

LFS.magazin

The customer magazine from the E+P Group

Issue 1
Logistics forger



EHRHARDT+PARTNER



Dear readers,

what does the future of the IT and logistics world look like? At E+P, we are certain: The dynamic of the markets will continue to increase. At the same time, the demand for production, warehouse and transport logistics is also growing. Companies have to be more flexible and faster in order to fulfill the growing requirements. We see drones making deliveries fully automatically. We are thinking of trucks that guide themselves along the fastest path to the destination and machines that report their own material demands to the goods warehouse.

The intelligence of the controlling systems will also continue to increase and networking under the guiding principle of "Industry 4.0" will increase significantly. This creates additional challenges that require new systems and technologies. That is precisely our discipline and our driving force! We have a team that has grown over many years consisting of more than 350 IT and logistics experts who make an effort, every day, to improve the logistics world. We gain innovative ideas from a successful network consisting of customers, universities, colleges and technology partners.



Teamwork is our highest priority in all of these areas. We would like to offer you the opportunity to take a look behind the scenes at the Ehrhardt + Partner Group and introduce our team to you as it is: competent and innovative, but also human and authentic.

“Creating a smarter logistics world” – that is the vision our team works toward achieving every day. We have established perfect structures, both national and international, to develop new solutions through excellent cooperation, create optimization potential and increase the efficiency of logistics processes.

Together, we create intelligent and holistic solutions for the logistics world – today and in the future.

Have fun reading,



Marco Ehrhardt
Managing Director
of the E+P Group



Jörg Fröhlich
E+P shareholder



2
Editorial

Contents

4



12
All the power of the V8.



16
LFS goes mobile.
All the power of the V8 – introduced by Rainer Reese.



20
The man behind the scenes.
How Matthias Fausten manages the interaction between 80 employees.



28
From warm-up to the sprint to the finish line.
Warehouse planning... set... go!



30
Always keep it flowing.
How Thomas Knechtges controls and optimizes warehouse movements.



32
Can't be beat when it comes to service and technology.
The Technical Solution Center: Service and support of the highest quality.



40
Think global.
For cross-border cooperation.



42
Rockin' all over the world.
Front man Stephan Witt manages international projects.



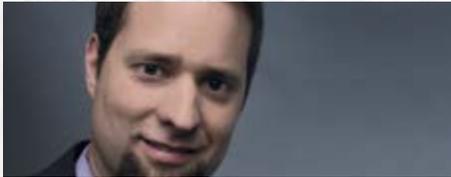
44
Greetings LFS!
Easy Rider Michael Tüfer takes off in Switzerland.



52
Logist[r]iker.
Having fun with the team is more important than winning the games.



53
The creative forge.
Ideas are created in a team.



6

Develop visions. Implement ideas.

Strong networks for the logistics of the future – managed by Jens Heinrich.



24

The social generation.

Insights into the talent forge from Roger Ruppmann.



36

We are a team.

We all act in concert to develop the best solution for our customers.



46

Logistics magnet Hamburg. E+P – Cast off!

The Northern German market is now managed by the E+P branch office opened at the start of 2015.



54

There from the start.

An interview with co-founder Lieselotte Ehrhardt.



10

The think tank unites science and practice.

The perfect symbiosis for developing new technologies.



26

34 courses, five trainers, one LFS.academy.

LFS.academy's new training concept is successful.



38

Logistics lexicon

with a standing pulse of 42.



48

Share the enjoyment. Anniversary celebrants among themselves.

Together, they stand for 90 years of LFS experience and the highest level of competence.

Imprint

Publisher:

Ehrhardt + Partner GmbH & Co. KG
Alte Römerstraße 3
56154 Boppard-Buchholz, Germany
Tel. (+49) 67 42-87 27 0
Fax (+49) 67 42-87 27 50
info@ehrhhardt-partner.com
www.ehrhardt-partner.com

Responsible for content:

Marco Ehrhardt

Editor:

additiv pr GmbH & Co. KG,
Montabaur, Germany

Ideas and concept:

Marcia Ehrhardt
Florian Kütt
Dennis Kunz

Authors:

Dennis Kunz
Simon Sahn
Rebecca Schmortte

Photography:

Arts Unlimited GmbH,
Mayen, Germany

Photo credits:

iStockphoto
p. 8 shutter_m
p. 18 da-kuk
p. 19 manaemedia
p. 44 maxhomand
p. 46 cinoby
p. 56 da-kuk

p.12 firstsignal 3D visualisierung,
Stefan Schulze

p. 46 Fotostudio Krieger

Design:

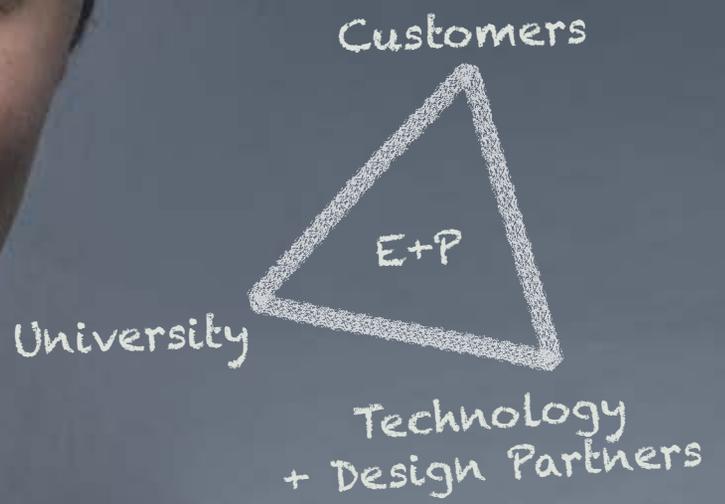
ap KommunikationsDesign,
Dieblich-Mariaroth, Germany

Printing:

Görres-Druckerei und Verlag GmbH,
Neuwied, Germany

© All rights reserved by the publisher.

Reprinting and reproduction of any kind, including excerpts, are only permitted with the express permission of the publisher. All information is subject to change.



Develop visions, implement ideas.

Strong networks for the logistics of the future –
managed by Jens Heinrich.

The innovation in E+P's product lines are Jens Heinrich of the E+P Group's top priority. Under his supervision, E+P's future lab is running several projects focusing on visionary technologies in the field of warehouse management systems, for instance, with the option of finding new paths for warehouse logistics using augmented reality. But that certainly isn't all they are doing. With the internal EPX computing center supporting them, specialized teams are also working on more and more sophisticated cloud solutions. A further major topic is the increasing mobility of warehouse management systems. Regardless of the platforms, the customers want to use their own end devices in order to obtain information immediately, wherever they are. "We see a lot of potential for our cloud products in conjunction with mobile warehouse management systems for our customers to design their processes extremely intelligently in the future," emphasizes Jens Heinrich, Chief Technology Officer, who has held several positions at E+P since 2003.

Network I: Customers

Internal meetings or creative brain storming are only two building blocks for future innovation. E+P is also supported by a diverse, professional network that was built strategically over many years. Managing

this network, orchestrating different influences from customers, technology partners and universities and leading to more new groundbreaking results – these are Jens Heinrich's tasks. "The most important source for pioneering innovations is and remains a large, active customer network. Because ideas that sound spectacular in theory have to be proven in practice," explains the Chief Technology Officer. And in reverse: Which technical opportunities are presently available for clearing the path for the future together doesn't become clear until you talk to the customers.

Network II: Technology and Design Partners

Another dimension of the network is the intensive cooperation with strong technology partners such as IBM, Microsoft and Oracle or innovative design partners such as the voice expert, topsystem. "Our exchange with IBM, for instance, is very close and personal. We evaluate together which IT components will benefit our customers. This creates the perfect compilation of the software and hardware in our product lines," Jens Heinrich describes the process. E+P also works closely with IBM, the second-largest software manufacturer and the world's largest IT patent holder, on the architecture level.

