong contract logistics

Dachser Air & Sea Logistics has moved into a new contract logistics warehouse in northern Hong Kong. With over 500 pallet spaces on the ground and 14,000 in racks, the facility stores electronic components, mechanical parts, and lighting products.

<https://bit.ly/Dachser-contract-logistics-Hong-Kong>



Leadership change in Poland

Michał Simkowski took over as Managing Director European Logistics at Dachser Poland at the beginning of the year. He succeeds Grzegorz Lichocik, who had led the company since 2007.

<https://bit.ly/Dachser-Michal-Simkowski-Poland>



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Megatrends in logistics





Logistics means
always having a plan

What kind of future should logistics providers be preparing themselves for? What trends and developments will shape and reshape the sector tomorrow? And what is Dachser's take on all this? Here are five milestones on the way to the logistics market of the future.

1. Nothing is more constant than change

"Avalanches in slow motion": this is how Germany's Zukunftsinstitut (future institute) describes the megatrends of our time. "Although they gain momentum slowly, they are also incredibly powerful. Since they affect every level of society, they influence companies, institutions, and individuals." In our increasingly digital and dynamic world, we must contend with volatile, uncertain, complex, and ambiguous conditions, and use these to derive mindsets and actions for shaping the future. This is hardly a brand-new insight. Economists Warren Bennis and Burt Nanus were already describing this VUCA world (volatility, uncertainty, complexity, and ambiguity) back in the mid-1980s. Today, their analysis is more relevant than ever. As drivers of change, megatrends are multilayered; they influence and reinforce each other. They range from neo-ecology, demographic change, and globalization to connectivity, new work, urbanization, and mobility—with all the inherent volatility, uncertainty, complexity, and ambiguity. Welcome to the VUCA world.

It is within this framework that logistics can and must evolve. It's about new business models, data analysis, and artificial intelligence. It's about new ways of working, human-machine collaboration, smart mobility, and smart cities. It's about glocalization—a fusion of globalization with local and regional considerations—and, last but not least, climate protection and new forms of sustainable closed-loop economies.

These have led to changes in global supply chains, which the pandemic has further accelerated. Customer expectations are also shifting accordingly. This is joined by the lack of drivers and other qualified personnel, the rapid advances in digitalization, as well as climate change and the profound effect it is having on our lives, jobs, and mobility.

It's not a case of snapshots—moments in time that warrant a simple wait-and-see approach. Instead, it's clear that →

Doing justice to customers' dynamically changing business structures calls for adjustments to warehouse capacity and the development of new consulting and contract logistics solutions. And for safe, secure processes that tie these elements together with permanent transparency, Dachser can rely on its crisis-hardened, resilient European network.

the changes to supply chains are here to stay. For logistics providers, the challenge lies in the stability of production networks, which is essential for fully connected economies based on the division of labor. The current shortage of computer chips and semiconductors, as well as of various building materials, underlines the growing dependencies within supply chains that urgently need to be addressed.

Ideally, this will go beyond mere reactions and instead lead directly to better offers that bring all involved forward. This entails being quick to recognize changes within a volatile and complex environment and then act in an agile manner. In this way, challenges mature into opportunities.

As a continuously evolving, learning organization, Dachser relies on stability and dynamics in equal measure. Stability through an integrated network that is based on standardizing and harmonizing processes, and that ensures constantly proactive quality management along the entire transport chain. Dynamics through a high level of flexibility in dealing with specific customer requirements and through considerable innovative strength.

2. Meeting customer expectations

In fully connected economies based on the division of labor, new business models and sales channels are the primary drivers of changes in the supply chain. They are also the result of dynamically developing customer expectations. Fully analyzing and understanding these expectations is a prerequisite for developing satisfactory solution strategies in logistics. The pandemic suddenly shifted the focus to the importance of having a seamless supply infrastructure. That supply chains are under stress underlines the role of logistics as an "essential service," a factor crucial to success. Previously often relegated to a secondary function and regarded as "merely" a cost factor, logistics has long since earned its place on the executive board agenda. This is increasingly accompanied by a reevaluation of the logistics provider-customer relationship, with business partners meeting as equals. Naturally, the trust that emerges also leads to integrated, end-to-end solutions from a single source and adds a new, forward-thinking dimension to the relationship.

End-to-end solutions work only when paired with close-knit, integrated networks. This is why Dachser continues to invest in optimizing and expanding its overland transport network, while also sustainably strengthening its air and sea freight services. The result: globally integrated logistics services that—especially against a backdrop of increasingly complex supply chains—are in greater demand than ever.

At Dachser, efficient network management and intelligent supply chain management also involve capacity demand forecasts that are as accurate as possible. Artificial intelligence and big data analysis provide the necessary conditions. To ensure the required capacity, Dachser maintains a close and trusting working relationship with its transport partners. They are and will always be instrumental in ensuring that consignments get where they're going.

3. Using digitalization to unlock new potential

Alongside a stable, physical network, the importance of digitalization in the transformation of logistics is growing—a fact that Dachser was very quick to recognize. Already in the 1980s, Dachser was one of the first in the sector to start



Prepared for the future:
Giving sustainability
the right of way



People make a difference

establishing new digital channels for the data flows that accompany the flows of goods. This spawned a host of innovations and an entirely new understanding of networks and how to manage them.

Today, Dachser offers integrated digital concepts that are designed to keep raising the bar for quality and productivity—either by automating processes, or by enhancing usability and transparency for customers and employees.

It's now clear that big data will make logistics work easier, more efficient, and less prone to disruption along the entire supply chain. And there is still a great deal of potential to be unlocked. Dachser believes that the main advantages of digital technologies are that they can support people in the decision-making process and relieve them of routine tasks. That increases their motivation and frees them up for more demanding work.

Here are just a few examples: Dachser uses machine learning applications to process data from day-to-day operations to better forecast inbound volumes. This can be done up to 25 weeks in advance and is a valuable aid to decision-making when it comes to seasonal capacity and resource planning.

A company that can master the combination of data flows and physical goods flows can create better services and enjoy a more dynamic evolution. The pace of digitalization at Dachser is currently picking up again considerably, both in operations and administration. The main goal is to adopt a digital mindset throughout the organization in order to satisfy new or changing customer requirements, improve cost structures, and raise process quality.

4. People are the key

Many of the questions we face today have digital answers, but not all. In logistics, people are and always will be indispensable. This is why Dachser envisions a cyber-socio-physical system, in which data flows and physical goods flows merge and are translated into tailored fulfillment by people. This makes the worsening shortage of qualified personnel and drivers that our sector is facing all the more serious a problem.

Specialized training of drivers represents a considerable investment for transportation companies. In light of this, →



Sustainability
isn't free

Dachser seized the initiative years ago and established Dachser Service und Ausbildungs GmbH to train professional truck drivers itself. Even in 2021, in Germany 90 people began their training there.

But given the high demand, reversing this trend in the driver market hinges on the entire sector pulling together. Considering the costs involved, including in enhancing compensation structures, this effort must filter down into a higher appreciation for drivers and what they do. At the same time, this is a call to action for companies to position themselves even more clearly as attractive employers to potential applicants—for example, by offering flexible working models and redesigned work environments.

“Logistics is people business”—this is the motto under which Dachser, faced with a competitive labor market, is tackling the challenges associated with keeping employees enthusiastic about their work and attracting new people. This calls for new ways of thinking as well as new forms of collaboration and leadership. It’s never been clearer that both today and in the future, people must be at the heart of how a company thinks and acts.

5. Sustainability will triumph—but only as a result of joint effort

Active climate protection is part of Dachser’s inclusive responsibility. The family-owned company wants to use efficient logistics and technical innovation to actively shape the shift to low- and zero-emissions technologies.

