

staufen magazine

A journal for change from STAUFEN.AG

2022 | No. 5



IFM

**LEAN, DIGITALIZATION
& SUSTAINABILITY**

Page 06

GM CHINA

**THE CUSTOMER JOURNEY IS
TAKING A NEW DIRECTION.**

Page 62

LOUIS DREYFUS

**EFFICIENCY AND SUSTAINABILITY
IN AGRIBUSINESS**

Page 84

INSIDE EVERY COMPANY THERE IS AN EVEN BETTER ONE.

YES! WE. CAN.



In uncertain times, it is increasingly important to confirm the quality of all resources. We are proud to be recognized amongst the best consultancies again this year.

Staufen AG has been advising, coaching and training companies around the world since 1994, and believe that **Inside every company there is an even better one.**

We empower Managers and Employees to establish a performance-enhancing and appreciative corporate culture, focused on value creation at all levels.

Dear Reader,

You can probably remember them very well, all those times as a child when you used to pick dandelions and gently blow on them, gazing in astonishment as the delicate seeds flew up and away into the sky - a game, a reminder, if you will, of the fragile and carefree spirit of youth.

The current state of the world and the economy, however, is anything but carefree. What we're experiencing now isn't just a harmless breeze, but a hurricane that's sweeping across the country. Many companies are currently facing a multi-crisis situation and find themselves feeling as defenseless as a dandelion - a brutal and unfortunately in these times often uncontrollable "game" with fragility.

But there are also companies that have weathered the storms for many decades. Those who have always managed to reinvent themselves time and time again. Like the dandelion, they begin their transformation at just the right time, planting the seeds of fresh ideas in order to give birth to something new - in other words, they wage a courageous and optimistic experiment with fragility.

Courage and determination, however, depend on the preservation of our livelihood. This need for sustainability is radically changing the rules of the game. For the green bill to work, ecology and economy must be quickly and consistently reconciled - a crucial game of fragility.

Our magazine cannot bring back those playful, carefree days of your youth. Yet, what it can do, is offer you quite a few examples and inspiring stories of how companies are taking matters into their own hands in successfully shaping their future. I hope you enjoy a stimulating read and perhaps even experience a few light-hearted moments along the way.

SINCERELY,



WILHELM GOSCHY
CEO, STAUFEN.AG



SUSTAINABILITY

18

Staufen

**GREEN TRANSFORMATION
IN MECHANICAL AND
PLANT ENGINEERING**



- 21 **Solidpower**
"THE ENERGY-POLITICAL
REVOLUTION WILL NOT BE ABLE
TO ESCAPE HYDROGEN."
- 24 **Hargassner**
HOW TO FUEL GROWTH WITH
SUSTAINABILITY
- 28 **Steketee**
POLISHED & PROFESSIONAL
- 32 **INEC**
TRACKING CARBON FOOTPRINT
IN THE SUPPLY CHAIN
- 34 **Staufen**
goGREEN - REDUCING THE CARBON
FOOTPRINT IN THE VALUE STREAM
- 36 **Oskar Frech**
"OUR GOAL IS NOT TO SPEND
A CENT MORE ON ELECTRICITY
IN THE FUTURE."
- 40 **Jule Bosch and Lukas Bosch**
BUSINESS MODELS FOR
AND WITH SUSTAINABILITY

IN THIS ISSUE

OPERATIONAL

- 10 **Arburg**
COMMUNICATION, FOCUS AND COMMITMENT
- 13 **Liebherr**
"NEW PRODUCTION SYSTEM AT LIEBHERR
HOUSEHOLD APPLIANCES."
- 42 **Fein**
"COMPLEXITY AS THE MAIN COST DRIVER."
- 44 **Staufen**
LEAN IN THE USA
- 74 **Staufen**
BEST PRACTICE PARTNER CIRCLE AT BMW
- 76 **Staufen**
BEST PRACTICE TOUR: "LEAN-EXPEDITION"
IN CHINA, EUROPE AND BRASIL
- 80 **Embraer**
THE LEAN TRANSFORMATION JOURNEY
AT EMBRAER

84

Louis Dreyfus
**EFFICIENCY AND
SUSTAINABILITY
IN AGRIBUSINESS**



- 90 **KSB**
SMOOTH OPERATIONS

92 **Alpargatas**
ALPARGATAS ON THE MOVE

98 **Hoerbinger**
A CLOSELY-KNIT NETWORK ALL AROUND THE WORLD

100 **Saleri**
EXCELLENCE IN EFFICIENCY

103 **Olympus**
MEDICAL TECHNOLOGY AND LEAN

106 **Who would have thought?**
IS COMPLEXITY OUR DESTINY?

108 **Thales**
OVERCOMING SILO THINKING

114 **Wolfcraft**
FAMILY BUSINESS PROJECT

STRATEGY

46 **Prof. Martin Richenhagen**
THE AMERICA WHISPERER

56

Staufen

**STRATEGY EXCELLENCE -
"HOW TO MAKE THE
FUTURE HAPPEN"**

58 **Ernst Umformtechnik**
STRATEGY DEVELOPMENT

62 **General Motors China**
**THE CUSTOMER JOURNEY IS TAKING
A NEW DIRECTION**

SUPPLY CHAIN

67 **DB Schenker**
THE FUTURE OF SUPPLY CHAINS

70 **Staufen**
**SUPPLY CHAIN NETWORK MANAGEMENT
MORE RESILIENT, MORE FLEXIBLE,
MORE EFFICIENT**

72 **Staufen.Inova**
GLOCAL FOOTPRINT

DIGITAL

6 **IFM**
"LEAN, DIGITALIZATION & SUSTAINABILITY"

54 **PKF**
HYPERAUTOMATION

112 **ValueStreamer**
**DIGITAL SHOP FLOOR MANAGEMENT
AS A NEW PARADIGM**

118 **ddm hopt+schuler**
PLENTY OF SPACE FOR CREATIVITY

122 **Microsoft**
DIGITAL OPTIMISM

LEADERSHIP

49 **INSTA**
**"WE PUT HORSEPOWER
ON THE ROAD WITH KATA."**

52 **Martina Keck**
**"LEADERSHIP IS A BALANCING
ACT AND REQUIRES CONTINUOUS
IMPROVEMENT."**

87 **Elesta**
**NEW WORK AT ELESTA:
A QUESTION OF TRUST**

96 **Migros**
**"A CRISIS TEAM IS NOT A
PERMANENT INSTITUTION."**

staufen magazine **ONLINE**

Read the Staufen Magazine
conveniently from anywhere:
www.en.staufen.ag/magazine





**“LEAN,
DIGITALIZATION
& SUSTAINABILITY
WILL BE EVEN MORE
TIGHTLY
INTERWOVEN.”**

ifm is a leading supplier of innovative automation technology. Managing Director Bernd Hausler explains in an interview how digitalization is helping open up new fields of business and what challenges the industry will struggle with in the future.



With approximately 8,100 employees and sales of more than EUR 1.2 billion each year, the ifm Group is a critical, globally active supplier of systems and components for automation technology used by industrial companies. The company's own products and solutions are utilized in its own production. They helped the company win the well-known industrial competition "Factory of the Year."

DIGITAL

Mr. Hausler, lean, digitalization, and sustainability are part of a whole for you. Can a company elude this trinity today?

In production, these three areas can no longer be separated from one another, and they are the key to global competitiveness. In Germany, the problem is that we must be just as cost effective as our competitors in Asia and Eastern Europe. We can only do this with creative solutions. A small series manufacturer such as ifm, for example, cannot automate production completely for cost reasons. As a result, smart solutions such as AI processes supporting manual or partially automated workstations make them competitive on an international level.

Can you express the effect in figures?

Before we started relying completely on digitalization in 2017, we were able to regularly record a 3 to 5% increase in efficiency by taking normal improvement measures. However, this was not sufficient to keep the German location competitive. We had to keep on shoveling and achieved an advance with digital tools: a 10 to 20% efficiency increase!

How is lean incorporated into a digitalization strategy?

Digital tools can only create such an efficiency increase once a company has defined clear flows and processes; lean offers the basis for a clean digital process. At ifm, we introduced a clear strategy and lean processes more than ten years ago. Then we were able to build digitalization on top of that. Among medium-sized German companies, there are many that have failed to do their homework. Therefore, they often lack digitally mapped processes.

Many companies fear that they will have to overhaul their entire organization in the course of digitalization. Is this worry justified?

I advise starting with a lighthouse project in a small, clearly defined area. Here's why: To eliminate concerns, start, and then draw conclusions for the entire company from the first steps. Here I wouldn't speak of milestones, but rather of a lean journey that is continued with new, digital tools. Many entrepreneurs are unsure about all the new tools and do not trust themselves to simply try things out. Unfortunately, this is also the case with some large companies. But fending off the attack of new, digitally oriented competitors requires courage and an openness to new technologies.



DIGITAL

1,140
patents

Founded in
1969



BERND HAUSLER
General Manager, ifm efector gmbh

"In Germany, the problem is that we must be as cost effective as our competitors in Asia and Eastern Europe. **We can only do this with creative solutions.**"

How can curiosity and active commitment be encouraged among employees?

We try to encourage imagination and creativity without demanding results. An example: I made EUR 25,000 available to our employees for the purchase of a robot. We intentionally started small and did not make a ROI plan. Instead, the motto was: Learn to walk with the new tool and formulate possibilities for sensible use by employing series of different experiments. A company must be prepared to make such risk investments and to grant staff room to make mistakes and explore dead-end streets. Because, it's not always the creative approach that leads to success. Don't always strive for perfection, leave some room for trial and error.

Is there an example of how this approach resulted in a new product at ifm?

An example would be the "intelligent workstation" that we developed. Originally, the concern was to prevent slips in small-series manufacturing. We had already exhausted the usual sensor methods. So, we sponsored a hackathon with the topic "intelligent packaging for small series." Students from seven universities researched, experimented, and developed for two days before they presented their results. One idea was especially persuasive: A workstation with AI-assisted image processing as support for employees. Sonja Reiner, who we subsequently hired, was a member of the winning team. As the person in charge of our "ifm mate" worker assistance system, she is now enhancing it. While solving our own problems, we found solutions and products for us and our customers.



"We see over and over: There is no digitalization without lean! Many companies try digitalization and purchase modern tools and robots, only to determine in retrospect that these do not pay off. **But this isn't due to the tools, but to the fact that the processes and essential principles of Lean Management were not introduced beforehand.**"

DR. WERNER LAUB
Partner, STAUFEN.AG

8,100
employees

1,252
million EUR
sales

Is the intelligent workstation also a way to address the looming shortage of skilled workers?

The system is predestined for making it possible to carry out complex activities without a lot of previous knowledge. However, in order to use the "ifm mate" sensibly, companies need to introduce lean. First the workflows in the physical world must be standardized consistently; only after that can additional potential be exploited with clever digital tools – keyword quality/error costs.

What will the "factory of the year" look like in five years?

Digitalization and increased efficiency will remain important issues, which will be marked even more by the topic of sustainability. Lean, digitalization, and sustainability will be woven together



IFM MATE

The worker assistance system in use at ifm's production location in Tettngang, Germany.

DIGITAL

even tighter. This means that intelligent systems must be adapted to production plans and lines, and they must start and shut down automatically. Especially topics relating to energy savings will be more important. Lean comes into play here too, because only if the machines and processes run in stable fashion can the automatic switch-off be transferred to the system.

Does this mean that anyone who lags behind with regard to lean and digitalization will also lose track of the topic of sustainability?

Many companies will not fulfill the requirements for sustainability in due time and, for example, will therefore not be able to clearly define their CO₂ footprint. But the social, political, and economic pressures are increasing. In the future, industry will be required to provide clean data – and thus also clean products. ■



OPERATIONAL

NEW PROCESS ORGANIZATION AT ARBURG: COMMUNICATION, FOCUS AND COMMITMENT



In the plastics processing industry, too, the trend toward individualization is creating increasingly complex process landscapes. The machine manufacturer Arburg is responding to this with a comprehensive organizational change.



WERNER FAULHABER
Head of Development
ARBURG GmbH + Co KG



GUIDO FROHNHAUS
Head of Technology
ARBURG GmbH + Co KG



ACHIM HARTER
Project Manager
ARBURG GmbH + Co KG



SVEN KEINATH
Project Manager
ARBURG GmbH + Co KG



For most people, the day begins and ends with reaching for an injection-molded piece of plastic: the toothbrush. But also toys, the lids of beverage bottles or eyeglass frames are produced by injection molding. Many companies rely on machines to manufacture these products from the northern Black Forest. Because Lossburg is home to Arburg GmbH + Co KG, one of the world market leaders for injection molding machines.

Companies from the automotive, packaging, electronics, medical and many other industries also rely on Arburg's high-precision and modular machines. "The level of customizing has increased strongly in recent years," says Head of Technology Guido Frohnhaus, "and this development has not remained inconsequential, but ensured that our process landscape became increasingly complex."

Although Arburg had already successfully introduced lean management methods in the traditional areas of production and assembly, the entire order processing and logistics processes now had to be adapted to be able to master the new challenges. So, the "Shop Floor Management allround" project was launched with Staufen AG in early 2020. Behind this is a comprehensive change at Arburg. The project incorporates all areas into Shop

Floor Management (SFM), from materials management, purchasing and procurement to production and new product development. The goal: to establish a lean process for order processing throughout the company.

"Always 100 per cent ready to give information."

A good two years later, project manager Sven Keinath, a partner in the fourth generation of the entrepreneurial families, draws a very positive result: "We have successfully introduced SFM in all technical areas. The structure of the boards is the same throughout the company, but each of the processes have been individually adapted to the needs of the separate teams." After the introduction, it took an average of only three to six months at the most for all employees to really come to grips with SFM, adds Werner Faulhaber. "During this time, the one or the other key figure was also revised once again," says the Head of Development at Arburg.

Guido Frohnhaus also likes to convince himself of the success of the project progress to date with unannounced visits to the shop floor: "If I show up there all of a sudden, the teams are 100 percent informed at all times thanks to the boards." SFM therefore not only ensures transparency at Arburg, but also



ARBURG

Arburg GmbH + Co KG, based in Lossburg (Baden-Wuerttemberg, Germany), is a mechanical engineering company and one of the world's leading manufacturers of injection molding machines and additive manufacturing systems for plastics processing. The machines are manufactured exclusively in Lossburg. The company employs around 2,900 people in Germany and a further 600 at 34 locations worldwide. The family business was founded in 1923. In 1956, the first injection molding machines went into series production.

EXPERIENCE INJECTION MOLDING TECHNOLOGY LIVE:

at the Arburg Customer Center in Lossburg during the Technology Days.

provides security for everyone involved. "After all, the real secret of SFM is not on the boards at all," Frohnhaus continued. "For me, communication, focus and commitment are the real added value of this method."

A new division as impetus

However, in order to fully round off the new order processing process, it was also necessary to intervene in the organizational structure. From the point of view of Arburg managers, this was the biggest change for the employees. "Previously, each area had its own logistics, then we centralized everything," explains Achim Harter, the project manager responsible for this step. He also heads the new "Order Center" department, the centrally responsible entity for order clarification/ dispatching and order throughput. In the beginning, there was a bit of a rumble there, Harter admits: "Colleagues came from very different backgrounds and some had done their work differently before. However, Shop Floor Management has also helped us here to systematically look at and evaluate each process step. In the end, all employees got on board and were convinced that the new approach was a good one.

"Today, the new department is the driving force behind the entire machining process," says Managing Director Frohnhaus. But without support from outside, this development in its breadth and,

at first, sometimes painful depth, would not have been possible from his point of view: "The consultants from Staufen held up a mirror to us efficiently and charmingly and helped us to find a solution together in a crisp way. Absolute plus points: always practice-oriented and always at eye level with all parties involved."

Shop Floor Management ensures future viability

The project goal has thus been achieved, but the transformation at Arburg is far from complete. Digitalization (arburg-Xworld) and sustainability (arburgGREENworld) are important topics to ensure the future viability of the company. "Software development is also taking up more and more space in our company," explains Guido Frohnhaus. "Simulations are a great lever for sustainability in the plastics processing industry, because they allow us to reduce material consumption." Head of Development Werner Faulhaber adds: "We are working intensively on optimizing drive and control technology as well as the material cycle – keyword: circular economy." Here, too, the introduction of SFM is having a positive effect. Managing Director Frohnhaus: "We now focus on the key issues, get to decisions faster and work in a more agile way." ■



LIEBHERR



"OUR FACTORIES ARE THEREFORE WORKING EVEN MORE CLOSELY TOGETHER."

NEW PRODUCTION SYSTEM AT LIEBHERR HOUSEHOLD APPLIANCES



HANS-CHRISTIAN KRALER
Global Lean Production Manager
at Liebherr-Hausgeräte

Liebherr is known for the manufacture of high quality and increasingly customizable refrigeration and freezer solutions. This premium manufacturer offers the very best quality and a wide variety of appliances for a broad range of customers and the most varied needs. But in doing so, Liebherr is faced with the challenge of guaranteeing the same high quality and the production processes needed for this quality at its various production sites. A uniform production system guarantees that all steps and processes at the sites in the various countries are optimally organized.



“The added value for us is to be found in Shop Floor Management. By using our production system we have lifted our communication and transparency onto a new level.”

For very many years, Liebherr refrigeration and freezing appliances have occupied a position in the premium segment where they meet exacting needs. “We strongly believe in providing a wide range both for private households and for professional use”, stated Hans-Christian Kraler, Global Lean Production Manager at Liebherr Household Appliances. Private customers can now use the “MyStyle” on-line configurator to design the internal fittings of their refrigerator exactly as they wish and decide on the appliance’s design or color, or whether it is to be printed with personal images and texts. For its commercial customers, for example in the grocery trade, the catering industry or medicine, Liebherr has developed special appliances that are customized to meet the requirements of each particular segment. Liebherr’s attention is focused on individuality and the needs of the each target group.

More than 10,000 refrigerators and freezers leave the production sites every day

The refrigerators and freezers are manufactured in the network of factories spread across five countries including Germany, Austria and Bulgaria. Thousands of appliances leave the various production sites each day. But the increasing variety involves expensive and complex logistics which is now being trimmed further. “We had no uniform production system. To make a long

GERHARD DIEWALD

Head of Factory, Marica
Liebherr-Hausgeräte Marica EOOD, Bulgaria

story short, each factory “did its own thing” and optimized the production processes without regard to the other sites. We are now placing greater emphasis on exchanges between our production sites. Our factories are therefore working even more closely together”, stated Hans-Christian Kraler.

The company turned to Staufen AG to set the necessary changes in motion. “The consultants were very convincing even during the initial presentation” Kraler remembered. “Although we knew what we needed, we didn’t know how to get there. Staufen probed into our needs right from the start. This customized approach is exactly how we deal with our customers; it was therefore a decisive point.”

Shop Floor Management as the key to the uniform production system

Every project manager was aware from the outset that the change process would take some time and would only be successful if all factories adopted the same perspective. To ensure that this happened, several workshops were devoted to the concept of a cross-factory production system. The analysis of the various sites provided insight into the strengths relating to lean management that already existed and also into the potential

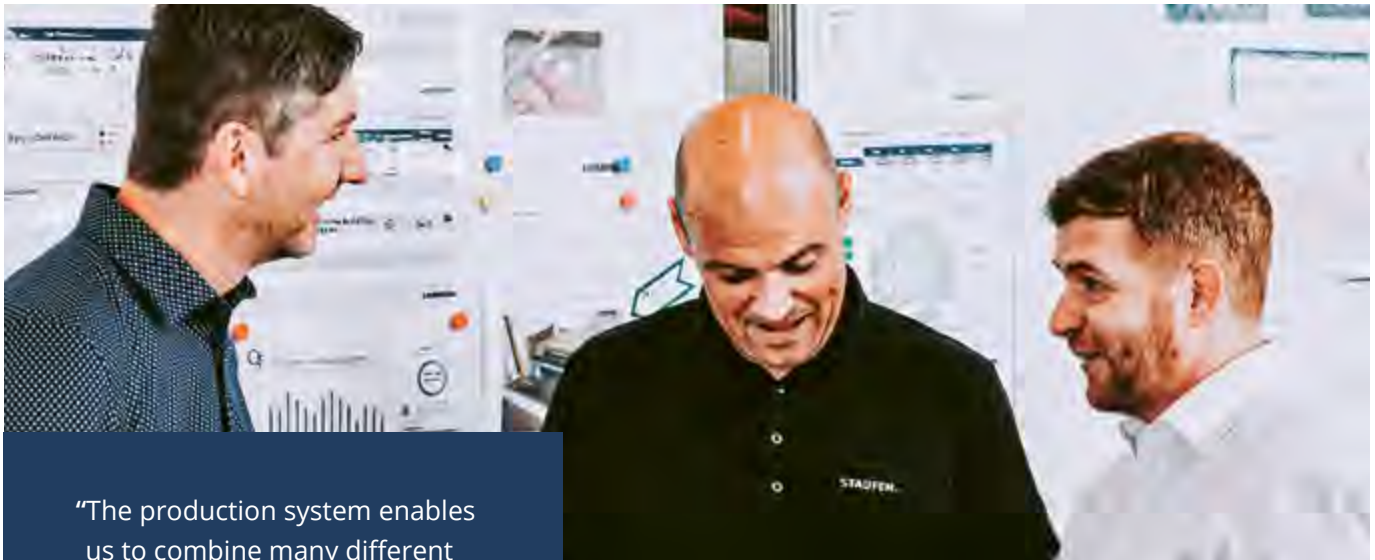


“With the production system we have developed principles we will use in the future to configure our processes and value streams. While considering local characteristics, we nevertheless created

standards and used methods to underpin a continuous exchange between the factories.”

MICHAEL FUCHS

Head of Global Industrial Engineering
Liebherr-Hausgeräte GmbH



“The production system enables us to combine many different initiatives. **In this way we create transparency and clarity for our staff.**”

CHRISTIAN UTZ

Head of Factory Ochsenhausen
Liebherr-Hausgeräte Ochsenhausen GmbH

“**With our production system, we achieve an understanding of the entire value stream, as a result of which investments are no longer considered in isolation.** During the daily shop floor meeting our managers also discuss any non-conformances in any disciplines or departments and are therefore in a position to develop and implement important and appropriate actions.”

MARCEL SNELDER

Head of Factory Lienz
Liebherr-Hausgeräte Lienz GmbH, Austria

in the areas of value stream and logistics, among others, that had not yet been fully exploited. Lean expert Kraler added “Principles were therefore developed in stages and rules jointly defined to govern work in the individual manufacturing sites.”

At the same time, potential for lighthouse projects were identified and ultimately used to initiate the change process in the factories in Germany, Austria and Bulgaria. An important component of the new production system at this time was the introduction of Shop Floor Management. We created both a results-oriented management at the sites, and at the same time also ensured we had a value flow-oriented stable process design. “In this way Shop Floor Management became the key to the process of convincing as many local staff as possible to put continuous optimization onto a permanent footing.”

Next step: systematic platform strategy

At the time of writing, Liebherr has reached the stage of rolling out the new production system to all its factories. “We now have an appreciation in the works for the value stream from the supply chain through to manufacturing. One of the biggest plus points of the new system is that the factories recognized the advantages very quickly”, explained Hans-Christian Kraler. But this does not represent the end of the change processes at Liebherr. “The new production system is just the first building block. We are systematically extending our platform strategy to leverage further potential and to increase standardization among our production plants in the years ahead.” ■



THE SOLUTION TO A CENTURIES-OLD PROBLEM

SUSTAINABILITY

“Once the woods and forests have been ruined, revenues will be lost for years to come.”

HANS CARL VON CARLOWITZ (1645 – 1714)

In the wake of an energy crisis, the ore mines and smelters of the Ore Mountains in Saxony slid into a deep crisis at the beginning of the 18th century. Years of overexploiting nature led to the so-called timber shortage. In his groundbreaking work “*Sylvicultura Oeconomica*,” German chief miner Hans Carl von Carlowitz analyzed the effects of an industry geared only towards short-term profits and urged sustainable forestry, thereby ensuring the long-term use of the forest as a source of energy. Von Carlowitz is therefore considered the creator of the term “sustainability” and is currently very much en vogue again.

In industry, von Carlowitz's ideas are increasingly guiding new actions. But many challenges must still be overcome. For example, only one in three mechanical engineering companies has a clear compass when it comes to sustainability; only one in four selects its suppliers according to ecological criteria and nine out of ten see the sustainability potential in their company as not yet exhausted. “Mechanical and plant engineering must continue to drive ecological transformation. Central factors here will be the economic efficiency of the measures announced as well as stringent anchoring in corporate policy and management strategy,” says Dr. Björn Falk, Industry Manager Mechanical Engineering at Staufen.

* Hans Carl von Carlowitz: *Sylvicultura Oeconomica* – Natural Instruction for Wild Tree Cultivation (1713)



STUDY: GREEN TRANSFORMATION IN MECHANICAL AND PLANT ENGINEERING

Status quo, initiated measures, effects on the supply chain as well as a look at the future – for the “Green Transformation 2022” study, Staufen AG conducted an in-depth survey of more than 150 mechanical and plant engineering companies on the topic of sustainability.

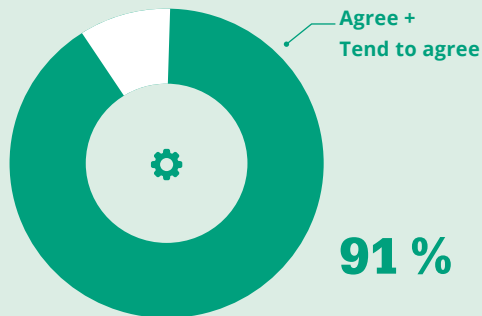
Nine out of ten mechanical and plant engineering companies in Germany have set themselves the goal of operating climate-neutral by 2035. Companies no longer can or want to ignore their social responsibility. Although the industry is still lagging somewhat behind the automotive sector, it is clear that the green transformation has set a ball rolling that can no longer be stopped.

SUSTAINABILITY

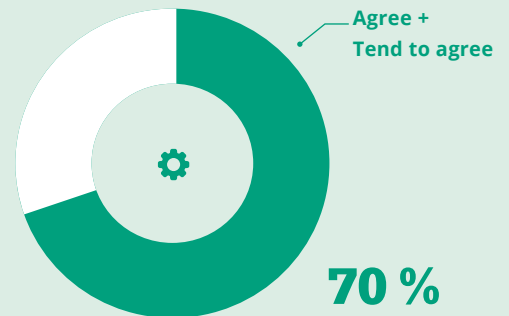




How do you evaluate the following statements?



Our company still has ecological potential.

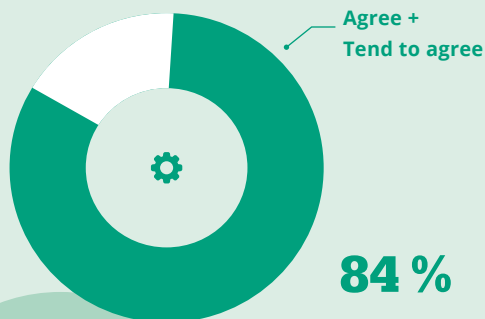


The ecological effect of measures that our company can implement is high.

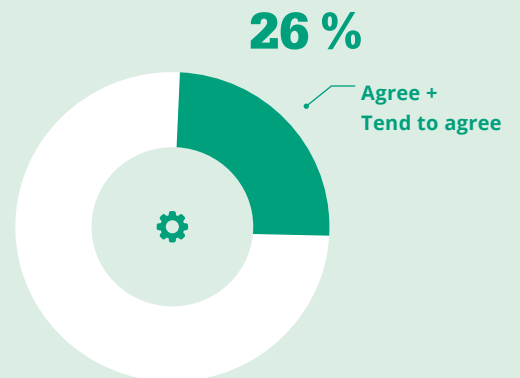
We're in the initial stage: Mechanical and plant engineering still has a lot of ecological potential.

SUSTAINABILITY

How do you evaluate the following statements?



Our company has to advance the green transformation in order to be able to survive on the market.

