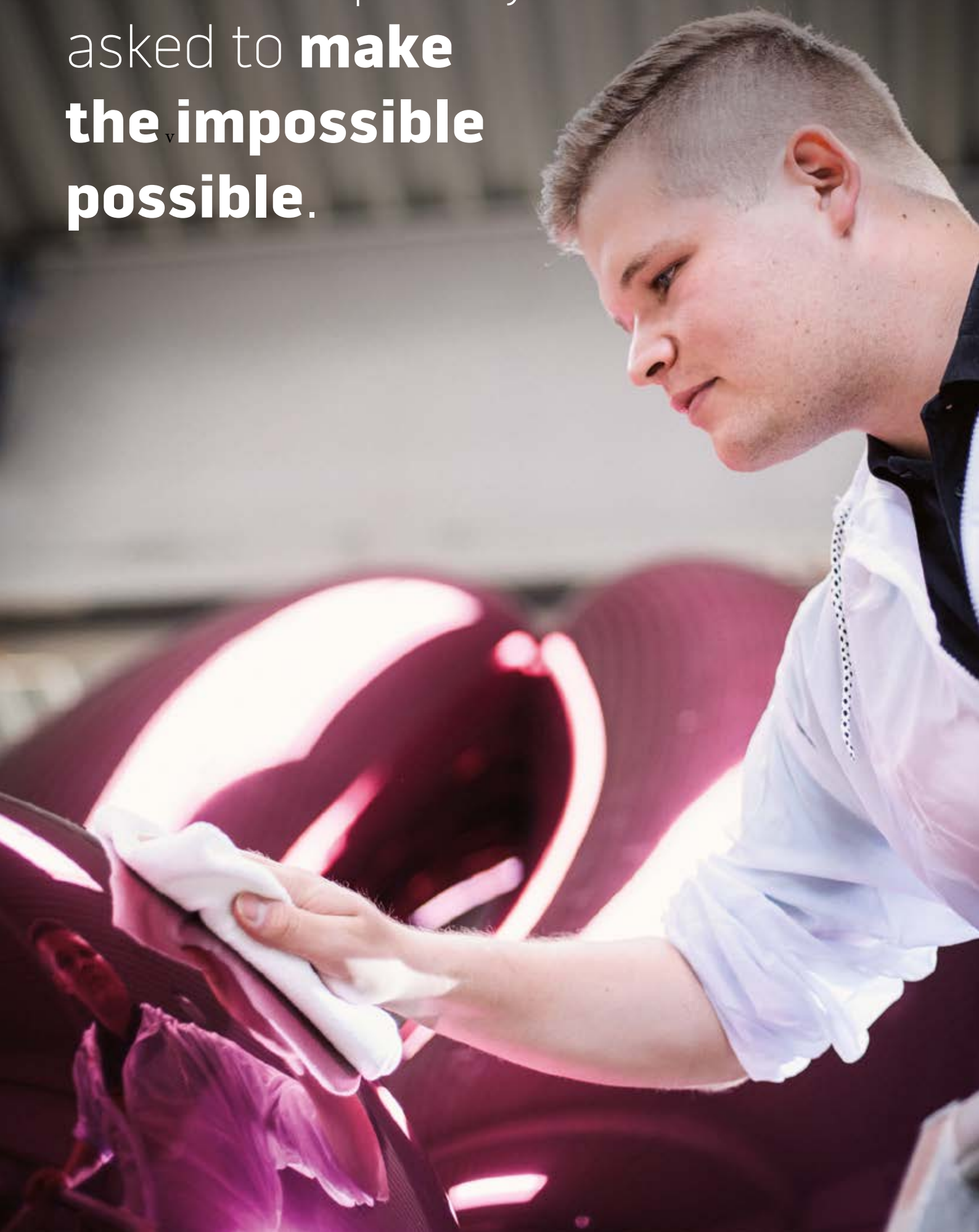


metalligent®



We are frequently
asked to **make**
the impossible
possible.



THAT'S **metalligent**[®]

Cover photo: Gold as a raw material is as noble as it is versatile. We process all imaginable metals. Including gold for the "Broche" project by Ayşe Erkmen, installed in September 2017 in Ghent (Belgium).



Uwe Arnold, Chairman of the Board

DO YOU HAVE ENOUGH TIME AND MONEY
TO AFFORD SOMETHING CHEAP?

Dear readers,

From our inception, it has always been our goal to manufacture and deliver value-added services. All of our products are infused with part of our heart and soul, regardless of whether we're talking series parts or individual components. It may sound somewhat strange to attribute soul to a piece of metal, but for us at Arnold, this is a matter of course in our day-to-day work.

Do we create added value as a result? Is this extra effort worthwhile in the end? This is not easy to answer, particularly because different people operate in different realms. The new *metalligent edition* is dedicated to the question "What is worth its money?" All of us know that cheap can be quite expensive in some circumstances.

Are you upset if you pay 100 euros for a service today which is 20% cheaper the next day? Do you rejoice in knowing that your plane ticket cost less than what the person sitting next to you paid? A cultural transition towards bargain hunting may have been ushered in. But is this really what it is all about? Paying less? We don't believe that there is a one-size-fits-all solution. The primary goals must be redefined before every purchase. The sum of the individual parts does not always determine the price, because the processes combined have a lot of potential, too.

Customized prices, meaning adapted to a specific situation, play an important role in the market on all major trading platforms. We at Arnold expressly do not want to follow this trend of determining prices. We believe that the price reflects the value of a service that is created in our workshops and which is not subject to fluctuating situational factors. We are committed to the quality of the products and set our prices irrespective of our customer's situation or other external conditions. It may sound antiquated and outdated in this day and age, but for us this is the most genuine way of determining our prices.

A lot of heart and soul also went into the *metalligent* magazine, and we hope that this new edition will give you plenty of food for thought and something of value.

Let us work out prices together, openly, and fairly, in a genuine manner and based on factual criteria. We are looking forward to your challenges!

Best regards,

Uwe Arnold



I am of course very interested in your opinion.
Please e-mail me at uwe.arnold@arnold.de.



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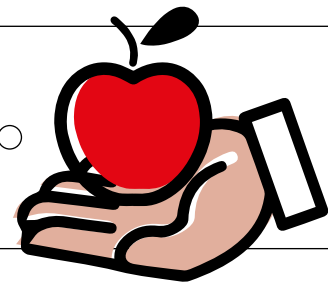
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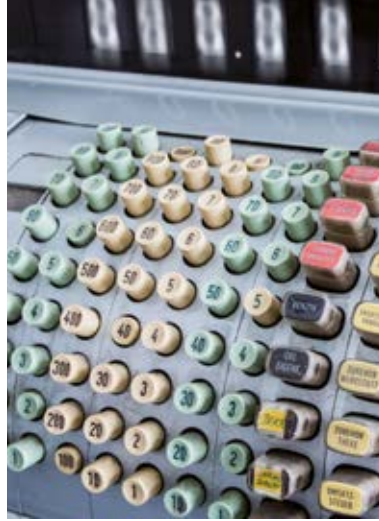
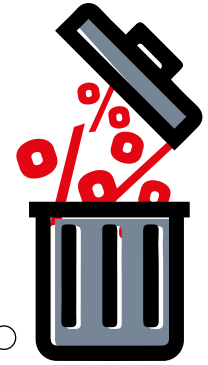


Photo: Fotolia | © Michael Eichhammer



Y Generation

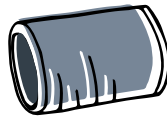


Photo: Faber-Castell



Photo: Nik Afanasjew



Photo: Waldrich Coburg

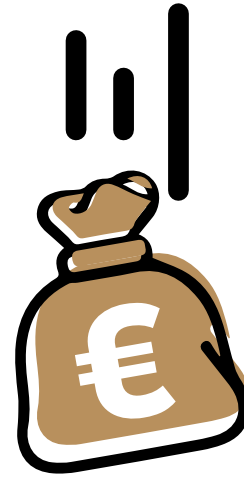
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Photo: Fire Department Herges-Hallenberg



PENNY-PINCHING
IS NOT
COOL
AT ALL





COMMERCIAL SHORT-CIRCUIT

Nail spa today, "Elektro Ohm" yesterday: the small neighborhood specialty shop. Three generations of the Ohm family have supported their clientele for almost 40 years. The new washing machine hauled to the fourth floor and connected, insulating screw joints as needed, TV new or used as desired, and a new plug for free for grandma Meyer's flat iron cord - fair trade in the neighborhood. The go-to destination for 220-volt problems big and small with the perfect solution at a fair price. And now it's over, short-circuited, so to speak. Traditional retailers have no chance against e-commerce and cheapskate portals online. According to WeltN24 on February 5, 2017, the German Trade Association (HDE) estimates that about 50,000 businesses will be lost over the next few years; customer numbers are dwindling and city centers are at risk of atrophy. Are quality goods, services, and workmanship falling victim to "as cheap as possible"?

SHOPPINGFEVER 4.0

The term "defining culture" has been circulating again in magazines and politics at least since the last wave of refugees. Are the values of the Christian West at risk? It is rather strange and ironic that two of western Christianity's main vices, also referred to as mortal sins, have been riding on an ideological wave of success and are disseminated from German TV screens and billboards around the country to fester in people's minds - greed and lust: Penny-pinching is cool!

