

LFS.magazin

The customer magazine from the E+P Group



GLOBAL SUPPLY CHAIN STATUS

searching ...

Issue 2
Architects of the future



EHRHARDT + PARTNER
GROUP



Dear Reader

We think ahead, develop visions and take a bold approach to implementing them with innovative solutions. These are the principles that have defined our company development for 30 years. From the very start our focus has been on finding comprehensive solutions. This is still our recipe for success today and enables us to meet the consistently increasing demands of our customers. This is also reflected in our LFS that we have continuously further developed from a warehouse management system into a comprehensive Supply Chain Execution System (SES) for logistics.

The 30 years of EPG represent 30 years of strong international growth. Today we are a globally operating group and

we know the requirements placed on efficient logistics all around the globe. The increasing connectivity and automation of warehouse systems, the digitization of process data and the ever greater complexity throughout the value-added chain, are challenges that companies face every day across all industries. With our comprehensive logistics solution, we are keeping pace with these developments. So that this remains the case in the future, we are constantly working on new innovations and designing new ideas which we then implement together into reality.

Currently over 500 EPG employees ensure every day that the logistics world is becoming ever smarter for you, our customers. You are our crucial incen-

tive and inspiration to constantly develop new solutions. We thank you for this – and for the 30 years of your trust in us.

And one last thing: the increasing internationalization of our group is now reflected in our new domain name of www.epg.com. Take a look at it.

Happy Reading!

Marco Ehrhardt, Managing Partner of Ehrhardt + Partner Group



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More connectivity. Smarter.

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25 years at E+P.

Visionary and pioneer Jörg Fröhlich.

Pallets in, pallets out. This was the functional extent of the warehouse management system 25 years ago. As a software engineer, and soon after he joined the company, Jörg Fröhlich installed LFS completely on his own at a pharmaceutical company. Back then the company consisted of ten employees with five being responsible for LFS implementations. Today six teams work on the implementation of customer projects, each with ten to 20 employees. This is a rapid company development to which Jörg Fröhlich has proactively contributed with his ideas and feel for new trends. He has been a partner at Ehrhardt + Partner Group since 1997.

Mr Fröhlich, you have first-hand experience of the company development over the last quarter of a century. In your view what is the reason behind the success of Ehrhardt + Partner Group?

The warehouse management system is undoubtedly the basis of our success and from the very outset we laid the foundations for the further company development. 25 years ago the software was only envisaged as a means of controlling intralogistics. We set the direction of travel for our software development correctly from the very beginning; for example, the technical integration of automation solutions has always been part of the LFS standard. The functional scope of LFS grew quickly enabling the system to meet the requirements of very diverse sectors. Today LFS is a Supply Chain Execution System, in

other words, a comprehensive solution for all the logistics in a company. And it is also easy to take advantage of the technical integration of robotics and state-of-the-art automation solutions such as drones. This makes our solution totally future-proof.

What have been the highlights of your 25 years at E+P?

The dynamics of the logistics market have noticeably accelerated over the last 25 years, with one thing leading to another. The number of inquiries grew steadily with the increasing functional scope of LFS. More colleagues had to join us so we could manage the workload. Of course all this required an overhaul of our internal structures. When I started working here every employee knew about every project and could take care of any issues if required. Today we have a separate department which is solely responsible for project coordination and the six project teams. One highlight was certainly the first international steps of E+P, a project in France in which LFS was used for the first time in another language version. LFS is now available in over 14 languages. Our endeavors to enter the international logistics market at an early stage have certainly given us a crucial competitive advantage. Furthermore, our product is so flexible that it can meet the requirements of different countries and different sectors, which is why today we are a leading international provider of a supply chain execution system.

Looking to the future, what will the logistics sector look like in 30 years?

The connectivity and digitization of processes will continue to increase which will pose ever greater challenges to IT. In future, there will be a greater requirement for systems to provide open, flexible interfaces that enable easy and fast communications with a range of end-devices and systems and for the software to organize all logistics flows into one comprehensive process. This is because customers, more than ever, are requesting speed, flexibility and transparency throughout the entire value chain. Software applications that want to keep pace with the dynamics of the logistics market on an ongoing basis must be modular in their design and standardized in their process handling. Companies must prepare for these developments today and with our LFS we have long been prepared for the connected future. ■ ■ ■

“Today we are a leading international provider of a supply chain execution system.”



Logistics 4.0 with LFS.

Smart. Connected. Digitized.

Shelf transport robot

LFS.wms warehouse management system

Lydia® Voice Suite
Manual order picking
Pick-by-Voice
Pick-by-Vision

Pick-by-Robot

Automated Guided Vehicles (AGV)
Stacker control system

Mobile logistics solutions

LFS.drone Inventory drones

Packing robots

Transport management
Freight capacity / freight cost calculation
LFS.iss International Shipping System

LFS.mfc material flow controller
Automated high and small parts
warehouse (Micro-Shuttles)

Picking robot

LFS.delivery
Online tour handling

LFS.cloud
LFS.analytics
Warehouse management and KPIs
Resources management
LFS IoT connector

Yard and dock management

LFS.drone
Autonomous transport systems
LFS.tms transportation
management solutions

LFS.next

Next Generation LFS.

30 years of EPG. These are 30 years of successful software development. LFS.next is continuing along this path and advancing this strategy in the direction of Industry 4.0 and the Internet of Things.

LFS.next. This is a comprehensive IT architecture project with the objective of focusing even more on logistics processes. “LFS.next will enable us to respond more intensely and faster to the individual challenges of our customers,” explains Holger Marzinzik, Director Key Account at EPG, who is supporting the strategic part of this process. “Our warehouse management system has now such comprehensive functionality that it covers the needs of all sectors and areas. We have been in a good position for 30 years and we are sure that our solutions will also be successful in the future,” adds Jens Heinrich, Chief Technology Officer at EPG. “However, we still need to take action because our customers’ requirements are undergoing huge changes with more services, more agility and more autonomy being required in all processes in future.” Sebastian Pohle adds, “we are countering the challenges of the fast-moving logistics sector with LFS.next.” As Manager Software Development he is primarily driving the project forward on a technological level. All three have the common aim of being able to meet individual customer requirements in the best way possible in the connectivity, digitization and automation age, and to

create a future-proof basis for LFS. What does LFS.next include in this context specifically?

I. Simplify LFS

For 30 years the objective of EPG has been to develop customized and comprehensive solutions for its customers which meet all their logistics requirements, whilst still keeping maximum system flexibility in view. “With LFS.next we want to significantly increase the flexibility of LFS once again,” says Holger Marzinzik. “Therefore the new architecture model will have even more flexible user interfaces which will make third-party product integration and connectivity easier for our customers. We have also changed the structures of the modules. This in turn will improve process mapping.” LFS.next will also simplify customizing because users will receive additional visual support for all settings. This not only ensures more intuitive mapping of all business processes, but also increases transparency. “Our prime aim is to increase the service level we provide to our customers, without any important functions being lost. Quite the opposite in fact since one important factor in the project is to fully retain the abundance

and quality of existing LFS functions,” stresses Holger Marzinzik.

