

# staufen magazine

A journal for change by Staufen

2024/2025 | No. 7



Operational Excellence

**KÄSSBOHRER**

BRINGING EFFICIENCY TO THE SLOPES

Digital

**DRÄXLMAIER**

WITH 800 VOLTS INTO E-MOBILITY

Leadership

**PTT**

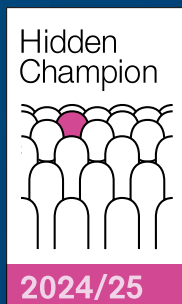
THE PEOPLE OF POWER

INSIDE EVERY COMPANY THERE IS AN EVEN BETTER ONE.

# INSIDE EVERY COMPANY THERE IS AN EVEN BETTER ONE.

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As multiple award-winning top management consultancy for operational excellence, we enable our clients to improve their performance along the entire value chain. End-to-End.



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**STAUFEN.**

Dear readers,

the memory of the pandemic has already faded, and the daily news has long been dominated by other crises. Nevertheless, in many conversations with managing directors and executives, I hear that performance is still ailing and has not reached the "pre-Corona" level. The reasons are complex and only partially controllable: high energy costs, interrupted supply chains, increased interest rates, increased labor costs, lack of reserves, and so on. But there were and are also failures on the part of companies.

In recent years, some companies have relied heavily on digitalization as a "cure-all", and neglected basic training. Today, however, ambidexterity is required, i.e. the ability to act efficiently, innovatively and flexibly. This is why the discussion of whether to use lean or digital is becoming increasingly obsolete; operational excellence requires both. Operational excellence only occurs when structures, leadership, processes and technologies complement each other perfectly in line with the company strategy and are continuously improved in terms of effectiveness and efficiency.

You can see what this could look like as an abstract visualization on our current cover image. The network of harmoniously intertwined infinity symbols - often referred to as a horizontal eight - was designed by our graphic designer after we described to him, as if in a prompt, exactly what we at Staufen understand by operational excellence: end-to-end thinking, creating resilience, understanding geopolitical connections, driving digitalization, increasing performance, and making leadership effective. And not as a rigid target image, but as a process that needs to be continuously improved.

With this in mind, let yourself be inspired by exciting reports and interviews that will help you and your company reach the next level in terms of operational excellence.

YOURS,



**WILHELM GOSCHY**  
CEO, STAUFEN.AG



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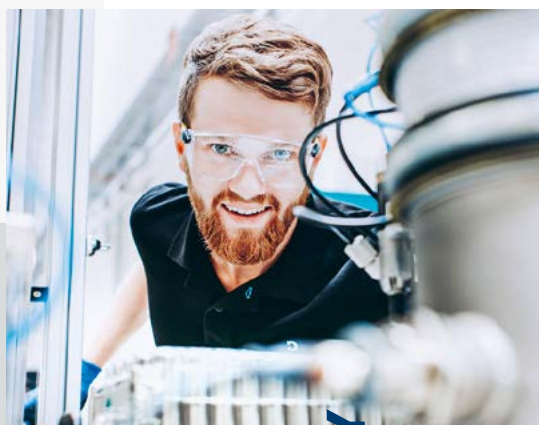
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**ON THE TRAIL OF  
A UNIQUE  
SUCCESS STORY**



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"CUSTOMER SATISFACTION IS NON-NEGOTIABLE"

**YPSOMED**  
SELF CARE SOLUTIONS

# "Customer Satisfaction is Non-Negotiable"

**WHEN OPERATIONAL EXCELLENCE  
BECOMES VITAL**

OPERATIONAL EXCELLENCE





**PEN SYSTEMS**



**AUTO INJECTOR  
SYSTEMS**



**PATCH INJECTOR  
SYSTEMS**



**DIGITAL  
HEALTH**

OPERATIONAL EXCELLENCE

**Swiss medical technology company Ypsomed's pens, auto-injectors and pump systems are literally vital for its clients. Thus, optimal supply must be ensured at any time. To prevent the production chain from coming to a halt and at the same time ensuring cost-efficient manufacturing in a time of continuous growth, Ypsomed relies on Operational Excellence.**

For Roland Seckler, Vice President Global Supply Chain Operations at Ypsomed, the particular importance of Ypsomed's product range is his decisive motivation: "Our users are chronically ill patients, and we are improving their quality of life. For us, customer satisfaction is non-negotiable – it is rather our primary goal."

One of the world's leading developers and manufacturers of dispenser systems for medications, Ypsomed, is rooted in two high-wage countries, having production facilities in Germany and Switzerland. However, due to Operational Excellence, process efficiency and the level of automation could still be increased, to keep manufacturing costs low.

Among the most well-known Ypsomed products are insulin pumps, which prevent under- or oversupply using the my-Life-loop algorithm. This allows for a comfortable and carefree life for people having type 1 diabetes. The other solutions for self-medication significantly improve the quality of life for chronically ill patients as well.



**ROLAND SECKLER**  
Vice President Global  
Supply Chain Operation  
YPSOMED AG

### In a nutshell

For the Ypsomed medical technology company, delivery reliability and eventually the well-being of patients is paramount. Thus, Ypsomed consistently relies on Operational Excellence, which also helps the company keeping costs in check despite production sites in Switzerland and Germany. Additionally, Ypsomed uses a Near Sharing strategy to shorten transportation, which also facilitates reaching its sustainability goals.



The need for a steady or even continuous intake of medication poses particular requirements on the supply chain. Production, storage and the entire Supply Chain Network Management must be perfectly coordinated. Thus, Ypsomed is in continuous exchange with all its suppliers, both digitally and personally.

#### Optimizing the Entire Manufacturing Process

Close exchange with its partners also includes the manufacturers of the assembly facilities. For the production, a dedicated platform has been developed, similar to automotive modular construction concepts. The further development of these systems - new ones are added every six months or so - is ensured through regular feedback discussions and improvement initiatives, as is optimization over the course of their service life. Roland Seckler: "New insights continuously enter the next generation of the assembly facilities. This way, we ensure that improvements are passed on and integrated. We focus on only a few machine suppliers that can quickly supply us."

For production itself, all important parameters are recorded - primarily, the overall equipment effectiveness (OEE). Furthermore, production metrics provide e. g. insights in the use of capacity levels in manufacturing. As a strongly customer-focused manufacturer, OTIF (On Time, In Full) one of the most important KPIs to ensure that product delivery is fulfilled to suit the customers: "As we are very customer-focused, we take this KPI very seriously. We want to deliver each order in the desired quality and at the agreed "time," Roland Seckler says."

#### High Flexibility and Short Transport Routes

The process optimizations introduced within Operational Excellence have also proven successful for the sudden boom in demand with preparations for weight management, commonly known as "weight loss injections". In the future, Ypsomed wants to ensure the higher production capacities for these autoinjectors with

"Fulfilling all customer requirements and time maintaining a growth strategy for the company is a challenge. **However, our employee surveys show that it is possible to maintain growth on a high level and at the same time provide a working environment in which everyone can unleash their full potential.**"

#### ROLAND SECKLER

Vice President Global Supply Chain Operation  
YPSOMED AG

multi-track production facilities, which will allow the production of different autoinjectors simultaneously.

The quick adaptation of machines and supply chain is possible due to the close cooperation of everyone involved and a practiced company culture of continuous improvement. Ypsomed manager Seckler: "Apart from a strong digitalization, our strategy "Purchase 4.0" also includes Nearshoring. We prefer suppliers close to our production sites, which means in Germany, Switzerland and China."

A positive side effect of this approach: Long transportation is avoided and the sustainability balance is improved. Ypsomed aims to create a climate-neutral Value Chain by 2030, and the company is set to be climate-neutral by 2040.



## Focus on People

Regardless of all digitalization initiatives and process optimizations, Operational Excellence at Ypsomed is closely linked to an appreciative environment for all employees. Roland Seckler: "Fulfilling all customer requirements and at the same time maintaining a growth strategy for the company is a challenge. However, our employee surveys show that it is possible to maintain growth on a high level and at the same time provide a working environment in which everyone can live up to their full potential." Thus, Ypsomed ensures to continuously educate their employees and keep fluctuation low. This means that HR is a crucial part of the value chain for the Swiss company.

The consistent focus on customers and employees and the close cooperation with its suppliers receives cross-industry appreciation. Staufen managing director Jürg Hodel sees the company as a lighthouse: "Ypsomed is a front runner. In many aspects – be it production or Supply Chain Network Management – they are working on a high level. This way, the company is a role model, showing how industry should set itself up in Europe in order to remain competitive and innovative in the long run." ■

OPERATIONAL EXCELLENCE



## About Ypsomed

Ypsomed AG is the world leading manufacturer in injection and infusion systems for self-medication. Apart from the headquarters in Burgdorf (Switzerland), the diabetes specialist runs a global network of production sites, subsidiaries and distribution partners, having more than 2,200 employees worldwide.



# How change becomes an essential part of corporate culture

**ABUS – AN EMPLOYER THAT  
LIVES APPRECIATION**





### In a nutshell

Operational excellence is a key factor for every manufacturing company to ensure its future viability. The basis for this is a high level of enthusiasm for optimization and a permanent willingness to change throughout the entire organization. And here is the catch: change – especially in the context of increasing efficiency – is considered to be tough, resistant and therefore exhausting and expensive. But there is another way. The team at ABUS shows how it is possible to get an entire workforce to keep developing.

**Security “made in Germany” is no longer enough as a selling point. German products also have to compete internationally with higher wage costs and exhausting bureaucratic hurdles. This can be frustrating – and even lead to migration because of it. Or you can be creative and set benchmarks. This is where the topic of Operational Excellence comes into play at ABUS. Because if you want to take on social responsibility, attract and retain employees and at the same time survive in the consumer goods industry, you simply have to be better – and continuously improve.**

Why is ABUS so successful at constantly optimizing itself? In a conversation with Daniel Theis, Plant Manager for Operations, and Philipp Ditthardt, Head of Industrial Engineering/Lean at ABUS in Rehe, we want to find out. They were supported by our operational excellence expert Michael Hahn, who has been accompanying the team at the Rehe site on its impressive development journey for over 20 years.

### Trust and confidence as a foundation

If one wanted to describe the essence of our Best Practice Partner's successful change culture in one word, it would be “trust” – in the owners, the managers, and the employees.

Regardless of the hierarchy level, everyone knows each other. Doors are open to everyone. The owners are approachable and present on site. They make sustainable decisions in the interests of all ABUS employees (today and in the future). An employer who lives appreciation, who noticeably focuses on people, who is clearly committed to Germany as a location and its workforce. A culture in which no one is left behind and a lot is invested in the further development of employees. This creates enormous trust and strengthens identification with the company.

At the same time, employees are given a lot of trust. They are treated at eye level. Ideas are welcome, no matter who they come from.

Decision-making processes are short, and the willingness to invest in further development is high. According to Philipp Ditthardt, another important factor for success is that there is a huge amount of freedom to try things out. “If an idea is convincing, we get the go-ahead in ten minutes. We don't have to wait for an answer for four months. Everything stays in flow,” the Lean manager explains.

### Participation as a catalyst

Another special feature at ABUS in Rehe is that those who are affected by a change are brought on board in the idea or conception phase. This way, they not only know early on what to expect, they also have the opportunity to get involved and actively help shape the change from their expert perspective. “We notice again and again that the teams are happy to implement new approaches because it is not something that someone thought up in a meeting room, but something that the teams have actively helped to shape and implement. This creates a different level of self-confidence, more personal responsibility and initiative,” says Daniel Theis.

Michael Hahn confirms how valuable it is to involve all those affected in change processes at an early stage: “Nobody knows their workplace better than the employees themselves. Their know-how, their experiences and ideas can ultimately make the difference between a change that is good and the perfect development. It is really worth investing this time.”



From the left: **PHILIPP DITTHARDT**, Head of Lean Management, August Bremicker Söhne KG | **MICHAEL HAHN**, Partner, STAUFEN.AG | **DANIEL THEIS**, Plant Manager Operations, Facility & HR Rehe, August Bremicker Söhne KG | **MARTIN BECKER**, Partner, STAUFEN.AG

### Acting in the interests of employees

But aren't trust and participation particularly difficult when everything is about efficiency? "For us, efficiency means not only cheaper, but also more sustainable and better conditions for employees. If everyone is clear about that this is always about making life easier for employees, then everyone will want to make a change," says Theis. "Our employees can also be confident that improvements are never aimed at reducing jobs. We want to improve working conditions and generate growth at the same time," he continues. For example, the management team in Rehe makes sure that processes are standardized in such a way that employees can be deployed flexibly.

### Seize every learning opportunity

For Daniel Theis, however, it is not only important to be right internally. It is also important to be open to external impulses, because "Others see what we don't (or no longer) see. That's why we are very open to feedback and are happy to accept help. For example, when we guide 20 guests from another company through our production as part of our Best Practice partnership, we see each and every one of them as a potential consultant who looks at our topics from a different perspective. We encourage people to ask questions. Because every question can be the impetus for a new idea, a new project," he explains.

### Do it yourself instead of having it done

Michael Hahn is also impressed about the high level of striving for sovereignty that he sees in Rehe. "What really impresses me about ABUS is the aim of always building up and expanding expertise wit-

hin the organization. While many companies hire consultants who take on entire topics and then leave with their knowledge, ABUS uses its consultants as sparring partners who contribute knowledge. Once this knowledge has been acquired, the team continues to work independently. And with considerable consistency," enthuses Hahn.

The added value is created especially when different expert knowledge is networked within the company. "If you have everything on site, from development to special machine construction to production, changes and new developments can go hand in hand. This means that product development can exchange ideas with our mechanical engineering team as early as the conception phase and ultimately develop the perfect result from different perspectives."

### ... and then just carry on like this

It is not surprising that the topics of knowledge creation, transfer, and exchange (interdisciplinary) are important fields of action for the future of the company. Challenges such as digitalization or the pursuit of more sustainable action require many different areas of expertise to be brought together smoothly and sensibly. At Staufen we are proud that we can accompany ABUS in the sparring process for the next steps. Chapeau for this extraordinary corporate culture, with which everything will certainly be possible in the next 100 years. ■



## About ABUS

Who doesn't know ABUS... at least the products from the "Mobile Security" and "Home Security" divisions. But the family business, founded in 1924 and now run by the fourth and fifth generation, has much more to offer than locks and helmets. With around 4,000 employees worldwide, ABUS provides all-round security in the private and commercial sectors, from smoke detectors to smart home locking technology. Growing steadily for 100 years. Congratulations on the anniversary and congratulations on the unique corporate culture, which we would like to focus on in this article.





BRINGING EFFICIENCY TO THE SLOPES



KÄSSBOHRER GELÄNDEFahrZEUG AG

# Bringing efficiency to the slopes:

## OPTIMIZED PRODUCT DEVELOPMENT AT KÄSSBOHRER

OPERATIONAL EXCELLENCE





**Those who have prepared the slopes well and on time have a real head start. This also applies to Kässbohrer, the Laupheim-based (Germany) world market leader for slope grooming vehicles. With more efficient development processes and a better time to market, the traditional company not only wants to further expand its pole position, but also to prepare itself for the major challenges facing the industry.**

At 3 AM in many ski resorts, the PistenBullys start to prepare the slopes for the perfect day of skiing before the lifts open. In the past, however, it often was a long way for the compact and maneuverable off-road vehicles to reach this state. "The requirements for quality and time to market in product development have increased significantly in recent years," says Michael Kuhn, Head of Development at Kässbohrer. "It was therefore clear to us that we had to adapt our existing processes to this development."

The lack of clear distinction between series support and project work, an unclear definition of roles and too much multitasking became a hindrance. "In the past, we had no clear responsibilities, especially in project work, and there were cases where one and the same person was responsible for several conflicting tasks at the same time," recalls Benjamin Zacharias, team leader for steel construction development. This had an impact on delivery dates, and errors were not identified in time.

#### **In a nutshell**

At Kässbohrer, the world market leader for snow grooming vehicles, the product development was transformed to a value stream-oriented organization with clear roles and responsibilities. Complemented by the introduction of Shop Floor Management, the efficiency and punctuality of projects has been significantly increased. With this step, Kässbohrer is equipped to master industry trends such as sustainability, digitalization and the shortage of skilled workers and to expand its technological leadership.



But the complexity of the challenges for Kässbohrer will continue to increase, as Dr. Christian Oberwinkler, the company's CTO, explains: "We see three megatrends that will have a massive impact on us: sustainability and climate change, digitalization with the field of expertise of artificial intelligence, and demographic change with the looming shortage of skilled workers." According to Dr. Oberwinkler, the last point in particular will have a direct impact on vehicle requirements: "There is a high level of fluctuation among the drivers who work with our vehicles – they often only stay for one season. This means that we have to make the vehicles easier to operate and equip them with more assistance systems and AI support." Kässbohrer's product development must face up to these trends.

### Structure for value creation instead of fragmentation

In order to better manage the rising complexity and increase efficiency and quality, Kässbohrer decided to reorganize its development organization. With the support of the Staufen, two key levers were set in motion: a value stream-oriented organizational structure with clear roles and responsibilities and the implementation of strict Shop Floor Management within the development projects and the line organization.

In the first step, the development teams were re-tailored and bundled according to their core competencies and value streams.



**DR. CHRISTIAN OBERWINKLER**  
Chief Technology Officer (CTO)  
Kässbohrer Geländefahrzeug AG



**MICHAEL KUHN**  
Head of Development  
Kässbohrer Geländefahrzeug AG



**BENJAMIN ZACHARIAS**  
Team Leader Development  
Steel Construction  
Kässbohrer Geländefahrzeug AG





"Instead of a complex mix of projects, series tasks and special topics, the teams can now concentrate on one value stream," explains Michael Kuhn. The new product development teams, which are structured according to core competencies, do nothing else than develop the new vehicle generations, while another team deals specifically with the current series and warranty topics. And a third team is already dedicated to the pre-development and validation of new technologies. By adapting the project organization within the new development projects, further optimizations could be implemented, as Jan Haug, who accompanied the project as a partner at Staufen, explains: "We shortened decision-making processes and paths by putting the right people on the project teams." But structure alone is not enough; the processes themselves also

had to be reorganized. "In the past, many processes were based on the accumulated experience of certain people, but that no longer works once a company reaches a certain size," says Jan Haug. "We also had the case that every technical decision ultimately rested with the head of development. That is no longer the case today, decisions are now actually made where they are needed."

#### More transparency through daily updated overview

In order to consolidate and improve interdisciplinary collaboration and communication, Shop Floor Management routines with daily team meetings and visualizations on boards were also established.



**CHRISTIAN BURGER**

Project Manager

Kässbohrer Geländefahrzeug AG



**JAN HAUG**

Partner

STAUFEN.AG



**800+**

EMPLOYEES



**300+**

SALES VOLUME IN MM EUR



**MAIN PRODUCTS**

Snow groomers, beach vehicles, chain-driven special vehicles





Employees can disclose the status of their work there and escalate problems or bottlenecks.

“Without Shop Floor Management, our eleven-person team would hardly have been able to keep track of where the problems lie. The board creates clarity for us and our employees,” says team leader Benjamin Zacharias, praising the new transparency. “This gives us as managers an immensely increased overview, and we can intervene much faster if there is a problem somewhere,” adds Michael Kuhn.

### Gentle change for lasting improvement

Christian Burger, project manager for the new all-electric PistenBully series, is convinced that the investment in the new way of working has paid off: “In particularly critical phases, the new system helped us a lot to bring our flagship project successfully to the finish line.”

It will still take some time until the transformation is complete across the company – successful change takes time. “In some areas, we are already working entirely in the new system. In others, there are still things that need to be worked through first,” reports

Michael Kuhn. “But wherever we have consistently implemented the new way of working, we are already seeing very positive effects.”

Dr. Christian Oberwinkler is also convinced that the efforts of the change process will make product development fit for the future: “With the new working procedures, processes and methods, we are optimally positioned for the complex requirements.”

Those responsible agree: With the value stream-oriented approach and clear role descriptions, Kässbohrer has laid the right foundation to not only shoulder the challenges of sustainability, digitalization and demographic change, but also to be one step ahead as an innovation leader.

Dr. Oberwinkler anticipates for autonomous and remote-controlled driving on slopes and cross-country trails that a technological race is already underway: “With assistance systems and AI support, we can equip our vehicles even better for the constant shortage of drivers and achieve a real competitive advantage.” ■

### About Kässbohrer

Kässbohrer Geländefahrzeug AG masters extreme operations on the mountain, in the valley, on the beach, and in the terrain with innovative technology, passion and creativity. The company develops and produces vehicles for slope and cross-country trail preparation, beach cleaning equipment and special track-driven vehicles for use in impassable terrain and on particularly sensitive areas.

This is what the brands PistenBully, PowerBully and BeachTech stand for. The portfolio also includes SNOWsat, a holistic digital solution for slope and fleet management, maintenance, and area management. With the PRO ACADEMY, Kässbohrer offers a manufacturer-independent training concept for economical and resource-saving slope management. Sustainability and responsible treatment of people, the environment and resources are anchored in the company's goals.

Kässbohrer is represented with its products in over 110 countries – from the North Pole to the South Pole. The company is the world market leader in slope preparation and beach cleaning. Kässbohrer Geländefahrzeug AG employs over 650 people worldwide in Germany, Austria, Switzerland, Italy, France, and the USA. Production takes place exclusively at the company's headquarters in Laupheim, Germany.

