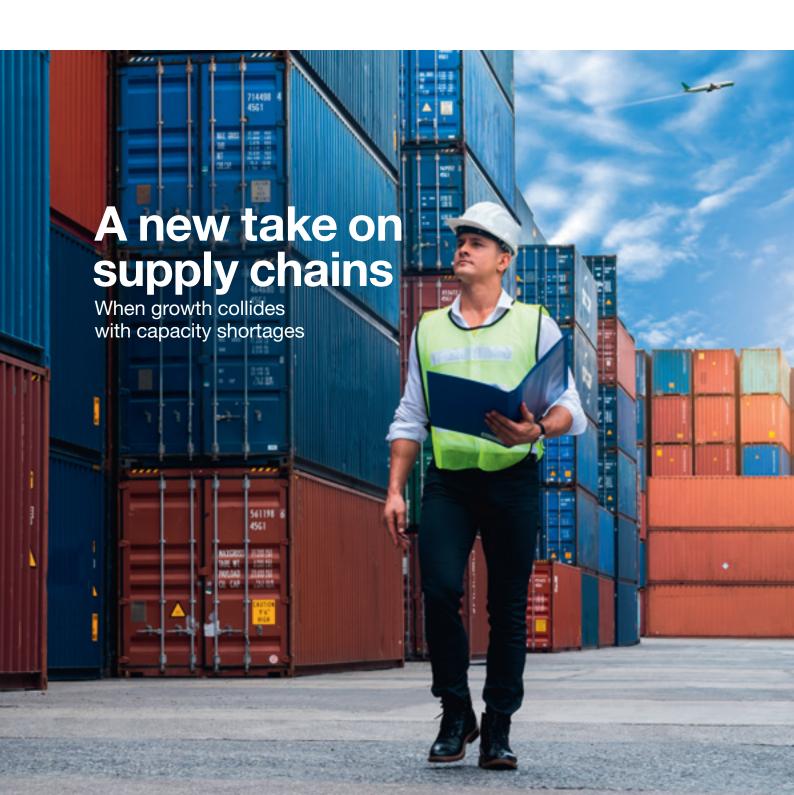
# DACHSER

magazine

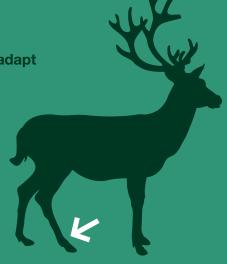
THE WORLD OF INTELLIGENT LOGISTICS



## Intelligence wins

The learning curve of Homo sapiens stretches from discovering how to use fire to reaping the benefits of big data. Our brains can adapt to many challenges, but also want to be exercised.

51,000 years old—that's the age of the engraved megaloceros toe bone that was recently discovered in a cave in the German state of Lower Saxony. Scientists take this as evidence that Homo sapiens weren't the only humans to master important cultural techniques, but rather that their predecessors, the Neanderthals, did it first.



## 215,000 terabytes of data can be stored permanently in a single

gram of synthesized human DNA. Bioinformaticians from Columbia University in New York City believe this will allow them to store data at the highest storage density ever achieved.

## 

1,350 cm<sup>3</sup> is the average volume of the modern human brain.

of around 1,500 cm<sup>3</sup>. Researchers think that this brain shrinkage is connected to sedentism. Establishing long-term settlements made everyday life much simpler and required less brainpower.





40 seconds is how long the average employee takes to respond to a digital message (e-mail, WhatsApp, etc.). But a range of studies show that being constantly on alert isn't good for the brain. It reduces people's attention spans and makes them more easily distracted.

230 is the IQ of Australian mathematician Terence Tao. Many regard him as the most intelligent person alive today. However, it is very difficult to accurately measure a person's IQ once it rises above 160. This is also true of scores awarded post-humously: Goethe is thought to have had an IQ of 210, Leonardo da Vinci 220.





#### Dear readers,

It's that time of year when young people come to our company to start their training or studies, and thus find their way into the fascinating world of logistics. These bright, curious, and extremely motivated minds are approaching their new tasks with great enthusiasm and are eager to work as part of a team.

When I see these young colleagues, it reaffirms for me that, despite all the advancing mechanization and digitalization of our processes, it is ultimately people who bring logistics to life. It's people who ensure quality and help deliver on our value proposition day after day.

All the more reason for us to focus our attention on the ongoing lack of qualified personnel, a problem that is becoming increasingly apparent in the logistics sector. As a result, we are called upon more than ever to continue offering attractive, secure, and sustainable jobs. We lay the groundwork for this by living our values, which honor and promote personal commitment. This is what creates the unique Dachser team spirit.

The motivation to make a difference together every day cannot be overestimated, and that is especially true in challenging times.

Kind regards,

Burkhard Eling, Dachser CEO

F Ava

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Strong air freight network

Since June, the new charter connection from Hong Kong to Mexico via Canada has been providing additional capacity. This is allowing Dachser Air & Sea Logistics to further expand its stable air freight network.



https://bit.ly/Dachser-expands-charter-activities



Educating children

In partnership with the children's aid organization terre des hommes, Dachser has been working since 2015 to give the children of the San people the chance of a better life. Margret Hans, a 24-year-old homework tutor, reports on her experiences.



https://bit.ly/Dachser-Margret-Hans-terre-des-hommes



Willebroek expansion

Dachser entered the Belgian logistics market in 1975, and since then its European groupage activities have been growing steadily. Now, Dachser is expanding its Willebroek facility.



https://bit.ly/Dachser-expands-Willebroek



More responsibility at Dachser

Kevin Chen was appointed Managing Director Air & Sea Logistics Greater China in July. Dachser has established a new structure that is helping the company to further expand its presence in the Asia-Pacific region.



https://bit.ly/Dachser-Managing-Director-Greater-China





Countering capacity bottlenecks with digitalization: Dachser's **Predictive Analytics** tool forecasts a branch's inbound overland transport volumes up to 25 weeks in advance. The data analysis stretches back to 2011 and recognizes the seasonal patterns that are so important in overland transport. To better anticipate trends, the tool also integrates a wide variety of economic indices.

#### Upturn creates shortcomings

Bottlenecks and material shortages are plaguing industry in 2021. The causes are manifold. What's crucial for stakeholders, however, is the knowledge that these bottlenecks are a sign not of crisis but of the eagerly awaited economic upturn. According to the economists at the Munich-based ifo Institute, there is nothing unusual about capacity and material bottlenecks at this point. When the economy was picking back up after the 2011 economic and financial crisis, there was a 19 percent material deficit. In the current coronavirus crisis, a deficit of 64 percent is hampering economic recovery—economists see this as a clear sign that the impact of the pandemic will be felt for a long time to come.

"Purchase prices, some of which have risen sharply, are another problem," says Klaus Wohlrabe from the ifo Center for Macroeconomics and Surveys. "Currently, manufacturers are still meeting demand from their stocks of finished goods, but these are now also becoming noticeably depleted."