This is in line with the rise in expectations that policymakers, customers, and also Dachser’s own employees have of logistics providers in terms of consistent, sustainable action. Customers that have formulated their own climate protection goals are particularly clear about what they expect logistics to deliver. The transition toward climate-friendly logistics will inevitably lead to an increase in transport costs. Sustainability isn’t free. At a certain point, it becomes a question of how much end customers are willing to pay for a green product.

One thing is for sure: effective climate protection will not be achieved by going it alone. What is required is a joint effort based on a common understanding and a shared commitment to higher goals. Dachser’s climate protection strategy rests on three pillars: efficiency, innovation,

and inclusive responsibility. In other words, it’s about efficient logistics processes, energy savings, and technological innovations that help reduce greenhouse gas emissions in line with the targets set by the Paris Agreement as well as the climate protection targets of the European Union and many other countries.

Dachser has made its Climate Protection innovation project a management issue, with the Executive Board declaring it a strategic initiative. The focus is on concrete action. By the end of 2022, Dachser will roll out emission-free deliveries to the city centers of at least eleven European metropolitan regions and invest in the necessary vehicles. Since January 2022, Dachser has been purchasing only electricity generated from renewable resources. In addition, part of the initial phase involves installing and expanding photovoltaic systems on the roofs of Dachser’s European logistics facilities and office buildings. By 2025, its present capacity will more than quadruple, to over 20,000 kWp of installed capacity. While Dachser is also addressing process efficiency and energy efficiency, the largest lever remains maximizing truck capacity. And there is still room for further optimization.

To this end, the company works together with customers and partners who are also keen to actively shape how logistics moves to adopt low- and zero-emission technologies. Employees, too, are closely involved in climate protection activities, with a commitment to society and social issues that goes beyond Dachser’s own direct business interests—for example, the company’s collaboration with the children’s aid organization terre des hommes, which has been going since 2005.

Conclusion

Logistics will face some major and complex challenges as the future unfolds. It’s our job as logistics providers to understand the many concurrent processes in their full complexity, to consider every angle when we’re developing solutions, and thus to play an active role in shaping the upcoming changes and megatrends. The opportunities this creates should vastly outweigh the risks and justify disrupting the status quo. The French scientist Louis Pasteur (1822–1895) was far ahead of his time in thinking about the VUCA world, once making the rather apt observation that “chance favors only the prepared mind.”

M. Schick

Dachser is prepared for both stability and dynamics over the long term. Having a network of teams in a culture that puts people at the heart of things promotes fast learning and decision-making cycles. This network is guided by a strong common purpose and the Dachser values. As a result, the logistics provider can immediately perceive any changes in its environment and turn them to its competitive advantage.

People & markets

Divine automation

St. Augustine is believed to have said that “Those who sing pray twice.” Given the shortage of organists available for church services, this counts all the more. But Klaus Holzapfel, an engineer from Ziertheim-Reistingen in southern Germany, found that in this tricky situation, automation is not the “devil’s handiwork.” His answer to the increasing lack of players capable of manually operating pedals, stops, and pipes is an “automated” organist that he has dubbed “Organola.” Remote-controlled from, say, the altar, this electro-mechanical aid presses the organ keys to produce precisely the right notes at the desired tempo. Music to everyone’s ears!



Flies are more efficient than our flying machines



For a long time, it was presumed that the way insects generate lift was similar to the aerodynamics of airplane wings. But recent studies on fruit fly locomotion carried out by the University of Rostock have revealed a very different physical principle at work. With the help of lasers and high-speed cameras, the university’s Department of Animal Physiology was able to show that fruit flies recover energy from air vortices—which are formed when these insects beat their wings—present in the surrounding air. This means their muscles don’t have to work as hard during flight. Applications for these insights include the development of microrobots capable of performing tasks that larger aerial devices cannot, such as exploring burning buildings.

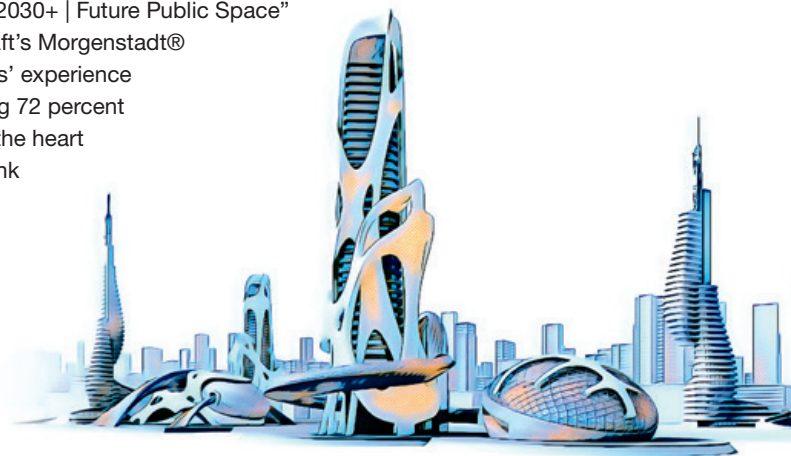


The smartphone dilemma

Smartphones are the gateway to the digital world—and a distraction. This view is supported by an experiment carried out at Technische Universität Braunschweig in Germany. Test subjects were asked to solve a problem that required them to concentrate. One group had their phones next to them on the table, a second placed their phones in a drawer or in their bag, and a third left theirs in the next room. Those who had their phones within their field of vision performed worst. Apparently, the mere presence of a smartphone—even if the display was hidden or if the phone itself was on silent or switched off—was enough to consume mental resources. The researchers' recommendation for preserving concentration: "Make a point of keeping your smartphone tucked away until you want to switch to the digital world."

Cities go elastic

What will the livable city centers of tomorrow look like? This question is addressed in the empirical study "#ELASTICITY," conducted by the "Innenstadt 2030+ | Future Public Space" innovation partnership that is part of the Fraunhofer-Gesellschaft's Morgenstadt® (city of the future) initiative. According to the study, city dwellers' experience of the pandemic, climate change, and digitalization is prompting 72 percent of them to advocate for steady change to their city centers. At the heart of this transformation, they envision multifunctional hubs that link social interaction, trade, communication, political participation, public debate, transportation, and leisure activities. The study's authors recommend dovetailing innovation concepts that take an integrated approach to housing, trade, mobility, logistics, and urban planning and that demonstrate a high degree of flexibility and variety.



Record attempt on Lake Geneva



Three Swiss students from Ecole polytechnique fédérale de Lausanne (EPFL) want to break the speed record for sailing. The current record was set in 2012 by Australian Paul Larsen, who achieved a speed of 121 kph (65.45 knots) off the coast of Namibia. In their attempt on Lake Geneva, the young EPFL designer engineers are aiming to reach 150 kph (80 knots) as part of their SP80 project. What they hope will be the world's fastest sailboat is a trimaran featuring a main hull and two smaller outriggers. Instead of being propelled with the help of a sail, it will be pulled by a kite. "We want our boat to crack the code of sailing," says SP80 project manager Mayeul van den Broek. "And we want to push the envelope for using wind as the sole energy source for future applications." It's not all about the sport, either: speed sailing also offers vast potential for transport via water.

Panorama

More than a thousand words

People have a proven powerful response to visual stimuli. No wonder that our ancestors put a lot of energy into preserving pictures for posterity.

Think of the cryptic smile of the Mona Lisa, the photo of Albert Einstein sticking his tongue out, the iconic graphic of Cuban revolutionary Che Guevara. Chances are that reading each of these descriptions conjured up the corresponding visual in your mind's eye. After all, these images are branded into the collective consciousness of generations. The astonishing thing is that you probably can't recall any precise backstory relating to them. You may well have read or heard something once, but forgotten it fairly quickly.

