Q.Magazine

THE ECOSYSTEM
FOR QUALITY

The Forest Teaches Us How
to Cooperate in a Partnership
within the Supply Network

BABTEC

EDITO

The Quality Revolution

The last one and a half years have changed our world forever. We were forced to acknowledge how vulnerable the system that we live and act in is; international supply networks are slowly recovering from the consequences of massive limitations and many companies have had to completely reposition themselves on the market. However, this transformation generally brings positives with it. Naturally, Germany, as an economic hub, has made leaps and bounds in digitalizing business processes and digital cooperation. Home office, collaboration platforms, paperless workplaces – all this has become normal for many of us now.

RIAL

Our understanding of quality work has changed too: Never before has it been so vital for companies to cooperate seamlessly in order to assure top quality products. All stakeholders are dependent, one could even say reliant on each other – we can only produce quality when everyone works honestly with each other as equal partners. Today, that primarily means overcoming digital hurdles and exploiting the benefits of accelerated digitalization.

You might already be wondering why there is a picture of a seedling gracing our front cover. Dr. Stefan Rösler and Dr. Klaus-Stephan Otto, experts in sustainability and biodiversity, point up interesting insights into the **"Woodland Company"** in their article and show us why nature is still streaks ahead of the human race. Sometimes, it can be worthwhile to look at systems that have functioned for centuries in order to learn from them in a best-case scenario, even if, at first glance, there seems to be no link between woodland life and cooperation between companies in supply chains.

In this vein, we build a bridge to company-internal and cross-company quality work that is, now more than ever, reliant on supporting software solutions. Given this backdrop, we explain how our product worlds promote an **"Ecosystem for Quality"** that can be used to map all facets of quality management by our users.

A **positive failure culture** in which errors are discussed openly, without excessive fear of penalties, is essential for building a functioning cooperation in the supply network. Despite this, agreeing on a certain level of quality in the contract, including stipulations on threatened reprisals in the event of non-compliance, often prevents a positive failure culture from blooming. We all make mistakes. However, the way we deal with them shows who we are. Andreas Gebhardt, professional juggler and speaker, offers a different perspective on this sensitive topic in his guest article.

Our Q.Magazine will appear in a new guise this year, with a revised structure, and may deliver some unexpected points of view on the ways and means in which we can better work with our business partners in this exciting time. We hope that reading this issue will spark a few light bulb moments for you, and maybe even give you some brand new ideas for your own working processes.

We hope you enjoy this edition,

Marc Osenberg, Editor
redaktion@babtec.de

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THE ECOSYSTEM FOR QUALITY

It might sound odd at first, but it's actually quite simple: the woods have been around for over 400 million years, and demonstrate how relationship structures can be built so that everyone benefits optimally from this ample experience. If we translate this concept to quality management, we quickly see that we should be striving for nothing other than an ecosystem for quality. What's essential here? Above all, we need excellent cooperation, naturally.

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Blog for Quality

Once a year, the Q.Magazine provides information on fascinating topics from the field of quality. And now, to make sure that you get the latest content and updates even faster, we also regularly post articles on our BloQ, the Blog for Quality. Under many of the articles in this magazine, you will find links that you can click on to go directly to the relevant extra posts in the BloQ.

BloQ
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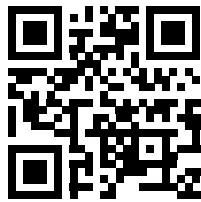
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As a complex ecosystem, the woodland is an amazing teacher for holistic thinking and a sustainable economy. We know it as a place of rest and recuperation, a production site for wood, an oxygen supplier and a habitat for plants and animals. Seen from another angle, it could be considered a company, where management, communication, production, competition and cooperation all occur on a daily basis. All this takes place in perfect harmony; and we, the human race, could learn more than a little from it.

— **by Dr. Stefan Rösler and Dr. Klaus-Stephan Otto**

Nature as a world market leader in sustainability: within the scope of his woodland workshops, Dr. Rösler shows how problems can be solved and crises can be mastered in complex ecosystems.

As people, we are used to putting concepts into separate boxes. The economy is separate from the ecosystem, people are considered on the one hand and nature on the other. Even so, we live in one and the same ecosystem: planet earth, and we are closer to all mammals than we'd like to think. A significant difference, though, is that mammals have been living on earth 60 million years longer than humans. Woods have been around even longer: for 400 million years. From the perspective of the almost 4 billion years that life has been present on earth, the paltry 300,000 years that homo sapiens has existed is but the blink of an eye in the globe's history. Woods and mammals are light years ahead of us in terms of experience. Therefore, it's useful to take a closer look at that experience, in order to understand the existential necessity of ecological economic activity for our own futures.

The Woodland:
An Ecosystem and a Company in One

When you think of the ecosystem in a wood, you probably envisage trees, maybe moss and fungi, a deer or a bird. The latest headlines might also have sprung to mind and you could be thinking about climate change, damaged trees, bark beetles and what woods will look like in the future. Our general association with the term "company", on the other hand, tends to go in a different direction. In the main, you'll be thinking about an operation that provides services, a factory, a start-up or a craftsman's business. At first glance, these are two completely separate worlds.

Achieving sustainable processes is a global challenge. The quickly progressing climate change that we have engendered and the global decline in species diversity means that new answers are needed from companies too. On the one hand, the transforming expectations of the market, the customers and the financial investors (in large companies) are the reason for this. On the other hand, companies are also responsible for preserving the diversity of life on our earth from an ethical perspective. When we discuss sustainability concretely, it's interesting that we do actually join the two viewpoints on the ecosystem and companies together, because we are thinking holistically. This is the only way that we can comprehend the complexity of the issue and come up with new ways to deal with it. In the context of sustainability, it is undeniable that our planet has limits, and exceeding them puts the stability of the ecosystem in danger. In the long term, climate neutrality and the preservation of biodiversity are crucial in enabling us to be commercially successful too. Ecology and economy need to be thought of in the same scope, because the one affects the other.

The woodland ecosystem has a long headstart on companies here. It sets itself apart by its ability to adapt, its longevity and its high level of complexity. It is characterized by optimizing its yield rather than maximizing it. Trees grow towards the sky, but not into it. By observing ecological limits, they grow in a balanced ratio of height to diameter, which contributes to their capability to weather a crisis and to their competitive edge.

If trees shoot up too fast due to growth conditions that are "too good", this can be a disadvantage because they do not grow stable enough and thus could easily break in storms or snow. This instability issue is similar to that posed for fast-growing companies. In insolvency administration, the risk factors for this are well-known: insufficient personnel resources, restructuring being carried out too late or liquidity bottlenecks.

The development of natural woods isn't focused on speed; it is focused on sustainability. However, if trees grow too slowly they might fall behind and come last in the competition for light. The woodland ecosystem is therefore a model example for futureproof business.

A Blueprint for Futureproof Business

Ecosystems have essentially functioned for just under four billion years based on these five principles for success:

☑ Economic activity in cycles of materials

☑ Using regenerative energy in the form of sun, wind and biomass

☑ Good interplay of cooperation and competitiveness

☑ Constant further development of processes and innovation and

☑ Building up complexity that harks back to tried-and-tested elements, allowing many different life forms to spring up – biodiversity.

The same applies for the woodland ecosystem: The diversity of organisms lives, grows and reproduces in various dimensions of the space, frequently in cooperation with other organisms and often in dependent relationships or even in competition with them. Organisms consume resources and simultaneously produce them. A wood produces no waste or scrap; the waste product of one organism forms a raw material for another. Dying trees, branches, leaves and fruits and dead animals are valuable materials, providing food and a basis for life for other organisms. ❯

Success Strategies in Competition

Success Strategies in Competition Good interplay between competitiveness and co-operation is one of the wood's strengths. Saplings from beech nuts fallen under an old log grow to different heights, depending on the location and light. As soon as one of the old trees dies or falls, the competition begins for the young upstarts. On 100 square meters of woodland area, which is the average area taken up by an old tree, up to 7,000 young trees will grow. As a diverse collective, they cover the floor, contribute to topsoil formation and ensure a good microclimate.

Ultimately, one particularly vital tree will win the competition in this development cycle, characterized by simultaneous cooperation and competition, intended to assure quality for the entire collective. A similar competition also takes place in our economy. Just as trees do, companies also enter a race to unlock new markets under good conditions. This is particularly true for start-ups.

Insufficient growth can be fatal for shade-intolerant trees such as oaks, larches or birches, as they need a minimum level of light to survive. Conversely, shade-tolerant species can thrive in the shadow of other trees. Such character types can also be found in every team, every department. There are feisty characters, those of a reserved nature, quick workers and the ones that take a while but go in-depth. In terms of diversity, this variety often brings advantages with it, but only when this rich orchestra of colleagues is conducted in the right way.

Quality Management

Quality management is not simply the task of the quality managers, but is also a concern of the top management in particular. Therefore, quality must be anchored as a central value in the company and must be lived out each day. Modern companies make sure that all of their employees take on responsibility for quality and control it. Quality assurance is no longer considered to be an inspecting task, rather it coordinates and supports autonomous organization with good tools and effective monitoring.

Quality assurance in the wood is also not solely down to quality officers; it is assured by autonomous organization within the complex ecosystem. The various stakeholders in the ecosystem interplay together to create the quality of the wood. When failures

occur, a product is taken off the production line using a selection process, or is optimized using new solution-based approaches. This means that standardized processes are present in nature, and they have been tried and tested by millions of years of processes. Simultaneously, these processes are constantly further developed using innovation, which has resulted in complexity being built up during the course of evolution – complexity that can barely be comprehended.

