

ISSUE 3/2019

DACHSER

magazine

THE WORLD OF INTELLIGENT LOGISTICS

IT'S ALL ABOUT THE NETWORK

LOGISTICS AT THE HEART
OF EUROPE



ALL ABOARD

Moving people and goods takes not only strength and skill, but also stabilizing forces.



25 metric tons is how much the marble blocks weighed that workers in Ancient Rome moved from quarries for onward transportation over the adjacent roads. To do this, they used simple wooden tracks laid down the steep slope. Thick hemp ropes either side of the track served to guide and brake the blocks as they slid downward—but it was nevertheless a life-threatening task.



20 minutes is how long the maiden voyage of the Vasa, the much-anticipated showpiece of King Gustav II of Sweden's war fleet, lasted in August 1628. The three-master then sank in the Baltic Sea. Why is that? With its 64 canons and counterweights, the way the ship was loaded was utterly wrong. What was supposed to be the "wonder weapon" in the war against Poland went down in history as a first-class technical botch job.

1825 is the year in which Johann Preissler published "Not- und Hilfsbüchlein für Fuhrleute," the first well-known text on cargo securing. Within his work, the haulage contractor from Ilmenau in central Germany promoted a tight fit for the payload and practical training for greater safety on the roads.



1959 is the year the three-point safety belt made its debut in a production vehicle. Nils Ivar Bohlin invented it in Sweden back in 1920. He used his experience from developing ejection seats for supersonic aircrafts.



29.75 kilograms is how much a running meter of the world's strongest cables weighs. They were manufactured for a new cable car to the top of the Zugspitze, Germany's highest peak. The four track cables are each 4,900 meters in length and 72 millimeters in diameter. Opened in 2017, the cable car traverses a height difference of 1,945 meters. Each cabin can carry 120 passengers.



80 liters is the total capacity of a dunnage bag. In addition to clamping and locking bars, Dachser's in-house development is an important aid when securing cargo. Filled with leftover packaging film, these bags can be tucked and squeezed between the pallets to fill empty spaces. Every year, Dachser's European branches reorder 40,000 dunnage bags as well as around 9,000 clamping and locking bars.

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IT'S ALL ABOUT THE NETWORK



Precision-timed export traffic, standardized processes, and closely integrated IT systems are what makes Dachser's European over-land transport network stand out. Poland is increasingly taking on an important role in this regard—delighting fans of card and board games all over the world.

Being on the move is in the very nature of playing cards: they are thought to have originated in China or India before making their way in the 14th century across Persia and North Africa to Europe, conquering the major cities and, ultimately, the world. Since then, card games have become a ubiquitous part of everyday life, connecting people and cultures in their singularly uncomplicated, playful way.

It was the unique appeal of playing cards that, in 1947, led to the founding of Krakowskie Zakłady Wyrobów Papierowych, a paper product manufacturer in Kraków, Poland. Its success story is due primarily to the production of card decks of all kinds, including many designed →





The European Logistics leadership team at Dachser Poland

and printed to special order—all in outstanding quality that quickly made a name for itself in Poland and abroad. After the fall of the Iron Curtain, the company was privatized with the involvement of its employees; since 1997, it has traded under the name *Krakowskie Zakłady Wyrobów Papierowych Trefl-Kraków Sp. z o.o.*, or *Fabryka Kart* for short. A new era of passion for games had begun.

“Last year, we made 20 million packs of playing cards. Outside Poland, we mainly distribute them on the markets in Europe and the US,” says Grzegorz Skokoń, Director of Customized Projects International Sales at *Fabryka Kart* in Kraków. Seven years ago, the company’s steady growth and development of new markets brought it and Dachser together.

From Kraków, the board and card game manufacturer uses Dachser’s network to focus on the markets in Germany,

Sweden, and France, which account for well over half its exports. In 2018, it shipped over 1,200 pallets. And the volume continues to rise, year after year. “Dachser’s fast service, competitive and extensive product portfolio, and friendly, partner-like collaboration impressed us from day one,” Skokoń says. “What’s more, it’s an enormous advantage to be able to rely on a European and worldwide network that guarantees system continuity.” Every year, Dachser



Poland opens up new international destinations with new, local partners. This offers a steady stream of interesting options, as Skokoń points out.

To achieve dynamic growth along with its customers, Dachser places greater emphasis on quality than on quantity in developing its own network. “Network intelligence doesn’t mean having to set up branches in as many locations as possible. What matters is having a presence at the right locations, offering connections between them, and serving the right strategic routes,” says Michael Schilling, COO Road Logistics at Dachser. It’s like a puzzle, where many individual pieces combine to ultimately form a complete picture.

Poland is a clear case in point. For thirteen years, Dachser has maintained its own country organization here, emerging as the market leader in cross-border overland transport—all without setting up an extensive domestic branch network. “We entered the Polish market at that time with just three branches,” recalls Grzegorz Lichocik, PhD, Managing Director European Logistics at Dachser Poland. These have since multiplied into just nine network points: Stryków, Poznań, Szczecin, Wrocław, Rzeszów, Warsaw (including an air and sea freight branch), Gdańsk and Sosnowiec near Katowice. The last two locations carry out operations for *Fabryka Kart*.

“Here in Poland, the high quality of our performance helps further the success of the Dachser network. What makes this possible is the personal commitment of our employees and business partners, who are like close members of our family,” Lichocik says. Dachser Poland is constantly expanding its infrastructure and daily connections to better serve its customers and their goods flows. Over the past two years, the size of its terminals and the number of direct connections have doubled, and a new branch is opening in southeastern Poland’s Rzeszów region. Lichocik says: “The focus we place on our personal customer service and our comprehensive IT structure, which offers interfaces to our customers’ systems, combines with our actual physical services to provide the basis for optimum and effective communication.”

Taking the lead with specialization

“We specialize in the import and export of groupage freight; as a result, we have achieved a dominant position in the domestic market,” Lichocik says in explaining the country organization’s meteoric rise. Dachser Poland’s goal is to offer superior quality to customers with an international focus. “To this end, we’re concentrating exclusively on building international connections to ensure optimal transit times when transporting our customers’ shipments.”

More than half of all routes from Polish branches lead to German locations, the main destination for the majority of Polish exports. “We also offer numerous daily services to other in-demand destinations, such as the Czech Republic, Italy, France, Hungary, Slovakia, the →

FACE-TO-FACE



“Quality is the key to network success”

“Logistics brings people and markets together in networks.” That’s a fair description of what Wolfgang Reinel, Managing Director European Logistics North Central Europe (NCE), does: he and his business unit—which includes Dachser country organizations in Northwestern, Eastern, and Southeastern Europe—set up connections between 18 NCE countries and the rest of Europe.

Mr. Reinel, what characterizes Dachser’s overland transport network in the NCE countries?

Wolfgang Reinel: I’d say it’s the extensive inter-connection of European system traffic and charter routes with a homogenous structure of our own branches, joint ventures, and partner companies that has grown organically over many years—a network that is punctual, cost-effective, reliable, and under intelligent management. And that applies around the clock, even on public holidays and during seasonal peaks. This makes Dachser one of Europe’s market leaders for cross-border transports that ship according to a precisely timetabled network schedule.

What connects the various countries and their partners?

In particular it’s their pursuit of quality that unites the network partners in the NCE countries and drives the continued expansion of the entire network on an ongoing basis. Network intelligence also means always searching for the best solution, both for the local customer and for the network as a whole—much like taking responsibility for other members of your family. On the one hand, the individual countries and branches provide tailored logistics solutions for their customers; on the other, when addressing all topics that affect the network, they act exclusively within the framework of our standards and processes. This means that the high quality and reliability of the Dachser network is not a result purely of its structure, but is also due especially to close, loyal relationship management between all network countries across hierarchical levels.

Against the backdrop of demographic change, it is becoming more and more evident that economic growth in the NCE countries goes hand in hand with a growing lack of qualified personnel. How is this shortage affecting the network?

Capacity issues, particularly with regard to human resources, are increasingly coming to the fore. That’s why every Dachser country has set up a local “HR Agenda,” shaped by country-specific characteristics, local priorities, and the current state of the country organization. The country organizations, in turn, draw up the corresponding plans for HR strategy and measures as needed, taking local and central continuing education programs into account. This means the countries of Southern and Eastern Europe, for example, have to compensate for the loss of qualified personnel to the West—due in part to immigration from the East. As a result, personnel development and training end up in the focus of every manager and supervisor.