It's an unfair race between types of media. Well-written texts can paint a picture for our imagination, and if we apply ourselves we can



memorize even lengthy poems or religious passages. But photos, drawings, and three-dimensional figures have a much easier path into our memory. Some studies have shown that on average, we're five to six times better at committing images to memory than the written word. We also perceive images 60,000 times faster. That's because some 60 percent of the cerebral cortex is concerned with perceiving and interpreting visual stimuli.

Painting for posterity

As far back as the Stone Age, our fascination with pictures was so great that people were willing to devote scarce resources to creating them. Archaeologists have dated a cave painting of a warthog in Indonesia to at least 45,500 years ago. Opinion is divided as to whether early painting had a practical function. What we can be sure of is that over the millennia, our ancestors invested a great deal of energy in perfecting visual representations and capturing them in many different media. Take the ancient Egyptians, who became masters at producing reliefs, building ornate temples, and carving vast stone statues.

Artistic fervor slowed down in some later periods of history, but even in the Dark Ages, images endured. For instance, noble families developed elaborate coats of arms—status symbols that showed alliances and provided an easy way of telling friend from foe. In Europe at this time, the primary patron of the visual arts was the church, which knew full well that it could make an impression on the public through magnificent houses of worship and works of art. The emancipation of merchants in the Italian city-states created a new market for art: anyone with enough spare cash could have themselves immortalized on canvas.

Photographic revolution

Visual representation reached a whole new level in the 19th century with the invention of photography and moving images. Cameras made it possible to capture even fleeting moments. Even more impressive than photography's being enormously quicker than painting, the technology itself promised—at least at first—a faithful representation of reality. Although Photoshop wouldn't

arrive for a good while yet, even some early photographs were manipulated or staged. "And since a picture is worth more than a hundred thousand words, every propagandist appreciates the effect of the socially charged image: pictures make an impact in everything from adverts to political posters," warned the German author Kurt Tucholsky.

But this hasn't dented the popularity of photos and videos. Aided by digital photography, smartphones, and the internet, images dominate the media today more than ever before. At the moment, this flood of pictures is concentrated in social media. Every minute, 500 hours of video content is uploaded to YouTube alone, and the number of images ever posted on Instagram is estimated to exceed 50 billion.

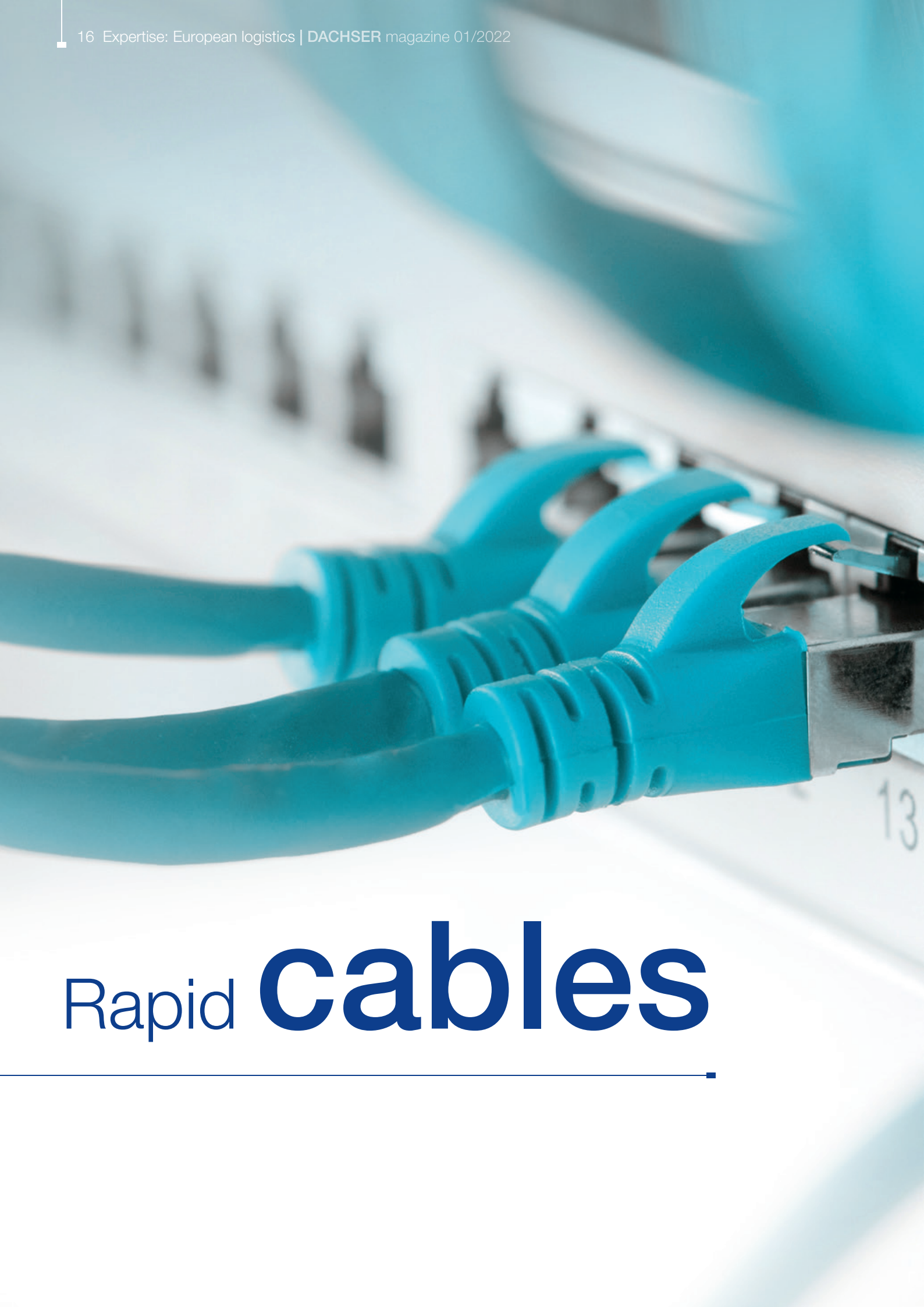
Immerse yourself in the Metaverse

According to the tech companies, in the future we'll be spending much more time in the image world, but in three dimensions. Meta, the parent company of Facebook and Instagram, is planning a Metaverse for virtual reality (VR). Users will be able to don a VR headset and immerse themselves in this Metaverse, where their avatars can do things like meet friends' avatars in a virtual café. Meta's competitor Apple could supply the necessary hardware. The iPhone manufacturer is currently working on a new VR headset that is less bulky and easier to operate than previous models.


However, applications of these technologies are not limited to the entertainment industry. They are also beginning to shape the world of work, including logistics. Pickers are already using VR headsets that display information relating to shipment configuration within the wearer's field of vision. VR is also used to help plan factories and logistics centers; within the 3D environment, planners can optimize floor plans and workstation ergonomics before construction even begins. Then there's the use of VR as a training device. Virtual environments are already helping future specialists learn how to operate machinery, pilot aircraft, or perform surgical operations. If they make a mistake, there are no serious consequences, and the experience of working on a digital twin is considerably more memorable than any lecture.

S. Ermisch

The first ever photograph is credited to French inventor Joseph Nicéphore Niépce. In 1826, he used a camera obscura and a sheet of bitumen-coated pewter to photograph the view from the study of his home in the town of Saint-Loup-de-Varennnes. There's not much to see—in the case of this historic moment, the significance is very much in the eye of the beholder.