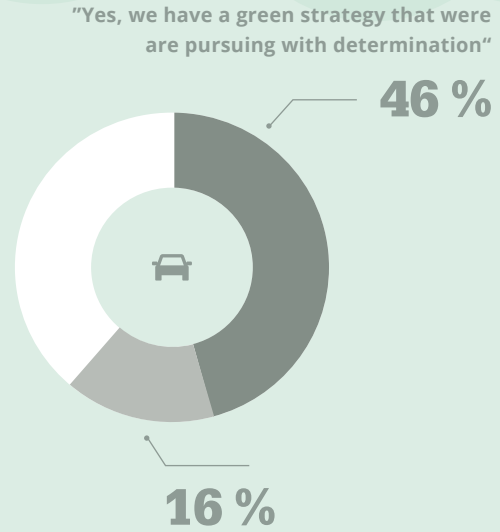
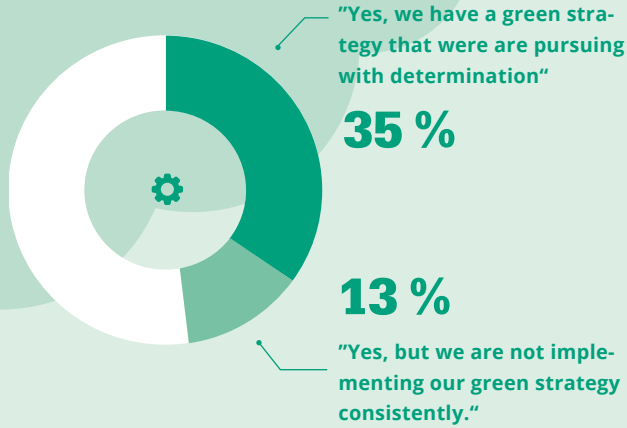


The ecological transformation is too challenging for us as a company. The tempo specified is too fast.

The ecological transformation is too challenging for us as a company. The tempo specified is too fast.



Does your company have a strategy for the green transformation?

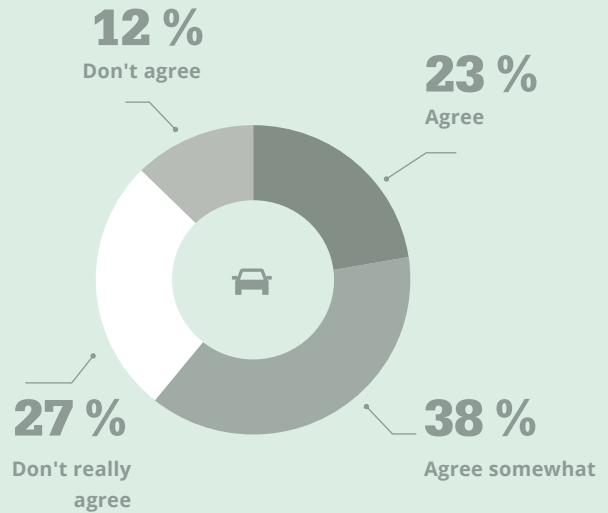
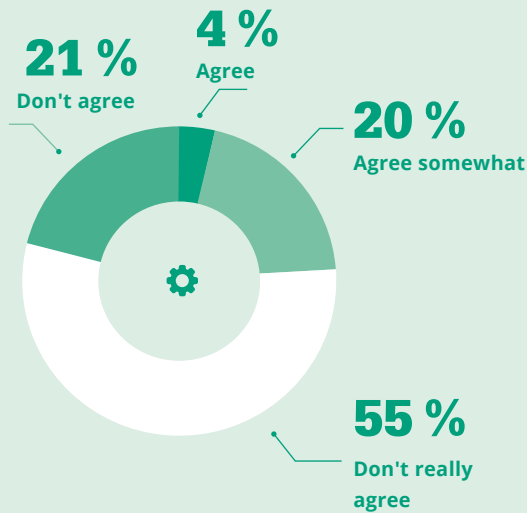


The advantage of the automobile industry: Nearly one out of two automotive companies already has a successful green strategy.

“Yes, but we are not implementing our green strategy consistently.”

SUSTAINABILITY

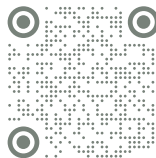
The sustainability concept is already an awarding criterion for supplier selection.



Need to catch up: Only one mechanical engineering company out of four selects its suppliers according to ecological criteria.

Mechanical/plant engineering

Automobile industry



More information about Study Green Transformation: www.en.staufen.ag/green-transformation-2022



"THE ENERGY-POLITICAL REVOLUTION WILL NOT BE ABLE TO ESCAPE HYDROGEN"



**"THE ENERGY-POLITICAL
REVOLUTION WILL
NOT BE ABLE TO
ESCAPE HYDROGEN"**





When Dr. Martin Füllenbach and Wilhelm Goschy appeared on the screen during the videoconference about this article, people were nervous. No, not the CEO of the Solidpower Group (tuning in from the company's headquarters in Mezzolombardo, Italy) or the Staufen CEO (tuning in from the Staufen headquarters in Köngen near Stuttgart, Germany) due to the upcoming conversation for the Staufen Magazine, but politicians as well as private and industrial gas customers. A few days before that, routine maintenance of the Nord Stream 1 gas pipeline had begun – combined with worry about whether Russia would switch the gas supply back on after completing the maintenance.

“The energy crisis as a result of the Russian attack on Ukraine has made the topic of sustainability more important than ever,” opined Goschy. “Although as our ‘Green Transformation’ study (see p. 18) demonstrated, many companies previously had no or only a medium-term green strategy, the timeline for this has now been abbreviated radically.” They are now feverishly seeking new energy sources and savings measures that can be implemented quickly.

An alternative is the Solidpower Group’s fuel cell technology. “For us as consultants, it is very exciting not just to help Solidpower find its way from start-up to series manufacturer, but also to be constantly up-to-date on the technology side thanks to such an innovative customer and to gain insights into the energy supply of the future – keyword hydrogen,” says Staufen CEO Wilhelm Goschy. In this interview, Solidpower CEO Martin Füllenbach explains how Solidpower – which has been part of the European Clean Hydrogen Alliance initiated by the EU Commission since the middle of 2022 – is currently positioned and what politics must still do for the green transformation:

Dr. Füllenbach, what’s so special about Solidpower’s fuel cells?

Solidpower has been in business the past 16 years or so. As Mr. Goschy mentioned, we are on the path from erstwhile start-up to becoming an industrial company – we currently have 250 employees.

Our specialty is solid oxide fuel cells, which are certainly the most complex, but at the same time the most reliable technology in this area when it comes to a constant load. In addition, we can use all forms of gas in our fuel cells to generate electricity and heat – natural gas, LNG, hydrogen. The two main benefits of our technology are significantly lower power costs and much greater efficiency than with conventional combustion of gas for heat generation.

Previously, you deployed your technology in the form of micro power plants in private households and smaller commercial properties. Is deployment in the industrial sector conceivable in the future?

After the 1.5 KW system, we are currently developing an 8 KW system. This means that we’re already underway in the industrial sector. Consider, for example, the cooling of logistics facilities for perishable goods. However, the much more significant step, a strategy change, will happen elsewhere. Because in the past, we

made electricity from gas with our systems; in the future, we will make gas from electricity. Put simply, we’re turning our technology around and moving into the manufacturing of systems for generating hydrogen.

Would large manufacturers of so-called green steel be potential customers for you, for example?

Absolutely; this solution can be scaled easily.

In Germany in particular, one sometimes has the impression that when it comes to the energy revolution, the focus is not always on finding the best idea. Where do you think Solidpower stands in this “competition”?

There are still essential prejudices against hydrogen. Is hydrogen just hype that nobody will be talking about in a few years? I don’t think so. In contrast: the energy-political revolution will not be able to escape hydrogen. According to a McKinsey analysis, by 2030, in



DR. MARTIN FÜLLENBACH
CEO, SOLIDpower SpA

Dr. Martin Füllenbach has been CEO of Solidpower since 2021. Previously, he occupied the same position for the exchange-noted Semperit AG Holding. This business and financial scientist gained extensive experience in leadership positions across Europe and has held leading positions at a series of technology companies including Oerlikon, Voith Turbo, and EADS.

the course of the EU’s Green Deal alone, the demand for hydrogen will exceed the foreseeable hydrogen production capacity by a factor of two. Even if we’re still a relatively small player, we will play our role in this market.

How long will your technological advance last in your attempt to assert yourself against the slow-waking “giants” with regard to the topic of hydrogen?

We are very familiar with the learning curve for solid oxide fuel cells, and in recent years we have invested approximately EUR 280 million in this technology – and that’s just a rough estimate.



SOLID
POWER

The Solidpower Group is one of the world's leading companies in the high-temperature fuel cell technology (SOFC, Solid Oxide Fuel Cells). At locations in Italy, Germany, Switzerland, and Australia, the group manufactures and sells fuel cell systems for power and heat generation in residential and commercial buildings.

TOP PICTURE: The Micro-KWK system is based on future-oriented fuel cell technology.

In combination with the forecast excess demand for hydrogen, I am therefore still very relaxed about the prospect of at least 5 to 7 years.

In Germany, people like to associate the energy revolution with the hope that they can position themselves as technology leaders in this field in order to compensate for the loss of old domains – that is, combustion engines. Do you believe that this hope is realistic with regard to hydrogen?

The Koreans, Japanese, and Chinese are also very active here. However, it is clear that Germany has decided to dedicate itself to this topic. German technology will play a role here.

What has to happen in German politics so that your prediction will be more optimistic?

In other countries, there are much more concentrated measures. We are, after all, an Italian company. The Italian state is very engaged with the topic of hydrogen and acts as a single entity. That's why a true will to act is palpable, while everything is always so complicated in Germany. A start-up asks the question: should a company really establish itself in Germany? The issues digital infrastructure, poor mobile phone network, and management that is largely still analog are widely recognized.

A short question to wrap things up: what is currently your most important task as CEO?

I have two equally important tasks: to search for investors and to search for talented employees. The younger generation is driven by entirely different things than we once were. The trinity: university degree, career, and money does not draw people in anymore. To find talented employees and make them loyal, you have to create working conditions that win young people over in many respects (sustainability, social responsibility, state-of-the-art labor models, etc.). This is definitely the greatest challenge, and it will decide whether a company is fit for the future. ■



HOW TO FUEL GROWTH WITH SUSTAINABILITY



SUSTAINABILITY



The family-owned company Hargassner has been on the market for more than 38 years. With over 140,000 satisfied customers around the world, it has made a name for itself as a pioneer in environmentally friendly heating with renewable energy. This biomass heating technology specialist employs more than 700 qualified workers and has a production capacity of over 25,000 boilers per year. Its intelligent wood chip, pellet & firewood heating systems are exported to 36 countries.

> 700
employees

25,000
boilers per year

Export to
36
countries



MARKUS HARGASSNER
Managing Director
HARGASSNER Ges mbH



MATHIAS HASIBEDER
Assembly Manager
HARGASSNER Ges mbH



MAGNO

Modern industrial heating equipment for more extensive heat requirements



Experience biomass live

"Sustainability," says Markus Hargassner, "is part of our DNA and visible everywhere. For example, we do our own forest management. Every heating system that leaves our factory is based on timber from our forest." In 2016, Hargassner created a 25,000 m² energy park with poplars, meadows, elephant and sida grass in order to conduct experiments with new kinds of fuel, always on the hunt for new heating materials for the future.

In 2019, the company was expanded to include the 6000 m² Energy World. A new training center was built, a customer center with an impressive biomass world and state-of-the-art office facilities. Right in the middle: the "village square," which employees use for short breaks and a lot of communicative exchange.

The company's successful history began with a promise that Anton Hargassner made to his wife. "I'll build you a heating system that you never need to stoke!" For all the heating technology options at the time were completely unsatisfactory in the mind of this tinkerer and entrepreneur. A lot has happened since then. Four decades later, the Hargassner brand stands for innovative heating systems with the lowest emission values and the greatest efficiency.

Meanwhile, Markus and Anton Junior have followed in the footsteps of their father, Anton, who was always on the go. Carrying on his pioneering spirit, they constantly examine proven ideas and seek better solutions in order to keep advancing biological heating.

Markus Hargassner is proud of the building expansion. "We asked ourselves if we should go to our customers – or if our customers should come to us to experience how we exemplify sustainability. We value the proximity to our customers; we listen to them so we can learn what motivates them and what they want. Ideas for further innovations and improvements come from these conversations."

Furthermore, Energy World is a commitment to the region and to the employees. As a family entrepreneur, Markus Hargassner regards this as his duty. "Here in the region, we are a preferred employer, probably also because we make sure that the working conditions are good; we're almost a family."



Planning of a new assembly hall

The company believes it is on the right path, but the tempo of development keeps reminding people to pause in order to consider new, still better solutions. When it was time to plan a new assembly hall, the heating system manufacturer regarded this as an opportunity to take another careful look at its assembly line. With Werner Laub and Staufen AG, it didn't take long to find a partner who understood the company's philosophy and could support it expertly and as a partner during further development.

The planning of the new assembly hall offered the opportunity to examine the existing production system once again and to re-establish it according to lean principles. After extensive analyses of existing production and logistics processes, an optimal rough concept for the new assembly hall was developed, one that implements a sensible chaining of assembly and both upstream and downstream processes.

“I was already familiar with Lean Management methods, nevertheless I was surprised by

how we, with the help of Staufen, were able to achieve a significant improvement in balancing and lead times.”

MATHIAS HASIBEDER

Assembly Manager, at HARGASSNER Ges mbH



With the setup of a lighthouse area for the assembly of the 20 – 32 kW Nano-Pellet boiler according to lean principles, it was possible to sketch out significantly higher area productivity. The insights gained were used to design the fine planning of the work systems and implement logistics processes in the new hall.

Assembly Manager Mathias Hasibeder expresses his satisfaction about the course of the project: "I was already familiar with Lean Management methods, but I was surprised how, with the help of Staufen, we were able to achieve another significant improvement in balancing and lead times."

Striving for perfection

While the planning and implementation of the new assembly line were in the works, employees were trained as lean experts and Shop Floor Management was introduced for continuous process improvement purposes in order to anchor the changes in the process for the long term.

Robin Schorn of Staufen AG praised these efforts: "The managers were not skeptical and they had no reservations from the very beginning. The employees quickly recognized the added value of the program. All project participants are already busy exemplifying the continuous improvement process on the new assembly line."

In the future, these good experiences from assembly should also be transferred to other areas. The Hargassner brothers are convinced that the Lean Management methods are the right solution and they are motivated to establish a comprehensive improvement culture at the company. Markus Hargassner grins: "My brother and I are passionate technicians. It's hard for us to accept solutions that aren't perfect." ■

SUSTAINABILITY



TOP IMAGE

Setup of the Cardboard X line for a test of the assembly concepts

BOTTOM IMAGE

X-line in series-stable operation



POLISHED & PROFESSIONAL

With its camera-controlled hoeing machine, the Dutch company Steketee has built a name for itself as a niche provider in agricultural weed control - and so was a perfect fit for the portfolio of the agricultural heavyweight LEMKEN. In order to meet the process standards and KPIs customary at its new German parent company as quickly as possible

after the take-over, Steketee's Managing Director, Iljan Schouten, set to work with Staufen to restructure the company. With success! And to ensure that the company can continue on its growth trajectory, Steketee will even move into a new factory in the year ahead. Goed gedaan! Well done!



However thorough the preparations, residual risks and take-overs are never far apart. Different production environments and corporate cultures can mean that the merger does not proceed as originally planned. This could also have happened with the Steketee and LEMKEN merger: "As a result of the innovative products and a motivated young workforce the potential was huge. But, the processes and structures were missing or differed from the demanding LEMKEN standard", was how Managing Director Schouten summarized the situation at that time. So, immediately after the take-over in 2018, Schouten started the restructuring to align the organization more closely with the parent company's requirements.

Saving herbicides in a way that make economic sense

The expectations placed on the highly innovative and formerly owner-managed company were high. The camera technology developed by Steketee itself enables their hoeing machines to recognize individual plants and uproot the weeds mechanically. Farmers were therefore able to save on herbicides – to their own financial benefit and the general benefit of the environment. There were no question marks raised against the products and their underlying technology after the take-over; they fitted perfectly into the LEMKEN portfolio. However, the reorganization of the processes reminiscent of a workshop could not be delayed.



ILJAN SCHOUTEN

Managing Director
Machinefabriek Steketee B.V.

As Managing Director of the Crop Care Business Group, Iljan Schouten is in charge of Steketee, the Netherlands-based subsidiary of LEMKEN. Before he joined the hoeing technology specialist, the agricultural machinery expert occupied key positions in agribusinesses such as the Kverneland Group and Schuitemaker Machines B.V.



The hoeing machines use camera technology to recognize individual plants and uproot the weeds mechanically.



Iljan Schouten needed to address a whole series of challenges at the same time:

- retaining the high level of motivation among the Dutch staff and dispelling their misgivings about their new German owner;
- reorganizing structures and production processes, and
- maintaining the steady growth trajectory;
- all without losing sight of profitability.

It was evident from the outset that Steketee's technology and innovation-driven product range also had to be reflected in the internal processes. So, Schouten set about implementing an ERP system and introduced a well-organized classification system along with documentation in the manufacturing bay.

"We first had to create a basic structure before we could take the next step alongside Staufen" Schouten explained. "We joined forces at the beginning of 2021 to start a top-down/bottom up analysis. This gave us a foundation for the rapid and pragmatic identification of the changes we had to make and then optimize in the subsequent implementation project." In the course of the joint work in the project team, the operations, purchasing, R&D and finance functions were the subject of particular analysis by experts in each field. Success soon arrived – including financial success. LEMKEN Managing Director Anthony van der Ley: "This development spectacularly demonstrates that we got the take-over absolutely right. With its team of young talented people and more experienced colleagues, Steketee is making a major contribution to shaping an environmentally friendly transformation in agriculture using new technologies and particular artificial intelligence."



Nicola Lemken, owner, LEMKEN GmbH & Co. KG., and **Anthony van der Ley**, Managing Director, LEMKEN GmbH & Co. KG at the site of the new Steketee factory

Developing full potential with a new factory

The timing of the successful completion of the restructuring and the accompanying significant increase in the financial performance was perfect as the lease for the old factory expires in 2023. Plans therefore had to be made for the future, and as LEMKEN has a policy of manufacturing in buildings it owns, the Group decided to go for a new building costing EUR 18 million for which Staufen also provided consultancy and planning services. "With its new factory in Dinteloord close to the present site in South Holland, Steketee will be able to develop its potential and use the optimization tools to their full effect. All the processes and worksteps we restructured, or will restructure, will then be fine-tuned to suit the new optimized manufacturing environment", said Staufen consultant Christian Sprenger.

That Steketee was now finally accepted into the LEMKEN family with the values it has upheld for almost 250 years was made very clear by LEMKEN owner Nicola Lemken on the occasion of the announcement of the future site in spring 2022: "We are delighted that we have found a site close to the old one so that all the staff can effortlessly move to their jobs in the new site." ■



PROJECT-RELATED INCREASE IN EBIT

2021 as compared to 2020

SUSTAINABILITY



Machinefabriek Steketee B.V. is one of the leading companies in the area of weed control in closely targeted agriculture with its focus on intelligent camera concepts for automatic machine control. The Dutch company has been part of the LEMKEN Group since 2018.



TRACKING CARBON FOOTPRINT IN THE SUPPLY CHAIN



The topic of climate protection is now being taken very seriously by the manufacturing industry. Political climate protection targets at a global and national level contribute to this. But the market is also increasingly demanding accountability for the climate relevance of products and companies. This is most clearly illustrated by announcements from many major corporations that strive for so-called climate neutrality in the coming years. As a result, supplier companies are also being held accountable. It starts with the question of what the balance of greenhouse gas emissions looks like and continues with discussing plans to reduce those emissions. Figures and appropriate measures – this is what the focus will be going forward.

Yet, even providing adequate figures is a difficult task. The Greenhouse Gas Protocol, an initiative of various non-governmental organizations, has become the standard for reporting a company's greenhouse gas emissions. Not all of it makes sense

or has been proven. But the basic aspects are applied around the world. Scope 1 Emissions, for example, refer to direct emissions of greenhouse gases – primarily carbon dioxide – i.e., at the companies' sites. This is the easiest to determine as it is calculated based on the consumption of fossil fuels.

Scope 2 Emissions are indirectly related to externally purchased energy, in particular electric power. Here, balancing becomes more difficult: Do you calculate with the data from energy suppliers or with the national average values, the so-called electricity mix? There are good arguments for both, or objections to both. However, companies have the most problems with accounting for other emissions, e.g., in the supply chain or in the use phase of products. They are referred to as Scope 3 Emissions. For downstream emissions, there is no getting around a Product Carbon Footprint (PCF), which also includes the use and disposal phase. That can only be seriously prepared for individual cases and is a



 scope³
analyzer


MARIO SCHMIDT

Physicist, environmental scientist and professor of ecological business management at Pforzheim University. He heads the Institute for Industrial Ecology (INEC) and is a member of numerous commissions on sustainability, climate protection and resource efficiency.

science in itself. For this reason, separate standards apply to this, e.g., ISO EN DIN 14067.

Large emissions mostly occur when raw materials are extracted in distant foreign countries

In the supply chain, on the other hand, the problem arises that information often has to be obtained from hundreds or, in the case of large companies, even thousands of suppliers, and this on an international scale. Even then, you would only have figures from direct suppliers, so Tier 1. Yet, what about the upstream supply chain to the end? This data eludes any practical collection, but it is highly relevant, because a large portion of emissions mostly occurs where raw materials are extracted and processed in distant foreign countries, often with only moderately efficient technology and using fossil fuels.

However, there are methods to estimate emissions in the supply chain. For this purpose, international trade data and country-specific emission balances are used. The Institute for Industrial Ecology at Pforzheim University, together with the Hamburg-based consulting firm Systain and the Karlsruhe-based think tank Industrial Resource Strategies, has developed a free web-based tool that makes it easy to determine emissions in the supply chain. The "scope3analyzer" was released in spring 2022 (<https://scope3analyzer.pulse.cloud/>). The tool was supported with funds from the state government of the German state of Baden-Württemberg.

In the scope3analyzer, a company can enter the purchasing volume, subdivided according to different groups of goods and countries of origin, in euros. The tool then calculates the emissions that occur in the supply chain worldwide. The data entered remains anonymous and is not stored, because purchasing data

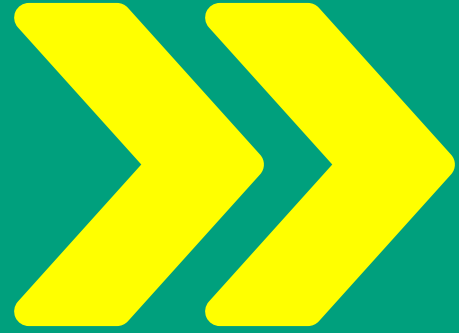
is particularly confidential for companies. Accordingly, companies can also specify scaled purchasing data so that absolute values can remain with the company. The purchased goods are combined into groups of goods anyway, and as such can no longer be identified in individual cases.

The calculation of supply chain emissions is based on average values for the groups of goods from the respective countries and, of course, does not represent the real supply chain of a company. The figures serve as a good estimate and hotspot analysis though, allowing many conclusions to be drawn, e.g., whether certain raw materials or intermediate products should be sourced from other countries in the future. Corporate purchasing departments will increasingly have to deal with these issues.

Even more accurate estimates would be obtained if suppliers also used scope3analyzer for balancing. Because they would then accurately determine their Scope 1 and 2 emissions, and only their supply chain would be estimated with average values. You could go deeper and deeper in the supply chain and eventually even determine the exact Scope 3 emissions balance. Therefore, the tool is offered in both German and English.

After balancing, the real work begins: reducing emissions

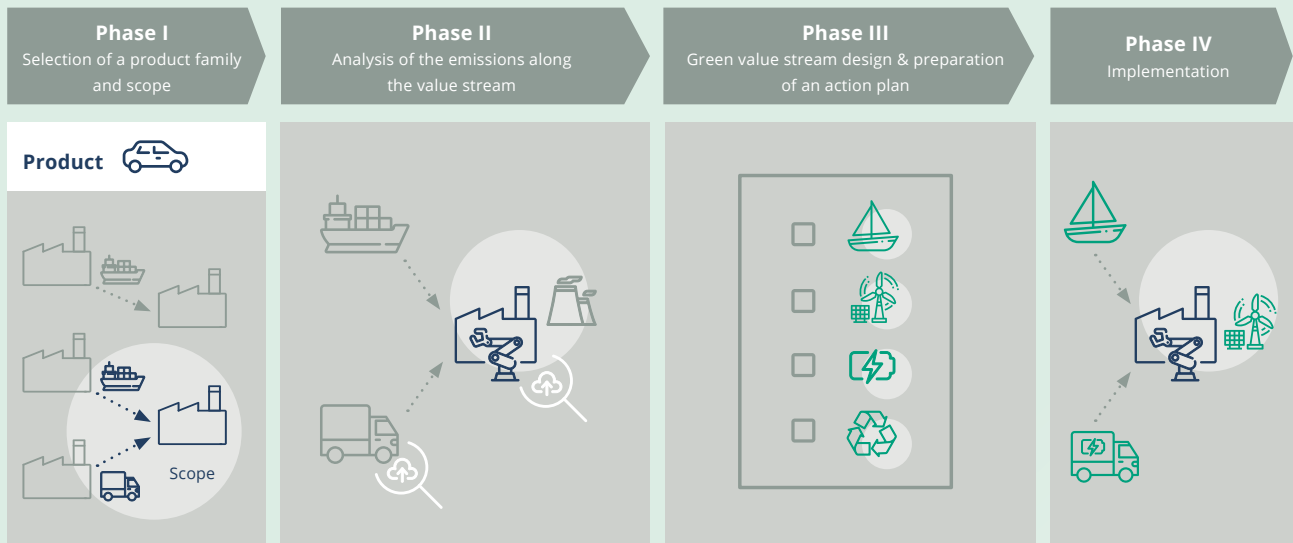
The real work begins after balancing, namely reducing emissions. Monetary compensation or the mere purchase of green electricity, whose origin is often dubious, is not a solution in the long term. Over time, it only makes sense to switch to energy and material-efficient technologies, to renewable energies and to low-emission upstream products. Every company can play its own part in this. ■



goGREEN

REDUCING THE CARBON FOOTPRINT IN THE VALUE STREAM

The **Staufen goGREEN approach supports the formation** of low emission supply chains in four phases:



THE ROAD TO LOW EMISSION VALUE CREATION IS TRAVELLED IN ITERATIVE, CONTROLLED CYCLES



goGREEN projects make the CO₂ footprint in the value stream network visible to all. Areas needing action are identified and the measures for the sustainable reduction of these emissions are implemented on the basis of emission calculations.

Social, legal and economic pressure to act responsibly in the face of climate change and reduce emissions is increasing. Conversely, an effective sustainability strategy offers the opportunity of securing and increasing market shares.

01 Selection of a product family and scope

Selecting a product family is a prior condition for the value stream-oriented emission approach. If there is a lack of focus on products which pass through similar sections of the value stream network, the complexity is likely to strangle the project before it even begins.

Scope 1 and 2 emissions incorporate the emissions of the locations under direct operative control, whereas the locations of the supply chain produce the Scope 3 emissions. The allocation of the emissions to items in the value stream, that is to say to locations and transportation stages, is more important for deriving optimization activities than mapping the emissions in the scopes. Not every single piece of data on the items in the value stream network can be identified with reasonable cost and effort. This is why careful selection of the area of study in the supply chain is necessary. Emission models which calculate the emissions based on average values provide guidance for defining the area of study.

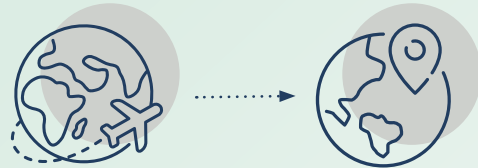
02 Emissions analysis along the value stream

Emissions originate from just a few emission drivers in the supply chain. It is the manufacturing processes of the upstream products (e.g. metal manufacturing), energy supply, logistics and the production processes for the various components (e.g. machine building) that are the prime emission generators.