Can you give an example of this?

I’m very happy to mention our country organization in Poland, where Dachser has been active for eleven years. For much of that time, we’ve had an HR manager as a genuine business partner at the national management level. The management team as a whole recognized that cultivating the HR skills of all managers is a key success factor. Our Polish managers have not only internalized the meaning of the Dachser strategy, systems, and standards, but also systematically designed their own structure to match. For example, they were the first country organization to introduce the Dachser Expert Network Operations (DENO) function at the management level as well. This role serves not only as a process manager, but also as a quality and training manager for all operational training measures, thus providing crucial support to operations and HR management. Within a relatively small setup and despite an extremely difficult labor market with high employee turnover, in Poland we have been able to achieve remarkable performance in an international system structure and thus make a key contribution to quality in the European network.

Dachser operates 342 locations in 25 countries for its European Logistics business line, along with 72 partner locations in a further 12 European countries. In response to continued strong demand in the international transport business, Dachser has introduced 267 new regular cross-border transport services. Customers can now choose from a total of 1,343 routes.



The new facility
in Sosnowiec



The logistics center
in Wrocław

Grzegorz Lichocik, PhD,
Managing Director
European Logistics
Dachser Poland



“Europe has long been a single market for our customers. Therefore, they expect the same access to it as to their domestic market

Baltic area, Scandinavia, and the Iberian Peninsula. Our closely integrated European network, combined with the option of consolidating shipments, makes us the ideal partner for companies who are looking for efficient distribution channels,” Lichocik says. Along with major customers like games manufacturer Fabryka Kart, this also benefits companies in the Polish e-commerce or DIY sectors with high-frequency shipments abroad.

“Europe has long been a single market for our customers,” Lichocik continues. “Therefore, they expect the same access to it as to their domestic market.” This requires not just reliable deliveries and fixed transit times, but also reliable flows of information. With consistent IT standards, uniform products, and a transparent, interface-compatible communication and data exchange system, Dachser is in a logistics class of its own, offering international shipping services with unrivaled speed, quality, and convenience for the customer.

People make the difference

From the outset, Dachser Poland has been committed to close cooperation with other country organizations and branches in Dachser’s European network. This is based on the realization that a functioning network and mutual success invariably depend on the individual connections. “The uniformity of the products and processes, plus that of the ‘operating system,’ is what counts,” Lichocik says. Along with the people who provide all these services. “We set great store by our high-caliber staff, who have internalized the principles of the network, the processes, and our strategic guidelines and systematically put them into practice.” In a network, it is essential that every part knows exactly what needs to be done as well as when and how to do it. As Lichocik says, “Although the network is in a position to lend mutual support, conflicts may still arise from time to time. That makes it extremely important to respect Dachser’s network principles and respond promptly to the needs of other branches.”

To provide the best possible support for the Dachser network, the management at Dachser Poland places great emphasis on excellent collaboration built on trust. “We could not achieve our superb results without a team of outstanding managers,” Lichocik stresses. Each of his fellow managers has their own expertise and talents. “We want to make the most of these skills to support each other and implement a joint strategy.” The managers’ job satisfaction rubs off on their employees, whose decision-making skills are enhanced by having sufficient room to

PROFILE

Founded in Kraków in 1947, Fabryka Kart Trefl-Kraków Sp. z o.o. produces card and board games of all kinds, many of which are manufactured according to customer specifications. Over the company’s more than 70 years of history, it has sold some 500 million card games around the world. The company has been operating under the name Krakowskie Zakłady WYROBÓW PAPIEROWYCH Trefl-Kraków Sp. z o.o. since 1997 and is part of the Trefl Group, one of the world’s leading manufacturers of puzzles and board games.

www.trefl.krakow.pl/en/

maneuver and individual responsibility, enabling them to play a major part in the company’s success.

Combating the lack of qualified personnel

But “employees” in general is also a tricky subject. While companies in Poland used to have access to a large pool of applicants, this is no longer the case, just as in most European countries. Everywhere there is a shortage of qualified personnel. In recruiting, Dachser has made a name for itself as an attractive employer. “We offer more than competitive remuneration; we also offer applicants a friendly working atmosphere based on corporate values such as respect, openness, honesty, integrity, entrepreneurship, and the courage to go against the flow,” Lichocik says. Moreover, Dachser Poland has been liaising closely with the education sector for some time, targeting young people while still at school to prepare them for a career in logistics. “We arrange internships for high school graduates and cooperate with the Poznań School of Logistics in organizing a dual-study program. We also maintain close ties with the University of Łódź,” Lichocik adds. “We hope that, as a result, some of these young people will decide to embark on a career with us, perhaps even over the long term.”

Dachser employees should then no longer have to worry much about their future. Together with his team, the Managing Director of Dachser Poland is setting a clear course for growth: “We are currently adding more crucial pieces to our puzzle. Within the next two years, we want to be directly connected—one hundred percent—to all branches in Germany.” This would reduce transit times and improve the punctuality of deliveries from 98 percent today to 99 percent. Moreover, Lichocik adds, there is less risk of damage as there is no need to transship the goods on different transshipment platforms.

“Along with investment in infrastructure, our top priorities are continuous modernization and innovation. In a few years, we and our freight forwarders intend to deploy only vehicles that meet the highest environmental standards.” For Lichocik, this means pursuing an ambitious yet, to his mind, very realistic goal: “By setting the bar so high for competitors, Dachser Poland is becoming the preferred partner for Polish export companies who value speed and quality. It’s a win-win situation both for customers and for Dachser’s entire network.” And that’s how to put many different pieces together to form a perfect picture.

M. Schick

WINE MARKET

In vino veritas

A CLASSIC THAT CONSTANTLY REINVENTS ITSELF



Warm summers, cool wines

Wine is one of humanity's oldest cultural treasures. Vintners believe that tradition carries with it a certain duty—including a duty to promote innovations in the cultivation of grape varieties. Good news for wine lovers around the world.

Name a product where the quality always depends on the location, region, and a favorable climate. It's wine, of course. Its history dates back 8,000 years to when the people living in the southern Caucasus began cultivating wild wine. Archaeologists have found clues attesting to this in ceramic vessels in Georgia, which were probably used to transport the grape juice some 5,000 years ago to Egypt. From there, it and the accompanying grape varieties later spread to Europe. In present-day Armenia, researchers discovered the world's oldest preserved wine cellar—4,100 years old.

Cultural heritage and a booming business

Since that time, wine has been more than a delight for the palate; it has long been considered part of humanity's cultural heritage, and a booming industry worldwide. Thanks to ongoing improvements and scientific advances in cultivation and wine-pressing techniques, vintners can increasingly rely on rising yields and ever better wine quality.

Take German wine regions, for example. Having made a name for themselves among white wine fans with varieties like Riesling, Müller-Thurgau, and Silvaner, now they are expanding into the internationally popular Chardonnay and full-bodied reds like Cabernet Sauvignon and Merlot, varieties that were previously cultivated more in southern France. Or take the Syrah grape, which originated in France's Rhône valley and is the offspring of Dureza and Mondeuse Blanche, two old French grape varieties. Wine researchers speculate

it could be a descendent of Pinot Noir. The Syrah variety has been becoming a world favorite since the 1970s, and today it is successfully grown in Germany's Palatinate region—to the surprise of many a wine aficionado.

Everything just right

This would not be possible without the highly refined art of winemaking. Syrah in particular is known as a finicky wine where everything has to be just right: it needs an excellent location, not overly fertile soil, optimum climatic conditions, and must be harvested at just the right time. This is where close cooperation between wine science and the vintner pays off as they implement innovations in cultivation and cellar management. German vintners' expertise in particular is in high demand: the influence of German wine research and German cellar technology can be felt as far away as South Africa, Australia, California, and Chile.

However, Nature herself sees to it that wine-making doesn't completely become a science. Recent headlines were unanimous in hailing the 2018 vintages as "exemplary" and "wines of the century." And those of 2019 seem to be not far behind in terms of promise. For wine logistics, this means everyone has plenty to do.