Is this the new defining culture? Yes and no.

Yes, it is true that in many areas of daily life and in the professional arena, trade, craft and industry, mutual respect, the appreciation for high quality and trust in an equilibrium between give and take is at risk of falling victim to sheer greed: Hail to having the upper hand, blessed be the bargain.

But that's not the whole truth. A new trend is emerging. An increasing number of consumers are prepared to consider not only the price, but also the quality, fair conditions, and professional service before and after the deal. Even discount giants prop up their shops and have the "Château Migraine – Grand Cru" on their shelves for 28 euros.

FORGET THE "PRICE", CONSIDER THE "VALUE"

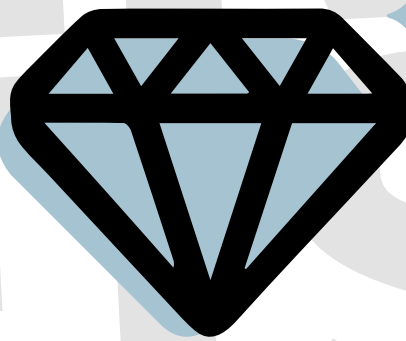
But who sets the price? The *metalligent* is showing three pricing methods:



1. THE MACHINE SETS THE PRICE

The miser consults search engines to finger the way to cheapskate paradise. He compares in real time all available offers and creates an online hitlist of the most affordable offerings. Compare, read reviews (by whom?), and "click". Retail giants, supermarkets, gas stations, online retailers... are countering this trend and employ their own machines with complex algorithms to find out which (maximum) prices can be achieved when and where; they change them several times a day, sometimes every quarter of an hour. They are not focused on the actual value of a commodity, but instead on competitors' prices.

Usually to the detriment of mom and pop stores and the producers of goods in low-wage countries - or produced at dumping wages in high-earning Germany, thanks to which the export world champion hastens to ever new pinnacles of trade surpluses...



2. EXCLUSIVITY SETS THE PRICE

Some of the small players resist the fate of "Elektro Ohm" by serving niche markets with eccentric ideas. Or they add value to their products through an exclusive design, for which the consumer is happy to pay. Or they simply leave unscathed the value of their traditional brand, are stoically set on providing the highest quality, the brand's image, and - immune to the trend - offer a fair price, with increasing encouragement by customers who know how affordable "expensive" and how costly "cheap" can be.



3 ■ THE EQUILIBRIUM SETS THE PRICE

Ideally, the sought-after "equilibrium price" for the quid pro quo can be arrived at through a mutual agreement between the provider and the customer. A transparent assessment is made of what one party has or provides and what the other party needs and wants. This weighing is not just reserved for the bazaar or weekly market.

THE PRICE IS ONLY ONE SIDE OF THE COIN

In the more complex field of industrial production and services, it is worthwhile to clarify exactly what the customer needs, what fits into his product range and processes, and where his limit lies. And to offer a confident presentation of what the "other" added benefits are.

For example, the entire front-end planning and processing. Or an "all-in-one" offer, for which every trade offers the same high quality standard. And a fixed price with absolute adherence to deadlines. Advice on how to integrate into existing processes can be just as valuable as a joint review and optimizing costs and processes. Arnold's "eeva" methodology, for example, can do this. Such a package is usually more expensive, but worth the money in the end because the price reflects the actual value. And Arnold customers know that. After all, they are metalligent, and madness is not their thing.

Text: Klaus Altevogt



How much will it be?
Prices change several
times a day, even in stationary retail.

WHEN PRICES GO CRAZY

Prices are constantly changing online. Are they merely fooling people or is their bargain hunting possibly part of a system in which algorithms have long had the upper hand?

By now, we have gotten quite used to it. When getting gas, shopping on the internet, or when we book flights or purchase long-distance bus tickets: The price for one and the same service fluctuates constantly, often several times a day. Amazon, for example, changes its prices 3.6 million times per month (August 2016). On Valentine's Day there were one-million price adjustments on the internet. Media Markt recalculates its prices every 15 minutes. Between 8:00 am and 12:00 pm and from 8:00 pm, it is primetime for prices on the internet. Prices are higher during these times than in the afternoon. And at the end of the year, the price madness will be even worse, like every year. The reason: Christmas.

The rule since 1776 and Adam Smith: the price is determined by supply and demand. The ancient Romans assessed the price according to the value that a service had. They even used the same word for the price and the value: pretium. So who determines today what price a product is worth? The customer? The seller? Algorithms?

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C

Best
Price!

NO HUMANS MAKE THESE PRICES!

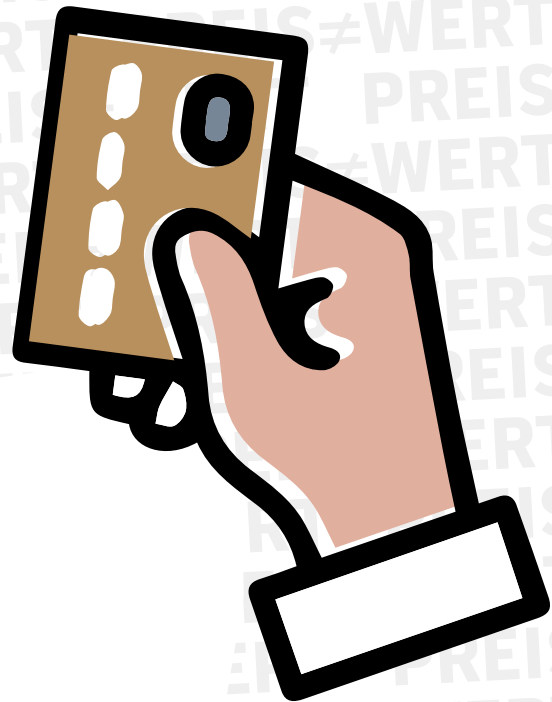
Particularly in online commerce, it is not humans who set the prices for products. There are far too many price decisions to be made day-to-day due to the huge assortments. After all, retailers base their prices not only on the customer, but also on the competition. Search engines make it easy for customers to always pick the cheapest offer. So retailers should know what the shops one click over are doing and how customers are responding to the price changes. Because of the complexity, the flood of data is increasingly being analyzed by self-learning systems, i.e., artificial intelligence.

DECREED BY MACHINE

Artificial intelligence for trade is the core business of the Karlsruhe-based company Blue Yonder. The former start-up was founded in 2008 by a very smart man, ex-CERN researcher Professor Michael Feindt. Every day, 600 million decisions on prices and inventories are made by the Blue Yonder algorithm - which originated from particle physics - for trade customers worldwide, including the Otto Group from Hamburg.

The program continuously captures the impact of the price on sales and predicts at what price which product is best to sell at what time. Examined are the data from past purchases and other influencing factors such as competitors' prices or weather data, from which the software independently reconstructs patterns and correlations. So now it is evident that the willingness to pay certain prices actually changes by day of the week, time of day, and seasonally. It also is of significance if it rains, snows, or if the sun is shining while filling the online shopping cart.

PREIS



NO BARGAIN UNDER PRESSURE

"Customers are always looking for the lowest price online," Dunja Riehemann of Blue Yonder describes the reason why prices in online retailing are even an issue. But the desire to save can fluctuate: sometimes the price is more important to customers, other times it is not. A classic example: A stressed-out business person needs a new blouse or a fresh shirt for an important business meeting. What matters here is availability; there is no time to compare prices. So "buy" is clicked even if the outerwear ends up a bit more expensive than planned.

Dunja Riehemann thinks consumers benefit overall, despite the pricing madness: "People are aware of the fluctuations and simply adapt to them," she explains. Or they use up-to-date price-alert apps that circumvent the retailers' algorithms by alerting customers to low prices. So pricing may soon be a matter of competing pricing robots.

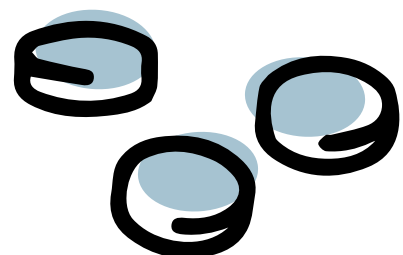


Dunja Riehemann, Marketing Manager at Blue Yonder: "Online buying decisions depend on many factors, but they are predictable." | Photo: Blue Yonder

THE SAME PRICE FOR EVERYONE

But from a customer's point of view, there has to be a limit to the madness. Such is the case when retailers individualize prices online. The Blue Yonder algorithm does not do that. "We work with anonymized data and optimize only at the product and article level," says Riehemann. But especially in America, various attempts have been made at demanding higher prices from affluent customers compared to people with less of a cushion in their bank accounts. Such price-tailoring is very much frowned upon by Germans, who in a survey by the consumer ministry in North Rhine-Westphalia have vehemently spoken out against these methods.

Text: Annette Mühlberger



CHEAP IS NOT NECESSARILY MORE AFFORDABLE

The price of a part isn't the only thing that matters when it comes to procurement. In complex value chains, the overall costs decide whether a part is simply cheap or actually affordable.