All of this makes logistics companies more sought after as a partner and solutions provider than ever before. Economic recovery under the current conditions is not possible without them. A robust and balanced network is required; one that, as at Dachser, remains effective and controllable even under the stress conditions caused by the pandemic and can thus demonstrate its "systemic relevance" every single day. Dachser is prepared for the upturn: "We see economic catch-up effects directly reflected in the utilization of capacity within the Dachser network. Our employees put in a huge amount of effort and dedication to maintain a high level of reliability and performance throughout the pandemic, and this is now paying off. Dachser is seen as a stabilizing factor in the market," says Dachser CEO Burkhard Eling.



#### Full order books - high freight rates

The sea container is a symbol of global supply chains. In terms of sea freight, the current lack of container capacity at European ports is painfully evident, with delays having become the norm. However, there is light at the end of the tunnel. "We're yet to see how pandemic-related dispatch problems at sea, in the ports, or in the hinterland develop and how long it will take to clear the backlogs," says Edoardo Podestà, COO Air & Sea Logistics at Dachser, adding that shipping lines expect to be fully booked until at least the end of the year on almost all trade routes. "Following the disruptions experienced over the past few months, we're seeing extremely high demand for consumer goods, boosted by the US economic relief package and the economic upswing also in Europe," Podestà says. "Added to this is strong demand for furniture, as well as construction and renovation materials. The automotive industry is also getting back off the ground after the heavy setbacks it has suffered in the past two years—with huge demand for the transport of automotive parts."

At the same time, high rates for sea freight are increasing the appeal of air freight. While air freight was around twelve times more expensive than sea freight before the crisis, the rate in May 2021 was "only" six times that of sea transport. In the first half of the year, Dachser carried out more than 100 charter activities, regularly serving 12 different departure airports and 15 different receiving airports.

Considering the capacity shortages on container ships and the cargo hold of passenger aircraft (the latter is for transporting "belly freight"), Eling doesn't expect any significant easing of the situation in the second half of 2021. This means freight rates will remain high, which will inevitably have to be reflected in the price development of goods and, in turn, logistics services.

#### Pallets under pressure

Economic catch-up effects are directly reflected in the sheer volume of freight moving through the Dachser network and the Road Logistics network in particular. "In the case of overland transport, the need for load capacity and for drivers has risen sharply," says Dachser COO Road Logistics Alexander Tonn. He adds that Dachser has responded to bottlenecks by implementing various measures, for instance by focusing on the topic of planning transparency for transports and on creating a task force with the company's own excellently trained professional truck drivers. But the overland transport situation in Europe still remains tense. "The idle time spent in transit terminals has, in some cases, risen considerably as a result of how the B2C proportion has grown. This reduces efficiency, makes for lengthier notification processes, and increases costs," Tonn says. His concern is the current high price of wood, which is having a major impact on the price of pallets; packaging material providers are no longer in a position to provide the necessary number of pallets in the required quality.

For Eling, a robust and balanced network has a key role to play in this unique recovery situation. "All our customers are having to deal with a huge accumulation of products due to the pandemic. Either they are storing





"Our employees put in a huge amount of effort and dedication to maintain a high level of reliability and performance throughout the pandemic, and this is now paying off. Dachser is seen as a stabilizing factor in the market."

Burkhard Eling, Dachser CEO

products until a more convenient time in the future, or they're trying to bring them to market with special discount promotions. This means the quality factor will gain even more importance in helping logistics providers stand out from the competition," Eling says. Through the flexible management of its own network organization, Dachser helped its customers to further reduce their time to market and to develop new business models featuring the necessary tailored solutions.

#### Sealing off the market is not a solution

When business models change, the question often arises as to whether the course of globalization should also be dialed back and the markets sealed off from external risks. Economists from the ifo Institute have spoken out against a general relocation of production back to Germany and against government intervention in supply chains. "A general return of supply chains would result in huge revenue losses," warns Professor Lisandra Flach, Director of the ifo Center for International Economics. Instead, the sources of supply for the economy ought to become more internationally diverse. Free trade agreements could reduce trade costs and decrease dependencies on individual nations. This calls for a

deeper European Single Market and a stronger World Trade Organization.

"We're also noticing that a lot of our customers are turning their attention to the future configuration of their supply chains," Eling says. "Many of them are specifically looking at the security and resilience of their supply chains and are exploring more flexible transport options." At the same time, Eling is confident that global supply chains will continue to exist. "Our customers aren't looking to completely overhaul their supply chains, let alone turn their backs on globalization." He adds that complete nationalization would also be "suboptimal and risky," instead suggesting that an "intelligent mix of regional and global production structures" is a better way of preparing for future crises. Warehousing is also being expanded regionally to better safeguard against disruptions to the supply chain.

According to Eling, this explains why flexibly structured logistics networks will be more sought after than ever before; networks that are able to combine different carriers in the best way possible with the customer's needs in mind. Throughout the pandemic, he says, Dachser has shown that the logistics provider and also the people that fill the network with life are ideally positioned for the supply chains of the future.

M. Schick



# Demand for long-term partnerships



Where are the global economy and its supply chains headed? Interview with Professor Aseem Kinra, Head of the Professorship for Global Supply Chain Management at the University of Bremen.

## Professor Kinra, the COVID-19 pandemic has had the world on tenterhooks for more than a year. To what extent has this impacted global supply chains?

**Prof. A. Kinra:** The virus has severely affected the world economy and global supply chains. At the same time, it has highlighted the vulnerability of our systems to events such as a pandemic, a volcanic eruption, an earthquake, or extreme weather, all of which are occurring more frequently. Everything is connected to everything else in a complex, intertwined global economy.

#### Even before the pandemic hit, growing globalization had led to overheated logistics markets and the threat of capacity shortages. What does this mean for the now recovering world economy?

Capacity shortages were indeed a pressing concern even before the coronavirus. Reliability and punctuality along global sea freight routes hadn't exactly been exemplary in recent years. If you take this kind of permanent, high-pressure situation and throw in blockages on main shipping channels and soaring demand for consumer goods and industrial intermediate products, problems are going to arise—not only due to the unforeseen hike in costs.

#### What can be done here?

There are two options that immediately come to mind for stakeholders. The first is to generally ramp up capacity across the system. But this will work only if the infrastructure allows it. In the longer term, new routes and new transport technologies can also be developed. The second option is to dial down the need for vital transports, for example by relaying construction plans and having products manufactured locally. This would also open up opportunities to meet the stipulated climate protection targets.

#### All of this sounds a rather long way off. What would be an effective way of countering capacity shortages right now?

In my opinion, forging long-term partnerships with logistics providers is an effective means of methodically and reliably achieving long-term strategic goals. Such partnerships would also allow those involved to ride out difficult

times together. For me, a forward-looking risk-management approach is best reflected in a mix of strategies focused around a streamlined yet resilient supply chain. Major logistics providers like Dachser have already made a lot of headway here with their networks and IT. If they find a similar mindset among their customers, there's no telling what they can achieve. Both sides would reap the benefits.