INFO

Creating the perfect pairing

The search for the perfect combination is often easier than expected: simple wines, popular in summer, without a strong oaky flavor and with some residual sweetness, can essentially stand on their own two feet when paired with any meal. In general, foods with strong salty or acidic notes are suited to wines with pronounced acidity. Regardless of what's on the table, it's always best to stick to this basic principle: "from light to heavy." In other words, start off with something light and bubbly, before you work your way towards more full-bodied wines. Cheers!

Wine exports

COSTS UNDER CONTROL

Dachser has developed its own online tool for calculating excise tax, which supports European distribution of wine and spirits in the calculation process.

Despite the Single Market and European Customs Union, Europe still has borders when it comes to alcohol. Every country has its own regulations that stipulate the form and amount of excise taxes. The online excise tax calculator "excisecalculator" developed by Dachser helps to quickly and easily get an overview of these costs. After the relevant data—such as type of alcohol, alcohol by volume, quantity in liters, and country of destination—has been entered, the tool immediately calculates which excise taxes would be due. This eliminates the need for time-consuming checks of complex tables and special regulations.

"We are very familiar with the requirements of the wine and spirits industry and are constantly developing our portfolio of services," says Alfred Miller, Managing Director Dachser Food Logistics. "That includes fully handling customs and excise tax issues. With the new excise tax calculator, our customers can obtain an overview of their situation quickly and easily—a further step towards



making cross-border transports of alcohol less complicated." After a simple, non-binding registration process, customers can access the excise tax calculator free of charge in German, English, French, Italian, and Spanish here: <https://excise.dachser.com>

FROM THE LABORATORY OF THE FUTURE

Looking ahead

NEW STANDARDS FOR REAL-TIME DATA FLOWS

Dachser today is already researching the technologies of tomorrow. To this end, the Research & Development division is working closely with various departments and branches, as well as the Dachser Enterprise Lab at Fraunhofer IML and other research and technology partners. This new regular feature will present pioneering new technologies and solutions.

Do LPWAN, NB-IoT, and LTE-M seem like gobble-dygook to you? Don't worry: you're not the only one. But there's a good chance these cryptic terms will soon be tripping off your tongue, as they potentially have a great future ahead of them. So-called low-power wide-area networks (LPWANs) are the new technology that underpins the Internet of Things (IoT). These newly available radio frequencies and protocols allow the transmission of small amounts of data over a long range. This makes LPWANs ideal for using sensors in logistics. The best-known LPWAN solutions include LoRa, Sigfox, LTE-M, and NarrowBand IoT (NB-IoT).

You should also make note of these acronyms: NB-IoT and LTE-M are very interesting new mobile communica-

tions standards within the LTE network (4G) and are currently being rolled out in many countries worldwide. In Germany, for example, NB-IoT is expected to be available nationwide by the end of 2019, while in the Netherlands the rollout was already completed last year.

Geopositioning for consignment location tracking

Low energy consumption, high security standards, and substantially lower investment and operating costs make the use of this new technology very attractive for asset and consignment location tracking in particular. Geopositioning makes it possible to calculate with greater precision the arrival times of vehicles, containers, shipments, and much more based on real-time data. Among other benefits, this makes for even better capacity planning for subsequent processes, such as the unloading of a truck.

A further advantage of LTE-M and NB-IoT is that the radio frequencies are future-ready. Both standards are to be incorporated into the planned 5G sub-network for massive machine-type communications (mMTC). However, that's still a long way off. It will probably be a few years yet before work even begins on building 5G mMTC. Still, another reason that a shift to LTE-M and NB-IoT is inevitable is that today's 2G and 3G mobile communications networks, which are currently used for positioning sensors worldwide, will be switched off in stages over the next few years. Given that deactivation has already begun in some countries, such as South Korea, Taiwan, and Switzerland, there is no harm in slowly starting to familiarize yourself with the new concepts.

Andre Kranke, Department Head R&D
Research & Innovation Management at Dachser



Connectivity is finding
its way into all aspects
of our lives and work



Dung beetles know the way to go

GETTING INTO A FINE MESS WITH A DYNAMIC COMPASS

It may not sound appetizing, but it works brilliantly. The South African dung beetle (*Scarabaeus lamarcki*) has acquired a taste for manure. It rolls itself practical balls of the stuff, mainly elephant dung, to eat. To prevent its delicacy from being snatched away, the dung beetle must edge these balls into underground passages as quickly as possible.

A team of researchers led by Basil Jundid from the Julius Maximilian University of Würzburg has now discovered how the dung beetle finds its way to its destination: using the sun and the wind. In the *PNAS* scientific journal, the researchers report on experiments with which they were able to prove that the beetles always chose their course based on the same wind angle, but only at noon when the sun was directly overhead. When the sun stood at a lower angle, the insects continued to roll their balls in the same direction, unfazed by the wind.

Like other insects, the dung beetles do this using their Johnston's organ, located in their antennae. From their observations, the team of researchers have concluded that dung beetles have a kind of dynamic compass with which they can flexibly process and weight signals from the sun and wind. This ensures the greatest possible precision. But what do dung beetles do when the sun doesn't give them any useful information and there's no wind? The researchers have already discovered that these insects use the Milky Way at night for orientation. Further studies are in the pipeline.

Emission-free city logistics

ELECTRIC HEAVYWEIGHT

In Stuttgart, Dachser has set up its first emission-free delivery area measuring some five square kilometers. With the addition of the Mercedes-Benz eActros, the all-electric vehicle mix for the city center is now complete.

With its innovative city logistics concept, known as DACHSER Emission-Free Delivery, Dachser is providing emission-free and sustainable deliveries of groupage shipments in downtown Stuttgart. The company has plans to roll out the concept in other city centers, too. A number of different vehicles feature in Stuttgart: maneuverable, electrically assisted cargo bikes, which are used for the last mile, and a compact, all-electric 7.5-ton FUSO eCanter truck, which is also based in the city center. With the addition of the 18-ton Daimler eActros, the all-electric vehicle mix is now complete.

"It was well worth the wait," says Stefan Hohm, Corporate Director, Corporate Solutions, Research & Development. "We plan to use the eActros for transporting deliveries both directly to customers and to the microhub in Stuttgart. From there, our lighter vehicles will take over inner-city deliveries." Once employees have been briefed and completed all the requisite training, Dachser will integrate the eActros into its ongoing test operations. As with the eCanter, the truck will be used in professional driver training.

In conducting these test operations, Dachser is gathering the data and experience it needs to determine the right vehicle mix for sustainable deliveries of groupage shipments to city centers. In addition to Stuttgart, tests are also underway in other cities, including Berlin, Cologne, Freiburg, Karlsruhe, Málaga, Mannheim, Paris, Tübingen, and Ulm. "We're not looking to take a one-size-fits-all approach. Rather, we want to come up with a range of solutions, each of them focused on optimizing deliveries, emissions, routes, and times," Hohm says.



The eActros and the eFuso



Technology makes humanity's
age-old dreams come true



“Automatia” was the goddess
believed responsible for happy events that
occur without human involvement





ALL BY ITSELF

Digitalization promises a new era of automation. This will make lots of things more convenient, but it also gives some people cause for concern. A look into the history books shows us there is nothing new about worrying that humans will become superfluous—but this concern has always proved to be unfounded.

Joseph-Marie Jacquard's inventiveness was driven by terrible suffering as a child. Born in 1752, he was obliged to help out in his parents' silk weaving workshop in Lyon from an early age. His job was to raise and lower the warp yarns as required by the pattern of the weave. Jacquard escaped the tedium of this back-breaking work as a youth when he became an apprentice bookbinder. But at the age of 20 he inherited his parents' business—and set about putting the entire industry on a new technological footing.

His efforts met with great success: in 1805, Jacquard unveiled a novel loom that made drawboys redundant. Their job was instead performed by a sophisticated mechanism of punched cards passing over a wooden box. Rods would pass through the holes punched into a card to hook the warp threads. Fitting this machine to a loom made weaving even the most complex patterns fast and error-free, with essentially no need for human involvement. The impact of this revolutionary invention would be felt far beyond the textile industry: years later, punch card systems would form the basis of the calculating machines that ushered in the computer age.

A heavenly standard?