Rapid **cables**



High-performance
cables turn worlds
of data into networks

With its specialization in data network technology and IT infrastructure, the Assmann Group has been benefiting from current demand for fast digital connections. But Dachser's relationship with the company from Lüdenscheid in western Germany goes way back. For the past 23 years, Dachser has supported Assmann on its road to success in Germany and Europe.

The truck reaches the Ruhr University Bochum campus at 2 p.m., precisely within the fixed time slot. As one vehicle arrives on the spacious grounds, another departs. The timing has to be precise, as construction is going on at many sites. One of these is the renovation of a building complex. "We're upgrading the IT infrastructure here with new cabinets, cables, patch cables, connectors, and wall boxes," says Phil Penninger, Managing Director Operations at the Assmann Group, which is headquartered in the city of Lüdenscheid in western Germany. Ruhr University Bochum is just one of many building sites that the company is supplying with materials. →



High-performance cables for high-performance computers

Three to four times a day, the Dachser branch in Dortmund collects goods from the nearby Assmann warehouse. “We’re talking about 120 to 150 pallets loaded with IT infrastructure and data technology products,” says Corc Bahcecioglu, Sales Manager of the Dachser Dortmund branch. Most consignments go to intermediaries, but the delivery to Bochum is a direct trip. Among other goods, the drivers carry network cabinets bearing the Assmann brand Digitus. Soon these cabinets will be housing switches (devices for distributing data) and media converters. Although the empty cabinets do not weigh much,

they take up a lot of space: the packaging is easily two meters tall. In addition, there are reels of network cables. Assmann is upgrading the university to high-performance category 8 (CAT 8.2) network cables for more speed. A spool with 500 meters of this cable weighs 30 kilograms. There are 20 of these reels distributed over the pallets.

Over 5,000 products in stock

“Around a third of our deliveries over the past year were time-sensitive consignments,” says Penninger. For deliveries to building sites, there were generally tight time slots to be met. The network components are delivered when the fitters are ready to do the installation. “Ordered by midday, on the truck by early afternoon,” is how Penninger describes the service offered by the Assmann Group. In the case of large infrastructure projects, of course, the company knows further in advance what will be needed when. That being said, short-term orders are no exception in the technology sector.

Data network technology and network infrastructure are the core business of the Assmann Group. “In total, we market over 5,000 products,” says Penninger. These range from USB cables and consumer electronics to laminators. To produce its own brands, the Assmann Group draws on an international network of suppliers, located mainly in Turkey and Asia. Otherwise, the company would not be able to have so many products in its portfolio. One burgeoning business domain is ergonom-

Profile

Founded in 1969 in the western German city of Lüdenschied, the Assmann Group currently employs 250 people. It specializes in network technology, network and installation cable, network and server cabinets, IT accessories, computer components, as well as AV technology and ergonomic solutions. So far, the company has established subsidiaries in Austria, Croatia, France, Poland, Spain, Switzerland, Turkey, China, Hong Kong, and Taiwan. assmann.com



The IT industry needs logistics to be flexible, from import to installation site.

Phil Penninger, Managing Director Operations at the Assmann Group

ics, which includes things like height-adjustable desks as well as shelves, monitor holders, and footrests. “With many employees working from home, employers are providing them with ergonomic office furniture for their home offices,” says Penninger. “And the same goes for the currently vacant offices, which are being modernized or converted in line with new concepts.” One example is hot desking, where a single workstation is used by several employees. Another is offices that no longer have assigned workstations. Such offices are choosing to update their networks at the same time, as video conferences and collaboration via data connections will not disappear from everyday working life even after the pandemic has been contained.

Thanks to this demand, the Assmann Group has not experienced any dips in revenue due to the pandemic. The Group has 300 employees in 13 branches on two continents. Exports make up 45 percent—and growing—of the business of the family enterprise, which was founded in 1969. This is another area where the company requires Dachser’s logistics services. “Some 35 trucks leave the Dortmund branch every day heading for European locations in the Dachser network. For Assmann alone, we serve recipients in 28 countries,” Bahcecioglu says. “In addition to Germany, we deliver mainly to Spain, France, Poland, and Switzerland.” For some months now, Dachser has also operated a warehouse for Assmann near Madrid, which stores around 240 different items for customers in Spain and Portugal. Plans are to expand the warehouse this year to house 500 items, so that even more products can quickly reach customers on the Iberian Peninsula.

Growing together

“The great thing about the partnership with Dachser is that we’ve grown together,” Penninger says. In 1999, the Assmann Group dispatched precisely 268 shipments with Dachser. Last year, the figure was around 13,000. Over the past ten years alone, the consignment volume has doubled. As a result, things are getting cramped in

the main warehouse, where there are two docking bays available for freight forwarders and package service providers. This means that ramp times need to be planned precisely. Recently, Assmann commissioned two additional external warehouses in Lüdenscheid—among other things, to cover the demand-dependent installation of network cabinets. This helps ease the loading congestion. Then it’s just a matter of negotiating the bottleneck on the nearby A45 highway. The dilapidated bridge over the Rahmede river valley is being torn down and rebuilt. “This reconstruction work will take a long time—it’s a real headache for logistics businesses throughout the region,” Bahcecioglu explains. “But my colleagues in cargo handling, transport scheduling, and driving will continue to ensure that the quality meets the expectations of our customers.” This works better in digital networks. After all, the data finds its own unobstructed path to its goal through the rapid cables.

D. Kunde

For data and information to flow, they need the space to do so: the IT infrastructure. This means the totality of all buildings, networks of communications services, machines (hardware), and programs (software). An overlying structure makes the data available to an infrastructure (“infra-” being Latin for “below”) for automated data processing. This is the precondition for digitalizing any aspect of everyday life.



Headquarters and central warehouse in Lüdenscheid

Achieving great things

Alexander Tonn has been COO Road Logistics at Dachser since January 2021. The 48-year-old is responsible for the operations of the Road Logistics Business Field with its European Logistics and Food Logistics Business Lines. We talked to him about his experiences, network expertise, and personal goals.

Mr. Tonn, you took the wheel of Road Logistics at Dachser in the middle of the coronavirus pandemic. What were the biggest challenges?

Alexander Tonn: The start to 2021 was a very intense and challenging time. In addition to the third wave of the pandemic, we had Brexit to deal with. Then there were extraordinary weather events in Germany and elsewhere. And all the while, the volumes in our network increased massively. Easing into the job wasn't really an option.

How do you deal with stress like this?

In tense situations, I tend to become calmer and concentrate fully on the job at hand.

And how did your team cope?

As the Road Logistics Executive Unit, we communicated very intensively with the Regional Managing Directors and their operating units in these challenging times. We pulled together and interacted very well. And in that sense, the pandemic helped us develop as a team. What was missing, however, was direct human contact. All the events were digital. It hasn't been possible yet to have personal interactions—say at a Christmas party or at a get-together to break the ice. That's a real pity. But I hope we can catch up on these things soon.

To what extent have your many years of experience in the company helped you in your new role?

I've been at Dachser for 23 years, and I spent 15 of them getting to know all the operational aspects of our business very

well. Many colleagues have walked the same roads alongside me, which gives me a strong platform for being open and frank about challenges. This is something I value and appreciate. Furthermore, I worked very closely with my predecessor Michael Schilling for many years in a relationship built on mutual trust. It was the ideal preparation for my new role.

Looking back, what milestones in your personal development and career do you think particularly shaped you?