Strategic IT goals are developed together (e.g. in workshops) and results are integrated intelligently into E+P's software development. "The technological architecture of LFS is optimally designed for future IT topics. The system connects state-of-the-art technologies with a modern software interface," explains IBM ISV Partner Executive, Thomas Denz.

On the development and design level, in recent past, the innovative multi-order carts, the successful E+P stacker console, the LFSRFID components, LFS.oculus3D and many other products awarded several prizes have been developed in cooperation with design partners and the Institute for Technical Solutions in Logistics (ITL). "The very close cooperation between the Science Director of the ITL, Prof. Dr. Bollenbacher and his chair, has resulted in the development of many innovative products," explains Jens Heinrich.

Currently, E+P, in cooperation with topsystem, is developing a technology for a new type of picking. It unites Pick-by-Voice with Pick-by-Vision. With this solution, voice input is supplemented by a visualization on a smart phone or other end devices.

Network III: Universities

The third dimension in the E+P network for technology innovations is the close cooperation with universities. The future lab has a warehouse management system think tank in which professors

and students research and experiment autonomously. This results in a number of new approaches and solutions for logistics of the future. Jens Heinrich particularly appreciates the open perspective of his partners from the science and research fields when looking at a topic. He takes on the input from different research papers and unites ideas with technological options and customer requirements.

Last, but not least, with twelve years of experience in IT and warehouse management, he has a good sense for the right vision at the right time. Currently, the University of Coblenz with the Department of Electrical Engineering and IT, the University of Bonn-Rhein-Sieg with a focus on Computer Sciences and Mathematics and the logistics experts at the University of Fulda are the pillars of the E+P think tank.

The innovations are implemented on the design and development level throughout the entire E+P product development team. Young and dynamic colleagues who are a breath of fresh air in E+P's organizational structure allow us to strike out on new paths in product development. "It is fun implementing the innovations with our 80 team players in cooperation with our customers. My colleague of many years, Matthias Fausten, reports on our team in more detail from page 20," says Jens Heinrich.

■ ■ ■







The think tank unites science and practice.

Ehrhardt + Partner has worked successfully with renowned universities in Germany for many years. Since E+P set up an endowed chair at the University of Coblenz in 2001 for the subject of eLogistics, Prof. Dr. Helmut Bollenbacher has become a part of the landscape as a scientific consultant for the company. In the last 25 years of his teaching career, he has mentored countless students on the topics of embedded systems, digital signal processing and digital image processing, including many current E+P employees. His competences regularly flow into the development of new technologies. The results of the cooperation are in practical use at many companies today.

Prof. Bollenbacher, as a full-blooded scientist, what about the cooperation with E+P appeals to you?

That is quite simple: I see our partnership as representative of how concrete solutions for practical use can be developed and proven with scientific support. E+P is one of the front-runners in this field. I am repeatedly particularly impressed by the speed with which the company reacts to new customer requirements; from both existing customers and requests which result in new developments. The necessary resources are made available within a very short time. Throughout the course of the cooperation, it quickly became clear that our two subject areas complement each other. In order to build a bridge between industry and universities, we created the ITL Institute for Technical Solutions in Logistics. I have since accompanied this program as a scientist. Over the years, a large number of projects have been implemented.

Can you name a few examples?

Our most recent example is LFS.oculus3D. Several student thesis papers were incorporated into the development of this highly sophisticated solution. The core algorithms were then created with my help. In practice, E+P has been testing the recognition and detection technology for quite some time to put it through its paces. This is also a distinguishing characteristic of the company in my opinion. The quick reaction to customer requests never has negative impacts on operational safety. New solutions are always tested in-house before they go out to the customer. A further research field is the topic of RFID which is continuously gaining in significance. The focus is, for instance,

on how RFID transponders can be safely and effectively integrated into a logistics process. Typical applications are, for instance, container management or simultaneous detection of RFID transponders. The ITL is tasked with developing robust and cost-efficient options for daily practice.

What do you do to get your students excited about technical solutions?

It's not that difficult. When students become aware that engineers in electrical engineering and computer sciences find interesting and future-proof work in the field of logistics, this breaks the ice very quickly. The student workshops E+P hold regularly also make a contribution. Students gain an overview of the potential topics for their thesis papers based on concrete examples from former students. Per semester, around seven to eight new research papers result from the cooperation between universities and E+P. That's a lot in comparison to other companies.

More to the point: In your opinion, which topics will dominate the future?

Industry 4.0, the Internet of Things and Big Data. Concretely, that means: intelligent networking of all participating objects in production and distribution and processing the accrued data. Further useful facts can be become clear, particularly when analyzing this data. In logistics this means, for instance: Goods that are in production signalize their status and autonomously find their path through the production line. The challenge lies in creating communication options between the goods and the production line. If we keep going with this scenario, communication between the goods themselves will also be possible in the future. The research work is currently running at full capacity. E+P is a partner for these and similar future-oriented projects. ■ ■ ■

A middle-aged man with a mustache, wearing a white dress shirt and a blue and grey striped tie, stands in an empty lecture hall. He is smiling and has his hands on his hips. The lecture hall has rows of dark wooden seats and a stone wall in the background. A glass door with an exit sign is visible in the distance.

"Per semester, around seven to eight new research papers result at E+P."

Arrived.

All the power of the V8.



It's time!

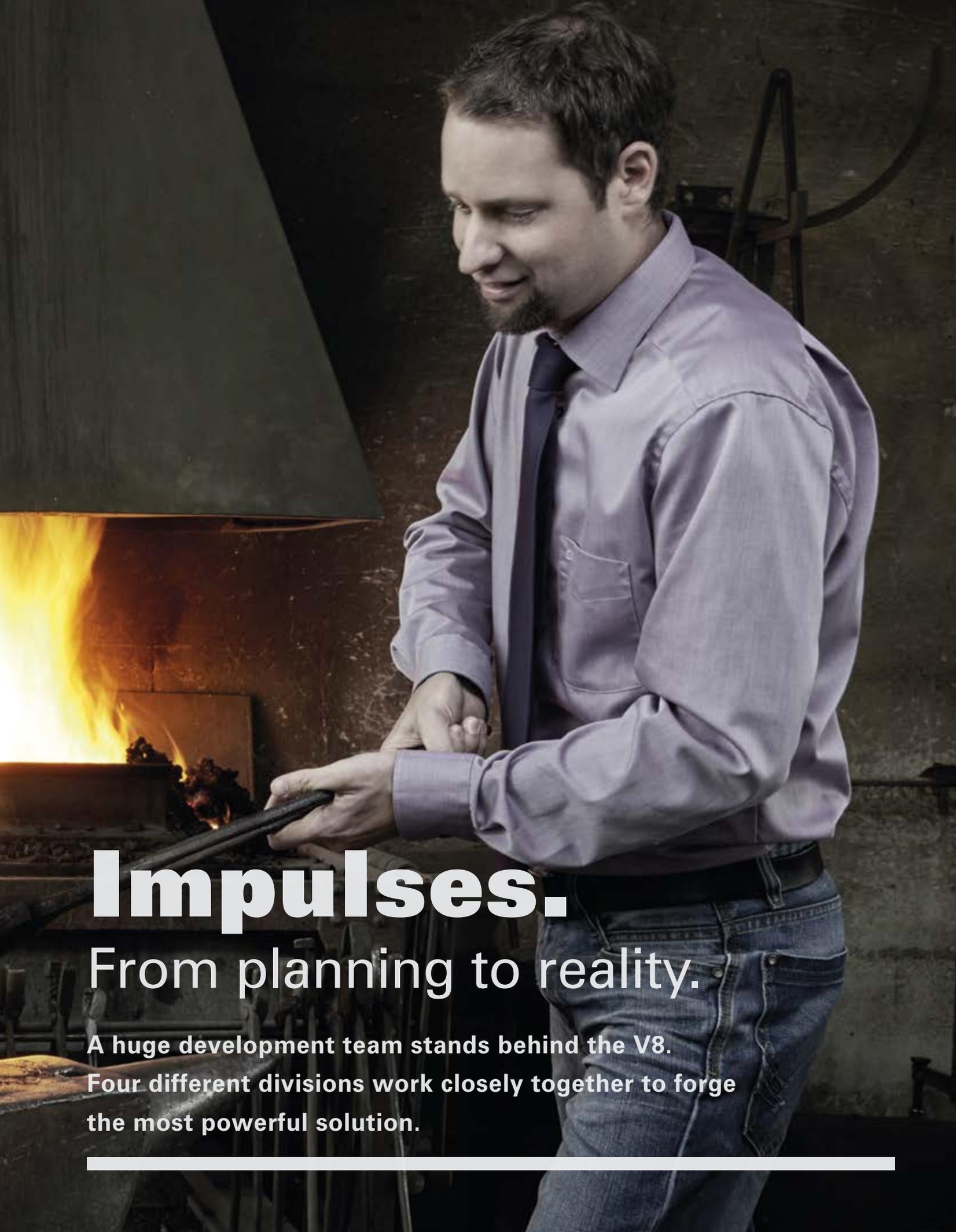
A new dimension of mobility.