II. Business by Design

The area of UX (User Experience) design is also becoming increasingly important in logistics. The requirement for the intuitive, easy and service-oriented operation of all software systems and facilities is another objective of LFS.next. “Business by Design means further optimization, at both graphical and technical level, in order to generate a continuous positive feeling – a Joy of Use – when using LFS,” says Sebastian Pohle. “This has key benefits – especially in the context of Industry 4.0 and the resulting increasing requirement for machines and people to collaborate. Emotional and usability aspects are increasingly the focus of operation and we are addressing this.” It will be possible in future to access additional services such as weather data or images via the internet in the LFS user interface and the iBrowser. Business by Design also means that processes are visualized directly. This enables an easy and fast overview of all processes. For example, it will be easy to make any adjustments using drag and drop.





Next Generation LFS.

III. Faster development times

The requirement for ever faster and shorter response and customization times is a consequence of the dynamism in the logistics market. “Faster, more flexible and more promptly without any quality losses,” is the motto to which companies will follow more and more closely in future. Therefore, a further cornerstone of LFS.next is the separation of the various functional areas and a more modular design. “This strategy has enabled us to present more agile and more customized results to our customers,” says Sebastian Pohle. This will ensure the fast exchange of technology components bringing them to a good and future-proof level. Any technology changes required will thus be even easier in future. “At the end of the day this also reduces development costs,” adds Jens Heinrich.

IV. The future in sight

What are the logistics challenges of tomorrow? “We are preparing for the future. And we are also preparing LFS for the future,” says Jens Heinrich. “This also includes questioning the usual processes. We did this with the LFS.next project – and the first results

are persuasive.” As a result of the separation of the functional areas, the modularization and the disentanglement of technological dependencies, software system updates can always now be performed immediately, without the user even being aware of them and without the whole system being affected – in a similar way to well-known applications on a smartphone. “This increases the attractiveness of LFS considerably, as here we are addressing the emotional needs of the employees,” adds Sebastian Pohle.

The three strategists are certain that “LFS.next is guiding us along a future-proof path and preparing us for all the requirements of connected logistics. This also means that our customers can place their trust in a system that will keep pace with the increasing challenges of the future.” ■ ■ ■

What's new?

LFS.V8 – for future-proof logistics.

New features and modules, updated functionality and the modern design of the latest generation of LFS.

LFS.analytics: Big becomes Smart

Forecasting trends, optimizing space occupancies in the warehouse, and revealing hidden potential in the supply chain, LFS.analytics turns the high data volumes that arise in logistics into efficient and usable information and increases planning certainty. The solution combines all the relevant information and creates forecasts for future development opportunities for supply chain optimization on the basis of historical data, experiential values and external source material (such as weather data or sales forecasts). The results are analyzed and evaluated in real-time. Therefore companies know today what will be important for tomorrow.

Managing personnel efficiently

Is strategic human resources planning time-consuming and expensive? Not with the new LFS resource management module! The module dynamically visualizes all available resources in real time based on the current order volume, saved shift schedules, the qualifications of employees and the number of available employees. The function also automatically identifies the required process steps per order, such as picking, packing and shipping, and the applicable time to process each step. The final outcome is that all sub-steps are planned accurately and you get a completely transparent overview of the time for processing and the current status of each order.

LFS.iss: Shipping through the cloud

LFS.iss simplifies the handling of the entire shipping logistics process. From routing to printing shipping labels and consignment dispatch, the stand-alone solution ensures the efficient and economical outgoing goods process. The key benefit of the module is that many different CEP providers can be connected easily. Through the provision in the Cloud of EPX – Ehrhardt + Partner Xtended, users have access to a secure, high-performance system that performs updates automatically. This represents the shipping logistics of the future!

Random sample cycle count: Savvy counting

The regular recording of inventory is legally prescribed for sales people. Specific financial reporting standards must be complied with here. The random sample cycle count included in LFS.V8 ensures that users are on the safe side. The module has been certified by an independent auditor and therefore meets all statutory requirements. This function further reduces the tiresome measuring, weighing and counting processes whilst increasing cost-effectiveness and decreasing costs. The random sample cycle count can be carried out in parallel to daily business operations, making a complete closure of the warehouse or a production shutdown unnecessary.

Stacker control system: A safe ride with TCS

The TCS module included in LFS.V8 optimizes the truck fleet by taking factors such as travel distance, time reference and order priority into consideration. The system is flexible and transparent in its coordination of transport carriers, the efficient allocation of employees and the needs-based deployment and distribution of the truck fleet. This means that empty journeys and downtimes are reduced to a minimum. Deployment of the TCS module guarantees a considerable cost saving and increased productivity.

A voice for logistics

Tim Just is convinced:

Voice remains at the heart of process optimization.



Lydia®
VOICE SOLUTIONS

From student to Managing Director. This briefly sums up the career of Tim Just at topsystem Systemhaus GmbH. Now 32, Tim Just made his mark on the company from his very early days there and provided crucial input into the further product development. Tim Just still has complete confidence today in both the solutions and the corporate culture of the global technology leader in voice-controlled systems. He has been Managing Director of the topsystem logistics area since the start of this year. The Würselen-based company has been part of Ehrhardt + Partner Group since early 2016.

Mr Just, you have been working at topsystem since 2006. What is your experience of the development of the company over the years?

Our voice solutions have been established in the logistics market for many years. With Lydia® Voice we have created an IT

solution which ensures the necessary motivation particularly in the, often tough, daily warehouse routine. Many customers report that the friendly voice has now become a personal assistant in the daily workflow. I have been proactively involved in developing topsystem into a technology leader since 2006. Soon after I joined I became a permanent member of the quality assurance department. I can still remember the test system we used to simulate a noise-protected audio environment to put the hardware through its paces. My task was to automate this process step by step. Then I continuously further developed the test process. Back then WLAN security was becoming more and more important and in this area the need for specialist know-how was very high so I was able to immerse myself intensively in this subject. topsystem always gave me their full support and the necessary trust. From the very outset I was part of the team with responsibility for smaller proj-



***“More than 500 customers now
rely on Lydia® Voice solutions
from topsystem.”***

ects. I am still benefiting from this today as this was the basis for my further career in the company, initially as a project manager, then in the business development department, and subsequently as sales manager and authorized signatory. Important for me as Managing Director is to use this basis for the strategic further development of topsystem.

What are your objectives in your new position?