#### Abandoning globalization is one potential reaction to the pandemic and the intensifying trade disputes. What do you make of this idea?

If we look back at past crises, such as the 2007–2008 economic and financial crisis, the notion of backshoring and nearshoring—i.e., returning manufacturing activities to the country of origin—surfaced time and again. But surveys show this never actually happened. Ultimately, major global corporations base their decisions on more than just cost. If a European automotive OEM operates production facilities in China, this is partly so it can be closer to its core markets. The company also considers the sales opportunities in growth regions such as India, China, and the Asia-Pacific region. Nearshoring is thus not a question of geography, but customer orientation. In other words, we aren't looking at the end of globalization. Quite the opposite. We can, however, expect a new quality of global supply chains.

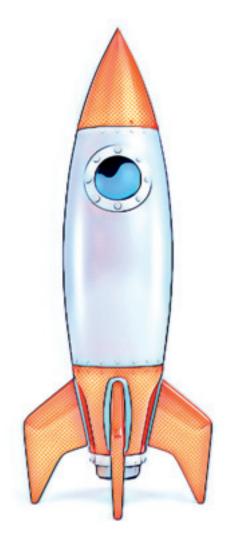
#### Looking ahead, what are your aspirations for global supply chains and logistics providers?

It's already clear that COVID-19 is changing consumer behavior. Disruptions on this scale always entail ripple effects that make new holistic concepts necessary. In logistics, this is made possible through digital expertise, resilient networks, and trusting, long-term collaboration.

Prof. Aseem Kinra heads the Professorship for Global Supply **Chain Management** at the University of Bremen. His scientific research is focused on global supply chains, international transport and logistics, logistics performance, and goods distribution. He is a founding member of the **World Conference on Transport Research** Society's Special Interest Group (SIG) E1 on Transport Systems.

#### Space for everyone?

Travel is back—but where to go? Billionaire entrepreneurs Elon Musk, Jeff Bezos, and Richard Branson have been battling it out in their own space race for a couple of decades now. On July 11, 2021, British-born Branson made a first foray into space tourism when he boarded VSS Unity and launched himself 86 kilometers into the atmosphere. So does that mean the race has been decided? If you ask Branson, then yes. But technically, according to the Fédération Aéronautique Internationale, "space" doesn't start until an altitude of 100 kilometers above the earth. Nine days after Branson's trip, Bezos crossed this magical border when he propelled himself into weightlessness—to an altitude of 107 kilometers for ten and a half minutes—aboard his own spacecraft, New Shepard. Musk, meanwhile, and his company SpaceX are working toward the first orbital spaceflight of their Starship rocket system. So what's next? The start of a great adventure into space travel. And a chorus of critics who think that space tourism is a waste of money and pollutes the environment.





## I remember exactly...

Hooray for technology! We can't totally rely on our memories as a tracking tool to recall our precise movements. Researchers at the University of Melbourne recently asked around 50 volunteers to use a phone app to track their own location for four weeks and to record ambient sounds every ten minutes as verification. A week later, the volunteers were asked to recall where they were at 72 different points in time during the study and state how confident they were about their answers. The GPS, motion, and audio data from the participants' smartphones revealed that their answers were wrong 36 percent of the time on average. In most of these cases, the participants mixed up the information from similar events.



Switch off to accelerate learning

Short breaks keep the brain sharp. Researchers at the US National Institutes of Health have found that it's when we take some time out and switch off from the task at hand that the learning process in the brain really progresses—and at 20 times the speed. Measurements of brain waves revealed that once neural networks have been activated, taking a break accelerates the speed of learning.

#### **Timber troubles**

It's the oldest construction material in the world, but wood is also a raw material of the future—and highly sought after. As things stand today, demand far outweighs supply. China and the US are two of the biggest drivers of the market and their appetite for wood is pushing trade prices up to double what they used to be. This is alarming for the European construction and furniture industries—and for pallet manufacturers. Soon, the situation could jeopardize the industry's ability to produce enough new euro pallets, the German Association for Wooden Packaging, Pallets, and Export Packaging

(HPE) warns. "This has implications for the overall movement of goods," said HPE Managing Director Marcus Kirschner. In a statement, the European Federation of Wooden Pallet and Packaging Manufacturers (FEFPEB) said that further price increases in the wooden pallet and packaging

industry were "inevitable."



**The European Pallet** Association e.V. (EPAL) has approved a total of 17 types of wood for the production of euro pallets. Fir, spruce, and pine are in especially high demand. In addition to conifers, the official standard, UIC 435-2, permits the construction of pallets from the wood of twelve deciduous trees: acacia, alder, ash, aspen, beech, birch, chestnut, elm, maple, oak, poplar, and sycamore.



#### **Smart device on wheels**

Things are moving forward in the car world. The days when we associated cars with dreams of horsepower and chrome are long gone. Instead, our roads are occupied by computers on four (or sometimes more) wheels. Now, it's all about the software. Today's average vehicle has some 100 million lines of programming code on board, and that figure keeps climbing. In comparison, the Hubble Space Telescope needs only about 50,000 lines of code.



# Can I have that in writing?

These days, voice messages and emojis are increasingly setting the tone for everyday communication on smartphones. This impacts one of the most important cultural technologies: writing.

disco ball, a lifebuoy, and a piece of coral: just three of the new additions to the international standardized library of emojis, which is expected to grow to include nearly 4,000 symbols by the end of the year.

or perhaps ?

But is this kind of visual feedback enough to get the message across? Emojis might be a quick and convenient shorthand, but conveying complexity and context calls for words and the versatile and nuanced imagery they conjure up.

If Homo sapiens had never invented writing, we probably wouldn't have achieved our unparalleled ascent. Thanks to the written word, we were able to break from our purely oral traditions and preserve our history, experiences, and practical skills for future generations. We gained the ability to send information around the world without fear of distortion. Most importantly, the written word helped organize power and ownership within growing societies. It's no accident that the first systems of writing emerged in the expanding, advanced civilizations of the Bronze Age some 5,000 years ago. Examples include the Sumerian cuneiform script in Mesopotamia and the hieroglyphs of ancient Egypt. In India, China, and Central America, too, people began to adopt symbols that stood not just for numbers, but also for words and sounds.

#### **Trading with 22 characters**

Administrative offices were instrumental in driving the development of writing. It's well documented, for instance, how the Sumerian cuneiform script became increasingly abstract over time. The most authoritative writers were generally clerks employed by the ruler; their job was to record on clay tablets which subjects had paid their taxes. A red-letter day in innovation arrived around 1,500 BCE in the Middle East: thriving trade promoted cultural exchange—and out of the tangle of regional languages came the first alphabetic scripts. Now just a few characters were

all that were needed to form syllables, words, and entire sentences. At that time, the Phoenicians were using 22 of these letters. Hailing from what is now Syria and Lebanon, this seafaring people transported their alphabet via trading partners all the way to Europe. It formed the basis for the Latin alphabet that was to emerge later, which remains the dominant alphabet in the West to this day.