"High-quality products that are in high demand in the market are usually worthwhile for the buyer." This coming from someone who should know: Dr. Silvius Grobosch in response to the question what role the price of procurement plays in companies in this day and age. As a board member of the German Federal Association of Materials Management, Purchasing and Logistics (BME), Grobosch speaks for about 9500 buyers and companies in Germany. The BME members represent an annual purchasing volume of a staggering €1.25 trillion. So those who are looking for the right price can certainly save quite a bit of money.

THE BIG PICTURE MATTERS

Association boss Grobosch, who has been head of Group Purchasing at ThyssenKrupp for many years himself, knows full well that purchasers cannot afford to consider only the price. The members of his association have long been concerned with big issues, such as the digitization of the value chain, the networking of humans and machines, and how to effectively work together with customers and suppliers. "Purchasing sets the tone for this process," explains Grobosch in an extensive discussion with *metalligent*. After all, the industry is already procuring vast amounts of goods externally. Which means that whoever can optimize this flow of information and goods is sitting on a pot of gold.

WHEN "CHEAP" EQUATES RISKY

Today, German industrial companies purchase about 70 percent of their value creation. Which means that much of the innovation occurs externally. And a large portion of the costs is also determined by sourcing. But simply lowering the price of materials is not the answer. The more complex the supply chains and the



"Striking a balance between cost reductions and quality requirements every day": Dr. Silvius Grobosch, BME Board of Directors, represents 9500 buyers and companies in Germany. | Photo: BME



more difficult and individual the products, the less the actual purchase price matters in terms of the overall equation. With worldwide supply streams, you are in for some costly surprises if you fail to consider the overall costs. High ancillary expenses, default risks, additional expenses for quality and delivery problems. The list of risks is high, and not just since the hot spots around the world have increased significantly. Many companies have their own risk managers in purchasing for good reason. And what they increasingly preach is "local for local," which means purchasing parts where they are actually needed.

AFFORDABILITY: NOT REALLY

High wages do not always mean high prices, and prices in so-called best-cost-countries are not necessarily affordable for everyone. The final tally is calculated at the very end. Even science welcomes the fact that taking an integrated perspective is prevailing. Procurement specialist Professor Elmar Bräkling from Koblenz University of Applied Sciences states: "Considering the total costs allows us to make a fair comparison between markets and material groups."

Even buyers and engineers - who historically are not always bosom buddies as one is concerned about costs and the other about quality - are finding some common ground. The idea: The sooner the two put their heads together, the more likely they are to find suppliers who use innovative concepts to lower the overall costs. What about purchasing for researchers and developers? This used to be a no-go. But the search for alternative manufacturing methods, new materials, efficient construction methods, and approaches that are energy saving, is only successful if the right suppliers are in place. "Every day, purchasing must strike a balance between cost reductions and quality requirements. After all, the procurement know-how of buyers of commodities, materials, and services contributes significantly to the fact that 'Made in Germany' is still a very strong selling point," summarizes head buyer Silvius Grobosch. And when this integrated perspective is taken, the price is only one side of the coin.

Text: Annette Mühlberger





Money or quality of life – what matters to employees

With millennials, the proverbial roaring career tiger has been reduced to a purring kitty in many cases. In this day and age, the younger generation wants to be lured by companies with tailor-made benefits. Are these workers truly more socially reflective than prior generations, or are they simply out for safety plus a feel-good factor? One thing is clear: companies need to invest in good employees.





Generation

Do millennials (born between 1984 and 1996) really put more emphasis on sustainable social behavior on the part of companies? If this was the case, then numerous German automakers should have been in for a crash landing after the Diesel scandal. But despite of the scandal, these companies are very popular again with young workers.

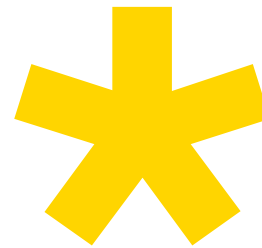
Tina Smetana of Universum, an employer branding consultant, explains why: "Scandals that primarily effect consumer brands, as is the case with the diesel scandal, have less of an immediate impact on the rankings. But if they affect employees or workplaces directly, the popularity is more heavily impacted." So it is about the human factor, which is why employees value corporate social responsibility (CSR) in companies.





Photo: Jan Jelle de Boer

"Particularly for small and medium-sized businesses, it is very important to take into account what the prospective talents value and over which channels they can be reached."
Tina Smetana, Universum



Graduates love medium-sized companies

For 27 percent of young professionals and 28 percent of students, CSR is one of the most important criteria when it comes to employer ratings (Universum survey). For well-educated academic applicants, however, an attractive basic salary remains the top priority. Also ranking highly are variety of tasks, opportunities for further development, and appealing products.

For corporations, it appears that implementing CSR is easier. But Tina Smetana thinks SMEs are also positioned well. Basic parameters such as a friendly working environment, flexible working hours and locations, inspiring managers, and attractive opportunities for further education are appealing. Good news: 42 percent of students prefer starting their professional life at companies with 10 - 500 employees. These future graduates also prefer a job that is dedicated to a cause or serves the common good. In addition, autonomy and independence are also rated highly.

Focus on people

Some of the people surveyed could be potential workers for Stahlbau Nägele in Eislingen. The company was awarded five stars in the "Best Employer Baden-Wuerttemberg" competition and the "Grand Prix for Small and Medium Enterprises." The company has been people-centric for twelve years; a project that involves not only employees, but also customers and suppliers. It shows: CSR is part of an impressive integrated offer, not just a stand-alone discipline.

Generation A or Z? According to CEO Klaus Nickl, the social conduct of a company in itself should be appealing to employees of all ages and promote a change of society as a whole. "All employees attend workshops and jointly work out the purpose of what we do."

CSR has many faces

A strategically oriented social commitment is worth it. The best example: Christina Juli, apprentice at Arnold since summer 2017: "The spirit of the company is reflected in its social activities. It is obvious that the company cares about the wellbeing of its employees and it shows how they value their employees." And she feels right at home.



Top 5 most attractive characteristics of an employer*

1. Attractive base salary
2. High income in the future
3. Varied work
4. A friendly working environment
5. Attractive/interesting products and services

...

Word of mouth, i.e., a personal recommendation by an employee, has become an important way of acquiring talent for companies. Because the search for apprentices, young professionals, and skilled personnel has become fiercely competitive in terms of demographics. When it comes to health/wellbeing, social responsibility, and sustainability, what can I offer to win over people of all ages?

Some typical CSR measures are family-friendly working hours as well as home office days. The career is promoted through education, training, and language courses. In terms of social aspects, healthy canteen food, company sports, and a fitness studio offer wellbeing in addition to an in-house doctor. The body and mind are engaged socially, for example in the form of corporate volunteering (volunteering in charitable projects), promoted through financial incentives or time off. Diversity excludes discriminating against groups of people. Moreover, the company must demonstrate environmental sustainability.

Generation

*Source: Universum Student Survey 2017, 40,625 students from various fields of study in Germany were surveyed. More information: <http://universumglobal.com/de/student survey2017/>

Top 5 long-term career goals*

1. Work-life balance
2. A safe and stable job
3. Be a manager with a leadership role
4. Be entrepreneurial or creative/innovative
5. An international career

"Goodies" make all the difference

Some of the incentives offered by companies to attract or retain employees have become quite creative. A Bavarian butcher recently offered up "Metzgere(i)Phones" in their search for apprentices. And successfully so. While it sounded funny at first, it was part of a believable diversity campaign and became a hit in social media.

The list of activities available at Nägele makes outdoor enthusiasts chomp at the bit. In addition to visiting top-level sporting events, the company offers attractive workshops with recreational and team-building aspects, such as canyoning, Segway tours, geocaching, ski trips, archery, or fishing. The activities are always part of targeted personnel development. Klaus Nickl: "Every penny invested is returned manifold with the enthusiasm of the employee and customer."

Investing in people

Arnold is also offering training courses, health measures, and - let's not forget - participation in the company through the acquisition of shares. Because the motivation is much higher when you work for your own company.

The social responsibility is always linked to the personality of the person. Apprenticeship training is designed to provide versatile and exciting topics, while "professionals" are provided with consistent and tailor-made personal development. Tutoring lessons or professional coaching in personal crisis situations help young people to better deal with challenges. Furthering talent is also in focus: Internal job changes are made possible as well as job shadowing in different departments in order to, for example, find the appropriate field of activity after training or graduating with a technical degree.

This is an investment that is worthwhile for all. Arnold's corporate management is convinced of this. Because the 100th company anniversary in 2024 and beyond can only be achieved with healthy, competent, and motivated employees.

Text: Ingo Woelk

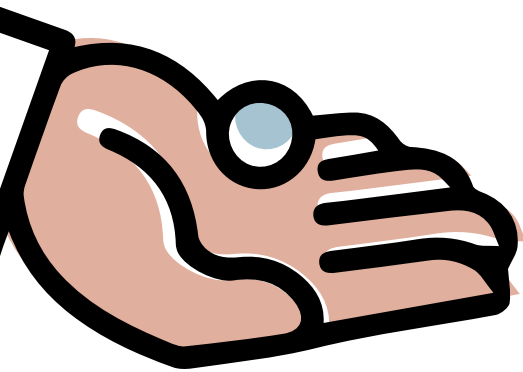
***Give and take –
a fair deal***



"Alışveriş" is Turkish for "shopping," literally meaning "give and take." An appropriate visual of one of mankind's longest standing activities: trade.