»Monocultures are a risky business in agile times, and this applies for companies too.«

Along with trees and plants, animals also play an essential role for sustainable development in the ecosystem. A jaybird, for example, warns all of the other birds in the wood of danger with its loud call. In gardens, this role is taken on by the blackbird. In organizations, there are also indicators that serve as warnings, for example a drop in revenue or a rise in complaints. The takeaway here is that the jaybird not only warns other jaybirds, but all birds in the area; thus cohesive cooperation is vital for our common good and to guide our economy.

From the Analog Supply Chain to a Digital Operational Network

In our digitalized and globalized economy, good cooperation between companies is becoming increasingly significant. The quality of the final product is only as good as that of its constituents; processes need to function, not only in in-house operations but also throughout the entire supply chain. In both digital networks and the woodland it is apparent that "supply chain" is a term that has swept the landscape, and represents linearity and single-dimensionality. The world wide web, and, similarly, the wood wide web

present in forests represent cross-organizational communication in shifting dimensions, along with interaction, diversity and a wide range of relationships. Thus, the term "operational network" is perfect for this.

Earlier, competition was seen as a driver for development, but today cooperation is the name of the game as questions and developments are becoming increasingly complex. Over 50% of the biomass on earth lives in a symbiotic relationship. The best-known example of symbiosis in the wood is the relationship between trees and fungi. Here, within the course of evolution, mutual dependency has been built which reminds us of the interplay of automotive producers and their suppliers. The fungi take up water and mineral salts from the tiniest pores in the ground via their fine roots and provide the trees with these. In return, the tree offers the fungi the sugar it produces via photosynthesis. This is a strategic win-win partnership, without either partner would experience significant disadvantages or become significantly more vulnerable to crisis situations. The automotive industry has shown us what happens if we do not work in solid partnerships with each other. If big car manufacturers come down too hard on their suppliers, taking the wind out of their sails, then the big car manufacturers will ultimately feel the strain too. Cooperation only works long-term if there is mutual trust. Here, the parallels for working in teams and with partners becomes clear. Success for both sides can only be guaranteed when the cooperation functions well.

On the other hand, competition is also important in development and can accelerate it. The best known example of this are Darwin's finches. Fourteen different species of this finch developed from one species due to competition; and these fourteen species can use the resources available far more efficiently than before they developed. Competition within a team or between companies also raises the bar, promotes innovation and can also lead to targeted differentiation in aspects of quality. High-quality, expensive products and lower-quality, cheaper goods are produced, and there are markets for both.

In any case, there's no way of sugarcoating it – competition can also be fatal, and this end is inevitable in predator-prey type relationships. Even if there is no conscious extinction when working together is intensive between the species and within the species, competitive pressure exerted by newly migrated or introduced species (neophytes) can be so strong that other species

are completely eliminated. If they do not adapt quickly, they often cannot find new, sufficient habitats. This is a situation that we know only too well in our fast-paced world of work and corporate landscape, which is developing at breakneck speed.

Diversity Increases Efficiency and Resilience to Crisis

Let's go back to the flora in the woodland ecosystem once more: A mixture of shadow-intolerant and shadow-tolerant tree species ensures biodiversity and structural diversity. This not only contributes to effective use of resources, it also always enables a plan B or C to be carried out, and thus spreads risks. If individual species are weakened or become extinct due to competition, illness or climate change, other species utilize the niches that have been liberated and can thus establish themselves in the system.

Diversity is also important in companies. Mixed teams with different qualifications and cultural backgrounds enrich know-how. A good mix of genders and ages reinforces social skills and diversity of strategies and methods, and thus promotes innovation. Diversity is also important for products and services. If a product doesn't work well, then another can balance it out. Monocultures are a risky business in agile times, and this applies for companies too.

This woodland company shows us how it's done with a certain team spirit focused on the good of the entire system, even with all its eat or be eaten, and all the competition within the whole ecosystem. Trees and fungi benefit most from their symbiosis when both parties are doing well. As in the wood, cooperative teamwork in the company's operational network is a prerequisite for sustainable success for the individuals within it. Today, we face the challenge of ensuring that our business is sustainable in order to start to deal with the climate change and preserve diversity of the species. Here, it helps if we regard the woods as not just a place of rest to take a break from the modern world, but also to analyze what we can transfer and learn from the woodland ecosystem for the ecologization of our business, which is vital for our survival.

The Experts

Dr. Stefan Rösler is a renowned expert for biodiversity and sustainability. He owns the oecoach agency, is CEO of Flächenagentur Baden-Württemberg GmbH and offers woodland workshops, along with being active as a trainer, moderator, lecturer and speaker.

Dr. Klaus-Stephan Otto is the CEO of Evoco GmbH. His enterprise has supported companies in evolutionary development for over 30 years. Here, Evoco applies processes from nature to thinking and acting in business and society.

THE ECOSYSTEM FOR QUALITY

AND ITS PARALLELS WITH THE "WOODLAND COMPANY"

How beeches, fungi and jaybirds interact in the ecosystem, and the first parallels that we can draw between this and business, have been shown to us by Dr. Stefan Rösler and Dr. Klaus-Stephan Otto in their entertaining article on the woodland company. If we now consider ecosystems and quality, we might not believe that there's much of a link at first, but quality management could stand to learn a few things from the woodland ecosystem, which is still going strong with 400 million years of experience.

— by Maren Behrendt

Interactions Provide the Most Added Value in the Ecosystem

Anyone who paid attention in biology, or even more recently when reading Dr. Rösler and Dr. Otto's article, knows that an ecosystem is essentially a community of plants, animals, microorganisms and their environment. The special thing about this community is the relationship structure in which the members of the ecosystem are set in interaction with each other. They work in cycles of materials, function in a healthy interplay of cooperation and competition and develop their processes constantly in order to benefit everyone.

Another sector in which the term "ecosystem" is used is in conjunction with digitalization. This enables us to completely restructure or even reinvent business processes. In the course of this, digital ecosystems come into play: they comprise digital and technical systems, organizations, people and their relationships to each other. Members of a digital ecosystem act independently from each other in their relevant market, but profit from reciprocal benefits that are created from their cooperation in the ecosystem.

A first parallel between the woodland company and digital ecosystems is therefore constituted by the reciprocal benefits for everyone involved: if we create a digital ecosystem in our industry, the added value of the interaction can have a significant influence on business and change the industry. For a digital ecosystem such as this to exist, an initiator is needed to configure the framework conditions and the way that the employees work together as attractively as possible, because, unlike in the woodland scenario, biology hasn't handily laid the foundations for us.

Symbiosis of Trees and Fungi – and of Business Partners

Quality is a joint product: an ecosystem for quality creates and exploits synergies via which the quality processes can be rendered more efficient and also simpler, both in terms of societal and standard requirements. Above all, manufacturing companies act in their own interests, primarily, but also need to function as part of a supplier network and bear responsibility for the quality of the end product together. Finally, the relationship between your business partners and yourself is not at all different from the symbiosis between trees and fungi: You are dependent on each other. Without the other party, you would be hugely disadvantaged. However, this cooperation requires trust. (You yourself can decide who is the tree and who is the fungi at this point.)

What are we aiming for, at Babtec? Is there another way, other than structuring your cooperation professionally, benevolently and based on trust? This is no easy task, given the complexity of the supplier networks. We want to make the best possible contribution to your quality management system by further developing our product portfolio to reflect an ecosystem for quality. By using the opportunity to have technical services interact with each other, exchanges between members of an ecosystem are promoted, and so is cooperation between you and your business partners in the supply network. ❯

»Trust builds the foundation for cooperation between business partners.«

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The different services that are currently offered in BabtecQube include creating checklists (for example for executing goods inspections), managing operating equipment and gages, creating and processing complaints, processing tasks and actions and evaluating all of these processes. The services are constantly being expanded, but BabtecQube already maps a small closed loop for quality.

Every Member of the Ecosystem Plays a Crucial Role

An ecosystem for quality only functions if everyone plays their role. Not all roles are the same, as is also the case in the wood, with the shade-tolerant and shade-intolerant trees. However, in order to benefit the entire system, every member of the process has their place in the ecosystem. In order to achieve good product quality that can beat the competition, everyone involved needs to pull together, whether that is within a company or across companies. To achieve this, quality must be anchored as a central value and must be lived out each day.

Working together cooperatively in the woodland ecosystem ultimately shows us how this works: just like fungi and trees make the most of their reciprocal relationship when both are doing well, the same is true of you and your business partners. With the aid of our product worlds, we create access to an ecosystem for quality, regardless of which software solutions from the product portfolio are used. Thus, every member of the ecosystem contributes to its overall benefit and each individual also benefits from the added value that is created by the cooperation of the members.

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Different Product Worlds
Create an Ecosystem for Quality

By developing various product worlds that overlap with each other and developing quality processes that can map out the software solution in use and beyond, the product portfolio takes the shape of an ecosystem for quality. These solutions are present in our classic QM software BabtecQ, its browser-based extension BabtecQ Go and the collaboration platform BabtecQube.

In order to support your quality processes, our customers work with networked modules that they have selected in BabtecQ. These are often adapted to company-specific features or third-party software by our team, and thus provide optimal support for the business sectors of quality management and assurance, in line with the best-of-breed concept. Within the company, this solution can then be used via the Windows client or spread throughout the company internally via the browser-based extension BabtecQ Go. In this way, relevant quality key figures, for example, for different departments can be viewed and are all fully updated every day.

Foster Cooperation Just Like the Jaybird – with BabtecQube

Cross-departmental viewing of quality data is a great thing, but a collaboration platform is needed for efficient cooperation in the supply chain. Just like the jaybird (which is a gorgeous songbird) warns its comrades in the wood when problems approach (instead of keeping it all bottled up), issues in the supplier network should also be discussed openly. If the number of complaints increases, then it is more sensible to directly discuss this with those involved in the production process instead of keeping it to yourself.