We are a worldwide technology leader in voice-controlled systems and we want to further expand this position. We are also working on our further international growth and the development of new markets. For me as Managing Director this means driving our product development forward strategically so that the global market believes that Lydia® is indispensable. The objective here of course is to generate the widest application benefits possible and to this end we engage in direct dialog with our customers and business partners. It is their feedback that forms the basis for the further development of our product portfolio. However, this input is also very valuable for new solutions and approaches. This is the only way that we will grow together and create the best possible results. Efficiency, process quality and ergonomics are the required more and more frequently from our solutions. For instance, we are currently working on a further development of Lydia® VoiceWear®. Our picking vest has already established a trend in the market that we of course want to continuously reinforce with further innovations. Also with Lydia® Smart Watch we were one of the first providers of visual assistance systems in the logistics sector. We are constantly seeking new innovative solutions and ideas that we can integrate into our Voice Suite – and of course, always with a view to the requirements of our customers.

Everyone is talking about automation, digitization and robotics. But honestly, why are voice-controlled solutions still needed at all?

Because voice is the most intuitive medium there is. I am convinced that human beings will never fully disappear from warehouses and production, despite automation. If we use the example of the transportation of goods, machines can do some things better than people. On the other hand, human beings make intuitive decisions and are much more efficient at solving highly-complex problems. Ultimately it is also a cost-benefit question. Therefore, our task is to optimize the man/machine interaction so that both systems can collaborate in the best possible way. Both worlds will increasingly converge, be reliant on each other and mutually support each other. In process optimization, Voice plays a crucial role as an interface.

Mr Just, topsystem has now been part of Ehrhardt + Partner Group for almost two years. What is your assessment so far?

It is primarily the technological interconnections of our products that ensure synergies and offer huge innovation potential – specifically in the Voice sector. We use our partnership relationship wherever we consider it to be appropriate. For instance, the group is supporting us as we pursue our national and international growth paths. We are developing new markets together. Therefore, for our customers and business partners we are constantly ensuring a high-level of future viability through our new innovations. In short, our sector expertise combined with the warehouse skills of E+P is a successful symbiosis. ■ ■ ■

THE TEAM.

A strong team for Lydia® software development.





Hands free, ears free:

The software development team working with Nico Wallmeier and Tobias Ganzow also use the benefits of the Lydia® Voice Suite in their own professional daily lives. “We are always traveling across the world with our eyes open, venturing something new, rolling up our sleeves and straying away from well-trodden paths,” says Tobias Ganzow describing the successful formula behind the Lydia® software development. “The IT sector is fast-moving and of course we always want to offer our customers state-of-the-art solutions. Therefore we have to question processes so that we always take advantage of any improvement potential.” The university-qualified computer scientist has been a software developer at topsystem for six years. He is mainly responsible for server-side support and for the further development of Lydia® Voice. The technology-leading pick-by-voice solution is now used by more than 100,000 users across the world.

Together with his colleague, Nico Wallmeier, Tobias Ganzow runs the 15-strong Lydia® development team. “We do not conform to the typical computer scientist cliché of the isolated programmer who spends their entire day in dark rooms – quite the contrary. In addition to the traditional developer activities on the PC, we also under-

take regular customer visits and on-site commissioning, also internationally of course. Project support assignments in the USA or in within Europe arise frequently,” says Nico Wallmeier. “The team consists of genuine all-rounders and this is what makes our collaboration so diverse.” Its focus is on core development, or in other words, product development. The Lydia® Connector for SAP represents a milestone in his career to date. Lydia® Connector is integrated into the SAP standard as the only Voice system worldwide without Middleware. topsystem was then the first company with whom SAP started collaboration in relation to Pick-by-Voice. And Lydia® is still regularly certified today.

Lydia® Connector is the standard reference implementation for SAP as far as Voice capabilities are concerned. “I was involved in the development of Lydia® Connector from the very outset. Therefore it is still a real highlight for me,” says Nico Wallmeier. Like Tobias Ganzow, the 40-year old joined topsystem immediately after his University degree and his doctorate at RWTH Aachen. “We also have some student assistants and apprentices in our team and the mix of young colleagues and old hands is what makes daily working life exciting,” say both of them in agreement.

Exchanges with teams with different expertise are also important. Working together with the hardware development, quality assurance and support teams always triggers fresh ideas and new product developments. Voxter® Scan Elite Edition is a good example of this. “Of course the hardware team took the lead in the development of the mobile backhand scanner, but the integrated software still plays a decisive role because ultimately everything must fit together and be customized to the needs of our users,” explains Tobias Ganzow.

New ideas also come about thanks to lively exchanges with our customers. The cohesion, reliability and flexibility within the developer team generates a unique spirit which also has a positive impact on customer projects. Motivation is high. This is because there is still huge potential to be explored for Voice. Picking with voice-enabled smartphones and tablets along with visual support through smart watches and smart glasses is only the start of the road towards Voice 4.0. for all industry sectors. It therefore remains exciting to see which ideas the consummate computer scientists will integrate into the future development of Lydia®. ■ ■ ■



The director...

... with the script for topsystem Aviation:
Ingo Richter is focused on growth.

Expansion, internationalization, new customer acquisition – Ingo Richter has been Managing Director of the aviation division of topsystem since August 2017 and has a clear script in front of him: “Our stated aim is to become a leading manufacturer in the aviation IT sector. I am sure that with our comprehensive and technologically innovative product portfolio for ground & cargo handling, we are in an excellent position,” he says. This is no easy task since the handling business in particular is characterized by fierce competition and company take-overs and mergers. Large international conglomerates control the market.

Backed by the strong company group of Ehrhardt + Partner, topsystem Aviation is visibly gaining presence. This is enabling the Aachen-based company

to exercise more commercial scope and ensure further positive impacts. “E+P Group are supporting us in the active internationalization of our business model. Furthermore, both sides are benefiting from the many different technical and commercial synergies. The IT products for the air cargo sector and the logistics solutions from E+P are related and considered as complementary elements of a comprehensive IT concept of the Group” explains Ingo Richter. The system house wants to further expand its competencies in future. “We want to further develop our established ground & cargo handling systems and thereby meet current and future market requirements,” continues Richter.

As Technical Director and Development Director in his former company, Ingo

Richter has never rested on his laurels. This guiding principle also applies to topsystem where he will drive forward both product development and, first and foremost, company growth. “In future we will proactively adapt our products more closely to the specific needs of the air cargo market. With our agile development approach we will further perfect the dynamism in our product implementation. In our sector this is by no means common practice and by doing this we will secure a significant competitive edge,” explains Ingo Richter. As a long-standing insider he knows all the facets of the aviation sector. The aviation sector has still not implemented digitization and connectivity strategies nor has established standards in these areas. “Our aim is to remove these shortcomings through innovative IT solutions.” ■ ■ ■

Be smart. Be digital.