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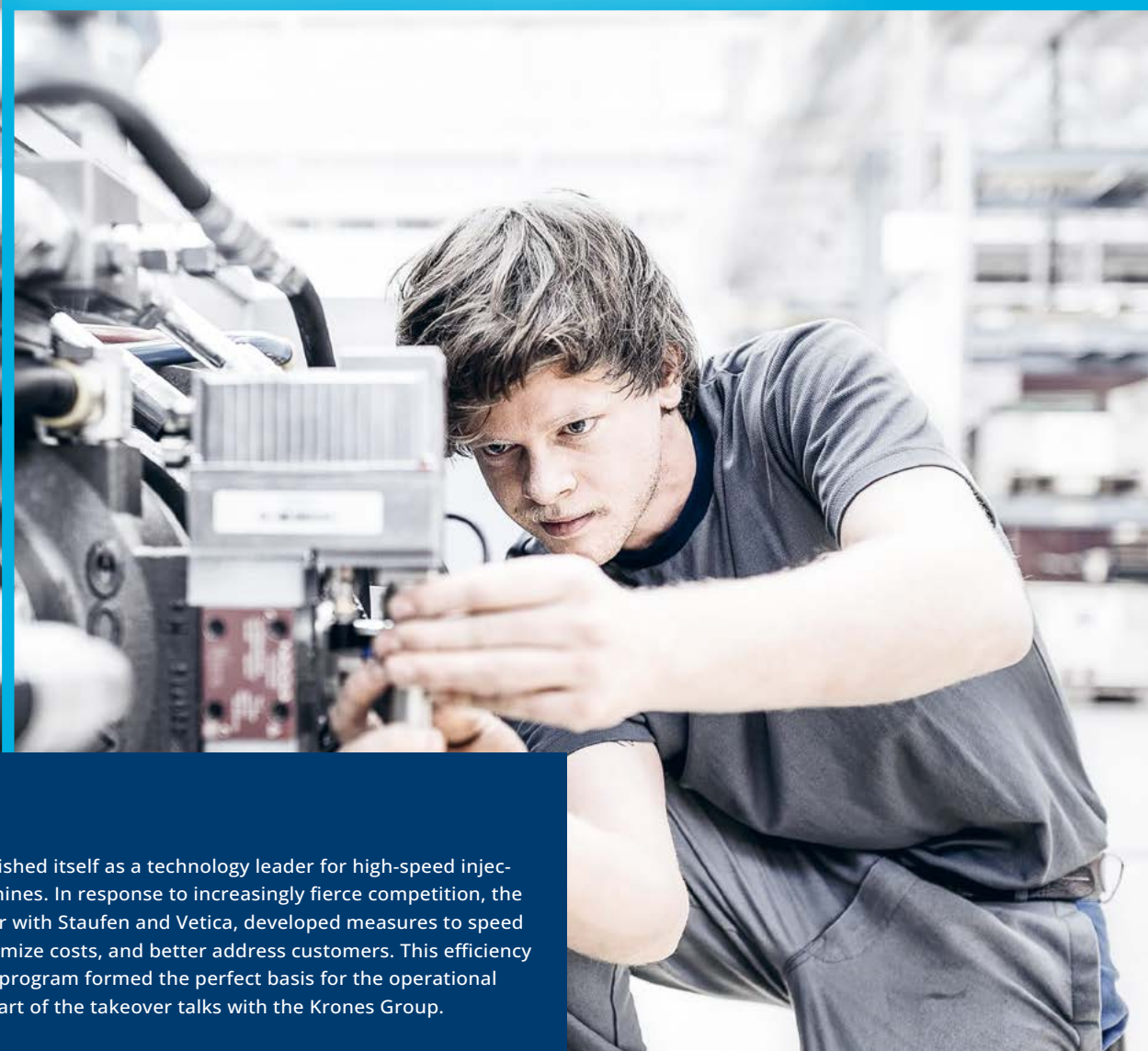
"WE WERE ABLE TO OFFER A STRONG PERSPECTIVE"



# "We were able to offer a strong perspective"

## HOW AN EXCELLENT OPERATIONAL DUE DILIGENCE ACCELERATES THE M&A PROCESS

OPERATIONAL EXCELLENCE



### In a nutshell

Netstal has established itself as a technology leader for high-speed injection molding machines. In response to increasingly fierce competition, the company, together with Staufen and Vetica, developed measures to speed up processes, optimize costs, and better address customers. This efficiency and effectiveness program formed the perfect basis for the operational due diligence as part of the takeover talks with the Krones Group.



**RENZO DAVATZ**  
CEO  
Netstal Maschinen AG



**DANIJELA KARELSE**  
CFO  
Netstal Maschinen AG

Since this year, the injection molding machine manufacturer Netstal has been part of the Krones Group. In an interview, Netstal CEO Renzo Davatz and Netstal CFO Danijela Karelse explain how a previously initiated efficiency and effectiveness program had a positive effect on the operational due diligence.

Netstal's origins date back to 1857. Where is your company today, and how does it stand out from the competition?

**Renzo Davatz:** As a niche supplier and technology leader for high-speed injection molding machines, we have a clear focus on four application markets: preforms for PET bottles, closures/lids, thin-walled packaging (e.g. for ice cream), and plastic parts for medical technology. Our USP is that with a Netstal machine, our customers can produce at the lowest cost per unit – with the highest precision.

You contacted the Staufen consultants at the beginning of 2022. What was the trigger and what was the goal of the collaboration?

**Renzo Davatz:** The market for injection molding machines is very competitive because the technology is quite mature. It is therefore becoming increasingly difficult to stand out from the competition through technology alone. Accordingly, a price war develops in such mature markets, to which one must respond by increasing efficiency. As a technology leader, however, we must also be able to offer a top external image including a high-end machine design. Therefore, on Staufen's recommendation, we decided to tackle this project together with Staufen and Vetica – two proven top-line optimizers.

**Danijela Karelse:** In addition to Staufen's technical expertise for process improvements in industry, the objective view from outside was particularly important to us. We are fortunate to have many long-standing and loyal employees, but sometimes we – including the management – focus too much on ourselves. Thanks to the very collaborative consulting approach of Staufen and Vetica, we quickly had an open and trusting atmosphere.

What measures have you identified together with Staufen to achieve the desired increase in efficiency?

**Danijela Karelse:** The measures range from a new distribution of roles in management regarding change management in order to take the workforce along with us on this path to establish a new project management system. The main focus here was on accelerating the order fulfillment process – in sales as well as in assembly and logistics. In addition, the product development process was optimized, and cost awareness in product design was increased. We wanted to show to the entire workforce and customers that we are serious about this change, and at the same time, we redesigned the NETSTAL brand, including their website, CI/CD, and a new machine design, together with Vetica.

How far have you got with the implementation?

**Renzo Davatz:** The target images are clearly defined for all value streams, and all processes have been worked out. The new processes are already being implemented on a daily basis in the "Lead to Order" and "Order to Cash" workstreams. The new roles within the organization are also being increasingly accepted and filled in the interests of increasing efficiency. The new CI/CD has been integrated, the new website with the machine selector is online. Our trade fair appearance is also completely new, for which we received a lot of positive feedback from customers and the industry.



"WE WERE ABLE TO OFFER A STRONG PERSPECTIVE"



**18,000**  
EMPLOYEES WORLDWIDE



**200+**  
MM EUR TURNOVER



**MAIN PRODUCTS**  
Machines and systems for production of preforms, caps and closures, packaging, medical technology

In the middle of the realignment of your organization, there was a change of ownership. At the beginning of 2024, you announced that Netstal would become a member of the Krones Group. To what extent did the efficiency program you initiated impact the due diligence with Krones?

**Danijela Karelse:** From the outset, the buyer saw how consistently Netstal was working on efficiency and how the company was being further developed with all of its processes, its newly defined external image, and its employees. This certainly made it much easier for the Krones Group to assess the risks during the due diligence process.

**Renzo Davatz:** An investor like Krones doesn't just calculate with a mathematical multiple, but invests in a strategic perspective. We were able to offer precisely this strong perspective with our efficiency program.

So you were perfectly prepared for the M&A process. Is it common for companies to be prepared for an Operational Due Diligence (see box on p. 33) so well?

**Danijela Karelse:** No. I have already been accompanying some M&A processes myself, but so far, I had never seen such a detailed concept for the future. If you are able to show a potential buyer a well-calculated perspective supported by concrete measures, this reduces the negotiation pressure enormously. Because thanks to this preparation, you can react to the investor's questions appropriately, and you talk absolutely at eye level.

What's next for Netstal in terms of operational excellence?

**Renzo Davatz:** First priority is continue our "Efficient to Double in Five" project, i.e. to complete the development of all value streams and implement them operationally. In the medium term, we want to embed the lean philosophy throughout the company and make it an integral part of our entrepreneurial thinking. ■

### About NETSTAL

Netstal stands for world-leading high-performance injection molding technology. The brand goes back to the founding location of the same name in the Swiss canton of Glarus. Netstal employs a total of more than 500 people at its headquarters with a production facility in Näfels and in its twelve international branches. NETSTAL Maschinen AG has been a member of the Krones Group since 2024.





**URS HIRT**

Managing Director  
Staufen.Inova AG

# STAUFEN AS YOUR PARTNER FOR OPERATIONAL DUE DILIGENCE

## A practice example

**The example of NETSTAL Maschinen AG shows how thanks to a well-prepared Operational Due Diligence, an M&A process can be accelerated and completed successfully – for both sides' benefits.**

Often, however, it is not just two experienced CEOs who talk to each other, but all possible disciplines within the company. While for a COO, CSO or CTO, identifying and leveraging operational potential is part of everyday business, most financial experts have to learn this skill first or seek external support.

Whether you are a medium-sized company in need of capital or an investor looking for an investment target – based on real consulting projects by Staufen, the following four examples show where the operational potential in companies often lies dormant:

### 1. Production processes and order fulfillment

The opportunities for optimizing value creation are nowhere as extensive as in production. The goal: to install modern production processes and align them perfectly with the supply and customer chains. To get even closer to this ideal, a hidden champion from the electronics industry, for example, used the construction of a new factory hall to reorganize manufacturing according to lean principles and streamline processes.

### 2. Variant and complexity management

Excessive complexity in the production and product areas limits companies' scope for action and is seen as an efficiency killer. A manufacturer of agricultural machinery therefore set themselves the goal of bringing orderliness to the "chaos of variants" and ensuring a clear system. The solution: a pragmatic evaluation model that better captures the complexity costs.

### 3. Research and Development

Frontloading is a part of the holistic development approach. During the planning phase, the manufacturer collects as much data and information about the product as possible and links them with the expertise within the specialist areas. This way, late changes in R&D process are supposed to be avoided, which usually cause expensive adaptations on other components. Therefore, an automotive supplier set up a corresponding frontloading together with Staufen, also with the objective to be able to provide even more resilient quotations in the future.

### 4. Shop Floor Management

The introduction of Shop Floor Management goes far beyond the reorganization of processes in the factory floor. It means a transformation of the corporate culture. The presence of managers in the production areas and their focus on standard deviations accelerates decisions and develops employees into improvement managers. A manufacturer of control cabinets and IT infrastructure was able to achieve excellent improvements in all relevant KPIs in this way.

### 5. Top-line optimization – impact on the market

The shared understanding of what your brand stands for, what relevance the company has for its customers and where it stands in comparison to the competition forms the basis for the future impact you want to achieve in the market. How you as a company are perceived from the outside – i.e. from the customer's perspective – is a crucial part of the change process and is a central element for increasing the effectiveness of all touchpoints such as brand, products, services, sales and marketing towards the different customer groups. A successful top-line strategy therefore not only has an external effect, but is also an important signal internally. It underlines the will to change, to optimize, and to achieve excellence in a modern and resilient company. ■



"THE BUYER OF THE FUTURE – A STRONG RELATIONSHIP MANAGER"

**FENDT**

# "The buyer of the future – a strong relationship manager"

OPERATIONAL EXCELLENCE



## In a nutshell

Strategic supplier relationships and flexibility are essential for the success of the agricultural machinery manufacturer Fendt. The crises of recent years have brought purchasing into focus with the key points of security of supply and cost optimization. AGCO is using digital technologies to improve the transparency of the supply chain and optimize the supplier network. Flexibility, digitalization and close cooperation between the specialist departments play a central role.

**The global crises of the recent years have put purchasing back in the spotlight – including at agricultural machinery manufacturer Fendt. The main focus is on security of supply and cost optimization.**

Staufen recently supported an AGCO site in Germany in a make-or-buy project that significantly shapes the company's strategic direction. Other issues that AGCO GmbH's purchasing department is working on for the Fendt brand include spiraling costs, delivery times, and security of supply. Especially since the pandemic, the complexity of the supply chain has become a challenge for the company.

"Everyone is focusing on the direct suppliers, but what about the second and third levels?" For Andreas Seemeier, Director Purchasing Germany at AGCO, this is the key question for companies in the manufacturing industry. "Our goal is to recognize and effectively manage the challenges at a deeper level," says Seemeier. "We are investing time and resources here, and digital technologies also play an important role."

### **Flexibility as a decisive factor**

Using various digital tools, AGCO in Germany is creating the necessary transparency and making the structure of the supply chain traceable. The next step will be to redesign the entire supplier network to meet the increased requirements.

"Since the major supply crisis, there has been a trend to make the supply chain more regional," says Staufen consultant Martin Späth. "This is an exciting option, especially with regard to Eastern Europe, so we at Staufen often support such projects. However, it must be recognized that certain industries and raw materials are not available in Germany or even Europe." Regional production does offer some cost advantages, short transport times and greater security of supply. However, in the case of semiconductors, for example, it is unlikely that production will be relocated at short notice, as these industries are firmly established in Asia.

"For me, flexibility is a crucial factor," explains Andreas Seemeier. "Our purchasing department must be able to react to changes quickly." This is because the economic reality has changed in the recent years. Political unrest, global supply crises, natural disasters and other unforeseeable events are increasingly affecting the supply chain network.

### **Digitalization and AI are the key**

A flexible and diversified supply chain prevents a single crisis from paralyzing the entire system. So broad diversification has a positive effect, but international procurement remains essential. As a global company, AGCO has factories in many countries, so global purchasing offers many strategic advantages and more flexibility.



**ANDREAS SEEMEIER**

Director Purchasing Germany  
AGCO GmbH

Digitalization and artificial intelligence (AI) play a central role in this and help to identify dependencies and trends. They also support sustainability reporting, because requirements such as the Supply Chain Act and the EU Sustainability Directive must be taken into account in all issues relating to the supply chain network.

"In our experience, cooperation between the departments of a company is crucial," emphasizes procurement expert Martin Späth. Purchasing is heavily dependent on information from product management, planning, development, and quality assurance. Optimal results can only be achieved if all departments work together. Crises can therefore have a positive effect, namely breaking down silo thinking between departments and encouraging them to focus more on the overarching corporate goal.

### **Increasing focus on cost optimization**

AGCO manager Seemeier has his sights set on the coming years. "The buyer of the future is a strong relationship manager," he says. Even if digitalization helps with processes, the human factor remains central. While the digital tools provide support, the focus is on the strategic orientation of the supply chain network and maintaining supplier relationships.

Procurement costs remain important. They usually account for more than 50 percent of the manufacturing costs of a product, and therefore are a major lever for cost reduction. "The crises of recent years have led to significant price increases," summarizes Seemeier. "But we cannot and do not want to simply pass these costs on to our customers." The consequence: the company is paying more attention to optimizing its costs.

This also makes it easier to remain flexible, adapt to market changes and be better prepared strategically for future crises. Close cooperation between the various departments and a sustainable supply chain strategy are immensely important. ■

### **About Fendt**

Fendt is the leading high-tech brand in the AGCO Group for farms with the highest demands regarding quality of machines and services. Fendt tractors and combines operate globally on professional farms as well as in non-agricultural areas. At its German sites in Marktoberdorf, Asbach-Bäumenheim, Hohenmölsen, Feucht and Wolfenbüttel, Fendt employs more than 7,800 people in research and development, sales and marketing as well as production, service and administration.



100 % INVENTORY ACCURACY?

#### **In a nutshell**

This article shows how to take your company to 100 % inventory accuracy levels and to have zero production downtimes due to logistic processes.

# 100 % inventory accuracy?

## **THE APPLICATION OF THE 5 BASIC PRINCIPLES OF LEAN MANAGEMENT**

OPERATIONAL EXCELLENCE



Having inventory accuracy below 90 % leads to unfulfilled production orders and can potentially drive you out of the market.

When Staufen arrived at Vertiv, they had 48 % inventory accuracy. In the first 3 months, with the help of the implementation of lean logistics tools such as PFEP, tugger routes, ABC/XYZ analysis, fixed points of use, fixed locations of common parts, kit delivery and development of standards, inventory accuracy was increased to 70 %. Within a further three months, with the implementation of Shop Floor Management (SFM) for tracking logistics processes, 99.8 % were reached.

Since then, inventory accuracy has been maintained at 99.8 % and with zero production downtimes due to logistic processes.

## Implementation plan

Within the implementation of this project, five steps were highlighted to take Vertiv Monterrey to these levels of inventory accuracy and zero production downtimes due to logistic processes:

1. Initial evaluation of the logistics process
2. Sensibilization of leaders in the supply chain
3. Implementation of logistics tools
4. Transaction automation
5. Implementation of SFM including coaching

The willingness of the Vertiv Monterrey team from operators to senior management was key for the success of the implementation.



**LUIS ALFONSO LARA ESCAMILLA**

Plant Manager  
VERTIV CO.

“If you are sick, self-medicating is not the best decision, we must go to the doctor; similarly, **if you have a material flow or supply chain problem, the best decision is to ask for the advice of an expert.**”

OPERATIONAL EXCELLENCE

Luis Alfonso Lara Escamilla has more than 25 years of experience in manufacturing organizations with global presence such as Vertiv, SAFRAN Aerospace, SKF Sealing Solutions or Condumex Autopartes. In different management positions he developed high performance teams at all levels, leading the organizational culture to levels of excellence based on continuous improvement, respect, discipline, empowerment, and accountability.

### Mr Lara, what were the main challenges during the implementation of this project?

The main challenges for the implementation of the project were communication and teamwork. As in many organizations, in Vertiv we have different areas that have a lot to do with the flow of materials such as warehouse, production, continuous improvement, supply chain, engineering, etc., each area has its own objectives and priorities. So it is complicated to align efforts to have a single plan and a common goal. Fortunately, thanks to the initial analysis process and the involvement of management, this goal was achieved.

### What were the benefits during the implementation?

The ultimate goal of the project was to have the material on time and in the right place at all times. This was achieved, but we also became aware of the importance of collaborative work, the proper implementation of systems and processes and the appropriate use of technology. By creating a visual system and sharing it with all people involved, the necessary synergy was achieved and as a result, the the objectives were exceeded.

### What is the impact of replication in other areas within the plant?

This project will definitely be replicated in all production lines and is being proposed for other plants of the group to implement it as well. This will achieve higher levels of productivity and inventory control to ensure greater profitability and cash flow.



# UTILIZING SHOP FLOOR MANAGEMENT TO ADD VALUE TO THE PROJECT

## A Staufen perspective

### What were the three main challenges for the implementation of SFM?

1. Laying the groundwork for SFM implementation was the hardest challenge
2. Forging the operational discipline for regular communication, problem identification and resolution
3. Creating the escalation system between levels of the organization.

### How does SFM help leadership execution on a daily basis?

- Identify and follow-up for problem solving
- Being able to manage your day to day through KPIs

### How do problem-solving and escalations work within the created tiers structure?

- Information is cascaded in the right way
- Many problems are solved in the lower tiers
- The identification of problems-errors between the tiers is more pronounced

The most significant impact can be seen in the operational disciplines of the supply chain, where the stability of inventory accuracy was continuously achieved; the increase in inventory accuracy from 48 % to 99.8 % was the key achievement of this project. ■



### About Vertiv

Vertiv Corporation, formerly known as Emerson Network Power and Liebert Corporation, has been redefining the industry of thermal and energy management technology and creating a legacy for more than half a century.

With a broad portfolio of services and solutions for IT infrastructure and network edge, thermal management, and energy management, Vertiv enables its customers to achieve uninterrupted operations, optimal performance and growth in line with their business needs.



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EMPLOYEES



**24**  
MANUFACTURING AND  
ASSEMBLY PLANTS



**2,740**  
REGISTERED PATENTS

**FATH**

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VALUE CREATION



**WHO WOULD  
HAVE THOUGHT?**

# Value creation

**WHY THE LABOR THEORY OF VALUE  
IN THE LEAN CONTEXT COMPLICATES  
THE IMPROVEMENT PROCESS,  
BUT PROTECTS THE PLANET**



The theory that a lean company can only be created when there is only a minimum of waste in all processes can be considered to be certain. In order to maximize the potential for this, only those processes that really do create value should be defined as value-adding. And you have come across many definitions of what is value-adding over the past few decades, such as this: Value creation means all activities on the product that increase the value of the product from the customer's perspective, or: Value creation is what the customer is willing to pay for.

The definitions of value creation and waste in the lean context originally come from the production environment. Therefore, the first thing that was meant was objects from which value should be "created". The employees needed a selection criterion that they could use to decide which parts of the process there should be less of in the future and what was considered valuable and should be kept. It is still used today to improve processes – business and economic

perspectives played no role in the definition of the criterion. According to the labor theory of value, value creation only took place in production. All improvements started with this possibility of classifying processes as "good" and "bad". The process downstream in the value stream determined which properties the object should have. This view was later expanded and until today, there are discussions about whether work on immaterial goods can also be described as value creation. New consulting approaches have developed from these considerations. Lean administration – initially called lean office – focused on streamlining the indirect areas of a company.

But what happens if we use the term value creation too carelessly is what I would like to explain with the 4-field table below. Each quadrant combines the scope of the definition and the perspective from which we define what value creation should be. What results can we now see and how should we classify them?

A definition of value creation that includes indirect processes and services reduces the claim to improve especially itself. <sup>1</sup>

Definition of value creation and waste by		
	manufacturer/supplier	customer
Definition scope	Material World (MW) "Component world"	<p>Labor theory of value defines value creation: All activities on the object that do not refer to scrap or rework increase the value of a product.</p> <ul style="list-style-type: none"> <li>&gt; Definition clear</li> <li>&gt; <b>highest potential</b> to reduce waste</li> </ul>
	Immaterial World (IMW) "Service world"	<p>Definitions for the "component world" are accepted by the customer.</p> <p>Definitions for the "component world" do not apply for the "service world"</p>
	First amendment of the labor theory of value: Value contributions in the indirect area are the prerequisite for value creation.	Second amendment of the labor theory of value: Everything that the customer pays for is added value.
	<ul style="list-style-type: none"> <li>&gt; Definition ambiguous</li> <li>&gt; Methodology of Lean Administration</li> <li>&gt; <b>reduced potential</b> to reduce waste</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Hidden waste is value-adding.</li> <li>&gt; <b>minimal potential</b> to reduce hidden waste in the value stream</li> </ul>

<sup>1</sup> That is why Stauden introduced the terms:  
indirect value creation / waste



“If Germany says goodbye to its industry, **it will lose perhaps its greatest competitive advantage.**”

**CLEMENS FÜST**

President of the Ifo-Institute

The labor theory of value can be seen in the upper left field. All activities on the object that are not scrap or rework increase the value of the product. The 7 types of waste – especially transport – must be reduced to a minimum. This should lead to condensed and inter-linked value streams, the prerequisite for synchronous production.