Today, Jacquard is seen as one of the midwives of automation. This process, which has recently returned as a topic of social debate, is defined by industrial standard DIN IEC 60050-351 in a dry, telegram style: "Automate, verb: to employ means to enable self-acting functions in a system." The story couldn't be any less dry in Greek mythology, from which the process gets its name: the goddess "Automatia" was believed responsible for happy events that occur without human involvement.

It must have seemed like just such an event when the doors in a temple swung open as if by magic after the sacrificial fire was lit. But in fact there was nothing godly about it; rather, it was an automaton built by Hero of Alexandria to harness the pressure in a water boiler heated by fire. This ancient Greek mathematician also invented a simple steam engine and an automaton that would dispense holy water upon insertion of a coin. The astonishing thing is that

although many of Hero's inventions and those of other scholars caused wonderment, they never made it into the world of work in antiquity.

It wasn't until many hundreds of years later, in the 18th century, that the pace of automation finally picked up. Mechanical masterpieces like the Jacquard loom were dreamed up—among them the (reinvented) steam engine, which would turn manufacturing on its head and cause international trade to flourish. Railroads and steamships traversed ever wider transportation networks. In the new world of work, where machines set the pace for human labor, Henry Ford pushed the process to a peak starting in 1913 with his introduction of the moving assembly line. His grandson would take automation up to a whole new level in 1950, installing mainframe computers in seven factories to manage production.

Emancipation or threat?

Even back then, many experts were prophesying factories empty of people in which "multipurpose automata" would produce one thing today and another tomorrow. IBM President Thomas Watson tried to gain support for the idea in 1955 by arguing that machines would liberate the human brain from grinding routine. At the time, the IT company was selling 130 mainframe computers each quarter. By then, trade unions were warning of mass unemployment, while economists argued over the effects automation would have on society. Today's debate is similar in the way it invokes an industrial revolution—now the fourth—made possible by connected machines and artificial intelligence.

The fear that humans will end up superfluous is acute. But the history of automation to date shows us that, however hard individual people might be hit by change, the overall improvements in efficiency have ultimately in fact benefited the employment market. Even the weavers' guilds in Lyon, who initially demanded Jacquard's death, came to terms with his early computer device in the end: the drastic price reductions it prompted led to new mass markets for textiles—and the number of weavers shot up.

S. Ermisch

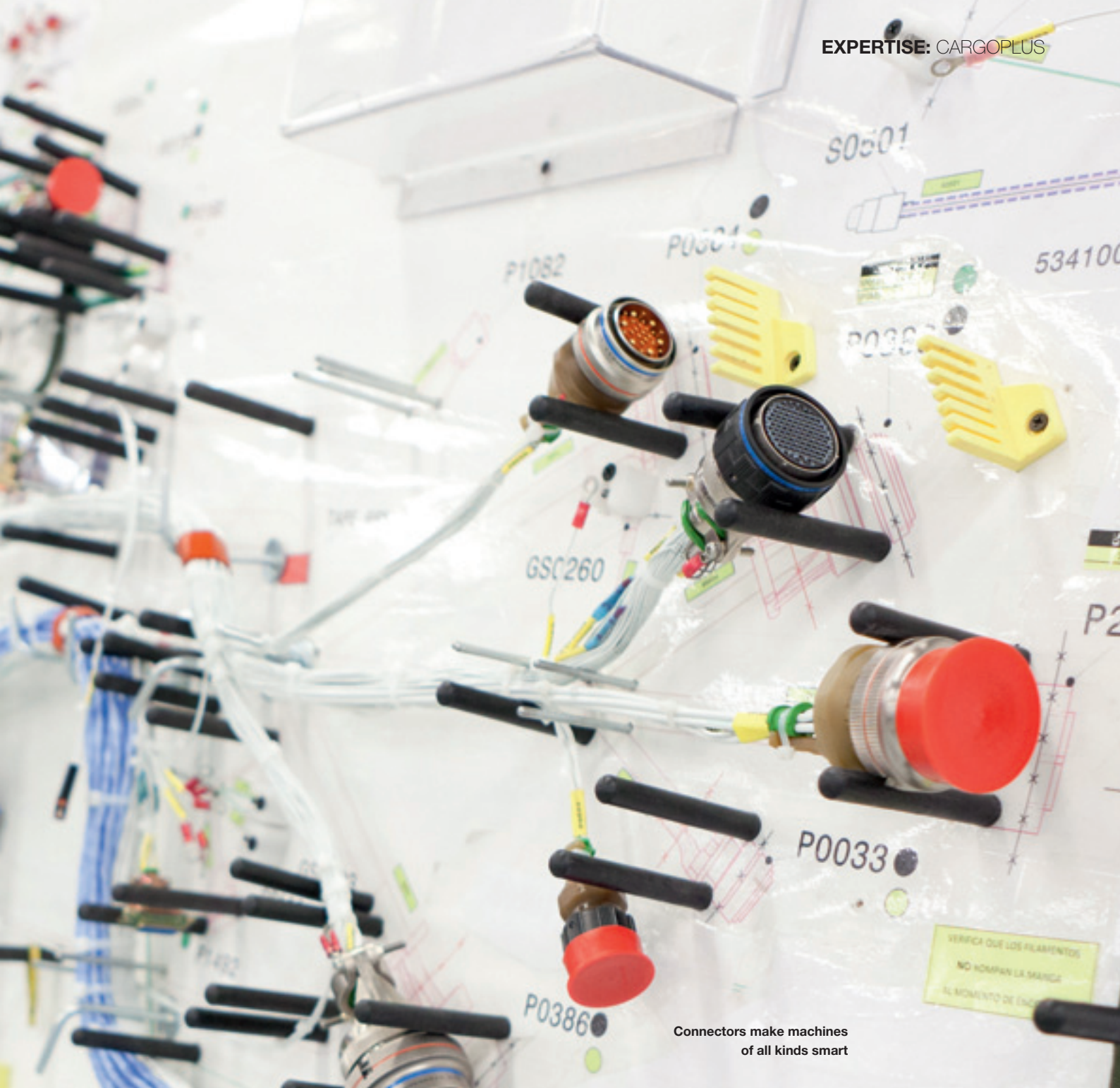


Automation is a wondrous thing—of this French engineer and inventor Jacques de Vaucanson was convinced. In the 18th century, he built technical wonders such as a mechanical flautist that could perform twelve songs all by itself. But his masterpiece was a mechanical duck that could walk, flap its wings, and quack. Thanks to a system of tubes, it was also able to consume food and excrete it again. Vaucanson's automata didn't (yet) revolutionize the world of work. Instead, they landed in an art collection, where they were preserved for posterity.



CLOSELY CONNECTED

From France to Morocco and back: one year ago, French high-tech manufacturer SOURIAU joined forces with Dachser to implement a new transport concept. And it's a great success.



Connectors make machines
of all kinds smart

It's usually the small, unassuming things that make great things possible in the first place. Like connectors, for example, the products that enable massive commercial aircraft to even get off the ground. And then they ensure that connections inside the aircraft are secure even under extreme conditions at altitudes of more than 10,000 meters.

For French enterprise SOURIAU, inconspicuous—but by no means insignificant—technology components are the root of all they do. Founded in 1917 by Paul-Adolphe Souriau, the high-tech company headquartered in Versailles, near Paris, has become an important supplier to the aviation industry. Its first product was a quick-release

bayonet coupling, which quickly became a standard aircraft fitting. Today, SOURIAU supplies aircraft manufacturers such as Boeing and Airbus with connectors for linking up components in aircraft engines, cockpits, and interiors. These items are manufactured at the company's three production sites: Champagné in the northwest of France, Cluses in the southeast, and Paris.

By land and by sea

SOURIAU—or to be more precise, SOURIAU-SUNBANK, as the company is now known following various restructurings and acquisitions—has long been a familiar name even beyond France's borders. It has production sites →



Dachser connects Morocco and Europe

The bayonet coupling uses a twist-lock connector to join two cylindrical components. It was originally used to attach a bayonet—a knife-like thrusting weapon—to a rifle. Today's applications for this type of coupling are less warlike, such as camera lenses, plug connectors for cables, and special light bulbs.

around the world, and since 2003, it has had a plant and a sales company in the Moroccan port city of Tangier. Four times a week, delivery vans leave the Champagné branch to transport goods—mainly connector components for the aircraft industry—to Morocco by land and by sea.