The emissions are allocated to the items in the value stream. The result is a structured carbon footprint of the value creation network. In the hotspots, the emissions in the individual locations can be broken right down to the process level. When calculating the emissions at location and process level, Staufen cooperates with its expert partner Fokus Zukunft.

03 Green value stream design

The carbon footprint reveals where action is necessary and enables potentials to be quantified.

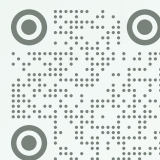


The key activities include the grouping of the supply chains into resilient regional value-creation centers (local for local) and the development of suppliers for the joint manufacturing of sustainable products.

The areas needing action are defined in specific, concrete measures, each prioritized according to their individual potential and the necessary time, effort and cost.

04 Implementation

The implementation of the measures is an iterative process as a low emissions value creation network can only be achieved in multiple steps. Staufen relies on tried and tested tools for this process. Depending on the objective, implementation is by means of agile or deterministic project management. ■



You will find more on the subject of goGREEN in the whitepaper "**goGREEN - competitiveness and future viability**":
www.en.staufen.ag/whitepaper-go-green



"OUR GOAL IS NOT TO SPEND A CENT MORE ON ELECTRICITY IN THE FUTURE"

FRECH

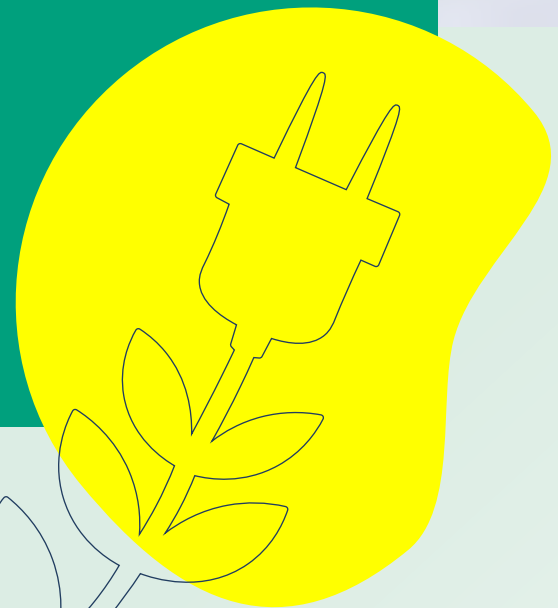
"OUR GOAL IS NOT TO SPEND A CENT MORE ON ELECTRICITY IN THE FUTURE"

As a supplier of die casting technologies, Oskar Frech GmbH + Co. KG operates in an energy-intensive environment. Thanks to efficiency improvements and sustainable planning, the hidden champion was able to drastically reduce its energy consumption. Managing Director Dr. Tim Nikolaou explains in an interview how the transformation succeeded and what role lean management plays in the green transformation.



DR. TIM NIKOLAOU

is a mechanical engineer and holds a doctorate in economics. As Managing Director, he has been responsible for the entire operational business, including development of Oskar Frech GmbH + Co. KG, since 2014.





(CO₂-reduction
(tons/employee):

45%

-77%

greenhousegas-
emissions (TCO₂)

Approx.

800

employees

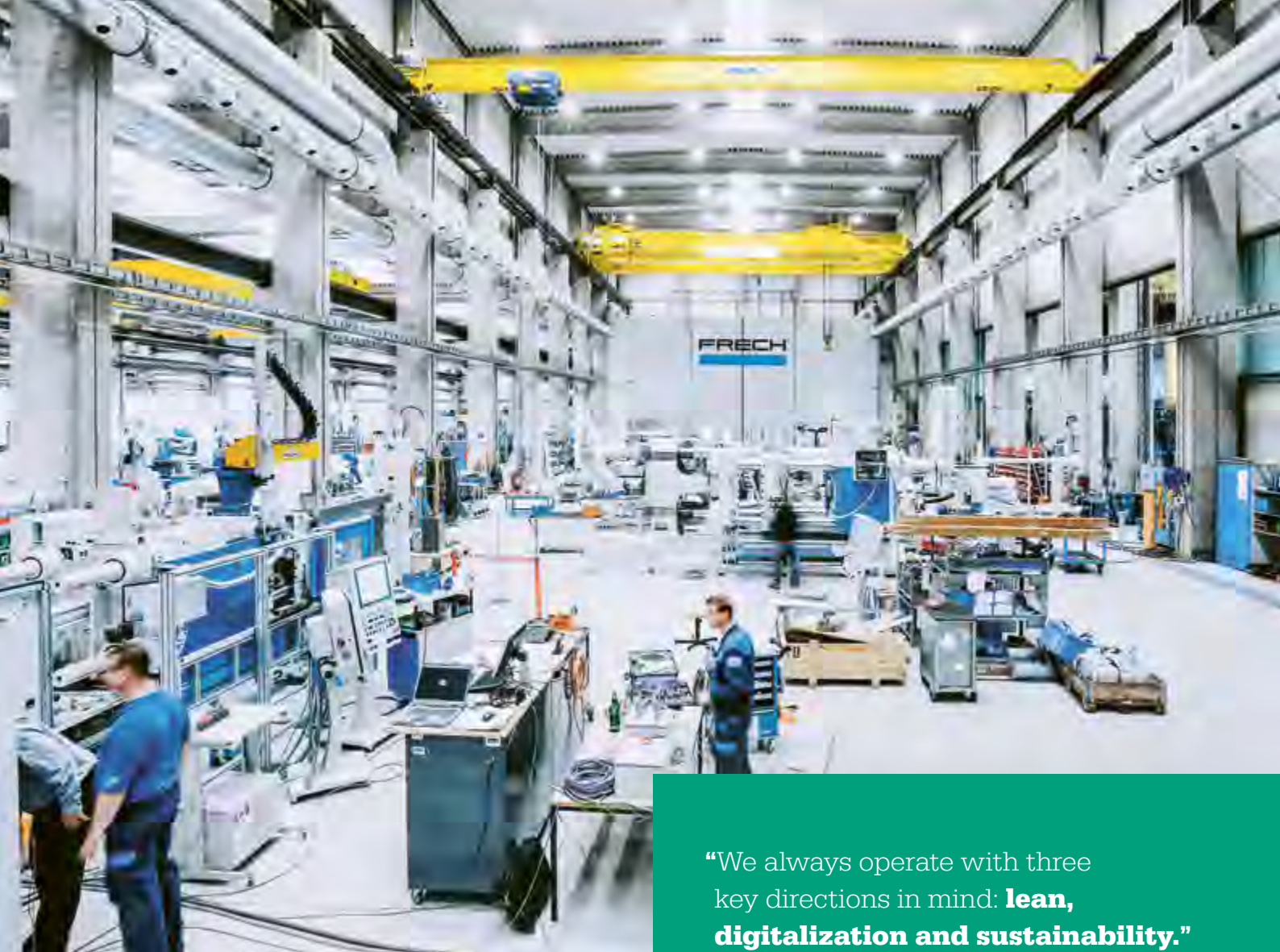
Founded in

1949

Dr. Nikolaou, in 2015 you initiated an initial energy audit at Oskar Frech, and a year later you launched a lean project with Staufen. Since then, you have consistently linked sustainability and process optimization. Is this a financially successful combination as well?

It pays off in more ways than one. Just a few years ago, we emitted around 2,800 metric tons of greenhouse gases each year from our three plants. Now our emissions are at zero. At the same time, our electricity costs fell from around one million euros a year to 650,000 euros, albeit at a significantly higher cost per kilowatt hour. Extrapolated to the current price level, our electricity bill today would be 2.5 million euros per year. Thanks to the combined heat and power plant, PF systems, energy-related renovations, optimized production, and smaller savings such as switching to LED lighting fixtures, we were able to significantly reduce the amount of electricity purchased. We have also been sourcing CO₂-neutral electricity since 2020. This means that our production is already climate-neutral in Scope 1 and Scope 2, and by 2030 we also want to achieve this mark in Scope 3, i.e., including indirect emissions from the supply chain.

Oskar Frech GmbH + Co. KG from Schorndorf is the world's leading supplier of die casting technologies: small die cast parts such as zippers as well as car body parts or engine blocks are produced on Frech die casting machines.



“We always operate with three key directions in mind: **lean, digitalization and sustainability.**”

Many companies are planning far-reaching sustainability projects, but the Staufen study “Green Transformation in Mechanical and Plant Engineering” shows that only one in three companies actually gets it right. How did you manage to implement it?

We started with an energy audit to find out where we stand and what development needs we have. On this basis, we then established and expanded a small energy management team, with managers, area managers and executive positions. The first task was to gather information and reveal potential. To this end, for example, we brought apprentices on board as “energy scouts.” Among other things, they took compressed air measurements and determined where leaks were occurring. We then worked through the list bit by bit. These were only small measures, but they saved hundreds of thousands of euros per year. A combined heat and power plant is a more recent larger project that paid for itself within two years. At the same time, we purchased two electric Smarts for traveling between the plants.

How does the lean project you launched with Staufen in 2016 fit into the sustainability efforts?

We always operate with three key directions in mind: lean, digitalization, and sustainability. If, for example, we find that the cycle in the work process is not right in producing casting units, we first try to increase efficiency through lean. In the next step, we use digital tools. And finally, we link constructive and development activities with the topic of sustainability.

For us as a company, though, not only is our own production relevant but also the steps behind it: from energy-efficient use to recycling. That is why we bought a company last year so that in the future, for example, we can feed aluminum rims produced on our machines back into the materials cycle.



Is recycling a new business model for Oskar Frech?

As far as our core products are concerned, recycling and refurbishing have always been a topic. Used machines are also overhauled and reconditioned in our plants. This is worth it because the service life of our machines is very long. If we can get a Frech machine from the used market, we will gladly take it and then offer it for sale again as a refurbished unit. Especially smaller customers, for whom a new machine is still too expensive, can immediately put a high-quality production line into operation with a used machine.

How do you engage your suppliers regarding ESG?

As a company, we have a responsibility. That is why in 2018 we established a Code of Conduct (Corporate Social Responsibility) that applies to the entire Frech Group worldwide and covers the topics of people, profitability, environment, and energy. We also communicate very clearly to our suppliers what our vision is and where our journey is going, and ask for appropriate self-disclosure. We started with the large suppliers, and now we have reached the smaller companies in the supply chain and have already received signed self-disclosures from 140 suppliers.

Are SMEs generally the more sustainable companies due to their corporate and ownership structure?

Look, we are in die casting technology, an industry with a high energy load. Energy efficiency on the machine has therefore always played a major role for us. In addition, as a medium-sized and family-owned company, we always think across generations – from Oskar Frech to Wolfgang Frech and now to his grandchildren. Family entrepreneurs want to leave behind the best possible living conditions and act as a regional anchor. High ecological awareness is anchored in the corporate philosophy.

What “green projects” do you want to implement next?

We are currently planning a central warehouse, which should be ready by the end of 2023, with greenery and a PV system. This will be built without fossil fuels (KfW 40) and will also sustainably heat the administration building. Our goal is not to spend a cent more on electricity in the future. That is a big goal, but we need to venture forward so that our customers can also see what is possible. ■



“That is a big goal, but we need to venture forward so **that our customers can also see what is possible.**”

DR. TIM NIKOLAOU
Oskar Frech GmbH + Co. KG



MORE BUSINESS, MORE PLANET

BUSINESS MODELS FOR AND WITH SUSTAINABILITY

SUSTAINABILITY

We are at a tipping point. And by this we do not mean an exponentially negative spiral of extreme weather events, water scarcity or climate heating – at least not directly. The tipping point we are referring to is more societal: the C-levels of a large number of companies have suddenly become serious about eco-transformation. At least that is if you follow how often the statement is made that a company has “anchored sustainability in its own DNA”. The fact is: Companies today understand that they are one of the biggest causes of our planet’s problems. The sea level is rising and the C-level is rising, too, and companies are finally starting to do something.

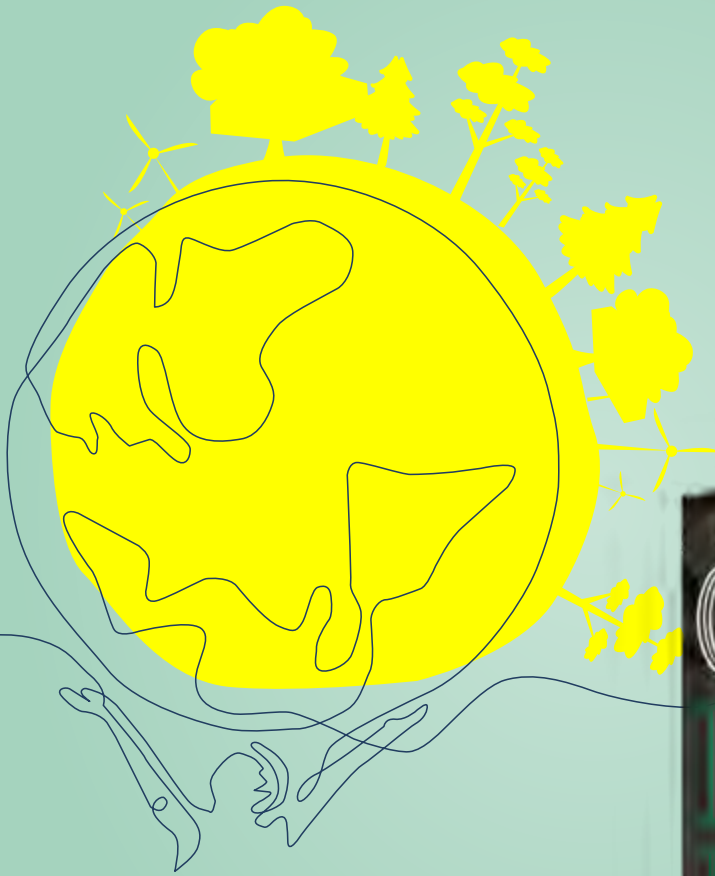
A core element of the transformation will be to ensure that “anchored in DNA” does not remain lip service, but is actually implemented. How is the DNA of companies reflected, though? In the business model, of course! In the way companies create value for their customers, generate revenue in return, so that the bottom line provides a positive return and/or growth prospect. Our thesis: If companies want to move from being a problem to being part of the solution in the face of our planet’s ever worsening problems, they must purposefully redesign their business models. Paradoxically, they can take inspiration from – yes, indeed – Amazon on this one. Why this hyper-capitalist monster that renounces all eco-social values? Well, we’ll leave that as a little cliffhanger for now...



JULE BOSCH UND
LUKAS BOSCH

are independent consultants, speakers and authors. Based on megatrends and design thinking, they question the status quo and ensure, both in consulting projects and with their own ventures, that sustainability is recognized as a potential for disruption and therefore, above all, as business potential. Together they founded the biodiversity start-up Holycrab! and wrote the book „ÖKonomie“ published by Campus Verlag.

...and first address the question of how to design business models. In the systematic and conscious design of this “DNA” lies an enormous lever for success, namely the possibility of very specifically reshaping value creation on the basis of sustainability aspects and thus saving not only the future of all of us, but also very concretely and tangibly that of one’s own company. Simply waiting and seeing is even worse in this ongoing and indisputably necessary sustainability transformation than in all other transformations before. If we do nothing ourselves, others will do it, or “it will just happen.” The buzzword “disruption” as a risk factor that is difficult to calculate expands environmental factors to include numerous interwoven environmental factors of our planet. Transformations in the business model are complex, and the strategic considerations are company-specific – but the direction is clear: The goal is to actually create value without destroying value elsewhere, i.e., resources, livelihoods, etc. Sounds trivial at first, but unfortunately most business models today do not (yet) work that way.



For example, let's look at the difference between a conventional yogurt brand and an example from our book, the Danone Gra-meen company, which is fighting child malnutrition in Bangladesh with nutrient-rich yogurt. The second business model is based on a distribution model that creates jobs in addition to the value of the product, because the ultra-cheap yogurts are not only produced locally, but also transported to every remote community by mostly female employees using a commission model. The business model module "bring to the customers" is therefore deliberately designed and optimized on the basis of eco-social criteria.

This means that if we design business models cleverly, we can ultimately create regenerative business models that consolidate social structures through their business activities, regenerate nature and resources, and at the same time offer useful products and services for their customers. This development is just beginning to gain momentum. It is closely linked to thinking in terms of circular economy as well as cradle-2-cradle, but goes beyond the

design of products by also looking at business models. We called the model "regenerative flywheels" in the book - in reference to the "flywheels" of American business author Jim Collins. The metaphor comes from physics. Flywheels are driven by an initial impulse and then accelerate themselves further and further. Amazon founder Jeff Bezos probably created the best-known entrepreneurial flywheel. Here, the divisions interact in a positive way, so that at a certain point, growth momentum begins to set in, from within the business model. So, apart from the fact that this company itself would probably not receive an award for exceedingly high ecological-social ambitions, there is a lot to learn from it. Linking growth and planet (i.e., ecological-social impact) at the center of the flywheel creates a reciprocal positive dynamic in which more business leads to "more planet" and vice versa. This way, economic and ecological growth scale in an interlocked manner. Sustainability then transforms from a cost factor for companies to an opportunity, actually finding its way into the "DNA" of the company. ■



"COMPLEXITY AS THE MAIN COST DRIVER"



"COMPLEXITY AS THE MAIN COST DRIVER"

Dr. Christoph Weiss has formed companies from a diverse range of situations in his career: advisor, restructuring manager, corporate manager, and proprietor. As CEO of C & E Fein GmbH, he has worked with the support of Staufen AG to focus more closely on the indirect areas. In a discussion with Christian Möllers, a partner at Staufen AG, he explains how they went about raising efficiency potential there.

OPERATIONAL



DR. CHRISTOPH WEISS

is CEO at FEIN, a tool manufacturing company. He holds a doctorate in business administration and, inter alia, served on the board of Festo AG and managed the Theo Müller group of companies (Müllermilch). Weiss is also the proprietor of the jewelry manufacturer Ehinger Schwarz and the Zurich-based consulting firm 10-P Consult.





Dr. Weiss, the field of indirect areas ranges from R&D, HR, to Sales, to name just a few. Is there anything that these areas have in common?

Well yes. In each area, complexity is the main cost driver. We are living in times of hyper-competition. Everyone is doing their best to always offer their customers only the very best. Yet, that simply does not work.

What can we do to reduce the level of complexity?

By giving some thought to which target groups to serve with what kind of offer. Or more importantly: which target groups should no longer be served. This is exactly the question that so many companies are struggling with. Shortly after I started at FEIN, we pulled out of 60 small markets to focus on our own 15 national companies. That eliminated quite a bit of complexity on the sales side, and all of a sudden we had enough capacity there to generate completely different numbers of units in those markets that we consider critical, instead of having to tediously drum them up from around the world.

What will happen in the indirect areas after the strategy has been streamlined?

They will need to analyze exactly which processes have not yet been standardized. Ultimately, they are the biggest capacity guzzlers and thus the source of inefficiency. Many companies still believe that only they understand how their industry works. However, if you look at state-of-the-art ERP solutions, you can see just how many processes can now be standardized and, more importantly, digitalized.

Do you have an example of a typically non-standardized and thus inefficient processes?

If a series manufacturer suddenly tries to offer customized solutions or services, it won't be able to do so with its existing ERP. So what happens? They start tinkering with Excel workarounds. As a result, the entire operation runs counter to productivity.

What about processes that can't be standardized, that I can't shut down or outsource?

You can't really standardize product management. At the same time, though; it is of paramount importance. After all, this is where creative minds look very closely at what customers need and how the market is developing. To keep productivity at a high level and not waste capacity, the only thing that helps is to strictly filter product ideas very carefully and manage the portfolio of the current product range.

The art of product management is to identify the customer's problem and then weave a solution

that is better than anything available on the market. But to do this, you have to think outside the box and then inside the box. Product managers are expected to be the entrepreneurs inside the company.

It would almost seem that the efficiency problems in the indirect areas are not being resolved because management is shying away from the upstream major moves and sometimes painful cuts.

I can only underscore that. Management does need to make clear directional decisions and give clear guidance to its staff: What is important and what should we leave out.

What key indicator do you use to measure whether an indirect area is operating efficiently?

My favorite indicator is the cost of human resources in relation to value added. Over time, the relative cost block per unit must be reduced. This is not achieved by pushing staff to work harder and faster, but instead by identifying the major cost drivers and learning to control them.

What is the minimum benchmark that companies should strive to achieve here?

If we add the total payroll costs (by adding direct and indirect areas) to the value added - i.e., sales minus material, minus extended workbench - we would come to the following scale for the manufacturing industry:

- below 40 percent is excellent,
- below 50 percent is good,
- between 50 and 60 percent there is still plenty of room for improvement, and
- above 60 percent becomes existentially dangerous.

Most importantly, this key figure is reflected 1 to 1 in the EBIT margin. Many people still do not realize this. The indicator payroll costs in relation to added value clearly indicates whether my company can expand without growing.

So it's about creating greater value with the existing workforce.

If the working environment is inspirational and people are able to bring their own ideas to bear in improving processes, you have the essential ingredients for a company to continually get better and better. This is how you then succeed in achieving double-digit growth without requiring double-digit increases in the number of people you employ. My rule of thumb: 10 percent annual growth with 3 percent higher payroll costs is realistic if you manage it the right way. ■



LEAN IN THE USA

Staufen AG is also represented in the world's largest economy. Lean expert David Frost leads the US team as Senior Advisor. We introduce the "car guy" in an interview.

With your previous positions at Ford and Toyota, you are a true "car guy." Does this mean today that you're also automatically a "lean guy"? What has been your personal "lean journey" so far?

My lean journey began during my time as a Production Team Member and Tool and Die Journeyman at Ford Motor Co. I always enjoyed collaborating and finding ways to make processes easier, more repeatable, and ultimately more efficient for the operator. I learned this can rarely, if ever, be done alone, and I still believe that the core foundations of teamwork, continuous improvement, and respect for people cannot be sacrificed if "lean" is the desired outcome.

What intrigues you about your new task at Staufen AG? What goals have you set for yourself?

I joined Staufen USA to not only be a part of the challenge to start the US office, but also to take advantage of the opportunity for personal growth and development that it offers. From the first meeting that I had with Staufen CEO Wilhelm Goschy, I quickly realized that the company and their values click with me, my background, and my beliefs. The mission to optimize performance and help people do their jobs more easily and efficiently through instruction and respect hit home.

The Academy was also very very intriguing. In it, there is a top team, a clear direction, and all of the resources needed to support the team and its customers to quickly build trust in the US market.

I can personally identify with the Staufen belief that "inside every company there is an even better one". My goal is to carry that forward and also improve my management skills along the way.

OPERATIONAL



In February of 2022, David Frost became a Principal at Staufen USA. After graduating from Illinois State University with a degree in economics and labor management, he began working for Ford Motor Company in Chicago as an hourly production worker. "I wanted to learn from the ground up", Frost says, explaining why he began in production, and his later decision to accept an apprenticeship as a tool and die maker. For him, it was like a "family business," as his father was also a die maker at the plant, and his brother is still employed there as an electrician. After graduating his apprenticeship, he took on various management positions in the tool and die department. After eleven years at Ford, he moved to Toyota Motor Manufacturing for twelve years, where he deepened his lean knowledge in various departments and roles. In 2019, after 23 yrs. in the Automotive industry, he then moved into the operational consulting business.

DAVID FROST

(in the picture on the left)
Principal, STAUFEN.USA





Respect for people and the workforce is especially important to you. Is that part of your lean imprint?

It definitely is. Almost immediately following my training as a tool and die maker, I was given a management position supervising the men and woman that had been teaching me my trade for the previous 4 yrs. I learned that showing humility and respect by asking questions and understanding that there are different paths to achieve similar goals worked well for me and my team when it came to determining path forward. I quickly realized that being willing to listen and learn creates momentum for continuous improvement.

What is the background and experience of the Staufen US team?

Our experience goes well beyond automotive and lean as a core. It expands deeply into expertise in training and development with backgrounds in multiple industries and distribution networks as well. If needed, we can also pull resources from our counterparts in Mexico, Germany, or the rest of the world at any time.

Both Staufen and the Academy are also active worldwide and we are always in an exchange of some sort. We benefit from that knowledge just as much as our customers do.

In which topics do you see the greatest need for this expertise in the USA?

Currently, all sectors in the USA, regardless of whether it's Automotive, Commercial, Industrial or Logistics have exposure in some way to similar challenges. Domestic demand is increasing, utilization and development of more sustainable processes are increasing, the labor market is continuing to create pressure in multiple ways, and the need for Industry 4.0 implementation is growing. Together with our customers, we at Staufen develop solutions, optimize processes, plan new plants, support the development of the workforce, and accompany businesses on their path towards digitalization. We are truly in a great position to support the arising needs of a complex economy. ■

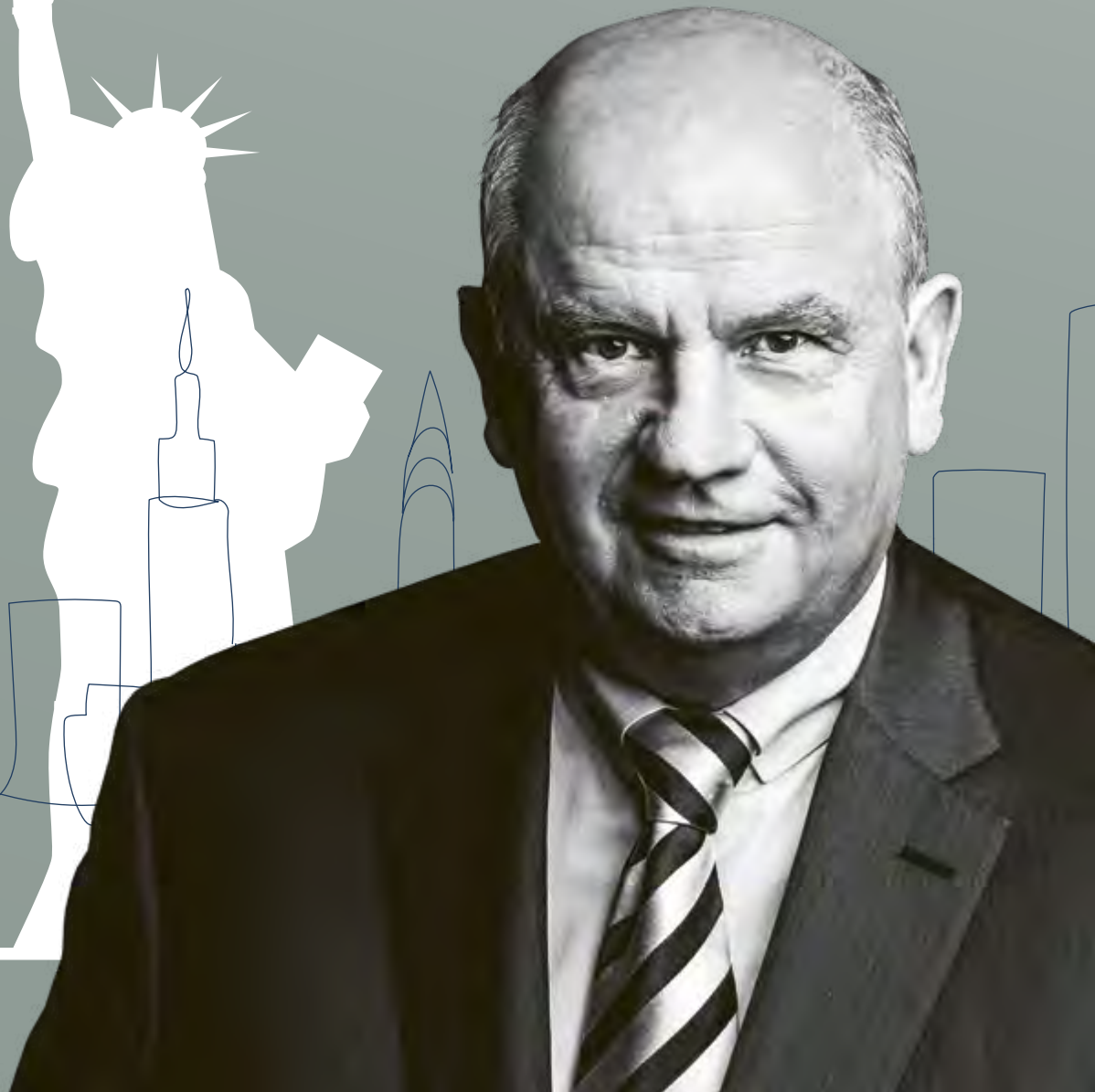
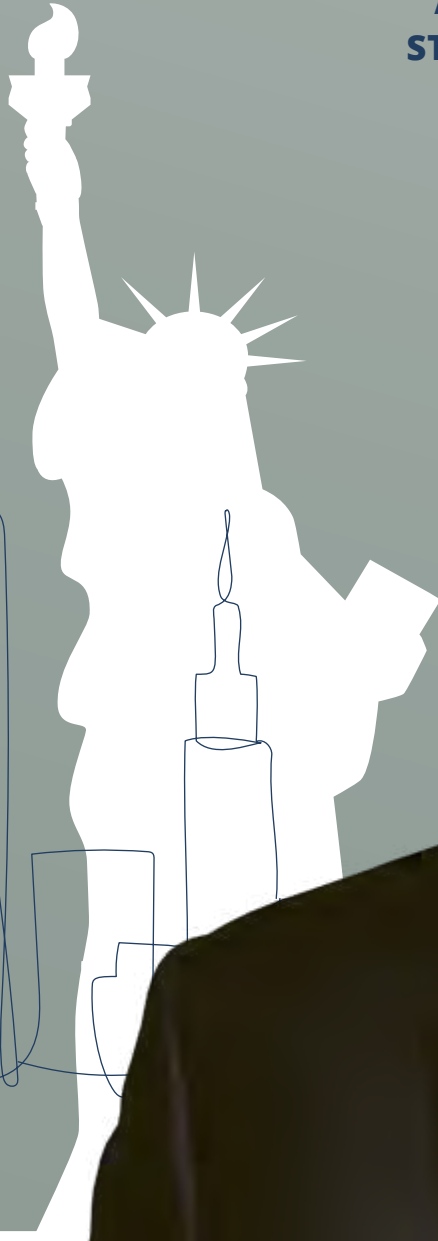




THE AMERICA WHISPERER

"AMERICAN UNIVERSITIES ARE MORE STRONGLY POSITIONED ON ISSUES OF THE FUTURE."