BabtecQube creates the foundation for this as part of our ecosystem for quality. Using BabtecQube, customers exchange quality data and discuss quality-related topics with other companies, work on their quality processes together with their business partners and regularly exchange with each other.

However, BabtecQube is far more than just a collaboration platform. It offers every interested company fast access to simple and smart solutions for supporting quality tasks.

BloQ
Blog for Quality
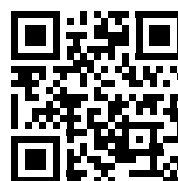
Lutz Krämer, Head of Products and a member of Babtec's management, explains what an "ecosystem for quality" actually means for the world of quality management.

www.babt.ec/14-en

A Product Portfolio Oriented Towards Good Cooperation

Networked software solutions don't just map quality processes across company boundaries; they also promote cooperation centered around an ecosystem for quality. The QM software BabtecQ and its browser-based extension BabtecQ Go access the same business and database servers. Connection to third-party software such as ERP, CRM or MES systems and to machines and gages can be effected without any issues. The collaboration platform BabtecQube also enables cooperation with suppliers and customers in the cloud. BabtecQube is available for everyone: not just BabtecQ users and their customers and suppliers, but also for every company that wants to digitalize its quality processes and be part of a network for quality.

BABTEC QUBE

Machinery

ERP

CRM

MES

Gages

BabtecQ

BabtecQ Go

Business and database servers
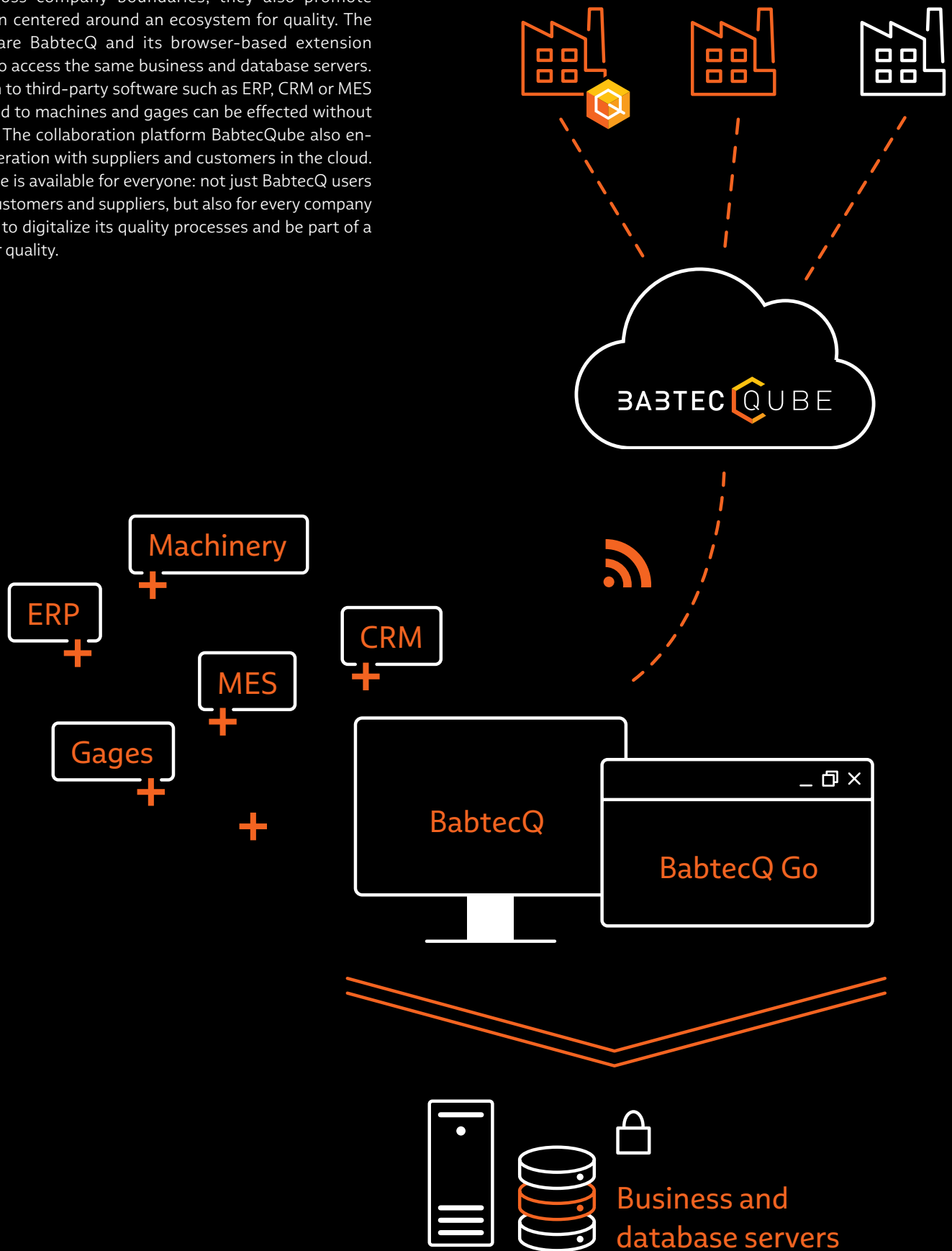
MASTERING TRANSFORMATION AS PARTNERS

Keen readers of the Q.Magazine will know that Babtec has always placed special emphasis on the subject of cooperation. Good cooperation in quality management is crucial in order to generate excellent quality, and was therefore also essential in further developing our cloud-based platform BabtecQube. However, this begs the question: what exactly is cooperation? By definition, it is a targeted collaboration between people, organizations or even companies. Ideally, it benefits all those involved, but unfortunately, it is frequently the case that one side draws far more benefits from the cooperation than the other.

— by Marc Osenberg

This inequality is also evident in the automotive industry: here, cooperation is often characterized by a negative failure culture and unequal power relationships. For this reason and many others, the cluster management automotiveland.nrw has staked its claim: it wants to reinforce the automotive industry in North-Rhine Westphalia together with its members, and has brought a code of conduct to life that invokes partnership, open communication and fair handling of business relationships. Over the following pages, members of automotiveland.nrw share their views and state why we need to rethink the status quo.

"Within the scope of the initiative 'Mastering transformation as partners', we, with automotiveland.nrw, address a sensitive, yet pioneering topic in the automotive industry: a positive failure culture for quality assurance and sustainable improvement. How do I handle failures within my own company and in our relationship with suppliers? Are failures communicated openly or are they compulsively avoided or hushed up so that no negative consequences are experienced? If we look at other industries, such as software development or corporate culture in start-ups in general, then we can see that failures are used as opportunities for improvement with a great deal of success.

An open debate occurs, without assigning blame and with the aim of developing processes and expertise. The automotive industry as a whole, and particularly the automotive industry in Germany, could learn a lot from this. This is because facing up to failures directly offers enormous potential in terms of picking up speed and improving a product as a group, enabling customers and the supplier to glean essential findings from this. In this disruptive era, with increasingly short innovation cycles, this can be a crucial factor for preserving presence on the market in the long-term.

This is where the automotiveland initiative comes in. Here, we do not accuse anyone; instead, we invite people to develop on the subject of a positive failure culture together in dialog in order to succeed as partners in this transformation."

Stephan A. Vogelskamp, Member of the Executive Board, automotiveland.nrw

"As a longstanding member of the automotive value-added chain, supplier relationships on equal footing are an important aspect of our trade. We want to be reliable, honest and trustworthy, both now and in the future. Here, we can see a huge opportunity for the entire German automotive industry to continue to position themselves on the world market successfully and to enable the Made in Germany seal of quality to continue living up to its good name. In order to ensure that this is sustainable, we need to raise awareness and build up the skills that lead to an open dialog on failures, both within the organizations and between the companies themselves. A partnership process thus requires all participants to have in-depth specialist expertise, as well as the desire to be fair and objective. Thus, the qualification and further education of our employees forms a special requirement so that we can accept and build on the challenges inherent in the transformation process together with our customers. Therefore, those involved can only profit from the 'Mastering transformation as partners' initiative. The exchange between companies, regardless of their sector, offers everyone the chance to gain an edge by profiting from new findings. The code of conduct, which was jointly developed, is a seal of quality on our efforts and shows that we have a positive attitude to cooperative relationships."

Monika Kocks, CEO,
WKW Unternehmens-Akademie GmbH

"As a coil coating company situated in Wuppertal, whose customer base largely comes from the automotive industry, we know all too well how power relationships are on the supplier market, and who comes up short in the end. The supplier is, in many cases, no longer seen as a strategic partner for whole challenges, but is instead simply seen as a supplier of raw material, the properties of which need to be strictly regulated by contractually agreed quality clauses. This means that both suppliers and OEMs are missing out on the chance to enable joint growth and technical advancement. Everyone loses sight of the objective of creating a high-quality end product that satisfies the customers' wishes.

In three generations, HUEHOCO has transformed from a local sheet metal coating company to an internationally active group for technical coatings without losing our family values of respect, courage and engagement. Value-oriented actions and treating all those involved in the supplier chains fairly are therefore basic requirements for working in a partnership for us.

What is, at times, sadly missing from the automotive industry, is lived practice in other industry sectors: there, companies benefit from honesty, a positive failure culture and a sense of team spirit. Despite this (or maybe even because of it), economy and technical advancement are not forgotten.