For 15 years now, this task has been planned and executed by the Dachser branch in La Verrie, in close cooperation with their Moroccan colleagues in Tangier. “Our connection with Dachser developed over time,” says Sylvain Guittet,

logistics manager at SOURIAU-SUNBANK. This long-term collaboration was a key factor in the two partners’ decision to start a new chapter in their relationship in spring 2018. Together, they wanted to boost productivity and become more efficient and flexible.

The new system bundles goods for multiple customers together in one shipment. “We used to fill one designated truck that traveled back and forth between France and Morocco,” Guittet explains. “Then we started organizing first one, then two trips per week with payloads from other companies.” In addition to lower costs for the carrier and the customer, this solution also offers environmental advantages, as it makes optimum use of load capacity.

PROFILE

SOURIAU-SUNBANK Connection Technologies

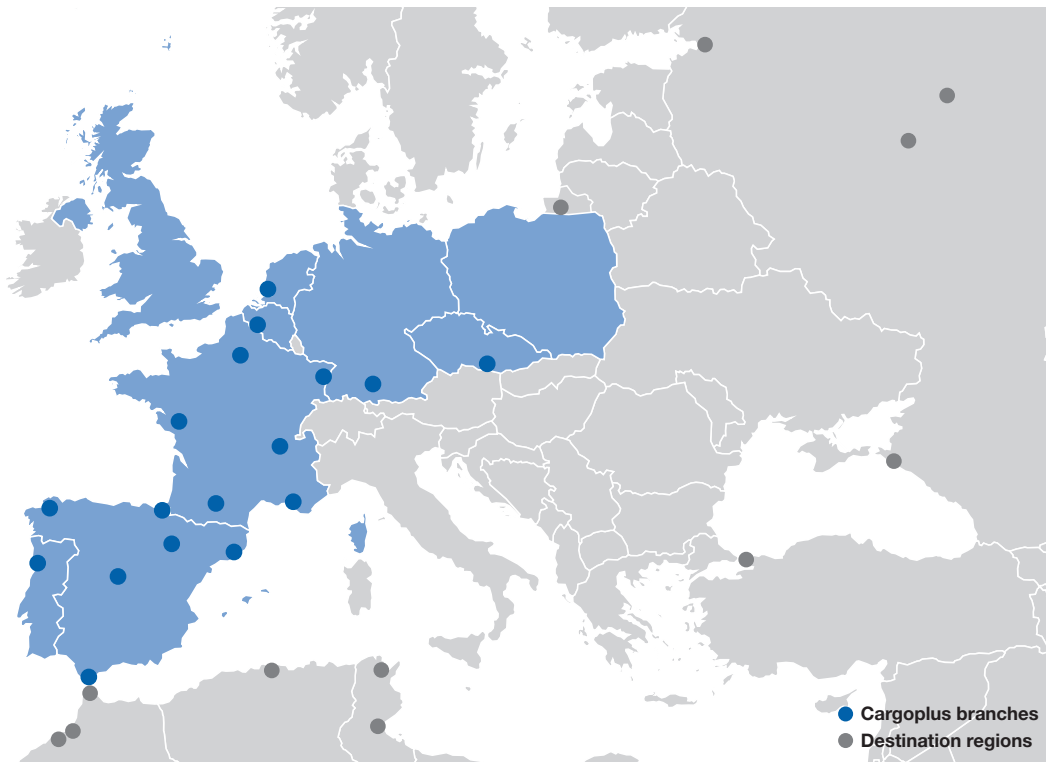
SOURIAU was founded in France in 1917 by Paul-Adolphe Souriau, a mechanic. Today, the company is owned by American corporation Transdigm and has been operating under the name SOURIAU-SUNBANK since early 2019. The high-tech specialist's key areas of expertise include the manufacture of connectors for the aircraft and other industries. Its French headquarters is located in Versailles, and it has a total of 12 locations and more than 3,000 employees worldwide.

www.souriau.com

Focusing on efficiency

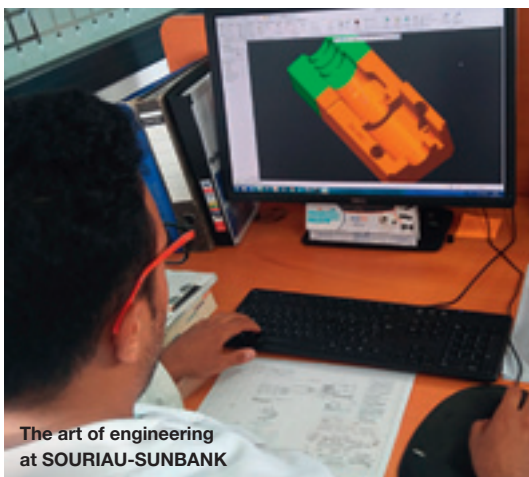
When they launched the new model, both partners scheduled two tours per week—too few, as it quickly turned out. “The average waiting time between two shipments was 84 hours. That was too long for us,” Guittet says. After all, the technology specialist's work is based on the premise of lean management. So now there are four scheduled transports from the plant in Champagné to Tangier. There are also four shipments per week in the other direction. This model is unrivaled in the transportation business between France and Morocco. “We’re the only company that does this,” says Dachser manager Jean-Manuel Barre, who, as General Manager Cargoplus Ouest & Sud Ouest, works closely with SOURIAU-SUNBANK. Most of Dachser’s

Dachser Cargoplus branches and destination regions



Dachser Cargoplus provides international overland transport for customers throughout Europe. It handles full load, groupage, and project shipments to the CIS and Maghreb countries and to Turkey from Cargoplus locations all across the continent. The Cargoplus network is centrally managed by the Partner, Hub & Traffic Organization division at the Dachser Head Office in Kempten.

Dachser Cargoplus employees know these markets and the local practices and are fluent in the local language. The company has contacts at their government agencies, facilitating speedy processing in compliance with the specific requirements of each country and customs obligations.



The art of engineering at SOURIAU-SUNBANK

curement and distribution logistics. Having its own IT link with the customs offices in Morocco ensures that goods clear customs quickly. Dachser also offers its own warehouse capacities in Mohammedia (near Casablanca) and in Tangier.

High-tech for exacting customers

SOURIAU primarily ships parts for the aircraft industry to the plant in Morocco, but the high-tech product specialists also supply the aerospace industry, medical technology companies, and lighting manufacturers.

Dachser transports 140 metric tons per month for the company, and the new collaboration format they launched a year ago has resulted in numerous advantages. Having four shipment dates per week has cut the waiting time between departures in half. In addition, according to logistics manager Guittet, the number of transport-related delays has dropped. As a result, customers often receive their deliveries of SOURIAU-SUNBANK's high-tech products even faster than before. The new shipment rhythm brings advantages for employees as well. "Activity peaks were higher when there were two departures per week," Guittet says. Now the workload is more evenly distributed, which benefits staff by helping them pace themselves better.

G. Schreier

competitors, Barre says, still offer two shipping dates at most: one mid-week and one at the end of the week.

The route to Morocco and back passes through the port of Algeiras, Spain, where the goods are loaded onto ships and transported to the SOURIAU plant in Tangier via the Moroccan port of Tanger Med. Dachser France has close connections with Morocco. It has been handling shipments between Europe and the Maghreb for more than thirty years now, and in that time has built up comprehensive pro-



Relying on reliability:
John Paul Okindah

CAREERS
IN LOGISTICS

THE RENAISSANCE MAN

From aeronautical engineering to farming entrepreneur and ultimately back to logistics: John Paul Okindah is the warehouse manager at the Dachser office in Chicago.

Some things can be planned precisely in advance; others we have to take as they come. “Life’s like that, and so is logistics,” says John Paul Okindah with a grin. He knows all about changes and challenges, and he also knows how to deal with them. “Think first—and then take decisive action” is his motto.