The aim: it all evens out

The principle of trade is to exchange goods or services for other goods of the same value. In its earliest incarnation, trade was basically bartering, i.e., fish for grains or cocoa beans for arrowheads. In later times, sought-after goods (shells, salt, precious metals,...) became so-called commodity money, which could change hands many times over as a means of intermediate payment. Next came paper money (China, approx. 1100 BC, Sweden around 1660 BC), coins (in the Aegean by 600 BC), and "weight



money" in the Middle Ages, whereby the value was determined based on the weight of the processed metal, which was checked both by the buyer and seller. Today, the value of goods is compensated by exchanging it for material money (bills, coins), immaterial money (check, wire transfer, credit card...), or now also crypto money (Bitcoin...).

Whatever the case may be: As long as an agreement is reached on the value and counter value of the exchanged goods, services, and the means of payment, the acts of giving and receiving remain in perfect harmony.

Status: total imbalance

Naturally, charlatans have attempted for eons to shift this balance to their own benefit, such as by forging means of payment or by lowering the quality of the goods or services provided, i.e., inferior fakes of renowned brands.

Yet another, unprosecutable development has even more dramatic consequences: "The market and price transparency fueled by the internet spurs the erosion of prices," Georg Rainer Hofmann, Professor for data processing and corporate management at the University of Aschaffenburg noted in "*Markt und Mittelstand*" already back on November 7, 2013.





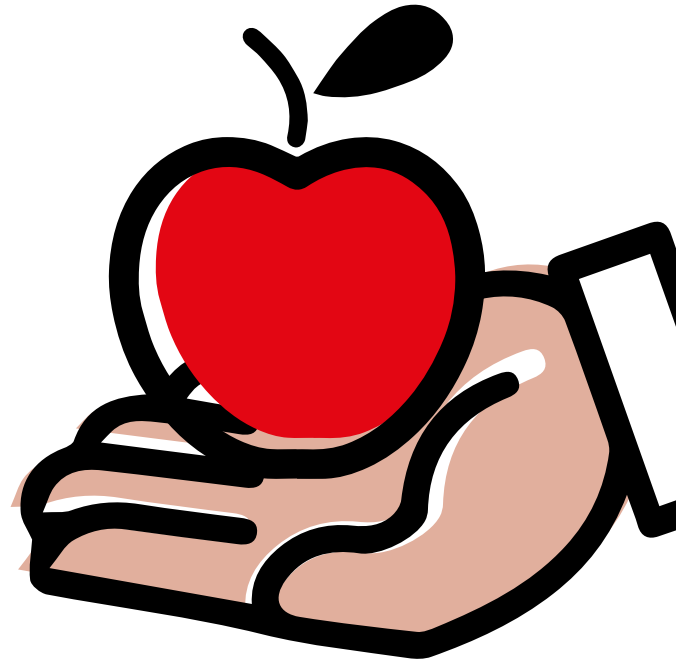
Photo: iStockphoto | MAD ImagingSF



Photo: private

"The market and price transparency fueled by the internet spurs the erosion of prices."

Prof. Georg Rainer University of Aschaffenburg



The increasing focus on price works to the detriment of quality and thus the value of a product. Even the slightest price differences can entail substantial competitive advantages or disadvantages. The consequences are grave: "This development - also known as 'adverse selection' - pushes quality offerings out of the market and inflicts damage on the value of product brands," according to Hofmann. And ultimately on the market itself, because an oligopoly is at risk of fewer suppliers.


Focus: rebalancing

How to survive? Go online yourself and join the dumping rally (personnel, quality, margin)? It would probably be a futile endeavor against the "big guys."

Or consistently focus on quality, represent it to the customer confidently and expertly and thus sustainably serve the latter, the employees, the own brand, and finally the market, which is now accepting a price that corresponds to the actual value of the quid pro quo? Some have always banked on this principle, while others are slowly pursuing this path, even discounters with selected wines.

While taking and giving as little as possible in return is currently fashionable, it is destructive in the end. It's a good thing that people and the market are capable of learning and adapting: cheap giving and taking is booming

Text: Klaus Altevogt



The cheapest provider is not necessarily the most valuable partner. Valuable are those who add value to the process.

Arnold Inside

Speech is golden after

Arnold customer Neubronner is your quintessential behind-the-scenes champion who produces everyday products in Oberursel, Germany. They produce water-activated tape, which is used by large online retailers, among others, to seal their shipping boxes. The newly developed tape dispenser is a prime example of the claim: it is the process and not the individual parts that make the product economically attractive and valuable.

A forest of rotating white, cone-shaped coils and innumerable floating threads welcome visitors: when you set foot in the production hall of Neubronner in Oberursel, the eyes instinctively gravitate towards a textile weaving machine. But what is reminiscent of Manchester and Wuppertal around 1900, is an indispensable part of progressive online commerce today: The self-made machine with "thread layer" produces water-activated tape with glass fiber fabric. A "closure device" that makes unauthorized opening of packages difficult even when using your teeth, thus protecting the goods from thieves and overzealous partners.

Glass fiber holds together that which belongs together

Neubronner's thread layer is unique in Europe. 14 grams of glass fibers are redistributed onto a square meter of wet adhesive tape. Wetted and glued - it works based on the moistening principle of a postage stamp. Another important product: heat-sealable, fiber-reinforced adhesive strips that are printable in the sealing zone, and which are used for the sealing of corrugated cardboard packaging.

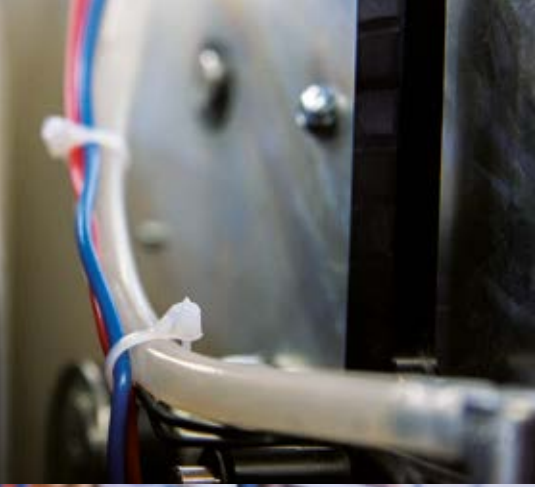
It's one thing to produce innovative adhesives. The other obvious idea is to offer users the very machine that facilitates application, i.e. the tape dispenser commonly found in packing departments. The process in short: The packer inserts the roll of tape into the small machine, which ejects a piece of tape in the required length, and the packer closes the cardboard box.

If we end up finding out that we discovered greater potentials for savings, we won't be complaining.

The latest device is called Alpha X1-400. With the electronic upgrade, it offers twice as much packing roll (400 meters) than the predecessor and also provides all kinds of conveniences in terms of handling and wet-gluing. With a prototype and design drawing in hand, Neubronner was looking for a partner in the metalworking industry.

One thing was for sure: the cheapest provider is not necessarily the most valuable partner. Valuable are those who add value to the process. "We were looking for someone who could provide the desired quality and the desired handling," explains Sales Manager Paul Ebeling. He knows that the success or failure of the process is based on communication. It is important to have production costs, production quality, and assembly under control at all times. This requires intensive exchange with the business partner, which simultaneously triggers a process of ongoing further development. Parameters are constantly optimized in the ongoing project and creative ideas are noted down for future device generations.