#### Tap to change medium

Yet what importance does writing retain in today's digital world? Do emojis, texts, chats, Twitter, and voice messages herald the end our culture of writing? There is little evidence to support this view, and indeed much that contradicts it—the best known example being Wikipedia. Founded just over 20 years ago, this online encyclopedia continues to grow with the help of volunteers. The English version alone currently features over 6.3 million articles comprising just under 4 billion words. Moreover, digital connectivity has dramatically reduced the cost of storing, disseminating, and retrieving information. This effect is comparable with that of the printing press—prior to its invention in the mid-15th century, writing belonged exclusively to the realm of the social and political elite.

What makes the digital world revolutionary is that it changes more than simply the medium for communication. It's now possible to effortlessly mix different forms of expression and convert them at the push of a button—written word to spoken word and vice versa. Voice messages and emojis are a blessing for all those who have difficulty reading and writing. This is in no way rare: the UN estimates that some 750 million people qualify as illiterate. But pictographs are helpful for everyone else as well because they provide a very efficient way of communicating feelings and evoking associations. As the pace of life increases, they enable recipients to quickly grasp what the sender is saying—and avoid reading something between the lines that was never intended.

S. Ermisch

### 絵文字

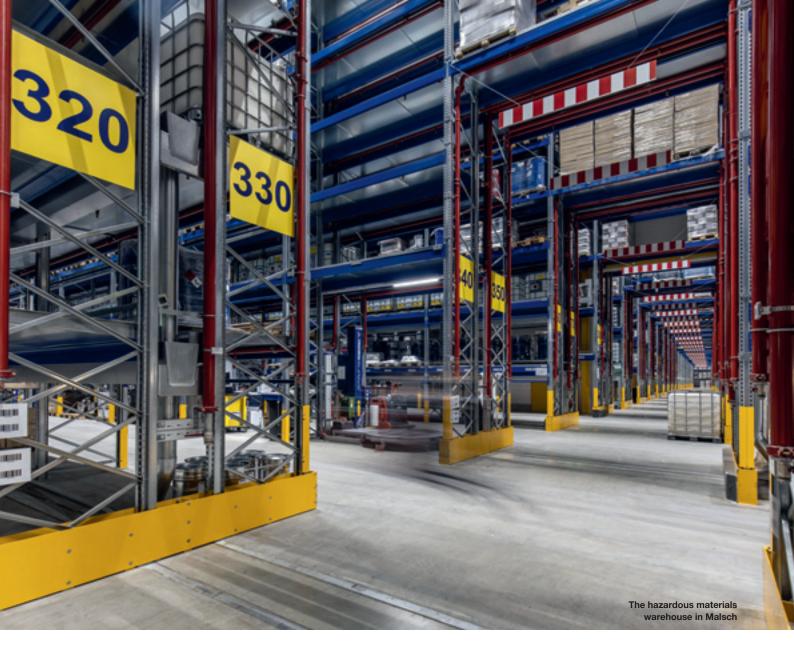
The term emoji is a combination of the Japanese words "e" (picture) and "moji" (character). They were invented by Shigetaka Kurita, a 25-year-old employee at a Japanese mobile communications company, in 1998. Developed by chance, these "ideograms" were intended to give people more scope for expression when sending text messages that were limited to 250 characters. They went on to take the world by storm.

# A strong bond

Without adhesives, modern manufacturing in a broad array of industries and applications would be inconceivable. Klebchemie M.G. Becker GmbH & Co. KG has made a name for itself in this segment with its numerous innovations. A long-standing logistics partnership supports the growth of this medium-sized chemical company headquartered in Baden, Germany.









#### "We were able to build up a trusted collaboration with Dachser."

Michael Dörflinger, Director Sourcing and Procurement at Klebchemie

All of Klebchemie's research, development, and production is still done at the company headquarters in Weingarten. However, space there is limited, especially the space for storing raw materials and finished products. Klebchemie therefore urgently needed to outsource its manufacturing logistics to a reliable partner. Dachser was the obvious choice. The logistics provider has built up considerable expertise in chemical logistics for palletized goods and pools its knowledge in this area in its specialized DACHSER Chem Logistics industry solution. Dachser Malsch uses this expertise to develop customized services for companies in the region.

#### Opportunity knocks: The new hazardous materials warehouse

"We've been working with Dachser for decades now, and have continually expanded the partnership over the years," says Michael Dörflinger, Director Sourcing and Procurement at Klebchemie. "When the decision was made to build a new hazardous materials warehouse at Dachser in Malsch, we took advantage of the opportunity." Klebchemie was one of the first customers to move into the new warehouse, which commenced operations in 2019. The two companies began working closely with one another during the planning process to create the ideal conditions

#### **PROFILE**

Headquartered in Weingarten, southwestern Germany, Klebchemie M.G. Becker GmbH & Co. KG has been operating one of the world's most advanced and innovative research and manufacturing centers for adhesive systems for over 70 years. With more than 670 employees and operations around the world, Klebchemie is one of the global trendsetters in the area of what are known as PUR adhesives—polyurethane reactive adhesives.

www.kleiberit.com/en

for both. Dachser has been handling all of Klebchemie's manufacturing logistics since spring 2019. The manufacturing site itself now has only a small buffer warehouse.

By outsourcing its logistics, Klebchemie can now focus completely on its core expertise. The process chain is clearly defined: all Klebchemie suppliers deliver their goods to the Dachser hazardous materials warehouse in Malsch. The incoming goods inspection is done there, and Dachser is also responsible for sampling. The raw materials are then transported the 31 kilometers to Klebchemie in Weingarten as needed. On working days, this requires between ten and twelve shuttle transports. "On the way back, we bring the finished products, some of which are received and stored in the Dachser warehouse until a customer requests them," says Florian Steinbrunn, Contract Logistics Manager at Dachser in Malsch. The adhesive specialist regularly occupies as many as 10,000 pallet spaces in the hazardous materials warehouse, with some 2,400 different items. That's about one-fifth of the warehouse's total capacity.

#### From Malsch to anywhere in the world

From Malsch, Dachser distributes the finished products to customers all over the world. Around 90 percent of them are industrial companies, while the remaining buyers operate in trade, specialist retail, and DIY. In Europe, Klebchemie's strongest markets are Germany, Spain, and France, with 21 countries receiving their deliveries by land. Dachser Air & Sea Logistics handles overseas shipment, with the US, China, Australia, Vietnam, and Brazil being the main buyers here. In 2020, Klebchemie sent a total of 16,000 shipments through Dachser, weighing a total of around 54,000 metric tons.