The native Kenyan and experienced logistics professional has been doing precisely that at Dachser for just over one and a half years as a warehouse manager at the Chicago branch. His responsibilities include monitoring all inbound and outbound goods movements as part of the contract logistics business for the Midwest region of the United States. He constantly keeps a watchful eye on the KPIs and looks after staff planning accordingly. “With our Dachser IT resources, and specifically the Mikado warehouse management system here, we always have full transparency over all procedures. This also lets us actively



Warehouse management involves teamwork

avoid errors, as we can analyze everything precisely and then draw the corresponding conclusions,” he explains. Okindah is ideally qualified for his demanding job. In 1999, he moved to Lake Michigan to study aeronautical engineering and business. He completed his studies at Andrews University, which is situated between Chicago and Detroit, and subsequently worked for various air freight carriers and as a warehouse manager. Since then, he has gotten to know all the various aspects of warehousing. “I used to work in manufacturing, I drew up orders for replenishment, worked with IT to improve the ERP system and trained workers on it, redistributed stock between branches, and reorganized stock in order to ensure efficient picking,” he says, recalling his experiences at former employers.

Staying flexible

Okindah does not shy away from a challenge, as a glance at his biography testifies: before he came to Dachser, he was employed at a large U.S. conglomerate. He lost his job there to restructuring. While between jobs, he decided to do something completely different. “In my thoughts, I’d never really left my home in Kenya,” Okindah says. He quickly realized that he wanted to use his education and experience to benefit his homeland.

“Kenya’s population growth is outstripping its food production, and the low agricultural productivity increases Kenya’s dependency on food imports. I decided back then

to do something positive.” So Okindah became a farmer. In Matayos, a small village in western Kenya not far from the Ugandan border, he set up a modern dairy and pig farm on a plot of land belonging to his father. The project was designed not only to turn a profit, but to serve as a center for training students and others in Kenya in modern agricultural methods.

Alas, petty politics and corruption in industry and in the provincial government forced him to downsize the business. Employees have now taken over the running of the enterprise. Yet despite the difficult economic and political situation, Okindah does not want to completely give up on the farm. “It’s a great experience, and very instructive,” he says. He regularly goes to Kenya to check personally that everything is in order.

Getting involved and keeping things running—that’s what he does at Dachser, too. “I make sure that all processes in the warehouse are implemented in accordance with clear standards and specifications. Without this, it would be impossible to ensure standardized procedures worldwide in such a large organization with so many different branches,” Okindah explains. “Another major challenge is to procure the resources necessary for the efficient operation of the warehouse, such as personnel and equipment, as needed.” Approaching things analytically and always staying on the ball—these qualities enable him to master those challenges as well.

A. Heintze

Over 170 warehouses worldwide with more than two million pallet spaces are a major component of Dachser’s integrated supply chain solutions. With their expertise, warehouse managers ensure a consistently high level of quality, functionality, and operational management.



GIVING CLEAN ENERGY THE RIGHT OF WAY

Austrian heat pump specialist Ochsner is on trend with the times, bringing sustainability to home and building technology, and deeply integrated logistics is becoming a growth engine for the technology leader—in Europe and, increasingly, worldwide.

Marco Schäfer, managing director of Austrian heat pump manufacturer Ochsner, is serious about climate protection and sustainability. “Better safe than sorry,” he says. “Our product cuts down on climate-damaging greenhouse gases, and we are a carbon-neutral business.” Together with majority owner and managing shareholder Karl Ochsner, he is focusing on growth that benefits the environment: “That’s why we want a logistics partner who takes sustainability seriously and also invests in this area,” explains Schäfer. Dachser Austria

meets these requirements perfectly, from its alternative powertrains and continuous optimization of transport load capacities to its active minimization of exhaust emissions.

Two family-owned companies, one goal

That’s just one tile in the mosaic of reasons why Ochsner and Dachser have had such good chemistry for a decade now. As Schäfer explains, “We are both family-owned companies, so our entrepreneurial approaches are very similar. We care about durability and continuity, and above →



Clean energy makes
everything cozy

Marco Schäfer,
managing director
of Ochsner
Wärmepumpen GmbH



“We are both family-owned companies, so our entrepreneurial approaches are very similar. We care about durability and continuity, and above all about improving ourselves together and growing sustainably

all about improving ourselves together and growing sustainably.” The emphasis is on “together.” This isn’t merely a business relationship between service provider and customer, it’s a partnership that both partners have continuously developed over the last ten years.

It all began in 2009, when Ochsner wanted to modernize its logistics chain so went in search of a new groupage freight forwarder that “can do more than transport goods from A to B.” They found their answer in Dachser Austria. Ochsner wanted to use all of its available floor space for production and decided to give up its in-house warehouse. “That was a huge step for us at the time, because we were tying ourselves so tightly to a partner,” Schäfer recalls.

Perfectly connected IT

The new processes have long since become normal. Every workday, the finished heat pumps are collected by the

Dachser logistics center in Linz and stored in the warehouse there until they are transported to customers in Europe. Dachser expanded this facility in 2017 to provide even better service for major customers like Ochsner. Dachser Austria has five overland transport branches, making it an important hub for transports throughout Europe, which provides a particular benefit for Ochsner given its steady growth on the continent. The two family-owned companies’ IT systems for warehouse management and transport are connected in a way that enables them to automatically communicate with each other. Ochsner can thus call up the current status of its goods in the warehouse or on the transport route at any time, enabling them to deliver their heat pumps to their customers, who are now located throughout Europe, right to their doors and right on time.

“Our cooperation has become very strongly IT driven, but the interpersonal element is also a great fit,” says Günther Plank, Sales Manager at Dachser Austria in Hörsching. And it’s not just because his soccer-playing colleagues are welcome guests at Ochsner’s annual soccer tournament. They meet regularly to discuss business issues on various levels—from performance results to the future configuration of the partnership or how to further improve quality. This topic in particular is extremely important to Ochsner. They want to avoid damaged shipments at all costs—because they are expensive and of course also waste resources.

Taking on China together

Dachser performs its tasks to our utmost satisfaction, Schäfer stresses. This benefits both partners. And the next stage in the expansion of their collaboration has already begun: Dachser will support Ochsner on the Chinese market. The first Ochsner heat pumps were already shipped there three years ago, but 2019 marks the beginning of regular deliveries to the most populous country on earth. “We offer Ochsner our full array of services, including transport to China, storage, customs clearance, and distribution,” says Plank. Shipments go from Linz to Hamburg and from there by sea to Shanghai.

Dachser’s global network is another advantage that Ochsner appreciates in its logistics partner. The logistics systems in China are identical to those in Europe—just that the distribution warehouse is near Shanghai and not in Hörsching, Austria. “It’s a different culture there, and a different time zone, but otherwise the core processes all work the same. These are ideal conditions for us to transport our success-



Drawing clean
energy from the
ambient air



Heat pumps in demand:
Production in full swing

ful model to other continents,” Schäfer says. “Preparations are also underway for railway transport on the New Silk Road, which should achieve additional CO₂ savings.”

Big plans for the future

The joint steps in Asia are currently the icing on the cake of the heat pump company’s growth strategy, but they are certainly not the end of its plans for the future. Over the next five years, Ochsner plans to invest EUR 10 million in its locations, and in the process, it wants to integrate Dachser even more extensively.

“Heat pumps are our core expertise, but for everything else, we need strong alliances and integral processes,” Schäfer says. Dachser Austria is happy to hear about its major customer’s plans for the future and wants to offer some ideas of its own to support the further expansion of the partnership. As Plank explains, “Ochsner is an example of how we make the greatest progress when we join forces. When the customer trusts the service provider, great strides are possible.” That goes for the positive development of business figures just as for the topic of sustainability.

L. Becker

PROFILE

Ochsner Wärmepumpen GmbH

The parent firm of Ochsner, a family-owned company, was established in 1872. Originally a plant construction firm based in Linz, Austria, in 1978 it was one of the first manufacturers in Europe to begin focusing on the industrial production of heat pumps, and changed its name to Ochsner Wärmepumpen GmbH. It is considered to be one of the industry’s international technology leaders. This enabled the company to gain a significant share of the market for environmentally friendly heating and cooling technology in Austria, Germany, Switzerland, and many other countries in Western and Eastern Europe. Ochsner heat pumps are also used in China, where more than 150,000 units have already been successfully installed.

www.ochsner.com

Heat pumps extract heat from ambient air, groundwater, the ground, and other available sources of heat. In a thermodynamic process, they “pump” the temperature of the heat source up to a higher level and make it available for heating and hot water production.