Logistics. Dynamics. From everywhere.

LFS. 

■ ■ ■ Warehouse Management by E+P





Impulses.

From planning to reality.

**A huge development team stands behind the V8.
Four different divisions work closely together to forge
the most powerful solution.**



LFS goes mobile.

All the power of the V8 – introduced by Rainer Reese.

Sports car fans swoon when they hear a V8 engine. When a new model is available, all of the features are tested precisely. Because knowledge about the respective special increases the fun of driving. That's no different with the newest version of LFS. Look forward to seeing what powerful package we will put on the road for you. In the following, we will present some initial highlights.

From the start, the development of the V8 followed the motto: LFS goes mobile. Because customers today want to access their data securely and easily, from anywhere. LFS version 8 opens the gate to the Android world and thus opens up a new dimension of mobility. You can not only connect industry-quality end devices with LFS, you can also select from the huge range of products on the market based on your tastes and budget. Based on the principle: Bring your own device. The warehouse managers no longer just sit in their offices, but instead maintain an overview from anywhere on a smart phone or tablet. LFS V8 proves that absolute mobility is no longer a Utopia, but is actually becoming a reality.

Mobility doesn't just mean independence for every employee. It also means that the planning and controls are completely dynamic, for instance, due to the complete

overhaul of the tour management functions. Here, internal and external logistics are combined in one powerful unit. Truck drivers profit from the results of this planning; they can use the Trucker app on their own smart phone to stay in touch with the central office throughout their entire tour via the Internet.

The V8 also unites voice-controlled picking and screen dialogs in one unit. The speed of Pick-by-Voice can now be supplemented by the precision of an intelligent screen display. Pick-by-Voice and Pick-by-Vision meld into one innovative complete solution.

A huge product development team stands behind the V8, which completed the newest version of LFS in about an 18-months development period. Four different divisions work closely together to develop the optimum customer solution. With his team, Rainer Reese, nearly part of the decor with his more than 19 years at the company, combines ideas from logistics and technology experts into one software solution. He also deals with the quality assurance of E+P products in cooperation with the quality assurance team. These colleagues are determined to deliver this software without errors. "This way, we can provide our customers with a complete package with full performance from the

start," explains Reese. He adds, "With V8 engines it's the same; they are tested down to the last detail before they are put into vehicles and on the road. This diligence in quality assurance is one of our greatest strengths when actually making innovations usable."

As a native northerner, Rainer Reese already knows how he will celebrate the introduction to the market: with young salted herring, pickled herring and salmon off the grill. When using new technologies in his daily life, he follows the same principle as his customers at E+P: Updates are only useful if they also offer added value. For instance, he uses his smart phone to look for a restaurant in Florence, but doesn't then immediately tweet about the treats on his plate. ■ ■ ■

LFS goes mobile.

It is time to bring our performance on the road.

A small preview of LFS V8 with these and many more functions in a new version.

Completely new. Completely LFS.

Over time, a lot has changed in the iBrowser. LFS V8 is easier, more modern and more attractive than ever before. There are no limits now with regard to interface design – anything is possible! But the V8 doesn't just shine because of its new look, it also boasts new features. For instance, Unicode representation is possible across all of the processes, from data storage to printing through to being displayed on your iBrowser. In addition LFS Business Services create smart networks beyond the system limits (e.g. with ERP systems). Thus, information from a variety of sources is united in one intelligent unit in LFS.

iBrowser on Android

As a platform-neutral system, LFS V8 now also runs on the Android mobile operating system. This allows customers to achieve maximum mobility in the application. They decide which end devices are used for warehouse management: Tablets, smart phones, etc. – there are no limits.



Bring Your Own Device

The Trucker app is here! With the first mobile app from Ehrhardt + Partner, order processing through to the transfer of goods to the customer can be seamlessly and transparently integrated in LFS. The driver is automatically guided step-by-step through the different tasks in a tour. Using the app, the trucker also documents the progress of the tours to be executed and the orders contained therein and reports the current status back to LFS in real time. The drivers don't require an expensive end device; they simply need a smart phone.



Tour management

LFS V8 controls internal and external logistics processes. With a complete tour management system including dynamic tour planning, customers can react to changes in their supply chain at any time. All of the data is transmitted in real time and immediately taken into account. Thus, LFS V8 optimizes the information exchange between the warehouse and transport sides. For instance, the optimum delivery routes for current orders can be displayed on a road map. The current traffic situation is also automatically taken into account.

Voice meets Vision

Integration of voice technology into the iBrowser: LFS V8 enables voice-controlled picking, supplemented by on-screen dialogs. For items that, at first glance, can't be clearly differentiated, simple screen icons or embedded photos provide the picker with more certainty. With the combination of voice and vision, the reliability increases even further.

The man

behind the scenes.

Matthias Fausten

Age: 46

Job title:

Director Product Development

With E+P since: 5/15/1995

Experience:

- more than 3,500 man-days in programming
- 600 man-days on site
- 30 customer projects

Specialization:

Packing station processing, inventory, serial number processing, 2-stage picking

My favorite function in LFS:

Sample inventory (saves a lot of time and money)

What excites me about my job is:

daily cooperation in a great team

Personal information

The best soccer team in the world is:

FC Liverpool

My greatest dream:

to see a live Champions League finale with B. Mönchengladbach vs. FC Liverpool

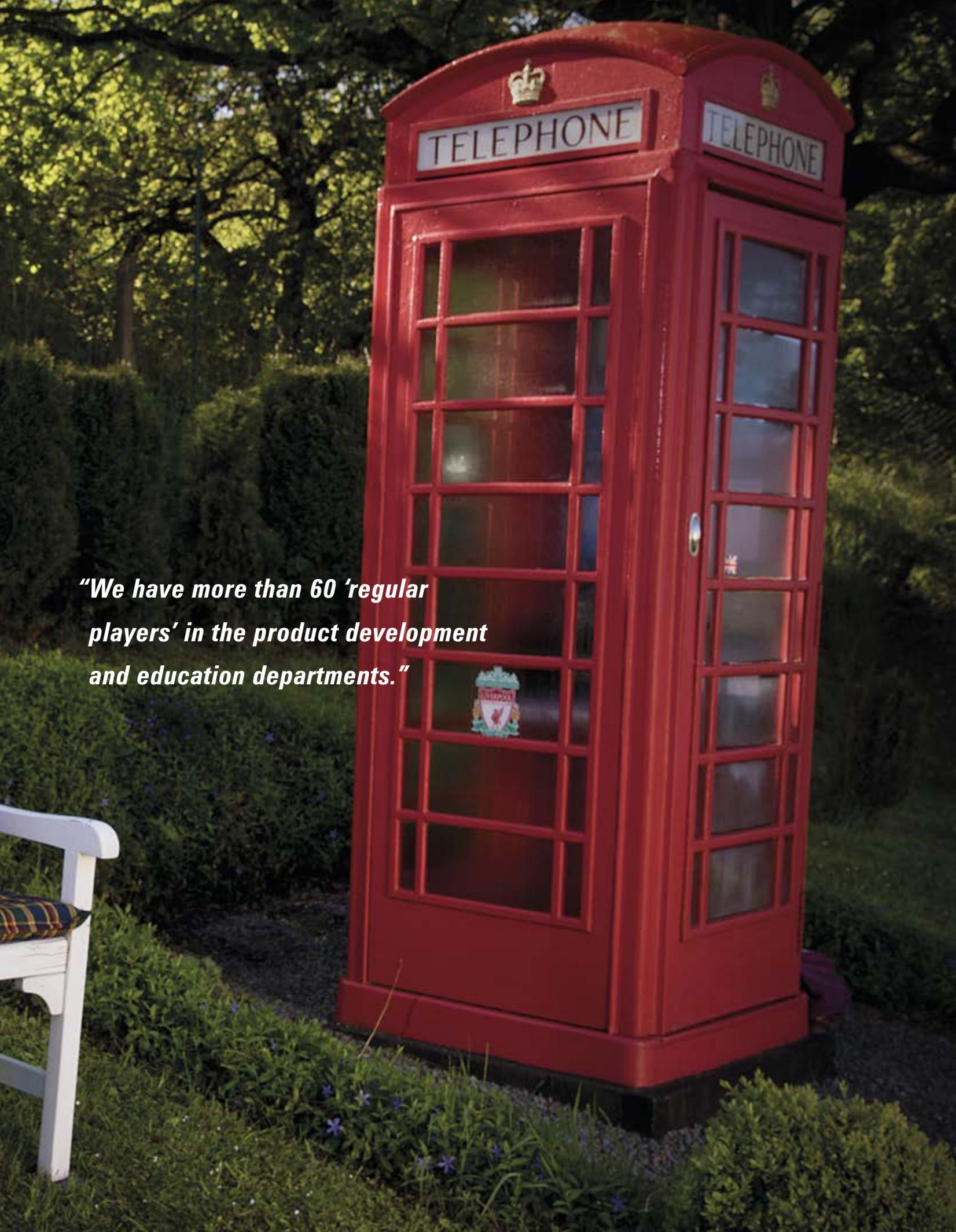
I let off steam:

mowing the lawn

A trip around the world takes me to:

London, Buckingham Palace and breakfast with the queen





"We have more than 60 'regular players' in the product development and education departments."

How Matthias Fausten manages the interaction between 80 employees.

Customers only see him rarely. His territory is the backstage area at E+P. As an organizer in the background, Matthias Fausten ensures the top-quality team is closely networked and all of the employees can optimally contribute their strengths. In an interview, he explains why the time of big, sole decision-makers is over, how talent can be developed in a team structure and what his passion for soccer and gardening have to do with his job.

Mr. Fausten, together with two colleagues, you manage the Product Development & Education departments at the company. How is your team set up exactly?

We currently have more than 60 'regular players' in the product development and education departments. In addition around 20 students are currently assisting us with the further development of our solutions. We thus have a strong core team and, at the same time, continuously obtain scientific input from our cooperation with universities. What is important is that we can set up our team optimally in accordance with the respective requirements. We have four core teams on the pure development side in the fields of system technology, user interfaces, logistics processes and material handling. These teams are closely connected and cooperate on developing optimum product solutions. In addition, the quality assurance department ensures the required quality of our products. Another focal point is education and training. Here, we are well-equipped with the LFS academy for training in logistical processes and the education department of Mr. Ruppmann. We not only train our customers, we also provide professional training for our own employees.

How do you view your role at E+P?

I take care of finding the ideal organizational structure and ensure that the interaction across all instances, from the logistics specialists to the developers and technicians through to support, runs perfectly. If you want to be successful in the logistics world long-term, you have to have a good organizational structure. This includes the right mix of experienced and young employees which creates a good dynamic. The chemistry in the team and all of the "players" should be able to develop.

What kind of environment do you create, in particular, for young developers?

We believe in an open company culture in which we promote creativity. The experienced employees have internalized this culture and act as multipliers for the young talent. We don't dictate standardized solutions, but instead challenge employees to come up with ideas for improvement and open up new paths. Especially for young people, we create experimental fields in which we tolerate mistakes if they contribute toward further development. As a referee, I don't blow my whistle at every little thing, but instead, I make sure that the flow of the game is right. This increases each individual's self-confidence. The time of the great, sole decision-makers is over. Our solutions are created in open dialog in which everyone participates equally. Thus new colleagues in particular, quickly identify with the product they helped develop. That motivates and releases a huge amount of potential. It spurs people to their highest level of performance and guarantees our mutual success at the company.

How would you describe the mood in your team?

The "we" feeling is the most important thing for us. It sounds like a soccer cliché, but we see each other through thick and thin. The basis for our team play is the appreciation the colleagues have for each other. The cohesion is great and the teams are characterized by their ambition to continuously improve the processes and products for our customers. The employees are very happy with the working conditions here. For instance, we have the best working hours model in our region. Doing things together, like bowling championships, foosball tournaments and yoga courses also promotes the comfortable feeling in our team. This is also the basis for further growth at the company. We gladly draft top talent with the team player gene into our ranks. Many of these talents come from our own education department.

Mr. Fausten, your favorite thing to do in your free time is work in your garden. What parallels can you draw between that and your job?

Well, the initial situation here is, in principle, very similar. When I want to plant new flowers in my garden, first I have to decide: They are something special and require the right environment in order to blossom. What place is the best for them? And how do they harmonize with the other plants so the overall picture looks right? It's no different at E+P. ■ ■ ■



A man with glasses and a plaid shirt stands on a dirt trail, looking out over a scenic valley. The valley features a wide river, a small town on a peninsula, and rolling hills in the distance. The man is wearing a green and white plaid shirt, dark pants, and a backpack. He has his hands on his hips and is looking towards the right side of the frame.

"We currently have more than 40 trainees distributed across three grades."

The social generation.

Insights into the talent forge from Roger Ruppmann.

A Saturday night in Coblenz. At the movies, youths lean back, sip their colas and look forward to the blockbuster film. Before Iron Man saves the world or tuned-up sports cars race against each other, they get to know Ehrhardt + Partner. A short commercial makes it clear what opportunities await young talent at E+P, especially in IT development. And the concept is working: In his team, Roger Ruppmann mentors, supervises and supports more than 40 trainees, distributed across three grades.

The educational director in the field of software development looks back at a very long career at E+P himself. When he started at the company after graduating from college, there were only 15 employees. Today, there are more than 280 at the Boppard-Buchholz location. He trained many of them for the job himself and conveyed his experience from more than 20 years in warehouse logistics. “Many of them, who started with me years ago, are now in management positions and have impressive careers behind them,” says Ruppmann. Such careers are only possible in a team that promotes talent, allows innovation and thus offers long-term opportunities.

When Ruppmann looks at the current generation, he sees similarities and differences in comparison to his own beginnings. “The way young people network today is much stronger. Ideas, opinions, plans are exchanged rapidly via instant messengers,” he says. But young talent is still grateful for the advice from ex-

perienced colleagues and good guidance. Especially when they are developing a topic themselves and the Internet alone isn’t enough help.

When it comes to the training plan, Ruppmann makes sure that young people get to know as many approaches and systems in practice as possible at the E+P internal logistics center. This experience subsequently helps them understand customer requirements, potentially foresee them and implement them in a dialog. Therefore, the trainees are at the EBL logistics center for the first two weeks of their education in order to experience LFS live in action and get a feeling for the individual functions.

Roger Ruppmann is impressed by how steeply the learning curve of his trainees goes up in the first few months. What he likes in general about the logistics scene is the innovative spirit of many companies. “New solutions spread out quickly if they provide benefits,” he observes. With the speed of work, he likes to relax in private, by hiking in the Allgäu or the Rhine Valley. From his residence near the Loreley, he can explore countless nature routes. ■ ■ ■

**34 courses, five trainers,
one LFS.academy.**





“First-class qualifications give the company a competitive edge.”