The question of 'how?', in terms of cooperation, does not need to be reinvented. Often, it is simply enough to look beyond the end of your nose to become aware of the essential aspects of working together fairly. This is the only way that OEMs and the supplier sectors in Germany can remain internationally competitive in the long term and keep the quality promise of Made in Germany."

Iris and André Bovenkamp, Managing Partners,
HUEHOCO GROUP Holding GmbH & Co. KG

»What is, at times, sadly missing from the automotive industry, is lived practice in other industry sectors: there, companies benefit from honesty, a positive failure culture and a sense of team spirit.«

Iris and André Bovenkamp

"In the automotive industry, we are still seeing a systematic problem that we have been aware of and tolerating for a long time now. A punitive approach to failures in supply networks gets in the way of hugely important learning and improvement processes which are crucial for good quality management. This issue is not least the result of the cooperation culture currently present in the supply chain. In many cases, we could ask whether cooperation between customers and suppliers could even be termed a partnership, or fair. Is it oriented towards improving quality and sustainable processes? Or do financial interests determine how cooperation is ultimately carried out? Quality is still a massive buzzword in the automotive industry, but often there is no open exchange on quality issues, and frequently there is not even a discussion on improving quality. This means that the biggest failure is not the failure in itself, but rather how it is dealt with. For every supplier, financial damage is the first punishment inflicted by any issues – a contractual penalty. This is such a great threat that it leaves no space, or very little, for an honest exchange. Therefore, the focus, in quality issues, is on avoiding a penalty – and not learning from the failures and ensuring that they are handled openly with business partners. This results in a threatening scenario for the supplier industry for the automotive sector, and gives rise to an urgent need for action. We suspect that everyone is aware of this; however, we also have the impression that nobody is doing anything about it.

This is exactly what we want to combat with our initiative: our credo is to take action. In the first instance, this might be seen as a bit naive, because after all, this is the way the world works. At first glance, this might be true. However, when we look again, it becomes clear that the failure is not in the way that we perceive this, but in our reality itself. We do NOT want to put up with this type of failure. It's not unrealistic to want this; it's an ethical evaluation of our current reality and also the key to working better with each other. We thus want to make strides with our initiative, unite our common interests and lay the foundation stone for a culture of equality in partner-based cooperations. We will act with the conviction that we can use our potential to better position our products in the global competition using this method, and can also secure the future of our business hub in the long term, to everybody's benefit."

**Michael Flunkert, Founder and Managing Director,
Babtec Informationssysteme GmbH**

CUSTOM MADE QUALITY

NGK SPARK PLUG is a world market leader in spark plugs and sensors and is thus one of the globally leading suppliers for the automotive industry. Their regional headquarters in Ratingen, which is responsible for delivering high-quality products in Europe, the Middle East and Africa (EMEA) benefits wholly from the Japanese quality tradition put forth by its parent company. Thanks to a QM solution tailored to the company, NGK SPARK PLUG can now be even surer that they'll really spark with their customers.

— by Marc-Oliver Günzing

S Since 1937, when the first spark plugs were delivered in Japan, the company has constantly continued to develop and drive its worldwide expansion to new heights. Today, the product portfolio no longer solely comprises spark plugs. It also includes glow plugs, MAP sensors, MAF sensors, lambda sensors and EGT sensors for renowned OEM customers and the aftermarket. The products are used in motor racing (rallies, Formula 1) and also in horticulture, agriculture and industry. The core skill of the company was, and still is, technical ceramics.

More Yield, More Responsibility

In its day-to-day business, NGK SPARK PLUG has committed itself to first-class quality, sustainability in technology and the environment, and social responsibility. However, the company philosophy is not just characterized by the company's faith in itself. Due to growth in order volumes and bigger customers, the processes of the regional headquarters in Ratingen also needed to be adapted to the changing conditions. More stringent requirements on analysis quality and complaint processing meant that the quality processes could no longer be sufficiently mapped out using Microsoft Excel, which was the previous solution.

Their success, and the resulting increase in orders, also meant that more goods were sent back to NGK SPARK PLUG, and, particularly with regard to complaint management, more and more disadvantages became apparent when carrying out these activities in Excel. Laborious data entry, high susceptibility to errors when data is input manually and the fact that employees could not work on one process simultaneously meant that this future-oriented company needed to rethink.

Taking Steps Towards a Professional Solution

However, the discovery that Excel could not meet the heightened requirements on the complaint process meant that the company was faced with a decision: in the future, should they keep working with the tried-and-tested ERP system or should they use a specialist application for quality assurance instead? The implementation of reliable ERP software from SAP

BKR6EK
Spark plug for the passenger car and transporter sector
NGK SPARK PLUG EUROPE GmbH
Babtec user since 2018

showed, primarily, that it could simply be expanded with the QM module. However, the lack of depth in the analysis options in the SAP quality management module was the main motivator for implementing another specialized QM software.

After comparing specialist applications, the decision was ultimately made to go with the Babtec solution, as the entire package won the company over. The option of being able to quickly adapt KPI dashboards to individual and customer-specific needs was a clear benefit for the regional headquarters, which is responsible for the entire EMEA region. Thus, statistics for the individual plants and/or locations could be created without any fuss. Even the standard delivery scope offers extensive configuration options for individual structuring. The further customization and adaptation options swung the decision in favor of Babtec software: the customizing team at the Wuppertal-based software manufacturer was able to quickly fulfill the company's wishes to

their complete satisfaction without having to change the standard functions of the software drastically.

Integrating the QM solution into the existing software landscape, including the ERP system from SAP, did not present a problem. Apart from the interface needed for this, it was clear from the outset that further adjustments would be carried out within the scope of the implementation of BabtecQ. The very rigid landscape previously proffered by Excel couldn't simply be replaced with a new solution. Instead of going cold turkey, the objective was to adopt as much as possible from the old workflow and to make the work processes easier by implementing professional QM software in a targeted manner. Although customers can be put off by additional adjustments as they assume they will entail much processing and training effort and will be tough to get used to, the project launch, training and implementation was over quickly and was performed in collaboration, thanks to the fact that the companies are sited close to each other and the strong partnership with the Babtec team. In terms of software, intuitive operation ensured that even new employees could handle the modules expertly in no time.

Tailored Quality
Using BabtecQ, the users record and process the complaint reports that come in in order to evaluate them statistically later, e.g. as a group for actual state and trend analyses, or based on items or customers. Are there, for example, discrepancies that affect certain batch numbers? Is a certain model range affected more frequently? Are the numbers dropping? These questions can be answered effortlessly with the aid of individualized dashboards in the Quality Cockpit, even in the standard version of the software.

In addition, greater added value could be procured for the company by customizing in the complaint management module. The background for the adjustment was that the OEM customers of NGK SPARK PLUG use different online portals that are implemented to fill out specific documents. Due to the labor-intensive manual searches that needed to be carried out in each individual portal and redundant recording of data in several parallel systems, processing times were very long. The solution: After taking down the requirements, the Babtec customizing team programmed a standardized import table that all the required data are uploaded to, and then at the push of a button, this data is directly transferred to the BabtecQ database. This meant that not only was a significant amount of time saved, but also that far less entry errors were made and that costs were reduced. ❯

When processing complaints from customers, NGK SPARK PLUG also often has to comply with fixed processing deadlines for feedback. After discussing this within the project team, which consists of employees from NGK SPARK PLUG and Babtec, the company now benefits from automatic calculation and monitoring of target deadlines. Success was attained; now, 99% of all feedback reaches customers punctually.

Company-internal requirements for complaint processing could also be mapped out after an adjustment of the QM system. A special feature of NGK SPARK PLUG is that the parts which are subject to complaints need to be forwarded to the parent company in Japan for detailed investigations. To do this, a Japanese form is needed. This form requests the investigation for affected parts. This form had to be filled out laboriously and manually in the past, but now processing takes just seconds, using a standard form implemented by Babtec.

Transparent, Efficient, Professional

The cooperation with Babtec's customizing team is, essentially, based on an agreed process. Requirements from the customer are transposed into requirements on the customizing team within the scope of workshops, and are then implemented by Babtec. Before being introduced into the business processes, these adjustments were tested and released by the user in a test system, and only then were they transferred into the productive system.

The common goal of the project team was to support processes effectively using software. Partnership-based cooperation, universal transparency on the current state of affairs and a positive failure culture create trust between those involved in the project and engender trust in users later on. Valid statistics in BabtecQ, based on a uniform, up-to-date and correct database, help NGK SPARK PLUG within the company and outside it, for example when exchanging dialog with customers, who are becoming increasingly demanding.

The main objective for NGK SPARK PLUG was to continue to map out good, established processes and effect additional improvements through sweeping automation with the introduction of BabtecQ. BabtecQ completes the old, established version as a professional solution for quality assurance, so that the quality of the products and processes is always at the forefront, even when (or maybe most importantly when) order volumes are high and for big customers. The crucial feature when introducing the software and the relevant adaptations was always assuring close cooperation with the Babtec team; this was the only way to reconcile own demands and the technical options available for realizing them. This good cooperation is also vital in making sure that NGK SPARK PLUG can roll the QM solution out to other departments, plants and sites of the company. Everything that was accomplished was intended to raise the quality of the products that we place on the market constantly, completely in line with the Japanese and German philosophies on quality.

The Author

Marc-Oliver Günzing has been working for NGK SPARK PLUG EUROPE GmbH since 2016. As a Senior Manager, he is responsible for Product Quality Assurance for OE in the EMEA region. The focal themes for this area include complaint management, root cause analysis and prevention, and continuous improvement of processes. Customer orientation, taking lean principles into account, openness to change management and flexible organization represent success factors for the future to him, which enable the company to set itself up to meet constantly changing market requirements optimally.