The bottom left field shows the first extension of the definition. After the “Lean Production” initiatives showed initial success, it quickly became clear that the activities could not be limited to production. In their book “Lean Thinking: Banish Waste and Create Wealth in Your Corporation”, the two bestselling authors J. P. Womack and D. T. Jones explained that a lean company could only be created if waste was reduced in all areas of the company. Managers were therefore faced with the question: How do we translate the 7 types of waste for the indirect areas? Consulting approaches such as initially “Lean Office” took up this challenge and defined indirect waste. This is how the Lean Administration methodology was born.

The concept of value creation was also transferred. It became obvious which path change processes take in the indirect areas when processes are all too easily described as value-creating. Should there be value creation in the indirect area at all? Readers would then be required to define indirect value creation. This path is

usually taken for political reasons. Those affected do not like to hear their processes described as waste and confuse value creation with appreciation. Nobody questions the necessity of indirect processes – they are necessary – but starting a debate about values ultimately reduces the potential. There is a risk that indirect processes will evade the claim for improvement because they have been classified as “good” and necessary for the customer.

The current discussions about the deindustrialization of Germany and the path to a service society reinforce the arguments of the proponents of indirect value creation. The path to a service society is inevitable, and value creation would be created there, too. But are these arguments useful? Does the goal of a service society legitimize the definition of indirect value creation?

It is true that many countries are losing industry and are still booming. But it is also true that Germany cannot do without its industry. Proof of this statement is that around half of all hidden champions – companies with a turnover of less than five billion euros and a top three position in their industry worldwide – come from Germany. Many companies in the important service sector also only survive thanks to these companies.<sup>2</sup> The question of whether it makes sense for an industrial location to move towards a “service society”

**FRANK KRAUSE**Director Q&R  
STAUFEN.AG

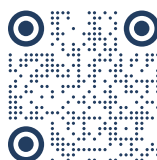
is answered with a clear No, because our competitive advantage is the ability to organize complex international value flows. We have no natural resources and cannot live off tourism. So we need to organize lean industrial operations. The focus here is on improving the production of material goods. Any indirect service for the object is therefore hidden waste and should be able to be questioned. The customer pays for the object – not for the processes that supported its production. They usually do not see these and cannot judge them. I will give an answer specifically for transport below. But first, let's go back to the graphic.

The upper right panel shows the inconsistency of definitions from the customer's perspective. He agrees with the definitions of hidden waste in the "components world", while in the "services world", some definitions suddenly no longer apply.

This gets clear in the bottom right field. Here, we expand the concept of value creation to include the scope of the service after we have already defined value creation in the indirect areas. The number of processes that are protected from reduction by the value creation class has increased a second time. But is that a good idea? This scope of definition makes it possible to classify the processes previously classified as hidden waste as value-creating, since

the customer is happy to pay for them or wants to pay for them. However, the customer's wishes/well-being can conflict with the common good. This is noticeable in global transport. I would like to remind you of the negative consequences of hyperglobalization. We are currently experiencing not only the economic and geopolitical, but also the ecological disadvantages when "the customer" causes global transport. I have already spoken about this in my podcast "Resilience in connection with future supply chains". Feel free to listen to it again. ■

<sup>2</sup>Reference: Marsengrab, Christian: Six facts about deindustrialization that show where Germany's problem is, FOCUS, October 31st, 2023.

**LISTEN IN!**

Podcast with Frank Krause (in German language) at:  
[www.staufen.ag/podcast](http://www.staufen.ag/podcast)



Hirschvogel  
Group

# A large forge is transforming



## In a nutshell

The automotive supplier Hirschvogel is striving for technological and cost leadership with its main plant in Denklingen, Germany. In order to achieve goals such as maintaining jobs while increasing productivity in the context of the shift to electromobility, the company is using the Hoshin Kanri method to implement its future strategy.

**In order to successfully carry tradition and experience into the future at its headquarters in Germany, the automotive supplier Hirschvogel relies on the Hoshin Kanri method. Only with systematic implementation strength, a vision can be turned into operational excellence.**

8580 – these four numbers are used by the German Institute for Standardization (DIN) to summarize six manufacturing processes for the production of solid bodies. One of them, “forming,” can be found in all its facets in Denklingen, Bavaria, Germany. “Here at the Hirschvogel Group’s main plant, we cover the entire spectrum: from classic manual work with gripping tongs on hand forges to fully automatic systems that adjust their speed using servo control, to Industry 4.0 and optimized process steps including AI support,” says Markus Obholzer, plant manager in Denklingen and thus supervisor of almost 2,000 employees.

In the world’s largest integrated factory for massive metal forming, it is clear that DIN 8580 does not stand for brute force, but for the art of forming hundreds or even thousands of precisely manufactured components from a six-meter-long metal rod. Just as in art, there is no apprenticeship for metal forming. “Cutting machine operators, lathe operators, and welders are classic industrial professions with IHK (Industrie- und Handelskammer: German training program provides vocational education and training through a dual system) qualifications. But metal forming as an apprenticeship does not exist. That is why we have a very diverse workforce with different professional backgrounds. But that also means that the knowledge employees in the factory collect and pass on is our greatest asset,” says Obholzer.

Anyone who accompanies Markus Obholzer on his walk through the factory halls will experience a lesson in walk the talk – despite the ear protection, which is mandatory almost everywhere. Because eye-to-eye contact also works without many words when the

Hatebur press next door, which costs 25 million euros, spits out 70 red-hot parts per minute for the automotive industry. Regardless of whether it is transmission shafts, differential bevel gears or the wheel carriers for the rear axle, Hirschvogel produces for almost all major automotive manufacturers and their system suppliers.

### Focus on technology and cost leadership

Thanks to the combination of experience and state-of-the-art production facilities, Hirschvogel is considered a global technology leader. But with the transition from the combustion engine to the electric car, the requirements are changing: the drive train requires fewer parts, volatility on the demand side is increasing, and price wars are becoming more intense. Therefore, it was clear: “In order to maintain the Denklingen site at its current size in the long term, we have to prepare for tomorrow today. To ensure that this strategy is implemented consistently, we opted for the Hoshin Kanri method (note: Japanese for “compass management”), but we knew that we could only implement a change project of this magnitude with an experienced partner. For this reason, we brought Staufen on board as a consultant,” explains plant manager Obholzer.

Expanding Hirschvogel’s technological leadership while achieving cost leadership at the same time is a challenge that Uwe Vogel, partner at Staufen, is keen on. “Realigning a plant with 9 departments, 20 production areas and around 50 master workshops is a very exciting task,” enthuses the experienced Hoshin Kanri expert, “especially when you meet partners on-site who ensure their future viability in a timely and consistent manner.”





## Involve employees from the start

The decision to choose Hoshin Kanri was made out of a position of strength, but against the backdrop of a necessary reorientation. In keeping with the company motto "Traditionally Innovative", a concept was developed that combines five main goals:

- **Save jobs!** Hirschvogel Umformtechnik wants to remain an attractive employer in the region, even if not as many components for combustion engines will be needed in the future.
- **Expand green business!** The manufacturing of components, e.g. for electric motors, takes place at Hirschvogel in the Green Business division, which is set to continue to grow.
- **Increase productivity!** Through targeted automation and optimization of processes, more components can be produced and delivered to the customer in fewer hours. At the same time, costs need to be reduced.
- **Increase delivery reliability!** Focus remains on the customer, and they will be supplied even more reliably in the future.
- **Reduce inventory!** In an increasingly volatile market, high inventory levels are becoming a financial risk. Therefore aim is to optimize warehousing while simultaneously reducing lead times.

The Hoshin Kanri project has also ushered in a new corporate culture at Hirschvogel. While the view of the huge steel warehouse between the halls used to be marked by pride in the success it manifested, today Markus Obholzer believes it is important to keep inventories low and to ensure clarity and transparency, both visually and in terms of process organization. In the newest hall, the production line is therefore being set up from the outset in such a way that "historically grown" inefficiencies such as transporting workpieces from one corner of the hall to the other and back again are no longer an option.

Obholzer sees the development: "At the beginning of the transformation, main focus was on getting the employees involved and strengthening solution-oriented collaboration. Problems are no longer escalated, but solved directly at the source. We are now continuously implementing optimization activities and can see the success in the reports."

## A digital heart for operational excellence and efficient leadership

In parallel with process optimization, digitalization is being driven forward in Denklingen. Markus Obholzer's office is just a few meters away from a digital team board on which all important key figures are visualized using the Valuestreamer software. This digital Shop Floor Management is the heart of operational excellence and efficient management at Hirschvogel and, according to Obholzer, is also a model for other areas: "We have real-time access to our figures and can use the data together with related areas such as maintenance, quality, or product development." The goal is to establish end-to-end standards that are used consistently as a control and management tool.

Dr. Christian Hinsel, Vice President of Hirschvogel Holding and responsible for Operational Excellence across the group, can only underline this: "The principles and methods of Lean and Operational Excellence are of enormous importance, especially in times of volatile market developments. Operational Excellence enables us to continuously increase productivity and optimize inventories."

## New thinking and proven action

Plant manager Markus Obholzer draws a positive conclusion: "We have redesigned the way we work in many ways and are striving for impressive improvements, such as halving inventory while maintaining a consistently high level of delivery reliability or halving lead times. We have been able to expand our corporate vision to include the premise of 'thinking anew, acting in a proven way'. This is not an empty phrase, but a lived change to secure the future of our site and the Hirschvogel culture." ■

## About the Hirschvogel Group

In 1938, the engineer Willy Hirschvogel founded the "Hammerwerk Hirschvogel OHG" with his brothers Anton and Hans in Denklingen, Germany. The first forming unit was a used board drop hammer. Today, Hirschvogel is a development partner and manufacturing specialist for automotive components made of steel and aluminum. The independent, family-owned group of companies employs around 6,500 people at 9 production sites worldwide. Total sales in 2023 were 1.5 billion euros.



From the left:

**UWE VOGEL**  
Partner  
STAUFEN.AG

**MARKUS OBHOLZER**  
Plant Manager  
Hirschvogel Umformtechnik GmbH



Markus Obholzer and Sebastian Eberle, foreman at Hirschvogel, in front of the ValueStreamer



The Hirschvogel Umformtechnik GmbH plant in Denklingen



**DR. CHRISTIAN HINSEL**  
Vice President / Head of Sustainability  
(ESG) and Production System (OpEx)  
Hirschvogel Umformtechnik GmbH



# Production logistics: data-driven and efficiently



**In order to always supply their assembly areas with the right material at the right time and in the required quality, numerous OEMs rely on the logistics partner Rhenus Automotive.**

"There are two key success factors in the collaboration between OEMs and external logistics providers: communication among the employees and the harmonization of IT applications," says Timo Schiek, managing director of the South-West Region (Germany) at Rhenus Automotive. The service provider, which is part of the Rhenus Logistics Group, operates intralogistics for vehicle manufacturers and original equipment manufacturers at more than 50 locations worldwide. Rhenus consistently and sustainably relies on innovative technologies and processes there.

### **Fast processes through digital procedures**

Intralogistics in a modern car factory increasingly uses driverless transport systems (DTS) to transport parts and components between the storage areas and the assembly area. The assembly stations are supplied with shopping baskets with defined places, which are filled by the commissioners in a picking zone. The assembly workers then find the required component in the designated compartment. This allows a very high level of variance to be combined with efficient assembly processes.

"Digital processes for picking components and filling shopping baskets speed up processes significantly," explains Thorsten Bender, branch manager at Rhenus Automotive. One well-known process is "pick-by-light". LED displays on storage compartments show the pickers exactly where the parts to be picked are located. At the same time, the desired quantity appears on displays. This procedure – if used correctly – reduces the error rate to almost zero, and after a training, the system is easy to use.

### **Training with our own training facility**

"New staff can also be trained very quickly," adds Timo Schiek. "This significantly increases the productivity and efficiency of the warehouse." A training team of several experienced specialists usually takes care of the onboarding, which at Rhenus usually begins with a comprehensive week of training. The new employees are given intensive support for five days before they are allowed to work independently.

To ensure that employees of different nationalities understand everything correctly, the training courses are offered in several languages and rely heavily on visual teaching methods. An integral part of the training is practical exercise in a specially set up pick-by-light system. Here, participants can spend several hours experiencing and trying out in practice how the processes interact and how they have to pick, grasp and remove quickly and without errors. In the first few days after the training week, they also receive support from experienced colleagues. In this way, Rhenus ensures that all new employees fully understand the processes and can take on their tasks with the appropriate qualifications.

"New staff can also be trained very quickly. **This significantly increases the productivity and efficiency of the warehouse.**"

#### **TIMO SCHIEK**

Managing Director Region South-West, Rhenus Automotive SE

#### **In a nutshell**

In order to work successfully for an OEM, communication and IT harmonization are crucial for the intralogistics experts at Rhenus Automotive. While data harmonization makes it possible to react to deviations in real time, intensive multilingual training ensures that everything runs quickly and error-free, even in modern production environments with driverless transport systems and "pick-by-light" processes.



### Real-time data is the biggest success factor

One hurdle in using logistics systems is the necessary data transparency. Basically, every factory has its own data collection, especially on the shop floor. "We have to adapt our data and applications precisely to the OEM's system," says Rhenus manager Schiek. "Despite this effort, it is important to use our own solutions in order to be able to monitor the processes better." Rhenus therefore developed uniform applications – supported by Staufen – that combine all the data from both companies. This harmonization of the data and systems is a key success factor.

The integration of the logistics service provider and suppliers into the customer system enables the identification of weak points in both the Rhenus and OEM systems. "Another success factor here is data-driven deviation management," says Thorsten Bender from Rhenus Automotive. It focuses on working with real-time data to quickly solve problems and respond to errors within minutes. The data is compared in Shop Floor Management using dashboards, on a daily base or several times per shift. This means that everyone involved always has the same level of information in order to be able to respond effectively to deviations.

### A common vision at all levels as the key to performance

Since streamlining the organization is important for consistent deviation management with real-time data, Rhenus relies on a so-called two-hour board. Instead of someone going around with paper and pencil, Rhenus has developed a digital solution. The tool enables to forward data to the quality department at short intervals for the operational logistics and the quality department and to take immediate countermeasures. "This is crucial for shortening response times," says Rhenus manager Bender. "This way, we don't just talk about yesterday's mistakes, but also avoid mistakes of the following hours."

Rhenus's high level of process understanding in intralogistics, combined with Staufen's expertise in Operational Excellence, the organizational development and data analytics, ensures a high impact on performance right from the start of a new logistics mandate. "Rhenus thus achieves increased efficiency through fast processes, precise material supply, and a significant reduction in the error rate," says Staufen partner and automotive expert Alexander Wagner. "Effective communication within Rhenus and with its customers, the seamless integration of logistics data and the methodical resolution of errors and problems with the utmost consistency are crucial here." Thomas Bernhardt, COO of Rhenus Automotive, adds: "Both require a practice-oriented combination of consulting, training and coaching – the perfect job for Staufen." ■



**TIMO SCHIEK**

Managing Director Region South-West  
Rhenus Automotive SE



**THORSTEN BENDER**

Branch Manager Sindelfingen  
Rhenus Automotive SE



**THOMAS BERNHARDT**

COO  
Rhenus Automotive SE



**ALEXANDER WAGNER**

Partner  
STAUFEN.AG



### About Rhenus Automotive

The Rhenus Group is a global high-tech service provider in the field of assembly and logistics with an annual turnover of 7 billion euros. Rhenus Automotive operates over 50 locations worldwide and employs around 10,000 people. The company offers automobile manufacturers intelligent and efficient system solutions in the areas of assembly and logistics.

Complex assembly and logistics processes are analyzed and optimized using customized solutions for procurement, production, and distribution. The assembly processes range from simple manual activities to the complete assembly of drive components such as engines, transmissions, axles, chassis, and other parts.

Planning, financing, construction, operation, maintenance, and continuous improvement of assembly lines are core competencies in the field of intelligent assembly. The logistics solutions include goods receipt, warehouse management, and production supply.



ON THE TRAIL OF A UNIQUE SUCCESS STORY



# On the trail of a unique success story





**The turnover of the 100-person company is growing. And it is growing very consistently. What is this company doing right? At first glance, the answer seems obvious. If you look at the website, it is full of reports on innovative technologies. Optrel is clearly a company that does not settle for the limits of what is possible. But in fact, this is only one aspect – even a fundamental one – that makes Optrel successful.**

To get to the bottom of this success, it is worth taking a look at the company's recent history.

#### **Milestone 1:**

##### **An owner-managed company**

The Optrel history is divided into a period before and after 2010. In that year, ownership changed from a French occupational safety group to the Koch brothers, who have been steering the company's fortunes ever since. Optrel is no longer just one company among many, but has become a heartfelt project of committed managers who continue to develop Optrel with entrepreneurial flair, an appropriate willingness to take risks and the necessary sensitivity to the needs of the organization.

#### **Milestone 2:**

##### **The beginning of a pioneering partnership**

With the clear goal of conquering the global market, the Koch brothers, together with Peter Eicher, CSO of Optrel, and Jürg Hodel, managing director of Staufen in Switzerland, began to transform the company step by step.

For example, in 2013, the entire end-to-end value stream, from ordering to shipping, was converted to lean. In just 2 months! One success factor: the equal partnership between Optrel and Staufen.

#### **Milestone 3:**

##### **Entrepreneurial greatness – handing over responsibility**

Marco Koch is self-critical and recognizes that he and Peter Eicher have too much responsibility in the company. If one of them were to drop out, the organization would be paralyzed. Together with Staufen, the "OE for Growth" project is launched with the aim of spreading responsibility more widely and developing young managers: The management team is expanded, and business processes are placed at the center of all activities.

#### **In a nutshell**

Optrel's success story is not only exciting, it is also an inspiring lesson from which we can learn a lot for our own actions.

We invite you to join us on our search for clues. First, we will explore the company's milestones, then we will get specific advices for successful ventures from some of the outstanding protagonists of this story.

#### **Milestone 4:**

##### **System change – a B2B company conquers the B2C market**

"For eight years, we had the idea of bringing the automatic glare protection that we install in welding helmets to sports," explains Patrick McDermott, CEO of React, Optrel's B2C subsidiary founded in 2022. For years they continued to develop the glare protection technology until they achieved the breakthrough with "Shade Tronic": the automatic adaptation of the tint within hundredths of a second became possible in a pair of sports glasses. But this masterpiece of engineering alone does not make for success; an open eye for the environment and the right strategy are just as important. For example, the company decided to create a new brand "React" instead of transferring the "Optrel" brand to the sports sector.

These four milestones are examples of many other courageous decisions and determined projects. But how can you embark on this path? What is Optrel's unique pioneering spirit all about? The following interview provides answers to these questions.





## CAN SUCCESS BE OPERATIONALIZED?

In an interview with Peter Eicher and Jürg Hodel, we try to find out what aspects make Optrel successful and what others can learn from it.

What is the core of Optrel's success, Mr. Eicher?

**Peter Eicher:** The core elements that make our company successful: doing things differently, questioning things, optimizing things or choosing completely new approaches. To achieve this, we continuously invest in research and development. Equally important is a large portion of pioneering spirit, courage, the ability to question yourself, and your own actions, a high degree of agility, and perseverance.

What do you think is the basis for research and development?

**Peter Eicher:** We are close to the market, and therefore close to our customers. This means that we as a vendor have our own sales people on the markets. From there, we receive lots of input – hence approaches for improvements or even new products or applications. The creativity and innovative power of our R&D is a crucial part. They find new solutions to fulfill our customers' needs, which make our products so unique and make Optrel the undisputed technology leader.



**PETER EICHER**  
Chief Sales Officer  
Optrel AG



**JÜRIG HODEL**  
Managing Director  
STAUFEN.INOVA AG

How do you create a culture where everyone contributes ideas?

**Peter Eicher:** Hierarchies that are as flat as possible – working on equal terms, short decision-making processes, personal responsibility and team spirit, everyone is equally valuable, equally important, everyone is needed. These are fundamental cultural aspects for us.

Mr. Hodel, what does a "small" company have to pay attention to if it wants to become a global player?

**Jürg Hodel:** Basically, there are six aspects to consider:

1. Define a clear target image (medium and long term),
2. derive a clear strategy from the target image, and define concrete, measurable actions,
3. put these measures on a timeline, continually review/adapt them in the context of the environment and do not lose focus,
4. proceed with entrepreneurial flair, a certain entrepreneurial willingness to take risks, and sensitivity to what the organisation can tolerate,
5. involve employees and support them in performing the change,
6. and of course: work with experts you can trust.



### About Optrel

Founded in 1986 and based in Wattwil, Switzerland, Optrel is now one of the world's leading suppliers of glare and head protection products, respiratory protection solutions, and active sunglasses. This success story began in 2010, when Optrel returned to private hands after many years of corporate ownership. Since then, the organization has increased its sales by 300 %.



**Dario Cologna** 4-time olympic champion

## THE PATH FROM B2B COMPANIES TO THE HEARTS OF CONSUMERS

Patrick McDermott, CEO of React, Optrel's B2C subsidiary, explains in an interview what is important when a B2B company wants to take the big step into the world of end customers.



**PATRICK McDERMOTT**

CEO

optrel sports AG

Mr. McDermott, how can B2B companies successfully enter the B2C market?

The most important thing is, of course, the brilliant idea for a technology transfer from B2B to B2C. Then you need perseverance: the founding of React was preceded by eight years of research and development work. Then you have to be courageous and open to finding your own path. If you are convinced that it is worth entering another market, you have to be able to say goodbye to one world in order to get involved in the other. That is a prerequisite.

What do you mean by that?

Firstly, companies usually love their brand. They grew up with it and think that they can transfer it to a completely new, different market without changing its core. You have to be self-critical

enough and ask yourself: Is the brand suitable for a new business area? Do the different sectors fit under one brand or do we need a new brand? We are happy to have taken the latter route.

And secondly?