STRATEGY





Staufen AG spoke with Prof. Martin Richenhagen. The German-American manager was CEO of AGCO Corporation from 2004 to 2020 and today sits on the supervisory boards of Linde, Stihl and Daimler Truck, among others. Born in Cologne, he lives in the USA. He has also been an American citizen since 2011.

Professor Richenhagen, your biography is titled “Der Amerika-Flüsterer” (The America Whisperer). Who did you have to whisper to more during your time as a manager – also as CEO of U.S. company AGCO from 2004 to 2020 – the Americans or the Germans?

The title is, of course, a bit exaggerated and also not from me, but from the publisher. After all, it was not my foremost task to “whisper” to America or Germany. But I will comment on transatlantic issues if that is desired. I always try to explain things and mediate between the two worlds. Formerly as CEO and now as chairman of the American Institute for Contemporary German Studies (AICGS) think tank in Washington.

Do you have an example of such mediation tasks?

When the current German President Frank-Walter Steinmeier was in Washington as the then Foreign Minister, we were able to persuade him to also come to Atlanta to see a university and two schools there. By the end of the day, it was clear that his previous perception of the American education system had changed significantly.

Tesla in Grünheide, soon Intel in Magdeburg – is Germany currently the favorite location for major US investments?

The American business community has always liked to invest in Germany. It is a solid location for U.S. companies with a similar legal framework. Americans, however, require a bit of explanation regarding employee participation in German companies.

Could the current geopolitical upheavals strengthen transatlantic economic ties?

I think so. The Americans have always had a much more distanced attitude toward Russia than Germany, for example. No one there could ever understand the dependence on Russian pipelines or the sale of German gas storage facilities to Gazprom.

While the USA sets the pace worldwide with tech companies such as Apple, Amazon, Google and Meta, Germany is still more synonymous with traditional industry. Is that enough for the future?

In sectors such as mechanical engineering or the automotive industry, the Germans still have a certain strength, even superiority. But that is crumbling. It is remarkable how such a strong automotive location as Germany could be left behind by a newcomer like Tesla. And a lot of additional competitors are moving in – especially from China.

Where do you think there needs to be a change of direction?

It's all about education, first and foremost. U.S. universities are more strongly positioned on issues of the future. In addition, the financing of start-ups plays a crucial role. For example, we recently took Axios in New York public, a start-ups that I am Chairman of, even though the founders are German.

**PROF.
MARTIN RICHENHAGEN**

Former AGCO CEO and today multi-supervisory board member



STRATEGY

Is the mega topic of sustainability an opportunity for Germany to position itself as a global pioneer?

At the very least, the Greens justify the restrictive interventions in industry with the prospect of developing knowledge and new economic sectors. In fact, Germans are already quite capable here in certain areas. I hope that this is an opportunity for Germany.

Back to the transatlantic relationship. Wouldn't it be wise for the U.S. and Europe to develop a joint strategy regarding China?

We have not even managed to reach a trade agreement between the United States and Europe - the TTIP. I was involved at the time as Chairman of the German American Chamber of Commerce. When President Obama was ready to sign TTIP, we coordinated a meeting between him and Chancellor Merkel at the Hannover Messe. TTIP failed not because of the Americans, but because of the Germans.

I still believe, though, that we have to seize the opportunity to engage more closely with the Americans again. A joint China strategy? It would be worth the try.

What, then, needs to change in American political culture?

There are too few qualified and charismatic politicians with leadership potential. Moreover, in Germany we do not have a tradition of wanting to understand things in depth so that we can then talk about them sensibly and approach a joint solution. Instead, there is a "talk show culture." Mostly the same people sit there, always regurgitating the same topics. That's not political engagement!

The subtitle of your book can be translated into English as "My Path from German Religious Teacher to Top US Manager." Do we need more people with resumes like yours?

I've always liked hiring people with broader experience. But it always depends on what the person has done. In other words, not a three-year sabbatical after graduating from high school, but, for example, self-employment while still a student. And that's regardless of whether the company has made it economically or not. The Americans, by the way, handle the issue quite differently. Here, going bust doesn't mean the end of your career.

Finally, what is your most important advice to the current generation of managers?

Never stop learning. I don't do that either, even though I'll be 70 this year. Take the example of Axios, which I have already talked about. The topic of a meat-free diet is practically up for grabs. In Germany have to be even more creative in this regard. In Germany, risk comes first, while in the U.S. it's the opportunities. ■



INSTA

“WE PUT HORSEPOWER ON THE ROAD WITH KATA.”

The electronics specialist Insta has set out on the path to becoming a learning organization. To achieve its goal, this company in the Sauerland is relying especially on coaching its employees. Consistent improvement as a principle should ensure on every team that new requirements are implemented more quickly.

Insta GmbH of Lüdenscheid is one of the most innovative companies in its industry. Whether in the industrial electronics, building technology, Internet of Things, or smart home sector – this technology pro is always a reliable partner that stands by its customers. Rapid developments in industry do not allow companies to rest on their laurels. This BestPractice partner of Staufen AG has therefore been on a lean journey for ten years, one that

keeps it agile and capable of transformation. “The professionalization of Shop Floor Management was the biggest lever for setting the organization in motion and encouraging a higher maturity level,” is how Head of Production Heinz Floren sums up the intermediate progress. “We introduced a different communication speed to the organization and were able to master crises such as COVID-19.”



STEPHAN FILTHUTH
Head of Supply Chain
Insta GmbH



MAXIMILIAN REINTKE
Lean & Strategic Technology
Insta GmbH



HEINZ FLOREN
Head of Production
Insta GmbH



Achieving the defined breakthrough targets

"Communication works very well," confirms Stephan Filthuth, Head of Supply Chain at Insta. Meanwhile, thanks to established Shop Floor Management, the company has achieved a maturity level that enables it to take further steps along the path to becoming a learning organization. "Now the concern is to speed up the implementation; to do this, we must reinforce our colleagues' own sense of responsibility," says Stephan Filthuth. In Kata (see box), Insta management has an improvement method for achieving the defined breakthrough targets in the individual production areas. "After Shop Floor Management and the evolution of goals according to Hoshin Kanri, Kata is the next gear for putting horsepower on the road," says Lean Office & Kata coach Maximilian Reintke.

Reinforcing employees' own sense of responsibility

In six projects thus far, the team's own sense of responsibility was reinforced so that team members would learn the Kata method and it would reach a lot of people. One project was the optimized supply of assembly islands with the tigger train. "The goal was to guarantee island supply with one person, and at the same time, to shorten supply and disposal cycles," explains Kata coach Reintke. "Work was done with an eye to value stream by an interdisciplinary team from Production and Logistics." In the Kata process, employees learned to analyze the entire cycle and detect waste in all process areas, such as the fitting and tailoring of the tigger train.

LEADERSHIP

Kata is a term from the martial arts: Through constant practice and application of a procedure, this procedure should become a routine, which can be called up very quickly if needed. Lean expert and author Mike Rother makes a distinction between the improvement Kata and the coaching Kata. The improvement Kata focuses on gradually approaching a defined goal state using a learning routine. The coaching Kata is based on the interaction between the learner (generally employees) and the coach (generally their manager). Proper application of the improvement Kata is supported by the coaching Kata.



INSTA

Insta GmbH of Lüdenscheid, a specialist in building and light automation, was established in 1970. With more than 500 employees, the company produces assembly groups, devices, and control systems. In the process, about 250 million SMT components are fitted each year. In addition, Insta is a think tank for the future of building automation. Most recently, the company recorded sales of EUR 75 million.

MANAGING AND IMPROVING ON THE SHOPFLOOR

The KATA board is a key component of KATA improvement and coaching.

LEADERSHIP

Insta managers were also enthusiastic about the project, because it did not come "from above"; instead, the idea arose from the team. Head of Supply Chain Filthuth: "There was no problem with the island supply, nevertheless the team set the goal of cutting the required workload for supply in half with the tigger train." Now, the project participants are functioning as multipliers, carrying the insights from this Kata project to their own teams. If you have the courage to change things, you can gain an advantage; Maximilian Reintke is convinced of this. Kata is like a flashlight that you can use to illuminate things that you never saw before.

Thorough preparation as a success factor

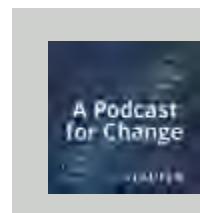
Nevertheless, the coaching is not an easy sell. "It took a long time to prepare," says Head of Production Floren. "Even with Shop Floor Management and the evolution of goals, we included the employees. If we had not had this maturity level, we would have run aground with Kata. You must have a solid basis to start such projects." Staufen consultants conducted the first coachings. Meanwhile, the former mentees have themselves become mentors, who are advancing the organization with coaching. Stephan Filthuth adds: "We are all technicians here and we have to learn

that the approach for how we work with people beyond figures and facts is key. Hierarchies are playing less of a role, cohesion is improving. With Kata, we removed functional hurdles."

In the future, Insta is planning four Kata projects per quarter. They should ensure that the company becomes more scalable and can also prepare itself faster for changed framework conditions. "Insta has become a company that truly improves constantly. With Kata, the team has discovered the joy of experimentation, one of the necessities for becoming a learning organization," is how Staufen partner Dr. Werner Laub sums things up. He has accompanied Insta on this path for many years. ■

LISTEN TO THE PODCAST NOW:

"Thanks to Shop Floor Management, we have really taken off with Lean Transformation"
www.en.staufen.ag/podcast-insta





“LEADERSHIP IS A BALANCING ACT AND REQUIRES CONTINUOUS IMPROVEMENT.”



MARTINA KECK
Head of Daimler Truck Consulting

Currently crises are defining many parts of our everyday life, and our professional lives too. Martina Keck, Head of Daimler Truck Consulting, explains in an interview how important it is for leaders to pay more attention to employees’ needs, especially in times such as these.

Ms. Keck, in total, you can look back across 25 years’ professional experience as a consultant, executive coach, and moderator. What has been your personal maxim in your role as leader?

The privilege of accompanying and leading people means assuming responsibility for more than just myself. If this is supposed to happen successfully in a constantly changing environment, I have to examine and develop my own thinking and actions over and over again.

As a Lean Management expert (Lean Six Sigma Black Belt), you focus intensively on the topic of transformation. In your view, what changes in the working world have been accelerated by the “crisis marathon” in recent years?

Today we are using IT to a much greater extent. Added to this is that we are suddenly holding videoconferences in people’s kitchens and living rooms. Before the crisis, there was “private space” and “corporate space.” Now these have been all mixed up. And even more has happened below the surface. The changed way in which we work today has had enormous effects on systematic aspects at companies.

For example?

Now as before, there are many leaders who associate leadership with control. But there are also enough employees who associate performance with being the first one to turn the lights on and the last one to turn them off. These and other once-successful mechanisms no longer work in the increasingly “new digital world.” The “system organization” was also quite disturbed. And this means that we not only have to establish new tools, but people in the organization have to examine and adapt their preferred patterns of behavior.



How much of this have companies already implemented?

On the one hand, we have all determined that we can exchange ideas and coordinate everything via Teams, Zoom & Co. On the other hand, we haven't thought enough about how we conduct meetings and how we communicate there and can make everything more efficient.

Does new work require a new leadership style?

The challenge is to ensure that we do not lose the connection to the employees. For the feeling of belonging can be lost the less personal contact you have. If I can no longer "feel" my colleagues (body language, exchange between the lines, etc.), the connection suffers. At the same time, the sense of insecurity increases, because I tend to focus more and more on my own perspective and interpretations of the current situation. It's necessary to create formats that are well-received by employees and do justice to their individual needs. Having lunch together every Tuesday and Thursday would certainly not be right. Here, leadership is a balancing act that requires great skill.

Have you adapted your own leadership style accordingly?

I have seen this balancing act in myself: First I have to get to know the employees in another way and query their individual needs, then do justice to those needs in digital form, create appropriate structures, and allow myself sufficient time to do this. The development of one's own leadership personality is a continuous process.

In the future, will a leader have to be more someone who takes care of things instead of checking work results?

A leader is always only as good as the team as a whole. Therefore, leaders must consider how much time to invest in care for the team and in themselves as leader. Transformation should be regarded as an opportunity, and it can even be fun.

Can leaders learn to take greater care?

A seminar about how to take care or how to be empathetic is certainly doomed to failure. It's better to learn from experience. In principle, I believe that coachings and guided group reflections are the "tool" of choice for helping leaders and teams in their development.

In the near future, will leaders still be required or will teams be able to work on their own?

I don't believe that we can survive entirely without leaders. After all, self-organization of the team requires leadership. In the future, however, leaders will require a different portfolio to support this autonomy well. And everything that should be changed at a company must be exemplified authentically by its leaders. My personal opinion is that in the long term, companies will succeed primarily due to their culture. This "personality" of the organization will also determine which employers young talents choose to select in the future. ■



HYPER AUTOMA TION

DIGITAL

**FOR THE TECHNOLOGY TO REALIZE ITS BENEFITS,
PROCESSES MUST BE LEAN AND STABLE.**

After Robotic Process Automation (RPA), the first companies are already taking the next development step with hyperautomation. Racel Maalej, partner and managing director at technology partner PKF Fasselt Consulting GmbH and its subsidiary CAPTOS GmbH, and Frank Krüger, Senior Partner at Staufen AG responsible for the topic of digitalization, discuss the direction in which technology is developing and how it is finding its way out of offices and into production halls.

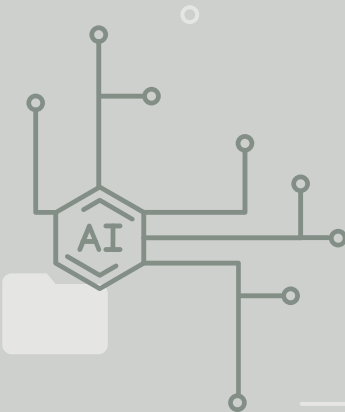
Rule-based automation of individual processes using RPA is now standard in large companies. Medium-sized companies are also using this technology on a broad scale or are planning to introduce it in the short term. Mr. Maalej, what comes after RPA?

Racel Maalej:

We are now taking the next development step: hyperautomation. With modern tools such as our CAPTOS automation platform, the capabilities of software robots are considerably enhanced with a deep integration of machine learning (ML) and artificial intelligence (AI). Thanks to hyperautomation, we achieve more flexibility, cover a wider range of applications, and can make automation lines significantly longer or extend them.

Frank Krüger:

Typical RPA application areas have been wherever high transaction volume meets structured data sets. Through hyperautomation, more complex activities can now be covered in the manual area or in the combination of software and hardware. This makes RPA et al. even more interesting for traditional machine builders -



PKF (captos)

and in production as well. After all, it is the properties and characteristics of a process that determine which technology fits – no longer just where it is used.

Racel Maalej:

In general, a bot pays for itself very quickly with the appropriate volumes. But there are also use cases that do not depend on volume. For example, if a company wants to increase accuracy in a process, a software solution can also be an ideal fit.

Before implementing an RPA or hyperautomation solution, we recommend companies start with a pilot. After all, the first step is to get to know the technology and reduce fears within the company – especially among the workforce. Once the pilot runs smoothly and the company has recognized the benefits of the technology, the next step is to identify the processes that would benefit most from automation.

Frank Krüger:

This is where the collaboration between PKF and Staufen reaches its full potential: As an integrator with lean expertise, we connect the technology with the production environment and can thus identify the right processes or, if necessary, reorganize processes. After all, for the technology to realize its benefits, processes must first and foremost be lean and stable. This is the only way to ensure trouble-free operation and a good ROI.

Racel Maalej:

I agree. Automating a bad process would also negate any time advantages. Unlike traditional IT projects, RPA projects can be implemented within a few weeks. Once the pilot is up and running, it is on to data-based validation and identifying potential savings. After that, the roll-out phase begins. With the CAPTOS solution, we then add AI support on top and thereby clearly distinguish ourselves from traditional RPA approaches.

Frank Krüger:

The requirement for this is structured data. If, for example, information needs to be extracted from a text, this can only be done using AI. Even today, it is not just for documents such as letters or invoices. Chat messages or voice files can also be read out, and hardware components such as data glasses, data gloves or wearables can be used to define and set up automation routes in a completely new way, because there is live feedback or real-time data recording, for example. Hyperautomation will become a hyper-topic in the coming years.

That is why I advise companies to prepare their employees quickly and ease their fears. The software robot is not a competitor, but rather supports and takes over monotonous work steps. Germany currently has a shortage of 800,000 skilled workers, and this situation will get worse in the future. To counter the shortage of skilled workers, companies must now automate appropriate processes. The future therefore lies in intelligently linking people and machines.

Racel Maalej:

In the future, companies will need a well-trained workforce to oversee and optimize processes. Today, the challenge is more that the workload of individual employees is becoming more intense. Especially in hectic and challenging work environments, RPA and hyperautomation can provide very effective relief. ■



FRANK KRÜGER
Senior Partner
STAUFEN.AG



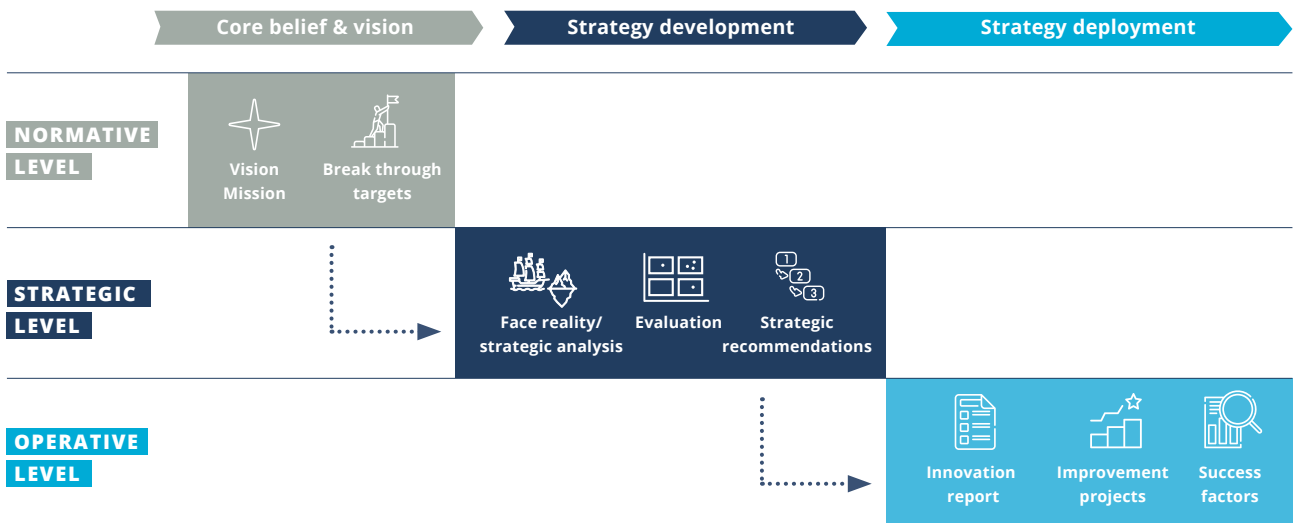
RACEL MAALEJ
Managing Director
PKF Fasselt Consulting GmbH



STRATEGY EXCELLENCE

“HOW TO MAKE THE FUTURE HAPPEN”

Valid development and **effective implementation** of the strategy takes place at all levels of the model





The Staufen strategy approach links vision and goals, derives strategic projects, anchors them in processes, and ensures effective implementation through transparency, measurability, and a sense of purpose for employees.

With increasing pressure on global supply chains and far-reaching technological and societal trends, strategic decisions for companies are becoming steadily more complicated, but at the same time more necessary.

The Staufen strategy approach enables valid strategic alignment and effective implementation of necessary initiatives. This is based on four success factors:

01 Clear target image for progress

Without an appropriate and appealing target image (vision), successful company orientation cannot be realized. Accordingly, this is also the cornerstone for successful strategic alignment.

A "Vision Check" initiates the methodical implementation of the company's strategic orientation. Here, the relevance and power of the corporate vision is questioned. The vision should be a statement describing an abstract, yet clear and unambiguous goal for the company. The impact ("radiance") is verified in terms of resilience, universal appeal and added value for customers or society.

02 Valid analysis for sustainable alignment

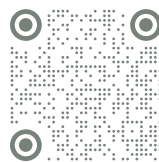
After reviewing the corporate vision, the actual strategy is developed. To do this, the first step is to record the actual status. Without a valid analysis of the current situation, you risk making wrong assumptions, and the resources used will remain ineffective in relation to the target image. Clearly formulated medium-term recommendations are derived from the analysis of the company's internal and external environment.

03 Think lean – focus on projects that contribute to goal achievement

Derived from the implementation-oriented lean concept, the strategic recommendations are anchored in the operational processes. On the one hand, this methodically ensures that the focus is placed only on projects that contribute to the achievement of objectives; on the other hand, employee involvement ensures that the focus also reaches an operational level. When anchoring the process, the orientation phase is accomplished by asking the following questions: What do we need to change in operations to implement the strategy? What drivers in our processes ensure that we achieve our goals at the end of the year? Here, Staufen uses the Innovation Report as a unique method to guide this anchoring.

04 How to make it happen – company compass (Hoshin Kanri) and implementation support

To ensure implementation, the final phase of the Staufen strategy approach establishes a KPI compass. Without this final and decisive step, strategic projects often get lost in the day-to-day business and all the investments made to develop them are wasted. In concrete terms, a KPI cascade is set up for improvement projects, which allows you to precisely measure the required driver-impact relationships between project and target. This provides transparency, enables short-cycle deviation management, and shows employees their own measurable contribution. Employees recognize their personal contribution to the future of the company in the operational business. ■



For more on the topic of vision, target image and strategy development or on the question of how to make strategy effective, see the whitepaper "Strategy Excellence – from vision to execution": www.en.staufen.ag/whitepaper-strategy-excellence



“Our company must successfully master challenges relating to **electromobility, digitalization, sustainability, and securing locations.**”

MATTHIAS ERNST AND HERBERT GIERINGER
Managing Director ERNST Umformtechnik GmbH



The transformation of the automotive industry is also impacting producers such as ERNST Umformtechnik GmbH. Managing Directors Matthias Ernst and Herbert Gieringer explain why they turned to Staufen AG for support in further developing the company's strategy.

ERNST Umformtechnik GmbH is a typical family-owned company in Germany. More than half a century ago, the first metal sheets were stamped and formed in Oberkirch (Baden-Württemberg). Now, the company operates globally. The company now has 750 employees at its sites in Germany, the USA, France, and China. Today, ERNST Umformtechnik is considered a specialist for precision components. One of the main customers of the products is the automotive industry. The transformation process of the industry and its suppliers is also forcing ERNST Umformtechnik to adapt to current developments and rethink its strategic orientation.



STRATEGY DEVELOPMENT AT ERNST UMFORMTECHNIK

**“WHEN IT COMES TO THE COMPANY'S FUTURE,
YOU CAN'T DO ANYTHING HALF-HEARTEDLY.”**

STRATEGY



FUNCTIONAL COMPONENTS
for hybrid drives

Staufen consultants support strategy 2026

“To remain profitable in the long term, we have in the past regularly drawn up a corporate strategy with a five-year horizon,” says Matthias Ernst, the son of the company's founder. Due to the COVID-19 pandemic, the current strategy process initially had to be pushed back by one year and finally started in 2021: “The new alignment is of course strongly influenced by the market-driven transformation away from vehicles with combustion technology. Our company must successfully master challenges relating to electromobility, digitalization, sustainability, and securing our location.” Developing a new strategy costs management above all time. This is a scarce resource, as the two managing directors are heavily involved in day-to-day business. Herbert Gieringer: “A corporation has the human resources to work out its strategy completely on its own, but a medium-sized company cannot.” Management therefore relied on outside help and brought consultants from Staufen AG on board.



750
employees

123
million EUR
sales

ERNST Umformtechnik GmbH is a globally recognized development partner and premium producer of innovative metal components which range from demanding metal forming and post-stamping machining to sophisticated laser-welded assemblies. With the strategically located sites in Germany, China, France and the USA, the company has the capability to take an initial idea to a run of millions.



A compass helps effectively plan and control processes.



1 Target image 2026

Vision: Who do we want to be in the future?

Mission: Why should we exist in the future?

Breakthrough goals: What brings the company to the next level?

2a Strategic analysis (face reality)

External Perspective

(market, competition, trends, etc.)

Internal perspective (core competencies, etc.)

2b Strategic recommendation

Possible stands of action based on evaluated potentials from facing reality

3 Operationalized improvement project and success factors

Specific annual projects and key figures for target/actual comparison during the year

"Without external consultants, we might have focused too much on our core business and designed a strategy for the present instead of the future," Matthias Ernst adds as another reason. And Herbert Gieringer explains: "In the sheet metal forming market, there are other industries besides the automotive sector that are of interest. Here, we needed the perspective and expertise of the Staufen experts in order to work out the 2026 strategy together – starting with the development of a vision for ERNST Umformtechnik."

Focus on the essentials instead of learning by doing

At the beginning of the new strategy cycle, there was an honest assessment of what was not ideally working according to previous processes. "We know the market, we know what measures need to be taken," explains Managing Director Gieringer. "In the past, however, we did not achieve some goals because we did not consistently implement everything we had strategically defined." The role of the Staufen consultants was therefore not only to drive the strategy process in a focused manner, but also to

ensure its consistent implementation. Gieringer found sparring with the consultants in particular to be extremely positive: "The consultants look at our business in a completely different way. They scrutinize us closely and often take a different perspective, which is important and necessary. The methodological strength and experience of Staufen allowed us to move forward with the strategy process in a much more focused way, instead of progressing slowly through learning by doing."

Within a few weeks, preparatory industry and competitive analyses were carried out and core competencies, resources, market potential and growth levers were defined. The strategy process ended with the development of the roadmap. It specifies how and in what timeframe the defined breakthrough targets are to be achieved by 2026. "I can highly recommend that every medium-sized company seeks support in the strategy process," Matthias Ernst sums up. "When it comes to the company's future, you can't do anything half-heartedly. You have to take the time to discuss issues and ask uncomfortable questions. And finally, you have to get the entire management team on board with the new strategy, otherwise it will not work." ■

A white GMC SUV is shown driving through a river, splashing water. The background features rugged, brown mountains under a cloudy sky. The text 'GM IN' is overlaid in large, bold, yellow letters on the left side of the image.