The hazardous materials warehouse in Malsch implements all the relevant safety and storage regulations for the chemical industry using state-of-the-art technology, which was a key factor in the decision to enter into this comprehensive logistics partnership. Their procedures include automatically applying all global hazardous materials and dangerous goods regulations, ensuring consistent availability and use of cargo-securing equipment, and conducting mandatory vehicle and loading inspections, as well as DGR checks (in accordance with dangerous goods regulations for air transport). But when it comes to its partner's commitment to security and quality, one aspect

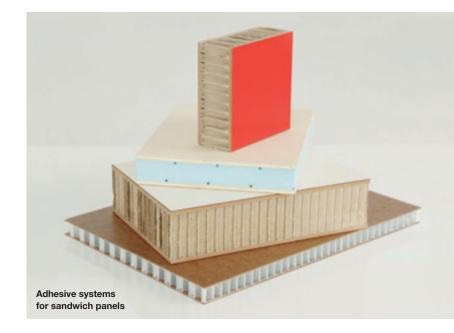
that is no less important to Klebchemie is the staff in Malsch, who are specially trained in the proper handling of hazardous materials. They also have to be flexible, as new items that may be subject to additional requirements are regularly sent in for storage.

"The work involved for a customer like Klebchemie is very demanding and dynamic, so we are all the more pleased that we've been able to continually improve the quality of our joint work processes over the years," says Bernd Großmann, General Manager European Logistics at Dachser in Malsch. One example is the delivery of raw materials for Klebchemie at the hazardous materials warehouse. In the beginning, some days would see suppliers lined up to deliver their goods to the warehouse, while other days it was completely empty. "Now, freight forwarders can reserve fixed time slots for deliveries to our hazardous materials warehouse. That resolved a lot of bottlenecks and improved efficiency," explains Steven Croissant, Sales Manager at Dachser in Malsch.

#### **Optimum flexibility**

"In addition to high reliability and quality awareness, flexibility is particularly important to us," stresses Dörflinger. "We have an obligation to our customers, so it can also happen that we have to request raw materials from the warehouse at short notice to get them delivered more or less immediately. Our partnership with Dachser gives us this option." If necessary, a truck can also come to Klebchemie in Weingarten on a Saturday to pick up finished products and make space in the small warehouse there. "Having a good relationship with our logistics provider is important to us; we see the two companies as a team working together for the same goal," Dörflinger says. "We were able to build up a trusted collaboration with Dachser." Großmann adds, "We worked with Klebchemie to develop a fully integrated solution with tightly interconnected processes and highly functional interfaces. This is a perfect example of chemistry logistics." A. Heintze

Like certain paints, varnishes, cosmetics, and pharmaceuticals, many adhesives are temperature-sensitive products. This means they have to be protected against extreme heat and frost. For this reason, Dachser uses, for example, special thermal hoods to ensure that frostsensitive goods are always stored and transported at temperatures of at least 5 degrees Celsius.



## Impetus to innovate

Stefan Hohm is Dachser's Chief Development Officer (CDO) and has been in charge of the IT & Development (ITD) Executive Unit since January 2021. What are this 49-year-old's professional and personal goals? We went to ask him.



Mr. Hohm, as CDO you've been in charge of the newly established IT & Development Executive Unit since the beginning of the year. What was it like to start this position in the middle of the coronavirus crisis with all its lockdowns and social distancing measures?

Stefan Hohm: The pandemic has challenged and shaped us in many ways. For example in the way we communicate: in February 2020, Dachser held a total of 400 Webex meetings; in November that number had reached 28,000. At the start of 2021, the number of employees working remotely peaked at over 5,000. That was a challenge in terms of bandwidth, IT equipment, and security. In IT terms, the pandemic has forced us to try out a lot of things that were effectively still in development. This has also had positive effects.

#### How does such innovation and rethinking work within a large, global company like Dachser?

This is where the leitmotif of Dachser's generational change comes in: "Keeping the good and shaping agility." It's important to me that the ITD Executive Unit uphold this claim while also carving out its own identity. We're working on this in close collaboration with the other company units and especially with the branches. This ultimately adds value for Dachser as a whole and, most importantly, for our customers. Our first few months have shown that we're very much on the right track.

## You can certainly draw on your many years of experience at Dachser. When and how did you join this family-owned company?

My father had his own small transport company, so logistics has always been familiar territory. I joined Dachser in 1992 as part of a dual work-study program, which I completed in 1995. I then spent eight years working in the Logistics Consulting Division in Munich, known today as Corporate Contract Logistics. There I was responsible for developing and rolling out the Mikado warehouse management software. So I've got a long history with these digital systems that have fascinated me since day one. Back then, I also spent a lot of time visiting branches all over Europe, which meant I got to know Dachser really well.

## "Everyone at our new ITD Executive Unit is extremely motivated. We're making tangible progress each and every day."

Stefan Hohm, Chief Development Officer at Dachser

#### Where and how did you go about developing and expanding your managerial skills at Dachser?

In 2004, at the relatively young age of 32, I was given the opportunity to take over management of the Erfurt branch. At the time, Erfurt was one the few places in Germany where Dachser hadn't yet put itself on the map. I found the experience of working with a new team to set up the branch very enjoyable and it taught me a great deal about leadership. In 2008, I got the chance to assume the post of branch manager in Hof. This location was four times bigger than Erfurt and came with new challenges that I was only too happy to take on. Just as I moved to the branch, the economic crisis hit—but we managed to deal with it well as a team. I stayed in Hof until the end of 2015, before returning to the Head Office in Kempten to set up the Corporate Solutions, Research & Development Corporate Unit.

#### Looking back at these experiences, what stands out as being particularly important?

One topic that has stayed with me all these years is lifelong learning. I remember, for example, when I was offered the chance to do an Executive MBA at the IMD in Lausanne, Switzerland. This was a huge step for me, and keeping up with my studies while also working as a branch manager was a real test of stamina. Looking back, I would describe this period as a kind of litmus test for my current position on the Executive Board. It gave me another, entirely different perspective, especially on the topics of finance, business models, sustainability, innovation, and even management.

## Your ITD Executive Unit handles a wide range of topics. When it comes to research & development, what's currently high up on the agenda?

Well, we're about to roll out a new telematics solution. We're equipping over 8,000 of our swap bodies and semitrailers with solar-powered LTE-M trackers, which will enable our employees to use an app that clearly shows the exact location of each vehicle. The topic right at the top of Dachser's agenda is sustainable urban logistics. We'll be expanding the DACHSER Emission-Free Delivery concept to include at least eleven European city centers by the end of 2022. In addition, we've just launched the Idea2net project "Climate Protection." This is about implementing measures for preventing CO<sub>2</sub> emissions—for

instance through alternative powertrains for trucks such as hydrogen fuel cells and by expanding our use of photovoltaics—but it also addresses corporate citizenship. And in the DACHSER Enterprise Lab, we're working with Fraunhofer IML to develop a solution for automatically identifying, localizing, and measuring every single pallet in our transit terminals.