Once everything has been decided and the new brand has been developed, its organization also needs to find an independent path. For example, it doesn't make sense to try to transfer existing sales staff into a new world. The best thing to succeed is to bring new people on board for the new market who are experts in the new business area and passionate about it. ■



## STAUFEN AMAZONAS FRAMEWORK

# The path to Operational Excellence in indirect areas

### The challenge of modern companies

Many companies today are facing significant challenges that require profound changes in their indirect areas. The rapid progress of digitalization is demanding and challenging for many organizations. At the same time, the rising costs of products and indirect areas are shrinking profit margins. Short product life cycles and the pressure to innovate put companies under additional pressure. Complicated processes and long order processing times hinder efficiency and increase complexity. An increasing employee turnover leads to a loss of valuable know-how.

### The Amazonas Framework as a solution

This is where the Amazonas framework comes in. The goal is to achieve measurable success through operational excellence in the indirect areas. The framework uses performance enablers in various performance clusters to achieve a sustainable, flexible and efficient performance. It offers a structured and holistic approach to address the pain points mentioned above and to measurably increase and continuously improve the performance of the indirect areas, their value contribution, measurably and continuously improve it.

“You can achieve holistic **operational excellence** by taking the step from production to sales, marketing and development. This will gain a pull effect that will boost everyone away. Historically, the start is often in production areas. The market and development side should be integrated at an early stage in order to set up the base for excellent processes.”



**ALEXANDER BARTEL**

Managing Director  
Gebr. Brasseler GmbH & Co. KG.

#### LEARN MORE

about operational excellence  
in indirect areas





## Why Amazonas?

The name “Amazonas” was deliberately chosen because it symbolizes the great river that flows through various landscapes in South America and connects numerous ecosystems. The Amazonas is not only one of the largest rivers in the world, but also a synonym for constant flow, growth, and diversity – principles that are also of central importance in Lean Management.

Just as the river is constantly moving and provides life to everything in its environment, the Amazonas framework is intended to ensure that processes in the indirect areas are designed to be fluid and efficient. It promotes a continuous improvement process that connects and optimizes the various areas of a company.



## Performance clusters and their enablers

The framework is divided into seven performance clusters, each containing specific enablers to enable the necessary transformation:

**1. Service portfolio:** This involves managing the entire life cycle of products, reducing complexity costs, and establishing sustainable practices. By optimizing the service portfolio, companies can reduce their costs while achieving their sustainability goals.

**2. Processes:** The design of end-to-end processes, the measurability of processes and the elimination of waste are key elements. Efficient processes lead to better controllability and shorter lead times, which in turn increases competitiveness.

**3. Projects:** Effective project portfolio management, deviation management and iterative approaches ensure that projects are completed successfully. This increases the flexibility and adaptability of the organization.

**4. Organization:** Agility, network design and change management are key issues. An agile organization can react quickly to market challenges and successfully implement change processes.

**5. Collaboration:** Effective leadership, driving team performance and talent development are critical to success. Strong collaboration leads to higher team performance and better employee retention.

**6. Digitalization:** Focus is on developing a digitalization strategy, digitalization processes, and using artificial intelligence. This improves data availability, makes processes more efficient and increases the ability to innovate.

**7. Knowledge management:** Structuring knowledge, managing data, and ensuring knowledge availability are the main tasks here. Effective knowledge management leads to better use of information and faster decision-making.

### Target state achieved

Through the targeted application of performance enablers in the various clusters, companies achieve operational excellence. That is characterized by high efficiency, flexibility, and sustainability throughout the entire organization.

These improvements are measurable and are reflected in optimized costs, improved processes, increased employee satisfaction and lead to increased customer benefits. ■



THE COMBINATION OF TCO AND TPM ENSURES SIGNIFICANTLY BETTER RESULTS

**rexroth**  
A Bosch Company

## MAINTENANCE AND REPAIR

The combination of  
TCO and TPM  
ensures significantly  
better results

OPERATIONAL EXCELLENCE





**Two concepts, one goal: Total Cost of Ownership (TCO) and Total Productive Maintenance (TPM) optimize maintenance processes in the industry and thus reduce total operating costs. Arpad Boros from Staufen and Horia Todoran from Bosch Rexroth in Romania describe the approach in practice in our interview.**

In industries such as fleet management and leasing, the concept of TCO (Total Cost of Ownership) is well established. How does this approach fit into the industry?

**Horia Todoran:** The TCO approach is primarily about keeping the share of an equipment in the total life cycle costs of a machine as low as possible. Within production plants in Romania, we are currently facing the challenge of modernizing and upgrading the hydraulic systems, especially in terms of energy efficiency. This is not easy with hydraulics, as it is decentralized, and many individual systems need to be upgraded.

In this context, the holistic TCO approach can be particularly advantageous. It takes various aspects into account, with a higher focus on the operational activities, such as standardization, such as reducing the number of component variants or digital monitoring of the machine status in order to better organize maintenance cycles. This is where Industry 4.0 can help. It enables automation, condition monitoring and predictive maintenance.

Staufen follows a similar approach with TPM. Where do the two concepts overlap?

**Arpad Boros:** TPM is a structured lean approach that systematically reduces waste within maintenance processes. It fits perfectly with the TCO concept because it also takes a holistic approach. Essentially, it is about transferring responsibility for routine maintenance to employees on the shop floor and thus reducing the workload.

Traditional maintenance teams are experienced in repairing things when they break. This can be described as firefighting. However, the goal of TPM is to prevent fires from starting. We achieve this by employees continuously monitoring the manufacturing. Industry 4.0 technologies are also a useful support here, as they simplify monitoring through digital processes.

What are the benefits of combining TCO and TPM for industrial companies?

**Horia Todoran:** The two concepts fit together like hardware and software. The TCO approach is ideal for creating clarity and transparency regarding operation costs of a machine or system. Using standardized components, repairs and a low number of variances automatically leads to less inventory and



lower maintenance costs. TCO also fulfils the same task in production processes: by looking at the total costs, unnecessarily complex procedures can be identified. With regard to maintenance, it is also about integrating the operators into the tasks. With tailor-made solutions, monitoring tasks can be simplified or automated.

TPM has a strong impact on the processes within companies and leads to a series of changes in planning, production, and maintenance. What are the most difficult steps for companies?

**Arpad Boros:** In my experience, the most difficult step is to explain to the management that the TPM approach is not a fast cost-cutting program. The results only come with a certain delay – but then, they are sustainable. Among other things, operators must be trained and coached so that they can take responsibility for their machines. Another important prerequisite is communication between all stakeholders who play a role throughout the life cycle. They must sit at the same table, otherwise the process will not work.

In modern industries, new machinery investments can be significant, especially in heavy industry. What measures do companies need to take to ensure that new investments are future-proof?

**Horia Todoran:** Investments are about making progress through technological innovations – with a view to sustainability and preserving livelihoods, among other things. As a spe-

cialist in drive and control technology, we are always offering our customers new technologies and innovations. We focus on the impact of these new technologies. Although they may incur higher acquisition costs. If you look at the TCO over ten years – including power, maintenance, and other operating costs – it often becomes clear that a more expensive initial investment is more cost-effective in the long term compared to cheaper, conventional machines.

Can companies pursue this TCO/TPM vision alone or do they need an experienced partner for a smooth and effective implementation?

**Arpad Boros:** Working with an experienced partner has many advantages, including a fresh perspective on established processes and organizational structures. In my experience, companies often fail to recognize the significant waste and potential within their own operations. The firefighting operations of maintenance teams are simply accepted; after all, they are part of everyday life. An external perspective can help to identify your own blind spots. ■



**HORIA TODORAN**  
Managing Director  
Bosch Rexroth Sales S.R.L.

#### About

- Extensive experience within industrial equipment sales companies – from start-up via different sales roles at Atlas Copco towards Bosch Rexroth Sales SRL as managing director
- Holistic view of an integrated sales company from equipment sales, service & aftermarket sales to rental sales & services, operations
- Strategic and analytic mindset, driving change and implementing systems for continuous improvement at all levels in organizations



**ARPAD BOROS**  
Country Manager  
Hungary and Romania  
STAUFEN.AG

#### About

- 20 years of experience in the project management and management consulting in 12 countries
- Driving change and implementing continuous improvement at all levels in client's organizations, from senior executives to the shop floor
- Helping clients to increase labor and machine productivity while decrease cycle time and waste



# Powering the Energy Transition:

## FRIEM'S LEAN JOURNEY

### In a nutshell

For decades, FRIEM built its reputation as a reliable partner supplying critical power converters for industrial electrolysis processes. However, the company's strategic shift to focus on the burgeoning green hydrogen market meant it needed to transform to meet rapidly growing demand. By partnering with Staufen Italia, FRIEM optimized operations across order fulfillment, production, procurement, material management and engineering – establishing clear KPIs that delivered impressive results. This operational excellence mindset, instilled through hands-on lean implementation, empowers FRIEM to power the global energy transition as a leading provider of green hydrogen solutions.





**LORENZO CARNELLI**  
CEO  
FRIEM SPA



**GIANCARLO ORIANI**  
CEO  
STAU.FEN.ITALIA

In the ever-evolving landscape of energy transition, one Italian company, FRIEM, stands out as a prime example of how embracing Lean Management principles can pave the way for sustainable growth and operational excellence.

### **Rooted in History, Forging the Future**

Founded in 1950 by the grandfather of the current CEO, Lorenzo Carnelli, FRIEM has been designing and manufacturing power converters for the electrolysis industry from its inception. These specialized power converters are essential for various industrial processes, including metal refining and chemical production.

Over the decades, FRIEM's core business has been supplying these robust power converters to major players in the chemical industry, such as De Nora. This long-standing collaboration allowed FRIEM to cement its position as one of the four major players in this niche market, excluding China.

However, the company's ambitions have evolved, with a strategic decision in 2017 to embrace the energy transition as an additional goal. This pivotal moment marked a shift in FRIEM's approach, transitioning to a strategic mindset, focused on harnessing the potential of emerging markets.

**"We saw this great opportunity in the green hydrogen industry, but on the other side, we knew that we had to be ready prepared to be part of this business."**

**LORENZO CARNELLI**  
CEO, FRIEM SPA





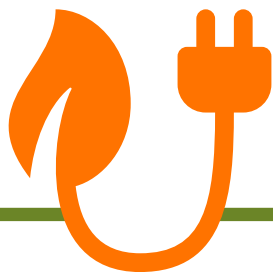
FOUNDED  
**1950**



HEADQUARTERS  
**MILAN**



**~120**  
EMPLOYEES  
(MILAN FACTORY)



#### INDUSTRY

Power Converters for Electrolysis and  
Green Hydrogen Production



#### KEY PRODUCTS

Mid-to-high Power Converters (1-40MW Range)  
for Green Hydrogen Projects



#### VISION

To become a leading provider of power conversion solutions for the global energy transition, with a focus on green hydrogen production.



### The Green Hydrogen Focus

Recognizing the immense potential of green hydrogen, FRIEM made a calculated move to concentrate its efforts on this burgeoning market. The decision was fueled by the company's existing expertise in power converters for electrolysis, which is a crucial process in hydrogen production from renewable energy sources.

"Green hydrogen is produced by electrolysis, and FRIEM has been doing power converters for electrolysis since the 1950s," explains Lorenzo Carnelli. "So, from a technology and product point of view, we were already there."

To solidify its position in the green hydrogen market, FRIEM invested in strategic acquisitions of several startups in the battery energy storage and power-to-gas sectors. These targeted moves allowed the company to expand its technological capabilities and position itself as a key player in the energy transition.

### Embarking on a Lean Transformation

As FRIEM prepared to scale up its operations to meet the growing demand for green hydrogen solutions, the company recognized the need for a comprehensive transformation. This realization led them to Staufen Italia.

"The trigger was exactly driven by this new strategic decision," says Carnelli. "We saw this great opportunity, but on the other side, we knew that we had to be ready prepared to be part of this business."

Staufen Italia analysis provided valuable insights, identifying areas for improvement and proposing a step-by-step approach tailored to FRIEM's specific needs. The lean project touched upon five critical areas: order fulfillment, production, material management, procurement and technical department.

"The initial assessment allowed us to identify the key areas where FRIEM could optimize their operations to prepare for scaling up their business," explains Staufen Italia CEO, Giancarlo Oriani. "By systematically implementing lean practices across production, procurement, project management and other critical functions, we



**“By systematically implementing lean practices across production, procurement, project management and other critical functions, we could establish clear objectives and measure tangible progress.”**

**GIANCARLO ORIANI** CEO, STAUFEN.ITALIA

could establish clear objectives and measure tangible progress. FRIEM's openness to change allowed us to instill a continuous improvement mindset throughout the organization.”

### Measurable Results and Cultural Shift

One of the most significant achievements of the lean project was the establishment of Key Performance Indicators (KPIs) across various functions. By measuring and sharing these metrics, FRIEM could tangibly track its progress and identify areas for further optimization.

The results: FRIEM's revenues grew in percentage more than the costs, while on-time delivery improved by a remarkable 30 %. Moreover, the company experienced a positive shift in mindset

among its employees, fostering a culture of continuous improvement.

“The main target is to go and really work on the people to let them understand that change and improvements are not only possible, but necessary for the company to behave in a good way,” Carnelli emphasizes.

Alongside the operational improvements, FRIEM also experienced growth in its workforce, hiring approximately 20 % more employees over the past three years. This strategic expansion of human resources was essential to support the company's ambitious growth plans while maintaining a focus on integrating and developing its talents.

### The Journey Continues

While the lean project has already yielded substantial benefits, FRIEM recognizes that the journey towards operational excellence is ongoing. The company is now focusing on modularization, a strategic approach to product design that will facilitate scalability and sustainable growth.

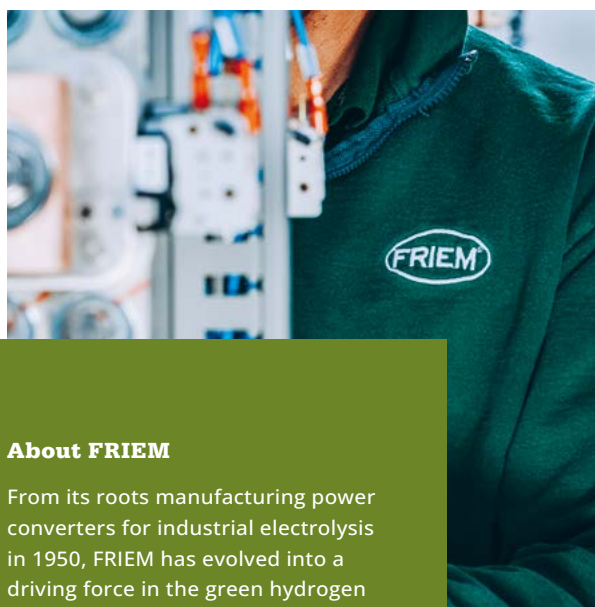
“Modularization is a way in which we design the product and the systems in a different way, but this will have a huge impact on all the activities inside the company,” explains Carnelli.

This focus on modularization is a critical step in FRIEM's preparation for scaling up its operations in the next one to two years. By streamlining the design and production processes, the company aims to efficiently meet the anticipated surge in demand for its green hydrogen solutions.

### Looking Ahead: Powering the Energy Transition

As FRIEM continues its lean transformation, the company remains steadfast in its commitment and is actively strengthening its presence and market development in strategic regions. One example is North America, where it established a subsidiary in 2019. In 2022 it acquired the US company DynAmp, a leader in DC current measurement systems. This strategic move not only expands FRIEM's geographical reach, but also enhances its technological capabilities to better serve the growing demand for electrolysis solutions.

FRIEM has not only optimized its operations, but also cultivated a mindset of operational excellence – a mindset that will undoubtedly boost the company towards its ambitious goals in the next years. ■



### About FRIEM

From its roots manufacturing power converters for industrial electrolysis in 1950, FRIEM has evolved into a driving force in the green hydrogen sector. With over 70 years of experience and a recent strategic shift, the company is leveraging its core competencies to deliver cutting-edge power conversion technology that enables large-scale green hydrogen projects worldwide. FRIEM's commitment to operational excellence through lean principles allows it to meet the growing demands of the energy transition reliably and sustainably.



### About Kiekert

Kiekert AG is the world market leader for automotive locking systems and a traditional company with a 167-year history. The company supplies over a hundred automotive brands with intelligent security locking systems and drives.



# "Even in Germany, it is possible to work profitably."

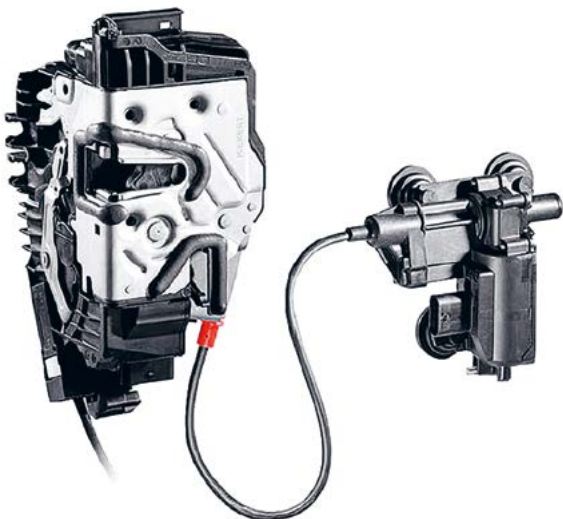
Just a few years ago, the automotive supplier Kiekert – a technology leader for locking and drive systems – was on the verge of collapse. In an interview, Chairman & CEO Jérôme Debreu explains why he chose to make a turnaround in high-wage Germany rather than relocating production abroad.

Kiekert AG has achieved an impressive turnaround under its new management. Is this boost in performance also due to the fact that Kiekert is being run like a family business?

Exactly, I am very family-oriented, loyal and stable, and I run Kiekert like a family business owner. This means that we think and plan in decades rather than in quarters. I have a permanent contract and enjoy complete entrepreneurial freedom. The company was previously ruined by American private equity firms.

You relocated parts of the production back to the main plant in Germany. How can traditional industrial companies remain internationally competitive in a high-wage country like Germany?

It's true, people think I'm crazy. But costs aren't the only deciding factor. We can't be the global market leader from Germany and close our own headquarters just to make more profit. Our developers can only be innovative if they see their ideas implemented locally. Benchmark engineers need a benchmark factory and vice versa. What's more, it's possible to work profitably also in Germany. Just a few years ago, the workforce at our headquarters in Heiligenhaus (northwest in Germany) was not working at full capacity. We therefore invested in new, more efficient production technology. We are now planning to move two more production lines from abroad back to Germany. Instead of cutting jobs, we want to create 250 new jobs by 2030. We want to build a new headquarter from 2028. Our soul is back!



**"We have therefore invested in new, more efficient production technology. We are now planning to relocate two more production lines from abroad back to Germany."**



"EVEN IN GERMANY, IT IS POSSIBLE TO WORK PROFITABLY."

How will Kiekert's production be distributed across its locations in the coming years? What are the company's long-term growth plans?

In order to make Kiekert future-proof, we have to develop people and products where our customers are. We call this "localization" or, better, "re-localization". In this way, we are building up the ability within the company to anticipate, i.e. to predict trends and market developments internationally and to react to them at an early stage. You don't learn that by only talking to people online. You have to be on site. Accordingly, we are currently investing in our international presence. We have opened a sales office in France, are founding a subsidiary in India and will open a factory in Spain. More locations will follow.

What positive experiences did Kiekert have with the recent changes at the Czech plant? Is this a pioneering example for other plants in the company?

With the new concept for Shop Floor Management, we have gained transparency in the production processes, broken down silos, improved our processes and now work together much more efficiently (see page 59). Overall Equipment Effectiveness (OEE), i.e. the effectiveness of the entire plant, has shown noticeable improvement and will continue to increase; this is a great success. Since our plants are not completely comparable internationally, we cannot transfer the concept 1:1 to the Czech Republic, but we will certainly use parts of it elsewhere. ■

OPERATIONAL EXCELLENCE



"To future-proof Kiekert, we need to develop people and products where our customers are. **We call this "localization" or rather "relocalization".**

JÉRÔME DEBREU  
Chairman & CEO, KIEKERT AG



FOUNDATION  
**1857**



**11**  
SITES



**5,000**  
EMPLOYEES



## KIEKERT IN THE CZECH REPUBLIC

# A HIGHLY EFFICIENT AND LEAN FACTORY ACCORDING TO LEAN STANDARDS AS THE GOAL



**KARL LAMBERTZ**

Vice President Europe & Managing Director KCS  
Kiekert CS s.r.o.

In order to get the Kiekert plant in Přelouč, Czech Republic, back on track, old patterns of thinking and existing silos had to be broken down. Concepts for stabilization and increasing efficiency in the areas of production, logistics and quality led to a significant increase in operational KPIs and an improvement in the financial situation.

Focusing on core topics and working in cross-functional teams also improved transparency and processes. In addition, communication and collaboration were optimized by setting up a cascading Shop Floor Management system. Karl Lambertz, plant manager in the Czech Republic, is convinced of the cooperation with Staufen: "There wasn't just one problem, but we had many small and sometimes larger problems. We were able to solve this with a comprehensive, holistic approach."

The PMO and the associated weekly project reviews and monthly steering cycles help to evaluate the changes made and measure their success. The changes are also visible in the project KPIs and in Shop Floor Management. "Staufen provided hands-on support from day one. The consultants quickly built trust at all levels of the company – from the shop floor

to top management – and made an important contribution through their structured approach. Staufen created a positive atmosphere and also empowered the employees on the path to transformation," praises Karl Lambertz.

The path has paid off. The most important levers for improving results have already taken effect. Prioritizing the topics according to their potential contribution has also proven successful to use forces and resources in the best possible and targeted way. According to plant manager Lambertz, this will continue: "In the long term, we are aiming for a highly efficient and lean factory based on lean standards. This requires a completely new value stream concept with a new line design. This will require further changes. Concept ideas for a possible target image have already been discussed with Staufen." ■

OPERATIONAL EXCELLENCE

1857

1957

2024

**Kiekert is a company with a long tradition and a 167-year history**



Arnold Kiekert, Founder





THE PEOPLE OF POWER



# The People of Power

OPERATIONAL EXCELLENCE



FOUNDED

**1929**



HEADQUARTERS

**CANONSBURG, PA, USA**



INDUSTRY

Power Transformer Manufacturing



KEY PRODUCTS

Transformers rated from 5MVA to 750MVA and up to 500kV



VISION

To lead in providing critical power infrastructure for North America's evolving energy landscape



### **In a nutshell**

The US power grid is being revitalized to enable clean energy solutions, igniting a sense of pride across the industry. Pennsylvania Transformer Technology (PTT), an industry leading manufacturer of a wide range of power transformers, is investing in its people, products, and facilities to better serve its customers growing needs.