The result of good communication:
the new tape dispenser Alpha X1-400



Images: Dominik Jacky



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Processes instead of prices

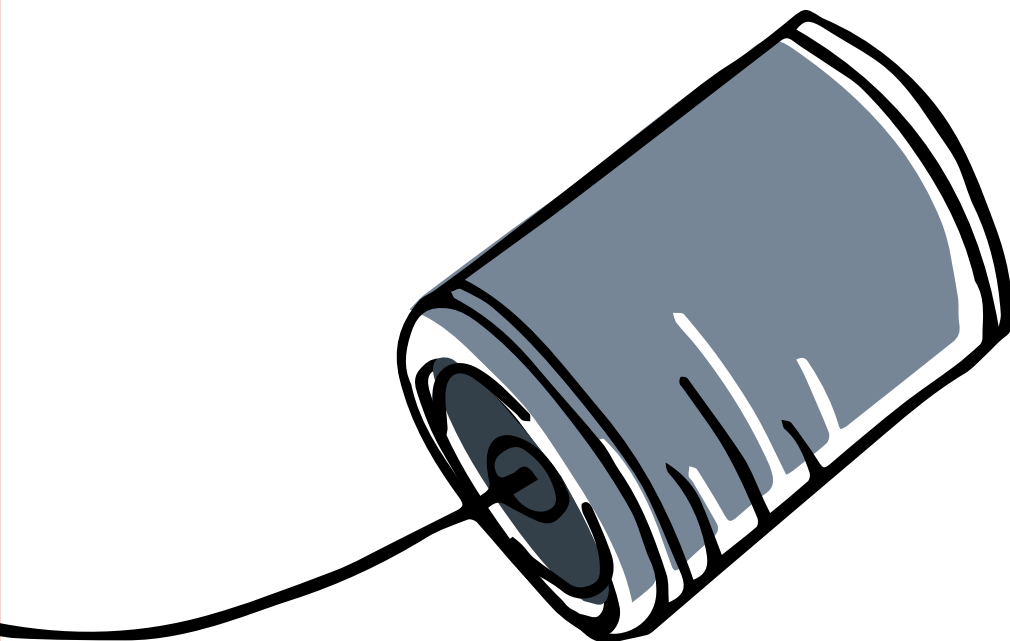
"You need someone to discuss the processes with," Paul Ebeling has learned. In the beginning, only this general inquiry exists: "Can you supply us with the metal parts for the Alpha X1-400?" Today's constellation: Arnold not only manufactures numerous parts, but also handles assembly and storage. Ebeling is satisfied, and he especially appreciates the steadfast forward perspective: "Arnold had suggestions for improvement in the commercial and technical area for us. We also took well to a few suggestions in terms of processing." Most other companies would be alienated by such interference with planned processes. Neubronner expressly welcomes this and even shares his know-how and expertise: "Arnold has a lot of knowledge about us, but I see that as an advantage. Because we don't have to surrender our own knowledge, instead we learn ourselves."

Udo Vogler and his team supervise industrial customers at Arnold and always keep an eye on the overall process of a project, through which he navigates as cost-efficiently as possible: "We offer ideas on how to simplify handling, and we make the processes transparent. If we end up finding out that we discovered greater potentials for savings, we won't be complaining. For example, if we can reduce the planned installation time in final assembly by half an hour per unit." In the end, it's always about cutting costs, of course.

Visions of gluing

Even if the digitized world frequently conveys something different: there is a road to success away from algorithms and reporting. Human communication and procedural thinking can often lower prices more effectively than a lower purchase price, and this can also spur developments in a positive direction. Of course, Paul Ebeling also has various visions of what the ongoing digitization in the distribution rooms of merchants should look like. One of those: when a package is placed on the packaging table, the device dispenses the correctly sized wet adhesive tape automatically. The EAN code makes this possible. Such developments require open-minded business partners - Arnold is already brainstorming.

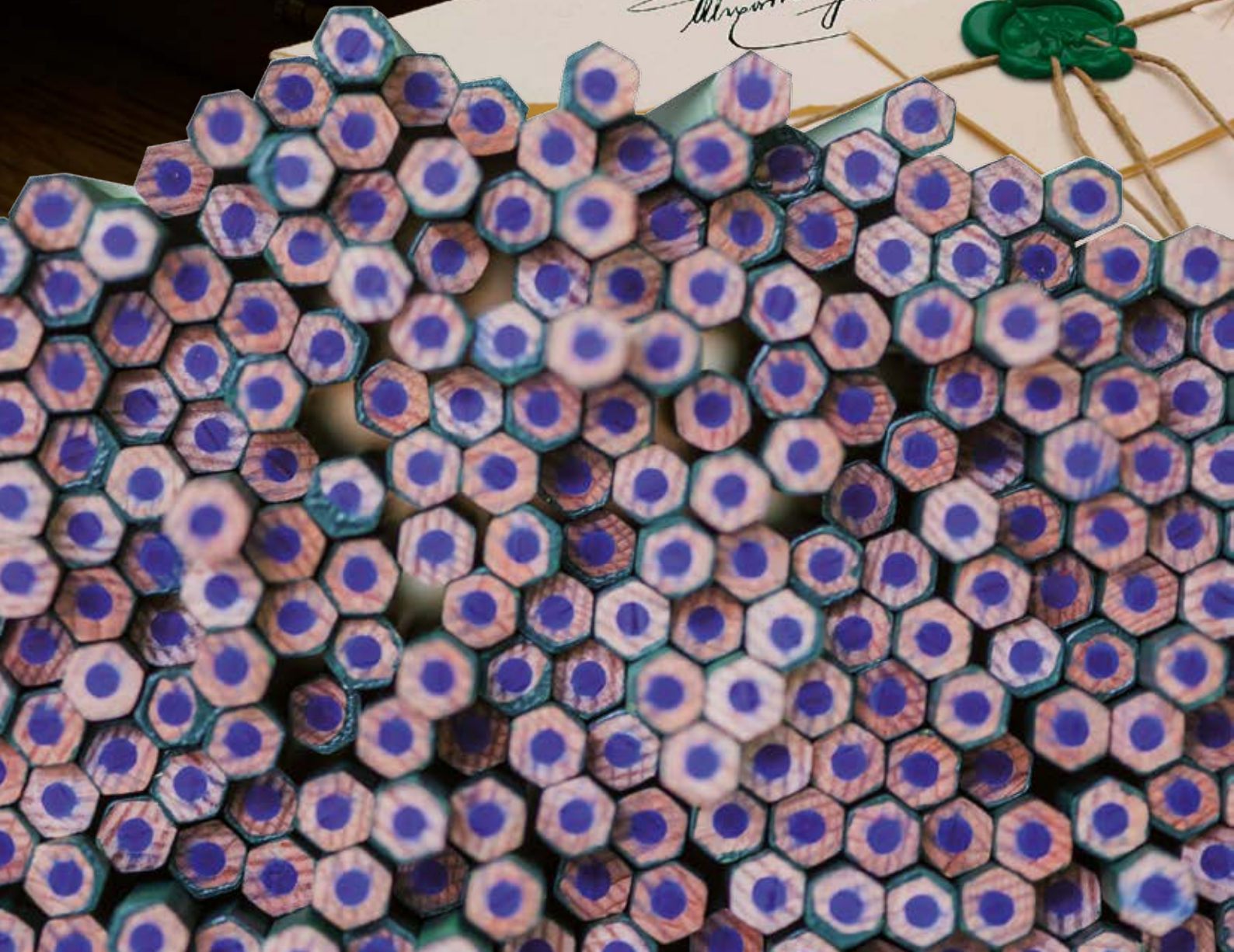
Text: Ingo Woelk



Ihre bei uns in Weimar
 erhaltene Photographie
 des in der Gärten
 Gartenzüger, blauen
 Weimar bei Nürnberg am 1. September 1916.



Margarete Graf von Jahres - Kasten



Less for more **instead** of more for less

Should we allow ourselves to be pulled into a price dumping quagmire by an industry in crisis? No way, say three companies that instead rely on the value of their products, and which have achieved important market positions. Faber-Castell, Gmund Papier, and Druckerei Waissraum demonstrate how quality and price leadership can be successfully combined in the ailing graphics and print industry: with specialist know-how, love for the products, transparency, and a great deal of creativity.

No, this long-established printing house has not lost any customers due to their unique orientation on refined printing technologies, explain Ralf and Sandra Beckmann, owners of Druckerei Waissraum, where also the Arnold magazine *metalligent* is printed. "The only customers we've lost are due to the greed-is-cool mentality and the online print shops. This would have happened regardless of our reorientation." Waissraum - the striking name replaced the name 'Druckerei Beckmann' - has gained many fans in Germany and all over Europe since 2008.

Paper manufacturer Gmund at the Tegernsee has supplied discerning customers worldwide with quality paper for decades. The ultimate public accolade came from Hollywood: Gmund Papier produced the golden Oscar envelopes.

Unlike the paper icon, the writing utensil aristocrats at Faber-Castell's are known to push their extremely vast product range. The pencil Dessin 2001 costs 69 cents, the propelling pencil Ambition Coco 119 euros. In both cases, the respective pen owners are proud to own a Faber-Castell product.

This balancing act between mass market and premium quality, without distorting the brand, is quite an achievement. In a shrinking graphics market and despite the gulosity for cheap materials, all of these companies have established themselves with a sophisticated product offering. Two key factors in this endeavor: recognize the Zeitgeist and act courageously.



Photo: Gmund

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Unique is in demand

While Faber-Castell and the Gmunder paper experts are reaping the benefits of many years of consistent branding, Druckhaus Waissraum has completely reinvented itself ten years ago. The financial and media crisis was eating away at the foundation of the tradition-rich all-round printing company in Steinbach-Hallenberg. The replaceable product offering was lacking demand. The time was ripe for Ralf Beckmann's secret passion: "I was destined to pursue the niche of refined printing technologies - 100%! I just knew it." Because the printing expert had recognized: in addition to some older quality-conscious customers, a growing number of younger people interested in craftsmanship had emerged. "Today, young people from the age of 25 increasingly use hand-crafted products and recognize and appreciate quality."



Modern embossing techniques facilitate the most sophisticated structures on paper. But you have to know how to do it and patiently work your way towards the optimum result. | Photo: Waissraum

While Faber-Castell also wants to convey value in the mass market, Waissraum and Gmund pursue their core recipe: a single, unique product is center stage. And this fact makes it valuable. Faber-Castell is also consistently guided by its brand values. Which includes offering only the best in all product categories and services. The writing experts want to reach a broad target group with their assortment and be a creative companion throughout life. The idea is that a child who loves the quality of the school products will continue to be true to the Faber-Castell brand as an adult.