GM IN

THE CUSTOMER JOURNEY IS TAKING A NEW DIRECTION.

General Motors symbolizes the American way of life as much as the American way of doing business. This includes regular reports, number-heavy business forecasts and detailed activity reports. But how can such detailed insight and outlook succeed for an agile start-up? The Chinese subsidiary of the US car giant – General Motors Premium Import – which is currently being set up, uses a Hoshin Kanri methodology specially adapted for GM by Staufen AG.



CHINA.

STRATEGY

The Chinese automotive market poses particular challenges for manufacturers from Europe and the USA. Difficulties include very high customer demands, strict government regulation, high price pressure, and the huge geographic and economic market, which has to be developed with the company's own dealer network. This is one of the reasons why, in the past, international corporations accepted previously state-mandated market entry in cooperation with a Chinese joint venture partner.

“Brand ambassadors” replace traditional car salespeople

General Motors is breaking new ground with its recently established General Motors Premium Import unit. The goal is to single-handedly import select GM models from the premium segment and sell them via direct-to-consumer channels. Traditional marketing is to be omitted, as is a traditional dealer network with elaborately designed showrooms. Instead, Felix Weller, Vice President, Premium Import, GM China, is relying mainly on the power of the digital community to sell luxury vehicles in the world's largest vehicle market.

“The idea of community is very strong in China, and a lot of value is placed on currents and opinions in the community. Customers use social media to get information and like to get advice from community experts,” says Weller. That is why the organization is rethinking the customer journey. With so-called “brand ambassadors” and the establishment of a GM community, the company wants to better address the peculiarities of the Chinese market.

The Corvette on the racetrack and the Tahoe in the wilderness

GM Premium Import does not see itself as a car manufacturer or seller, but instead as an “energizer of expressive lifestyles,” where product, experiences and community form a complete package. The customer is sold an individually curated product, emphasizing or enhancing the customer's lifestyle. Take Corvette, for example: In the future, the sports car could be sold as a package with regular laps around the racetrack, including professional paddock support. And for an adventurous family, the up to 5.4-meter Chevrolet Tahoe with corresponding glamping tours is a great choice.

The focus on such lifestyle packages requires a high degree of flexibility and willingness to learn. GM has mastered “traditional” core business, i.e., production, import and homologation, from the inside out. Now, though, it is about getting to know the customer better and understanding how communities work. To achieve this, the company uses the full range of modern customer loyalty tools such as social platforms and artificial intelligence. Another advantage of the exclusive community approach is that GM is not just another carmaker in the highly competitive market, but also acts as a lifestyle brand in China. The company thus wants to avoid tough price wars with high discounts, and instead present itself with confident sales and price levels.

Finding common ground for start-up and company

The information about customers and communities required for this cannot be obtained via traditional sales and marketing pillars. At the same time – especially during the critical build-up phase – common industry KPIs are not meaningful.

Instead of being guided by processes and profitability, GM in China operates like an agile start-up and faces business case issues, MVP (Minimum Viable Product) and high investments. The big difference to classic start-up: GM Premium Import knows exactly which products it will enter the market with. The question of what the business model looks like in detail and how scaling must take place remains open.

This investment-intensive and at the same time open-ended approach normally jeopardizes the cooperation between a parent company, which is oriented towards fixed structures and processes, and an agile start-up. Many start-up projects founded from an existing company have failed because the goals and processes of the two ventures were simply too contrary.

Always thinking of the future with Hoshin Kanri

For GM Premium Import, attention was paid from the outset to ensure that different processes could run simultaneously:

- Development of import logistics for premium vehicles
- Establishment of a brand community
- Planning a functioning business model (including a digital ecosystem that can be exported to the real world, e.g., via experience offers, both digital and physical)
- Regular and detailed reports to the US parent company

These targets, which were not always congruent, and the enormous complexity of the project forced those responsible to adopt a structured approach that provided sufficient room for agile adjustments and extensive freedom. The management and automotive experts at Staufen Germany and Staufen China therefore revised and specially adapted traditional Hoshin Kanri methodology for the GM China project to make room for planning and forecasting aspects.

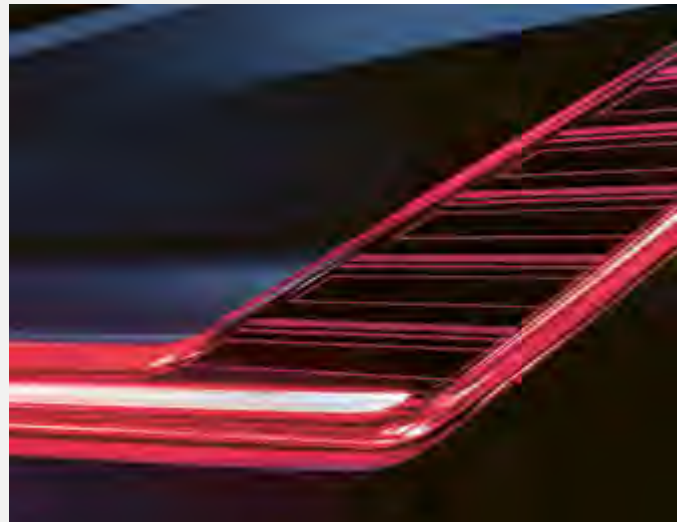
“We chose Hoshin Kanri because GM is completely rethinking the future. There are no experiential values yet. Nevertheless, specific, and ambitious breakthrough targets must be derived from this attractive vision and then implemented,” says Uwe Vogel, Partner at Staufen, summarizing the challenge. To do this, individual steps and points would be closely examined to determine which drivers have the desired effect.

The GM headquarters in Shanghai and Detroit also want questions answered from the company’s own start-up regarding the current status of investment and reliable profitability forecasts. “Normally, automakers approach the question retrospectively and use known metrics. But we have no sales volume here yet, and do not have a traditional business model. So, I need a feed-forward approach to get answers to the questions from the US,” Weller said.



Hoshin Kanri can play to its strengths in this scenario, because it lays the right foundations for various future scenarios: "If I follow logic in building my business that is sustainable even in the growth phase, I can scale much more easily than if I had to change horses midstream. In addition, new colleagues grow through the same processes that employees who were there at the start are familiar with," says Weller.

For the GM start-up General Motors Premium Import, Hoshin Kanri, customized by Staufen, provides the perfect tools and processes to identify success factors and offer a comprehensive overview of the current status at all times. GM's Weller: "Like any start-up, I don't have 100 percent certainty that I'm doing the right thing. But I have a much higher probability of success."



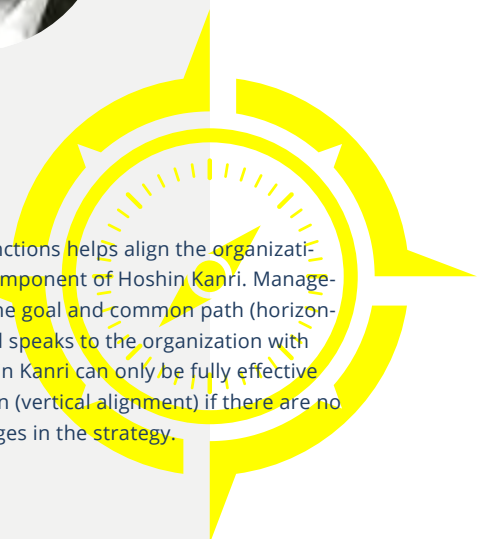
FELIX WELLER
Vice President
Premium Import
GM China



Hoshin Kanri (Jap. for "compass management")

Hoshin Kanri focuses on leadership and development of employees towards the vision. Hoshin Kanri creates a connection between the vision, objectives, projects, and success factors using tools and forms. The X matrix is a tool used to link breakthrough targets, annual targets, improvement projects and enablers. Involving all levels of management across all

organizational functions helps align the organization and is a key component of Hoshin Kanri. Management agrees on the goal and common path (horizontal alignment) and speaks to the organization with "one voice". Hoshin Kanri can only be fully effective in the organization (vertical alignment) if there are no conflicting messages in the strategy.



W. C. Durant
THE DURANT GUILD



General Motors (NYSE:GM) is a global company focused on advancing an all-electric future that is inclusive and accessible to all. At the heart of this strategy is the Ultium battery platform, which will power everything from mass-market to high-performance vehicles. General Motors, its subsidiaries and its joint venture entities sell vehicles under the Chevrolet, Buick, GMC, Cadillac, Baojun and Wuling brands.

GM is launching the Durant Guild brand in the Chinese market. It refers to General Motors founder William C. Durant

STRATEGY



JULIAN BLISSETT
GM Executive Vice President and
President of GM China

How excited are you at this time shortly before the launch?

We are very excited about the launch of our Premium Import business. This is a completely new business created for the Chinese market. Activities such as the annual China International Import Expo in Shanghai, third-party studies and our own research have shown that there is tremendous desire among China's consumers for premium imported models.

What are the biggest challenges to find your footing in the Chinese market?

The Chinese vehicle market is highly competitive across segments, with arguably the greatest number of automakers anywhere in the world. The speed of the development of a product or technology, from ideation to launch, is unbelievable. We therefore

need to embrace the culture of innovation and collaboration in an agile manner to keep ourselves in the leading position.

How appealing do you rate GM's product portfolio for the Chinese consumer and why?

We are taking a differentiated approach toward our products that is unique and has never been seen in the market. We are introducing an innovative business model led by a highly diverse, agile and talented team that will operate like a start-up. It will focus on addressing the lifestyles of our customers and delivering a truly customer-centric experience. ■



THE FUTURE OF SUPPLY CHAINS:

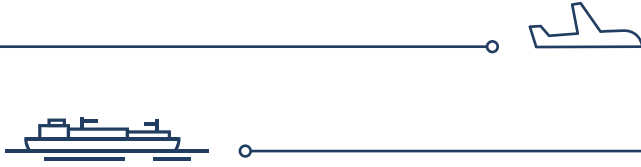
"COOPERATION IS THE ONLY WAY TO MEET THIS CHALLENGE"



Supply chains have been in constant flux for years. The sudden disruption of trade routes, lack of supplies and political uncertainties are disturbing what was once a finely balanced network of cross-border flows of goods. Ole Trumpfheller, DB Schenker's EVP Contract Logistics & Supply Chain Management Germany/Switzerland, is convinced that customers and service-providers must adopt a collaborative approach to guarantee a secure and scheduled movement of goods in the future.



OLE TRUMPFHELLER
EVP Contract Logistics & Supply Chain,
Germany & Switzerland
DB Schenker



Mr. Trumpfheller, logistics providers are under pressure in the face of stressed supply chains. Are you currently your customers' bogeyman or last hope?

Logistics companies make a lot of things possible, and our customers appreciate this. Industry colleagues in the air freight business, for example, are definitely company saviors because they can react flexibly at the drop of a hat and keep supply chains running. But in contract logistics we are dependent on service-providers, capacities and load factors. The diversity of interests is therefore extremely complex and is characterized by a fluctuating availability of important components, political uncertainties and interlinking changes, for example the move to e-mobility. To make a long story short, we are in a period of upheaval and as far as the supply chain was concerned, the past two and a half years were extremely stressful and new for all of us.

Are you able to plan for the long term or only to react to immediate events?

Some external factors such as the closure of the Suez canal or the very strict lock-downs in Chinese ports had and still have dramatic effects and unbalance supply chains across the world. In situations like these, OEMs have no alternative but to rely on suppliers like DB. We can develop contingency plans, make capacities available and keep supply chains running by one means or another. Depending on the OEM's purchasing policies, this can become difficult and sometimes very challenging. Using the case of the war in Ukraine as an example, cable looms for vehicle production are suddenly in short supply everywhere in Europe. But as a matter of principle we always collaborate in a spirit of partnership. Logistics and distribution contracts generally run for years – which generates in-depth trust with the contractual partner.



DB Schenker, with about 76,100 staff in 1850 locations spread throughout 130 countries, is one of the world's leading logistics providers. The company is celebrating its 150th anniversary in 2022. In contract logistics, DB Schenker offers an extensive service of customized solutions for industry and commerce. Its range of services includes all stages of the value chain – from procurement and production logistics, to distribution logistics and after-sales service.

How can the overall system be improved? Can you, as a service-provider, remove the pressure from the supply chain, or can that only be done by working with your customer?

For the last 20 years the business was very transaction-driven. The objective: cost reduction. But we must now move away from thinking in terms of black and white and look instead at the supply chain from beginning to end as a collaborative association, in which we manage the individual links in the supply chain as a partnership. I see parallels to the Industry 4.0 approach in which information is exchanged and processed in real time. On the plus side, I can already see a tendency to tolerate more flexible and collaborative models both in the operational area and purchasing.



DB Schenker is now more than just a parts supplier; the company has moved into assembly work. Will the role of the logistics-provider become more important in the supply chain world of the future?

That depends on the individual OEMs. Many companies look at the supply chain as an important tool for managing their own ability to compete. This has a major impact on the service-providers and the intensity of the collaboration with logistics companies. In the field of automobile manufacturing, the move towards e-mobility could also make this partnership to some extent looser than before as the complexity of the supply chain will likely diminish. Then, we also have the OEMs that are again currently in-sourcing more areas of the logistics services, for example IT systems or infrastructures. Every company is taking its own very distinct path.

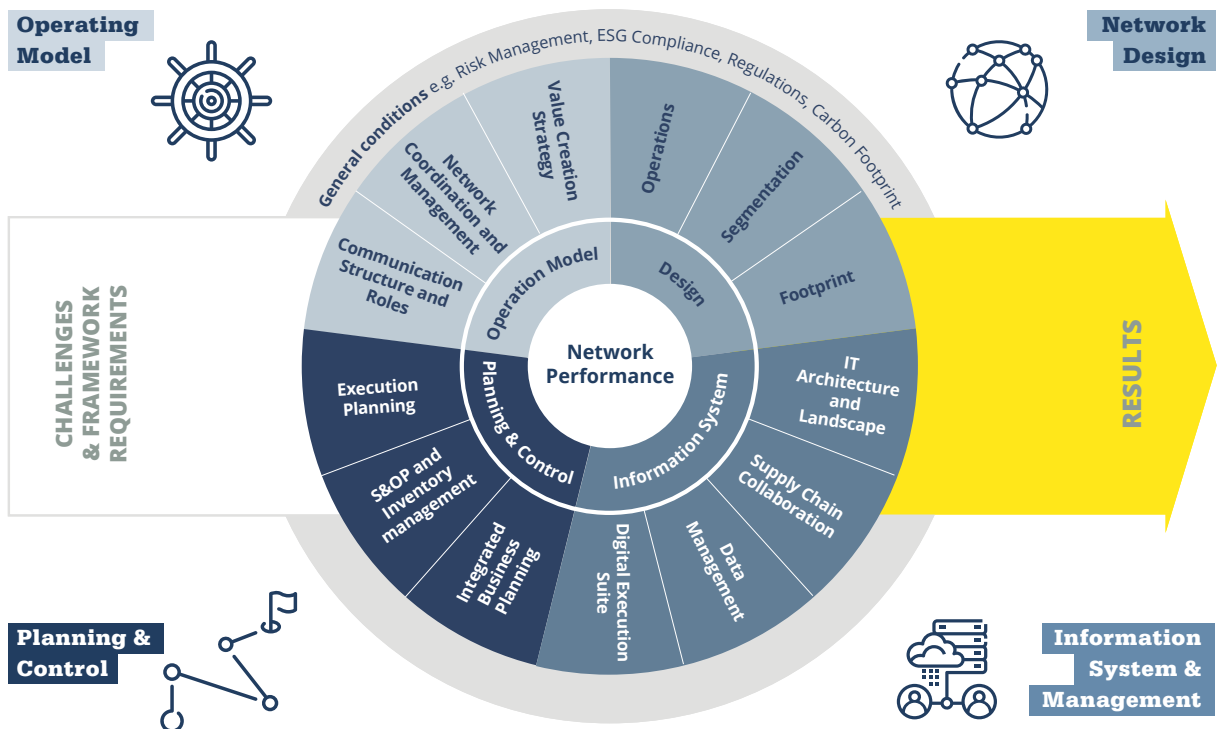
The subject of sustainability is becoming increasingly important for industry. What effect is this having on Schenker?

The subject of ESG is our number one priority. First, we have the customer who is pushing for this and, second, law-makers are also applying pressure – the Packaging Act, the Supply Chain Act, and so on. We are therefore faced with the question of how we can reduce emissions in the logistics industry – indeed in every area, be it on land, in the air or on the sea. We are continuously investing in more environmentally friendly products and innovative transport solutions. The challenge in the short term is to underpin the business and at the same time to operate new technologies in test mode. It will be a few years before we know what the new industry standard will be. Here, too, it is true to say that if we are to supply companies in a manner that is climate-neutral, we must work closely together with industry as partners. Cooperation is the only way to meet this challenge. ■



**SUPPLY CHAIN
NETWORK MANAGEMENT**

**MORE RESILIENT,
MORE FLEXIBLE,
MORE EFFICIENT**





Faster development cycles, shorter delivery times, as well as increasing product variance, new business models and greater market volatility – the list is long. Traditional supply chain management is no longer sufficient to cope with the complexity and vulnerability of supply chains. A holistic view must be taken: Supply Chain Network Management, which generates true resilience.

The Staufen approach of modern supply chain network management was developed before the current multi-crisis situation and successfully introduced by a number of companies.

The goal of supply chain network management: to make the entire network and the collaboration of all players more responsive, robust and efficient, thereby increasing the performance of the network.

The four dimensions of supply chain network management

Supply Chain Network Management focuses on four dimensions: **Operating Model, Network Design, Information System and Planning & Control.**

Operating Model

This includes the derivation of a supply chain strategy based on the corporate strategy. The model similarly defines network coordination and management as well as roles, structure and communication. Twin functions are avoided and organizational development is advanced.

An important part of strategy development is also risk management (definition of risk appetite). This is to establish procedures for early warning and preparation for network disruptions. In addition to external risks, all "nodes" in the network that could cause a risk must be identified. Overall, network risk management must be progressively integrated into business continuity management.

Network Design

Network design deals with the configuration of the different actors along the supply chain, e.g. plants, development service providers, hubs, suppliers and sub-suppliers as well as logistics service providers, sales and distribution partners up to the end customer. The complexity drivers require an understanding of all components so that a performant network can emerge.

Existing networks are optimized and aligned with customer requirements. Here, the footprint, the allocation of products in the network, and the distribution logistics and structure are considered.

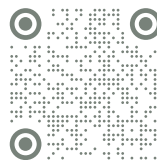
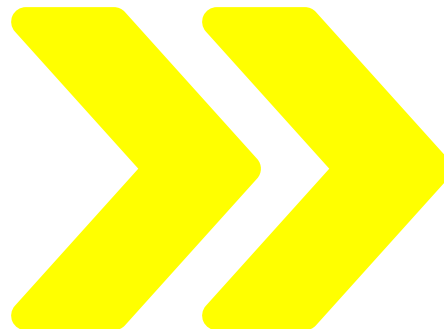
Information System & Management

IT acts as an enabler ensuring transparency in the network and managing processes, networking, and business intelligence. Larger networks in particular are almost impossible to operate efficiently without a consistent digital strategy.

Beyond the appropriate IT architecture, networking and stringent data management present the various network players with challenges. The right combination of execution software packages increases efficiency improving communication.

Planning & Control

The fourth dimension supports the network with suitable planning and controlling processes. End-to-end processes are aligned with customer and network requirements. This includes finding a consensus between supply, demand and financial planning, examining order management and decoupling points, and integrating after sales into start-up and phase-out management. Here, the granularity is increasingly refined from "integrated in the long term" to "optimized in the short term". ■



More information about the topic of the reconfiguration of supply-chain networks - global and local, can be found at: www.en.staufen.ag/supply-chain-network-management



GLOCAL FOOT PRINT



“The example of ABB / Accelleron Turbo Systems / Benninger Guss demonstrates two key advantages of the concept of a supply chain network management. First, it helps to overcome the classic understanding of purchasing, production, logistics and distribution, and second, the approach always creates the necessary eye level even between very different partners – here the global market leader and there the casting specialist with a digital casting production with a good 100 employees. **That's because competition today is between networks, not individual companies.**”

THOMAS SPIESS

Member of the Executive Board
STAUFEN:NOVA AG

For years, supply chains have been increasingly developing into multidimensional, complex and global value chains. In view of the current economic and geopolitical upheavals, companies are currently feeling the pain of how quickly they can reach the limits of their resilience.

Even in the face of the first COVID-19-related lockdowns, many companies had to admit that they had thought they were on the safe side for too long when it came to sourcing. However, at the latest with the exploding energy, raw material and transport costs as a result of the Russian attack on Ukraine, a rethinking has set in across the industry.

More flexibility and agility within the supply chain

Two companies that have developed a new joint concept for their supplier relationship are ABB / Accelleron (formerly ABB Turbocharging) and Benninger Guss AG. Turbo Systems is the market leader in the manufacture and maintenance of turbochargers from 500 kW to 80+ MW for diesel and gas engines. Approximately 200,000 turbochargers produced by Turbo Systems are currently in use by customers worldwide. Production sites are located in Switzerland, China, and India. In addition, Turbo Systems has a service organization with a central hub in Baden (Switzerland) and more than 100 service points in over 50 countries with 1,200 service technicians.

In the service business in particular, there are additional factors such as the attractiveness of the portfolio on the procurement market (high mix / low volume, low predictability / sporadic demand, broad product portfolio, currently approx. 3,500 active

specifications of cast iron components). The desired level of service could therefore only be generated to a limited extent by a conventional value chain. The two companies have jointly developed a supply chain concept to improve delivery performance, reduce quality deviations and increase flexibility and agility within the supply chain.

The key success factors were:

- Strategic partnership (clear tactical and operational framework, medium- and long-term portfolio planning, close cooperation in the event of delivery difficulties)
- Technical solutions (clustering of the product portfolio, printed cores and molds or hybrid solutions, shortened run-in cycles)
- Logistical solutions (end-to-end transparency with regard to inventory/requirements, flexibility in production planning, storage at the lowest possible value-added stage)
- Total cost of ownership (optimization of investment costs, reduction of capital commitment)
- Customer benefits (increased ability to deliver on customer's requested date, quick solutions for unexpected needs / non-mover components)

The two initiators Tobias Schoch (formerly of Turbo Systems) and Eric von Ballmoos (Benninger Guss) see domestic manufacturing networks and location-based supply chains as having a clear advantage in many areas and are convinced that networks that pursue common interests are more innovative, stable and sustainable. ■



BEST PRACTICE PARTNER CIRCLE AT BMW

EXPERIENCES, STUMBLING BLOCKS AND PROVEN SOLUTIONS



When the BestPractice Partner Circle comes together, this is where market leaders, technology leaders and hidden champions meet.

The exclusive BestPractice Partner Circle hosted by Staufen AG and made up of around 40 companies in the German-speaking region, was finally able to convene in person at the invitation by BMW AG located in Landshut, Germany, also a member of the partner circle. The attendees were given the opportunity to reflect on common best cases, learn from each other and openly exchange ideas.

Core topic:

The value-added production system

The **value-added production system** creates the foundation for successful business transformation by integrating lean and digital approaches. Executives and lean leaders from BMW AG spoke about experiences, stumbling blocks and proven solutions on their lean journey before inviting attendees on a plant tour.

The value-added production system is the heart of the production system at the BMW Group

The underlying idea behind the value-added production system is to prevent waste, work efficiently and design workplaces ergonomically. The WPS Center of the BMW Group includes a learning workshop covering a space of 1,500 m².

Key factors in the changes have been the successful application of lean methods such as linking assembly processes in a one-piece flow, establishing Kanban control loops for material supply and supplying products by means of tugger trains.

Besides the physical lean transformation, BMW in Landshut is also actively implementing a cultural change among employees and executives - by introducing a new work organization with foremen (Japanese "hanchos") as CIP implementers and problem solvers.



Attendees experience a lean journey

Station 1: Implementation of WPS

During the introductory talk, the implementation of the value-added production system (WPS) and the corresponding implementation of the new work organization at the Landshut site was presented. The tour of the process boards, control boards, and logistics processes provided practical proof of successful production in one-piece flow based on customer demand.

“The lever for everything – regardless of industry – is a consistent process confirmation across all levels. **Where standards are practiced and understood is where an organization's system operates.**”

LOTHAR KÖGLMEIER

WPS Integrator, BMW AG

Station 2: Further development of WPS

With increasing complexities that a traditional, analog approach of value stream mapping and our brains can no longer grasp, process mining is the solution. This was the consensus of the second agenda item, the topic “Outlook and further development of WPS”.

“By means of data-based analysis and resulting increased process transparency and sustainable process improvement, process mining enables us to stay on top of things,” said presenter Nico Vossage, Specialist for Process Mining, BMW AG.



Station 3: A review of the system worlds

In the subsequent live presentation, the participating company managers were given a comprehensive insight into the system worlds. Benefits and lessons learned so far in the Smart Maintenance App development were revealed.

“Today was entertaining, informative and really cool for me.” **“Our BestPractice Partner Circle is an effective tool for input, inspiration and exchange from a wide variety of participating industries.”**

KURT FRITZ

Location Development, Lindner NORIT GmbH & Co. KG

Station 4: The role of employees in the change process

The final discussion emphasized that employees, as experts in their field, should be given responsibility on the shop floor. They become a key element in the continuous improvement process (CIP) by being invited to optimize, create and innovate. ■

“The enthusiasm at the BMW plant in Landshut for putting lean into practice is fascinating. **The DNA for Lean Green Digital can truly be felt here!**”

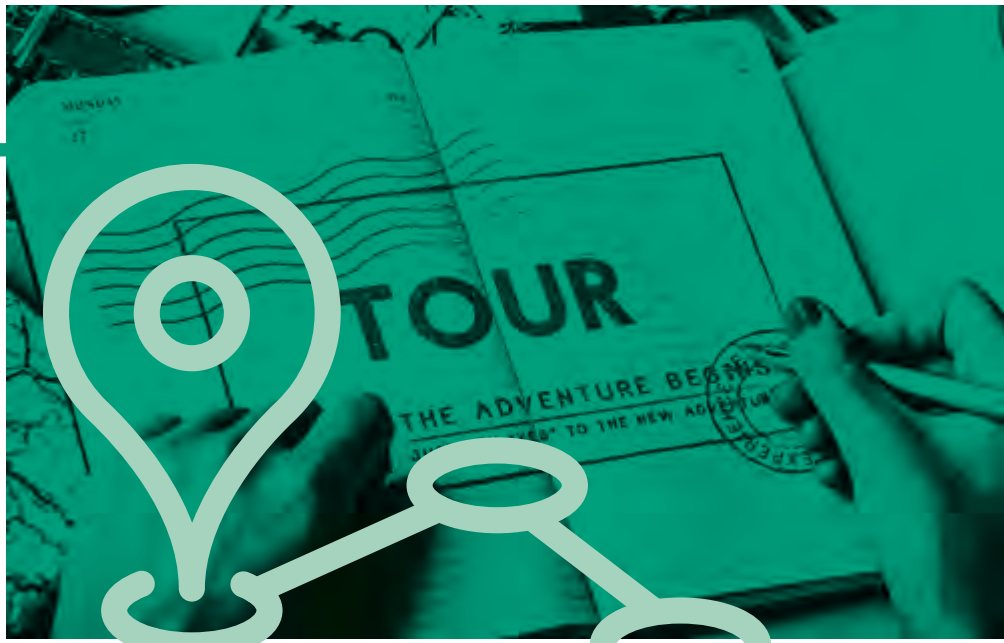
DR. TIM NIKOLAOU

Technical Managing Director / COO
Oskar Frech GmbH + CO. KG



VIRTUAL BEST PRACTICE TOUR "LEAN EXPEDITION" IN CHINA, EUROPE AND BRAZIL

OPERATIONAL



MARKUS FRANZ

Senior Partner
Supervisory Board Member
STAUFEN.AG

True to the motto "Travel educates!", Staufen AG regularly takes entrepreneurs, executives and technical experts on a "Lean Expedition" as part of its BestPractice Tours. Successful owners and experienced managers, together with Staufen consultants, provide a glimpse behind the factory gates of excellent companies and serve as tour guides, answering questions such as: What does the introduction of Lean

Management mean for a company? How can lean projects be optimally planned and implemented? Which key figures can be improved permanently through Lean Management?