PTT, a cornerstone of American manufacturing since 1929, is undergoing a transformative journey. With its acquisition by Quanta Services and partnership with Staufen, PTT is expanding its operations and investing in its workforce to increase capacity and rekindle the human spirit that has long been its backbone.

PTT is ready to power America's energy transition.

**In the rolling hills of Canonsburg, Pennsylvania, a century-old legacy being transformed for the future. Pennsylvania Transformer Technology (PTT), a titan of American manufacturing, is undergoing a renaissance that promises to reshape the landscape of power delivery in North America. This revival, catalyzed by Quanta Services and guided by Staufen, isn't just about modernizing equipment – it's about energizing the people that have always been PTT's greatest asset.**



**“We’re not just optimizing our current operations. We’re preparing for a future where PTT plays a pivotal role in America’s energy independence and sustainability goals.”**

**SANDEEP CHAKRAVARTY**, President, Pennsylvania Transformer Technology

### A Legacy of Energy

PTT’s story is woven into the fabric of American industrial history. Founded in 1929 as Pennsylvania Transformer, the company has evolved through various incarnations, always at the forefront of power transformer technology. “Our roots run deep,” says Sandeep Chakravarty, President of PTT. “For over 95 years, we’ve been powering America’s growth, from the age of electrification to today’s renewable revolution.”

The company’s Canonsburg facility, a sprawling 90-acre complex with 18 buildings totaling one million square feet, stands as a testament to this enduring legacy. This facility, and its skilled craftsmen and craftswomen, have been producing transformers since the 1940s, adapting to the nation’s changing energy needs for almost 85 years.

### Quanta’s Quantum Leap

In 2023, PTT found an incredible partner for growth with Quanta Services, a leader in infrastructure solutions. This move was more than a mere business transaction; it was a strategic alliance aimed at addressing the critical challenges facing America’s power grid. “Quanta recognized in PTT not just a manufacturer, but a key player in North America’s energy transition,” Chakravarty explains. “With the growing demand for grid modernization and electrification, our transformers are no longer just components – they’re the lifeline of a sustainable energy future.”

Eric Neason, Vice President at Quanta, elaborates on this vision: “The transformer market is at an inflection point. PTT’s expertise, combined with Quanta’s resources and forward-thinking approach, positions us to better serve our customers in this critical sector. Quanta has always been absolutely focused on its people and its customers, and today our customers need capacity.”

### Staufen: Catalyzing Operational Excellence

To fully harness this potential, PTT partnered with Staufen. “We knew we had a golden opportunity,” says Chakravarty, “but seizing it meant investing in our people, and our processes, allowing them to expand with the market. Staufen’s Lean Management expertise has been the key to unlocking our full potential.” The transformation touches every aspect of PTT’s operations. From implementing

Shop Floor Management systems, to optimizing the crucial winding process, Staufen’s consultants work hand-in-hand with PTT’s workforce. The results are swift and significant: productivity in critical areas like winding increased by 25 – 30 % in just five months. Most importantly, the skilled craftspeople of PTT have been deeply involved in making this happen, improving working culture, enabling sustainable capacity increases.

### People Power: The Human Element of Transformation

At the heart of this transformation lies a philosophy that sets PTT and Quanta apart: an unwavering belief in the power of people. “If we give our people everything they need to succeed, the results will follow naturally,” Chakravarty emphasizes.

This philosophy manifests in tangible initiatives. A state-of-the-art welding school was established, daily stand-up meetings were implemented to give voice to every team member, and a culture of continuous improvement was fostered. “We’re not just training welders,” Chakravarty beams. “We’re cultivating the next generation of American craftsmen and craftswomen.”

The impact is evident. To address the challenges of a changing industry, PTT is investing in its people, establishing a loyal workforce. Some employees are commuting long hours each day, drawn by the promise of being part of something greater than themselves.

### Investing in the Future

As PTT charges forward, it’s backing its ambitions with substantial investments. An additional Core Line, and state of the art Isostatic Press, and Autoclave are being installed amongst others, aimed at increasing capacity while further improving quality and reducing the company’s carbon footprint. “We’re not just optimizing our current operations,” Chakravarty explains. “We’re preparing for a future where PTT plays a pivotal role in America’s energy independence and sustainability goals.”

This forward-thinking approach extends to PTT’s product range. The company now offers transformers rated from 5MVA to 750MVA and up to 500kV, including substation units, generator step-up units, and mobile transformers. With facilities in Canonsburg, PA and Raeford, NC, PTT is strategically positioned to serve the entire North American market.



“The transformer market is at an inflection point. PTT’s expertise, combined with Quanta’s resources and forward-thinking approach, **positions us to lead in this critical sector.**”

**ERIC NEASON**, Vice President, Quanta Service

### A Beacon of American Manufacturing

PTT’s rich history stands as a shining example of American manufacturing’s resilience and adaptability. “What’s happening here at PTT is a microcosm of the broader energy transition,” Chakravarty concludes. “We’re not just building transformers; we’re shaping the power landscape of tomorrow. And we’re doing it with the same grit, innovation, and community spirit that has defined this company for nearly a century.”

In the grand tapestry of America’s industrial history, PTT’s story is a vibrant thread – one that, with the help of Quanta and Staufen USA, is now weaving the fabric of a sustainable future. With its workforce energized, processes streamlined, and vision clear, the company is poised to meet the challenges of the evolving energy sector head-on.

The message emanating from the halls of this revitalized factory is unequivocal: American manufacturing isn’t just alive; it’s charging forward, powering the nation’s dreams, one transformer at a time. ■

### About Pennsylvania Transformer Technology (PTT)

From its roots in the 1920s to its current status as a leading power transformer producer, PTT embodies the evolution of American industry. With almost a century of cumulative expertise, the company is leveraging its rich heritage to power the future of energy distribution. PTT’s commitment to operational excellence, fostered through its partnership with Staufen, positions it to meet the growing demands of grid modernization and the clean energy transition.





# A Logistics Revolution Transforming Operational Efficiency



### In a nutshell

Saint-Gobain, a historic multinational known for high-quality products since the 17th century, faced logistical challenges in Brazil's construction sector post-Covid-19. Partnering with Staufen Brazil, they optimized operations for efficiency, handling a larger product range with increased agility. Results included streamlined logistics, faster order fulfillment, and plans for expanding their successful model to other sectors.



**LUIZ MANSSUR**

Executive Director of Supply Chain  
Saint-Gobain, Brazil

**Saint-Gobain, a multinational giant with origins dating back to 17th-century in France, has long been synonymous with high-quality products.**

As the market evolved, particularly in response to changing consumption patterns in the construction sector post-Covid-19 pandemic, Saint-Gobain's construction products division in Brazil – comprising brands such as Quartzolit, Brasilit, Placo, Isover, and Ecophon, collectively known as PPC (Construction Products) within Saint-Gobain – faced the challenge of adapting its complex supply chain to meet the new demands of a diversified portfolio and a dynamically evolving Brazilian market.

To address this challenge head-on, Saint-Gobain trusted on Staufen's expertise, leading to a logistics transformation that is reshaping the operational excellence of its Brazilian subsidiary.



**76**  
COUNTRIES



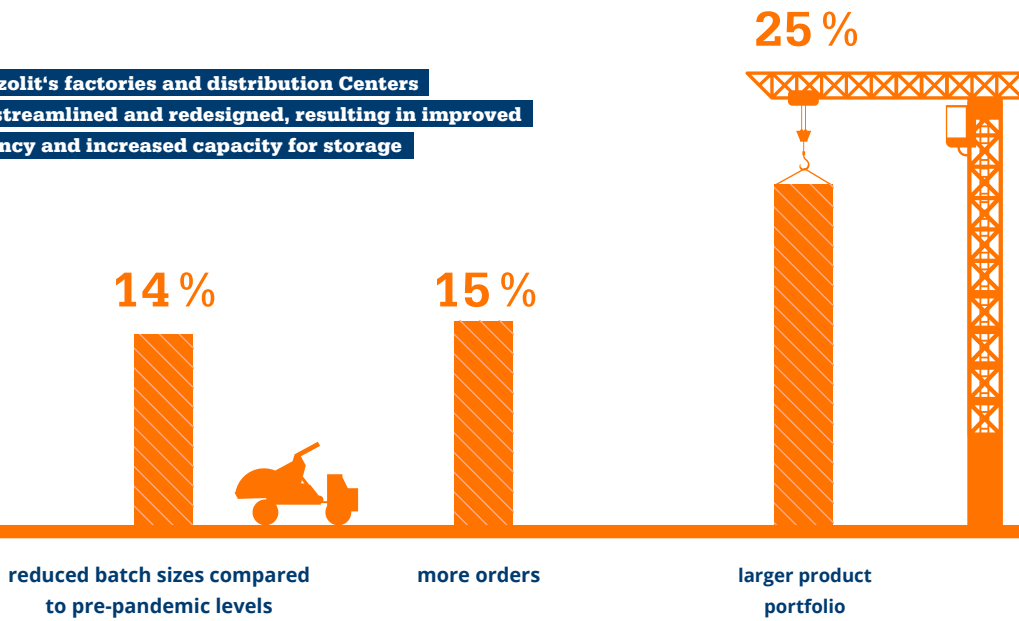
**170,000 +**  
EMPLOYEES WORLDWIDE



**47,900**  
MM EUR IN SALES WORLDWIDE



**Quartzolit's factories and distribution Centers were streamlined and redesigned, resulting in improved efficiency and increased capacity for storage**



### Navigating a new era of logistics complexity

With a strong global presence, Saint-Gobain provides solutions across diverse markets including industry, construction, and mobility. However, the shift towards a more dynamic and demanding market environment has necessitated significant adjustments, particularly for Quartzolit, where small and medium-sized retailers now constitute the majority of customers. Combined with a substantial expansion in product offerings, prompted a comprehensive review of the company's logistics operations.

Luiz Manssur, Executive Director of Supply Chain at Saint-Gobain Brazil, emphasizes, "Today, Quartzolit not only maintains its commitment to quality, but also manages a significantly expanded portfolio to meet the demands of customers requiring greater agility and flexibility." He adds, "This evolution required our logistics operations to adapt to handling more frequent and smaller batch orders, a departure from our previous practices. Managing inventory has become more intricate, demanding enhanced efficiency to mitigate impacts on costs and service quality."

### The solution: a collaborative project with Staufen

To meet these challenges, the journey began with a pilot project focused on optimizing logistics. This initiative included a thorough evaluation of existing processes, encompassing layout revisions, structural adjustments, and detailed analysis of specific needs such as movement flow and inventory scaling. Improvements were implemented not only in factory warehouses, but also across distribution centers. Manssur highlights, "Reevaluating all processes and selecting the optimal technology for this new management approach was essential. Choosing the most suitable Warehouse Management System (WMS) for Saint-Gobain's requirements was fundamental to this transformation, enabling more efficient and integrated management."

### Achieving measurable results: efficiency and expansion

The outcomes have been impressive. Following Staufen's optimization efforts, logistics operations at Quartzolit's factories and distribution centers were streamlined and redesigned, resulting in enhanced efficiency and increased capacity for storage and dispatch, all without heightening operational costs. Luiz Manssur reports, "Currently, we distribute a 25 % larger product portfolio efficiently and punctually, process 15 % more orders, and have reduced batch sizes by 14 % compared to pre-pandemic levels."

The São Paulo distribution center now fulfills orders within one day, a notable improvement from the industry's previous standard of three days.

### Scaling the transformation

Saint-Gobain Brazil plans to extend this optimized model to other group entities. A dedicated logistics engineering office has been established, comprising specialists responsible for designing and executing the project in less complex operations, laying the groundwork for future expansions. Manssur concludes, "Through a meticulously structured project focused on outcomes, we not only meet the evolving market demands but also position ourselves for sustained growth, setting a benchmark for our other units." ■



### About Saint-Gobain

Saint-Gobain designs, manufactures, and distributes innovative materials and solutions, catering to sectors ranging from construction to high-tech industries. In Brazil, where it has been operating for over 80 years, the company manages a diverse portfolio of brands including Quartzolit, Brasilit, Placo, Isover, Ecophon, Norton, PAM, Sekurit, and Telhanorte. With a workforce exceeding 20,000 employees, Saint-Gobain Brazil currently oversees 58 factories, 42 distribution centers, 10 mines, 74 stores, 9 commercial offices, and a dedicated research and development center.



ams OSRAM

# Spotlight on!

DIGITAL



## In a nutshell

As part of the Best Practice Day 2024 in Germany, ams OSRAM showed at the Herbrechtingen site how consistently the lighting and sensor specialist is relying on digitalization and automation to expand its market position. The company uses artificial intelligence and business intelligence solutions to improve quality and efficiency. In addition, ams OSRAM is opening up new business areas through external engineering services and its own test laboratory.

# IN ORDER TO EXPAND ITS MARKET POSITION, THE LIGHTING AND SENSOR SPECIALIST AMS OSRAM IS CONSISTENTLY FOCUSING ON DIGITALIZATION

All over the world, ams OSRAM lamps ensure that drivers always have a perfectly illuminated road ahead of them, even in the dark and in bad weather. In order to cope with technological change and optimize manufacturing costs, the company is consistently focusing on digitalization.

When Harald Mannbeiss welcomes his department heads to Shop Floor Management this Wednesday, at first glance everything is going as usual. One by one, his colleagues use an SQCDP board (Safety, Quality, Cost, Delivery, People) to report what is going well at the Herbrechtingen plant of the lighting and sensor specialist ams OSRAM, and where there may be a need for action. But today is by no means the same as usual. Because site manager Mannbeiss is not sitting alone in front of the screen in the plant's large meeting room, but together with numerous guests from other industrial companies. As part of Staufen's Best Practice Day 2024, guests are invited to take a look behind the scenes at ams OSRAM after the congress the day before.



**HARALD MANNBEISS**

Plant Manager ams OSRAM Group  
OSRAM GmbH  
Herbrechtingen plant

DIGITAL

Below: Benchmark Live visit at ams OSRAM plant Herbrechtingen, Germany





## Well over 100 million “light points” leave the factory every year

“It is precisely this transparency and openness that makes the visits to the best practice companies so important,” says Michael Hahn, partner at Staufen. Together with the other participants, Hahn had previously been guided through the production facility by the two value stream managers Andreas Ponnier and Thomas Biber. Two value streams? This is exactly what makes it clear what task ams OSRAM is currently facing. While halogen lamps for car headlights, fog lamps and indicators are still being produced on one side of the plant, modern LED variants are being produced on the other side. In total, around 600 employees ensure that well over 100 million “points of light” make their way from East Württemberg, in Germany into the wide world.



DIGITAL

Even though technological change divides the plant into “old” and “new” production, the same goals apply to both business areas: to gain market share and to be an absolutely reliable partner for customers. To achieve this, ams OSRAM is consistently focusing on digitalization and automation. On this day, visitors are particularly fascinated by how big data and Industry 4.0 are also being used in the traditional area - with machines that are sometimes older than they are themselves. For example, artificial intelligence helps to control the quality of weld seams. A business intelligence solution visualizes potential for improvement directly on site and enables long-term analyses to further minimize scrap. In addition, each individual lamp is given an ID and its relevant data is stored in a database and can be accessed at any time.

In the long term, however, the future belongs to LED technology manufactured in clean rooms. What once started as a project business with flexible individual machines has now become a fully automated mass production facility, which is also represented as a digital twin. Thanks to the modular concept, ams OSRAM was able to increase the utilization rate of the machines used there by 25 percent. However, the star on the LED shop floor is “Idefix”. The Autonomous Mobile Robot (AMR) is responsible for the transport of materials, i.e. activities that neither add value nor are ergonomically sensible for the employees.

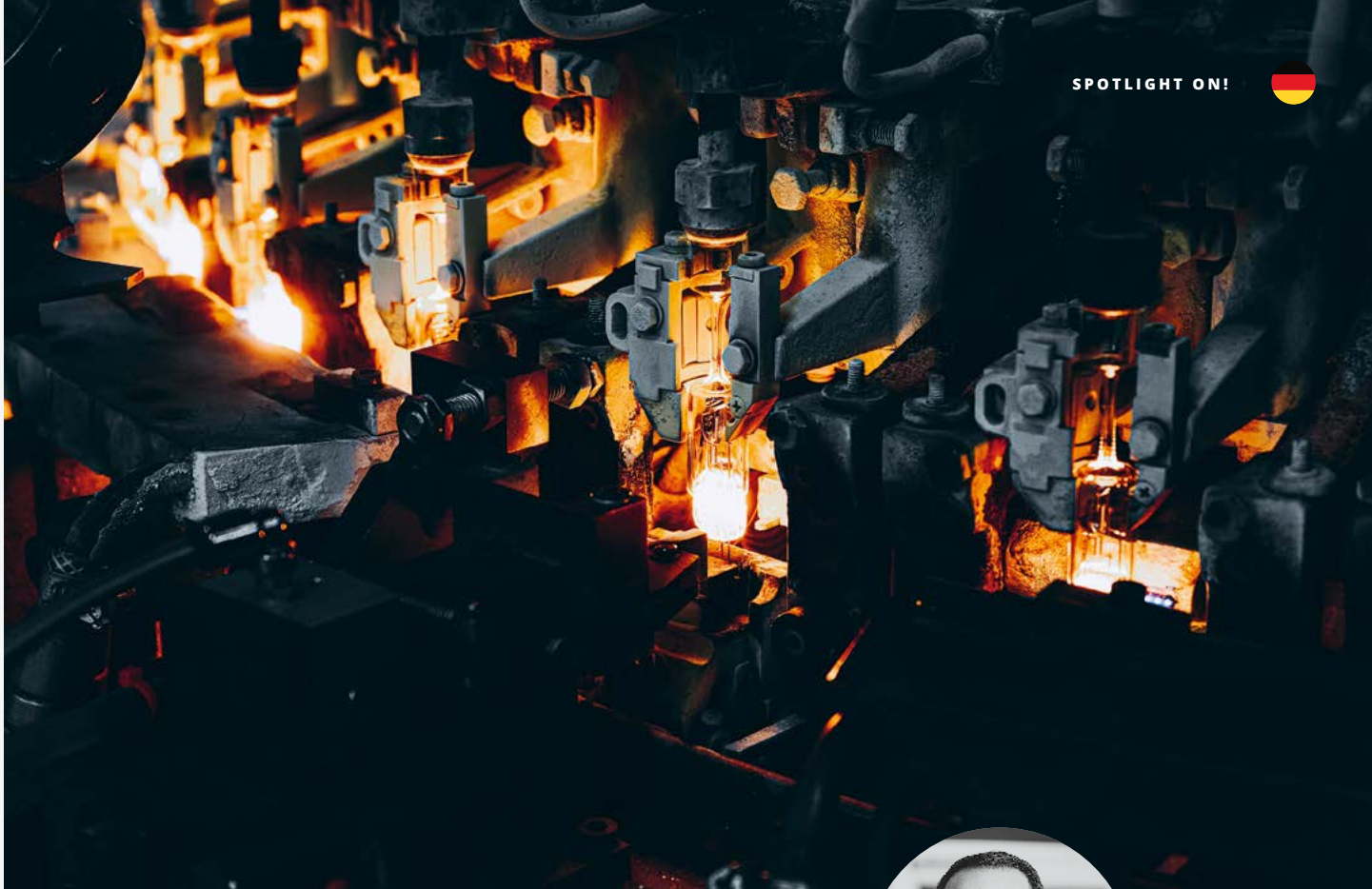


### About ams OSRAM

ams OSRAM can look back on more than 110 years of company history; today the company is a leading global provider of innovative lighting and sensor solutions in the automotive, industrial, medical, and consumer electronics markets. With around 20,000 employees worldwide, the German-Austrian company recently generated sales of 3.6 billion euros.



**MICHAEL HAHN**  
Partner  
STAUFEN.AG

**MICHA GRÜNINGER**

Head of Mechanical Engineering /  
Engineering Supervisor  
OSRAM GmbH  
Herbrechtingen plant

DIGITAL

### The self-programmed heart of Herbrechtingen

While ams OSRAM relied on the expertise of the Nuremberg specialist Evocortex for AMR, the Manufacturing Execution System “myQi” is a genuine in-house development that also functions as an interface to the ERP system. From Shop Floor Management to production planning to test equipment monitoring and shift and vacation planning, myQi is something like the heart of Herbrechtingen – tailor-made and with no license costs. The so-called ticket manager, which enables complete shipment tracking in intralogistics, is also largely based on the self-programmed software.

Driving things forward independently and pragmatically is clearly in the blood of the team around plant manager Harald Mannbeiss. In order to always be efficient and focused, ams OSRAM relies on the lean method Hoshin Kanri. This means that a vision is always translated into concrete breakthrough goals, and all measures must then consistently contribute to achieving them.

### External engineering and prototyping services as a new business area

This entrepreneurial thinking has led to ams OSRAM now opening up additional business areas in addition to the production of halogen and LED lamps. “Numerous other companies, including those outside the automotive industry, are already benefiting from our engineering know-how,” says Micha Grüninger, Head of Mechanical

Engineering and Engineering Supervisor at plant Herbrechtingen, Germany. Such external projects include, for example, the construction of prototypes or support with the topic of glass-metal bonding, a core competence of ams OSRAM. In addition, the plant in Herbrechtingen, Germany has its own large laboratory in which, for example, temperature, water resistance and stress tests are carried out on countless test benches – even for external customers.

On this day, site manager Harald Mannbeiss also showed his visitors this area, which the visitors did not expect: “Such a Best Practice Visit is a real win-win situation, because we were able to take away a lot from the numerous questions and suggestions in order to become even better in terms of operational excellence.” ■



"A PRAGMATIC APPROACH IS CRUCIAL FOR SUCCESS"



# "A pragmatic approach is crucial for success"

**LEAN MANAGEMENT IS  
THE BASE FOR SUCCESSFUL  
DIGITALIZATION**





**SIMON CHARRIER**  
Director Global Industrial  
Engineering  
KSB SE & Co. KGaA

**How do Lean Management and digitalization work together? Simon Charrier wears both hats at the pump manufacturer KSB. In an interview, he explains why lean processes are the indispensable foundation for digital transformation.**

For Simon Charrier, Director of Global Industrial Engineering at KSB, lean processes without waste are essential. Staufen has been accompanying KSB on its lean journey at many European and international locations for years. In our interview, Simon Charrier explains the importance of a digital roadmap and how companies should approach change.