I've had many formative experiences. During my time at the Memmingen branch, there were various contract logistics projects that I was able to work on from the initial idea onward, taking in everything from customer meetings and costing to new construction works and operational implementation. That was always very instructive and exciting. Later I moved to the Head Office in Kempten; in six years as controller for contract logistics, which involved many trips throughout the organization, I was able to broaden my perspective on what Dachser accomplishes in Europe and worldwide. Taking on additional responsibility when I became Managing Director European Logistics Germany in 2017 was another important step.

What insights in particular have guided you on your journey?

In these challenging times, we simply must become even more flexible, agile, and digital. Our customers are changing their market access points. They want to reduce complexity and digitalize their processes at an accelerating rate. A good example is trade, which is increasingly pursuing omnichannel strategies. We want to continue to meet these changed customer expectations with our usual Dachser quality. Take DIY market logistics: in 2021, many procurement processes were not working as they normally would. This resulted in massive delays in lead times for seasonal goods due to delivery and capacity bottlenecks in sea freight. Products shipped from Asia for the Christmas season didn't arrive in Europe at the end of the summer as usual. Naturally, everybody involved grew steadily more nervous. But with intelligent capacity and network management, we were able to offer our customers suitable solutions in this situation.

What are the characteristics of such solutions?

It's about having a holistic perspective with suitable offerings from a single source. One way Dachser is meeting this chal-

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In these challenging times, we have to be even more flexible and agile in order to meet customer expectations with our usual Dachser quality.

”

Alexander Tonn, COO Road Logistics at Dachser

challenge is through the close interconnection of our European and intercontinental networks so that we can create global end-to-end solutions. During the pandemic, we were able to implement customized solutions with high added value for our customers when it came to things like delivering masks, test kits, and personal protective equipment from China to European hospitals and healthcare facilities. That was a success for everyone involved—and something we can build on.

What's the situation with skilled personnel? The shortage of drivers has long been an issue. What can be done here?

The driver shortage is a structural challenge for all logistics service providers. Empty supermarket shelves in the United Kingdom were a stark illustration of what the consequences can be. That was the first time the driver shortage made the main evening news. There are various initiatives currently underway to improve the driver situation and upgrade people's perceptions of the job. We welcome these moves and we're committed to these aims through the training of driving personnel and beyond. Our goal is to create the best conditions in the market for truck drivers and for transport companies, thus setting us apart from others. That is Dachser culture in practice.

Sustainability and climate protection are major issues in business and society. How are they incorporated into Road Logistics?

Sustainability is very important for Dachser and for our customers. Our Idea2net project, Climate Protection, covers many aspects: from emission-free city deliveries, via photovoltaic systems and the use of green electricity in our facilities, to electric ground conveyors that use lithium-ion battery technology, and battery electric truck concepts that we are helping advance in collaboration with partners from the domains of science, research, and technology. We've already launched a lot of pioneering initiatives in these areas. By the end of 2023, for example, we plan to have converted half of our company car fleet in Europe to electric vehicles.

Is e-mobility the key to more sustainability?

Time will tell whether battery electric vehicles or hydrogen fuel-cell concepts prevail in the end. We are technology neutral and are making our practical contribution to research and

development together with the IT & Development Executive Unit under the leadership of my colleague in the Executive Board, Stefan Hohm. We're already operating an important lever with our systematic increasing of efficiency in overland transport. For example, by continuing to make optimum use of the load space. And the new mega trailers we're using are a further step toward improving the carbon footprint in logistics. There's no stopping us.

A seasoned
logistics expert:
Alexander Tonn



From the laboratory of the future

Blockchain: Technology with an ecosystem

As yet, blockchain hasn't achieved a breakthrough in the logistics industry. While the technology itself is convincing, often what's missing is the right organizational setup—an ecosystem with which to leverage its innovative potential.

Some of the shine seems to have come off one of the top next-generation technologies of recent years: blockchain. Is this simply because of disillusionment among those who have been speculating with the cryptocurrency Bitcoin? Perhaps. But the world-renowned digital currency is just one use case for what is still a remarkable technology.

Blockchain is a particular form of distributed ledger technology (DLT), a generic term that describes various forms of database structures without a central administrator. Blockchain and Bitcoin were both invented by a certain Satoshi Nakamoto, who published the famous Bitcoin white paper in November 2008. But this name is only a pseudonym. To this day, the person or group of people behind Satoshi Nakamoto remains a mystery.

An endless distributed chain

A blockchain is an IT concept that ensures the trustworthy exchange of information, transactions, and values. The technology is built on hash functions, which act as a cryptographic procedure, and decentralized validation and storage nodes. This means data is distributed redundantly—in other words, many copies of it are stored in different places—among the participants of a blockchain network, with no need to store data centrally. The name blockchain comes from the technology's underlying structure of data blocks that are chained together using cryptographic mechanisms.

The hashing procedure then ensures that once data blocks have been formed, they can't subsequently be changed without

this being noticed immediately by all parties involved in the blockchain. The data chain could also be described as a set of transaction documentation that is strung together chronologically. The data is stored redundantly on as many nodes of a blockchain as possible, all connected via the internet. These nodes create, store, and verify the blocks of a blockchain. Different proof procedures (e.g., consensus among the majority of nodes in a blockchain) govern whether a new block of data may be written to the blockchain. This ecosystem does not require a central database or central administration.

Blockchain technologies have an attractively simple concept. But besides Bitcoin, the Ethereum platform, and some other smaller solutions outside the financial sector, no really big blockchain-based innovations have emerged so far—including in logistics. Why is that? Perhaps because even with their decentralized blockchain structure, in many cases such solutions need a central driver and coordinator—not from a technical perspective, but from an organizational one? And because it's hard to find someone who fits the bill, as they have to be neutral and free of vested interests so as not to scare off participants in this blockchain ecosystem?

Potential for logistics

Despite these as yet unresolved fundamental problems, there are a number of interesting potential applications for distributed ledger technologies, especially for documents (currently often still in paper form) containing sensitive information or even (ownership) claims relating to transported goods. It would be a big step forward for the digitalization of logistics if such documents were managed autonomously and had a traceable history, independent of the actions of third parties. This could well become a reality for things like dangerous goods accompanying documents.

The aim would be to digitalize the cross-company exchange of information between dangerous goods stakeholders. One way to do this is through a blockchain-based electronic transport document that is updated and documented stage by stage at each loading and unloading via interaction with the blockchain. This is currently the subject of intensive research. Dachser is also supporting various activities together with customers and partners, in particular with the European Blockchain Institute, which is currently being established, and with Fraunhofer IML. Together, the three organizations are investigating the feasibility of such use cases and building prototypes.

To detect as many relevant legal considerations as possible, industry and academia must first demonstrate the feasibility of the idea and identify necessary changes. And to avoid a situation where individual companies subsequently create isolated solutions, a joint approach should be taken involving several companies and industry associations as well as policymakers,



A blockchain consists of a chain of data blocks

authorities, and organizations with a safety focus such as the police and fire departments. Incidentally, thinking far ahead, the latter also stand to benefit from a blockchain-based dangerous goods ecosystem. Should a dangerous situation occur, the police and fire departments could quickly and easily access key information on the dangerous goods transport involved as well as up-to-date status data on the shipments it was carrying. Armed with this information, they could then initiate even more targeted action, since they would know which dangerous goods were still on board the vehicle and which had already been unloaded. This ought to further increase safety in the transport chain.

There is also potential to use blockchain for customs documents or delivery notes. In sea freight, blockchain-based bills of lading could provide a transparent and tamper-proof event history to the actors within an ecosystem, enabling not only connectivity for physical objects (shipments) but also the transfer of values and original documents.