The itinerary of the latest - in this case virtual - BestPractice tour included Rittal (Shanghai site, China), MTU Aero Engines (Munich site, Germany), Endress+Hauser (Pessano site, Italy) and TK Elevator (Guaíba, site, Brazil). Markus Franz, Senior Partner and Supervisory Board Member of Staufen AG, acted as moderator throughout the day, linking companies and various transformation stories, which all had different focuses, but each led to the same conclusion: Inside every company there is an even better one!



STATION 1 RITTAL ON A "NEVER-ENDING JOURNEY"



MICHAEL GALLER
Vice President Operations,
Rittal Electro-Mechanical
Technology (Shanghai) Co., Ltd

In Shanghai, Rittal GmbH, the largest company in the German Friedhelm Loh Group, provides the solutions of the future with a smart system architecture comprised of individual modules (enclosure, power distribution, climate control, IT infrastructure and software & service). With the goal of increasing productivity and surpassing in-house KPI benchmarks, the company set a lean course with Staufen Project Manager Jacee Cai. The corporate culture played a key role in this. Michael Galler, Vice President Operations at Rittal China, sees successful lean implementation not as a self-contained process, but as a "never-ending journey"

in which process excellence and leadership excellence are continually challenged and improved. Companies must be prepared to constantly question their culture, organization and structure: "Those who do not adapt will suffer the same fate as the dinosaurs. The key figures prove how successful Rittal has been in implementing Shop Floor Management and the underlying Lean Transformation. There are 13 KPI target marks, of which the Chinese subsidiary achieved significant improvements in twelve cases and at least slight improvements in one case."

OPERATIONAL



MICHAEL ZAUN
Head of Production Turbine Blades
and Structural Components
MTU Aero Engines AG


Speed is in MTU Aero Engines' corporate DNA. And as part of the Lean Transformation, internal communications are also at top speed. With support from Staufen AG, the company has introduced a Shop Floor Management system. The new exchange strengthens on-site problem solving, reduces subsequent schedule changes, and increases transparency in production. As a result, the company can now act much faster. Because SFM was developed in close cooperation with the workforce, multipliers from within the company can carry the project further.

STATION 2 MTU AERO ENGINES SOARING TO NEW HEIGHTS



For the people responsible for lean at MTU, Michael Zaun (Head of Production Turbine Blades and Structural Components) and Matthias Plank (Team Leader Manufacturing Engineering), the shift towards lean has also proved its worth in the course of digitalization and during the COVID-19 crisis. As part of the transformation process, it became apparent that processes needed to be adapted and simplified for the transition to the digital world. This paid off, he said, especially during the pandemic, because the organization was agile and adaptable to meet new demands.



Endress+Hauser 

STATION 3 ENDRESS+HAUSER ON THE PATH TO A NEW CORPORATE CULTURE

With a lot of enthusiasm and passion, Gianfranco Migliarotti in Pessano con Bornago is responsible for the SFM lean leadership transformation of Endress+Hauser. As CFO and HR Director, he knows the opportunities and challenges of the Italian division of the Swiss supplier of equipment for process engineering. Together with Giancarlo Oriani, General Manager of Staufen Italia, the production processes were converted to one-piece flow. Gianfranco Migliarotti saw a central challenge for this in the control system: "We implemented a new concept of a mini-factory and adapted the processes for agile teams." Behind the process adaptation is a change in corporate culture, which was given top priority as part of the SFM introduction: "We pay attention to



GIANFRANCO MIGLIAROTTI
CFO and HR Director
Endress+Hauser Sicestherm S.r.l.

values. But it is more important to move from values to culture. Managers in particular are called upon to set a good example and exemplify the new world of values. So actively listening, asking questions, answering questions, and acting as a facilitator, not a supervisor." Introduction of the new Shop Floor Management was completed in just nine months. The transformation journey as a whole, however, Migliarotti said, is a lengthy one. For the Endress+Hauser manager, it is like having a newborn baby: "We have to feed our baby first, then it learns to walk, and we focus on good parenting. This is a very long process, and we are always straightforward and careful to convey values. That's the most important part."



MARCELO NERY
President MFG
Thyssenkrupp Elevadores



MARCO FELIPE ASSUMPÇÃO
Industrial Engineering Manager
Thyssenkrupp Elevadores

Since 2014, TK Elevator's Business Unit in Latin America promoted changes in the management of manufacturing, aiming to improve the productivity of the elevator factory, located in Guaiíba, Rio Grande do Sul. With the help of Dario Spinola, Managing Director of Staufen Tática in Brazil, a Shop Floor Management roadmap was created, and the entire operation was made lean. Comparing the Brazilian elevator factory between 2014 and 2022, the Industrial Engineering Manager, Marco Felipe Assumpção, draws a clear conclusion: structure and order have become as visible as the new orientation of the employees. "The processes and the way the production hall is laid out have an

STATION 4 TK ELEVATOR ON TRACK



effect on behavior". Today, production is of the highest standard, from a state-of-the-art electrical manufacturing pavilion and clearly structured production. For example, the KPIs for operational excellence increased from 33.5 points in 2014/15 to 75 points today. The goal of improving production in Brazil has already been achieved, as stated by Marcelo Nery, Manufacturing President TK Elevator of the Business Unit Latin America: "Seven years ago, production and delivery were our priorities. However, I pay special attention to safety. We have made enormous progress and if we can guarantee safe production with no accidents, other advantages will certainly arise."



CONCLUSION

The four practical examples show that successful transformation is only possible through a holistic approach in which structures, processes and cultural aspects are jointly addressed. What is the best way to do this? Staufen Consultant Markus Franz has identified four core competencies for this: **curiosity, skepticism, courage and humor**. After all, the transformation must not only be successful, it should also bring joy.



OPEN AND RECEPTIVE – THE BESTPRACTICE PARTNER NETWORK OF STAUFEN AG

The BestPractice Partner Network of Staufen AG represents companies that have created beacons and BestPractice solutions in their organization and processes. They are market leaders, technology leaders or hidden champions who open their work gates to other companies to report on the challenges and results of their transformation.

The BestPractice visits serve participants to share ideas and experiences in detail and constructively with the managers of BestPractice companies and to benefit from their experiences, successes and failures.

Staufen AG offers BestPractice visits in different formats and on different key topics and, on request, also adapted to the individual needs of interested customers. What would you like to see? Which example would inspire you in your current situation or help you to gain even more confidence in your transformation process?



JANICE KÖSER from the Staufen Academy is your contact for all questions regarding the BestPractice Partner Network of Staufen AG. And is looking forward to hearing from you:

j.koeser@staufen.ag



A SUCCESSFUL FLIGHT: THE LEAN TRANSFORMATION JOURNEY AT EMBRAER



OPERATIONAL



JOSÉ CARLOS D'AGOSTINI JUNIOR
Director of Operations at Embraer
Commercial Aviation

Since 2007, Embraer has adopted the Lean philosophy as a business strategy that disseminates its Business Excellence Program - P3E - fundamentals, concepts and practices. This program is responsible for generating transformations in an integrated manner, providing value for the entire company to improve its processes. The system aims at safety first, quality always, deliveries on time and at the best cost.

We talked to José Carlos D'Agostini Junior, Director of Operations at Embraer Commercial Aviation, about the benefits and results achieved by the company since the beginning of its Lean Transformation.

01

Embraer has always been recognized as one of the Brazilian companies that has invested the most in Lean Thinking to manage its operations. The last three years were very challenging for Embraer and for the world market, which made the company bet even more on Lean concepts to improve its results and remain competitive. How did these challenges influence Embraer's operations and what were the solutions found in Lean to overcome them?

In fact, Embraer has been navigating on Lean concepts for a long time. The Embraer Business Excellence Program, P3E, completed fifteen years in July and, during that time, has gone through different phases. More recently, we understood that we



should go back to the origins and rescue the basic concepts of Lean Manufacturing. For this, it was necessary to be even more present at Genba, to rescue the fundamentals of Lean to be able to eliminate waste and make our processes more efficient, thus increasing the aggregation of value in our activities.

In addition, we developed specific Excellence Manuals for the different areas of activity (Manufacturing, Product Engineering, Logistics, Quality, Services & Support, etc.) so that everyone could jointly apply Lean concepts in operational and administrative processes.

In the Manuals, we also define our Excellence System, starting with Embraer's strategic planning, where the strategic map, its main objectives, KPIs and projects are defined. Strictly following the strategic map, we work to reduce the Lead Time of our products through Value Stream Mapping (VSM) by product. This is a way we use to map the entire flow, from closing the contract, to

working with our suppliers, and final delivery of the aircraft. We were thus able to identify critical paths and the main sources of waste.

After this major mapping, we defined the target state and planned Kaizen projects. In this way, we were able to unfold, horizontally and vertically, the KPIs that are periodically monitored by leadership throughout the company. These same indicators are also broken down and monitored throughout the operation, through Shop Floor Management (SFM).

In summary, in my opinion, this use of VSM throughout the company allowed us to work with greater clarity on our Lead Times, from the supply chain to the delivery of the aircraft. This allowed us to act on critical paths and reduce our cycles, wait times and waste. This way, we were able to reduce our WIP and increase inventory turnover.



02

Embraer uses Shop Floor Management concepts to manage Embraer's operations. Could you tell us a little bit about how the SFM was implemented in the company and what were the main benefits brought by this methodology in the day-to-day of the operation?

Shop Floor Management (or SQDC, as we call it at Embraer) is relatively new to us. We adopted this concept just over two years ago and have been evolving ever since.

Its implementation followed the adoption of the strategic map, where we identified the need to permeate the strategic challenges throughout the operation. The first steps came with the definition of the KPI tree and the adoption of standardized KPIs throughout the operation. It was a co-creation process with the company's leaders who sponsored the implementation. The next step was training all the leadership and other people involved, so that they understood the routines and purposes of the concept. The elaboration of standardized tables also played an important role in the construction of discipline and execution of routines.

Once these steps were completed, the routines began, assisted by P3E Lean consultants, who played a key role in guiding leaders and teams. The practice of Problem Solving with the recording of deviations/problems, correction actions, Go&See and the help escalation process was a challenge on its own, as it required a cultural change from teams and leaders.

After these few years of implementation, we can already see a clear change in the culture of problem solving and we are able to act more quickly and effectively on deviations. Another important benefit was the deployment and standardization of performance KPIs (Safety, Quality, Delivery and Cost), where everyone in the operation knows the company's goals and, mainly, how its results are contributing to the company's results. Another significant aspect is the approximation of the support areas to Genba, accelerating decision making and, thus, giving privilege to the Value Stream, since everyone who participates in the routines decides what is best for the Value Stream and not for their own departments only.

03

The Business Excellence Program (P3E), which brings together all of Embraer's principles of Operational Excellence, was created in 2007 and has undergone several restructuring processes over the years. Could you tell us a little bit about the key moments of these reforms and what is expected of P3E for the next few years?

The Embraer Business Excellence Program (P3E) was created at a time when the company was going through a period of growth and expansion, with new products, expansion of its industrial operations, higher production rates and new markets.

In this scenario, the P3E was born based on four pillars: Culture, People, Processes and Leadership. In other words, we started

very focused on developing a culture of transformation. For this, we strongly brought the concept of Kaizen, organizing projects into Kaizen Weeks, involving the entire leadership of the company. Added to this, we realized the need to structure the various processes in a standardized way, and we launched the continuous improvement cells, with their guides and standards, standardizing process and results management tools. With the advancement of our maturity, we evolved towards the grouping of continuous improvement cells, acting more in the Value Flows, connecting the company's strategic indicators to the cell indicators.

Finally, our next step now is to intensify the focus on the Office areas with the implementation of Office Floor Management, bringing this same Lean efficiency throughout the organization.

04

In order to achieve results with Lean concepts, it is fundamental that the concepts and tools used are directly connected to the company's strategy. How does Embraer do this today?

In defining the company's strategic map, we have the Lean Philosophy as one of the fundamental pillars. So, from the beginning, we have considered this in the creation of our strategies. Today, in the Excellence System adopted by Embraer, we have 4 fundamental pillars:

1. Understanding the Strategy
2. Integrated Management
3. Excellence in Process and
4. People Protagonism

In Understanding the Strategy, we start from our strategic map, with its KPIs and Projects and, through Integrated Management, we put our VSM into practice and unfold the strategic KPIs for the Business Review of each vice president. In this part, monthly management is carried out, with deployment at all levels, from the Director to the teams in the Shop and Office Floor Management staff.

Excellence in Processes, on the other hand, is achieved through the creation and implementation of manuals dedicated to each area. This work is guided by the Lean consultant, and the area's leadership is the main vector of transformation. To ensure People's Protagonism, a massive training program called "Lean Academy" is linked to leaders and their teams so that they are prepared for the journey.

More than establishing what should be done, this entire implementation process is co-created between Lean leaders and consultants, defining an "Implementation Roadmap" with schedules and sequences by process/concept and periodic monitoring of progress. Finally, the "Lean Diagnosis" is carried out annually, where P3E consultants check adherence to Lean concepts and routines, process maturity and the results presented by the areas. With this diagnosis, leaders can easily identify opportunities for improvement in the implementation of concepts in the areas of their responsibility.



“After these few years of implementation, we can already see a clear change in the culture of problem solving **and we are able to act more quickly and effectively on deviations.**”

05 Remaining on the topic of strategy and Embraer’s excellence system, how do you implement the initiatives and indicators for everyone in the company today, and how do you ensure that all levels are effectively engaged in these initiatives?

Embraer adopted the Excellence System based on its Strategic Planning, where the strategic map, main objectives, KPIs and projects are defined.

Strictly following the strategic map, we have VSM by product, to track the entire value stream from our suppliers to the delivery of the aircraft, identifying critical paths and the main opportunities. After this major mapping, the KPIs are implemented, horizontally and vertically, throughout the company, and periodically monitored by leadership. In addition, these same KPIs are also implemented and monitored throughout the operation through Shop Floor Management.

Naturally, with the goals unfolded in the KPIs, the areas identify their challenges and opportunities, defining their improvement projects (Kaizens, 3P and good ideas) to achieve and sustain the proposed challenges.

06 Speaking of how to achieve better results with Lean principles, we know the importance of senior leadership involvement in a company’s Lean Transformation. What are the challenges to keeping all senior management engaged in transforming the company’s culture into a high performance Lean culture, going beyond the area of operations and reaching the company as a whole?

Embraer already has Lean leaders in its administration, which makes the whole process much more fluid. Top leadership is constantly present at Genba, not only in operations, but throughout the value stream processes, identifying opportunities, recognizing and encouraging improvement projects and challenging leadership to new achievements.

In addition, we have constant presence and sponsorship from senior management at Kaizen Weeks, Lean Transformation Week and at events to recognize the best projects of the year. Another important aspect is that we also maintain a specific training track for senior leadership at the Lean Academy, always keeping the present concepts and the desire for continuous improvement alive. ■



OPERATIONAL

EFFICIENCY AND SUSTAINABILITY IN AGRIBUSINESS



3

citrus juice plants and a cutting-edge juice terminal in the country

Manage more than
25,000
hectares of citrus groves

Over
30
years in the juice business

More than
60
industrial and logistics units in Brazil

**JORGE COSTA**

Juice Operations Director
Louis Dreyfus Company Sucos S. A.

Louis Dreyfus Company invests in Brazil to meet the growing international demand for orange juice.

Natural, full of vitamins, minerals, and bioactive compounds – such as phytochemical, which are important components of a healthy and balanced diet – NFC (from the acronym, Not From Concentrate), a high added-value product, is one of Louis Dreyfus Company's current investments in Brazil for the international market. Brazil is the biggest orange exporter in the world, but it has been facing challenges due to successive crops and climatic problems. The latest crop was affected by drought and frost.

We spoke with Jorge Costa, Juice Operations Director at Louis Dreyfus Company (LDC), about the company's investments in the market, focusing mainly on increasing demand in Asia, Europe, and the United States. He talked about LDC's quest for Operational Excellence to leverage its results now with Staufen's support on this journey.

01 The orange juice chain is quite complex, with many suppliers, raw materials that are susceptible to numerous threats, and little scope to accommodate for short-term variations. What are LDC's investments in Brazil to improve efficiency in this realm of so many adversities and uncertainties?

The orange juice chain is in fact quite complex and influenced by climatic conditions, which directly affect fruit production and, consequently, the entire chain itself. We have endured extreme circumstances, such as, in 2021 when droughts and frosts reduced crop size by 16 % in Brazil, but despite this, the production of NFC juice increased by 66 % in the same year. NFC is one of LDC's current investments, given increased demand in Asia, Europe, and the United States, where consumers are looking for a fresher and more natural product.

LDC constantly invests in its people, assets, and in technologies and initiatives that ensure and facilitate the production process. One example of this is the investment we made in new digital performance management software, which aims to prevent deviations from operational processes and facilitate the cause analyses of possible problems. Another example is the fleet of ships that is 100% dedicated to the transport of juices and by-products. Our goal is to improve efficiency and ensure that the product reaches its destination on time, safely, and reliably.

02 LDC recently announced that it will expand its production and storage capacity for NFC orange juice at Matão unit, in São Paulo, Brazil, mainly to serve the foreign market. How important are European countries, Asia, and the United States for LDC's juice business today?

Brazil is the largest exporter of orange juice in the world. Therefore, increasing the production and storage of NFC allows us to meet the growing demand for this high added-value product and reinforces our position as one of the main processors and traders of orange juice in the world.

03 You mentioned that LDC manages more than 25 thousand hectares of citrus orchards. We know that you take the issue of sustainability very seriously, because your business is hugely dependent on the health of the soil and climate. Can you talk a little about what has been done and what challenges must be overcome in this matter?

We act to promote positive changes in our value chain. We share our expertise with producers in the regions where we operate – doing this ourselves or

Present
in Brazil for
80
years

2
vessels dedicated
to transporting
citrus juices
and by-products



with business partners and specialist organizations as part of our commitment to responsible, sustainable, and traceable supply chains.

Therefore, driving increasingly sustainable juice production is a priority for LDC, working in our own operations, and influencing our suppliers to adopt sustainable practices on their farms in line with our supplier conduct manual.

In all our operations, we continue to focus on reducing our environmental footprint. We have reduced CO₂ emissions and solid waste sent to landfills year after year. In addition, we use 100 % of the fruit, no part is wasted in our processing.

Furthermore, all 38 farms managed by LDC are verified according to SAI Platform standards and 32 farms are also certified by the Rainforest Alliance.



OPERATIONAL

04 The orange juice chain is very integrated. How is digitalization contributing to better use of the fruit, reducing consumption of inputs, and increasing the efficiency of processes throughout the entire production chain, that is, from the orchard to the delivery of juice to customers?

We strive to maintain responsible agricultural practices in our activities, such as the conscientious use of plant protection products and daily analysis and adjustments of machinery, ensuring that we only use the necessary amount of pesticides and water, and we also use technology that collects and shares data from pest inspectors, thus allowing our teams to manage the groves very closely.

Our digital platform, Trace LDC, allows our customers to track in detail the entire journey taken by the products purchased, from groves to delivery. Powered by blockchain technology, the platform provides certification data for our farms and facilities, as well as information about our food safety and sustainability standards.

As part of LDC's journey to help shape a zero-carbon economy, we successfully conducted a biofuel trial on one of our upgraded juice vessels, using a B30 biofuel-blended marine fuel for the first time to sail from Ghent, Belgium, to Santos, Brazil, and return with a full cargo of NFC and frozen concentrate orange juices, over a period of 55 days.

“We have reduced CO₂ emissions and solid waste sent to landfills year after year. **In addition, we use 100 % of the fruit, no part is wasted in our processing.**”

05 Mr. Costa, your career spans almost 30 years in the agribusiness segment, most of it in leadership positions. What are your biggest challenges when working with people and what characteristics do you consider essential in a leader, especially in this sector?

The biggest challenges are about giving our employees the tools and opportunities they need to develop to their full potential, wherever they are and whatever their role.

It is essential that leaders understand the individuality, capacity, and development needs of each one of their employees, even more so in a sector as fundamental as the one in which LDC operates. Our company plays an important role in advancing and modernizing the entire food supply chain. We are always on the lookout for creative, forward-thinking problem solvers who are passionate about what we do in the global food system. ■



NEW WORK AT ELESTA: A QUESTION OF TRUST



While most companies associate the term New Work primarily with home offices and video conferencing, Swiss relay and sensor technology specialist Elesta GmbH is much further ahead. One consequence: the current head of development would not hire himself today.



For decades, Elesta in Bad Ragaz (Switzerland) has been developing and producing sensors and relays. The way the company responds to customer wishes is as individual and personal as the way it treats its employees. Lean management, agility and employee satisfaction are not fancy buzz-words, but everyday life at the BestPractice partner of Staufen.Inova AG. "Our focus is equally on customers and employees. We care for people," says Sara Quesada Otero. Together with Sebastian Schiemenz and two other colleagues, they form the team of "New Work Guides" who accompany the continuous improvement at the Swiss manufacturer.

"For us, New Work means identifying the needs of employees and our customers at an early stage so that we can position ourselves properly for the future and get the best out of it, not only for the company but also for each individual employee," says Schiemenz. And André Sulser, Head of Development at Elesta, adds: "The New Work Guides are our counterpart. They push and prod us in management and help to keep breaking new ground."



"Leaders must be able to let go."

ANDRÉ SULSER
Head of Development, Elesta GmbH

Founded in
1997

> 300
Employees

In an interview, the manager explains the influence New Work is already having today on cooperation within the company and the role of managers. When he joined Elesta as a team leader in 2010, a career as a traditional manager was in the cards. After just under two years, he was promoted to product group manager, and another year later he was sitting on the management board as head of development. And today? "I am the supervisor of 70 employees," says André Sulser. In a classic hierarchical structure, it would not be possible for one manager to directly manage so many employees. But at Elesta, it succeeds because the company's top management demands and encourages a different approach. New Work in self-organizing teams means that Sulser is now primarily the contact person in his area of responsibility when employees have problems, opens the doors "upwards" for them and represents the interface to the outside world through his title "Head of Development." Does that make his work life easier?

Teamwork has therefore also become the decisive criterion in recruitment. André Sulser: "I no longer hire team leaders because I don't need them. What drives people in my field is the realization that you can change parts of the organization even without being in a management position. At Elesta, colleagues can live out their specific strengths and take on things that really interest them. That's what motivates them every day."

"At Elesta, confidence in the strength of the team leads employees to take ownership. They do not wait for the boss to tell them what to do, but offer their expertise and are much more open with each other," is how New Work Guides Sara Quesada Otero and Sebastian Schiemenz sum up the work environment at Elesta.

An example: When the company was recently looking for a coordinator to set up a production line abroad, management advertised the position internally within the company. "Ten



Elesta GmbH, whose history dates back to 1952, is part of the Pilz Group of Companies. At the Bad Ragaz site in Switzerland, relays and sensors for functional safety applications are developed, produced, and distributed. The company employs more than 300 people and has been working according to Lean Management principles for over 15 years.



“At Elesta, employees do not wait for the boss to tell them what to do.”

SARA QUESADA OTERO
New Work Guide, Elesta GmbH

employees from different areas came forward,” says Head of Development Sulser. “The applicants selected the most suitable candidate for the new role among themselves. They were accompanied by the New Work Guides, while management stayed completely out of it.” The choice fell on a different person than

management would have expected because they were not aware of their expertise from a previous job. “In a classically managed company, we would have never identified this employee for this task, which he does very well, by the way,” Sulser is certain. ■

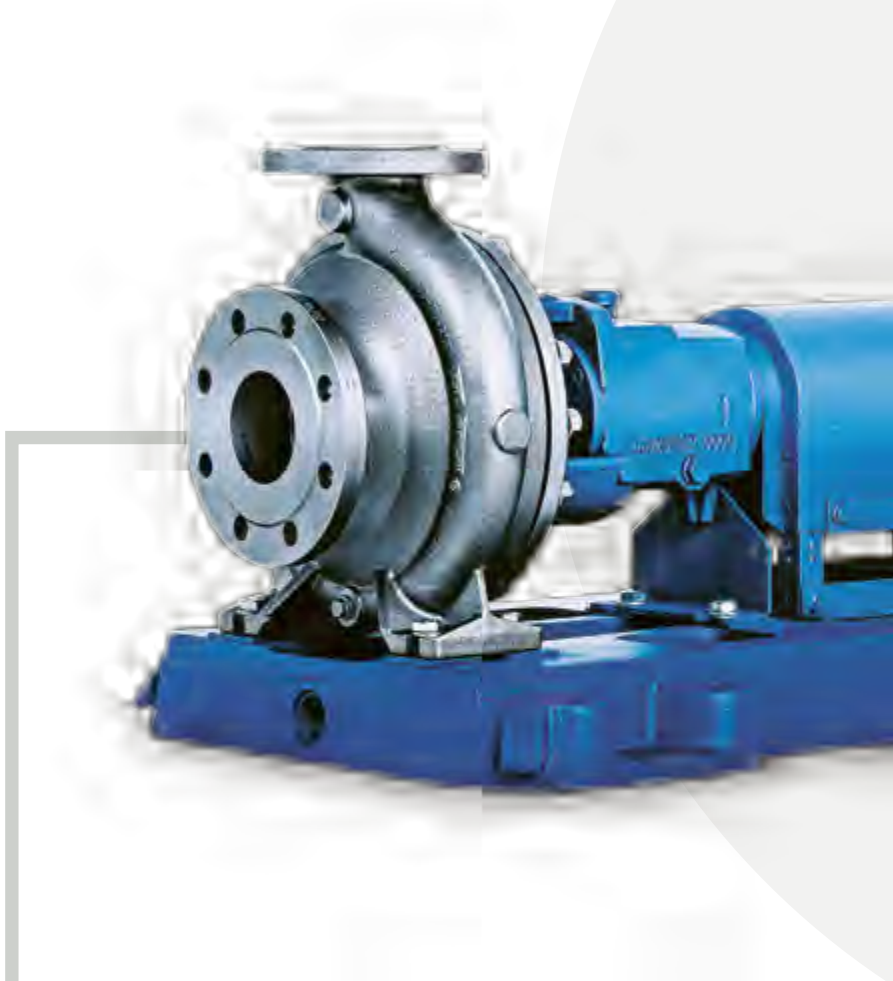


“For us, New Work means identifying the needs of employees and our customers at an early stage so that we can position ourselves properly for the future and get the best out of it.”

SEBASTIAN SCHIEMENZ
New Work Guide, Elesta GmbH



LEAN MANAGEMENT AT KSB SHANGHAI PUMP: SMOOTH OPERATIONS



When German pump and valve manufacturer KSB was looking for ways to improve its processes for petrochemical and chemical business in its China subsidiary KSB Shanghai Pump Co., Ltd, the project team decided to start at the very beginning: the sales department.

Pump specialist KSB has set up its headquarters for petrochemical and chemical pumps not in its heartland, the tranquil town of Frankenthal, Germany, but in Shanghai. From China, the market area is steering its ambitious expansion plans in this dynamic market. Despite the promising start, KSB has faced some challenges: "We have realized that we need to streamline our processes in order to achieve our growth targets," says Bernd Hoffmann, President Market Area Petrochemicals / Chemicals. "If we can only handle increasing order intake with additional manpower, growth will not be profitable in the long run. That's why we had to change and optimize business processes."

First step: sales department

The company decided to start its lean journey at the first point of contact with the customer: the sales department.

Mr. Hoffmann explains: "Sales is the first step in the entire process. If sales can make a good contribution, this has a positive effect on the entire company, as the rest of the process can run much more smoothly. That's why sales is a key point for us." Starting with the sales process from project acquisition until contract hand-over, the lean transformation will be continued with the order fulfillment process.