How do Lean Management and digitalization work together? How does one determine or promote the other?

Basically, everything is based on Lean Management. The goal of the digital factory is to create lean processes and eliminate waste – ideally before digitalization. Lean Management is therefore the foundation. All members of our team who deal with digitalization have undergone training in Lean Management. It makes sense to combine both, especially for the sustainable digitalization of production.

What concrete steps are necessary to review processes before digitalization?

We usually carry out a so-called plant assessment, which includes both lean and digitalization. It is important for every company to check if the know-how is available. If not, external support should be involved.

Then you select an area with all the pain points that stand out in the plant assessment. The first steps are a process mapping (usually using a swim lane diagram) or a value stream design of the production processes. Both identify inefficiencies, redundancies, or gaps in the process flow. Measures are then derived from this, and a lean and digitalization roadmap is defined.





"A PRAGMATIC APPROACH IS CRUCIAL FOR SUCCESS"

"Digitalization must not be a show event just to make your own company appear more progressive, but must follow a clear strategy. **The basis for successful digitalization are stable and lean processes. They ensure that instead of digital waste, real added value is generated.**"



**HELENA REICHMANN**  
Partner, STAUFEN.AG



DIGITAL

FOUNDATION  
**1871**



**16,000+**  
EMPLOYEES



**2.8**  
BIL. EUR IN SALES



#### About KSB

The company is one of the leading suppliers of pumps and valves as well as a provider of related services. The name KSB is made up of the surnames of the founders: Johannes Klein, Friedrich Schanzlin, and Jakob August Becker. The listed manufacturer is present worldwide and employs more than 16,000 people.





#### What does such a lean & digitalization roadmap look like?

The roadmap must be adapted individually and designed to be flexible. The difference between pure lean and digitalization measures must be taken into account: While pure lean measures can often be implemented decentrally and independently on site, while digitalization projects generally require larger central budgets and the involvement of central departments such as IT or us at Global Operations, as changes in the tools / use cases often have or can have an impact on all users worldwide.

We have planned individual roadmaps worldwide with over 80 roll-outs for the next few years. A pragmatic approach to digitalization in production with lean measures as a basis is crucial to success. A current example is the investment in a new plant that is to serve as a model for matrix production. Lean plays a key role here. It eliminates waste and media disruption, supplemented by automated transport systems as part of Industry 4.0.

#### How do you ensure that employees implement the roadmap and bring it to life?

Employees must be involved in projects at an early stage so that they can help define the processes and thus live them. They must be supported and prevented from falling back into old behavior patterns. This sometimes requires additional training.

A stabilization phase is also important. We have many plants with very different levels of maturity. In some cases, it almost runs automatically because they are used to change. An already established lean philosophy and mentality is helpful, which offers a resilient structure through Shop Floor Management.

#### You already have a high maturity level when it comes to digitalization. What recommendations do you have for companies that are still at the beginning of their journey?

**1. Building competence:** If there is no internal know-how, external support is a good idea at the beginning. This enables rapid progress. However, it is important to build up know-how internally as well.

**2. Avoid isolated solutions:** Another point is the international nature of the company. At the beginning, we were focused on Germany. Although KSB has many large plants in Germany, we should have involved our international colleagues earlier. Costs play a major role in digitalization and software implementation. It therefore makes sense to get the international locations on board early on and to decide on licenses together in order to reduce costs.

**3. Set up a good change management:** Another key to success is to bring all motivated employees together into a team to achieve initial success quickly. This applies in particular to change management. Digitalization can trigger fears, especially when it comes to issues such as transparency. Employees may be afraid of being controlled. It is important to reduce these fears. ■



WITH 800 VOLTS INTO E-MOBILITY



# With 800 volts into e-mobility

DIGITAL

## In a nutshell

The automotive supplier DRÄXLMAIER has established a production line for 800 volt batteries that power the Porsche Taycan electric sports car. A key factor in the successful implementation of the production targets was data management.



**GUNTHER WÖSSNER**  
Head of Plant Sachsenheim  
DRÄXLMAIER Group



**CHRISTOPH ZEIHSEL**  
Head of Operational Excellence  
AppliediT S.L.



**DR. MICHAEL FELDMETH**  
Principal  
STAUFEN.AG

**The automotive supplier DRÄXLMAIER is an experienced specialist in electrics and electronics, on-board power systems, and interiors – and in high-voltage systems for electric cars. When starting assembly of the battery system for the Porsche Taycan, DRÄXLMAIER relied on the data expertise of the Staufen partner AppliediT.**

“For us, the battery system for the Porsche Taycan was the first major foray into e-mobility,” says Gunther Wössner, head of DRÄXLMAIER’s battery plant in Sachsenheim near Stuttgart, Germany. “We had to overcome all the typical challenges of starting series production of a completely new product.”

The Porsche Taycan uses a high-voltage network with 800 volts instead of the 400 volts that are common in other models. It offers a high continuous output and reduces the charging time. In addition to the high-voltage battery, DRÄXLMAIER produces various assembly parts and the control unit for battery management in other production facilities. The task for the start of manufacturing: to achieve a shift output of at least 90 units within a short period of time.

### Digital production based on data

The collection and evaluation of process data is an important prerequisite for rapid and successful manufacturing. “The main challenge was to be able to read and prepare data structures,” explains Christoph Zeihsel, Head of Operational Excellence at AppliediT.

With the help of data analyses, quality deviations can be easily localized and the overall equipment effectiveness (OEE) Equipment Effectiveness (OEE) can be improved. The data can be used, for example, to track when a component leaves one station and moves on to the next. This allows the causes of errors to be found more quickly.

The potential of this approach is evident in a typical detail in manufacturing: the screw connection of the individual components did not work as DRÄXLMAIER had expected. However, it was initially unclear what the cause of the difficulties was. The solution: two manufacturers had different quality levels when cutting threads. This led to challenges in assembly. Using data analysis from AppliediT, DRÄXLMAIER was able to quickly identify the manufacturer in question.

### Many linked processes with accident risk

Battery production includes four stations, 85 robots, and 75 driverless transport systems. The production process begins with the positioning of the battery frame. The individual battery modules are placed there and screwed together. The next station places busbars between the modules.

The battery box is then glued to protect it against environmental influences. After placing the second battery level and the control unit, which were manufactured in parallel, the entire drive battery is assembled and glued again. This is followed by quality assurance with leak and function testing. “Around 80 percent of these processes are linked together, so DRÄXLMAIER faced additional challenges in terms of organization and coordination,” says Operational Excellence expert Zeihsel.



**+60**  
LOCATIONS IN OVER  
20 COUNTRIES



FOUNDED IN  
**1958**



**70,000+**  
EMPLOYEES  
WORLDWIDE



**5.6**  
BIL. EUR TURNOVER



Here, AppliediT was supported by Staufen. Together with DRÄXLMAIER, they worked out how to optimally adjust the team to the new line capacity and establish a perfect shift and transfer on site. "The DRÄXLMAIER example shows very well how strongly the Staufen/AppliediT combination supports the customer in digitalization," says Dr. Michael Feldmeth, manager of the Practice Unit Digital & Industry 4.0.

#### Recognizing the benefits of data

In order to avoid bottlenecks, DRÄXLMAIER has unbundled all processes and automated them where it makes sense. For example: 800 volt batteries pose a high risk of serious accidents if handled improperly. That's why a lot of work on the high-voltage systems is carried out by robots. This means that employees do not have to wear uncomfortable protective equipment.





### About DRÄXLMAIER

The DRÄXLMAIER Group is a German automotive supplier with headquarters in Germany. Founded in 1958, the family-owned company supplies premium vehicle manufacturers worldwide with complex on-board power systems, central electrical and electronic components, exclusive interiors, and storage systems for electromobility. In 2023, DRÄXLMAIER generated sales of 5.6 billion euros.

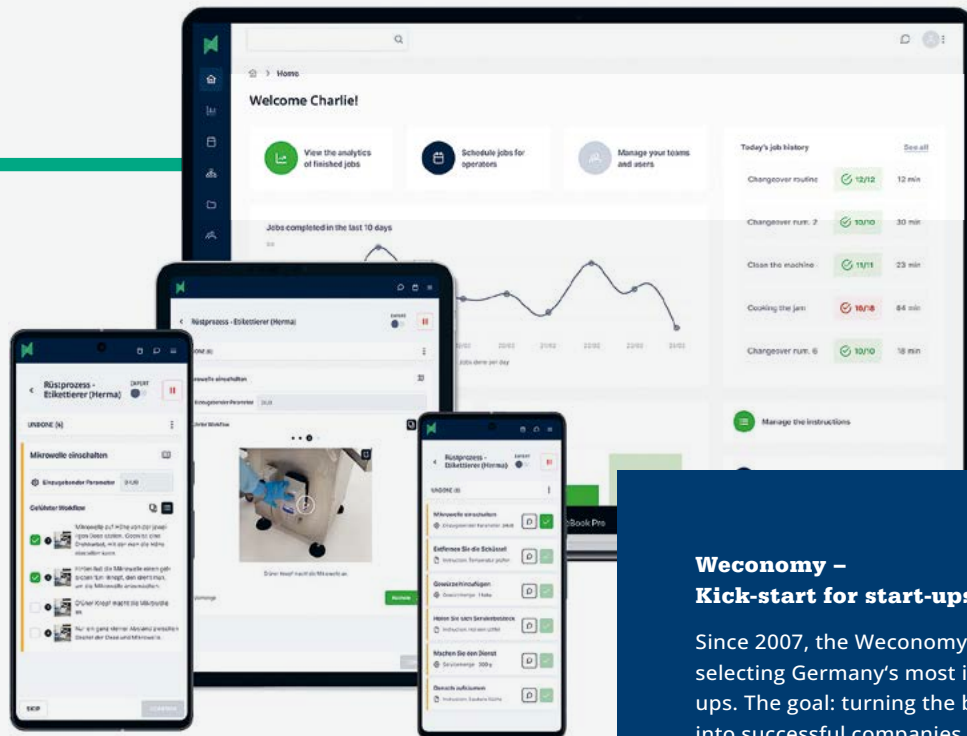
For DRÄXLMAIER, the entry into battery production was a success. "We have recognized the importance and benefits of data," says Gunther Wössner. "In the factory, we now have effective methods for dealing with large amounts of data and evaluating them intelligently. This has proven to be extremely valuable." ■



# Three in one strike

## HOW TO LINK PRODUCTION PROCESSES WITH THE KNOWLEDGE AND SKILLS OF EMPLOYEES.

DIGITAL



### Weconomy – Kick-start for start-ups

Since 2007, the Weconomy jury has been selecting Germany's most innovative start-ups. The goal: turning the best start-ups into successful companies. At Weconomy, founders win what money can't buy: the competition brings them together with specialists and managers, right up to the boardrooms of German business.

[www.weconomy.de](http://www.weconomy.de)



**The cloud solution from the start-up Stryza makes production processes more efficient and thus combats the shortage of skilled workers.**

"Digitally optimized processes are the best way to combat the shortage of skilled workers in industrial manufacturing," says Max Steinhoff, co-founder and CEO of the software provider Stryza. The company from the company builder Wattx (Viessmann) was one of the ten winners of the 2023 start-up competition supported by Staufen Weconomy and was able to prevail against 150 applicants.

Stryza's software combines the three elements of workflow management, skills management and knowledge management. "People like to see these separately. But then, the information is missing on site," says Stryza founder Steinhoff. The cloud-based software integrates these areas by taking data from systems such as ERP or MES and digitally recording the knowledge of employees. These job descriptions are then combined with the qualification profiles of the workers. This allows the software to link the knowledge and skills of employees with the workflows. The result is an efficient and coherent workflow. Employees can learn more quickly and are more productive. Stryza supports them in simple tasks such as material preparation as well as in the maintenance of complex, fully automated industrial plants.

### **From shift planning to support on the shop floor**

Stryza is used by production managers, shift managers, and process managers. They use the software to define workflows and create process chains. Employees also use the application on smartphones or tablets as an on-site assistance system that assigns them tasks and presents instructions.

The instructions contain images, videos, texts, and audio in different languages so that all workers can understand and implement them easily. They can also document their activities and provide feedback. Foremen can also find information about the work progress in the software so that they can intervene if necessary.

Stryza also supports companies in their fight against the shortage of skilled workers. It is no longer as easy to close staffing gaps as it used to be. Instead, companies have to educate their staff and train new employees accordingly. This is where Stryza shows its strengths in skills and knowledge management.

### **Knowledge management instead of informal know-how transfer**

"Qualification is traditionally an HR issue and is often only taken into account during recruitment," says Stryza CEO Steinhoff. "But companies benefit when they systematically track and develop the qualifications of their employees." Additional knowledge management prevents crucial knowledge from being passed on only informally. Even illness or vacation time can become a problem – no one knows what's going on, and delays occur.

In addition, Stryza offers digitized workflows that are linked to the knowledge and skills databases. This makes it possible to train new workers very quickly. At any time, they can access a library of the work processes to be carried out and the corresponding knowledge.

"This is a good way for companies to deal with the shortage of skilled workers, as more and more less experienced employees are available for training," emphasizes Max Steinhoff. Stryza allows onboarding and training processes to be developed for new staff in order to relieve the burden on trainers. New employees can train themselves by completing the relevant learning units directly on the shop floor. In this way, the system can systematize knowledge transfer within companies to avoid bottlenecks and optimize work processes. ■



From the left:

**EMIN MJUMJUNOV & MAX STEINHOFF**

both co-founders and CEO Stryza GmbH



WE NEED AI TO EXPLAIN ITS ACTIONS



**FOR A DEEPER COMPREHENSION  
AND TRUST IN AI:**

We Need AI to  
Explain its Actions.

DIGITAL



STAUFEN MAGAZINE no. 7





**An interview with Dr. Vineetha Menon, Terence Reed Endowed  
Associate Professor of Computer Science and Director of the Big  
Data Analytics Lab at the University of Alabama in Huntsville**

As a leading scientist in the field of AI machine learning, how do you perceive the current challenges organizations face in adapting to the digital era and what strategies do you recommend for overcoming these challenges?

One of the challenges I perceive for a lot of companies adapting to the digital era is how to come up with the right kind of learning technologies for knowing how to utilize AI in the right context for productivity, and most importantly, how can we use AI in a more ethical, safe, reliable, and consistent manner.

Could you share some examples of successful implementations of AI principles within organizations?

A lot of businesses have leveraged AI for multi-layers hierarchies of automation, be it from ground-level manufacturing, deployment, to leadership training, product development and marketing. One strategy organizations can embrace is cultivating a continuous skill development learning environment, where employees have ample opportunities to learn, reskill, upskill, and apply their evolving skills alongside advancing technology. I think the oversight in adopting AI technology is going to be: How can we consistently evolve with technology and give employees the right kind of resources to grow with it, adjust with it, have more interactive learnings and kind of use AI as a means to bridge the gap between the newer generation of employees and the employees with decades of experience for a collaborative work environment.

As explainable AI gains traction, how do you see its role evolving in enhancing transparency and trust in AI systems, particularly in industries where decision-making processes are highly consequential?

Explainable AI serves to unmask the black box of AI technology by translating its operations into understandable terms for end users. It provides clear, actionable outcomes such as “stop” or “proceed”, making the decision-making process more comprehensible and user-friendly. That, in a way, bridges the gap between I have this technology, I know what it does, but I’m not sure if I trust it enough to utilize it. That is exactly where explainable AI will indeed be incredibly useful. For example, Tesla provides transparent insights into how the vehicle’s AI systems make decisions, to ensure that users understand and trust the technology’s actions. It would look something like this: Tesla talks to the user (driver), “Hey, I see a stop sign. Anticipate slow down or anticipate sudden breaks,” then the user

would be better equipped to take the right kind of action and/or accept the AI’s action, rather than AI doing its own thing without any heads up – which could cause distrust in technology.

Given the rapid progression of AI, Machine Learning, and Large Language Models, what are the key skills and competencies that you believe will be most critical for the future workforce, and how can organizations effectively cultivate these skills among their employees?

Generative AI, large language models have changed the way we use AI and again use AI in our daily lives for productivity. The important part is going to be again focusing more on training and education so that you don’t just take advantage of AI but utilize it in the right manner. Now more than ever, there’s a great need of the right mix of skills. One needs tech skills, AI skills, and the soft skills.

To effectively communicate what AI is saying and doing to your customers, colleagues, and team members to maximize impact, the employees require a blend of technical proficiency, AI expertise, and soft skills. Employee training and development programs play a crucial role in equipping staff with these essential abilities. Employees gain the tech skills, so that they understand what the model is doing, why it is doing, how it is doing, and can explain it to the end users and make the most impact out of it.

Fostering a culture of education and learning will be foundational for success, alongside embracing transparency, explainability, responsible adoption, and ethical integration of AI. Organizations implementing policies and frameworks to support these principles will drive significant change in their roles and the broader landscape.

Which industry or which areas in business will be mostly disrupted by AI? And in which way?

Virtually every industry that touches technology, from manufacturing, marketing, healthcare, customer service, to daily life productivity tools, will be disrupted in a revolutionary way by AI.

The purpose of AI, as I see it, is in its utility as a powerful assistive decision support tool that can help us streamline any tech domain as in manufacturing via digital twins, optimization of agile flows, interactive marketing and collaborative product development with customers using Gen AI, diagnostic, forecast-



#### DR. VINEETHA MENON

Associate professor of Computer Science and  
Director of the Big Data Analytics Lab  
University of Alabama in Huntsville

#### About

- Over 10 years of experience in multidisciplinary Data Science research, including Gen AI, LLM bias and transparency, deep learning, AI-driven drug discovery, and explainable AI
- Expert in big data analytics, consulting for local, defense, and global clients on human-AI teaming, human performance modeling, organizational performance prediction, AI adoption, and risk mitigation
- IEEE awards: Outstanding Young Professional, IEEE Huntsville Young Professional of the Year, IEEE Eta Kappa Nu (HKN) Outstanding Young Professional

ting and target KPI goals analysis (how to get there, and why trust the AI decisions) using transparent AI and improve data mining capabilities and make it more accessible to all using large language models (LLMs).

[What does a successful approach or framework look like to cultivate the need skills and culture around AI to make the organization and business more successful?](#)

For any organization, now more than ever, it is important to invest in people and frameworks to build skills and foster an AI-friendly work culture for a sustainable success in the era of AI.

In my extensive research using AI and machine learning for organizational performance modeling and prediction based on the Baldrige model and lean six sigma models, we have shown that 'leadership' is one of the crucial factors that dictates the success of any organization. Hence, having a visionary leader-

ship on how adoption of AI can benefit the organization and promoting accessible learning environments for all employees to upgrade their skills is quintessential for success.

Inclusion of strategic planning and development frameworks to empower employees with additional tech skills that can leverage their domain expertise along with integration of agile operation models to optimize inhouse processes will be beneficial.

AI can also bridge the cross-domain communication barriers and bring diverse teams together for problem solving, advance innovation and creativity and pave pathways towards sustainable AI integration.

Finally, leveraging the power of Gen AI to create compelling business and customer vision models to convey what the organization can offer will be a game changer.



Let's consider as a scenario that the technology of AI is available, as are the skills and capabilities to use it in the right manner. Which social, ethical, political, and legal questions have to be answered to make AI sustainably successful in a wide range?

It is pivotal that every organization wanting to integrate AI into their organization should consider this question first. We talk different types of social and ethical concerns and AI bias in detail in one of my recent works entitled "AI Algorithmic Bias: Understanding its Causes, Ethical and Social Implications" published in the proceedings of the 2023 IEEE 35th International Conference on Tools with Artificial Intelligence (ICTAI).

To make AI sustainably successful on a global scale, several social, ethical, political, and legal questions need to be addressed. Here are a few key considerations:

**1. Inclusion of ethical AI design frameworks:** Create equitable AI technologies for addressing social implications that arise due to adoption of AI: E.g. For recruitment softwares, we need AI that can incorporate diversity in data and learning to successfully mitigate any automated decision that implicitly discriminates against any ethnic, gender, race, and disabilities.

**2. Responsible and explainable AI for transparency and accountability:** We need legal, political and organizational policies that hold AI accountable for its decision making (both right and wrong decisions), and risk management strategies to address the scenarios when AI does indeed make incorrect conclusions. Inclusion of human-in-the-loop and human-centric design can help mitigate and promote an evolutionary learning AI environment.

**3. Privacy, Security and Data regulation:** This is a key concern plaguing everyone in the modern age of big data. How can we secure data, ensure privacy and regulate different levels of data access? What are individual organizational policies to navigate adoption of AI to ensure these concerns versus globally what the take of different nations on how data transactions are viewed, will influence this landscape. This is a great conversation to collectively evolve in the era of AI revolution. ■

*The interview was conducted by Nicholas Phillips, Partner at Staufen USA, and Dr. Michael Feldmeth, Principal and Teamlead of the Unit Digital & Smart Enterprise at Staufen AG, in Germany.*



**NICHOLAS PHILLIPS**

Partner  
STAUFEN.USA

#### About

- Over 20 years of industry and consulting experience
- Specialized in Operational Excellence and P&L improvements in manufacturing, supply chain, and product development
- Earned his Blackbelt in Lean Six Sigma and received the Presidential Award for transforming their power transformer business (ABB)
- Holds an automotive engineering patent and has worked with major automotive OEMs and aerospace companies



**DR. MICHAEL FELDMETH**

Principal  
STAUFEN.AG

#### About

- More than 6 years of consulting experience in the field of Operational Excellence and Lean Management
- Project management of interdisciplinary consulting projects focusing on plant development, process improvement, cost reduction and growth
- Reorganization experience in the areas of production (manufacturing and assembly), logistics and order fulfillment
- In-depth technical understanding of production processes and practical Shop Floor experience



# Getting the Right Things Done

**IN A DIGITAL WORLD**

DIGITAL

**PASCAL DENNIS**  
Specialist engineer,  
author and president  
of Lean Pathways





## It's no longer enough to protect your core business. You also must ignite new Growth using Digital methods.

Some years ago, I wrote a book called 'Getting the Right Things Done (GRTD)' based on my experience working with some of the world's most effective companies. GRTD describes the Strategy Execution system I had internalized through years of practice. I saw GRTD as part of the broader management system called Operational Excellence or Lean Management. I had also been lucky enough to work with some of Toyota manufacturing's finest mentors (known as 'senseis'). I believed that the methods and mindsets I had learned were essential to a humane and sustainable prosperity.