LFS.academy’s new training concept is successful

LFS is now in use at more than 800 locations worldwide. The demands logistics and software experts encounter increase daily. With the new LFS.academy training concept, E+P is facing this challenge. The comprehensive curriculum, consisting of 34 courses, fulfills the wide variety of market demands and the need for qualified LFS consultants. The team has also grown.

Sabine Peters, for instance, has been a trainer at the LFS.academy for one year and is already convinced. “First-class qualifications give the company a competitive edge. If you want to play at the top, you have to stay on the ball.” The objective of the training concept is to provide logistics and IT specialists targeted, continuous training in warehouse management system topics. This offers the option of delving further into different areas based on previous knowledge and qualifications in a customized and flexible manner.

“We are a team”

“The people who attend our training courses really want to learn something. That motivates me a lot in my daily work,” explains Sabine Peters, who consciously took the step from youth to adult education. “You also sense a real team spirit at the company. Of course, I want to pass that on to our customers and students who visit us. At the same time, they get familiar with the potential of our software and can completely exhaust it for their needs.”

What makes LFS.academy different from other training programs is clear to the native Hamburger: the close link between theory and practice and the opportunity of applying what is learned directly in the 500 sq. demo warehouse. Or experience everything in actual operation at the neighboring logistics center EBL, Ehrhardt + BOMAG Logistics. ■ ■ ■

***"We always keep
our customers' goals in mind."***





From warm-up to the sprint to the finish line

Warehouse planning... set... go!

Planning a new logistics system is a task for people with an affinity for numbers, paired with a lot of creativity and a love of dialog. Quantity frameworks have to be set up, resources have to be planned and all of the processes have to be connected in an intelligent, overall concept. Marcel Keller is exactly the right person for the job. Because even when on a ten-kilometer run in his free time, he always keeps important key indicators in mind. After tracking the performance data, the daily form and the long-term comparison have to be evaluated. But he doesn't hide behind the numbers. He speaks openly, honestly and congenially about his goals at E+P. That is also how he speaks to customers and system partners.

E+P has had its own, internal planning and consultation department since 2005. Under the name LFS.consulting, Marcel Keller and his colleagues are significantly expanding this range of services and are thus reacting to the high demand on the

market. "It happens often that customers who are interested in LFS also ask about planning and consultation with respect to the entire logistics system," says the forwarding specialist and industrial engineer with more than ten years of professional experience in the transport and forwarding branch. "We gladly answer these requests. In principle, we work independently from the LFS sales department and apply our expertise from more than 800 projects toward competent logistics planning."

The team surrounding Marcel Keller is continuously expanding in order to meet the high customer demand. Together, they provide companies with consultation: from the first idea to conceptualization and implementation through to aftersales service. ■ ■ ■

Always keep it flowing.

How Thomas Knechtges controls and optimizes warehouse movements.

With the increasing automation of warehouse processes, the need to intelligently control the material flow and continuously measure and evaluate performance data from the warehouse also increases. This way, optimization can be determined so the integrated conveyor technology is efficiently used and all system components harmonize perfectly with each other. Controlling the entire material flow and the constant further development of all measurement and control technology are Thomas Knechtges and his LFS.mfc team's tasks. Together, they help existing and new customers save money and design the warehouse processes as transparently as possible.

LFS.mfc has an open interface and can therefore be connected to all common warehouse management systems. This makes the solution suitable for new customer projects as well as modernizations. It can be used centrally or locally, regardless of the databases and

platforms. The users obtain transparency via the visualization of all warehouse reports, including a zoom function. The material flow controller is optimally designed, of course, for LFS. Thus, if needed, a strong overall package is available.

“Our material flow controller can be connected regardless of the manufacturer. That means: Regardless of which conveyor technology is in use, LFS.mfc connects all of the components with each other and provides the perfect overview,” emphasizes Thomas Knechtges, who has worked for E+P for 13 years. He adds, “It is important that our solutions are adaptable to a customer's unique processes. Ultimately, the flow of materials is different in every warehouse.” ■ ■ ■



Can't be beat

when it comes to service and technology.

The Technical Solution Center:

Service and support of the highest quality

Always with a smile. A good mood is the recipe for a content life. Stefan Meuche, Director of the Technical Solution Center (TSC), has applied this attitude toward life 1:1 to his team. "And I hope, of course, to our customers," he adds. "Today, they expect, in particular, that our technologies are sustainable and a worthwhile investment which will endure five years and beyond. If we achieve that, not only is the customer satisfied, but so are we."

A strong network of partners for the highest quality standards

IBM, topsystem, Zebra (formerly Motorola and Psion), Vocollect and Datalogic: Those are just a few partners with which the TSC works closely. "We just recently started the cooperation with topsystem. We can now offer our customers the option of purchasing a complete solution for their Pick-by-Voice tasks from one source – made in Germany. This new improvement results, for instance, from concrete requests from our customers who demand more and more freedom with regards to choosing hardware," explains Stefan Meuche.

In addition to providing input for new technological developments at the company, the core task of the TSC is in individual service and support for voice and data transmission terminals. As the Head of Customer Care, Stefan Meuche ensures, in addition to maintenance and timely repair, a timely replacement service at the customer's location for all Talkman terminals including accessories. "Our goal is for more than 90 percent of the incoming repair orders to leave the repair center within 24 hours," emphasizes Stefan Meuche. "We thus guarantee minimum downtimes and costs at the warehouse. At the same time, expensive productivity drops at the customer's site are avoided." In addition, the TSC offers a comprehensive, certified aftersales service for Vocollect users in Central Europe and the Middle East. As a complete provider, the center also handles all of the license management and always has an eye on maintenance agreements. In addi-

tion to fast repairs and services, the TSC will also completely set up technical warehouse infrastructures: Customized and entirely based on the customer's needs, networks, radio transmitters, data transmission solutions or Pick-by-Voice can be integrated.

Reach the goal with a team of specialists

Always exchanging information with other departments for high-quality results. "The TSC team is, for instance, very intertwined with the product development department in order to recognize trends early on and create solution approaches together. At the same time, we receive input from universities and from our suppliers. With this network, we ensure that the expectations of our customers are optimally fulfilled," says Stefan Meuche. Quality management is highly valued throughout the entire network for every solution in order to ensure safety and efficiency at the customer's location. "Our team consists of experts who recognize customer needs early on and apply their experience to the development of new products. This keeps us future-proof," adds Stefan Meuche.

When it comes to the technology of the future, Stefan Meuche knows no limits. "The trending topic of Industry 4.0 also plays a role at the TSC. The developments are moving more and more in the direction of networking and digitalization. At the same time, the challenge lies in assuming the inherent responsibility for security that comes with it and creating an optimal cost framework for the customer. When I am able to do that, I am satisfied." ■ ■ ■



“Both hands and ears free, the new voice picking solution!”