Jan-Ferdinand Lühmann, operations manager, EL Dachser Neumünster, Paul Bartram, Bartram Bau Systeme, Alexander Tonn, Managing Director EL Germany at Dachser, and Dr. Olf Tauras, Mayor of Neumünster (l-r)

European network

EVERYTHING WILL BE NEW IN NEUMÜNSTER

Dachser is investing EUR 17.4 million in the construction of a new logistics center in Neumünster, Schleswig-Holstein, which will further strengthen its comprehensive European overland transport network.

Ground has been broken at Isarstrasse on the industrial estate south of Neumünster. Over the next few months, a state-of-the-art transit terminal for industrial goods and food will be built on this 57,000-square-meter plot of land. Dachser is investing some EUR 17.4 million in constructing a 6,700-square-meter transit terminal here. Of this floor space, 5,000 square meters will handle industrial goods, with the remaining 1,700 square meters cooled and devoted to food transit. The facility is set to feature 76 docking bays for the loading and unloading of trucks. An office building of 1,000 square meters will complement the terminal. After completion in the third quarter of 2020, approximately 30 new jobs will be created.

Connected with Europe

At the groundbreaking ceremony attended by Dr. Olaf Tauras, Mayor of Neumünster, Alexander Tonn, Managing Director European Logistics Germany explained: "Neumünster will become another key terminal for Dachser in the far north of Germany. This new location will connect directly into our extensive European overland transport network." He adds that "the new construction complies with the latest standards and offers secure and sustainable jobs in logistics within the region."

Asia Pacific

NEW FAR EAST BUSINESS AREA



Dachser has established a new Far East North business area covering North China and Korea to optimize resources and provide increasingly efficient services to its customers.

Yves Larquemin, Managing Director Far East North, is responsible for the new business area. He reports to Edoardo Podestà, Managing Director of the Dachser Air & Sea Logistics Asia Pacific business unit. Larquemin was previously Managing Director Air & Sea Logistics North China for Dachser, a role he took on in

2012. During this seven-year tenure, the Frenchman led the company with huge success and expanded Dachser's presence to 12 strategic locations in the North China region.

In addition to air and sea transport, Dachser's Far East North business area also offers comprehensive, customized contract logistics solutions.

+++ STRONGER PRESENCE AT BANGLADESH HOTSPOT +++

Dachser is investing in its South Asian network to meet growing market demand in Bangladesh. The new office is situated in a prime location in the up-and-coming financial and industrial hub of Chittagong, the country's second-largest city. "Bangladesh is an interesting market with very high potential," says Jude Crasto, Managing Director Air & Sea Logistics Bangladesh. "The economy is growing very steadily and the demand for better and more reliable services is growing. Chittagong is a strategic location not only because of its strong infrastructure and reach, but also because of its proximity to its customers." The new facility is located near



the port, which is the busiest international sea-port on the Bay of Bengal and the third-largest in South Asia. +++

+++ PERFECT REBRANDING +++ completed: Johnston Logistics finally became Dachser Ireland Ltd in September. Two years ago, Dachser acquired a majority share in Irish logistics company Johnston Logistics Ltd. This rebranding and name change completes the process of fully integrating the company into the Dachser network. +++



Dachser Ireland at transport logistic: (from left) Bernhard Simon, CEO of Dachser, Albert Johnston, now Managing Director Dachser Ireland, and Michael Schilling, COO Road Logistics at Dachser



The port of Gothenburg is ice-free all year...

...and a port of call for major shipping companies



Anna Bergdahl, Country Manager
Dachser Air & Sea Logistics Sweden

+++ ASL IN SWEDEN +++ Dachser Air & Sea Logistics enters the Swedish market and now has an office for air and sea freight in Göteborg. "For us, Dachser Air & Sea Logistics Sweden is a further investment in our global air and sea freight network and a way to build up our position in the Scandinavian market," says Jochen Müller, COO Air & Sea Logistics. Up until now, Dachser has had branch offices for air and sea freight in Denmark and Finland. "Our new office in Gothenburg lets us offer our Swedish customers access via Dachser to global markets," Müller says. The service portfolio comprises all global air, sea, and rail services as well as customs clearance and warehousing. +++

LAUNCH PAD INTO ASIA



Singapore is one of the busiest and most important logistics hubs in the world. Its advantageous location and long tradition of economic and political stability make the city-state the ideal starting point for international companies to develop business in the prospering markets of Asia Pacific.

Singapore has risen from humble beginnings. Where today an imposing backdrop of skyscrapers soars aloft, just over 200 years ago there was only the odd fisherman's hut. Since then, the metropolis at the tip of the Malaysian peninsula has seen rapid development. One of the reasons for this is logistics: in the 19th century, the deep natural harbor offered ideal conditions for establishing a British trading post.

Now, with over 1,000 berths and 300 cranes, the port facilities are among the largest in the world. In 2018, they handled 36.6 million containers filled with electronics, chemical products, and machinery—mainly from China, Hong Kong, Indonesia, Japan, South Korea, Malaysia, and the US. But that's not all: the Port of Singapore Authority (PSA) plans to increase its capacity another 40 percent by relocating and expanding the container port. As of →

Impressive in any direction:
Singapore





Singapore's deep water port

Growth through land reclamation: Singapore continues to expand into the shallow coastal waters with the help of backfilled sand. However, the lively city-state is increasingly reaching its limits, as the shallow waters and sand are gradually running out. But that isn't dampening the city's growth aspirations. Singapore is continuing to grow by simply digging its way down and creating additional warehousing and living space underground. And the sand it digs up trickles straight into further backfill projects.

2020, the new "Tuas" mega-terminal will unite all the terminals and by 2040 will be handling 65 million standard containers annually.

Singapore Changi Airport also boasts impressive capacities, serving around 80 airlines from all over the world. They connect Singapore with 400 cities across the globe. Last year, almost 66 million passengers and 2.19 million metric tons of cargo went through Changi. The number of passengers is expected to increase to 180 million annually by 2035; a fifth terminal is currently under construction to accommodate this influx.

A center of international trade

It is no surprise, then, to see the World Bank consistently ranking Singapore near the top of the Logistics Performance Index. Numerous international companies have branches in the city-state. According to the Economic Development Board of Singapore (EDB), some 37,400 international companies operate out of Singapore, including 7,000 multinational corporations, more than half of which conduct their Asia Pacific business outside the city-state. Singapore's economy is geared heavily towards high-end production, including semiconductors and consumer electronics, along with machinery, transport equipment, and spare parts for ships. Moreover, the government promotes growth sectors such as aerospace, precision engineering, and the life sciences, including medicine, medical technology, and biotechnology. A World Bank study also found that Singapore is one of the most business-friendly countries in the world. Nowhere is it easier to set up a company: the procedure here involves less red tape and lower administrative effort than anywhere else. This is a big plus, especially for small and medium-sized enterprises. "Singapore is where everything comes together,

the perfect hub. All Asian cultures are within arm's reach, which ensures that operations and processes run smoothly," says Frank Stadius, Dachser's Managing Director Air & Sea Logistics Singapore.

In recent years, Dachser Air & Sea Logistics has invested heavily in the Asia Pacific region, thereby strengthening its intercontinental network. In 2011, the logistics provider launched its own country organization in Singapore, which serves as a springboard into the entire economic region of the Far East.

With a team of 54 employees, Dachser Singapore provides air and sea freight services to customers worldwide and offers contract logistics and value-added services. "It is crucial to have a direct, on-site presence in such a dynamic environment. From here we can advise our customers on their projects, together finding solutions that encourage their sustained growth," Stadius says. He goes on to explain that "we understand the needs of our Asian customers and work with them to put the various supply chain requirements and appropriate implementation concepts in place." For example, one result was the introduction of regular less than container load (LCL) connections for the Asia Pacific region. "These connections enable plannable cargo handling, not only within Southeast Asia but also between Europe and Asia," the logistics expert points out. Cross-border overland transport services between Singapore, Malaysia, and Thailand are the key to success, laying the foundations for close trade relations between the three countries. Overall, the future of Singapore's logistics industry looks extremely bright. The Economic Development Board of Singapore has already planned investments up to 2035 and beyond. Given the lack of natural resources, the government is obliged to invest in technology and innovation to enhance the country's competitive position.