The Company

NGK SPARK PLUG is one of the leading suppliers for the automotive industry and is a manufacturer of technical ceramics. The company's headquarters is located in in Nagoya, Japan, with distribution companies and production sites around the world. With over 16,400 employees, the company generates annual turnover of approximately 3.7 billion Euro worldwide. NGK SPARK PLUG is represented on all continents with 60 affiliated companies, 35 production sites, 5 technical centers and 3 venture labs.

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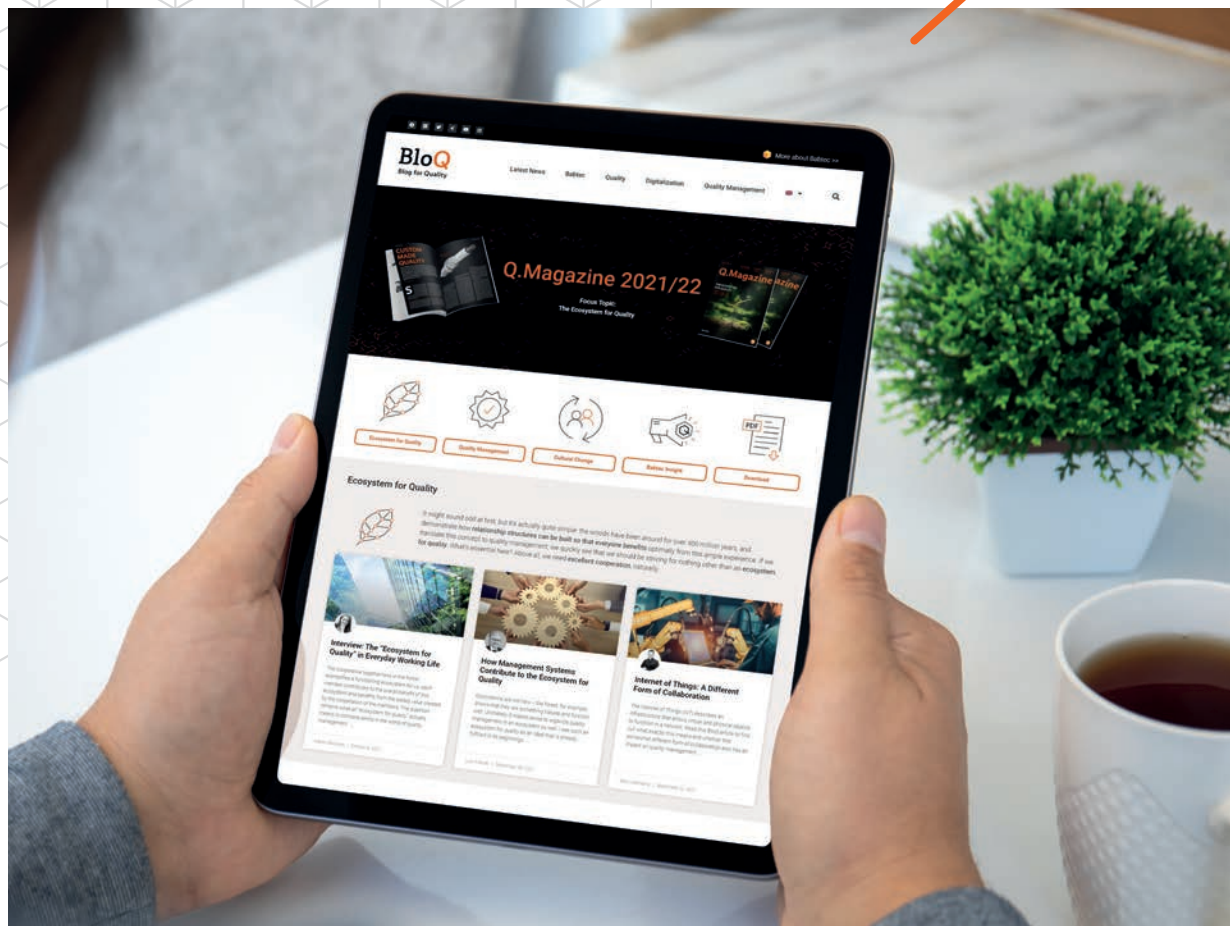
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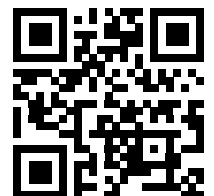
New Highlights

The QM software BabtecQ unites modules for all quality tasks in one package, uses a single database for all of them and can be connected to the existing company systems without any issues. For over 25 years, the standard software has supported customers in all of their quality processes. With BabtecQube, Babtec also offers a platform that can be used to process the quality tasks by multiple companies and to map out a small quality control loop with all companies, even those which do not have BabtecQ. Software updates offer new functions and further developments in both product worlds this year, which we use to sustainably improve the quality of products and processes for our customers.

— by Marc Osenberg and Maren Behrendt

C

CAD Integration: The New CAD Viewer

In order to expand the advantages of the integrated solution BabtecQ for the users, the CAD integration, developed in-house, was expanded. Drawings can now also be used to derive characteristics in the FMEA and Control Plan modules. In addition, automatic detection of dimension text and stamping of PDFs has been optimized: Our automatic detection of drawing dimensions now analyzes every piece of text information contained in a PDF file, which could be marked with the aid of a PDF reader. Thus, the dimensions can be securely recognized and processable drawing dimensions can be prepared, without the need for any additional OCR software.

Stamped drawings, however, are not only important for error-free derivation of characteristics. They are also an indispensable working tool for many people involved in the manufacturing process and thus form the basis for planning, decisions and releases. Against this backdrop, the new CAD viewer permits users to use stamped drawings interac-
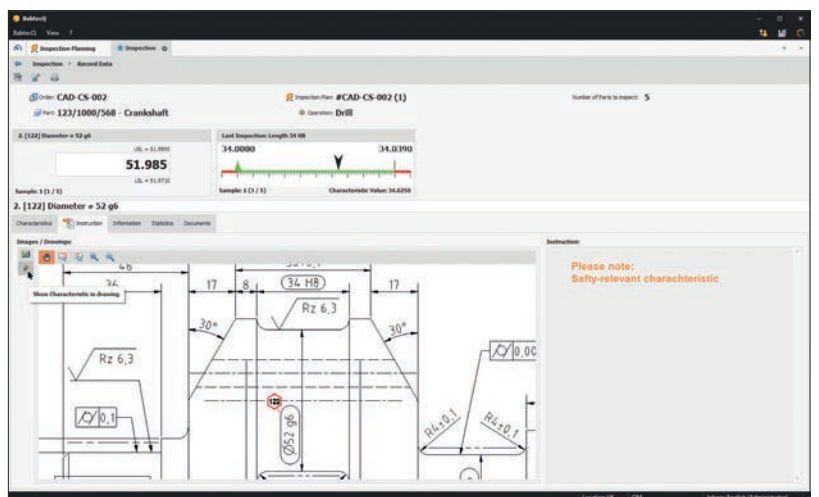
With the CAD viewer, users can keep an eye on the drawings and stamps, even while inspection data is recorded

tively in their work processes. The objective was to provide the stamped drawings and the technical specifications in digital

format exactly where they are needed. As a result, the drawings can be opened and used with the CAD viewer at any time, whether this is during the planning activities or when executing a quality inspection. The selection of the stamped dimensions is executed directly in the drawing, while quality characteristics can quickly and easily be found in the future.

The Dashboard – Now Available Throughout the Company with BabtecQ Go

So that all employees in the company can participate in quality improvement and access important quality data and key figures, the freely configurable dashboards from BabtecQ are now also available via browser in BabtecQ Go. Thus, the entire company is supplied with current facts, figures and data on the quality of the products and processes. The key figures displayed also show how well the targets set have been attained: Using the key figure trends, including the actions implemented, it is easier to evaluate and prove the effectiveness of an action. The flexible pivot analyses are also now available in the BabtecQ Go dashboard.

Coming Soon:
Complaint Management in the Browser-Based Front End

In addition, the upcoming Release 7.5 has further interesting innovations in store for BabtecQ Go: In the future, our customers will be able to create and view complaints directly via the browser-based user interface of BabtecQ Go. In this way, employees without QM experience can also be directly integrated into the information processing flow without any issues, although they do not have access to the local installation of BabtecQ.

New Features in BabtecQube

The cloud-based platform BabtecQube is our independent QM solution which offers a focused scope of functions which is based on standards and which can be operated intuitively, even if the user has no prior knowledge of it. It unites useful services that the users can apply to map their quality control loop. From managing equipment and gages to goods inspections, applying checklists, processing deviations or complaints to joint processing of tasks and actions: users work with smart web applications which can be reached any time via the browser of a smartphone or tablet applications on the cloud-based platform BabtecQube, which can be reached any time via the browser of a smartphone or tablet.

Small Quality Control Loop Completed by Extended Service

With the integrated services in BabtecQube, companies can map out a quality control loop, improve their products and process flows in the long term and work closely with their customers and suppliers. The service "Equipment & Gages" which was developed this year is the next addition to the existing services "Goods Inspections & Checklists", "Complaints & Deviations" and "Tasks & Actions" in the quality control loop.

Master data on equipment and gages can be stored in the new service, inspection intervals can be defined and events such as inspections that have been performed or location changes can be tracked in a history. In combination, the services "Equipment & Gages" and "Goods Inspections & Checklists" optimize the workflow for monitoring the equipment by allowing checklists that have been created in-house to be accessed directly. In order to prevent malfunctions and ensure good maintenance, users are instructed on where concrete action is needed.