The entire philosophy of the aviation department is focused on digitization because the future of the aviation sector lies in the introduction of paperless process flows.

In the digital age paper-based work processes are finally consigned to the past. Therefore it is now time to follow those digital transformations and

where topsystem places the focus on modern, end-to-end solutions. The smart software of the company is based on technologies which focus on optimizing resource distribution, managing processes and thereby maximizing revenues. With over 20 years' experience in the aviation market and of a diverse portfolio of proven products for airports, ground handlers, cargo

handlers and airlines, topsystem works alongside its customers as a service provider who is competent, innovative and also future-oriented.

Be "smart" – topsystem shows you the way to a digital, paperless future.





Fire and flames for LFS.

Good ideas burn for longer.

Three months in Paris. A dream for every France lover. For Thomas Hennecke this was the kick-off to his career in logistics. Shortly after completing his training as an Application Development IT Specialist at E+P, he took responsibility for his own projects. His first own project involved the automation of a new warehouse in the French capital. "In 2005 this was a complex project for me. With the knowledge I have today, I would have been an absolute expert back then," recalls Thomas Hennecke. "Both my personal skills and also the functional scope of LFS have grown hugely over the years, so that today I have totally different options when advising our customers."

As an Expert Software Developer Thomas Hennecke primarily operates in the background and in his team he is responsible for supporting and men-

toring the programmers. Depending on the complexity of the project he also participates in functional specification discussions. Major projects are his specialism and up to 500 days of programming work are not uncommon. His main priority is to transfer his knowledge and experience to his young colleagues. Whereas during his leisure time he likes to juggle with fire torches, in his professional life he prefers to play it safe: "I convince our customers with arguments. A half-baked solution makes no sense. It is no use to anyone if only 99 of 100 pallets arrive at the destination."

The hobby juggler has many anecdotes to tell. "In the early days we often had birthday cakes for all our colleagues," he recalls. "But in a team of 500 people, distributed across the entire world, that is inconceivable today." ■ ■ ■

Always there when there's a fire.

Martin Brunkalla and his team: No deployment is too hot.

He is immediately at his post whenever there's a fire. He carefully analyzes the emergency, is focused in the decision he takes, instigates the relevant actions and then diligently controls whether the desired success has been achieved. Not only as a member of the volunteer fire service, but also as a manager of a team of software specialists, Martin Brunkalla has already been called out to a few rescue missions. No deployment is too hot for him, no challenge too complex: "I am not easily deterred. I break big tasks into smaller units. This enables me to retain the overview and I can prepare bit by bit."

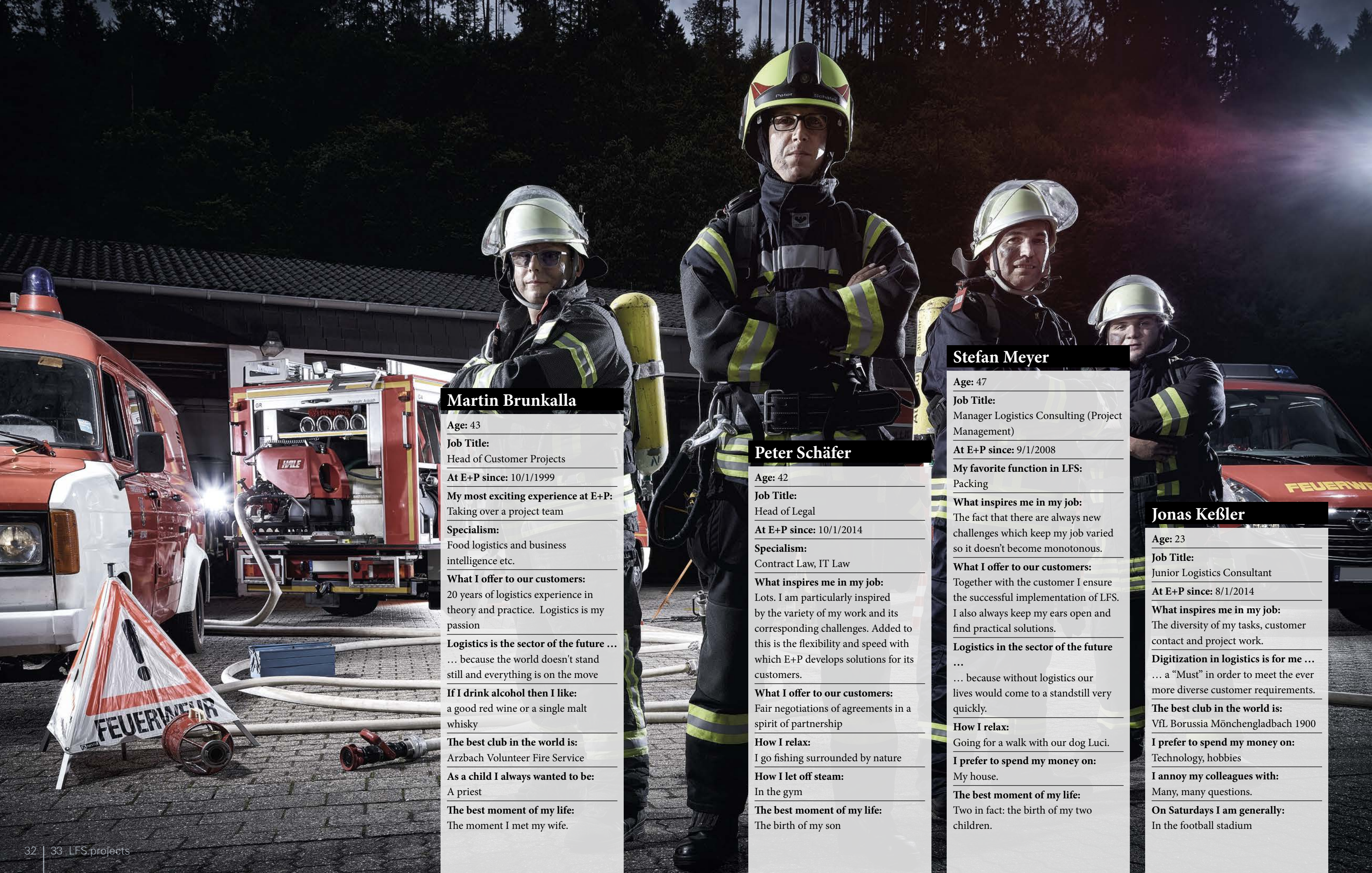
This is a skill that benefits him every day, because at E+P no day is like any other – as a "normal" day has no place in the LFS world. Every customer needs a customized solution for their specific requirements. And this is exactly what Martin Brunkalla and his team of programmers have adopted as their motto. "We are only happy when the customer is happy," he stresses.