Step by step, the entire operation will now be converted to lean management. Mr. Hoffmann explains: "The order processing is overly complex. And in the past, there were inconsistencies regarding the information provided from the sales department to other departments. Often there was no precise order or too many open items. Inconsistencies e.g. in purchasing specification for traded items or in requirements for painting and testing of the pumps led to many discussions and complaints during order processing."



> 15,000
employees



Pumps, valves and services: this is KSB's business. The company can trace its roots to mechanical engineer Johannes Klein, who received a patent in 1871 on the boiler feed apparatus he invented. From 1887 onwards the company was listed on the stock exchange. Today KSB SE & Co. KGaA employs more than 15,000 people at 102 companies worldwide and 190 service centers.



BERND HOFFMANN

President Market Area Petrochemicals/Chemicals
KSB SE & Co. KGaA

Founded in
1871

2.344
mio. € sales
revenue

Starting the lean journey

Together with the Chinese branch of Staufen AG, KSB launched a lean management project. The main objectives were defined as:

- Optimization of business processes
- Improvement of operational efficiency
- Transparency in day-to-day business

The implementation concept was designed to ensure a smooth order flow with the greatest possible transparency. In detail:

- Establishment of a structured visual management system that provides a clear overview of the status of projects.
- Rapid identification of potential process deviations while closing the problem-solving loop.
- Achieve improved status tracking throughout the process and establish process oriented KPIs (e.g., hit rate, lead time, delivery reliability). The structured analysis should also enable a continuous lessons learned approach.

According to Mr. Hoffmann, the introduction of regular meetings based on the lean principles was particularly helpful: "After about half a year, we were able to draw an initial positive conclusion. The number of misunderstandings between sales and other departments has dropped significantly." The company has gained a better understanding of process de-

viations and problems relating to the project status. KSB also will develop a new system for checking and tracking the order status along the sales and production line.

The introduction of lean management is not so much a project as a continuous journey toward optimization and more efficient working. KSB has placed great emphasis on ensuring that the people in the company, starting with the management and working down to all levels of the hierarchy, embrace the new concept and play a key role in its implementation. To this end, the company has enlisted external help: "It is very helpful to get an outside view and support from a consultant than to do it only from the inside and try to convince people that we have to carry out this conversion process. This lean change-over process is very difficult because it must be implemented across all hierarchies." says Mr. Hoffmann.

Potential to improve

Was the effort worthwhile? According to Mr. Hoffmann, yes: "It was an eye-opener for me to see the potential we have with this operation here in Shanghai. People feel that there is an opportunity to improve themselves with this concept and with the implementation of this project. And it was not just the trust that we created, but also the better understanding that people have of the process: There is potential to improve, and there is a way to do it." ■





ALPARGATAS ON THE MOVE



TO MAKE HAVAIANAS AN EVEN BIGGER SUCCESS WORLDWIDE WITH STRONG INVESTMENTS IN PROCESS IMPROVEMENT, TECHNOLOGY AND PEOPLE DEVELOPMENT



A global 115-year-old company, powered by the iconic, on-trend brands, flip flop global leader to high potential in footwear and lifestyle, Alpargatas is known worldwide by one of its main brands: Havaianas.

And it dreams big: being recognized in the market as a powerhouse of the world's most digital, innovative, sustainable, desirable and hyper-connected brands.

The numbers are staggering: between 2018 and 2021, Alpargatas grew 3.5 times its annual revenue pace, driven by Havaianas which grows at an annual rate exceeding 14%. In 2021, the company surpassed the mark of 31 million pairs sold worldwide.

According to Edson Rubião, Industrial Vice President at Alpargatas, the biggest challenge now is to keep their factories structured to absorb demand variations with flexibility, quality and low cost. This means an absolute focus on process technology, automation, intelligent layouts, leaner flows, an effective management system, and the consistent and tireless training of people at all levels. To achieve this, Alpargatas has the support of Staufen.



EDSON RUBIÃO
Industrial Vice President
Alpargatas S.A.



01 Mr Rubião, we know that Alpargatas has been investing in innovation. The proof lies in the fact that the variety of products continues to grow. The company recently announced an investment of 100 million euros in 2022 in the operational excellence program for manufacturing and logistics. To what extent will this investment be used to make factories more flexible and agile to serve the market?

Our market demands innovation with increasing scalability and frequency. And, in this scenario, we seek to ensure speed to develop technologies, processes and to grow in production scale. We are investing in automation, management, and product development, providing speed and effectiveness throughout the cycle. In Campina Grande, right next to our largest factory in Brazil, we structured an Innovation Center to ensure increased innovation in materials testing, models and all the quick learning necessary. We understand that the capacity increase impacts on service improvement and financial benefits, which helps us to grow with the Havaianas brand both in Brazil and in international markets.

02 Alpargatas is currently undergoing a process of modernization and expansion of its factories. What is the role of Digital Transformation in this development plan?

Digital transformation is inherent and necessary to our growth and expansion process. As such, the plan, which is already underway, consists of evolving so that the operation control and management system becomes increasingly digital, connected and efficient, to support manufacturing operation and management activities, providing data in real time. This makes it possible to take more efficient tactical and operational decisions in the dimensions of production, quality, maintenance and inventory.

03 What is the leadership role to face these challenges? And how are you preparing this new generation of leaders to continue on this successful path?

The leadership role is decisive in this process of change, so much so that it was one of the first points developed at the beginning of the project. We are investing in our people. Alpargatas' People team is carrying out a robust change management plan, which is structured in six phases: Involvement, Communication, Training, Monitoring, Recognition and Knowledge Management. These are steps that range from mapping the impacts of changes to establishing delivery standards.



04 To accelerate your presence in international markets, Alpargatas announced at the end of 2021 the purchase of the American Rothy's, an innovative brand in sustainable, digital footwear with high growth potential. This reinforces Alpargatas' concern with sustainability. In terms of operations, what changes will this acquisition bring for Alpargatas?

It is a fact that the acquisition of Rothy's, announced just over six months ago, increases Alpargatas' participation in the global footwear market and it is in line with our strategic plan, which forecasts the construction of a powerhouse of global, desired and hyperconnected brands. What we can say at this point is that there will be a lot of knowledge exchange between brands, especially in what we can learn from Rothy's, which was born digital and focused on sustainability. Alpargatas is a 115-year-old company that has always been committed and connected to society. Sustainability is a fundamental pillar in our strategy. This is how we work to evolve in terms of transparency, governance and initiatives that generate value for society, the environment and our market.



“We need to look after the safety and development of these people with all the respect they deserve.

It is a great challenge and a great responsibility. But, at the same time, it is also a great opportunity.”

05

Despite all the effort to build a strong and globally recognized brand, we know that cost plays an important role in terms of competitiveness. What steps is Alpargatas taking to remain competitive against other major players in this market?

We have focused on efficient cost management, with actions to mitigate commodities, exchange rate policy for hedging financial instruments, implementation of projects to reduce costs of materials, manufacturing, operating and logistics expenses, in addition to investments to increase efficiency, reduce complexity, and improve the logistical load.



06

As Alpargatas Industrial Vice President, you are at the forefront of more than 12,000 people on several fronts, which is a great responsibility. How do you see this challenge? What experiences do you bring in your background to play this role today?

We need to look after the safety and development of these people with all the respect they deserve. It is a great challenge and a great responsibility. But, at the same time, it is also a great opportunity. Whenever we are in contact with people, we can learn new things, just as it is a pleasure to see our employees and colleagues develop and grow personally and professionally. At this point, we realize that we have taken the right steps.

What I learned very early in my career, and especially in these almost 10 years at Alpargatas, is that you can only achieve great things when you work together with your team. Many people believe that in the industrial area, the most important thing is equipment and materials. In fact, though, the great competitive advantage is people. Any company can invest money to buy materials and equipment, but even in an age of constant automation and digitalization, only people can really add value from these resources. In my view, it is definitely the people that represent the great differential of a company. ■





LEADERSHIP

"A CRISIS TEAM IS NOT A PERMANENT INSTITUTION"

MIGROS

Even at the peak of the COVID-19 pandemic, people needed food, wanted to buy electronics, home improvement supplies, furniture and sporting goods. As the largest retailer in Switzerland, how do you ensure that everything is always available? How do you minimize the health risk for customers and employees? And what has Migros learned from the crisis?



DEVELOP VIABLE SOLUTIONS IN THE TIME AVAILABLE

The crisis team of the Migros Aare Cooperative at work



Questions that the crisis team of Migros Aare (with annual sales of 3.35 billion Swiss francs the second largest Migros cooperative, see box) have dealt with for over two years. Reno Berner is the Head of the Crisis Team; at its peak, his team included up to 50 people from all areas of the company: "Wherever the regular organization was overwhelmed, the crisis team was given authority to take the lead," he says.

Immediately after the first situation assessment in January 2020, the secondary organization was created. Reno Berner: "We quickly realized that we were dealing with different challenges. Challenges that, for example, involved uncertainty and dynamics that we cannot control, but to which we must respond adequately."

The team's most important takeaway from this period: stay calm and take a deep breath. Then reduce the complexity of a challenge by splitting it into individual subtasks that are then delegated.

Combining traditional elements of crisis management with agile methods

"Sometimes we only had one weekend to prepare to implement new COVID-19 regulations," Migros Manager Berner recalls. "The crucial point, therefore, is to develop viable solutions in the time available," he says, adding that this can only be achieved by combining traditional elements of crisis management with agile methods.

Instead of striving for perfection, Berner advises starting with simple solutions, gathering experience and making improvements. If necessary, this approach may also require "young talents" in the team who can simply come up with solutions without going through official channels. And without getting stuck on one solution. "Otherwise, you will be totally overwhelmed if faced with another quick change in direction," the crisis expert said.

Continue to regularly assess the COVID-19 situation

Meanwhile, the cooperative has developed skills from the lessons learned during the COVID-19 crisis that it can also use to deal with new difficulties, such as responding to the economic consequences associated with the war in Ukraine.

For Reno Berner and his team, it was now time to step back from the crisis and reset the situation to normal after many months: "After this long period, this was more difficult than we thought, but a crisis team is not a permanent institution."

However, until COVID-19 is defeated, the team will continue to periodically assess the situation to review whether new action steps are necessary. ■



"Sometimes we only had one weekend to prepare to **implement new COVID-19 regulations.**"

RENO BERNER
Head of Crisis Management, Migros Aare Cooperative



28.9
Billion CHF
consolidated
sales

97,541
employees
2021

Founded in
1929
by
Gottlieb Duttweiler

The Migros Group is the market leader in the Swiss retail sector. The regional cooperatives form the core of Migros. Today, the ten cooperatives are autonomous, prepare independent financial statements and have unrestricted area and personnel sovereignty. Migros Aare was formed in 1998 from the merger of the Bern and Aargau/Solothurn cooperatives and most recently achieved annual sales of 3.35 billion Swiss francs with 11,301 employees.



DR. GEORGIOS LOUKMIDIS
Head of Service Operations
Senior Vice President
HOERBIGER Wien GmbH

A CLOSELY-KNIT NETWORK ALL AROUND THE WORLD

Lean management is still primarily associated with the optimization of classic manufacturing processes. At the same time, a company's service can also be appreciably improved with the aid of lean methods. The compressor specialist HOERBIGER offers a good example of the latter. Vienna-based Dr. Georgios Loukmidis, HOERBIGER's Head of Service Operations, has lifted the performance of the almost 40 service workshops spread around the world onto a new level of excellence.

OPERATIONAL

HOERBIGER is a globally active Group with sites in over 46 countries. The company's manufacturing range includes systems and components for reciprocating compressors, vehicle powertrains and gas motors, plus the servicing of its products. Using an audit system it developed itself and which focused on the "standardization and optimization of service processes", HOERBIGER reviewed its 40 or so service workshops scattered around the globe and established the world-wide customer-centered SERVICE EXPERIENCE program with the purpose of achieving further increases in customer satisfaction with its service offering. "As a company, we are duty bound to configure our everyday processes so that they are sustainable wherever they are in the world and to improve them continuously," emphasized Dr. Georgios Loukmidis.

Uniform standards in all service workshops

During the audit, a team of internal experts identified more than 1,000 measures capable of improving the processes during servicing. For example, the analysis showed that extremely different ways of working prevailed in the various sites, all of them based on their individual experiences somewhere in the past. Mistakes made during servicing were seen as issues to be criticized rather than as opportunities for improvement. Many different process routes, a lack of orderliness and cleanliness, significant effort devoted to searches and unsynchronized processes also complicated work.

In some workshops any sense of team spirit was also absent. All of which resulted in excessive lead times. "After the audit, we singled out the best workshops and conducted our initial lighthouse projects. We wanted to demonstrate what we could do even better", explained Loukmidis. "The objective was to standardize the workshops and optimize them using lean methods. Customers must perceive HOERBIGER as a professional service-provider in which they have every confidence."

Is it really possible to plan repairs of valves and compressor components, though? "As a service provider, we are obligated to repair all our products that arrive in the workshops. Every workshop must be as prepared as possible for this task," stated Loukmidis. In just a few months, the company therefore introduced uniform standards in the workshops – standards which extended not only to repairs but also to the infrastructure needed for repairs, and working equipment in the broadest sense (buildings, work stations, machines, tools, work clothes and service vehicles). Principles for occupational safety were also defined, Shop Floor Management was established to reinforce internal communication, and all the measures were supported by coaching.

A new culture as the foundation for continuous improvement

With the assistance of Staufen, the service processes were streamlined as part of the lighthouse projects. "The challenge during the value stream analysis



was that we had to examine administrative and value-creating processes at the same time in our quest for lead-time improvement," said Staufen partner Helena Reichmann. To take an example, it proved possible in Dubai to reduce the lead time in the workshop by 50% and the time taken for the overall processing of the order by 35%. The material flow in the workshop was reduced from 1 kilometer to 336 meters. "At the same time we established a new culture relating to mistakes so that staff could recognize and eliminate planning and process variations during their day-to-day work on the shopfloor. This is the only way to achieve continuous improvement", added Loukmidis. By means of the lighthouse projects, HOERBIGER laid the foundation stone

for rolling out the new "service experience" in all their workshops across the world. And where do we go from here? "The intention is to increase standardization so that our customers will have the same positive experience at all our workshops wherever they are in the world," asserted Loukmidis. "If we are to succeed in this, the workshops must improve their exchanges of ideas between themselves and cooperate as a robust network." This cooperation is planned to succeed by increasing digitalization in order fulfillment: newly-developed intelligent apps that offer the customer real added value during repairs feature as the next objectives on his agenda. ■



PICTURE LEFT

Lighthouse project at the HOERBIGER Benelux site in the Netherlands

PICTURE BELOW

Uniform processes, for instance for repairs, give customers an unmistakable, uniform service experience wherever they are in the world.





OPERATIONAL

EXCELLENCE IN EFFICIENCY.

THE TRANSFORMATION PROCESS OF THE SALERI GROUP

Saleri is a leading company in the design, development, and production of water pumps and cooling systems for the automobile industry. Research and development, flexibility of the technical solutions, and continuous updating of the quality standards are the distinguishing characteristics of the „Saleri method“ and the added value of the product range. Cooperation with the best-known automobile manufacturers, such as BMW, AUDI, DAIMLER MERCEDES, FCA, FERRARI, GM, and ASTON MARTIN, speak for the quality of Saleri's products.

**PAOLO TANFOGLIO**

Chief Operations Officer
Industrie Saleri Italo S.p.A.

At the beginning of 2000, the company stepped over continental boundaries for the first time with the opening of an office in China. Most recently, another location was opened in Mexico, and in 2021, one in India. Saleri is striving for sales of more than EUR 200 million, of which 80% goes to original equipment manufacturers and 20 % to the spare parts market.

We met with Paolo Tanfoglio, Chief Operations Officer of Industrie Saleri Italo S.p.A.

Mr. Tanfoglio, Saleri has been involved in the hydraulic cooling systems sector for 80 years, a period in which enormous investments have been made in research and development. What is your strategy in these areas?

Our company produces its products intentionally in order to fulfill customers' needs as well as possible. That's why the research and development departments are the heart of the company: this is where the ideas arise. Over the years, we have invested a lot in this area, for product innovations are what allow us to play a special role on the automobile market. While in the beginning we only made individual products, today our competencies include producing a complete engine cooling system. Over the years we also created a department that focuses on electrification and heat management.

OPERATIONAL

“When we recognized the innovation in our strategy, it became clear to us that we must not only design outstanding products, but manufacture them too.”

How does the cooperation with Staufen fit in with this path? What were the individual stages and what will the next steps be?

When we recognized the innovation in our strategy, it became clear to us that we must not only design outstanding products but manufacture them, too. From this came the goal of setting in motion a Lean Transformation in order to also be innovative with regard to production processes, and thus be able to offer the customer complete service.

Our cooperation with Staufen began in 2019 with three milestones: The first was to consider what organization is most suitable for the concept of operative and service-related excellence. The second milestone was to define the best instruments to achieve our goal. The third was to make the project into an active item for our resources, for the focus of the Lean

Founded in
1942

600

employees around
the world



Do you also use the methods of Lean and Shop Floor Management to control your performance and sustainability goals?

Yes, when you start down this path, it changes the entire corporate culture. There's no going back. For us, the culture change is already making itself felt in our word choices: For example, we don't use the term "problem" anymore. Instead, we speak of deviation, which is a term that points to a dynamic concept.

Sustainability is not just an environmental topic, it also has social aspects, other areas. Do you have plans for these?

We are active in the area around Brescia, in Lumezzane, and we are very connected to this area; we belong to it. That's why we interact with all organizations that support the community. Furthermore, we also support our customers proactively in their sustainability process by being a technological and innovative sparring partner for them.

One more question. When you look into the future, what do you think still needs to be improved?

There's not a lot left to do in order to achieve an absolute leadership position on our market; that's the goal and our claim. I personally would wish that the company would be an example for future generations, who could identify with its innovative spirit and sense of responsibility. We want to be a company that offers opportunities and has strong values, the center of which is respect for people and the environment. ■

Transformation is the people. In the end, the transformation project brought us tangible results on the KPI level. To name just a few: We increased the efficiency of our systems by 20%, we reduced non-conformity with our customers by 60%, and therefore created a more reliable, safer product – and we also improved our delivery capacities.

How did your employees react to these changes?

We succeeded in making it clear to our long-time employees that this project will improve our daily work. There was teamwork on all levels, and both we managers as well as the Staufen consultants were focused on satisfying our employees' needs. The leadership mechanism contributed a lot to revealing that we could really improve working conditions for everyone.

Let's turn to sustainability policy: In which direction are you moving and what results have you already achieved?

We are following all developments in the automobile sector very precisely and also deriving our next goals from this. One of our primary topics is conserving environmental resources. We are trying to make this clear to people – because they are the focal point of the transformation process – that efficiency improves our environmental performance. We believe firmly in this sustainability plan.



THE IMPLEMENTATION IN THE OLYMPUS MEDICAL REPAIR SERVICE:

MEDICAL TECHNOLOGY AND LEAN

Olympus proudly develops customer-oriented product solutions for medical technology, science, and industry. For more than 100 years, Olympus has concentrated on making people's lives healthier, safer, and more fulfilled. Its products help detect, prevent, and treat illness, promote scientific research, and contribute to the safety of society.

Olympus is headquartered in Tokyo, Japan, and has more than 30,000 employees in nearly 40 countries around the world. Olympus Europa, which has its central office in Hamburg, Germany, serves the EMEA region (Europe, Middle East & Africa) and employs over 7,800 people in 21 countries. Olympus' medical technology portfolio includes endoscopes, laparoscopes, and video imaging systems, as well as electric surgical devices, integrated OP solutions, medical technology service, and a broad spectrum of endotherapy instruments for endoscopic and therapeutic applications.

OPERATIONAL

**OLYMPUS**



The initial situation:

As a leading medical technology company, Olympus improves treatment standards for particular illnesses and thus the services and results for its customers. Over the last few years, Medical Repair Service (MRS) has been focusing on standardizing and optimizing the repair process across the network in EMEA with the primary objective of reducing repair lead time.

The next step is to establish a culture of continuous improvement in order to produce sustainable results in terms of cost, quality, and delivery. In order to make continuous improvement part of the daily culture, Medical Repair Service has decided to implement Lean in both operations and administrative functions. For this project, Olympus MRS needed a partner that could help them build up lean skills and competences in the organization.

Implementation:

Working with Staufen, Olympus MRS developed and introduced a training program that is custom-tailored to the organization's specific needs. This international qualification program consists of on-site training with simulations and practical group work, as well as web-based learning units in the local languages.

For Markus Franz and Oliver Maierki of Staufen AG, the concern was to ensure that modular and customized lean expertise was communicated to participants, while promoting a feeling of cohesion, one that inspires motivation and a desire for Lean.

The introduction of a practical qualification program in the Czech Republic, Portugal, England, France, and Germany during the COVID-19 pandemic presented many opportunities, but also a few challenges for all participants.

Staufen spoke with Evelina Speri, Lean System Manager for the EMEA Region at Medical Repair Service.

**EVELINA SPERI**

Lean System Manager for EMEA Region
 Medical Repair Service EMEA
 OLYMPUS SURGICAL TECHNOLOGIES EUROPE

Ms. Spéri, together with Staufen AG, you established an internal qualification program. What was the reason for this program and what was the goal?

Essentially the concerns were to shorten the lead times at our Medical Repair Service locations, reduce costs, and improve repair processes with the aim of increasing customer satisfaction.

For me as Lean System Manager, the challenge is to conceive of Lean as a system, implement it in our locations, and work with the local Lean experts and in coordination with management. For us, Lean should not be viewed as a project, but rather as a new way of thinking and a method for sustainable process improvement. The first step required in achieving this is a qualification program, one that was supposed to prepare process participants for the Lean journey.

“I found the program very short-lived, refreshing, and motivating. Staufen communicated the LEAN spirit in a very charming manner.”

CHRISTOPH SCHÜTTE

Service Product Engineer and LEAN Ambassador
 OLYMPUS SURGICAL TECHNOLOGIES EUROPE

How difficult was the first step, the preparation of the entire organization for the lean journey?

For us, the central challenge was that the organization's employees had a wide variety of experiences with optimization projects and methods. However, only a few effects of these initiatives were visible and could be measured. There was no uniform understanding of an improvement structure and method. Added to this was the fact that in the past two years, due to the pandemic, we had to introduce lean primarily virtually. The only exception were the trainings with Staufen on-site. The initial work was demanding but necessary in order to establish a location-spanning system for standardizing and structuring process improvement.

How did you plan the stages of your Lean journey?

The implementation of the Lean system involved three building blocks: first, establishing Lean competency; second, optimizing our Shop Floor Management; and third, implementing specific improvements (Kaizen) in our processes. Our Lean journey began with the communication of Lean expertise and the establishment of Lean competences in November 2021. Thus far, more than 100 managers and employees have been trained in several locations. In parallel with the training, which we continue to roll out, we have standardized our Shop Floor Management system. A structure for generating and implementing Kaizen is also already well underway.

What's your conclusion about how the cooperation with Staufen has gone?

Several meetings were required to formulate a common target image. Furthermore, the pandemic compromised the planned course of the training since the training units on the shop floor were not easy to organize. Nevertheless, we are very satisfied with the results thus far. The qualification program has brought a lot of “aha” moments. In particular, the simulations in the practical part were very convincing.

We're still at the beginning of our Lean journey, however. Yet we have taken the first step in the right direction. The great motivation and commitment of the entire management team when it comes to this topic have played a decisive role. Many improvements are already evident, which motivates us to take the next step. ■

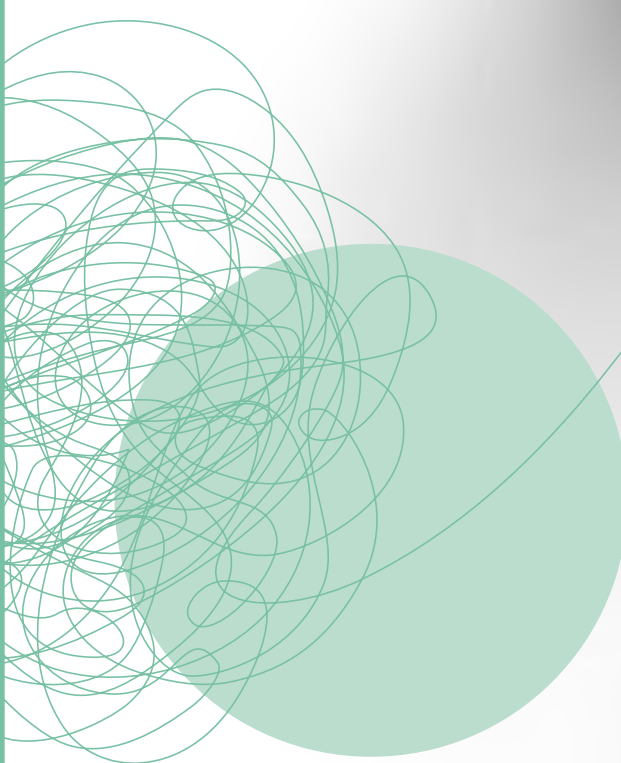


WHO WOULD HAVE THOUGHT?

STRATEGY

IS COMPLEXITY OUR DESTINY?

WHY COMPLEXITY SHOULD NO LONGER BE SEEN AS A PROBLEM
REGARDING THEORY BUT AS A SOLUTION INVOLVING TRUST



FRANK KRAUSE
Senior Partner
STAUFEN.AG



Hardly any other characteristic – especially one that increases – can be read about in publications and heard about in lectures as frequently as complexity. I don't know about you, dear readers, but lately I have been meeting more and more people who either tell me with resignation that you can't stop (an increase in) complexity anyway – so it is best to accept your fate – or who, with a slightly aggressive undertone, urge me to finally do something about this increase. After all, it is apparently “manageable.” We (whoever that may be at that moment) are all called upon to become masters of complexity as quickly as possible. Constantly managing complexity is the only way to a successful future. Are you familiar with this situation?

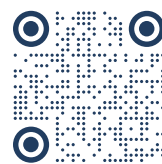
Conversations of this kind tend to make me angry, especially whenever I get the impression that the person I'm speaking with may want to manipulate me and hold me responsible for a condition that is presented to me as a threat. But let's approach it in a structured way and first think about the word complexity itself. The variety of definitions I encountered while researching the term solidified my suspicion that many people who use it don't know exactly what they're talking about. Fields of science, whether mathematics, physics, biology or chemistry, have been struggling for decades to give a precise definition. Regardless of these sciences, other definitions of the term, such as “system complexity” are given in literature. You will recognize non-trivial perspectives if you study the authors: Klaus/Liebscher (1976), Luhmann (1980), Ulrich/Probst (2001), Willke (2006), and Schuh (2017). However, differing definitions from science and literature all have one thing in common. At least three categories provide information about the controllability of a system: simple, complicated and complex systems. In complex systems (Dave Snowden also defines a chaotic system in this field with his Cynefin framework), causalities are not obvious. Thus, prediction, predictability and control are excluded. So, one can conclude: There is obviously a part of our environment where things happen that we cannot explain, reasons for processes that are beyond our cognition. “That's trivial!” you may want to exclaim. What is the problem with using the term complexity? The short answer is that if using the technical term creates a situation in which the person being addressed reacts according to “flight or fight!”, we know from the field of psychology that the two reactions are not beneficial. Both resignation and attack are a result of stressful situations – they impair clear thinking. Let's take a differentiated look at the use of the term and try to understand what effect it can have.

The challenges start with reflecting on your own lack of knowledge on the topic. You remember the Aristotelian intellectual probity of knowing what you are talking about when you say

something. I think the person who uses the word complexity has been faced with the question: “What exactly are you talking about? What do you actually mean?” Don't use the word if you mean “complicated.” This also relates to a problem between the receiver and transmitter. The transmitter does not determine the meaning of a message, but instead the receiver does. So, I should try to clarify differences in meaning if I suspect that I am being misunderstood.