All Key Figures at a Glance with "Statistics"

In order to configure quality processes optimally, key figures such as the number of complaints received or the procurement costs for operating material are of interest. "Analyses" has been developed for BabtecQube users so that they can keep an eye on these key figures: Statistics can be configured using drag & drop, then illustrated using bar charts or line graphs and shared with colleagues. If required, the analyses can also be exported into Excel format and sent. The analyses can be configured for every service in BabtecQube, with data records that can be selected individually for each service if so desired.

BabtecQube:
Analyze quality-relevant data quickly and easily with "Analyses"

Opinions on ISO 9001:2015 from Academic and Practical Perspectives

ALL'S WELL WHEN ISO DOES WELL?

For now, there will be no change to ISO 9001 – we simply wanted to know how it has been received in the world of academia as well as in practice and have asked employees of the University of Wuppertal and the medium-sized company Caramba Chemie for their thoughts.

"The point of ISO 9001 and auditing in line with it is, according to my understanding, to develop companies so that their processes, value-added products and services all become better. Better, for me, means not only an increase in product quality or saving on costs, but also comprises long-term goals such as **sustainability, resource efficiency, employee retention and satisfaction, future-proof market positioning and far more.**

As business models, work processes and the way that we work together in companies are undergoing extreme change due to digitalization, we must also consider what is meaningful for companies with regard to these changes within ISO 9001.

Unfortunately, I often see that ISO 9001 only leads to more documentation work or hectic initiatives thrown together before audits and hardly ever creates sustainable, long-term change. This issue is generally anchored in the **company's culture**. As a scientist, I also wish that the latest findings which state that more **agility, innovation and people-oriented work** should be present in quality management are also incorporated into the revision of ISO 9001 and the relevant discussions.

The current issues in companies should also be taken into account in any new ISO revisions. Changing the company's culture to make **the handling of failures more positive or building up compatible software chains throughout the value-added chain for more efficient documentation** are examples of these issues that I see constantly in companies today. Another topic is AI algorithms and the question of how these can be certified in terms of ISO 9001 compliance or compliance with other standards.

However, there are still a few to-dos for companies when implementing ISO 9001:2015, and there isn't just one lever to pull – there are many. From strategic alignment and the company culture, for example with regard to handling failures, which must be advanced from management downwards, to having the courage to try out new ways of work, to curiosity and allowing each individual in the company to have fun thinking up creative, new ideas. We are in an era in which knowledge-intensive products and services are commonplace, and in which we can only be successful when we work on projects together. The joy and excitement that comes from creating new things should be the driver of all this. Doubts, sadly, put the brakes on innovation far too often here. I'd like to see companies stop choosing the standard, off-the-rack solution when implementing ISO 9001 and instead to refocus on the original impetus behind the standard: improving companies, particularly with regard to the needs of the customer and the employee."

Associate Professor Dr.-Ing. habil. Nadine Schlüter, Expert in Product Safety and Quality, University of Wuppertal

"I welcome the decision to delay the revision. Since ISO 9001 was last revised in 2015, a few years have passed, but the changes in its implementation cannot be underestimated.

The last revision supplied our company with a lot of stimuli and ideas for future-oriented reconfiguration and further development of the quality management system. The changes, in any case, almost all affect topics that cannot be changed by implementing new technology or other documentation methods. They need a change in the company's culture, for example by moving away from thinking within individual departments **and towards a more process-oriented view**. Developments such as these need time if they are to be successful and sustainable.

More so, to enable medium-sized companies such as Caramba Chemie to play their cards right, it is important that ISO 9001 also maintains some flexibility in its future requirements and that the improvements and revisions focus on questions such as **process management, knowledge management and communication**. The art here is to formulate clear requirements while giving companies enough wiggle room to implement them the way that they want to.

Here at Caramba, we have put our quality management system through an intensive discussion and change process over the past few years to find out what fits us as a company. Instead of having to regulate and control excessively in order to correct errors, we have built up processes and structures that rely on our employees to **take responsibility and utilize their skills**, and also integrate these factors into the processes consciously as a parameter for quality.

Naturally, this does not replace efficient, good quality control, but it is a valuable addition which leads everyone to focus on preventing failures instead of correcting them. In the last few years, we have worked on – and are still working on – creating a failure culture in which we **openly and explicitly** deal with failures in order to better analyze their causes and permanently eliminate them with corrective actions. Process-oriented thinking and avoiding unnecessarily portioning out blame is an important foundation for precisely this."

Ines Gneuss, Head of Quality, Caramba Chemie Germany

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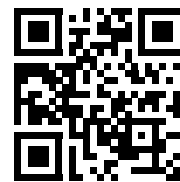
Further thoughts and additional information on the rejection of revision of ISO 9001:2015 can be found in our BloQ.

www.babt.ec/27-en

The Juggler's View

FAILURE

A BLESSING
AND A CURSE

Imagine I'm giving you juggling lessons. However, instead of balls, I give you three eggs! What would you learn from that? You'd learn two things very quickly. Firstly, if expectations are so high that only perfection is allowed, you'll never learn anything new. You definitely won't learn how to juggle. Secondly, you will find out how to relieve yourself of such a risky task immediately. Unless you and your boss are fans of having egg on your face. Failures are part of learning. We all know this. However, we all handle them differently. Family, upbringing, experience – our willingness to take on risk, and our need for security, are very different.

— by Andreas Gebhardt

On Learning and Failures

O Failures need to be allowed, particularly when people are learning. Even more so, if people are not ready to make them, it is impossible to develop innovations. Is there space to practice in your organization, where you can develop skills and capabilities further? Are failure welcome there, so that people can learn from them? With juggler's balls, where the risk is clear, I can try out new things in order to see whether they are possible and feasible. If it goes wrong, I take a some time and look at the failure more closely.

That is the essence of the scientific method: In the beginning, you have an idea, a hypothesis. Then this hypothesis is tested out in an experiment; it is tried. Lastly, the hypothesis is verified or, conversely, we can simply drop it. Just like a juggler does. From that point, the focus is on advancing learning from these new basic principles, daring to make new attempts and to learn from the results for next time.

It's obvious, if we go back to the example of juggling, that we can only learn from giving things a go. The best books, teaching videos and trainers cannot replace the lessons we learn when making our own mistakes. You need to pick the balls up and try it out. In the training space, the motto is that failures are the signposts to further development.

Cutting Off Your Nose to Spite Your Face – the Attitude to Giving Things a Go

I've often heard the excuse, "your example might work for jugglers, but in aviation/medicine/automotive engineering (insert others here) it's different". However, it isn't – the process is the same, just slower. How, for example, did the medical establishment and aviation industry get to their current level of knowledge?

The entire aviation industry is built on the backs of pioneers who believed in themselves and tried things out in real life, and also took a few belly landings in the process. Theory alone was insufficient; they needed to try things out in order to improve both theory and the aircraft itself. However, they transferred all of their knowledge to the next generation. Thus, further attempts could be made and learning that consistently builds on what was learned before was made possible. Current flight safety is only so high because every failure is (still) investigated in minute detail and lessons are drawn from it. This is the same principle behind juggling, but in aviation, it is applied slower, in a more controlled manner, and across generations.

The world of medicine likes to distance itself from its early roots, when corpses were dug up to look at, and quacks and witches experimented with herbs and tinctures. Instead, the medical establishment invokes the power of science. But what is science? Isn't it just that: verifying and falsifying ideas and experiments? Painstakingly documented trial and error and generating potential lessons to learn from? ❯

Put bluntly, in the beginning, there are pioneers who estimate the value of trying and learning very highly, and thus build the foundations for the individual lessons. At some point, a zero failure culture only consists of the knowledge we already have and the status quo. This danger is hidden in every company success.

Can't we allow innovation and quality to co-exist in balance?

Failure and Customer Satisfaction

Customer wishes, market development and competition are changing at an ever-quickening pace, and all this means that we need to develop products constantly without the quality in current business operations deteriorating. As a juggler, I am part of the entertainment industry. When I started, it felt like there were only three TV programs. I had to reinvent myself constantly and keep coming up with new ideas and products in order to create added value when I needed to. The show also needed to be practically perfect for the customers, as otherwise I would have been yesterday's news.

That meant I had to try out as many new and extraordinary ideas as possible, while simultaneously looking ahead to see which unacceptable risks could occur with them and to try to prevent them from happening. This is the reason why I don't hit the stage with fire, eggs or chainsaws in hand. It's not about generally excluding all failure, it's about creating the room for failures that lead to progress through change and staving off the ones that could be catastrophic. A good failure culture always lets us take a step forward when the level of risk for that step is acceptable.

Isn't quality management like a scanner, which helps to create added value without damaging the quality promise to the customers?

In any case, it must be admitted that failures happen or risks are sometimes overlooked when operations are running. Failures are part of the average working day. To fail is human. We all make mistakes. It is vital that we accept this fact and also help others to accept this. Here, the focus is on creating a positive failure culture in which failures are handled openly and without any anxiety. This is, on the one hand, a prerequisite for detecting risks which result from failures as quickly as possible and preventing negative consequences. On the other hand, it is, of course, the starting point for improvement and learning.

This is the only reason that I can sleep soundly as a juggler, with all the risks that come with having all of these balls in the air. I know that any failure that has occurred over the past few years has been dealt with immediately and with foresight. With stagework, you know that nobody hopes for a lucky fluke when they're standing in the spotlight; everyone goes back to training and experience. Therefore, a positive failure culture, and the hard work behind it, are the guarantors for high quality. There's no need for stage fright before an audit or, in our example, when the theater director or my wife are watching. There isn't much that can go wrong, and if I do drop a ball, then the next learning session is waiting for me. In performance, failures are signposts that lead to quality assurance and higher quality.