The 43-year old is totally convinced of the qualities of the LFS Software Suite and has been involved in its further development for many years: "Our solution is flexible, adaptable and can be deployed in many different sectors." Brunkalla knows

what he is talking about, as he was involved in the programming of the serial number and returnable product handling system. That is not the only reason LFS is particularly close to his heart. "Even though of course the product does not belong to me, I still feel very closely connected to it," says Martin Brunkalla. In addition to the continuous further development of LFS, one other thing is very important to him, namely the support and guidance of his colleagues. Honesty, transparency and openness are the hallmarks of his management style. "I want my team members to enjoy coming to work because only motivated employees can also develop creative solutions."

Martin Brunkalla's fire service colleagues are also his equals, each being specialists in their own areas, and always keeping cool heads in precarious situations. As Head of Legal Peter Schäfer supports Mr Brunkalla on legal issues. As Project Manager, Stefan Meyer has an overview of the many concurrent requirements of his customers. And Jonas Keßler, Junior Logistics Consultant, makes use of his know-how in many areas including customer consultancy. Whenever there is a fire, someone is always at their post. ■ ■ ■





Martin Brunkalla

Age: 43

Job Title:
Head of Customer Projects

At E+P since: 10/1/1999

My most exciting experience at E+P:
Taking over a project team

Specialism:
Food logistics and business intelligence etc.

What I offer to our customers:
20 years of logistics experience in theory and practice. Logistics is my passion

Logistics is the sector of the future ...
... because the world doesn't stand still and everything is on the move

If I drink alcohol then I like:
a good red wine or a single malt whisky

The best club in the world is:
Arzbach Volunteer Fire Service

As a child I always wanted to be:
A priest

The best moment of my life:
The moment I met my wife.

Peter Schäfer

Age: 42

Job Title:
Head of Legal

At E+P since: 10/1/2014

Specialism:
Contract Law, IT Law

What inspires me in my job:
Lots. I am particularly inspired by the variety of my work and its corresponding challenges. Added to this is the flexibility and speed with which E+P develops solutions for its customers.

What I offer to our customers:
Fair negotiations of agreements in a spirit of partnership

How I relax:
I go fishing surrounded by nature

How I let off steam:
In the gym

The best moment of my life:
The birth of my son

Stefan Meyer

Age: 47

Job Title:
Manager Logistics Consulting (Project Management)

At E+P since: 9/1/2008

My favorite function in LFS:
Packing

What inspires me in my job:
The fact that there are always new challenges which keep my job varied so it doesn't become monotonous.

What I offer to our customers:
Together with the customer I ensure the successful implementation of LFS. I also always keep my ears open and find practical solutions.

Logistics in the sector of the future ...
... because without logistics our lives would come to a standstill very quickly.

How I relax:
Going for a walk with our dog Luci.

I prefer to spend my money on:
My house.

The best moment of my life:
Two in fact: the birth of my two children.

Jonas Keßler

Age: 23

Job Title:
Junior Logistics Consultant

At E+P since: 8/1/2014

What inspires me in my job:
The diversity of my tasks, customer contact and project work.

Digitization in logistics is for me ...
... a "Must" in order to meet the ever more diverse customer requirements.

The best club in the world is:
VfL Borussia Mönchengladbach 1900

I prefer to spend my money on:
Technology, hobbies

I annoy my colleagues with:
Many, many questions.

On Saturdays I am generally:
In the football stadium

LFS con pasión.

In rhythm with logistics.

One. Two three, pause. Five, six, seven, pause. Sombrero, Sententa una, Enchufla complicado. “Salsa is a very impulsive dance” says Bianca Weichert. Having worked at EPG for over seven years, she knows precisely which situations need to be handled with a certain rhythm. In her position as HR Assistant she needs to be flexible and well organized. She derives the necessary energy and endurance for her daily work from her regular dancing training. “In the human resources department I have to constantly adjust my working rhythm to new situations, particularly when it comes to applicant management. I am also responsible for securing the best talents to work at EPG. This requires discipline and concentration – just like dancing,” says Bianca Weichert.

“Fluent and energetic movements are what makes a genuine salsa” explains Arthur Grzesik. Legs, arms and body position must all be perfectly attuned to each other. The dance lives from accentuated shapes. You have always to be alert and think ahead for what’s coming next? This is just the same as in his role as Project Manager. Arthur Grzesik has been a permanent presence at EPG for 15 years. He still supports his very first project. The 43-year old believes very strongly in the flexibility and high level of solutions expertise in a very dynamic market environment. He was aware of the flexible structures

and quick decision-making processes from his very first day. He had his interview on New Year’s Eve and was hired on 6 January. “Of course EPG has grown hugely over the last few years, but its open culture still remains today and we also embody that with our customers.”

In order to always get the maximum out of everything, Arthur Grzesik also sometimes follows an arduous path. He sees himself as both a consultant and an optimizer. “We not only simply launch our software, we are also responsible for ensuring that our customers achieve the most profitable solution from it,” he says. “Sometimes this also involves a bit of stubbornness to convince people.”

As Project Manager, Arthur Grzesik, also ensures the right rhythm. His 22-strong team consists of application consultants, software developers and apprentices. It is a colorful mixture where everyone can rely on each other. Projects are implemented together which is important particularly in view of the increasing complexity in intralogistics processes. “Everything is interconnected. Every customer has specific requirements that we adapt to on a case-by-case basis. Salsa is very similar in this regard. Every dance partner is different which means you have to stay flexible,” he adds. ■ ■ ■





“Today the basic version of LFS.wms is so comprehensive that it covers most of our customers’ requirements.”

Rapid responses.

Both on-site and to logistics trends.

The unmanageable diversity of logistics processes, the countless sector specifics and the individual requirements of different companies are all challenges for a warehouse software system. And a future-proof system must meet these challenges. “From the outset we invested everything in a good software standard. Today the basic version of LFS.wms is so comprehensive that it covers most of our customers’ requirements,” says Markus Schuster.

The 31-year old has been working at E+P since 2008 and as Head of Devel-

opment Group is now closely involved in the further development of the standard. Therefore, thinking out of the box is essential here. “There is hardly any sector that is as dynamic as logistics and IT. Identifying and harnessing potential is therefore the challenge that we are faced with every day in our standard development,” he says. His interest in new technologies supports him in his development of new ideas. And he is sure of one thing. “The issue of artificial intelligence will become more relevant over time. It will then be possible on the basis of experiential values

and autonomously learning algorithms to uncover previously unknown correlations in logistics process, to derive optimization potential from them or even to take decisions in a semi-automated way.

“The advanced development standard of LFS will make it easier for us to respond to such trends early. This will enable us to offer future-proof solutions to our customers.” ■ ■ ■

Firmly in the saddle.

And ready for the challenges.