More than one technology

From an industry and company perspective, the most important thing is to solve the governance

problem. This primarily refers to cross-enterprise decision rights and responsibilities that have a significant impact on incentives to participate in a blockchain-based ecosystem. More work is needed here to determine the best way forward and explore how to address this issue. One possible solution could be a standalone, neutral legal entity that hosts an ecosystem comprising both business and regulatory actors. It is significant that in many cases, there is a clear will on the part of state institutions, such as Customs, to get involved.

Blockchain technology remains a relevant future technology for the digitalization of logistics. However, it should not be implemented as an end in itself. Unfortunately, this is something many actors forget whenever a new project is launched. At the end of the day, blockchain-based innovation must add significant value over existing solutions. And most importantly, the challenges posed by the unfamiliar blockchain-based enterprise ecosystem should not be overlooked. After all, blockchain isn't just a technology—it's a new way of collaborating in the supply chain. And this needs to be learned, tested, and proven in practice.

Andre Kranke, Head of Corporate Research & Development at Dachser

The "From the laboratory of the future" 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.

Career opportunities

His winning ways

Timon Jöhnke has limited mobility, but he has never let that slow him down. The logistics specialist feels that Dachser is where he belongs.

Timon Jöhnke really enjoys his job, especially when there is so much happening around him. “Just paperwork, accounting, figures—that’s not for me,” says the 24-year-old logistics specialist in fleet management at Dachser’s Hannover logistics center. “What I enjoy most is working directly with the drivers.” During his apprenticeship, he rode along in a truck for four weeks and found it “super exciting.”

What might seem fairly “normal” at first glance is an extremely remarkable achievement. Because his mother experienced complications during pregnancy, Jöhnke had to be delivered at 28 weeks. The early damage to his brain led to his developing cerebral palsy.

This meant a complicated school education. After his first four years of elementary school in his hometown of Burgdorf, Germany, Jöhnke had to undergo surgery and subsequently had to relearn many skills. Attending the local high school in a wheelchair was not possible at that time. Undaunted, he switched to an integrated comprehensive school in Hannover, 20 kilometers away. There was a shuttle service, but whenever possible, he preferred to make his own way to school by bus and train. With an extended certificate from that school in his pocket, he went on to attend a business-focused high school back in Burgdorf.

Passionate
about logistics

Impressive fighting spirit

“A lot of my classmates submitted one or two applications, but because of my disability, I had to write 40. I was very proud to get a positive answer from Dachser,” Jöhnke recalls. In four years, he has never regretted joining the global logistics provider. “I’ve never been spoken to in a negative way about my disability. I feel really accepted and comfortable at Dachser. In addition, logistics is an industry of the future and highly international, which I find very appealing.”

During his apprenticeship, he attended blocks of theory at vocational school and practical units at Dachser’s European Logistics branch in Langenhagen. “I really liked that I had a block of classes for several weeks at a time so I could also focus on my homework.”

Career with a bright future

After successfully completing his three-year apprenticeship in August 2021, Jöhnke joined the fleet management team at Langenhagen. There, together with long-time fleet manager Sascha Steinemann, he looks after the drivers who work the European Logistics routes and thus transport a wide range of industrial goods, and he also maintains contact with the transit terminal. His tasks include coordinating driver training as well as documenting and organizing work uniforms. The young man provides support wherever it is needed. No wonder, then, that he is extremely well-liked by his coworkers.

“I always want to push myself further—that’s one of the most important things in life,” Jöhnke says. He is currently in the process of further expanding his IT knowledge in logistics processes. In addition, he supports the customs department by preparing invoices for customers. The need for this has grown massively due to the UK’s exit from the EU. With a twinkle in his eye, the young man likes to refer to himself as a “Brexit winner.”

In fact, Jöhnke is a winner in many respects. Despite his handicap, the soccer and gym fan, who also works in an auxiliary role for a youth fire brigade, has fought hard to live his life on his own terms. And there is still so much he wants to accomplish. In his personal life, he has obtained his driver’s license and, through continu-

ous training, is now very rarely dependent on his wheelchair. In his professional life, he dreams of working even more independently in fleet management and perhaps training as a transport specialist while continuing to work his regular job. “I want my path at Dachser to continue just as it has so far.”

L. Becker





The new tracking devices are easy to install ...

Knowing where and how

Shipment tracing and transport management in the Internet of Things: with GPS location tracking using 5G/LPWAN technology and telematics, Dachser Road Logistics is setting new standards in real-time tracking, arrival-time prediction, and visualization of long-distance groupage shipments.

All good things come from above. This is also true for the Global Positioning System, better known as GPS. Any time we turn on the navigation system in our car to get directions and let someone know what time we'll arrive, we're relying on satellites and wireless technology to keep us abreast of any devel-

opments. These are well-established systems. They also work in logistics to track a truck's routes in real time using telematics vehicle tracking. Anyone who knows where the truck is can also track the shipment it's transporting.

In groupage logistics, the matter is a bit more complex. The swap bodies used for this in long-distance transport are often switched between two trucks that meet en route. And often they wait for the next run, jacked up on their stilts—they might be in the branch yard, at a customer's loading bay, or in a parking area for an extended break. Being a self-supporting system, the swap body shares neither energy nor information with its tractor unit.

Many things were tried

Enabling these robust containers—and especially their varied content—to be tracked reliably and cost-effectively in the groupage network despite their lack of smart communication capabilities took several years of technology and telecommunications development. Solutions based on traditional 2G/3G wireless standards proved to be too energy- and cost-intensive. Even more than that, they were not sustainable, since these networks are gradually being shut down in Europe.

"So when the LPWAN technologies emerged, we kept a close eye on them from the very early stages and researched them through our DACHSER Enterprise Lab," says Lars Relitz, Head of Corporate Digital Innovation & Development at Dachser. LPWAN stands for low-power, wide-area network, a network that is currently being built up around the world in connection with the latest 5G mobile communications standards. "In the

beginning, there was no network and no rate structures. But we quickly became convinced that LPWAN technology was the way to go," Relitz says.

Together with a tracking solutions provider, Dachser promoted the development of innovative smart tracking devices for use in swap bodies. These devices consist of extremely energy-saving, solar-cell-assisted energy modules, as well as modern satellite-based positioning technology (GPS, Galileo) and wireless modules based on the new 5G/LPWAN networks. They are further secured by additional wireless standards that are still widespread today. This integrated solution fits well with the requirement that the smart tracking devices need to be able to last without maintenance for the full twelve-year service life of the swap body.

A solution especially for the customer

These innovations also benefit customers in particular. "Knowing at all times, in real time, where our swap bodies are located, and being able to process this information accordingly, helps us make the supply chain more transparent. Information on arrival times and potential delays will be more precise, making capacity planning easier and more manageable. This in turn will help optimize transport capacity utilization and make cargo handling processes more efficient," says Alexander Tonn, COO Road Logistics at Dachser.

Following successful pilot tests, more than 8,500 swap bodies and 5,000 trailers in the Dachser Road Logistics network will be equipped with the smart tracking devices by summer 2022. "Then we will be able to consolidate, filter, and process information from thousands of transports, and employees will be able to draw from it everything that is relevant to them—in real time and in an easy-to-grasp visualization," says Armin Blaschek, Department Head Production Systems at Dachser, who is managing the rollout of the new telematics system.

More transparency

A central platform is used for visualization and analysis of the data. It combines all position data of the swap bodies, but also of trailers and tractor units, and "weds" them with the shipment data of the transport management system. In addition, charter transports, which are rarely carried out with the company's own equipment, are also mapped via a specially developed driver app. It not only provides the signal for visualizing the transport, but also enables far-reaching electronic processing of the respective charter order with digital receipts.