The Gmund wood collection: color, gloss, texture, and an authentic grain. | Photo: Gmund



Quality sells

In addition to some older quality-conscious customers, a growing younger audience interested in craftsmanship has emerged



An exceptional status attained with craftsmanship and selected materials: the luxurious 'Pen of the Year' - here the 2016 edition, designed with Chinese lacquer art - has been the highlight of the Collection Graf by Faber-Castell since 2003. | Photo: Faber-Castell



The development and customer retention process is on a different course in the very competitive print shop sector, as Sandra Beckmann reports: "Due to the increasing digitization and flooding of the market with cheap standard products, the last few years have seen a new and great yearning for quality craftsmanship and a desire to experience the real thing." And an increasing number of customers are demanding transparency in terms of the product's history.

Weissraum individually transfers the sensory particularities of the customer product to the paper surface. This can be achieved by print-processing metals, plastics, or woods. This is where the idea came from to develop a business card made of real wood for a carpenter, allowing his customer to feel and smell the final product from the start. "A jeweler who displays his logo with gold or silver foil or glitter varnish immediately conveys how wonderful his products are," Beckmann explains.

The love for every single paper roll produced is also tangible in the production at Gmund. The assortment of the papermaker comprises over 100,000 paper creations, and their vast variety of colors makes rainbows look trivial: mellifluous to neon-bright papers with a wide variety of textures. And these may result by admixing unusual materials such as straw and beer.

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Mass and class come together

A paradox? The customers desire for high-quality products leads to a convergence of individualism and mass production. There are new win-win sales strategies that break open the boundaries between mass-produced products and exclusive brands. And that's not only the case with H&M peddling Lagerfeld collections. In 2016, even Faber-Castell came out with a limited edition "Karlbox" with 350 painting and drawing tools (price 2500 euros).

On the other hand, the cooperation between Gmund and the online print shop 'Onlineprinters' is very solid, yet also exceptional in the industry – with 600,000 customers a heavyweight among online print shops, standing for standardized, affordable mass production in communications. The paper individualists from Gmund are now supplying them with an exclusive creation of papers named after style-defining artistic periods such as "Renaissance" or "Rococo". Office equipment such as business cards and letterheads are printed with this.

Both business partners are targeting new groups: Gmund is heading towards the mass market, while Onlineprinters is aiming for premium paper. Although Gmund sales manager Axel Schreiner does not want to call it by that name, because the Gmund philosophy is clear: "As a supplier of high-quality communication papers, we focus on our quality standards, which define the company, the brand, and the products. The benchmark is our own claim. There are no external categories such as mass or premium market." And this is how customers know: using Gmund products can lead to an increase in value and thus demonstrable profit.

Some showtime required!

Nowadays, "handcrafted" means letting the customer participate in the product development, unlike anonymous mass production. "Simply being privy to the genesis of the products makes them special," explains Beckmann. Customers want something special and lasting. "As used to be the case, many advertising agencies care about showing their apprentices how a print shop works and that the printing process doesn't just end by the transfer of data."

Weissraum allows glimpses into its production, while Faber-Castell and Gmund are true professionals when it comes to catering to visitors. Guided tours through Tegernsee's paper mill with its impressive machines, colorfulness, and novel smells are now part of routine tourist activities. Customer proximity is a building block for the brand, which Gmund has nurtured over many years. Customers can experience and perceive the product value directly. The fitting final statement comes from Ralf Beckmann, citing Aldo Gucci: "Good quality is remembered long after the price is forgotten."

Text: Ingo Woelk

Photo: Faber-Castell





Photo: Weissraum

"Good quality is remembered long after the price is forgotten."


Aldo Gucci



Photo: Gmund



Photo: Waldrich Coburg

A large, complex industrial machine, possibly a CNC lathe or mill, is shown in a factory setting. The machine is primarily white with black and red accents. It has a multi-level structure with a control panel on the upper level and a work area on the lower level. The background shows a large industrial building with a corrugated metal roof and structural beams. The floor is concrete. The text is overlaid in a large, bold, white font with a slight shadow effect.

**Nobody wants
to pay for looks...
but neither do
they want an
ugly machine!**



The design of a machine can also translate into improved ease of use. | 3D visualization: Tobias Brand

It used to be so simple. Machines had to work. That's it. It didn't matter what they looked like. This is not the case anymore. Today, machines have to be sexy. And there's a reason for that.

The design is one of the factors that can add value to capital goods. In the past, all that mattered is that the machine worked. Of course, this is still a requirement of industrial companies today when it comes to buying machinery. They want a machine that delivers on its promises. And such a promise is already made with the first impression.

Quality at first sight

The confidence in the machine's capabilities increases if the exterior has a certain appeal. Ulrich Wohlgemuth, until 2015 Professor of Investment Goods Design at the Institute of Industrial Design at Magdeburg-Stendal University is convinced that well-designed capital goods create win-win situations. In his opinion, a machine's higher usability yields higher practical value. But his sober assessment is: "Nobody wants to pay for looks." Despite of this, a machine must convey that it is a quality device.

Of course, he is fully aware that the external appearance may cover up internal shortcomings. The job of designing capital goods is always to further the practical value of a machine. They must be able to do what the exterior promises. Otherwise the customer ends up being disappointed, which can be detrimental to the manufacturer's image.

Milling can look good

Not surprisingly: Hubert Becker, Chairman of the Management Board of Maschinenbau Waldrich Coburg, is also convinced that design is a matter of course in mechanical engineering. In early 2017, his company received the German Design Award for a milling machine. This prize is awarded by the German Design Council, an important authority when it comes to brands and design.

Becker stipulates that a powerful and high-quality machine with a modern and ergonomic operating concept packaged in a very appealing design can win over just about any customer. In his opinion, the visual aspect also impacts the decision on whether a machine is purchased or not. And the design can also have a positive effect on the operator. "It's simply more enjoyable to work on a good-looking machine," he states.

Design leads the way

Michael Grimm heads the technology and training department at Arnold. The experienced design engineer also thinks that design is becoming more important: in the past, a gray box was acceptable. But nowadays customers want the machine to reflect their corporate design. But he also points out that there are still industrial customers who are not particularly concerned with the design. Despite it all: "Colors are more important today than in the early 1990s. And the quality of the surfaces is particularly important." Everyone wants a beautiful finish at the very least. And all of that at the lowest price possible. He collaborates with designers on a daily basis. But good design also requires good implementation. This is precisely the perfection that we seek at Arnold. Only then is the design tangible for customers.

Design saves money

Professor Wohlgemuth is sure that good design can even save costs. Even though, admittedly, this is difficult to put in numbers: in his opinion, savings can be achieved if all parties involved in the development of a machine have a vision of what it will look like right from the start. Such visions can yield early design drafts.



“Increasingly, people are physically removed from the actual production process.”



Prof. Ulrich Wohlgenuth | Photo: privat

“The job becomes easier if you have a clearly defined goal in mind,” Wohlgenuth explains. A visualized design makes the objective tangible. All parties involved in the development of a machine have an idea of what the result will look like. This is motivating. And, according to Wohlgenuth, it is precisely the reason why the product will be available quicker in the end. And the result will be better because everyone involved is more motivated.

Dapper production: nice-looking machine designs can be found in Arnold's production halls, such as the “Timesavers 42” deburring machine. It was even awarded the Red Dot Design Award 2016.

Design makes it easier

Wohlgenuth notes another advantage of designs that are well executed and, above all, well planned. And to his knowledge, this point is hardly argued by designers: design can be used to reduce the number of parts needed for a machine. This reduces costs during production. Another possible consequence of good design occurs when clever mounting is already considered during the development phase. If parts are hooked in instead of screwed on, for example, assembly is much faster.

Wohlgenuth also claims to know what the future holds in store in terms of designing capital goods. Increasingly, people are removed from the actual production process. In the past, they had to work in noisy and dusty conditions and close to the machine's oil. So back then, it was easy to discern if there was a problem. But not so today. People now interact with machines via digital data and screens. “The way the interaction is designed can facilitate communication between man and machine,” he explains.



Photo: Dominik Jacky



Whether ugly or good looking - machines are a thing of the past! At least that's how leading industrial designers imagine the future: UFO-like drones fly to where they are needed and produce the desired product on the spot. | Photo: Design Tech

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Design makes successful

In the age of Industry 4.0, communication between man and machine will continue to change, according to Wohlgemuth. Interactions between machines will increase, and direct contact between humans and machines will decrease.

And the design will have to do its part. The rise in automation brings about the inherent trepidation that machines and processes will take on a life of their own. "Good design makes processes clearer and machines more likable," the design expert explains. He is convinced that the success of mechanical engineers in the future also rides on how they approach the issue of human-machine communication. The design of the product and the way we interact can markedly foster this issue.