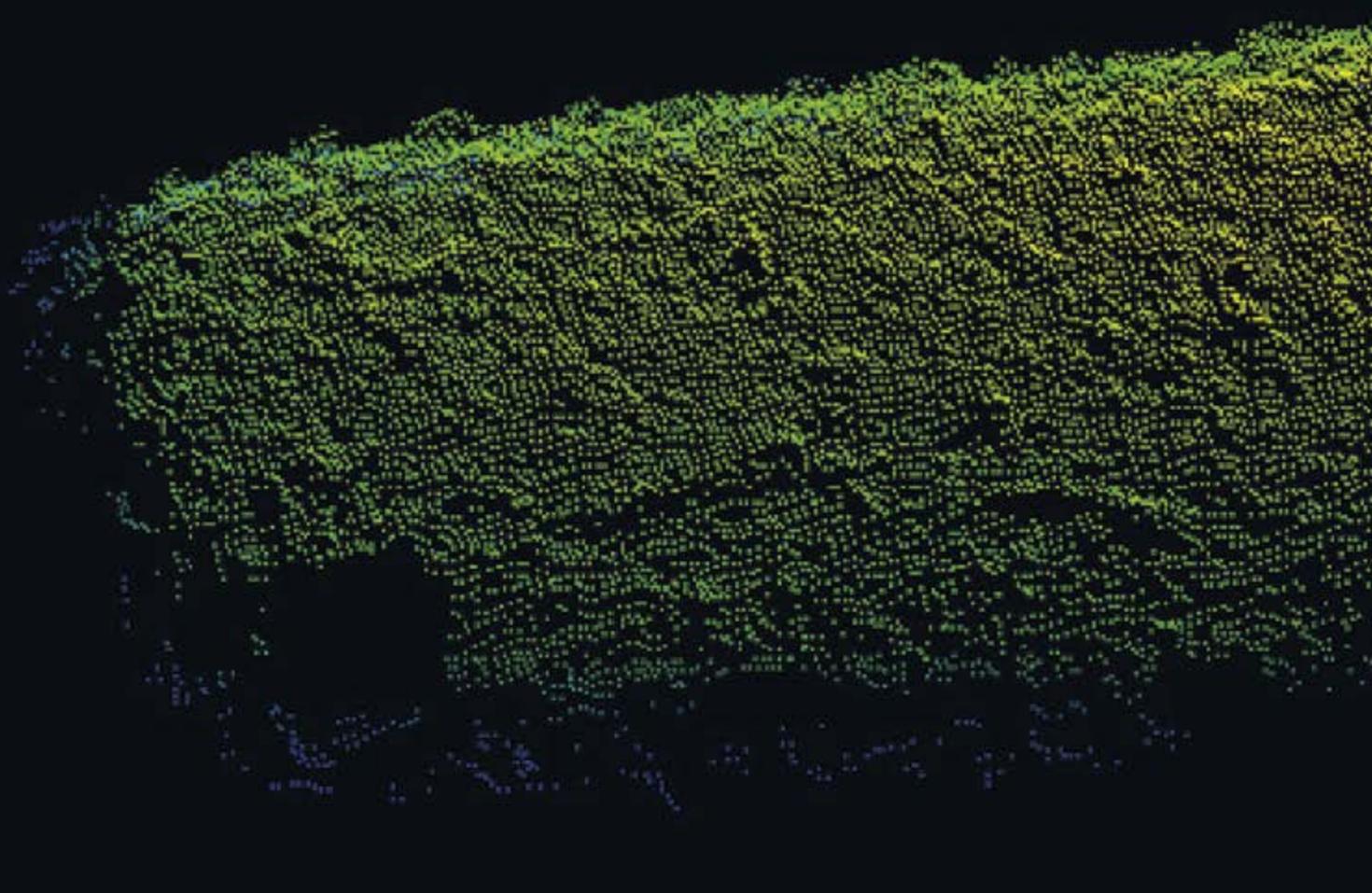
LFS.oculus3D

Innovation from practical use
for practical use.

Detection and identification of item master data in seconds

The LFS.oculus3D is the most recent example from the product development department. The Technical Solution Center (TSC) from E+P also played a crucial role in the development of the recognition and detection technology to maturity. Place the item, start, master data is detected: That is how easy the process is with LFS.oculus3D. A technology that automatically detects all of the master data in seconds and simultaneously allows for clear recognition of the item. The length, width, height, volume and weight of the item are calculated. A decisive advantage in

comparison to conventional technologies on the market: Every item also receives a unique identity by creating a mathematical fingerprint for the product. This allows for fast and automatic recognition of already recorded items and offers the highest level of security. ■ ■ ■





The mathematical fingerprint

- **Save enormous amounts of time and gain excellent security** with fully-automatic detection of the items at the press of a button. – Recording in less than 60 seconds per product!
- **Quick and automatic recognition/identification.**
For instance, when processing returns or during the packaging process.
Security and control of the “right item”.
- **Independence of experienced employees.**
Knowing the item master data is no longer a requirement for working in goods receiving/returns. More flexible staff assignments are thus possible.
- **High quality and completeness of the recorded data** in comparison to manual recording.

INNOVATIONSPREIS-IT

BEST OF 2015

initiative
mittelstand

AUTO ID / RFID

We are a team.

Several projects – one team: We all act in concert to develop the best solution for our customers. Due to our strong growth over the last few years, we now employ more than 350 employees. That is thanks to our customers and their trust in our logistics competence.



Jens Heinrich

Age: 38

Job title: Chief Technology Officer,
Managing Director EPX – Ehrhardt +
Partner Xtended

With E+P since: 3/1/2003

Specialization:
strategic and technological alignment
of the E+P Group

My favorite function in LFS:
the innovations we are currently
developing...

I relax:
working around the house and in the
garden

I let off steam:
with my kids

Isa Cagas

Age: 42

Job title:
Key Account Manager

With E+P since: 1/1/2015

Experience:
more than 20 years of experience in
the beverage industry

Specialization: Beverage projects

My favorite function in LFS:
iControl (warehouse activity
monitoring)

My motto:
If the customer is satisfied, then I am
too

My hobbies:
Snooker and poker with friends

Rainer Reese

Age: 55

Job title:
Director Product Development

With E+P since: 5/1/1996

Specialization:
mobile picking with RF, voice, picking
equipment and other tools as well as
conveyor technology

My favorite function in LFS:
mathematical planning functions
for resource management and order
controlling

I relax:
reading good books on my sunny
terrace



Arthur Grzesik

Age: 40

Job title: Head of Project Group

With E+P since: 1/1/2002

Experience:

more than 40 customer projects

Specialization:

external interfaces, incl. SAP

My favorite function in LFS:

Transport Control System (TCS), all kinds of conveyor technology

A trip around the world takes me to:
Japan

I let off steam:

on my racing bike or salsa dancing

Markus Linkenbach

Age: 32

Job title: Head of Project Group

With E+P since: 5/1/2004

Experience:

approx. 30 customer projects

Specialization:

Transport Control System (TCS), 3PL

My favorite function in LFS:

Packaging, setting up displays and value added services (VAS)

What excites me about my job:
new challenges which every customer project entails

I relax:

playing with my children, playing on a team in the local soccer league

Johannes Grunenberg

Age: 35

Job title: Head of Project Group

With E+P since: 6/1/2005

Experience:

approx. 30 customer projects

Specialization:

Pick-by-Voice

My favorite function in LFS:

two-stage picking

What excites me about my job:
the pleasant cooperation with our customers and mutual support in the team

I let off steam:

playing basketball in the regional league



Logistics lexicon

with a -standing pulse of 42.

“I am a pallet!” he said to his customer and Andreas Krake has already started playing a movie in his head through the entire warehouse in order to test the processes. No wonder, logistics are in his blood. The forwarding specialist with a degree in industrial engineering accompanied his father as a child during his summer breaks on long truck tours through half of Europe. Now, he has been a project manager at E+P for more than ten years and has been with the company since 1997. DHL, Fiege, Kühne + Nagel or Hellmann – he knows the big logistics companies’ warehouses like the back of his hand. After all, he equipped them with LFS himself.

When executing a project, Andreas Krake sees himself as an interface between customer requirements and software. With his big routine, he translates the language of the logistics specialists into the programming code of his IT colleagues. Example: DHL in Hamburg. In order to optimally manage the internal logis-

tics for a fashion retailer, Andreas Krake is working with a team consisting of four application consultants, a chief developer and six further programmers. The go-live phase alone will be accompanied for a period of twelve weeks so the logistics service providers can perfectly use all of the LFS functions.

Without his father, Andreas Krake is still covering great distances. He doesn’t need a truck for that: He rides his racing bike nearly 6,000 kilometers every year, sometimes covering 200 kilometers a day. In the framework of the VORTOUR der Hoffnung (benefit race), he and around 150 other cyclists put their abilities to use for a good cause. Last August, they raised more than 300,000 euros for children’s cancer research on their tour from the Eifel to the Westerwald. ■ ■ ■

Think global.