GRTD found an audience and I've helped to implement these principles and practices both at client firms, and at smaller enterprises that I've personally launched. I have found that GRTD and the broader Operational Excellence/Lean Management system indeed lays a sturdy foundation for excellence. They're a practical and proven way to protect your core business.

**But that's no longer enough.** The past eight or nine years, I've been lucky enough to work in innovation hot spots like Singapore and Silicon Valley. I've experienced the thrill of young entrepreneurs and intrapreneurs, deploying 'new ways of working' in fluid cross-functional teams, and experimenting their way up the so-called 'hockey stick' curve. It's been marvelous to see them translating the same core principles that I'd learned as a young engineer toward the goal of breakthrough innovation. The difference is that I was sensei and deshi - both

### In a nutshell

Simply protecting the core business is no longer enough. You also have to initiate new growth. "GRTD in a Digital World" and "Digital Strategy - Igniting New" can help you get started on this important journey.

teaching core principles like Lean experimentation, visual management and Strategy execution, and learning about the so-called 'exponential' technologies that enabled breakthrough.

Today, I believe we must become ambidextrous. We must be able to protect the core business using the sturdy methods of Operational Excellence/Lean Management. But we must also ignite new growth using methods pioneered in the world's innovation hot spots.

**How to create an ambidextrous organization?** One that is bullet-proof in its core business, and yet able to recognize unmet customer needs, and rapidly build, measure and learn its way up the innovation curve. One that can improve existing customer journeys, also create new journeys, offerings and even new businesses. That's been my focus in the past several years. In fact, I wrote a book about it called 'Harnessing Digital Disruption' which describes my adventures in Singapore's lively innovation ecosystem. You can think of it 'Getting the Right Things Done in a Digital World'.

My team and I have built and validated a powerful body of knowledge which we believe prepares the modern organization for the 21st century. That's what I shared at the Best Practice Day conference in Sao Paulo, Brazil: a keynote talk entitled 'Getting the Right Things Done in a Digital World', as well as a full-day workshop called 'Digital Strategy - Igniting New Growth'. I'm sure we could engage organizations that are serious about Innovation and want to become truly ambidextrous.

Protecting the Core business is no longer enough. We must also ignite new growth. 'GRTD in a Digital World' and 'Digital Strategy - Igniting New Growth' will help get you started in this essential journey. ■

### About

Pascal Dennis is a professional engineer, author and mentor for executives. Pascal is the President of Lean Pathways, and co-founder of Digital Pathways, a firm focused on harnessing technology to enable Digital Transformation. He has authored seven books and is a four-time winner of the Shingo Prize for Excellence.



# "The Action is on the Shop Floor"

**How can operational excellence be achieved in production, why should managers dare to change their perspective more often, and what does diversity mean for the shop floor? In an interview, Dr. Rawina Benoit, production expert, explains the current challenges for the manufacturing industry.**

Ms. Benoit, you have worked both internationally and strategically in your career. Why did you make a conscious decision to go into production – most recently in your role as a plant manager?

I am interested in the shop floor, that's where the action is. Because without production, there is no product and without a product, there is no business! Ten percent of people in Germany work in the manufacturing industry and generate almost 25 percent of our gross domestic product. Unfortunately, this is not always appreciated. But the GDP figures illustrate the importance of Germany as a location and why we need to improve the image of production.

How is this claim expressed in your daily work?

As a plant manager, I have to support my employees and always give them the feeling that I'm not here to make their lives difficult, but to solve challenges together with them. To this end, I have repeatedly held intensive discussions on the shop floor and have also regularly been involved in cleaning or maintenance work. The aim is to really understand the problems of the employees and to create a space to find solutions and give honest feedback. These discussions are very important. Most people want to improve. But this requires targeted feedback.



**DR. RAWINA BENOIT**  
Production expert



You have actively changed your perspective many times in your career. Why is it so important for a manager to adopt new perspectives?

Empathy and emotional intelligence vary from individual to individual. By demanding a change of perspective, managers can develop into more empathetic leaders. They broaden their horizons, accept other points of view and are able to communicate better – in order to ultimately find optimal solutions without being affected by personal sensitivities. Companies have also recognized this and know that empathy is a very important part of leadership.

What significance do modern forms of work have for the industrial world of work? Have "New Work" and "Diversity" already arrived in production?

Diversity means representativeness, all voices should be heard. But the voices from production in particular are often ignored. Companies must include all employees in their communication and give them a voice. In the context of New Work, however, many topics do not fit into production, for example: working from home. In my view, there are three tasks to be done to bring the realities of the working world into line with the expectations of the younger generation and at the same time prepare for the future: firstly, ensure the transfer of know-how from the baby boomers to the younger generation in the company, secondly, show clear development structures and opportunities for the next generation, and thirdly, promote internal skill management including skill development. Companies must specifically build up the required skills that may not be taught in training or degree programs and at the same time show talent development paths - in production and, in the long term, across various hierarchical levels in production.

The Henkel plant that you managed as a plant manager has received several Excellence Awards. What does Operational Excellence mean to you?

Operational excellence goes beyond plant efficiency. Avoiding waste must be considered holistically, taking into account energy and material efficiency as well as communication efficiency. This means that the flow of information from plant management to the shop floor must be guaranteed without interruptions, and all processes must be clearly communicated. Operational excellence and the zero-loss approach should be embedded in an end-to-end view of the entire factory and ensure consistency.

How does the corporate culture support this approach?

The path to success is through continuity and consistency. HR and corporate communications, for example, are very important for formulating a meaningful vision, mission, and culture. But implementation should not be neglected. The product is created on the shop floor, where operational management responsibility must be assumed in order to bring the company vision to life. Therefore: Walk the Talk! As a manager, you have to live the culture, seek dialogue and translate in an understandable way what was previously only written on slides. When we as managers give our employees responsibility for a location or a machine, we trust them and recognize that they are the experts for this system. This freedom can make processes more efficient and save costs. At the same time, clear feedback loops and good communication are important. Because changes also have to be economically viable.

Finally – and perfectly fitting for you – a change of perspective. You spoke about the role model function of a manager. What people have shaped your professional career?

I admire people who dominate their field with a lot of expertise. In 2010, I worked as a graduate student in a factory in Hamburg. My boss there took a very humane approach, but always communicated his expectations of me and our results very clearly. It is still influences me today, because he showed me how to achieve my goals and still go out for a beer together in the evening. We are still in touch today, he is a great sparring partner for me. But it is not always the direct superiors, but also mentors or external companions who have a formative influence. For the corporate environment, it is always important to recognize and promote the strengths of each and every individual in order to achieve the optimum. Ultimately, the overall performance is a puzzle made up of individual pieces. ■

## About

As Plant Director at Henkel AG's main plant, Dr. Rawina Benoit managed the company's largest plant in Europe with around 400 employees. Before joining the consumer goods giant, for which she also held a management position in the USA, she worked for four years as a management consultant. Studied mechanical engineering at RWTH Aachen University and has received numerous awards, including Top 40 under 40 (CAPITAL Magazine) and Thought Leader ("Handelsblatt", a German newspaper).



# New Leadership Culture

## THANKS TO OPERATIONAL EXCELLENCE

A photograph of three people standing in front of a modern, curved building with a large glass facade. The building has the 'wanzl' logo in blue. The person on the left is a man in a dark sweater and jeans. The person in the middle is a woman in a yellow blazer and dark pants. The person on the right is a man in a dark jacket and pants, sitting on a large rock. The building has a curved, metallic-looking facade and a large glass section on the left. The sky is overcast.

**wanzl**

### In a nutshell

Wanzl is getting ready for the future. The company, which has so far been strongly focused on craftsmanship, is improving its operational excellence and is thus creating great dynamism. Wanzl has initially developed a training program together with Staufen, which brings all employees on the same level and establishes a new leadership culture. Communication and collaboration have changed throughout the company, and employees are now actively involved in the company's further development.

From the left: **CHRISTIAN ULLRICH**, Principal, STAUFEN.AG | **STEFANIE RIST**, Senior Director OpEx, Wanzl GmbH & Co. KGaA | **MATTHIAS MADLINGER**, Senior Vice President Industrialization & Operational Excellence (OpEx), Wanzl GmbH & Co. KGaA



**The family-owned company Wanzl is the market leader for shopping carts, shop fittings, and access controls. Until recently, it was still strongly influenced by craftsmanship, but with operational excellence and digitalization, it is now opening the next chapter in the company history.**

The weekly shopping for the whole family fits in, and small children love to sit in it – everyone knows the Wanzl shopping cart, and everyone has had it in their hands at least once. For 70 years, it has almost remained unchanged, but today, the manufacturer is working on its smartification and the retail business of the future (see p. 93).

The history of innovation continues, with a lean approach to increase the operational excellence in production. “We think it is important to further develop the internal corporate culture,” says Matthias Madlinger, who is Senior Vice President for the topic Operational Excellence at Wanzl. “This is the only way we can adapt to rapidly changing market conditions.”

A change in the management created a bigger dynamics: Many of the new managers coming from other industries are already used to lean and Shop Floor Management. This caused the company to proceed towards Operational Excellence. Wanzl has made the existing organizational structures more agile and improved internal communication.

The focus was on the objective of making the global processes at Wanzl more efficient in order to be able to keep competing with other international market leaders. “This transformation of global processes encountered particular difficulties due to the need to unify the diversity of the individual factories and to cope with cultural changes,” says Stefanie Rist, Senior Director OpEx at Wanzl. “The improvements from the redesign include strengthened leadership and communication, methodological support and a clear focus on system improvement.”

### Develop a Better Understanding of Relations

The family business has gone its own way. The management’s goal was not to implement lean production in record time. They wanted to introduce the new paradigm to the company and not simply impose it on their employees – an important reason to work with Staufen.

“First, we built up know-how and spent more than a year on trainings, coaching managers and performing best practice visits,” emphasizes Staufen consultant Christian Ullrich. “As a result, the insight that all employees are responsible for operational excellence grew very quickly.”

As with many traditional medium-sized companies, the corporate and management culture before entering the lean world tended to be hierarchical with little focus on exchange and collaboration. Leadership and communication were stronger aligned to classic departmental boundaries and functions. The new understanding of Operational Excellence and Lean Production brought a significant change for Wanzl: The Employees on the shop floor exchange information, ask questions and discuss problems. “Slowly, a better understanding for connections is developing throughout the company,” says Wanzl manager Madlinger. Thanks to this, a different leadership culture is gradually emerging. However, it needs to spread throughout the company and be internalized by all employees – managers as well as workers. Change takes time, otherwise they won’t be permanent.



# A VISIT TO THE SUPERMARKET OF THE FUTURE

An Industry Outlook

LEADERSHIP



## About Wanzl

Wanzl GmbH & Co. KGaA from Leipzig, Germany, is a third-generation family-run business. With more than 4,600 employees and 11 international production sites, Wanzl generated a sales of almost 900 million euros. In addition to the retail sector, there are also airports and hotels among their customers.



**4,600+**  
EMPLOYEES



**11**  
FACTORIES IN 7 COUNTRIES



**900**  
MM EUR TURNOVER



Connected, automated, no more queues at the cash desk – the supermarket of the future is different. But one thing remains: There will still be Wanzl shopping carts. Other than today, they are digital and intelligent. “This is a trend that we are also observing in retail shops”, says Jürgen Frank, Senior Vice President Markets & Solutions at Wanzl. “Everything will be connected, there will be a digital customer interface”. Those who would like to gain a first impression of the future, should see the Urban Store at the Wanzl headquarter in Leipheim. It is a test environment for modern technology in retail. Because shopping might look like this in the near future:

The customer first takes one of the intelligent shopping carts. It has a digital deposit lock that can be unlocked by smartphone, NFC technology and an app. Then, we get started: After the registration via app of the respective retailer, you can see on a small display on the cart that purchasing is now possible.

The smartphone is the digital customer card. There, you will find the supermarket app, which manages the customer account and offers a virtual shopping cart. Then you can start shopping. As usual, the customers

put everything into their shopping cart. Fully automated systems recognize what products were selected, and transfer the data into the virtual shopping cart.

At the end of the purchase, the inspection and payment process follow. If the contents of the virtual and the real shopping cart match, the customers confirm the correct purchase via app. Alternatively, there is also a self-checkout with a scanner available. Then, the app generates the digital receipt. When leaving the supermarket, the amount will be debited from the account.

This supermarket is cashierless, but not without staff. If required, employees are available to advise, ensure that shelves are full, or prepare fresh snacks at a cafeteria counter. “The reality today is already the 24/7 supermarket that only has staff on an hourly basis”, says Trade Expert Jürgen Frank. “Retailers can use this to overcome the shortage of skilled workers.” There will certainly be at least two models in the future: the highly automated supermarket for quick shopping and experience-oriented stores that also invite shoppers to linger. Both types supermarkets of the future will be digital, networked and efficient in the background. ■



"CULTURAL SHIFT UNDERPINS OUR BUSINESS SUCCESS."



# "Cultural shift underpins our business success."

LEADERSHIP





### In a nutshell

By leveraging Operational Excellence, Suzano achieved record-breaking revenue and profitability, despite challenges such as lower pulp prices in 2023. Suzano's focus on leadership and continuous learning reflects its ability to turn challenges into opportunities, ensuring a promising future for both the company and its communities.

### Suzano combines operational excellence with the ability to harness external factors for sustainable growth.

Suzano, the world's largest pulp manufacturer and a key player in Latin America's paper industry, has seamlessly integrated operational excellence with effective utilization of external factors, ensuring enduring success over the years. The company currently employs over 49,000 people across 13 factories in Brazil, along with 1 joint operation (Veracel) and 1 joint venture (Woodspin), supported by ten international offices.

Founded in 1924, Suzano has achieved unprecedented results in the last two years, setting new records in revenue and profitability. Despite challenging conditions in 2023, including lower average pulp prices and its highest annual spending, Suzano maintained strong cash flow, keeping net debt at healthy levels.

In an exclusive interview with *staufen* magazine, Claudinei Matos, Director of Consumer Goods Industrial Operations at Suzano, discussed the company's challenges and the positive impacts of investments in leadership and process standardization.

Currently, most of Suzano's factories already have daily management implemented, supported by *Staufen*, and leadership tasks are already integrated into the routine and management model throughout the company.



**CLAUDINEI MATOS**

Director of Consumer Goods  
Industrial Operations  
Suzano S.A.

### Challenges and Growth Strategies

With a century of operations, Suzano has encountered and continues to face significant challenges in achieving strategic objectives, as explained by Claudinei Matos. "Like other Brazilian companies experiencing growth, we aim to uphold operational standards within a structured growth strategy, prioritizing product quality and environmental stewardship," says Matos. He adds, "This requires widespread engagement, driven by a profound shift in leadership approach, resulting in a cultural transformation at Suzano and notable gains in productivity, quality, cost efficiency, and delivery."

### Implementing Methodologies Across Diverse Business Lines

Suzano's industrial operations include tissue paper units, printing and writing paper, pulp operations and a vast forestry area, which makes the standardization of methodologies a complex challenge. According to Matos, Suzano's dedicated Operational Excellence team respects the unique requirements of each business line. "Implementing operational excellence strategies in consumer goods differs significantly from forestry operations. While principles of engagement and certain tools remain consistent, they are adapted to suit the specific needs of each business," clarifies the director.



"CULTURAL SHIFT UNDERPINS OUR BUSINESS SUCCESS."

LEADERSHIP



## The Importance of Leadership

Suzano's investment in implementing daily management routines has already yielded positive outcomes. "With support from Staufen, we've introduced a highly practical and powerful daily management model that nurtures leadership and engages teams. Operational boards facilitate swift, focused discussions with teams, reviewing daily outcomes, pinpointing key deviations, and monitoring containment and improvement actions. Valuing team input strengthens our processes, enabling us to cultivate a new generation of Suzano leaders committed to delivering results and driving growth," explains Matos.

Claudinei underscores the pivotal role of leadership in standardizing best practices across Suzano's operations. He emphasizes

that leadership must lead by example: "As Suzano's leaders, we not only create and share value but also inspire through actions. Leadership fosters discipline, integration, and motivation, driving the cultural shift that underpins business success."

Suzano places a high value on continuous learning, drawing insights from other industries to innovate and implement effective solutions. "We remain vigilant of developments in other plants, perpetually learning to introduce fresh problem-solving methods and solutions within our organization. Suzano's century-long legacy demonstrates that innovation and excellence in management can transform challenges into opportunities, securing a promising future for the company and the communities it serves," concludes Suzano's Director of Consumer Goods Industrial Operations. ■



### About Suzano

With over 49,000 employees across 13 Brazilian factories and international operations, Suzano is actually the largest pulp manufacturer in the world, one of the largest paper producers in Latin America and the leader in the toilet paper segment in Brazil.



LEADERSHIP





## PROJECT MANAGEMENT:

# A matter of the right dosage

### In a nutshell

Being innovative and cost-efficient, agricultural machinery manufacturer RAUCH fulfills new EU requirements. The newly developed fertilizer spreader AERO 32.1 facilitates a precise and effective fertilization. In a joint project with Staufen, the manufacturer introduced global sourcing and the simplification of parts. The intense project stages, which were organized in blocks, promoted team spirit and resulted in an earlier market launch.



**Innovation meets cost-efficiency: Already now, the products of RAUCH Landmaschinenfabrik GmbH fulfill the EU requirements for 2030 due to Operational Excellence.**

"Innovation is a major element of our strategy", Volker Stöcklin, managing director of technology at RAUCH Landmaschinenfabrik GmbH in Rheinmünster, emphasizes. "We consistently provide our customers revolutionary products which react to new requirements in due time - for example, stricter EU requirements."

Until 2030, the EU wants to reach certain goals regarding the use of pesticides and fertilizers. Among others, this requires the use of modern technology to e. g. apply fertilizer as precisely as possible. For these purposes, RAUCH developed the cantilever arm spreader AERO 32.1.

Due to an innovative distance control between the spreader and the floor, farmers can distribute the fertilizer exactly to fulfill the EU requirements. Both areas and quantities can be exactly determined. Another special feature is its working width: The cantilever arms spread up to 30 meters. This results in enormous forces, making the construction a technical challenge.



From the left: **FRANK GRÖNER**, Partner, STAUFEN.AG | **LARS ECKERT**, Assembly/ Shift Supervisor, RAUCH Landmaschinenfabrik GmbH | **MARCO LENZ**, Group Leader Project Purchasing, RAUCH Landmaschinenfabrik GmbH | **PHILIPP RAUCH**, Consultant, STAUFEN. AG | **NICO DINGELDEY**, Product Management, RAUCH Landmaschinenfabrik GmbH | **ROMAIN MUCKENSTURM**, Team Leader Fertilizer Technology Design & Development, RAUCH Landmaschinenfabrik GmbH | **VOLKER STÖCKLIN**, Managing Director, RAUCH Landmaschinenfabrik GmbH



**“It was a real pleasure to rediscover the joys of interdisciplinary work by applying the mindset provided by Staufen’s techniques.”**

**ROMAIN MUCKENSTURM**

Team Leader Fertilization Technology,  
Construction & Development  
RAUCH Landmaschinenfabrik GmbH

### Faster Development due to Project Organization in Blocks

After the constructors solved these issues, it quickly became evident that there had to be a second round to get the cost challenges under control as well. “Agricultural businesses are very cost-sensitive, as the required machines are major investments”, RAUCH managing director Stöcklin says. “Every saving opportunity is welcome, even beyond the saving effects of precision fertilization.”

Thus, the agricultural machinery manufacturer set up a project team, and at the same time, they contacted Staufen to enhance the project with additional Operational Excellence expertise. With focus on a fast market launch, Staufen consultant Frank Gröner recommended to focus even more on optimizing the AERO 32.1.

“For this project, we proposed a new organizational form, an execution in blocks, in multiple one-week project stages, to further improve the close communication within the team”, Gröner says. “This way, it was made possible to consistently work on improvements of the construction without the team members also having to work on everyday tasks.” According to the Staufen consultants, such a close cooperation enormously facilitates and accelerates the development of innovative solutions.

### Standardized Parts instead of Right and Left Variants

It quickly became apparent that part of the required cost reduction could be achieved quite easily: Due to the immediate change towards global sourcing, RAUCH could expand the types and quantities of the available parts for construction. An effect which could benefit RAUCH also for future development projects in order to realize the optimal construction, both from a technical and an economical point of view.

At the same time, the complexity in parts procurement could be substantially reduced by purchasing assemblies and modules ready for installation from new suppliers in the future. Ensuring these purchases requires an intense supplier management, which purchasing at RAUCH aligns to.

Another idea from the project relates to the standardization and simplification of parts or entire assemblies. One example is components that exist in left and right aligned versions.. The solution: The construction is altered in a way that an alignment is not required and standardized parts can be used.

“This idea was brought up by the technicians involved with the assembly of the machines”, managing director of technology Stöcklin reports. “These solutions only emerge in the intensive dialogue that was made possible by the new organization of the project introduced and moderated by Staufen.”