For Tonn, the telematics project marks the dawn of a new age of shipment tracing and control in groupage logistics. "Going forward, we want to offer even more transparency and real-time information from the supply chain, with state-of-the-art platforms and API interfaces. There is still a huge amount of potential in telematics for further functionalities and applications."

M. Schick

Processing tracking data in real time via a platform is "learned" at Dachser. For the purpose of seamless temperature tracking in fresh foods, the Food Logistics fleet has been sending transport and movement data to a data platform for years, albeit with a much smaller range of functions. This serves as the basis for the new system with smart tracking devices.



... and require zero maintenance



Tailored solutions

Dachser creates logistics that adds value by combining its standard services with industry-specific expertise. Jens Wollmann, Head of Corporate Solutions, talks to us about established and new industry solutions in the network.

Mr. Wollmann, you've been overseeing all of Dachser's global industry solutions since the middle of last year. What appeals to you about this task?

Jens Wollmann: I've always found it fascinating to consider things from the customer's perspective. This is the way to create integrated logistics concepts that really add value and that enhance our customers' logistics balance sheets, which is very much in line with the Dachser mission. Since there's a certain amount of overlap in logistics requirements within an industry, a concept developed for one customer can often work for many others as well. This can then help create global solutions that prove successful on the market.

Can you give some examples?

Such solutions combine specific industry expertise with proven services within Dachser's global logistics network. This lets us offer tailored logistics solutions to specific industries, while still

meeting global standards of quality. Prime examples of this are DACHSER DIY Logistics for the home improvement sector and DACHSER Chem Logistics for the chemical industry.

Take us back in time for a moment. When did Dachser establish its Corporate Solutions Division?

That's a long story, which begins in 1998 with DACHSER DIY Logistics. Back then, suppliers and especially retailers in the building and home improvement sector were recognizing the significance of the value that logistics adds. At that time, retailers were trying to reshape logistics to fit their interests by using the pull principle to gain more flexibility. Manufacturers, however, wanted to stick with the push principle, which they found more predictable. This resulted in real power struggles between those involved.

What was Dachser able to do in this situation?

When we were creating our new industry solution, we took a really close look at the market and configured logistics processes that resulted in a win-win situation for both industry and retail. That was when the DACHSER DIY Logistics Pipeline was born, our flagship for the integrated and continuous flow of goods and information—from global procurement through to delivery. At the time, incidentally, that still only included bricks-and-mortar retailers. Since then, we've been continuously developing the Pipeline—for example to include delivery to private customers—so that we now offer the full range of omnichannel logistics. Suppliers and retailers alike benefit from the synergy



Close collaboration with retail and manufacturer associations in Europe is a key driver of innovation and expansion for our industry solutions.

Jens Wollmann, Head of Corporate Solutions at Dachser

created by bundling deliveries—in keeping with sector requirements—to today's total of over 18,000 DIY and garden centers across Europe.

How did this development continue?

Our next milestone was DACHSER Chem Logistics in 2007. Dachser already had very successful working relationships with numerous companies in the chemical industry. Following an in-depth analysis of the various industry segments, requirement profiles, and the corresponding opportunities, this provided a solid foundation from which to launch our own industry solution.

Since then, Dachser has expanded its focus to include additional industries, always asking the central question: Where can we offer our customers tangible benefits by pooling our expertise? We went on to create DACHSER Automotive Logistics, DACHSER Fashion Logistics, and DACHSER Life Science and Healthcare Logistics—very closely linking the global markets for our customers and connecting them to the European overland transport network. We're also about to launch DACHSER Cosmetics Logistics to meet the specific requirements of the cosmetics industry—first in France and then expanding to other places from 2023 onward.

What innovations came about with the establishment of these solutions?

An excellent example from DACHSER Fashion Logistics is Roll&GOH, a rolling container Dachser developed for transporting both flat and hanging garments; in the fashion industry, GOH stands for “garment on hanger.” We designed Roll&GOH to be very efficient when used in our network. It's especially well-suited for challenging deliveries to stores and malls in the city centers of European metropolitan areas—and not just for fashion products.

What can Dachser offer the automotive industry and life science and healthcare customers?

Our tailored buyer's consolidation concept is aimed at suppliers to the automotive industry. For these customers, we collect intermediate products from a large number of suppliers located

across Europe and bring them together at one logistically strategic point. Once consolidated, the goods can then be forwarded efficiently to overseas production lines. We coordinate the complicated order management process centrally at the Automotive Coordination Tower using intelligent networking of our transport management systems. Customers benefit from a high level of transparency along the multimodal transport chain and are always in the loop. For example, high-priority shipments can be switched to faster carriers if necessary.

When it comes to life science and healthcare products, it's crucial to demonstrate exacting standards of service and quality from the outset. Medicines and other pharmaceutical products are often temperature-sensitive, urgent shipments that have to be handled in a complex regulatory environment. Dachser has already received IATA CEIV Pharma certification for five locations on three continents.

You are also responsible for another very demanding service: Dachser as Lead Logistics Provider. Can you explain what that means?

Our customers' business models increasingly rely on the ability to keep an eye on and manage their supply chains at all times. This is especially evident in times of massive disruptions to global supply chains.

As Lead Logistics Provider, we can assist our customers and, using the Dachser LLP Control Tower concept, we can centrally manage and coordinate all the other logistics service providers the customer has engaged. Different services are available depending on what the customer needs: supplier coordination, order management, supply chain event management, cost monitoring, KPIs, reporting, and many more.

This is all based on an innovative IT solution—a visualization and connectivity platform for the entire supply chain. This gives our customers a whole new level of transparency and thus more control options. I see this as yet another impressive example of intelligent logistics that combines all the benefits of customer orientation and standardization.

Within the IT & Development (ITD) Executive Unit, Dachser Corporate Solutions combines its standard services with industry-specific logistics requirements. This results in tailored solutions with the highest level of industry adaptation.

Network expertise



The eActros marks the start of a new era in e-mobility for trucks

Electric heavyweight

Dachser puts the first production eActros into operation. The new all-electric 19-ton truck from Mercedes Benz forms part of the logistics provider's climate protection strategy.

Mercedes-Benz has begun large-scale production of the eActros, a battery electric heavy-duty truck. One of the first models will be put into service at Dachser. Karin Rådström, CEO of Mercedes-Benz Trucks, presented an eActros 300 to Stefan Hohm, Chief Development Officer (CDO), during a customer meeting in Wörth am Rhein in southwest Germany. Dachser is already planning to add more of the fully electric heavy-duty trucks to its vehicle fleet as part of its climate protection strategy.

"The production eActros is an important component of DACHSER Emission-Free Delivery, our city distribution concept, which we are currently expanding to eleven European metropolitan regions," Hohm says. In Stuttgart, the new battery electric vehicle is set to replace the prototype that Dachser started road testing in 2019. "The eActros has proven its everyday value in Stuttgart, especially when it comes to the emis-

sion-free direct delivery of palletized goods to customers. We also see some potential in shuttle traffic for the all-electric 19-ton truck. We believe that the vehicle will find a wide range of applications in sustainable groupage logistics."

More dynamism and lower-stress driving

The switch to fully electric trucks also benefits drivers: the driving dynamics of the eActros are designed to enable a more relaxed, lower-stress driving experience than in a conventional diesel-powered truck. The low center of gravity also improves cornering. The interior noise level has been reduced by 10 dB—cutting the perceptible noise roughly in half—which helps increase driver comfort in full-load operation. There is also considerably less vibration than in a diesel truck.

Duo trailers with double the advantages

Just one traction engine that can transport up to 134 goods pallets with a maximum weight of 44 metric tons: this is the idea behind two duo trailer combinations that Dachser Iberia has now put into operation on the route between Madrid and Barcelona. With two 13.60-meter semi-trailers and a traction engine, one duo trailer measures in at just over 30 meters.