The Human Factor

Absolutely everyone makes mistakes. What I have noticed, as a juggler, has amazed me. People often applaud when I drop a ball. Might an error make a performance even better?

Why would you applaud an error? If failures occur, we can no longer hide behind our role and we are seen as the imperfect people we are. At first, this is embarrassing and unpleasant. What also happens, however, is that the mirror neurons of the people around us are activated and we awaken their empathy. We are all human, and suddenly we all become conscious of that again for a moment.

This empathy is only expressed (in applause) if one immediately deals with the failure openly and honestly. If you try to hide it, or assign blame, then the audience will feel as though they've been hoodwinked and their sympathy vanishes. The way that we handle failures thus decides whether we are showered with sympathy and appreciation or whether people are turned off and distance themselves. Often, poor handling of failures is far more serious than the failure itself. The earlier and sooner it is communicated, the more positive the reaction of our fellow humans will be.

Again, this all revolves around attitude. Failures are also signposts for our culture, and signposts for how we deal with each other. When we find out about them, do we focus on the unpleasant aspects or do we see the opportunities that result from early detection?

We should be thankful that someone is reporting the failure without feeling abashed, so that we can learn quickly and prevent unnecessary costs and effort from being wasted. We should also make the most of the opportunity, and communicate failures and their side effects with customers immediately, openly and honestly. There might not be any applause, but in a customer relationship, choosing the right path between one that leads to turning people off and distancing them or appreciation and sympathy is crucial.

This also applies to any form of cooperation. Naturally, failures can have unpleasant consequences. However, the later the failure is communicated, the worse it will become. Whether it's a customer, business partner or colleague, I place more trust in a person that speaks frankly and openly, even on unpleasant topics, than in someone who I think is always hiding something.

Ultimately, it's all based on the trust between all parties involved. On the one hand, trust is built up by nothing being kept secret and acting in the interests of the group by ensuring failures are reported quickly. On the other, trust is built up by intervening as quickly as possible in order to find a solution and offer support, thus creating a distinction between the person and what has actually happened. Trust is also developed externally as quality is reliably being delivered and, simultaneously, the product is being improved.

If it works, all people involved take a step towards their common goal and, with a little luck, there is even applause and sympathy.

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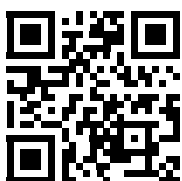
Frequently, positive failure culture is called for, but what does this actually mean? A culture of prevention or a culture of learning? In this BloQ article, Benedikt Sommerhoff (DGQ) tells us why all failures are not alike and why there are crucial differences in failure management.

www.babt.ec/31-en

The Expert

Andreas Gebhardt is a juggler and a speaker. After spending 20 years traveling the world as a professional juggler, he shares his thoughts, ideas and philosophies in his talks and articles in an entertaining and inspiring way. He discusses the subject of failure and learning culture and encourages people to try something new.

Why Quality Improves the World (and Has To)

— an appeal from Dr. Markus Reimer

Quality – between the Claim and the Reality

Qriginally, quality and quality management set out to ensure that airplanes didn't suddenly, much less uncontrollably, drop back down to earth. In other words, quality management was responsible for ensuring that nothing happened. Ensuring customer happiness was another element that was added to this later on. Thus, there were two elements: nothing should go wrong, and customers should be satisfied. The latter, evidently, constitutes more than simply being happy because nothing has occurred.

However, it would be false to say that the world's course has been completely uneventful. Events occur; they occur slowly, stealthily and are barely perceptible. Or they are not yet perceptible – at least, for those of us in Europe. When planes crash, this leads to an immediate visible disaster, the repercussions of which are felt everywhere. The disaster that is heading our way is not yet so visible or tangible. At least, it isn't if we don't want to see or hear it. What am I alluding to?

I am speaking of an economy that, for a long time, has been living beyond its means, in terms of what is possible in the long term. We have an ecosystem that is drifting towards collapse in the mid-term, and maybe even sooner than that. We also accept, socially, that it is a matter of course that in 2021 around 160 million children have to work. These are just three examples. What has this got to do with quality?

The term "quality" is generally understood to mean that something is good. In essence, it's good that the term "quality" is seen so positively. However, we need to be a bit more precise about it. What does "good" mean? "Good" for whom? For everyone? That's hardly the case.

It may be that we are content with the products and that these products do not fail. So we could say that the products are, per se, good. Our demand has been fulfilled. However, the reality is that a "good" product can result from child labor, overexploitation of natural resources and fiscal trickery.

The bill for all this is being calculated, and will be presented to us. Maybe not today, maybe not even to us, but it's sure to come. Here, the approach is to aim for a new quality management system, for a new understanding of quality management. The objective is to bring reality closer to the claim, and not to bring the claim down to meet reality. As the poet Friedrich Dürrenmatt said, so aptly: "Human knowledge has run away from human activity, and that is our tragedy". The question is, will we simply accept this tragedy?

Sustaining: A Component of Quality

This tragedy is to be combated by quality management. Sustainability is, naturally, far more than climate protection, even if it is constantly put on par with it. We save bees with a popular petition, and there you are, we're sustainable. This is all well and good, but it's only part of the issue. Saving bees by giving signatures is a start, but we also then need to really put that into action and continue to think in this vein. This means that sustainable action is always assured when we can act now and continue to implement that action in the future, without anyone (including subsequent generations) coming into difficulties. "Anyone" truly includes everyone. This really needs to be emphasized, as it isn't a given.

This is a moral issue. Actions may be possible and even legal, but they may still be better left undone if the benefits for us mean that someone else suffers.

We see a tasty pork chop and think "great", and discuss its excellent quality. In this moment, it doesn't matter that the pig might have spent its lifetime in excruciating circumstances, locked up in a narrow cage. As a customer, we're happy because it tastes good. However, how can we talk about quality when the path to the product is so abhorrent? We can't. **A high-quality product includes how it was produced in its provenance. The quality of the result alone should never be allowed to overshadow the structural and process quality implemented to generate it.**

When slaughterhouse employees are deprived of the minimum wage using legal trickery or are exploited using other methods, then we cannot say that the pork chop, delicious though it may be, is "good". A quality pork chop needs to be more than just delicious. This concept needs to be anchored in our general understanding of quality. In this respect, quality management is implemented to make the world a better place. This is not an option, it is a necessity. Then why is this so hard?

»Amoral quality management must be a thing of the past.«

The Surface of the Marshmallow World

The scientists Walter Mischel, Harold Garfinkel and Stanley Milgram recognized three problems (independently of each other) that will, to a greater or lesser degree, contribute to our future. However, if problems are contributing to anything, then we know, quickly, that it cannot end well. We could stop the problems, but we don't want to, because it takes far too much effort. There are at least three issues that work against bringing reality closer to the claim.

Harold Garfinkel and Our Construction of Clarity

The first issue is the superficiality that is required to maintain our worldview, which Harold Garfinkel acknowledged but did not name as such. And it's not entirely true either. However, we wouldn't want to do a Garfinkel: the way that we coexist as a global society has always been incredibly strained. This coexistence is only possible because we

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have decided that "close enough" is good enough in terms of linguistic expression. We assume that we understand each other. Even the question that we all ask every day, "how are you?", with its manifold possible answers, proves this point. We don't actually really want to know. However, we often aren't aware that we don't want to know. We build, above all, on automated constructions that mean that we do not need to put in any effort. It is far easier to stay superficial and simply build on assumptions. Garfinkel called this "ethnomethodology". The first issue is thus: "Our clarity is merely supposed".

Walter Mischel and Our Issue of "Later"

The second issue is deferred gratification. You are probably well aware of the marshmallow experiment by Walter Mischel. In short, either you get one marshmallow now, but if you wait you can have two. However, waiting is tough. Now is better. Mischel evidenced this with his test group, who were all children; today, in the world of adults, we aren't much better at deferring gratification. If we can have it now, we want it now. Who cares about later? So, let's say it like it is: "What's the point of waiting till later for us?"

Stanley Milgram and Our Desire for Direction without Responsibility

Milgram's experiment proves, strikingly, how much we allow ourselves to be steered by those in authority, even if we are obviously doing something wrong. In Milgram's experiment, this was shown by test participants giving learners electric shocks when they failed to solve problems correctly. Of course, giving people electric shocks isn't right. However, if the order comes from authorities, then it must be OK, right? Because it's been validated by someone above us. If no order comes from above, then it's also fine, or valid, to refrain from taking any action. If you were meant to do something you'd be told to. Authority figures make it easy for us. We have a clear direction and we don't have to assume any responsibility for it. The impressive Milgram experiment is one of the most important socio-psychological experiments. The third issue is thus: "We want direction, but we don't want to take responsibility."

Quality – between the Marshmallows and the Philosophy

It appears only logical to assume that the looming challenges will also be approached practically. However, the reality is that this is not so. Therefore, we are faced with the question of how to act morally. Being able to do something that gives us a benefit but not doing it because it is harmful for others, even though it's perfectly legal: this isn't the pinnacle of achievement for humanity.

Acting in a fundamentally moral way is a central tenet of philosophy. Immanuel Kant formulated the categorical imperative to explain this. We all know about it, but is it also of interest in a practical setting? Schopenhauer thought that the categorical imperative only works if empathy is involved. Is empathy a moral imperative for quality management?

That's beside the point. However, what we do have to do is position ourselves as a company. We need to express our self-image in a meaningful corporate philosophy. We also need to formulate it in a Garfinkel-free way. We can't simply assume that, in principle, everyone will just know what it is. We need wording that is intuitive, understandable and backed wholeheartedly by all those involved. In this philosophy, it must be unanimously agreed that today's Mischel marshmallow is far less important than the marshmallows of the future. This is not a task that must be handed down to us from our superiors; we can and must decide to take action ourselves, and do it, without Milgram's orders.