#### What's new in the world of industry solutions?

Jens Wollmann's appointment as Division Head of Corporate Solutions further strengthens the team. In addition to our two corporate solutions—DACHSER DIY Logistics and DACHSER Chem Logistics—we're expanding the buyers' consolidation approach for automotive suppliers as part of DACHSER Automotive Logistics. And as part of DACHSER Fashion Logistics, we're drafting a concept for grouping deliveries to the Fashion Outlet Center. Starting in 2022, we'll be moving toward implementing a new corporate solution called DACHSER Cosmetics Logistics. Our Lead Logistics Provider Department will also be bringing its share of important customer projects to the table.

#### What are the current trends in contract logistics that fall within your scope of responsibility?

A real highlight at the moment is the construction of our fully automatic high-bay storage facility in Memmingen, which is scheduled to be completed by mid-2022. One trend in contract logistics is toward automation, for instance the use of automated guided vehicles (AGVs)—we're currently running a pilot project for this in Langenau and Vaihingen. Another is flexible picking, in which employees are supported by collaborative robots, or co-bots, as they work to keep pace with our customers' ever increasing volume fluctuations. These are again the kinds of concepts we're working on with Fraunhofer IML researchers in the DACHSER Enterprise Lab. Our business units are strategically developing warehouses, especially in Europe, in order to further advance contract logistics as the supreme discipline alongside value-added services (VAS) and transport services.

#### It sounds like there are lots of exciting things happening?

Absolutely. That's one of the reasons everyone at our new ITD Executive Unit is extremely motivated. We're making tangible progress each and every day.

#### FROM THE LABORATORY OF THE FUTURE

## **Key technology:** Green electricity

The fundamental basis for sustainable climate protection is ensuring an affordable supply of electricity from renewable energy sources. A look at the available technologies and where they're going.

lectricity generated using renewable energy sources is the key to global climate protection. Green electricity is the only way to ensure that engines and plants can run while producing virtually zero greenhouse gases and to manufacture sustainable hydrogen and synfuels.

The challenge of almost entirely decarbonizing all industry lies in establishing an adequate global supply of affordable green electricity. Logistics and e-mobility are just two of the many areas that will require a vast amount of green electricity in the future.

In the European Union, what counts as renewable energy is governed by Directive (EU) 2018/2001, also known as RED II. This states that the most sustainable methods for generating green electricity are wind turbines, photovoltaic systems, and hydropower. RED II does not count nuclear power from fission among renewables.

#### Consumers are setting the agenda

The electricity that comes out of the wall knows no color; it's the same no matter how it's produced. But in choosing their provider and tariff, consumers can influence which kind of electricity finds its way onto the grid. The more companies and households demand green electricity, the more will be invested in expanding the use of renewable energy. This market mechanism is most commonly pursued in the two transnational electricity markets of Europe and North America. What are known as guarantees of origin or renewable energy certificates (GOs/RECs) enable consumers to be certain they are procuring green electricity, and thereby increasing demand for it.

Anyone wanting to do more to bring about a swift energy transition than simply raise demand can directly or indirectly invest in the establishment of new systems for generating renewable power. There are two ways to do this:



first, through special certificates issued by electricity providers that promise to invest in new plants; and second, by consumers producing green electricity themselves. For its part, not only has Dachser been buying GOs for hydropower from Norway, the company has also been expediting the expansion of PV systems installed on its own buildings. While the most efficient approach is for Dachser itself to consume the electricity it produces in this way, it has the option of exporting surplus electricity to the public grid. Whichever path the company chooses, it plays a valuable role in preventing greenhouse gases and helping countries and regions transition swiftly toward using renewable sources.

#### Participating in wind parks

Companies also have the option to participate in the establishment of, say, new wind parks by entering into long-term power purchase agreements (PPAs) and directly procuring the green electricity these facilities generate. In this way, PPAs offer companies a chance to promote the expansion of renewable energy production beyond the boundaries of their own buildings and sites.

But the question remains: in the future, could highly industrialized regions cover their high energy demands entirely with green electricity? The answer is yes and no. Yes, regions such as Europe can and must ready their own grids for intermittent energy production—in particular from solar and wind energy, which generate vast amounts of power, but not necessarily when it is required. Although such an investment in infrastructure is ambitious and costly, it is technically feasible and, most importantly, would count as sustainable. And no, Europe will continue to have to buy energy in the global market. The forecasted demand is too great for Europe to generate all the green electricity it needs within its borders.

The countries that are today's leading producers of fossil fuels such as crude oil and natural gas are being superseded by new suppliers, among them arid regions that are converting solar energy into hydrogen and other synfuels. Energy policymakers and markets must decide soon how much of these fuels will be needed and which countries make the most suitable producers. The sooner the medium- and long-term conditions are defined, the sooner financiers can invest in the establishment of renewable energy and we can put a stop to climate change once and for all. This makes affordable green electricity a key technology of the 21st century.

Andre Kranke Department Head Trends & Technology Research Corporate Research & Development 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.







#### "Fast, on-time, and transparent delivery throughout Europe is a critical factor for our business."

Morten Jensen, Director of Logistics at Nilfisk

explains Morten Jensen, Director of Logistics at Nilfisk. "The demand for corresponding solutions is rising sharply right now. And that calls for an efficient logistics concept."

#### Less is more

Years ago, the company had already changed its logistics strategy, reducing the number of its logistics service providers from 30 to six. Dachser and its comprehensive groupage network have been a part of this since 2010. "Fast, on-time, and transparent delivery throughout Europe is a critical factor for our business," Jensen says. "With this in mind, we want to make our supply chain as simple as possible."

Logistics for production

In 2020, the global company headquartered in Denmark reviewed its logistics processes. This resulted in a new structure that can offer fast, reliable deliveries to Nilfisk's markets in Northern and Central Europe, the UK, Russia, and Turkey. The focus is on three centrally controlled distribution centers: in Ghent, Belgium; Trollhättan, Sweden; and Tarragona, Spain. In implementing such a fundamental restructuring, the challenge was to continue to keep transit times to customers throughout Europe as short as possible.

"With our network and our entargo product lines, especially our premium targospeed offering, we can provide Nilfisk with effective support as it turns many small, local units into a powerful whole and as it organizes sales even faster and even more efficiently," says Jonas Bettray, Key Account Manager European Logistics at Dachser. "Dachser's European network is tailor-made for this bundling of freight services thanks to its exceptional quality and delivery reliability." He adds that Dachser is currently linking two of the distribution centers—in Ghent via the Dachser branch in Mouscron and in Trollhättan via the Dachser branch in Gothenburg—to its groupage network. From here, all target markets can be reached within a very short time.

What Nilfisk most appreciates is Dachser's impressive flexibility. "Normally, 12 trucks set off per day from the distribution center in Ghent for consolidation at Dachser's Mouscron branch, but at peak times this can rise to 20 trucks. This requires robust and resilient structures," says Kim Østerby, Transport Development Manager EMEA at Nilfisk. Reliability is a key criterion for the company, he adds. But there is more to it than that: "We want to be able to access all the information and reports we need to achieve our goals—anytime, anywhere in Europe."