Obstacles are there to be overcome. This is a motto that not only accompanies Jan-Martin Rüschoff on his mountain bike tours through the Hunsrück forests. Overcoming previously unknown challenges also forms part of his daily working life in his role as a Senior Logistics Consultant. His specialism is the support of customer projects in Switzerland where during his training period he acquired his first experiences at E+P. And ten years later he is still in contact with some of the customers there. “This friendly interaction with our customers and project partners is a perfect illustration of the way we work. It also creates proximity and trust

and only then can a project be implemented successfully. I am convinced of it,” says Jan-Martin Rüschoff.

The passionate mountain biker keeps a very close eye on developments in the logistics market: “Our customers today do not only operate their warehouse with LFS. They are taking on more and more additional services for their customers. This does of course have impacts on our software which also has to map these processes.” And he is certain that this trend is set to continue. “With the functional scope already incorporated into LFS, we are in a good position to keep pace with these developments.” ■ ■ ■



Markus Schuster

Age: 31

Job Title:
Head of Development Group

At E+P since: 6/1/2008

Personal milestones at E+P:
Since 2016 I have been leading a team with several developer groups that works across different projects.

My favorite function in LFS:
Precalculation of shipping HUs

Logistics is the sector of the future ...
... because globalization has made a functioning logistics system a Must-Have for every company

How I let off steam:
Mountain biking and bouldering

My biggest adventure:
Backpacking in Cuba

My Motto:
You only live once ...

Jan-Martin Rüschhoff

Age: 30

Job Title:
Senior Logistics Consultant

At E+P since: 8/1/2007

Specialism:
3PL, Commerce

Digitization in logistics means for me:
A simplification and at the same time an acceleration of processes, along with an increase in transparency and availability for end-customers.

How I relax:
A day in the thermal baths or the sauna

My biggest adventure:
Landing in Lukla and walking on the Everest Base Camp Trek

I prefer to spend my money on:
Spare parts for my mountain bike or leisure activities

Cathrine Puttkammer

Age: 30

Job Title:
Human Resources Manager

At E+P since: 6/1/2017

What inspires me in my job:
Being able to work with different personalities every day

The bbq has:
Feta with tomatoes, garlic and rosemary

How I relax:
Doing sport surrounded by nature, for example, mountain biking.

My biggest adventure:
My degree in Manchester, UK

Biggest manual talent:
Baking cakes and tarts

Step by step to the goal.

Michael Forster optimizes his movements in water and in the warehouse.



Michael Forster glides smoothly through the water with powerful arm and leg movements. He has perfected his swimming technique over many years – also with dry runs on land. Not only is he busy in his sporting endeavors with simulating movement sequences for optimization purposes, but also in his daily professional life. As a Senior Software Developer in the “Material Handling” team he is responsible for the visualization and emulation of the material flow within the warehouse.

His equipment for this task: LFS.mfv und LFS.mfe.

Mr Forster, which products are behind the names LFS.mfv and LFS.mfe?

Both are components of our material flow controller LFS.mfc. This controls, coordinates, monitors and analyzes the entire material flow of a plant. The LFS.mfv tool integrated in the iBrowser visualizes all real material flows and shelf systems in live operations, both two and three-dimensionally. This means that it is imme-

diately obvious whether all plant parts are harmonized with each other or if there are malfunctions. The LFS.mfe emulation tool maps real materials handling in a model which behaves just like a real plant. This enables a warehouse to be tested before it is commissioned and any material flow optimizations to be identified.

What benefits are you offering your customers with these solutions?

The increasing degree of automation in logistics means that a material flow cal-

culator must be used, in order to ensure an efficient and smooth interaction of all plant parts. The benefit of LFS.mfc is that the various mechanisms of different manufacturers can be connected. The product can therefore be installed independently from warehouse management systems and ERP systems. The virtual commissioning of the warehouse using LFS.mfe minimizes the risks of production outages and system downtimes since a test run will reveal any optimization potential in advance. Another benefit over

competitive products is that LFS.mfc and the associated functionalities are both server-based and also available as a cloud solution.

Looking into a glass ball, what will the future look like for material flow control?

I can very easily foresee a situation where more competencies are assigned to the customers themselves with them using our solutions to take control of the material flow or the three-dimensional system modeling. I am also convinced that

simulation – over and above automated warehouse areas – will play an increasingly important role. Therefore, any potential will be used so much more effectively. ■ ■ ■

Live For Speed.





Petrol in the blood ...

... and full speed ahead for recruitment: Markus Gierse.

Outstanding specialists and managers are the cornerstone of the company's success

There is no doubt that logistics is a growth market. However, finding the right specialists who have a command of the increasing requirements and growing complexity is often a challenge. Competition for the smartest people started long ago. Markus Gierse knows about the importance of strategic personnel planning. "As Head of the Human Resources Department I have a crucial influence on the further development of the company and I am in a position to pull some of the most important levers. Innovations only occur with a motivated and competent team." Together with his three colleagues he hires highly-qualified and motivated employees for all the EPG subsidiaries. "We are looking for people who will use their commitment and ideas to move the company group forward and make a significant contribution to the further development of the logistics world," says Markus Gierse.

The selection of qualified specialists is a great challenge which will only increase in future. Nevertheless, since he joined the company three and half years ago, about 6,000 applications and the hiring of 164 new employees and 69 apprentices have been dealt with by Markus Gierse and his team. In the selection pro-

cess Markus Gierse is mindful of very specific criteria: "Customer interactions are very important to us. Therefore a certain level of communications skills and a feeling for market conditions are essential," explains the experienced HR professional. "We are also interested in long-term collaboration." For him to be able to analyze this successfully in the application phase is a both challenge and an outcome to be realized.

Logistics is a sector with a future. Therefore jobs at E+P are highly coveted. "We offer very good career opportunities. It is specifically the mix of logistics and IT that makes the work exciting and also constantly demands new ideas from our employees," says Markus Gierse. "This is the only way we can continue to develop smart solutions for our customers." ■ ■ ■



5 years of EBL –

5 years of pole position in warehouse logistics.

First at the start and first to the destination – this wasn't always the case for Raphael Widera. In the very early days of his carting career at the age of six, he mixed up the accelerator pedal with the brake. Today instead of brake lights only his tail lights can be seen. And it's all a question of technology. This also applies to his place of work, the EBL Logistics Innovation Center – Ehrhardt + BOMAG Logistics.

EPG has been operating the logistics center since 2012. This is where BOMAG original spare parts in all shapes and sizes are stored and shipped throughout the world. As Warehouse Manager of EBL, Raphael Widera is the man of the hour and is jointly responsible for the design and implementation of the processes in the high-bay warehouse with integrated automatic shuttle and in the automated small parts warehouse. "The biggest challenge before the go-live was to implement customer requirements into solutions," says Raphael Widera. "To achieve this we provide the best pre-conditions." EBL is equipped with state-of-the-art warehouse technologies. Its own technological

innovations such as the LFS.oculus3D data collection and detection system are constantly being driven forward. Warehouse planning and consulting concepts can now be applied and continued to be developed directly. Furthermore, in addition to the LFS.academy offering, customers have the option of putting their theoretical knowledge to the test and applying it in real-life during EBL live operations.