If we take the requirements within ISO 9001 seriously, then we cannot avoid looking at the context of the organization in the (far) grander scheme of things. We need to actively, not just reactively, evaluate the context. What can we do for the context? How can we improve the context? How is this shown in our corporate philosophy? Where are our approaches reflected in the corporate and process objectives? How is all of this anchored in the consciousness of the people in the company? These are central questions that need to be posed and answered.

Amoral quality management needs to be a thing of the past. Ethics need to be paramount in creating claims on our reality. As Bertolt Brecht wrote: "First comes food, then morality". Our stomachs are full.

The Expert

Dr. Markus Reimer is a quality auditor and keynote speaker with a background in corporate practice oriented towards agility, sustainability, innovation and digitalization. In his lectures, he points out the presumed boundaries and potential in the thoughts and actions of people and organizations.

NEWS

Expansion of the Management Team

While the company keeps growing, the managing directors of Babtec, Michael Flunkert and Waios Kastanis, have expanded the top management. Peter Hönle, Head of the Sales and Services Division, Lutz Krämer, Head of the Products Division, and Dagmar Henkel, Head of Human Resources, have now joined the management team. One of the company's founders, Michael Flunkert, states the reasons behind this structurally significant decision: "We want to continue to satisfy the growing requirements of the market and, simultaneously, we need experts in leading positions so that the company hits its development milestones in good time. Expansion of the management team, so that it includes valuable skills, is an important step here."

Michael Flunkert
Member of the Management
Founder and Managing Director

Waios Kastanis
Member of the Management
Managing Director

Peter Hönle
Member of the Management
Sales and Services Division

Lutz Krämer
Member of the Management
Products Division

Dagmar Henkel
Member of the Management
Human Resources

The Goldschmidt Group Places its Trust in Babtec Software

In 1895, Hans Goldschmidt developed the Thermit® welding process, which formed the basis for safe and efficient railway mobility. From then to today, the company has always defined the global benchmark for rail welding. From its core skill Thermit®, the Goldschmidt Group has developed into a pioneering provider of products and services for connecting railways, modern track construction and inspection of track infrastructure and its maintenance. Compliance with high standards and consistent fulfillment of customer expectations are always top priority. Here at Babtec, we are delighted to support this Leipzig-based company and its subsidiaries worldwide with our QM solutions for ensuring excellent quality. Both the core location in Germany and the subsidiaries in the USA and Australia shape their quality processes using our BabtecQ software. This gives us another reason to celebrate: it's the first project that Babtec has implemented down under!

Q.Focus Goes Digital

Last year, everything was turned on its head, and the events that we usually hold for quality management were no exception. As we didn't want to miss out on having a chance to communicate directly with our customers, we came up with a series of digital events, which we named Q.Focus: in this free and fun monthly 45-minute format, we present innovations from our product portfolio and offer the option of interactively discussing issues with our QM experts via our Q&A tool to those who are interested. We are delighted by the huge interest and active participation that this has met with – we have already welcomed over 2,550 participants to our past 22 events. A current overview of the dates and registration options for future events can be found in the event calendar on our website.

A Strong Team, Even when Working from Home!

What does a company that values team spirit do in a pandemic? That's right: we find solutions! Be it a virtual breakfast, podcasts or a Christmas party for all, we have still spent the past year as a team. We've even kept our spirits up, because at Babtec, we always keep smiling.

The kids also wanted to get in on the fun: the children of our team members could let their imaginations run wild with our Babtec coloring books, which hopefully also gave their parents a break.

< Live streams became the way we connected with each other during special occasions. Here, our Managing Directors Waios Kastanis and Michael Flunkert celebrate Christmas with us, with live spots from all of our branch offices too.
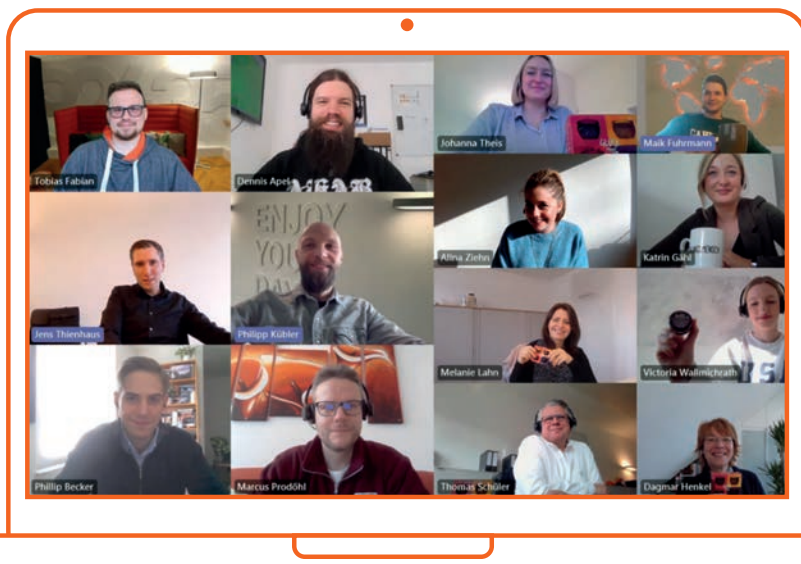
»During the pandemic, our #partoftheteam motto has stood the ultimate test and I'm very proud of how our team has mastered these challenges!«

Michael Flunkert, Member of the Management, Founder and Managing Director

‹ One highlight was our virtual team breakfast. Our departments have already met digitally, spread tasty "Glück" (German for happiness) jelly on their toast and chatted in a relaxed atmosphere.

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Many team members received support from their pets, and the cute critters often made us laugh in our digital meetings.

‹ Happily, our only grumpy colleagues are in the plush department. Don't let them scare you off – as usual, our team members are friendly and you're sure to find them in a good mood when you ring us.

How does a constantly growing company secure the essential expertise needed to continue fulfilling the comprehensive claim for quality excellence in the future too? The usual high quality for the continuously developed and new software solutions, the best service thanks to our keen consultation expertise for answering all quality questions and, naturally, huge investment security for new customers – in this article, we report on how we develop internally in order to consistently keep this performance promise for our customers. There might even be one or two exciting tips for your world of work here!

— by Lea-Maria Anger

NEW WORK IN PROGRESS

New Work:
A Modern World of Work

As a company whose success is based on working with knowledge, the human factor plays a crucial role for us. Therefore, it is important that we, as an employing company, are attractive for new, strong team members – particularly in times when there is a shortage of specialists. With a modern working approach, we secure the expertise of specialists for our company to ensure long-term growth and even better products. We achieve this using the New Work approach (of course, we call it New WorQ). This approach sees people as creative beings with a desire to be effective and has more value in the world of work now than ever before. Action should be meaningful, there should be freedom and responsibility,

appreciation and transparency – these are all significant components of New Work. We wish to show you a few concrete measures that we are currently implementing to this end in our company.

Guiding Principles and Management Model:
For Effective Customer Orientation

Several values from the New Work approach have been anchored in our new guiding principles. Responsibility, appreciation and the desire to constantly improve ourselves through a positive failure culture have been added to the company values of freedom, trust and solidarity already set down in the guiding principles. The first step in transferring these values into our daily practice was to draft a clearly understandable and transparent management model that unambiguously structures the decision-making authority hierarchy in our company and thus accelerates processes. Decisions should be made with competence where they are needed, in the interests of our customers (e.g. for faster reaction times). To this end, our team has freedom and also responsibility to think and act holistically in their daily work for quality.

"Guiding principles are important, but living them out every day and thus ensuring that all staff exercise them in their daily work is far more important. Therefore, we all need to constantly compare our actions with these guiding principles so that we act holistically, responsibly and for the common good."

Dagmar Henkel, Head of HR,
Babtec Informationssysteme GmbH

Transparent Job Descriptions:
Top Expertise for Quality Excellence

Based on the levels of the management model, we currently create clearly defined job role and requirement profiles. Using transparent competency levels, we hone the individual performance promise for each role. Based on this, we can promote the strengths of our employees in a targeted manner and offer every team member prospects and opportunities for development in line with their talents. This also comprises the option to specialize within a certain field. We thus secure expertise and expand it in the long-term.

Working Hours and Place of Work:
Flexibility and Optimal Service in Perfect Harmony

Within the course of our New Work transformation, we wish to create a working model with more flexibility for our team in order to increase our attractiveness as an employer, offer good incentives to encourage new employees with top expertise to join us and to enthuse our high-performing team members in the long term. In an EU grant project, together with the consultation and research company Soziale Innovation GmbH, we have drafted a working model that unites our staff's need for flexible working hours and a

mobile working location with our customers' desire for widespread availability. This model is structured around trust-based working hours without any core times. A common timeframe for meetings guarantees effective internal cooperation. Equally, there are still service hours that enable us to assure reliable availability as usual, including of the Support and Project Management Departments, for our customers. In addition, the capacity for mobile working has been extended. This year, we will evaluate the benefit of this working model for all parties using a questionnaire given to all team members, which is completely in line with continuous improvement and an open communication culture.

"Flexibility on working hours and the place of work is one of the top criteria that employees base the attractiveness of an employer on. We are developing customized operating solutions within the scope of the project "Innovative working hours – oriented around phases of life and flexibility", which Babtec is participating in as a pilot study. The project is funded by the German Federal Ministry of Labour and Social Affairs and the European Social Fund."

Dr. Cordula Sczesny, CEO,
Soziale Innovation GmbH

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