The mix of different personalities, cultures and working methods has been a characteristic of Ehrhardt + Partner since its foundation. This keeps us flexible, keeps new ideas coming, thus preparing us for the market requirements throughout the world. From our locations in Brazil, Spain, Switzerland, Poland, the Czech Republic and the United Arabic Emirates, we support customers on a wide variety of projects. And none of them are the same. And we like it that way. That is how we continuously develop.

From the left: Peter Amos, Director Customer Projects, Anna Zalewska, Logistics Trainer LFS.academy, Ute Zeller, Logistics Consultant, Michèle Keminsi, Software Developer, and Sarat-Chand Kandukuri, Software Developer.



Rockin' all over the

Front man Stephan Witt manages international projects.

He likes to crank it up in the rehearsal room. Then off he goes: the finest classic rock that really tests the strings on his Fender guitar. But Stephan Witt rarely plays alone. He can't find the right groove without his band mates.

It's no different at work. At E+P, Stephan Witt coordinates international projects and works closely with his colleagues at the Prague and Dubai offices. In the Czech capital, he has the support of a team of seven employees. In the Persian Gulf, he accompanied the set-up of an expert pool, currently consisting of eleven

developers. Together, they rock the logistics and integrate LFS into important target markets such as Eastern Europe and the Arabic countries. But they have also worked together on special projects in Spain and Italy.

Like in his band, Witt sees himself in the role of the communicator at E+P. He facilitates the exchange of knowledge between the individual branches, uses his many years of experience to coach teams and continuously reviews the quality standards of the developed solutions. Because even in the international environment, values

such as the proverbial "German thoroughness" are very important when trying to impress customers.

Despite his projects around the world, Stephan Witt doesn't feel drawn to traveling the world in his vacation time. He prefers the nature in his native environment much more. And when he does travel a bit further away, he prefers the northern regions instead of sunbathing at the big tourist meccas. ■ ■ ■

world.





Grüezi LFS!

Easy Rider Michael Tüfer takes off in Switzerland.

Interpersonal relationships is especially important to him. Michael Tüfer knows what's important to his customers: Building trust, taking time for personal conversations, being on-site even for small problems. "Because other than a few large logistics service providers and industrial corporations, the Swiss market is primarily characterized by successful small and medium-sized companies who want to optimize their logistics," the site manager for E+P in Switzerland says about the particularities of the alpine nation.

Michael Tüfer was born in the Canton of Bern and has a finely-tuned sense of the mentality of his fellow coun-

trymen. At the same time, of course, he also has an eye on his customers' economic needs. A strong Franc, high wages and the daily task of transporting and optimally managing smaller warehouse quantities place clear demands on warehouse management with respect to efficiency.

"LFS enjoys a good standing in Switzerland. The software is absolutely reliable, can be adapted to individual company requirements and is offered at an attractive price," explains the site manager. And he would know: After all, he worked with LFS on the customer side as a logistics manager for years.

Michael Tüfer's goals are clear: He wants to establish E+P as the leading provider of warehouse management software in French and Italian Switzerland as well. With his experienced team, the enthusiastic Harley Davidson rider is ready to get started. The site manager not only shows his lust for adventure on his motorcycle, he is also enthusiastic about winter sports. He has raced four-man bobsleds with customers through the ice channel in St. Moritz to promote a "we" feeling.





Thorsten Gaßner

Age: 45

Job title: Sales Manager

With E+P since: 2/1/2015

Experience:

- 8 years with a market competitor
- 10 years with the Lufthansa corporation
- 2 years in company consulting

My favorite function in LFS:

voice-controlled picking with VIR – Voice Integrates RFID

What excites me about my job:

the dynamic, helpful and very friendly team at E+P and the good and interesting cooperation with our customers in the different situations

Personal information

What goes on the grill:

fish you catch yourself, corn, zucchini and hot dogs

If I drink alcohol, then:

Holsten pilsner, what else?!

I let off steam:

playing tennis, windsurfing or jogging

Logistics magnet Hamburg. E+P – Cast off!



Three things the north needs: a stiff breeze, the Waterkant and LFS. In order to ideally supply our existing customers and win over new customers, E+P opened a branch office in Hamburg at the beginning of 2015. The location, with Sales Manager Thorsten Gaßner and five other LFS experts will be expanding throughout the next few years.

The who's who of the international logistics scene have settled in and around the harbor city. The need for innovative

systems for modern warehouse logistics is accordingly high. Based in Hamburg, the E+P team supports the entire Northern German market.

Thorsten Gaßner has experience from more than 35 completed projects. More will follow soon. ■ ■ ■



Share the enjoyment. Anniversary celebrants among themselves.

Another part of the E+P family tradition: a cold drink at the end of the work day and a campfire feeling with the Middle Rhine Valley as scenic backdrop. These six colleagues all have a reason to celebrate. After all, it's their own, personal E+P anniversary this year.

Together, they stand for 90 years of LFS experience and the highest level of competence in their subject areas. Their group around the grill and the relaxed, friendly atmosphere provides insight into a golden year at E+P with many other anniversary celebrants at the company.

The happy group at sunset, from left to right: Stefan Ruthmann, Manager Logistics Consulting (since 1995), Werner Ott, Senior Software Developer (since 2000), Günter Mücke, Expert Logistics Consultant (since 2000), Melanie Dillschnitter, Head of Front Office (since 2005), Jörg Jurkiewicz, Manager Logistics Consulting (since 2000), und Hermann Pulm, Chief Business Development Officer (since 2000).







Stefan Ruthmann

Age: 46

Job title:

Manager Logistics Consulting

With E+P since: 8/1/1995

Experience:

approx. 40 customer projects

My favorite function in LFS:

TCS – Transport Control System

Specialization:

Trade and 3PL

What excites me about my job:

Every project offers new challenges and, of course, we meet more and more people with every project

Personal information

What goes on the grill:

meat, of course

My first car:

Fiat 128 Berlinetta Coupé

I relax:

doing something with family or friends, doing sports or hiking

I let off steam:

riding my mountain bike through the valleys between the Rhine and Mosel

I annoy my colleagues because:

Mmh, I should really ask them that

Werner Ott

Age: 52

Job title: Senior Software Developer

With E+P since: 7/1/2000

Experience:

approx. 35 customer projects

Specialization:

Conveyor technology and production

My favorite function in LFS:

Packaging module

Personal information

What goes on the grill:

Steaks

The best soccer team in the world is:

Bayern München

I relax:

Watching soccer live and forgetting everything around me

My best experience with customers:

the successful commissioning of a DTS (driverless transport system) in conjunction with the new automatic warehouse and the automatic production supply

The best human invention:

Electricity

Günter Mücke

Age: 62

Job title: Expert Logistics Consultant

With E+P since: 1/15/2000

Experience:

approx. 35 customer projects

Specialization:

Retail logistics

My favorite function in LFS:

Module load space calculation

What excites me about my job:

the close cooperation between the owner, team management and every individual employee and the mutual trust. There are no restrictions in the framework of the software development and the exchange of experience on a technical level

Personal information

My best experience with customers:

experiencing the first project from the first day of the requirements specification meeting through to the go-live after four weeks of working for the company. Then, every new project, regardless of whether in Germany or abroad



Melanie Dillschnitter

Age: 40

Job title: Head of Front Office

With E+P since: 12/12/2005

What excites me about my job:
the diversity

What I do for our customers:
I make the sun shine through the telephone every day ;o)

Personal information

What goes on the grill:
a lot of meat and prawns

If I drink alcohol, then:
a glass of good red wine

My first car:
oh dear, a white Ford Fiesta!

I like to spend money on:
good food and shoes ;o)

I relax:
lying with my cats, Bonnie and Clyde on the couch

I let off steam:
dancing

The best human invention:
Chocolate!!!