Frank Stadius,
Dachser's Managing
Director Air & Sea
Logistics Singapore



Singapore is the perfect hub

This benefits the entire region; events like the Industrial Transformation Asia-Pacific (ITAP) trade show in October 2019, the Asian edition of Hannover Messe, resonate far beyond Singapore's borders. Taking its cue from the German approach, ITAP brings together an ecosystem of manufacturers, technology suppliers, and innovators to exchange ideas, build networks, and develop solutions. For the second year running, Dachser will be one of the exhibitors at the show.

The spotlight will also be on another key driver for the future of the logistics sector: digitalization. And with good reason: the city-state enjoys double-digit growth in the e-commerce business. Price-conscious customers are increasingly buying small and cheaper products in particular online.

Therefore, it is up to the logistics industry to take full advantage of digitalization and look for cost-effective ways of delivering products to customers. Experiments with drones are already underway, automated guided vehicles already operate in the seaport, and soon 3D sensors and robots will help assemble air freight pallets at Changi Airport. A prototype named "Aviation Challenge 2" has

been developed for this purpose on behalf of the Civil Aviation Authority of Singapore.

Right at the heart of the city

Dachser Singapore will further strengthen and expand its presence in the transport and warehousing sectors in this dynamic environment, Stadius reports. In March, he and his team moved to Jurong East, a vibrant center and melting pot of forward-thinking businesses. This marks another milestone for Dachser in Southeast Asia.

"We are on a well-planned track of continuous network development in the economically important ASEAN countries," adds Edoardo Podestà, who is responsible for the entire region as Managing Director Air & Sea Logistics Asia Pacific. "Our new offices and motivated teams are an important cornerstone in driving the expansion of our service portfolio. This paves the way for our future growth." Podestà has no doubt: "Reliability is what counts in today's business environment. At Dachser Singapore, that's something we're perfectly equipped for. We offer robust global supply chain solutions for our customers throughout the entire region."

K. Fink

PROFILE



Republic of Singapore

Area: 719 km²

Population:
5.6 million

Population density:
7,805.6 people per km²

Official languages:
English, Tamil, Malay,
and Chinese

Currency:
Singapore dollar

GDP:
USD 487.1 billion
(2018)



**Frank Stadius, Managing Director Air & Sea Logistics
Singapore (l) and Jochen Müller, COO Air & Sea Logistics (r)**

WHAT IF...?



To paraphrase Aristotle, logistics is greater than the sum of its parts. It is not only digital, it is not only fulfillment, and it always concerns people. Dr. Andreas Froschmayer, Corporate Director, Corporate Development, Strategy & PR at Dachser, asks whether it is possible to deliver logistics quality if only subareas of logistics are available.

Dr. Andreas Froschmayer,
Corporate Director,
Corporate Development,
Strategy & PR at Dachser



“ Logistics is successful and future-proof when it is leveraged as a comprehensive system

Let's try and see logistics as a whole: industrial and commercial enterprises want and need a logistical system solution that leads from the supplier to the consumer via production and trade networks; and that solution must include all goods movements, warehouse structures, and the information logistics needed to control these highly complicated networks, which are required day in, day out.

What if logistics was only a question of IT?

In the age of digitalization, the internet and the availability of online platforms give rise to the idea that logistics could be so much easier to organize. Some new so-called “digital freight forwarding agencies” are competing to break down the complex system of logistics into individual transactions and thereby create a lucrative business model. An app, an online presence, a little database, and bingo: you have a virtual logistics service provider. But what would industrial and commercial expectations be if, within this logic, logistics came only in digital form?

It is true that transactions could be made. But who deals with the difficulties that may arise, who handles customer service, and how are the physical capacities to be provided? In my view, the only way this could work is if the transaction is followed by a human factor. And the third element is the so-called physical factor—in other words, the transport capacities, the infrastructure for cross docking, and an overarching physical network for the fulfillment of orders in the supply chain.

Although this ought to be a matter of course, many start-ups still fall into the same trap that undid so many companies during the first e-commerce boom: they neglect the physical level, even though it is the most important level for the fulfillment of all promises in logistics. If you can't deliver on this, then you're like a conductor without an orchestra. You can swing the baton with all the mastery in the world, but it still won't conjure up a single note, never mind a symphony.

Digitalization—and even more so artificial intelligence—always brings up the question as to whether it might render humans completely superfluous in the workplace sooner or later. Full automation and robotics could force people out of work. Machines don't get tired, and they just work away at the same output 24/7, 365 days a year if necessary. And provided that they are programmed correctly, they won't make any mistakes, either.

What if the role of people was underestimated?

Today's digitalization possibilities lead all of us to the apparent realization that people could consequently become surplus to requirements in logistics. But IT systems are not an end in themselves; rather, their job is to prepare relevant information for humans in such a way that the person can make good decisions based upon it in strategic and operational work situations. For us, when it comes to logistics services in integrated networks in particular, people are indispensable—whether in the branches at the infrastructural overland transport hubs or at the air and sea freight offices, and whether they are handling and transshipping goods or working in customer service.

And precisely in family-owned companies such as Dachser, in which the value of the company is measured not just in profits, but in high levels of quality, everything depends on the knowledge and commitment of employees to generate customer satisfaction and loyalty from these virtues. For this reason, Dachser deliberately places its faith in people who enrich the company with their skills, values, attitude, and intelligence and who seek challenges and the extraordinary. At the root of this is our conviction that the IT systems at Dachser must follow the processes—and not the other way around, as is often the case when using standard software. →





Consequently, the question does not even arise for Dachser as to what things would actually be like if logistics had to be delivered without people. It is as irrelevant as the question as to what logistics would look like if it was done exclusively by people without IT. In each case, the focus at Dachser is on the people who put digitalization to good use. After all, it is people who develop new organizations and their business models. People who devise strategies and their implementation in the company. People who carry out operational tasks and are supported by algorithms and machines. That is the order of things and how human considerations are embedded in business and in society.

What if logistics did not have access to physical capacities?

After all, what would happen if the logistics of an industrial or retail entity had no physical systems and capacities? In other words, no warehouses, no transport vehicles, no containers and pallets? In contrast to sectors such as books and the media or insurance and banking, at the end of the day the logistics service creates actual added value only through the controllable and always implementable mobility of goods movements via transport and warehousing networks. The condition for this is, first of all, the standardization and harmonization of the processes used for physical movements of goods, along with internationalization to enable global logistical network cov-

erage for industrial and trading enterprises. To this end, Dachser maintains pan-continental connections between 37 countries in Europe alone and is represented worldwide with 399 locations.

Flows of goods within mature physical networks are at the same time complexly networked information and data flows. Transporting things from A to B is therefore “only” one side of the coin in logistics. That is why at Dachser we use the digital mirroring of goods flows on the eLogistics platform for shipment tracing and order management, for example, or the electronic data interchange center for data exchange with customers. On top of this, we use further technologies in the warehouse, such as a permanently online supporting supply chain event management system, with which every single shipment can be controlled precisely and in real time, from dispatch to pickup.

In practice, this makes it possible in areas such as capacity planning to immediately factor in the building and equipment requirements and to use early warning systems for possible capacity bottlenecks. Customers appreciate this, as it translates into maximum reliability in the relationship to their service provider.

In the end, it is the logistics balance sheet that counts

This brings us to a final question: What if logistics really was much more than the sum of its parts after all? Well, at Dachser, we speak of “intelligent logistics,” as stated in our corporate slogan, and of a mature socio-cyber-physical system.

My thesis is as follows: the logistical value creation of the future will be molded by companies that possess the ability to design and create logistical operations with multidimensional networks that work across company and national boundaries and that further develop in a permanently integrated fashion.

At Dachser, the formula for doing this is: “We improve the logistics balance sheet of our customers.” And our calculation is paying off: each of these integrated logistical “master strokes” increases the product value for companies in the form of service quality and thereby also increases the value of the industrial or trading enterprise.



ZAMBIA MEETS KEMPTEN

Last year, twelve Dachser Young Professionals spent four weeks in Zambia learning about local environmental initiatives and projects. Now it was their turn to host when a group of young people from the southern African country came for a visit.

The Zambian team enthusiastically explored Kempten and the surrounding area, learned about organic agriculture and dairy farming, and, thanks to the branch's German trainees, gained authentic insights into the German apprenticeship system and the various occupations it covers. One highlight was the meeting and dinner with Dachser CEO Bernhard Simon. The participants were unanimous:

"We'll stay in touch even after the end of the project."



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