"This reduces the greenhouse gas emissions per transported kilogram while increasing efficiency for our customers. We hope to expand the use of this duo trailer combination soon and to be able to play an even greater role in the move toward an efficient and sustainable future," says Celestino Silva, Managing Director European Logistics at Dachser Iberia.



Long vehicle: the duo trailer in Spain

Top of the TOP 100 ranking

In the new "TOP 100 in European Transport and Logistics Services 2021/2022" study by the Fraunhofer Center for Applied Research on Supply Chain Services (SCS), Dachser has once again ranked well in its relevant logistics segments.

In groupage logistics, the logistics provider comes in second in Europe, while it takes ninth place in the Full-Truckload Transportation segment. Dachser's placement is unchanged in both rankings compared to the previous European Top 100 study published two years ago. In the Specialized Surface Transportation segment, which covers specialized transport and logistics for the food industry and automotive sector, as well as tank and silo transport, Dachser rose from seventh to fifth place. Looking purely at logistics providers with sales in food transport, Dachser is now in third place.

This year for the first time, the study presented a combined list for the European air and sea freight segment. Dachser's tenth place on this first combined list immediately ranks it among the leading air and sea freight providers in Europe.

Innovation at the transit terminal

With ERDi, a double-deck unit specially designed for Dachser by Jungheinrich, a new technology standard is moving into the logistics provider's European transit terminals. Its development was driven by the topics of driver ergonomics, occupational safety, and profitability. ERDi is currently the most compact truck in its class, shaving off 30 centimeters from the length of its predecessor. With its permanently integrated lithium-ion battery, this new development also marks the gradual farewell to the lateral battery change, which was previously necessary in multi-shift operation to ensure a sufficient power supply. Dachser is now switching its branches in Europe over to the necessary charging infrastructure.



New forklift technology for Dachser

Growth in the Nordics



Increased capacity in Scandinavia

Dachser continues to strengthen its network in the Nordic region. In Kristiansand, in the south of Norway, a new sales office has commenced work with an eye to attracting new customers from the southern and western parts of the country. Until now, Dachser Norway had been limited to a branch in Vinterbro on the outskirts of Oslo. Sweden is also developing well: the logistics provider expanded its presence in central Sweden by opening a new sales office in Örebro. In other news, Carl-Johan Westas was appointed as the new Country Manager Sweden European Logistics.



Italian cuisine is
a way of life

Pizza, pasta, and productivity

Transporting food, especially fresh food, across Europe is a key part of how Dachser Food Logistics serves the Italian market. Short transit times are in particularly high demand.

This question may well be unanswerable: Who invented the noodle—the Chinese or the Italians? Back in 2005, it looked like this controversy was going to be settled in China's favor when a 4,000-year-old noodle pot was unearthed there. But Italy's pasta purists insist that the noodle was probably invented independently in several different places. Among those they cite to back up their argument is al-Idrisi, who hailed from what is now Spain. He reported encountering a "threadlike Sicilian dish made with flour" on his travels, long before the Venetian explorer Marco Polo visited China.

What no one disputes is that today, pasta—whether in the form of spaghetti, penne, farfalle, tortellini, etc.—is globally synonymous with Italy and the Italian lifestyle. During the coronavirus lockdowns, when many people were working from home and restaurants and cafeterias were closed, the culinary love affair with pasta became even more passionate. Indeed, when lockdowns were at their peak in 2020, food association Filiera Italia recorded a 20 percent rise in pasta exports to Germany alone. Perishable products as well—including cheese, fresh pasta, and sausage products—enjoyed a jump in popularity.

Food made in Italy is riding high among the country's European neighbors, but also elsewhere. Statistics show that around one billion people all around the world can't get enough of it. Over the past ten years, the value of Italy's food exports has grown by a whopping 80 percent; the biggest consumers are still found in Europe, with Germany and France topping the list. At the same time, Italy is also a key market for its European neighbors. In a nutshell, comprehensive food logistics solutions are in high demand both in and around Italy.



Italian food is adored the world over. This is clear from a glance into the transit terminals and warehouses at various branches in Germany. At its Langenau branch near Ulm, for instance, Dachser operates the German warehouse for Parma-based food company Barilla. On average, some 20,000 pallets of Italian pasta specialties are stored here at any one time. Every day, 800 metric tons leave the branch, bound for the central warehouses of retailers throughout Germany.

Over a decade in Italy

Dachser Food Logistics has been a player in the Italian market since 2010 and began a joint venture with Papp Italia in 2012. In 2017, the logistics provider acquired Papp Italia and has traded under the name Dachser Italy Food Logistics since 2018. The company's main location and central transit terminal are located in Pradelle near Verona (in the Veneto region). In 2020, Dachser Italy Food Logistics transported 320,100 shipments with a combined weight of 287,100 metric tons, generating EUR 37.2 million in revenue.

Daily transports connect the refrigerated platform in Veneto with Dachser's Erlensee branch near Frankfurt. That Eurohub is the linchpin of the European Food Network, an association of leading European food logistics providers. This in turn connects Italy with 33 other countries. There are also daily transports to several Dachser Food Logistics locations in southern Germany.

In addition, the convenient location of the site as a bundling platform in the heart of northern Italy makes providing domestic transports very efficient. Around 80 percent of shipments bound for the large retailers' central warehouses (used by food retailers, wholesalers, and discounters) can be delivered directly from there. The rest are delivered by a close-knit network of 22 forwarding agents. The refrigerated platform is supplemented by a multiuser warehouse that offers a variety of temperature zones and over 9,000 pallet spaces. Rising demand and further growth have been factored in—the site offers plenty of space to expand its facilities.

Maintaining flexibility in difficult times

"During the pandemic, we've experienced some uncommonly large increases in transport volume that once again put service quality and customer service center stage," says Alfred Miller, Managing Director Dachser Food Logistics. "When times are extremely difficult, customers need a flexible logistics provider capable of meeting the highest standards of quality and dependability. Especially when it comes to temperature-controlled transports in heavily fragmented markets like Italy, quality and precision are essential."

In addition to the headquarters in Pradelle and the branch in Taranto (Apulia), in April 2021 a new location was established in Massalengo near Milan (Lombardy). Much of the country's dairy and cured meat production takes place there and the region is responsible for a significant proportion of Italy's food exports.

"The opening of the new location near Milan was an important step for Dachser Food Logistics in Italy. It strengthens our market presence and brings us even closer to potential customers," says Roberto Specos, Country Manager of Dachser Italy Food Logistics. The region's many food companies produce goods not only for the domestic market, but also for export to other European countries. "We can offer them a comprehensive portfolio of useful services encompassing national distribution, imports and exports, and warehousing at our headquarters near Verona," Specos says.

A strong team means quality

Another key stage in the development of the country organization was the direct hire of more than 100 logistics operatives for the warehouse and transit terminal. As is common in Italy, they were working at the headquarters in Pradelle through a "cooperativa," but have now been employed directly by Dachser since 2020 and have open-ended contracts. "We rely on our own people for the core production processes, which ensures the required process reliability and quality assurance," Miller says. "Top performance calls for a strong team and shared values. This also lets us cope with future challenges and helps us to keep growing in Italy."

M. Gelink





Sustainability on the road

Dachser is expanding its zero-emission vehicle fleet. To this end, the company is investing in at least 50 additional battery electric trucks over the next two years. Dachser also plans to ensure that by the end of 2023, one in two company cars at its locations in Europe is a battery electric vehicle. This represents approximately 1,000 passenger cars in total. Tests with hydrogen-powered trucks are in the pipeline as well.

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