#### The acid test in difficult times

For Jensen, proximity and trust are essential aspects of the logistics service provider relationship. This is something that Nilfisk particularly appreciated during Brexit and the COVID-19 pandemic, he says, when European goods flows were under considerable pressure. "Dachser has always acted confidently and reliably even under difficult conditions. It's especially important to keep the delivery promise in a period of uncertainty and restrictions impacting both our two companies as well as our employees' ways of working," Jensen says.

"We've grown even closer in these complicated times," Bettray confirms. "The fact that both partners get on well at the personal level certainly helped." He particularly appreciates the "Scandinavian" style of togetherness. "We always



tackle all tasks and challenges together, in a respectful and direct way. Always as equals and in mutual appreciation. This is an essential part of our success story," Bettray says.

To make all processes as efficient and transparent as possible, Nilfisk and Dachser have concluded a head-quarters-headquarters agreement. This governs close and personal exchanges at the management level and avoids possible information delays at the local and regional level. "We've made logistics a management issue," Jensen says. "With a structural turnaround like the one we've just had, having immediate, direct exchanges at the decision-maker level makes things much easier."

In the future, there is also "excellent potential for collaboration" in the consumer markets, Bettray adds. Thanks to the established industry solution DACHSER DIY Logistics, existing agreements can be leveraged to make timesensitive deliveries reliably and punctually to over 18,000 DIY stores throughout Europe. For Jensen, the fact that sustainability is a high priority at Dachser is another reason for choosing the logistics provider to help Nilfisk get there. "Professional cleaning always aims to improve quality of life. That's possible only with sustainable solutions—in logistics, too. And on that, we're on exactly the same wavelength as Dachser." M. Schick

Economists estimate that global vacuum cleaner sales will reach just under EUR 50 billion in 2021. The biggest market for vacuum cleaners, with projected sales of over EUR 10 billion, is China.

(Source: Statista)

#### **PROFILE**

Nilfisk, headquartered in Copenhagen, Denmark, is a global leader in the professional cleaning industry. With some 4,500 employees, Nilfisk produces professional floor cleaning equipment, vacuum cleaners, and high-pressure washers in seven countries. Its products are sold in over 100 countries worldwide. After a coronavirus-related decline in sales in 2020, demand has significantly recovered and market activity is back to, and in some markets even above, pre-pandemic levels. The company recently reported revenue of EUR 495 million for the first half of 2021 and is expecting organic growth in the range of 12 to 16 percent for the full year 2021.

www.nilfisk.com



## Like one of the family

At the age of just 27, Anna Baierl already carries a great deal of responsibility in operations at Dachser's location in Unterschleißheim, Germany. The company is like family to her—in two ways.

> nna Baierl didn't actually want to work at Dachser. But that had nothing to do with the company itself; instead, it had more to do with her brother Franz. "I wasn't sure it was a good idea for two members of the same family to work at the same company. But then the training concept convinced me to go for it. And since then, I haven't regretted my decision to join Dachser for a second," says the now 27-year-old, who works at Dachser Unterschleißheim, which is part of the Munich group.

The family ties proved not to be a problem at all. Anna even comes into contact with her brother at work from time to time. Franz Baierl (33) is team leader for groupage output in the Munich group. And when their cousin Michaela (18) started her apprenticeship, she became the third member of the Baierl clan to join Dachser. A small family dynasty is beginning in Dachser's Munich group.

#### **Logistics lineage**

Anna and Franz's parents had their own transport company, so she got a feeling for the forwarding business from an early age. She also brought a lot of curiosity and ambition to the table. After training as a freight forwarding and logistics agent—which in her case was shortened to two and a half years—she was taken on and initially worked in Dachser's Western Europe scheduling department. In the evenings and on weekends, Anna—together with Franz, by the way—continued her professional development by training as a specialist in freight transport and logistics while still working.

By 2018, she had completed the program. "Next, I wanted to expand my horizons again. And Dachser gives you the opportunity to do that." She was offered the position of operations manager in the transit terminal at the Unterschleißheim branch. "It's a huge step from scheduling to operations manager with personnel responsibilities, so I thought about it carefully before I said yes," she says. For six months, Anna took a special training course to prepare for her new position. She also worked the night shift, earning the respect of her predominantly male colleagues by the time she started her new role.

#### Support for women

"I might be the only female operations manager at Dachser in the region, but the company does a lot to support women," Anna says. She hasn't had any problems being accepted. "Some call me 'Boss,' while with others I'm on a first-name basis. It's important to have a presence in the day-to-day operations and engage with people." She is responsible for about 40 employees and manages activities concerning all aspects of the transit terminal. She makes personnel decisions, helps with the induction of new team members, and serves as the link to the administrative functions. And that's in a branch that only really took off in 2019, when she took over her post, following a major renovation and expansion.

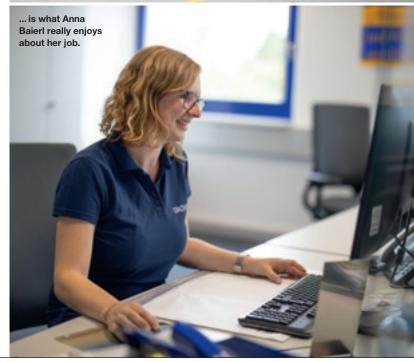
She says she went from "0 to 100," and in the time since, her team has "accomplished a lot that I'm very proud of." Of course, Anna's outstanding work hasn't gone unnoticed by Markus Wenzl, General Manager European Logistics in the Munich group. That's why she encountered no resistance from him with her desire for another career change: in the fourth quarter of 2021, she will move to the Munich branch and take on a new position there in the Euronational Outbound Division.

This move represents another step in her very special career at Dachser. "Never stand still—that's the motto that drives me. The nice thing is that this is possible at Dachser," she says. How fortunate—as Anna herself thinks—that she once dared to join the family-owned company despite her own family concerns.

L. Becker











## Celebrating 50 years of the swap body

It's one of the greatest, most groundbreaking innovations in road transport to date: the standard freight container for groupage logistics is turning 50.

egulated and standardized dimensions are the hallmark of shipping containers and have greatly improved the flexibility and efficiency of their handling and associated procedures. It was Thomas Simon—son-in-law of the company's founder Thomas Dachser and later a member of Dachser's Executive Board, mainly responsible for developing technology and international business—who came up with the idea to transfer this model and associated system concept from sea to road in Europe.



He drew up plans for a standardized transport container that could be detached from the road unit and "swapped" between vehicles, and ultimately developed it together with the Kögel Trailer company. With fixed dimensions and fold-out legs as its characteristic features, the swap body was born in 1971.