The success is the result of the work of Raphael Widera and his 50 strong team. He recalls: "2013 was a very exciting year for us. In Brazil the football stadiums for the World Cup were being built using BOMAG machines and we received the order for the production supply." EBL is airfreight-certified. This ensures fast handling at airports, for instance also for the shipment of spare parts to China or the USA. Today with 500 orders and 2,000 items, the daily throughput for the Bopparder Maschinenbaugesellschaft is 20 percent higher than at the start of the project. Almost 50,000 spare parts are stored at EBL – and the potential is far from being exhausted. ■ ■ ■





Our anniversary employees

Successful teamwork based on experienced employees.

Sebastian Gebhardt

Age: 34
Job Title: Head of Product Development Group – System Technology
At E+P since: 8/1/2002
Specialism: I think I am a generalist, as I have worked in many different areas over the years.
Logistics is the sector of the future because something always has to be moved somewhere.
My biggest adventure: A two-week commissioning in Ukraine. In my personal life I like to stay out of trouble.

Tanja Laugks

Age: 44
Job Title: Office Clerk
At E+P since: 6/1/2007
What inspires me in my job: The internationalism and diversity
The bbq has: Home-made marinated spareribs
How I relax: Going on nice long walks with my dog
How I let off steam: on the cross-trainer
The best moment of my life: The birth of my son

Stephan Witt

Age: 45
Job Title: Director Customer Projects
At E+P since: 7/1/2002
Specialism: Beverage logistics
What inspires me in my job: The diverse challenges and people I work with to overcome them.
The bbq has: Everything that is edible and does not disappear quickly enough.
How I let off steam: Rockin' all over the world – with the e-guitar

Thomas Hennecke


Age: 36
Job Title: Expert Software Developer
At E+P since: 8/1/2002
What inspires me in my job: Working in a team and achieving big objectives together that an individual could never achieve.
What I offer to our customers: Create high-quality customized software solutions
I prefer to spend my money on: Circus and variety performance visits; most expensive short trip: Visit to the circus festival in Monte Carlo.

René Schnarkowski

Age: 28
Job Title: Manager Software Development
At E+P since: 11/1/2007
Specialism: Materials handling and material flow control
My favorite function in LFS: Communications with the automated warehouse system
How I relax: Walking with my dog through the forest and enjoying nature.
My Motto: Life is too short to get upset about unnecessary things every day.

Matthias Schatte

Age: 31
Job Title: Expert Software Developer
At E+P since: 8/1/2002
My most exciting/funny experience at E+P to date: Nomination as Super-Schatte in the Weekly News (2016/CW 22)
The best club in the world is: Altekülz Music Association
How I relax: Making music playing my trombone.
How I let off steam: I go on a bike ride
As a child I always wanted to be: A digger driver

A man in a dark suit and white shirt stands on a balcony with a black metal railing, looking towards the camera. Behind him is a large body of water and a dense skyline of modern skyscrapers in Dubai, including the Burj Khalifa. The scene is bright and sunny.

E+P in Dubai:

A success story just like in The Arabian Nights.

Dubai is not just a rapidly growing metropolis in the desert, but an exciting market too. The city in the United Arab Emirates has great potential, particularly for the logistics industry.

LSC is bringing modern warehouse solutions to the Gulf region

E+P is among the first German companies to have recognized that potential. It is now more than ten years ago that the warehouse logistics expert decided to focus on the Gulf region by building a training and logistics center in the Dubai Logistics City. Someone who has made a major contribution to the successful development of E+P in Dubai is Sales Manager Louis G. Nyalifa, who has been constantly expanding our presence in the Middle East. Construction of the Logistics Solutions Center (LSC) and its modernization in 2017 are key milestones. “The LSC made it possible to show functioning E+P products directly to our customers. For companies on the market in Dubai, these warehouse management solutions were completely new territory at the time. Now voice-controlled solutions, such as the Lydia® Voice Suite from topsystem, are becoming more and more popular,” explains Louis G. Nyalifa.

His daily tasks include acquiring new customers, putting on demonstrations of the LFS software suite and increasing the visibility of the E+P Group. “First of all, we had to understand

the needs of the local market and adapt to the cultural practices here. The process of assimilation helped us hugely,” Nyalifa recalls. He particularly remembers the different working methods of German and Arab companies. Customers in the Gulf region, for example, really want to get to know their business partners first, before talking about business. After many years of experience, the Sales Manager says that “it is about finding the right balance between German and Arab ways of doing things” - something he is now very good at.

Even if a contract is not signed immediately, the effort is not wasted. “I see it as marketing. The more you expand your relationship network, the more referrals are possible,” Nyalifa explains. The next big objective of introducing the brand E+P to other regions of the world is already on the cards. “The economy in East Africa is currently experiencing a high growth rate. A lot of capital is being invested in infrastructure and improving the supply chain. There is now an increasing awareness of the significance of a modern warehouse management system as an important and integral part of efficient logistics” reports Nyalifa. Nyalifa can also count on the great support of his family for the challenges ahead. “Coming back from work to a stable home and spending time with my wife and my daughter is what gives me the energy for all the challenges at work.” ■ ■ ■



Hole in One.

Driving into the US market

***“You need the same energy
whether you think big or small,
so why not just think big?”***

E+P is constantly staying ahead of an ever growing global need for innovative logistics solutions and is rigorously continuing its growth strategy by entering new markets. And in this spirit the team in the USA has seen positive developments. “We only entered the US market at the start of this year, but we have made huge progress since then,” says Scott Deutsch, Head of the US team, based in Charlotte, North Carolina.

Scott’s role is to establish the E+P brand in North America and develop a new customer base there. And the success to date speaks for itself: “By April 2017 we had already exceeded the sales revenue from the previous year.” The largest customer in the USA, a distributor of pet food, recently introduced Lydia® Voice with the Lydia® VoiceWear picking vest. The first LFS customer in the USA will go live before the end of the

year – and this customer is planning other future projects with E+P.

The hiring of high-quality talent has also been one of the top priorities. The objective was to set up a team with logistics expertise who were passionately committed to the success of E+P’s customers. “E+P is very well known in Germany and in the USA there is still a lot of potential to be developed here. It was therefore important to quickly create a scalable, digital marketing program for a qualified, expandable sales pipeline. However, equally important was that we concentrated our sales efforts on the customers and the opportunities with the best prospects of success. In a country with 350 million inhabitants and where it takes six hours to fly from Charlotte to Los Angeles, a clear focus and a professional sales process are unbelievably important,” explains Scott. Two other essen-

tial market launch strategies of huge importance for the advanced US market were the establishment of a reseller partner program in addition to the direct sales channel and the establishment of a US-based SaaS and hosting option, similar to EPX.