But maybe machines will look very different in the future. The Design Tech industrial design firm is also working on this issue. They envision tool drones replacing conventional machine parks. Supposedly this will uproot the entire manufacturing process. The drones would automatically dock to machinery or workpieces and autonomously machine the workpieces.

Some may think this is pure science fiction. But Jürgen R. Schmid from Design Tech is convinced that the future will be without conventional machinery, and that only tool drones will be working in production halls. Brave new world? It remains to be seen.

Text: Dr. Frauke Weber

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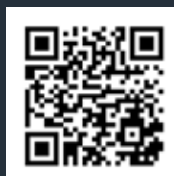
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ARNOLD

Game changer blockchain – processes made affordable

Have you ever heard of blockchain? Wasn't there something? Stolen Bitcoins in the millions, arms purchases in the Darknet, extortion for the release of hijacked data ... It's all true - yet completely wrong. Because the technology used by these sinister villains could become the next revolution not only in the financial world, but also in industry and logistics. And forget about currencies, those are only secondary.

Two things make blockchain technologies particularly interesting: They are open to anyone, and whatever information has been added becomes unchangeable. After verification, the information is immediately stored locally on the servers of all involved parties. Which means it is now available in identical form to all participants. Speaking of participants: a blockchain network can be public, or it may be created by a closed group or even just two individuals.

Nodes are simply better

Instead of traditional databases, transactions are transferred over a network of nodes. The nodes agree on the current state of all transactions within the network. Every new transaction is checked by the entire network for correctness. The underlying algorithm is called consensus building. Once the nodes have come to an agreement, the result is distributed throughout the network and stored in all nodes.

It is precisely this distribution that makes the technology so secure against manipulation, because all nodes would have to be attacked simultaneously. And, incidentally, no harm is done if an individual node fails. The other nodes can handle this, as all of them contain the identical information. This makes the system

highly available, which is an important aspect in industrial manufacturing.

Spare part traveling by blockchain

One of the many potential industrial applications offered by this technology is described by Konstantin Graf of the innovation and technology consultancy Altran in the *Produktion* magazine. Thanks to additive manufacturing processes, above all spare parts will increasingly be manufactured where they are needed. Only the 3D data for printing will be sent. But whoever is in possession of those could print as many parts as they wanted.

Graf: "Blockchain can be used to store certified transactions, which are digitally signed and cannot be disputed and falsified inconspicuously at a later point in time. The technology thus enables verification and transparent control of various business processes. For example, the production of a single component, submission and acceptance of spare parts orders, or authorization to access a specific CAD file (Blueprint)." The first

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Blockchain in summary

A blockchain is a distributed data structure which stores transactions transparently, chronologically, and unchangeably on a network.

Properties

- Management through the network instead of a central authority
- Unchangeable transaction history through cryptographic principles

Potentials

- Transaction processing and verification without intermediaries
- Risk reduction through data and process integrity
- Cost reduction by bypassing intermediary services
- Automation through smart contracts
- New governance through process innovation
- Creation of cross-industry ecosystems

...

concrete applications are already being implemented by the "Secure Additive Manufacturing Platform" forum.

SMEs are checking in

Another example of logistics is currently provided by IBM and the world's largest container shipping company Maersk. They are developing a blockchain-based process to coordinate and track millions of containers worldwide. It's a step towards complete digitization of the entire supply chain. In addition, IBM is developing and hosting a new blockchain platform for the European consortium Digital Trade Chain. Its purpose is to support SMEs in particular, to carry out commercial transactions in Germany and abroad. Launch date: at the end of 2017.

And vehicle manufacturer Daimler is considering using blockchain for production and sales. Previously, a test was undertaken together with the Landesbank Baden-Württemberg to place a promissory note using the blockchain technology, from initiation through allocation to the conclusion of the contract.

Blockchain knows the price

Nobody doubts that the Internet of Things (IoT) will be a certainty. Niklas Nikolajsen is considered a "blockchain guru." The co-founder of Bitcoin Suisse AG thinks that the enormous data flows between machines are almost inevitably linked to payment transactions, for example for the billing of produced parts. "This means that cryptocurrencies will be inevitable, and thus also the blockchain technology," says Nikolajsen on *heise online*.

But it will likely take some time until bitcoins or other artificial currencies replace the euro in our pockets. "It only makes sense if you want to quickly transfer large sums of money to countries with other currencies, which today is typically carried out by Western Union in an expensive and slow fashion," Professor Wolfgang Prinz from the Fraunhofer Institute for Applied Information Technology FIT is convinced (see the interview below). But, who knows: in crisis-hit countries like Venezuela, Bitcoin has emerged as the most important parallel currency.

Text: Michael Pyper

$$1+x+y+2a+21$$

$$\lim_{h \rightarrow 0} h = 0$$

$$x=0 \cdot xn$$

$$2+\dots+2a+\dots+a$$

$$\frac{(1+x+y+2a)-(3a+3g+x)}{1+x+y+2a+21}$$

$$1+x+y+2a+21$$

$$2+\dots+2a+\dots+a$$

$$1+x+y+2a+21$$

$$\frac{(1+x+y+2a)-(3a+3g+x)}{1+x+y+2a+21}$$

$$2+\dots+2a+\dots+a$$

$$1+x+y+2a+21$$

$$\lim_{h \rightarrow 0} h = 0$$

$$2+\dots+2a+\dots+a$$

Prof. Prinz: "Are we blockchain- relevant?"

Blockchain, Bitcoin, cryptocurrencies - that's just for nerds and criminals! Not true, because the technology behind it has what it takes to really stir up industrial processes. Observe and slowly work your way into it with small projects, recommends Prof. Wolfgang Prinz, deputy director of the Fraunhofer Institute for Applied

Information Technology FIT in the *metalligent* interview.

Prof. Prinz, why should SMEs concern themselves with blockchains and bitcoins?

First, a distinction must be made between Bitcoin and blockchain. Bitcoin is one of several cryptocurrencies and blockchain is the technology behind it. Bitcoin is merely using this technology. By now, there are many different approaches to using blockchains, for example "Fabric" from the Hyperledger community, which is supported by IBM. It requires much less processing power and is suitable for production chains.

Is this about electronic billing?

No, this has nothing to do with currencies. Companies in a supply chain will store things that are important to them in the blockchain, for example information about the product's origin, where and by whom it was shipped, and whether the correct temperature has been maintained. The advantage of a blockchain is that the data can be stored irreversibly, i.e., it can no longer be manipulated. In addition to that, a certain degree of automation can be achieved. These are the issues that almost all current proofs of concept deal with, which examine basic feasibility.

Isn't this too much to chew on for small SMEs?

Larger OEMs may soon require their suppliers to write information to a blockchain. Then IT must be up to the task. As a medium-sized company, the first question should be: How do I work with others, where do I have networks for which it is important to store data irreversibly? An example: High-quality goods require a certain degree of verification. A blockchain could then hold the measured values of the production of each device, the compliance with



Photo: Fraunhofer FIT

boundary conditions, and similar data. Every network subscriber can see whether the product meets all quality criteria. Today, this is usually done in some types of databases, which are vulnerable to falsification and the information of which is not available to all parties.

But dreadful stories about scams have also become a matter of course. This makes many SMEs nervous...

These scams almost never affect the blockchain technology, but instead are always based on stealing public and private keys. Which is the same as losing my debit card

and PIN - which would allow anyone to clear out my account. The keys must be kept safe and sound. Because once they are lost, accessing the data in the blockchain is no longer possible. There is no bank to help you get the key or data back. On the flipside however, there are no expenses for such service providers.

What's next, what particular steps should companies take ?

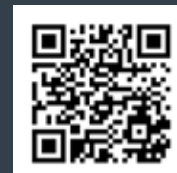
We are expecting the first applications for everyday operations already next year, or the year after. Which is why we recommend considering which of your company's processes may be blockchain-relevant. If a company thinks it might be useful to them because it can streamline business processes or allow it to offer new products, or if they are in a chain with a large customer dictating the use of the blockchain technology to their supply chain in the future, then it is time to start looking into it. We offer workshops in which we explain the technology. Then we discuss where in the company blockchain-relevant processes are, in order to be able to act and make decisions. First, it is best to develop a proof of concept or set aside a budget for a small research project.

Interview: Michael Pyper

Fraunhofer gets SMEs FIT for blockchain

The multidisciplinary facility of Fraunhofer-FIT designs, develops, and evaluates blockchain solutions. Renowned scientists transpose the current scientific findings in the still young field of research into practicable and integrative applications. This is implemented in the form of

- Workshops (one or more days)
- Applied research projects (from potential analysis to implementation)
- Industry-wide and cross-industry consortia
- New forms of governance and business models



www.fit.fraunhofer.de

"I'm doing it voluntarily"

At no charge, but not free

"Today is one of those brilliant days: time to volunteer," said then German Federal President Gauck on the occasion of awarding the Order of Merit to volunteers in December 2016. "Seemingly, this country is gushing with a sea of people who strive to make things better."

"Civic engagement" may more accurately describe that which 14 million volunteers in churches, clubs, educational institutions, hospitals, foundations, or through private initiatives do day in day out, year after year. Not always necessarily in order to make the country "better", but also because in the face of a (supposedly?) tight financial situation, the government is dodging some of its responsibilities and impliedly handing it over to the volunteering spirit of its citizens. Without civic engagement, vast parts of our social webbing would fall apart.