#### An idea that revolutionized logistics

Within just three years, Dachser converted its entire fleet to the new transport container. Standardization of the swap body system followed in 1980. Today, Dachser has around 8,000 swap bodies in operation. What began as a solid idea has now revolutionized the entire world of logistics.

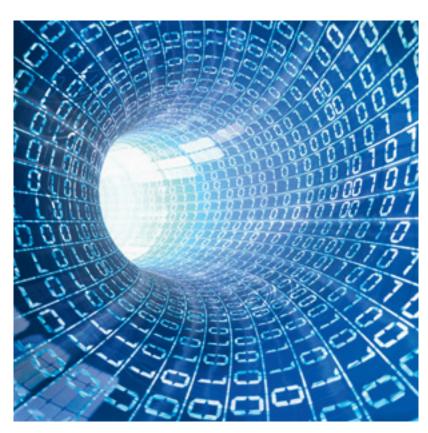
And the story of innovation and pioneering spirit lives on. Even though the swap body remains the ultimate benchmark in terms of cargo space efficiency, Dachser will be converting the whole fleet of semi-trailers in its European Logistics Business Line to what are known as mega trailers, which offer more interior space. "We want to be the first major groupage provider in Europe to use mega trailers instead of standard semi-trailers," says Alexander Tonn, COO Road Logistics at Dachser.

#### Taking data analysis to the next level

Since the beginning of June, Dachser has pooled the expertise it has gained in various research and innovation projects on the topics of artificial intelligence, machine learning, and data science in its new in-house Competence Center Data Science & Machine Learning.

Stefan Hohm, Chief Development Officer (CDO), insists that "the importance of artificial intelligence, machine learning, and data science for transportation, logistics, and supply chain management will continue to grow in the coming years. That makes it crucial for Dachser to further strengthen its expertise in this important field and to further expand its ability to implement and operate machine learning applications." CC DS&ML will take on this task at Dachser and act as a central point of contact.

One specific sample application is an AI product that was developed and rolled out as part of the DACHSER Enterprise Lab. The forecasting model uses machine learning techniques to predict a branch's inbound overland transport volumes up to 25 weeks in advance. For employees, it will be invaluable in supporting planning and decision-making for seasonal capacity planning.





+++ EUROCOMBI INCREASES CAPACITY +++ The Dachser Netherlands branch in Zevenaar has expanded its long-haul fleet with a "Langere en Zwaardere Vrachtautocombinatie" (LZV), meaning a longer and heavier truck combination, which is now in use for cross-border transport to Frankfurt, Germany. Known as the EuroCombi, this new solution increases capacity by 30 percent, which in turn helps reduce traffic volume and emissions. For Dachser's daily system traffic from Zevenaar to Frankfurt, it will save 124 trips a year. That amounts to 60,750 kilometers, which translates into a saving of 20,000 liters of diesel, and by extension around 63 metric tons of greenhouse gas emissions. +++



+++ NEW FACILITY IN LISBON +++ To handle the growing volume of business in the greater Lisbon area, Dachser is building a new logistics center near the Portuguese capital. At 59,200 m², it will replace and more than double the total area of the existing facility as of the beginning of 2022. Dachser has a total of seven locations in Portugal, with another new facility scheduled to open in Faro in the Algarve in 2022. +++

## From Poland to Haifa -Steel colossus for the Mediterranean



The new container bridges for the Port of Haifa made their way from Poland through Hamburg and on to the Mediterranean Sea. Dachser Air & Sea Logistics took on the job of transporting these disassembled ship-to-shore container bridges, consolidating various parts from suppliers all over Europe—a project of epic proportions.





#### "The larger the component, the more loading it becomes a high-precision maneuver."

Hans-Ulrich Brüggemann, Manager Seafreight Projects at Dachser Air & Sea Logistics

The Port of Haifa is Israel's largest international port and one of the busiest goods terminals in the eastern Mediterranean. Sea freight makes up the lion's share—60 percent—of its container goods traffic.

To keep pace with work at the dockside, the port recently decided to literally raise its game to a whole other level by ordering four new, extended container bridges from Bremen-based company Kocks Ardelt Kranbau, the global market leader in Goliath gantry cranes and a pioneer in container crane development. Whereas the port's previous crane solutions can serve seven to eight "stories" of a ship, the new cranes will serve up to eleven—a major leap in the port's performance and efficiency.

#### Parts from all over Europe

The scale of the cranes is matched by that of the logistical challenge. "Parts and components had to be gathered from all over Europe and then shipped from Hamburg," explains Hans-Ulrich Brüggemann, Manager Seafreight Projects at Dachser Air & Sea Logistics in Cologne. The steel structural elements were manufactured in Poland, 26 container tractors arrived from Antwerp, and individual machine parts came from suppliers spread throughout Europe. "Bringing everything together and orchestrating the processes was a Herculean task," Brüggemann says. "None of this would've been possible without the close collaboration with our trusted partner ICL-Israel Cargo Logistics. From the moment the project got underway,

the dedicated phone line connecting the Dachser teams in Cologne and Haifa has been in constant use. Even now."

The parts for the first crane arrived in Haifa in March, for the second in June, and the parts for the third and fourth are expected in September and November respectively. Brüggemann and his Seafreight Projects team received the initial inquiry concerning the project shipment job through ICL in December 2020. "A particular challenge lay in the vast dimensions of the container bridges," Brüggemann reports. "Even when disassembled, the pieces were on the large end of what can be transported by truck and ship. Some of the individual parts were up to 15 meters long."

#### A matter of experience

"When planning a project transport, you have to take many factors into account," Brüggemann says. "We organize the most efficient tour: everything from precise route planning—which may involve closing off roads—to customs clearance." Luckily, Dachser Air & Sea Logistics has specialized project logistics teams on hand that have built up a wealth of experience. For many years, they have taken care of door-to-door processing and have been advising customers around the world on aspects such as route planning or choosing a carrier.

The cranes' journey took them by truck from the factory in Poland to Hamburg, where the size of the single parts determined whether they were stowed inside closed 40-ft containers or in what are known as open-top 40-ft containers. The extra-wide steel elements were shipped on 40-ft "flat racks"—containers that have two bulkheads, but no side walls or roof—while the extra-long parts were shipped on 40-ft platforms with no walls or roof at all. "This was high-precision work in both planning and practice," Brüggemann says. "But everything went off without a hitch."

In Haifa, under the leadership of Amir Levy, Commercial Manager Ocean Import at ICL, the dovetailing teams from ICL and Dachser ensured that the containers, flat racks, and platforms were transported immediately to the installation site at the port. A fully disassembled lifting frame was imported from Poland specially to erect the cranes; it will be taken back once work is completed in 2022. Thanks to this piece of equipment, the container bridges can be assembled quickly and readied for their work at the terminal.

"Shipping entire container bridges together with parts gathered from all over Europe is a real challenge," Brüggemann says. "But that's also what makes the project so appealing. Provided all the processes are properly in place, even the largest crane almost becomes just another piece of sea freight."

M. Schick







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