“Think big” cries the slogan from which Scott and his team draw their motivation. “We need to adopt this approach if we want to establish ourselves quickly and grow in the American market,” he says. “You need the same energy whether you think big or small, so why not just think big?” says Scott. Even although the USA and Germany are thousands of miles away from each other, he and his team know they can rely on support from Germany. Scott sums up as follows: “We have very aggressive growth plans and our success will even enable E+P to grow even faster.” ■ ■ ■



Play mobile.

The collector is now also pursuing online talents.

How do the new technologies integrate into the existing material flow? What sector-specific features are there? And which solutions are the best suited to individual requirements? Michael Münch, Head of Logistics Training, knows the answers to these questions. On his agenda in the LFS.academy is the provision of highly-specialized course content relating to logistics. "The best possible support for our customers and partners is our top priority," says Michael Münch. "Therefore we always keep a close eye on all current developments in the logistics sector and our ability to optimize the services we offer in light of constantly changing market requirements is very important." In his personal life, with his liking for rare Playmobil figures, he also seeks the specific in the detail and meticulously plans the next big catch. He shapes the collaboration in this team of expert trainers, project managers and lateral thinkers in exactly the same way. This results in a constant stream of new offers and services for existing customers and partners. One example of this is the recently created e-learning platform alongside the Customer Service Department. The modernization of the Logistics Solutions Center in Boppard-Buchholz will be his next big catch.

E-learning: a new training concept anytime, anywhere

In the age of digitization and connectivity and with customers distributed around the globe, the provision of learning materials free from the constraints of time and place is becoming increasingly important. This is why the LFS.academy is now offering an e-learning platform. "Our customers and partners are now distributed everywhere across the world and with our new e-learning program we are now offering them the opportunity to study the training content on their own and at their own speed," says Michael Münch. LFS.academy makes training videos available as a practical way of illustrating the theoretical content. An online forum is also being planned in which E+P employees can answer questions interactively.



More flexibility. More service.

News from the LFS.academy.

Whether customers attend training courses in person at the LFS.academy in Boppard-Buchholz, or participate in the e-learning program, in both cases they benefit from this innovative training concept. Training content ranging from LFS entry level courses through expert level to technical system or customer-specific LFS courses, can be tailored to meet specific customer requirements. The modular design of the training concept ensures maximum flexibility. And Michael Münch and his team support customers in this process.


LSC 4.0: Digitization and connectivity in practice

Theory and practice in the optimum combination: This is the basic concept of the LFS.academy. Accordingly, every training course includes practical training content in the Logistics Solutions Center (LSC). In order to fulfill the current requirements of future-proof logistics, E+P is currently modernizing the LSC in Boppard-Buchholz. In addition to a 1:1 mapping of all processes in the warehouse, new technologies are to be made available for field testing. These include, in addition to the Lydia® pick-by-voice solution, diverse assistance systems

such as Smart Watch and Smart Glasses. Furthermore, smart devices such as smartphones and tablets are available for picking. Robotic and state-of-the-art bin solutions are installed in the new LSC. Customers therefore are given the opportunity of testing for themselves which technologies are best suited for their individual requirements. That's Logistics 4.0. In Dubai the modernized LSC 4.0 was opened this year.

A concentration of customer support expertise

Another innovation is the centralized concentration of different areas of expertise in the Customer Support department which now includes LFS.academy and LSC 4.0, Hotline Support and the Partner Support Team. "Through this measure we have optimized our internal structure and we are now in a position to manage our service provision for our customers and partners centrally from one location. This has increased our efficiency through much shorter coordination paths which in turn will improve the support we provide to individual customers," says Michael Münch. ■ ■ ■



“Creating a Smarter Logistics World – we create the future of your logistics.”

Dear future, we are ready!

More connectivity. Smarter.

The digitization and connectivity of logistics processes is by no means a new phenomenon – and developments are continuing. Following on from Logistics 4.0 the sector is now embarking on a new era – of cognition. What exactly is this all about and what does it mean for logistics processes?

Mr. Ehrhardt, we are now at Logistics 4.0 – yet we are already approaching the next development phase in the sector?

Increasing digitization, changes in consumer behavior and the growing e-commerce sector are all factors which require companies to have a rethink. Customers' expectations are also increasing. If the ordered item is not delivered at the latest on the next day or if the desired item is not in the warehouse, dissatisfaction can quickly ensue. This poses totally new challenges for logistics and by implication there needs to be more intelligence integrated into the underlying IT systems. As well as the connectivity of all logistics processes and technologies along the supply chain, this must also be managed smartly and centrally as one whole entity. A modern Supply Chain Execution System (SES) as a smart control center provides all data relevant to the entire supply chain transparently and interconnects them all. Because only when ensuing data volumes can be managed transparently, is an end-to-end overview and a more efficient process design possible in practice. SES tools are already used in this regard to increase productivity and avoid errors and therefore SES are also used as a platform for the next development phase of cognition.

What exactly is this all about?

In future logistics will be defined by cognitive systems. These systems are able to learn, recognize patterns and derive recommended actions from them. This means they can support employees in their decision-making or provide advance notification of events likely to occur. The logistics sector will absolutely benefit

from these functionalities, because until now process optimizations have been based on past findings. The era of cognition will change the perspective because it operates on a forward planning and analysis basis. Big data becomes smart data. No longer will data volumes be the crucial factor, but their quality. Trends will be detected automatically and probable scenarios will be forecast which will flow through into increased certainty when it comes to planning. It is conceivable that smart systems will make decisions based on predictive analytics without any human intervention at all. A sophisticated, cognitive - or learning - system can communicate with human beings in natural language. It will become a smart colleague by contributing to thought processes, supporting employees in their decisions and dispensing advice. This takes us into the methodology of deep learning where artificial neural networks teach machines to think. Although the reality of self-learning systems being deployed in warehouses is still far in the future, companies must nevertheless lay the groundwork today.

How are companies preparing for the cognitive future?

Here are the facts: Cognitive logistics is still in its infancy. Many companies have either not yet completed the digitization and connectivity phase or are still at the very beginning of the implementation. And in many companies this still forms the basis of their next steps. However, they must be made aware of the fact that the implementation of Logistics 4.0 scenarios are absolutely necessary for future survival. Our LFS has been designed for the connectivity and digitization of logistics processes and technologies – and is therefore already moving down the path towards a cognitive SES. In future, only companies who rely on comprehensive systems will remain competitive. Connected thinking and actions are key requirements for the solution of the future. And this is what we are working towards every day. ■ ■ ■

Supply Chain Execution System LFS.

Intelligently networked.

■ LFS.



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