It gets worse! It is very bad if the person being addressed has the impression that he or she is not affected by complexity at all. Exactly – complexity is subjective! So, the question is: What right do I have to conclude that others are ignorant due to my own ignorance? What is complex for me may be simple or complicated for others and vice versa. Only after clarifying who feels affected by which form of complexity, does it make sense to question how complexity should be dealt with. However, the claim that it should be dealt with, and done so successfully, disallows any mention of fate. Complexity is not destiny. Just because the path in search of the truth is paved with errors and disappointments, does not mean that you should give up the search. For this purpose, you should avoid addressing someone using the first person plural. “We should...”, “We ought to...” – then I have to ask myself, who are “we”? We Germans, we Europeans, the entire world? Stay grounded and honestly assess your options. You will realize that the fastest way to make someone flee or go on the attack is to group them among the ignorant, to use bad definitions to explain to them what they don't understand, and in the end to leave them alone and hopeless with no control. So, I call out to all the “lovers” of complexity: Stop it! It does not motivate others to focus on the topic.

The solution lies in personal communication. It establishes trust. Why is trust so important, especially when it comes to this topic? When solving complex issues, you depend on your audience to start supplementing their lack of knowledge with positive speculation right when the information you offer no longer “stands up”. People must be able to believe you – to believe something to be true, which you cannot prove (right) this moment. As long as the results of your experiments to seek insight or clear knowledge about a future state are still uncertain, this is the only factor for success you have. So, managing complexity is a matter of trust, not a matter of information. ■



PODCAST:

You can also listen to my podcast on the topic on our website:

en.staufen.ag/podcast



OVERCOMING SILO THINKING: SHOP FLOOR MANAGEMENT AT RAILROAD ENGINEERING CHAMPION THALES



OPERATIONAL

Thales (Euronext Paris: HO) is a global leader in cutting-edge technologies, investing in digital and "deep tech" innovations - connectivity, Big Data, artificial intelligence, cybersecurity, and quantum technology - to create a promising future that is vital to the development of our society. Its customer base includes governments as well as companies and organizations in the transportation, defense, aerospace, and digital identity and security sectors. Thales has 81,000 employees in 68 countries. In 2021, the Group generated sales of 16.2 billion euros.



FROM LEFT TO RIGHT:

RONALD STÖCKLE

Senior Project Manager
Transportation
Thales Germany

MARKUS FRITZ

Vice President Main Line
Signalling Domain
Thales Germany

THOMAS KLUG

Supply Chain Director
Thales Germany



THALES

Building a future we can all trust

Thales is one of the world's largest suppliers of control and safety systems for mass transit and mainline rail transport. More than 250,000 solutions from Thales have been installed in the areas of interlocking technology, point machines, signals, axle counters, control centers, autonomization, and cyber security, which support the expansion of sustainable mobility by rail and rapid implementation of transport revolution towards rail planned for Germany.

Thales has outstanding expertise in the digitalization of platforms in operation today using its proprietary bridging technologies, as well as in the provision of cyber-security solutions with Thales-specific architecture that leads the way with a "cyber-by-design" approach. Thales thereby supports both operators in terms of reliability, punctuality, operational safety and all rail passengers in their customer experience.

Not least because of its range of capabilities, Thales is a fundamental project partner of Deutsche Bahn in the "Digital Rail for Germany" project, with which the German government and Deutsche Bahn play a pioneering role throughout Europe.

Reliable freight transport, punctual passenger trains, efficient capacity utilization, better climate: With its project "Digital Rail for Germany", Deutsche Bahn aims to do nothing less than revolutionize rail transport.

By 2030, the traffic revolution project aims to succeed with the help of industry partners through extensive digitalization of existing rail infrastructures in Germany, without building any additional railroad tracks.

Thales in Germany is the central partner in this ambitious digitalization project for rail infrastructures, which is setting the pace for all of Europe. At the end of 2020, the company was awarded a contract by Deutsche Bahn for part of the major project "Digital Node Stuttgart" project, which will be of central importance for optimizing rail transportation throughout Germany and beyond.



A task of this dimension and critical importance leaves no room for error or inefficiency. In order to ensure that this project can be rolled out on time and on budget despite the pandemic and sometimes severely disrupted global supply chains, the Thales Ground Transportation Systems unit in Germany has adopted an agile approach.

“With a global pandemic and disrupted supply chains worldwide, it was clear that we would not be successful in the future with a traditional management and leadership style,” says Markus Fritz, Vice President Main Line Signaling Domain Business Germany. “Our goal was to work and manage less top down. Instead, we wanted to be able to track down problems more quickly, make them transparent, and make the right decisions as quickly and efficiently as possible. The number and duration of our meetings must be cut in half or significantly improved in quality.”

During his three and a half years working for Thales in Melbourne, Australia, Markus Fritz had gained excellent and lasting experience with Shop Floor Management (SFM), a method from which he also greatly expected in his new area of responsibility in Germany. The implementation was to be carried out on a partnership basis together with consultants from Staufen: “Cooperation with external consultants is always very important, because important experiences and information from other company projects always flow into our joint work. We don't have to make the same mistakes that others have already made,” says the Thales manager pragmatically.

Leading from the top – freedom and employee perspective

It quickly became clear that top management should lead by example in innovations. “In order to get all employees under one roof when it comes to Shop Floor Management (SFM), a strong commitment from the very top is essential. Because that's where everyone has to pull together. Once this is achieved, Shop Floor Management can be extended to other teams and cascaded,” explains Thomas Klug, who as Director Supply Chain is responsible for “Lean” at Thales in Germany.

Thomas Klug and his team accompany the implementation very closely: “It's not about egalitarianism, but about centering the lean approach around people and their problem solutions,” says Klug.

“Each employee has different prior knowledge and experience. Individual freedom is essential for achieving the best together. That's why we don't use fully standardized boards to track our daily business,” adds Markus Fritz.

Thomas Klug: “We have provided a framework with minimum standards. Within this framework, the individual teams have creative freedom with their boards.” And success proves him right. “We were overwhelmed by demand from the organization at the beginning,” recalls the SFM project manager.



Digital Shop Floor Management as a response to the COVID-19 pandemic

A particular “implementation booster” was the COVID-19 pandemic. It forced Thales as a company to not start with analog boards first and then switch to digital solutions later, but to instead work in a networked fashion from the very start.

“Particularly when working from home, digital Shop Floor Management is a terrific tool for creating transparency and improving communication,” says Ronald Stöckle, who is the Program Manager in charge of the Thales development program as part of “Digital Rail for Germany.”

“In the past, some team members volunteered to tell us what the status was, while others had to be frequently asked. Now everyone has the opportunity to transparently write the current state of affairs and critical issues on cards. We then go through the status step by step and colleagues express where they need support.”

Nevertheless, there were also critical voices at the launch. Ronald Stöckle: “This mainly concerned reporting. Some feared that the new SFM method would create additional bureaucratic effort. But when it became clear that the SFM board would serve to gather information that was scattered around in a single place and make it transparent, that provided the necessary acceptance.”

Broad employee involvement and qualification as a success factor

Thales is now a third of the way through the rollout, according to Lean Project Manager Klug. Another phase is about to begin. The aim is to further improve value creation within the company, project by project, and – along with this – horizontal collaboration, ultimately overcoming any silo thinking that still exists. Thomas Klug: “The goal is to form a powerful fleet of all the small row-boats in an agile production environment that can successfully sail from inland waters out into the sometimes stormy sea.”

Jan Haug, Partner at Staufen AG, is very confident that this will succeed based on the course of the project so far: “In addition to top management taking on a strong role model function, the broad involvement of stakeholder management and qualification of employees as well as the training of multipliers has also ensured this excellent initial situation. In addition, a pilot cascade quickly visualized achievable successes with Shop Floor Management.”

Mastering the challenges in the supply chain with Lean Management

In two years, according to the plan of Rail Division Manager Markus Fritz, the company should reach a certain level: “Then we can still make specific improvements. But I don't want to be at the point where we have to introduce Shop Floor Management or explain the company-wide benefits per se. In the future, we will consider whether and where to readjust and which hurdle to tackle next.”

Not least, the ongoing global crisis requires a different kind of management, he says. Now, for example, the team is facing the challenge of too few colored glass panes for railroad signals. The discs must comply with a special, legally regulated specification for Deutsche Bahn and cannot currently be industrially manufactured. “Lean Management and an orchestra of tools help us to ensure that we can meet today's and tomorrow's challenges and reliably serve our customers and partners,” emphasizes Markus Fritz. “That's why I will continue to proactively push this topic.” ■





DIGITAL SHOP FLOOR MANAGEMENT AS A NEW PARADIGM

In the Lean context, the approach of Shop Floor Management (SFM) as a term has long since become established. What was originally meant was management at the point of value creation, i.e. in the factory. In the meantime, not only the understanding of value creation has expanded, but also the application of Shop Floor Management. Indirect or purely informational processes are also managed today with SFM instruments. The main objective is to ensure that a work system is efficient and free of interference. Here, the availability of relevant information is a crucial asset – it must be ensured across distances and in near real time. That alone suggests a digital solution. Today, we talk about digital Shop Floor Management (DSFM) as a leadership paradigm in organizations.

valueSreamer

Needs-based

Technically, the core task of leadership is to ensure the performance and freedom from interference of a work system. In practice, this takes place across several management levels – along a so-called cascade. First and foremost, this means that information must be prepared, provided and visualized in such a way that the individual levels can perform their tasks optimally. A production team has different management responsibilities and different management information requirements than a company's board of directors.

An essential principle of leadership is the definition and delegation of tasks. From the bottom up to make the right decisions, and from the top down to operationalize those decisions by initiating and implementing actions.

Integrated

Today, high demands are placed on the cycle time of information. In the digital world, data is read out automatically, visualized and displayed in near real time at any user-friendly location.

Another key point at which the performance curve rises and the cost curve falls is when DSFM begins to connect with other data sources in the company. Keyword: ERP or MES. If the data available in it is made available as management information in an automated way, this means a quantum leap. If this connectivity is consistently expanded and additional business areas and data sources are tapped, the curves can be continuously changed. Costs go down, performance goes up. This means: Leadership effectiveness and efficiency can be improved significantly and sustainably. Excellent leadership performance is also characterized by the fact that the manager is on site with the employees despite digital support – but is informed more quickly and is therefore able to make more precise decisions more quickly.

The bottom line: With the help of IT, crystal-clear transparency can be achieved. However, this is of little use if the information is not handled more efficiently and consistently. If you start digitalizing Shop Floor Management now, you won't have to wait long for ROI. As a rule, it is achieved after three to six months. ■

SMART & LEAN IN EVERY INDUSTRY

DIGITAL SHOP FLOOR MANAGEMENT BY VALUESTREAMER®



valueStreamer

TRUE COLLABORATION

BOOK A DEMO!
WWW.VALUESTREAMER.DE



WOLFCRAFT GMBH: FAMILY BUSINESS PROJECT



REINHARD WOLFF
Executive Director
wolcraft GmbH



THOMAS WOLFF
Executive Director
wolcraft GmbH

Whether laying laminate or drywall with plasterboard – for more than 70 years, wolcraft has provided do-it-yourselfers with the tools to successfully complete their DIY projects. To ensure this into the future, the company has to keep reinventing itself.

A familiar situation for many DIYers: holding one piece with one hand, a clamp with the other and with the third... Of course, DIYers who usually work on their own can quickly become overwhelmed. At the end of the 1990s, wolcraft launched a solution to this problem: the one-handed clamp, which closed using a simple mechanism.

Continuous innovation and permanent change are part of wolcraft's business model. Founded in 1949, the tool manufacturer supplies DIY stores with all kinds of hand tools from Kempenich in the Eifel region. In 1961, the company was one of the first to come up with the idea of offering products specifically for DIY enthusiasts.



wolfcraft GmbH is a manufacturer and supplier of tools and power tool accessories and is considered a co-founder of the German DIY industry. The family business was founded in 1949 by Robert Wolff and is now managed in the second generation by his sons Thomas and Reinhard Wolff. Production takes place primarily in the company's two own plants in Germany and in Malé Dvorniky (Slovakia).

550
patents

700
employees

Founded in
1949

> 3,000
articles in
its product
range

OPERATIONAL

Manufacturing in Europe to guarantee quality

“One of our main focuses is tools for DIY projects,” says Reinhard Wolff, son of founder Robert Wolff, who runs the company with his brother Thomas. In addition to traditional hand tools and power tool accessories, the current range also includes assortments for laying laminate and tiles, drywall construction with plasterboard and many other projects.

Production takes place in the company's own plants in Germany and Slovakia. “We place great importance on quality and sustainability, which is why we decided to produce in Europe,” explains Thomas Wolff, adding, “our plant in Slovakia is not only extremely efficient thanks to its lean orientation, but it is also very competent in processing metal, plastic, and wood – this material expertise can rarely be found under one roof.”

Highly digitalized processes for the online boom

The two entrepreneurs do a few other things differently than their competitors. In addition to traditional, multi-stage distribution, wolfcraft offers modern, digitally networked logistics concepts such as drop shipping, which is particularly essential for DIY stores with their own web shops and online retailers.

The advantage for online DIY stores is that they do not have to keep the tools in stock; the wolfcraft central warehouse in the Eifel region takes care of picking, packaging, and shipping. At wolfcraft, this has necessitated new, highly digitalized processes for warehousing and logistics, because unlike bulk orders of stationary trade, a shipping unit here usually consists of only a few items.

Moreover, a B2B2C business model of this kind is particularly interesting for founders: Anyone wanting to open a conventional DIY store would first have to invest tens of millions. However, it only reaches customers within a radius of about 50 kilometers.



Online, however, it has around 100 million potential customers in the German-speaking world alone. "They can be served through drop shipping without capital investment," says Reinhard Wolff. "All they have to do is attract customers to their store, and we take care of the logistics processes."

For several years now, wolcraft has demonstrated how tools can attract attention on the Internet with its various social media profiles and its very active YouTube channel, which is permanently manned by a team of five. There, followers of "Do it yourself" (DIY) can find hundreds of videos about tools and DIY. They explain how users of wolcraft tools can best achieve their goals. Some focus on renovating a wooden staircase, while others explain how to use a specific tool. Numerous other videos have been created in collaboration with DIY YouTubers, who provide their own answer to wolcraft's question: "And what's your next project?"

This describes the family business's secret to success: never stand still and always keep an eye on the next step. In this regard, the Wolffs have often been pioneers. For example, a profit-sharing model has been in place since 1973. Behind this is the idea that

employees are not cost factors but people with entrepreneurial skills. They should profit from success.

Company succession regulated in good time

wolcraft wants to tackle issues together with its employees, including digitalization on the shop floor and sustainability, for example, with product packaging made of paper instead of plastic. Much-cited "change" is everyday life for the company. However, the company still has its biggest change in recent times up ahead: regulating company succession.

"My brother and I agree: our children may continue if they want to. And fortunately, they do," emphasizes Thomas Wolff. That is why both of them are currently focusing on handing over the business to the next, third generation of entrepreneurs. "We've been introducing our children to the responsibilities of running a family business for quite some time."

But first, an external management is to be appointed, which will give the third generation the chance to develop independently and to see the family business as their own project. ■



wolcraft[®]

**Quality brand for
hand tools and
project solutions**

**Manufacturing expertise
for over 70 years**

- 
- ✓ High quality tools with TÜV seal
 - ✓ Production facilities in Germany and Europe
 - ✓ Germany's best-known brand for hand tools*

*Institut für Freizeitforschung / Efficient marketing for DIY-customers; Munich 2010, 2014

www.wolcraft.com



A NEW MACHINE INTERACTION



DIGITAL



PLENTY OF SPACE FOR CREATIVITY



KARL-RUDOLF HOPT

Owner and CEO
ddm hopt+schuler GmbH & Co. KG



STEFAN PROBST

Materials Management Manager
ddm hopt+schuler GmbH & Co. KG

Not all companies have managed to keep pace with change as impressively as ddm hopt+schuler. The company based in the German town of Rottweil has succeeded in continuously developing itself and its products for more than 50 years. The key to success, according to owner Karl-Rudolf Hopt, is a "a culture in which nothing is impossible".



SYSTEMS COMPONENTS SOLUTIONS

200
patents

12
million products
a year

0
CO₂-emissions

Optical 2-bit incremental encoder with Touch Sense function of the 580 series

DIGITAL

In all likelihood, a great number of people have held a ddm hopt+schuler product in their hands, touched it or used it without knowing it. Located 80 kilometers southwest of Stuttgart, the company with its 210 employees manufactures card readers, encoders and ticketing systems. They are then used, in payment applications, for example, in kiosk systems or at e-charging stations. When you go to the bakery in the morning and ask if you can "please pay by card", you are often handed expertise produced in Rottweil over the counter. First came punch cards, then came the magnetic strip, the chip card and eventually RFID technology – in other words, ddm hopt+schuler has had to reinvent itself four times. The ability to change is therefore a fundamental part of the company's culture. These days, 12 million products are shipped around the world every year. Owner and Managing Director Karl-Rudolf Hopt is fond of describing his company as a "creative technologist". Hopt: "Thanks to our craftsmanship, we have the opportunity not only to dream up the future and innovations, but also to implement these ideas in a very practical way. Creativity stems from a variety of skills. We are closely meshed, we work together flexibly and across departments."

"The confidence we have in ourselves enables us to be creative."

Stefan Probst appreciates this open mindset that excludes a silo mentality. As Head of Materials Management at ddm hopt+schuler, he has been with the company since 2012 and has since consistently used the space to develop his own ideas and new approaches. For instance, since 2015 he has relied on the use of data glasses in order picking. "Initially, we were primarily concerned with gaining an understanding of this new technology and everything related to virtual and augmented reality," Probst says. "Then the next thing we did was look and experiment with where the use of data glasses would make sense for us. This is the case for order picking; in other areas, it hasn't taken hold." It is this light-heartedness in dealing with new things that characterizes the day-to-day work at ddm hopt+schuler.

"Delegating trust and responsibility, along with a positive culture of accepting mistakes, form the backdrop for creative work," Karl-Rudolf Hopt says with conviction. "I try to establish a culture where nothing is impossible. We don't shy away from problems."



“Staufen’s practical approach of providing direct and honest feedback fits perfectly into our corporate culture.”

STEFAN PROBST

Materials Management Manager
ddm hopt+schuler GmbH & Co. KG

We are just the tinkerers you turn to when there is a problem to be solved. We thrive on these challenges, and they require our creative approach.”

Following production, the R&D area is now also going lean

A successful and creative company, though, not only needs an open corporate culture, but it also needs the right physical space that makes tinkering and producing fun. So since 2016, Staufen AG has been supporting ddm hopt+schuler in designing the workspace. “Mr. Hopt and his team were already doing a lot of things right and were intuitively thinking lean,” explains Staufen consultant Martin Becker. “So we were not surprised that the methods and tools we brought in were accepted quickly and embraced enthusiastically.”

Stefan Probst agrees: “Staufen’s practical approach with its straightforward and honest feedback matches our corporate culture perfectly. Plus, Staufen has its own in-house specialists for every problem, who are able to respond specifically to our needs.” And what’s next as far as Lean at ddm hopt+schuler is concerned? Since 2021, not only production but also the product creation process has been converted to Lean.

“Our industry has been picking up speed for years, and a development time of one year for a new product is now not exceptional,” Probst points out. “By implementing Lean Development, though, this is something we’ll be able to manage well in the future.”

A deep lake as a source of sustainable heating

The only question that remains is how economic success and adaptability are compatible with the key issue of sustainability at ddm hopt+schuler. The answer: extremely well, because in Rottweil, the CO2-free factory has been a reality for a long time. According to CEO Hopt, “We have been dealing with the issue of sustainability for quite a long time, for more than 20 years to be exact. We have also taken on a cutting-edge role in this respect. Our facility is heated entirely with zero primary energy. We achieve this with heat pumps that extract heat from water in a deep lake, and with waste heat from the compressors. Since 2002, our roofs have also been fitted with photovoltaic elements, and we were among the very first to become EMAS-certified (2008).” Likewise, digitalization is doing its part to protect the environment: Each year, using data glasses, Materials Management Manager Probst’s team saves 100,000 sheets of paper. ■

STAUFEN.

INSIDE EVERY COMPANY THERE IS AN EVEN BETTER ONE.

CONTACT



WILHELM GOSCHY

CEO

w.goschy@staufen.ag | +49 7024 8056 0

MEDIA CONTACT



STEPHANIE KÖNIG

Marketing Manager

s.koenig@staufen.ag | +49 7024 8056 152

IMPRINT

RESPONSIBLE EDITORS:

Werner Bärtle, Stephanie König

EDITORIAL CONTRIBUTIONS:

Gerardo Mauro, Thöring & Stuhr
Kommunikationsberatung GmbH

IMAGE EDITING:

Sebastian Junge, Büro FL (www.buero-fl.de)

ART-DIRECTION & LAYOUT:

Büro FL (www.buero-fl.de)

EMAIL EDITOR:

magazin@staufen.ag

PICTURE CREDITS:

Titel: ihsanyildizli (gettyimages) | p. 6 – 9: ifm efector gmbh | p. 10 – 12: ARBURG GmbH + Co KG | p. 13 – 15: Liebherr-Hausgeräte Ochsenhausen GmbH | p. 16: Filip Zrnzevic (unsplash) | p. 18 – 20: petovarga (shutterstock) | p. 21 – 23: solidpower, petrmalinak (Freepik) | p. 24 – 27: HARGASSNER Ges mbH, rawpixel, mulyasriwahyuni (Freepik) | p. 28 – 31: Machinefabriek Steketee B.V., user35998332 (Freepik) | p. 32 – 33: Institut für Industrial Ecology (INEC), upklyak, kengmerry, zlatko_plamenov (Freepik) | p. 34 – 35: kornkun, Mihimihi, freepik (Flaticon) | p. 36 – 37: Oskar Frech GmbH + Co. KG., uckystep (Freepik) | p. 40 – 41: Freepik | p. 42 – 43: C. & E. Fein GmbH, great.vector (Freepik) | p. 44 – 45: STAUFEN.AG, macrovector, gstudioimagen (Freepik) | p. 46 – 48: Stephan Pick, user9023173, smashingstocks, max.icons (Flaticon), Vectonauta (Freepik) | p. 49 – 51: Insta GmbH | p. 52 – 53: Martina Keck, Daimler Truck AG | p. 54 – 55: PKF Fasselt Consulting GmbH, STAUFEN.AG, Eucalyp, LAFS, Good Ware, manshagraphics, srip, Pixel perfect, Nhor Phai, DinosoftLabs, xnim-rodx, Kharisma (Flaticon) | p. 56 – 57: Mayor Icons, Tru3 Art, iconixar, Freepik (Flaticon) | p. 58 – 61: ERNST Umformtechnik GmbH | p. 62 – 66: General Motors, distrologo (Freepik) | p. 67 – 69: DB Schenker, onlyyouqj, mikalaimanyshau (Freepik) | p. 70 – 71: max.icons, Natthapong, Feepik (Flaticon) | p. 72 – 73: Avigator Fortuner (Shutterstock) | p. 74 – 75: BMW AG | p. 76 – 79: STAUFEN.AG, MTU Aero Engines AG, Rittal Electro-Mechanical Technology Co., Ltd, Thyssenkrupp Elevadores, Endress+Hauser Sicestherm S.r.l., artistdesign13, cube29, rawpixel.com, macrovector (Freepik) | p. 80 – 83: Embraer Commercial Aviation | p. 84 – 86: Louis Dreyfus Company Sucos S. A., fotoslaz, freepik, ifong (Shutterstock) | p. 87 – 89: Elesta GmbH, user1433806, user23205478 (Freepik) | p. 90 – 91: KSB SE & Co. KGaA, user23205478 (Freepik) | p. 92 – 95: Alpargatas S.A., ibrandify (freepik) stbaus7 (123rf) | p. 96 – 97: Migros Aare Cooperative, user143380 (Freepik) | p. 98 – 99: HOERBIGER Wien GmbH, stockbg (Freepik) | p. 100 – 102: Saleri Italo S.p.A., anttoniart (Shutterstock) aranjuezmedina (Freepik) | p. 103 – 105: OLYMPUS SURGICAL TECHNOLOGIES EUROPE | p. 106 – 107: STAUFEN.AG, user23205478 (Freepik) | p. 108 – 111: Thales Deutschland | p. 114 – 116: wolcraft GmbH | p. 118 – 120: ddm hopt+schuler GmbH & Co. KG | p. 122: Microsoft Deutschland GmbH | Flags: vectorplusb, bell_aood (Freepik)

staufen magazine ONLINE

Read the Staufen Magazine
conveniently from anywhere:
www.en.staufen.ag/magazine

RESPONSIBLE FOR ADVERTISING:

Stephanie König

PRODUCTION MANAGEMENT:

Stephanie König

PRINT:

C. Maurer GmbH & Co. KG

Schubartstraße 21

73312 Geislingen an der Steige

All articles are written for the Staufen Magazine exclusively. All rights reserved; © STAUFEN.AG, Köngen. Use of these copyright-protected editorial contributions as well as their contents and pictures, in particular by reproduction or distribution, is forbidden and punishable without the advance written consent of Staufen AG, with the exception of the legally permitted cases.

EDITORIAL OFFICE & ISSUER:

(also service address for the person responsible and the authorized representative)

STAUFEN.AG Beratung . Akademie . Beteiligung

Blumenstraße 5, D-73257 Köngen

DIRECTORS WITH REPRESENTATION RIGHTS:

Wilhelm Goschy (CEO), Michael Hahn, Markus Riegger.

Chairman of the supervisory board: Martin Haas.



DIGITAL OPTIMISM

Anna Kopp, Director IT at Microsoft Germany was a guest at the Rittersaalrunde of Staufen AG and spoke with Janice Köser from the Staufen Academy prior to the event.

Ms. Kopp, your topic is Digital Optimism, what is behind this headline?

We need more confidence in the future. I would like to see more courage to try new technologies and more will to change in order to make our working world more flexible and better. Many companies and their executives fear loss of control over their organization and their employees when it comes to the topic of new work and the introduction of hybrid work models. Yet the vision is different, namely to improve working conditions for employees and make organizations more efficient. We need more optimism to ensure that we do not fall behind in the digital transformation.

What does it take to successfully change?

The will to change begins with a company's orientation and must be actively supported by managers. New working models cannot be forced; above all, they require leadership qualities. For many executives, new collaboration models are a challenge. New Work requires new leadership behaviors that must be learned and applied.

What will the working world look like in the future?

We are heading towards a hybrid working world. We will work in the office, at home and on the road. We will also no longer recruit based on location, but in order to remain competitive, we will seek out the best employees, regardless of where they are located. I am also convinced of job sharing and the 4-day week. Several studies have confirmed that employees who can choose their working hours more flexibly are significantly more efficient. In order to successfully implement New Work models, it is not enough to just use new collaboration technologies; you have to be ready to evolve the company. ■



ANNA KOPP
Director IT
Microsoft Germany



Creating the extraordinary. With passion.

We love what we do and that's why we go the extra mile to create truly extraordinary products for our customers. Our passion has been the secret to our success for 150 years and the reason why our pumps, valves and services continue to set new standards around the world.

www.ksb.com

► **Our technology. Your success.**

Pumps • Valves • Service



A man in a red jacket and white t-shirt is leaning against the front of a Cadillac XT4. The scene is dramatically lit with blue and red light, creating a moody atmosphere. The car's headlights are on, and the man's reflection is visible on the wet ground.

 CADILLAC XT4

STAUFEN.

IN JEDEM UNTERNEHMEN
STECKT EIN NOCH BESSERES.

Dieser Artikel erschien im
staufen magazine 2022 | No. 5

**Lesen Sie weitere Artikel unter:
WWW.STAUFEN.AG/MAGAZINE**

**UNSER NEWSLETTER BERICHTET REGELMÄSSIG
ÜBER SPANNENDE GESCHICHTEN UND
AKTUELLE STUDIEN.**

MELDEN SIE SICH JETZT AN:
www.staufen.ag/newsletter



STAUFEN.

INSIDE EVERY COMPANY
THERE IS AN EVEN BETTER ONE.

This article appeared in
staufen magazine 2022 | No. 5

Read more articles at:
EN.STAUFEN.AG/MAGAZINE

**OUR NEWSLETTER REGULARLY REPORTS
ABOUT EXCITING STORIES AND
CURRENT STUDIES.**

SUBSCRIBE NOW:
en.staufen.ag/newsletter