A trip around the world would take me to:
definitely Cuba

Jörg Jurkiewicz

Age: 48

Job title:
Manager Logistics Consulting

With E+P since: 1/1/2000

Experience:
approx. 30 customer projects

Specialization:
Retail logistics (in particular automotive replacement parts and the electronics branch)

My favorite function in LFS:
Cross-docking, consolidation

What excites me about my job:
Every project offers new challenges. Contact with the customers. Meeting new people

Personal information

What goes on the grill:
Steaks, hot dogs and fish

Wenn Alkohol, dann gerne:
Whiskey and Altbier. Once in a while a wheat beer

The best soccer team in the world is:
Fortuna Düsseldorf

I relax:
in my garden in the sun

I let off steam:
playing soccer with my kids and working in the garden

Hermann Pulm

Age: 44

Job title:
Chief Business Development Officer

With E+P since: 8/1/2000

My favorite function in LFS:
Invoicing logistics services because the module does a lot more than it seems at first glance

What excites me about my job:
the diversity of the different tasks, people and challenges

Personal information

I relax:
jogging

I like to spend money on:
travel

My best experience with customers:
the trip to a customer meeting in Poland in the chaos of the snow just before Christmas

Der beste Moment meines Lebens:
the birth of each of my children

My motto:
Carpe diem



Logist[r]iker.

Strikes at the end of the workday – team spirit at the bowling alley.

They took second place among ten teams in the local company league this last bowling season: the Logist[r]iker from Ehrhardt + Partner. Fun with the team is more important than winning matches with an average of 140.88 points.

Every Monday evening, the Logist[r]iker show up for their next match. Fokko Ukena is also on board, a project manager with more than 25 years of experience in logistics IT and a permanent member of the bowling team which will be expanded by a second E+P team next season.

The native East Frisian is certain: “The greatest strength of our team is that we perform best when the pressure is high. Our advantage is the great team spirit. We root for each other and push each other to results that regularly surprise our opponents.” ■ ■ ■

THE CREATIVE FORGE.



The three doers in the background: They ensure the optimal external presentation of the company and manage brand development, the introduction of new products, the organization of trade shows and events, the coordination of public relations and the so-called “employer branding” at E+P. Marcia Ehrhardt, Dennis Kunz and Florian Kütt make up the marketing team at E+P – creativity included.

“Being open for new things, taking risks to stand out from the crowd: These are good principles on which we in the marketing team base our work,” explains Marketing Director Dennis Kunz. In order for new ideas to be created in the creative forge, the marketing team is closely intertwined with the developer teams

and the sales department. A regular exchange regarding new products and projects is important for staying up-to-date.

Marcia Ehrhardt, with the company since 2007, is responsible for international marketing as the Global Marketing Manager. She implements strategies and measures for expanding the brands worldwide and handles international public relations. Florian Kütt has participated in the creative forge since 2012, implementing the developed strategies in the DACH region and provides support for personnel marketing. With the design and development department and new ideas, Dennis Kunz is at the top of his team. Since 2009, he has been actively designing the entire marketing and communication strate-

gy at E+P. This includes, among other things, the development of brands or product campaigns, the corporate identity of the company, planning trade shows and events as well as controlling the internal and external communication.

Creative ideas can only take hold if the entire company stands behind the projects. “A marketing project lives and dies with the team. Only when everyone works together, can we reach optimum results,” says Dennis Kunz. ■ ■ ■

Numbers and Facts about the E+P Group

Foundation: 1987

Employees: approx. 350

Locations: 9

Branch offices:

Germany, Spain, Czech Republic,
Poland, Brazil, UAE (Dubai)

Customers: more than 500

Customer projects per year:
approx. 60

Completed warehouse projects:
more than 800

Employees who work with LFS daily:
approx. 40,000

LFS voice versions: currently 16

Picks performed daily using LFS:
approx. 40 million

**Customers who have worked with
LFS for more than 10 or 20 years:** 165

Annual growth of the E+P Group:
> 20 %

Courses at the LFS.academy: 34



There from the start.

An interview with co-founder Lieselotte Ehrhardt.

Almost 30 years ago, she co-founded Ehrhardt + Partner. Even today, Lieselotte Ehrhardt accompanies and supports the growth of the company. In an interview, she speaks about enduring values and her current tasks.

Mrs. Ehrhardt, what was the initial vision of E+P?

Our driving force was the idea of illustrating all of the warehouse requirements with good software and thus optimally support our customers.

How has the business changed over the years?

Our software has, of course, been continuously developed. At the core, though, we have stayed true to ourselves. Our greatest endeavor, then and now, is to offer our customers the best-possible solution for their warehouse logistics. Without our employees, some of whom have been with us for more than 20 years, we would not be as successful on the German and international market as we are now.

Which customers from those first years still use LFS?

There are a number of customers who have stayed loyal to us all these years, for instance Seeberger, the Meyer shipyard,

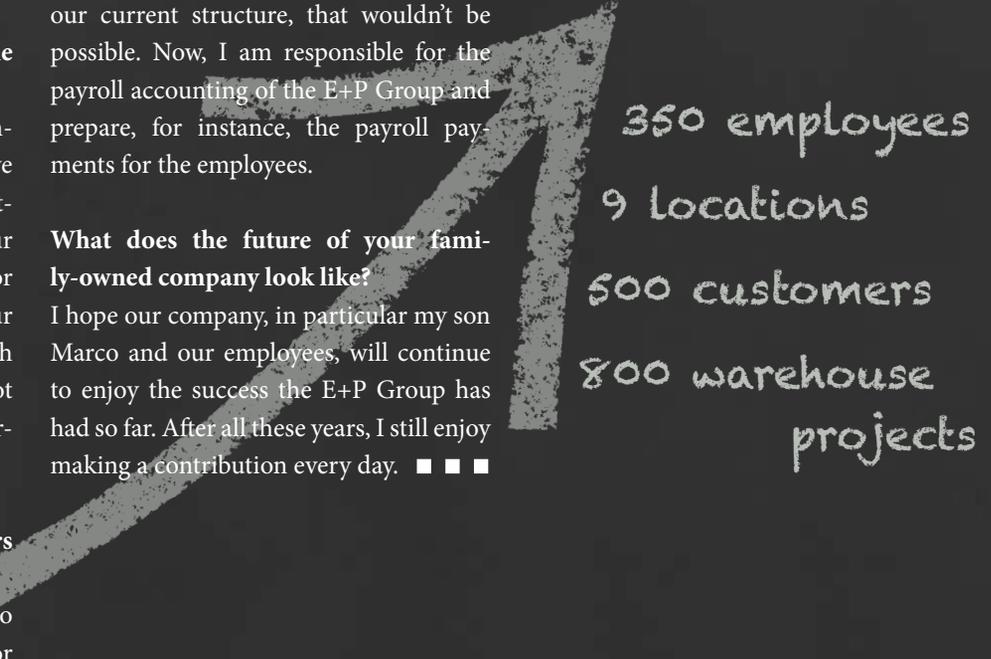
the logistics specialists Offergeld, Siedle and the electronics company Kathrein, just to name a few. We have continued to expand the diversity of the branches over the years.

What exactly were and are your responsibilities at E+P?

In the beginning, I was responsible for the entire administration. That was a broad field in those first years, from training the trainees to financial accounting through to the catering for the customers. With our current structure, that wouldn't be possible. Now, I am responsible for the payroll accounting of the E+P Group and prepare, for instance, the payroll payments for the employees.

What does the future of your family-owned company look like?

I hope our company, in particular my son Marco and our employees, will continue to enjoy the success the E+P Group has had so far. After all these years, I still enjoy making a contribution every day. ■ ■ ■



350 employees
9 Locations
500 customers
800 warehouse projects

LFS goes mobile.

It is time to bring our performance on the road.

A new dimension of mobility.

Logistics. Dynamics. From everywhere.



■ ■ ■ Warehouse Management by E+P