Another decisive factor for the success of the project was the inter-divisional cooperation of the team, where employees both from development and assembly have been involved. They could provide numerous inspirations for improvement. “This resulted in a strong team spirit”, Volker Stöcklin praises the project. “Everyone felt appreciated and on par with each other. Overall, a complete success.” ■

## 230 Targets for sustainable food production

### PESTICIDES



50 %



### NUTRIENT LOSSES



50 %



### ANTI-MICROBIALS



50 %



### ORGANIC FARMING



25 %

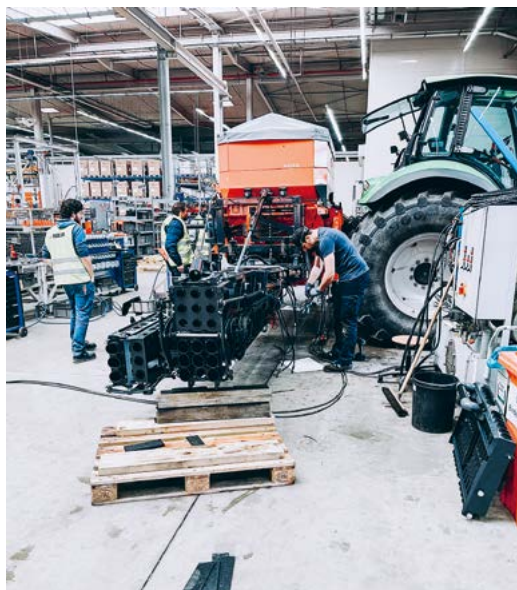


#EUFarm2Fork #EUGreenDeal



### About RAUCH Landmaschinenfabrik

RAUCH Landmaschinenfabrik from Rheinmünster in Baden-Württemberg, Germany has specialized in spreaders for mineral fertilizers and winter road maintenance as well as seed drills. Farmers, communities, large enterprises and contractors worldwide place their trust in the quality, reliability and longevity of their products. More than 170 patents and numerous awards showcase the innovative capacity of the family-run company, which recently generated a turnover of 128 million Euro with more than 430 employees.





# Optimize production processes – shorten decision-making processes

## ZIEHL-ABEGG SWITCHES TO DIGITAL SHOP FLOOR MANAGEMENT

### In a nutshell

After its main plant in Germany, ZIEHL-ABEGG is also converting its plant in Marcali, Hungary, to Shop Floor Management. Within just a few months, the first production processes were optimized and decision-making processes were shortened. Digital solutions such as the ValueStreamer also facilitate communication and enable precise monitoring of key figures and measures. The introduction of Shop Floor Management is now being extended to other production areas in order to establish operational excellence throughout the organization.

**FERENC SZIJÁRTÓ**Managing Director  
ZIEHL-ABEGG Kft.**SÁNDOR SÁRDI**Managing Director  
ZIEHL-ABEGG Kft.

**ZIEHL-ABEGG not only claims to be top class when it comes to its products, but also when it comes to operational excellence. This is why the provider of system solutions for air, control and drive technology has been relying on consistent Shop Floor Management at its German headquarters for years. Now the plant in Marcali, Hungary, has also been brought their efficiency to a new level.**

If one talks to Ferenc Szijarto and Sándor Sárdi one quickly notices that the two managing directors of ZIEHL-ABEGG Hungary are proud of what they have achieved in Marcali - 15 kilometers from the southern shore of Lake Balaton. And rightly so: the Shop Floor Management project carried out together with Staufen was successfully transferred to productive operation within just around three months. Now, thanks to standardization and digitalization as well as clearly defined key figures, all developments in manufacturing fan grilles can be precisely tracked and controlled at any time.

### **Fixed Targets for Productivity and Efficiency Indicators**

"In our plant in Marcali, we had already taken preparatory measures and introduced a first Shop Floor Management (SFM), a kind of SFM 1.0, so to speak. Overall, however, we lacked focus, which is why, together with Staufen, we set ourselves fixed goals when introducing the new Shop Floor Management, especially in regard to key figures such as productivity, quality, efficiency and occupational safety," says Ferenc Szijártó.

Immediate successes were quickly apparent in a smoother and therefore faster workflow. Whereas previous deviations in production or machine problems were immediately escalated to the higher levels as part of maintenance, there are now clear

processes in place to find a suitable solution directly on site. "This has significantly increased our ability to react and means we don't always have to make numerous decisions at a higher level. This significantly reduces the operational burden on management," says Sándor Sárdi.

### **Digital Shop Floor Management Facilitates Communication**

From the very beginning, Marcali did not use physical boards and introduced a digital solution called ValueStreamr, which quickly established itself as the heart of efficient management and facilitated communication. A major advantage was that ValueStreamr not only records and monitors key figures, but also defines and facilitates the tracking of these measures.

In addition, the Staufen consultants conducted intensive training courses in production and also trained the managing directors, the plant manager and numerous department and shift managers in Shop Floor Management. The next step will be the SFM roll-out in two other production areas, where components for the final assembly of ZIEHL-ABEGG fans are also manufactured in Germany.



## About ZIEHL-ABEGG

ZIEHL-ABEGG is a specialist in air, control, and drive technology, based in Germany. The company employs around 5,000 people worldwide and operates 15 production plants. The company recently achieved record sales of 955 million euros.



ZIEHL-ABEGG, plant in Marcali, Hungary.



ZIEHL-ABEGG, ventilators in operation.

## Operational Excellence also in Indirect Areas

In future, the indirect areas, such as logistics, maintenance and quality assurance, will also be integrated into the SFM workflow. Managing director Ferenc Szijártó: "Here, we are also not starting from scratch. In logistics, for example, certain Lean Management methods have already been introduced. We are therefore assuming rapid implementation and want to quickly establish operational excellence throughout the entire organization." In addition, the technical basis is to be further optimized. For example, work is being done on further options for automated data transfer from production to the ValueStreamer.

In addition to the resources they have now built up by themselves, and the support from its German headquarters, ZIEHL-ABEGG Hungary is also continuing to rely on Staufen's support in order to ensure that it does not lose the focus it has now found. "We are delighted that we were able to convince ZIEHL-ABEGG of our path and are therefore happy to provide inspiration and sparring partners for the next steps," says Robert Velenczei, Country Manager Hungary at Staufen.

## Lots of Positive Feedback from ZIEHL-ABEGG Headquarters

Managing director Sándor Sárdi particularly praises the fast and very practical way of working that characterizes the entire project to this day: "Instead of weeks of complex audits, thanks to Staufen, we had a complete quick check and a reliable result within three days." In addition, the SFM roll-out in Marcali has also improved cooperation with the Ziehl-Abegg colleagues in Germany. "We have received a lot of positive feedback from headquarters, and we are now working more closely together at all levels and exchanging the most important key figures directly via the ValueStreamer in meetings. This makes work a lot easier." ■



**5,100+**  
EMPLOYEES



**15**  
PLANTS IN 6 COUNTRIES



**955**  
MM EUR TURNOVER



# Focus on a performance culture

## THE MANAGEMENT MODEL OF GERDAU

LEADERSHIP





### In a nutshell

Gerdau, Brazil's largest steel producer and a major player in the global steel industry, stands out for its innovative management model, which focuses on a performance culture and operational excellence. In this article, we explore how the company has transformed its organizational culture to face the challenges of the globalized market across its operations in seven countries.



**VERÔNICA GONÇALVES**

General Manager of  
Operational Excellence  
Gerdau

### A Strengthened Organizational Culture

According to Gerdau's General Manager of Operational Excellence, Verônica Gonçalves, culture is the basis of the company's success, strongly linking its organizational values to performance and results. With 30,000 employees in 29 industrial units, the company has a clear purpose: to empower the people who shape the future. "This purpose is supported by a well-defined goal and structured principles, guiding all the company's initiatives. We are all leaders at Gerdau, from the operator at the machine to the highest level of leadership," explains Verônica.

### The Evolution of the Management Model

Over the decades, Gerdau has evolved its management model to adapt to new market challenges. Initially inspired by Japanese models, the model was revised to better serve a more open and dynamic market. Since 2018, with the revision to Operational Excellence, the company has adopted Lean Office and Lean Manufacturing principles, integrating all its operations in Brazil and adding value throughout the sales, production, and delivery processes.

### The Dimensions of Operational Excellence

The Operational Excellence manager explains that Gerdau's strategy is supported by five main dimensions: Results Management, Employee Development, Operational Discipline, Continuous Improvement, and Sustainable Value. These dimensions are deployed into 23 practices and 59 tools, applied in an integrated manner according to the specific needs of each unit and challenge. "These tools are available according to the need and complexity of the problem. We don't use every tool in every situation, but only the right tool to solve that problem. I'm not going to 'kill a mosquito with a cannon.' This aligns precisely with our culture because what applies to Gerdau in Brazil may not apply to the United States, and vice versa," says Verônica Gonçalves.

### Performance Culture and Leadership

The cultural transformation at Gerdau is guided by the behavior of leaders at all levels of the organization. Inspirational leadership, which works at the root of problems and sets high standards, is fundamental to imprinting a performance culture. The model promotes open dialogue, challenging goals, and autonomy, encouraging all employees to act as owners of their results.

Gerdau's new management model is not limited to operational management; it defines a corporate culture that values innovation, sustainability, social responsibility, diversity and inclusion, and excellence in all aspects. By integrating advanced management practices with a strong organizational culture, Gerdau continues to stand out as an example of success in the global steel industry, prepared to face future challenges with confidence and leadership. "Everything we do is embedded in this way of doing and being, supported by the pillars of management and stewardship. We talk about safety, the environment, people, and maintenance, with the leader always at the center of this model, acting as the example. In this way, people are the protagonists of their own results and their business, so the company, as a whole, achieves its purpose," concludes Verônica Gonçalves, Gerdau's General Manager of Operational Excellence. ■



**30,000+**  
EMPLOYEES WORLDWIDE



**29**  
INDUSTRIAL UNITS



**68.9**  
BIL. REAIS NET SALES IN 2023



### About Gerdau

With a history spanning 123 years, Gerdau is Brazil's largest steel producer, one of the leading producers of long steel in the Americas and of special steel in the world. Gerdau is the largest recycling company in Latin America and uses scrap as an important input, with 71 % of the steel it produces made from scrap.





MAKING A DIFFERENCE THROUGH DIVERSITY

# Making a difference through diversity

LEADERSHIP





### In a nutshell

We at staufen magazine asked ourselves what diversity means for companies and how heterogeneous teams can unleash a superpower from their differences. In discussions with Franziska Herzberger and Marco Pett, our change experts for diverse teams, we have put together some ideas for your first steps.

**Whether young or old, man or woman, different cultures or simply different personalities and mindsets, diversity is one of the most relevant topics for organizations that want to remain viable in a multi-diverse society. Because diverse teams can become a driver for sustainable corporate success if the foundation for value-added cooperation is created.**

On the way to a successful, colorful company and team culture, you first of all need a lot of openness. So let's address it directly and openly:

Diversity can be exhausting. It requires, among other things, a high degree of flexibility in perception, thinking, and action. But: Bringing this flexibility is worth it - for the entire company and for each and every individual. Recognizing what is worthwhile is already the first milestone on this change journey.

## THE SUPERPOWERS OF DIVERSE TEAMS

### Personal development

Everyone has individual experiences, skills, approaches, and ideas. Those who approach others openly and with interest are better able to accept other people's points of view, open up new perspectives for themselves and never stop learning.

### Precise communication

Those who work in a diverse team learn to concretize their own thoughts and ideas and to formulate them more clearly.

### Greater innovation power

The more diverse a team is, the more room there is for creative solutions. This is because challenges are viewed from different angles with different professional and personal backgrounds.

### More sustainable decisions

Diverse teams can draw on a richer wealth of knowledge and experience, enabling them to make more thoughtful, robust decisions.

### Customer proximity

Heterogeneous teams can better empathize with the needs and living environments of equally heterogeneous target groups and develop customer-centric solutions. In addition, a variety of personalities offers the opportunity to create different approaches to

relationships with customers: "Especially in our consulting, a good relationship is the be-all and end-all. The more diverse a team is, the higher the probability that a customer will find exactly the counterpart with whom he or she can develop," explains Franziska Herzberger.

### Employee retention and recruitment

Living diversity in the company contributes to an inclusive and positive corporate culture in which everyone feels valued. A satisfaction factor that also has differentiation potential in employer branding.

Heterogeneous teams have many other advantages, but only if they are able to develop their full potential. In addition to the "why", the "how" is also important.

## HOW TO UNLEASH THE SUPERPOWERS

### Trust as a central building block

"Diverse teams are not automatically better. If team members distrust each other, nothing more than a small common denominator emerges. Mixed teams only create significant added value if everyone contributes their individual knowledge. But for this to happen, there must be trust within the team," explains Marco Pett.

### Openness creates trust

A major hurdle when it comes to trust is the way we deal with others or strangers. Our brains, which are geared towards efficiency, tend to generalize as much as possible. What is vitally important in many areas can lead to difficulties within a heterogeneous team. Ultimately, many so-called unconscious biases arise over the course of life: unconscious thought reflexes that are based on one's own experiences and - to put it bluntly - pigeonhole people. It is these pigeonholes that then stand in the way of openness and trust.

**“Reprogramming” thought reflexes**

In order to be able to trust in a team “made up of others”, it is important to recognize and question thought reflexes and develop new behavior based on them. It is equally important not to stigmatize an unconscious bias. Because “you are not a bad person because you have certain thought reflexes,” says Marco Pett. “It is important that you become aware of them and adapt them to reality.” Open and benevolent communication and reflection in the team are important for this. This creates a space in which everyone can see the other person as an individual personality with unique strengths.

**Lead by example instead of pretending**

Turning diversity into a success factor in the company is a joint task that requires a clear kick-off and a consistent approach at the decision-making level. As with all change processes, role models are essential here, too, showing where the journey should go and how it can be successful. “It is important that diversity does not feel like a chapter that you work through in management training,” explains Franziska Herzberger. “The change towards value-added diversity is a continuous change process. The best thing to do is to start with yourself and share your experiences with your team.”

**TRACKING THE UNCONSCIOUS BIAS**

**Franziska Herzberger is one of our experts when it comes to diversity. She was a manager in the production environment at an automotive supplier for five years. Today, she supports companies in the area of leadership excellence and leads training courses on the topic of leadership and diversity. We want to know from her what experiences she has had, why working on unconscious thought reflexes is such a central building block and how such reflexes can best be “reprogrammed”.**

**FRANZISKA HERZBERGER**

Change Expert  
STAUFEN.AG

**Why are unconscious thought reflexes a hurdle for heterogeneous teams?**

Communication always has a level in which the attitude towards a type of person or group is unconsciously present. This attitude often has less to do with the actual other person than with oneself. If you don't reflect on this, you will make the other person feel insecure. The relationship - and thus a trusting collaboration - will be disrupted.

**Do you have an example of a classic unconscious bias?**

Many older people have had the experience in their youth that in a hospital, the men are the doctors and the women are the nursing staff. It sometimes happens that a female doctor is addressed as a nurse. This has less to do with the doctor and often does not arise from conscious discrimination, but is due to old experience that no longer applies today.

**Which unconscious biases do you often encounter?**

A common bias is the assumption that everyone else must understand exactly what you have expressed as your expectations - and yet they act differently. If you ask questions, it often becomes clear that the communication was not clear enough. We often assume that everyone else has the same ideas about terms, processes, etc. But that is not the case. We are all different. So we have to double-check and find out whether all parties understand what is being said in the same way.

**How do you get people to question their unconscious bias?**

As a person affected, you should engage in dialogue with the other person. It is important to work through the situation together in a benevolent manner: What did a certain statement really mean? Did the sender unconsciously convey something inappropriate or did the recipient misinterpret the message due to their own bias?

As a manager, you can also work with methods such as “My Personal Map”. It helps to work out personal mindsets, viewpoints, prejudices, etc. with individual team members. In specific situations, if there is still very little trust in the team, it is advisable to work 1:1. For teams that already have a good foundation of trust, team meetings can also be tried.

**What advice would you like to give to decision-makers who want to successfully embed diversity in their company?**

Open your eyes: Look around you and see how colorful the world is, that each of us is different and that this can be a great strength for companies. Look at your own attitude towards diversity. Be enthusiastic about diversity because it enriches you. Accept that it can be stressful at times. Be open to asking questions. Be willing to get to know other people's perspectives. ■

# STAUFEN.

INSIDE EVERY COMPANY THERE, IS AN EVEN BETTER ONE.

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# Competence center to improve welding technique

LEADERSHIP

## In a nutshell

GEA is strengthening its welding technology group-wide with a new competence center at the Kitzingen site, thereby addressing the challenges of the shortage of skilled workers. The center improves the quality of training and further education, offers comprehensive, practical courses and uses the latest welding technologies. It also supports GEA product development in working on weld-friendly designs.

**As a leading supplier to the food, beverage and pharmaceutical industries, GEA relies on perfect welds. To counter the looming shortage of qualified welders worldwide – by 2026, the USA alone will be short of around 300,000 skilled workers, and Europe is facing similar problems – GEA has set up an international competence center for welding technology. The machine and plant manufacturer is leaving nothing to chance when it comes to the training and further education of its welders.**

"Welding simply plays a central role for us," says Robert Ströbel, Head of Production at GEA's Kitzingen site, Germany. "Despite all the automation and support from cobots, manual welding is still an important step in our production." But recruiting staff is becoming an increasing challenge for GEA. Global demographic developments and the image of the welder

profession are leading to a decline in the number of applicants. In addition, many interested parties do not meet the requirements of relevant guidelines and standards, says Ole Bang, Vice President Production LPT.

### Initial and recertifications can now be carried out internally

"GEA's welding competence center in Kitzingen is designed to close precisely these gaps. It is designed to improve the quality of training and further education and to provide the welders hired with the qualifications required by GEA. Staufen supported GEA in developing the concept for setting up the center," says Peter Merhof, Head of Welding Technology & Standards at GEA. "We were able to draw on the experience of our own Staufen Academy," explains Martin Becker, partner at Staufen.

A team of trainers ensures comprehensive and practical training. It is modular in structure and begins with basic training, in which basic techniques, specific requirements of the stainless steels used, occupational safety requirements and know-how are taught. In a certification course, participants are intensively prepared for the initial certification. The use of a welding simulator makes it easier to get started without wasting resources. Extensive safety precautions are not required.

In addition, the competence center will now take on a task that was previously performed externally: regular recertification with refresher courses on theoretical and practical knowledge. Every three years, skilled welders must officially prove that they meet all requirements and work safely. This guarantees that only sufficiently qualified people weld.

### Close cooperation with developers and designers

Another task of the competence center is to introduce innovative welding processes. Employees learn new techniques and optimize their processes, which increases overall productivity. Special courses such as repair welding, welding for service technicians, and flame straightening will complete the training offering in the future.

In addition, there is intensive exchange between the various departments. There will be special theoretical courses for buyers. Here, they will acquire the necessary know-how for procurement so that purchased components also meet all GEA requirements for welding.

A particularly important task of the competence center will be the collaboration with developers and designers. Michael Wagenhäuser, Head of Quality, Health, Safety and Environment in Kitzingen, describes the plans: "We want to offer courses for product developers so that they can then develop designs suitable for welding.

The feedback from our welders also helps to plan new designs in a practical way for production." The increasing automation in welding technology poses new challenges for product development. For example, the position of the weld seams often has to be adjusted in the first prototypes in order to avoid problems with the range of motion of the robots.

### Further competence centres are being planned

In the future, the tasks of the competence center will also include series of tests and trials with new welding equipment, digitalization applications and welding robots as well as the latest welding technologies. All of this is aimed at improving productivity and sustainability.

"This means that production is much better prepared for the new possibilities and delays caused by errors are avoided," emphasizes quality expert Wagenhäuser. "These possibilities and experiences are not limited to Kitzingen, but apply to all GEA plants worldwide." The welding competence center is intended to serve as a model for the development of further competence centers, for example for machining processes such as milling or turning. "The Kitzingen site is way ahead when it comes to welding," says production manager Ströbel, "but there are other GEA sites that are better at machining, for example." The company is therefore planning to set up further competence centers in which the knowledge and skills within GEA will be expanded and shared.

"The GEA welding competence center is a logical step to improve the quality and efficiency of welding work throughout the company worldwide and at the same time counteract the shortage of skilled workers," explains Staufen partner Becker. "Through continuous training and the use of the latest technologies, employees are optimally prepared for the challenges of the future." ■

### About GEA

GEA is one of the world's largest system providers for the food, beverage and pharmaceutical industries. The portfolio includes machines and systems as well as sophisticated process technology, components and comprehensive services. GEA solutions help to make production processes more sustainable and efficient in a wide range of industries.



From the left:

**ROBERT STRÖBEL**, Director Leadership Production –  
BU Liquid Technologies, GEA Brewery Systems GmbH |  
**MICHAEL WAGENHÄUSER**, Head of Quality, Health,  
Safety and Environment, GEA Brewery Systems GmbH



# "The art of liking yourself"

Mr. Frei, as a multiple world champion and Paralympic winner, you've been among the absolute world elite for 40 years. Your world record in the racing chair marathon persisted for 25 years and was only recently beaten using Formula 1 technology. How did you manage to motivate yourself over such a long period of time and keep delivering top performances?

First and foremost, because of my great joy at regaining mobility! After my sports accident - I was 20 years old at that time - it was extremely questionable. If this shock has any effect, it is that every new day in the here and now is a good day. This generates a great deal of gratitude and even a sense of humility when I am pleased to see what my life has been able to give me for the past 46 years.

In view of the current challenges (wars, environmental destruction, technological change), more and more people are afraid of the future. What can you do to avoid falling into a personal negative spiral?

Even if it sounds selfish, it's about the "art" of liking yourself. I was only able to approach people again after I was at peace with myself and my fate. Of course, I had a lot of fears at first, even panic fears. But fears paralyze us. So, let's not allow too much fear, but replace it with respect. I am convinced that a task can be solved with respect; that a respectful approach to my working environment leads to a better result at the end of the day; that respect in the family provokes fewer crises; that

a certain amount of respect sharpens my focus and strengthens me mentally. It certainly helps to surround yourself with people who have a certain positive aura. But first, it's about taking personal responsibility.

How can companies help their employees remain confident and innovative even in economically turbulent times?

There are leaders in a company who know the virtues described above, live them out and represent them with conviction. This generates trust and confidence. If these role models back up their efforts with good results, they will have a contagious effect on the employees. And if you then trigger something like pride in the employees, you have won. An organization structured in this way can also cope with difficult times.

Your sporting successes were never an end in themselves, but rather your way of raising awareness for socially relevant issues. How important is it for people and companies to think beyond personal success?

Despite my successes, I never imagined that I was better than anyone else. I was allowed to win, but I didn't HAVE to! When I looked more closely, I realized that sport only serves as a bridge to me to advance completely different things - integration, inclusion, removing obstacles, showing willingness to perform despite a handicap and much more. Perhaps the end in itself is the beginning - and if we are strong enough, we have what it takes to pass on some of this strength. ■

## HEINZ FREI

World champion in the racing chair



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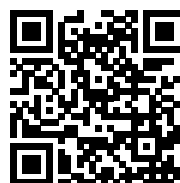
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