There is much to do...

Dr. Arthur Frischkopf, retired social scientist, is co-founder of the "Forum Generations Unna," among other things. For him, the demographic change represents one of the biggest challenges - and opportunities - of the future.

On the one hand, society is faced with completely new challenges and tasks due to increasing life expectancy, a shrinking workforce, and the growing proportion of migrant populations.

On the other hand, a large part of today's generation 55 years or older is in tip-top shape and spirit and unwilling to resort to watching TV, being a couch potato, or solving Sudoku riddles, but instead is looking to contribute its life and professional experience to meaningful and valuable activities.

But even the younger generation is increasingly willing to engage in civic activities.



... these three are hands on

Nora Müller, a qualified social pedagogue has been working as a mentor for apprentices since her retirement. Once a week, she works with a "hopeless" underachieving student, and had done so over the course of many years. Her mentee has now graduated, and the apprenticeship is next. "This is what I know from my early childhood, growing up in a Christian home: we help where help is needed. It's simply part of me - and it enriches my life when I work for the benefit of others."

Hermann Strahl, locksmith and graduate economist, is holding up what had been his credo from early youth: Solidarity means do something! While he used to be the "chief" of the Heinrich Böll Foundation professionally, the retiree is now passing on his disposition and vast experience as a "medicine man" of qualification measures to those interested in civic engagement. But that is just one of many things he is working on. His motto: Doing good feels good!



Nina Brauns-Bleyl is a marketing communication manager and refugee counselor. "Just talking about it doesn't change anything. I met a Syrian family in a welcome café and started giving them German lessons. By now they are quite independent - and would like nothing more than to adopt me. When you hear all these people tell their stories about escape, war, and loss, it becomes quite clear how unimportant and minor so many things are which we generally herald to be so enormously important in our comfort zone.

The bottom line: Doing good is important - and feels good.

Text and photos: Klaus Altevogt



Photo: Fire Department Herges-Hallenberg

Herges-Hallenberg volunteer fire department. Their personal commitment is a matter of honor for the emergency services. Many of them are Arnoldians. The company itself also supports the association. The Tanker 2009 pictured here got its swanky new look in the Arnold paint shops. Chairman Wolfgang Diller, who is also branch manager at Arnold, knows full well that "this work would be untenable without these people and the local sponsors." Many feel a strong bond to the association, which has existed since 1924, and aim to help quickly and without much fuss in the event of an emergency. This makes them proud."

Pay what you want!

At first glance, the "Forum" looks just like one of many bars in Berlin with retro charm. Worn-out seats from the flea market, old dark-brown wooden tables of all different sizes, dimmed lights and a white painted medicine cabinet with rollers, which is deliberately put out of place on the wall. But something is different here: paying.

Thursday evening, shortly before 8:00 pm. On a mild summer evening in August, people of all ages are sitting outside the "Forum" in Berlin's Prenzlauer Berg district. The guests keep checking their watches. Just a few more minutes: then they can drink as much wine as they want (or can) and pay as much as they want (or can) at the end of the night.



Respectful give and take

Mia is here with her friend. The two students got hold of one of the last free spots outside. "Since I moved here, I come by at least once a week," Mia recounts. And she confesses: "We take turns getting the wine. That way it's not so plain to see just how much we drink and how little we pay for it. We are poor students, after all." Mia smiles, a little embarrassed.

But the respectful give and take works well with other regular customers. Erik, a business management student and neighbor of the bar, says that he always pays more than owed. "I want to keep coming here and be welcomed. Moreover, my studies make it quite clear that a concept like this works only if the customers don't take advantage of it."

Two guys from the winery

It all started with a small wine shop opened in 1996 by Philippe Gross from Strasbourg and Jürgen Stumpf, son of a Franconian wine grower, in what was then a still unrenovated student neighborhood. It was named "Weinerei." The two met working for Caritas.

What brought the two 53-year-olds together was their passion for wine. Their project quickly turned from a wine shop to a place where more and more people showed up to enjoy a few glasses of wine. In the end, everyone paid at their own discretion. Less at the end of the month, more at the beginning of the month.

They liked this casual approach, which gave them an idea in the early 2000s: to start a wine bar where customers pay what they want. "Neither of us had a business degree, and we had no idea how this would work out financially. But somehow it did," Gross explains. He is sipping on a glass of wine - a French Chardonnay. During the day, before wine tasting, this wine can be had for two euros. It feels a bit like Paris, just with markedly more affordable prices.

Not rich, but happy

On average, guests pay only about five euros. Of course, this equitableness in the form of cheap prices from 10:00 am to 8:00 pm and wine tasting from 8:00 pm, is sometimes taken advantage of. Especially large groups of tourists frequently take it too far. They visit the bar solely to drink as much as possible and pay as little as possible. And the next day they leave Berlin again, so there is no fertile ground for neighborly fairness. "We do not give our customers recommended prices, but we do expect respect when it comes to paying. If we think the amount is too low, we will mention it to them," Gross says.

Naturally, the profit margin is significantly lower with this unconventional business model compared to regular bars. But Gross and Stumpf are also no ordinary business men. They are not in it to get rich. Rather, their goal is simply to be free. Even if their concept is not a goldmine, they are able to combine personal independence and their passion for wine quite well - with a business model that is affordable to the customers and still works.

Text and photo: Eva Müller-Foell and Nik Afanasjew

Recommended reading

The Voices of Marrakesh

Elias Canetti, Nobel Prize winner for literature, reports in his travel notes on a completely different approach to pricing.

"In countries with moral standards for prices, i.e., with fixed prices, it is quite easy to buy something. Any simpleton can find what he needs, and any knucklehead who can read will avoid being fooled." Canetti accompanied a film team to Morocco in 1954. The "Pearl of the South", as Marrakech is also known, has swooned him with its colorful markets, oriental smells, and the ubiquitous babble of voices. On his forays, the Nobel laureate repeatedly visited the markets and was introduced to an entirely different perspective on prices and values than what we are used to in our no-nonsense and pragmatic world. Think about the fact that, in German, the word "handeln" (trade) is part of the word "verhandeln" (negotiate). Canetti goes on:

...



...

"In the bazaars, the initial price is an enigmatic riddle. Nobody knows it in advance, not even the merchant, because there are always four prices. Each price refers to a different situation, a different buyer, a different time of day, and a different day of the week. There are prices for individual items and prices when two or more are purchased. There are prices for foreigners who are in the city only for the day, and for foreigners who have been living in the city for three weeks. There are prices for the poor and prices for the rich. And of course the prices for the poor are highest. Seemingly, there are more price variations than there are different people.

But that is only the beginning of a complicated riddle, the outcome of which is not known to anyone. It has been said that it should be possible to come down to about a third of the original price. But that is merely a rough estimate and one of those generalities with which people who are either unwilling or unable to embark on the intricacies of this age-old process are dealt with.

The back and forth negotiations are supposed to take a small eternity. The merchants delight in this process. Arguments that appeal to the yieldingness of the other party are supposed to be far-fetched, convoluted, emphatic, and arousing. You can be dignified or eloquent, or ideally both. Dignity on either side demonstrates that the purchase or sale is not imperative. Persuasiveness softens the determination of the opponent. Some arguments are nothing but mockery, while hurtful to others. Anything must be attempted before giving in. Even when the time to yield has come, this has to happen unexpectedly and suddenly, so as to confuse the opponent and get a glimpse of his true nature. Some disarm by arrogance, others by charm. Wizardry is allowed, but wavering attention is inconceivable.

Elias Canetti: *The Voices of Marrakesh*
Hanser Verlag, 2014, first published in 1967



BY THE WAY



Photo: Klaus Altevogt

Since 1877 100% price, 100% value

We are in Portugal. The train from Porto to Lisbon leaves from the Campanhã train station, crosses the Douro river and stops in Vila Nova de Gaia, the sister city, in just a few minutes. Since 1877.

On November 4, 1877, "Maria Pia" was inaugurated in the presence of King Luis I and Queen Maria Pia: the first railway bridge over the Douro, designed and built under the auspices of the "Eiffel Constructions Metalliques". The design of this bold arched bridge with a span of 352 meters and an average height of 61 meters had beat out other offers because it was cheaper and also technically revolutionary - and thirdly because Gustave Eiffel's price supposedly included a one-hundred year warranty.

The bridge was closed to traffic in 1991: still in good condition, but no longer up to the demands of modern technology. Next to it is its replacement: the São João bridge.

Up until then, many Portuens after 1978 would first drive by car to the other side of the river to the Vila Nova de Gaia train station and get on the train to Lisbon there. Why? The 100-year warranty for the "Maria Pia" had expired!

That's how the story goes in Porto. Could it be true? Unfortunately, I cannot guarantee that ...

Text: Klaus Altevogt

Imprint

PUBLISHER:

Arnold AG, Industriestraße 6–10, 61381 Friedrichsdorf, Germany

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PRINT:

WAISSRAUM, www.waissraum.de

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ISSN 2367-2099

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