

OTTO

International edition

# profil

The magazine of OTTO-CHEMIE for trade, commerce and industry

6<sup>th</sup>

**BEHIND THE SCENES.**

The secrets of companies' successes  
beyond their products.

**UNITED AGAINST MOULD.**

Expert panel on the causes and solutions from  
different perspectives.

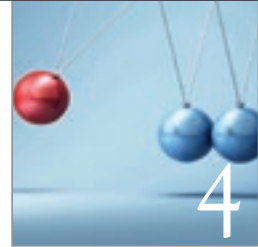
**OTTO CITY TOURS – LONDON.**

Capital of a global empire.



This 6<sup>th</sup> international edition of OTTOprofil presents a selection of articles from the German OTTOprofil editions 18–20.

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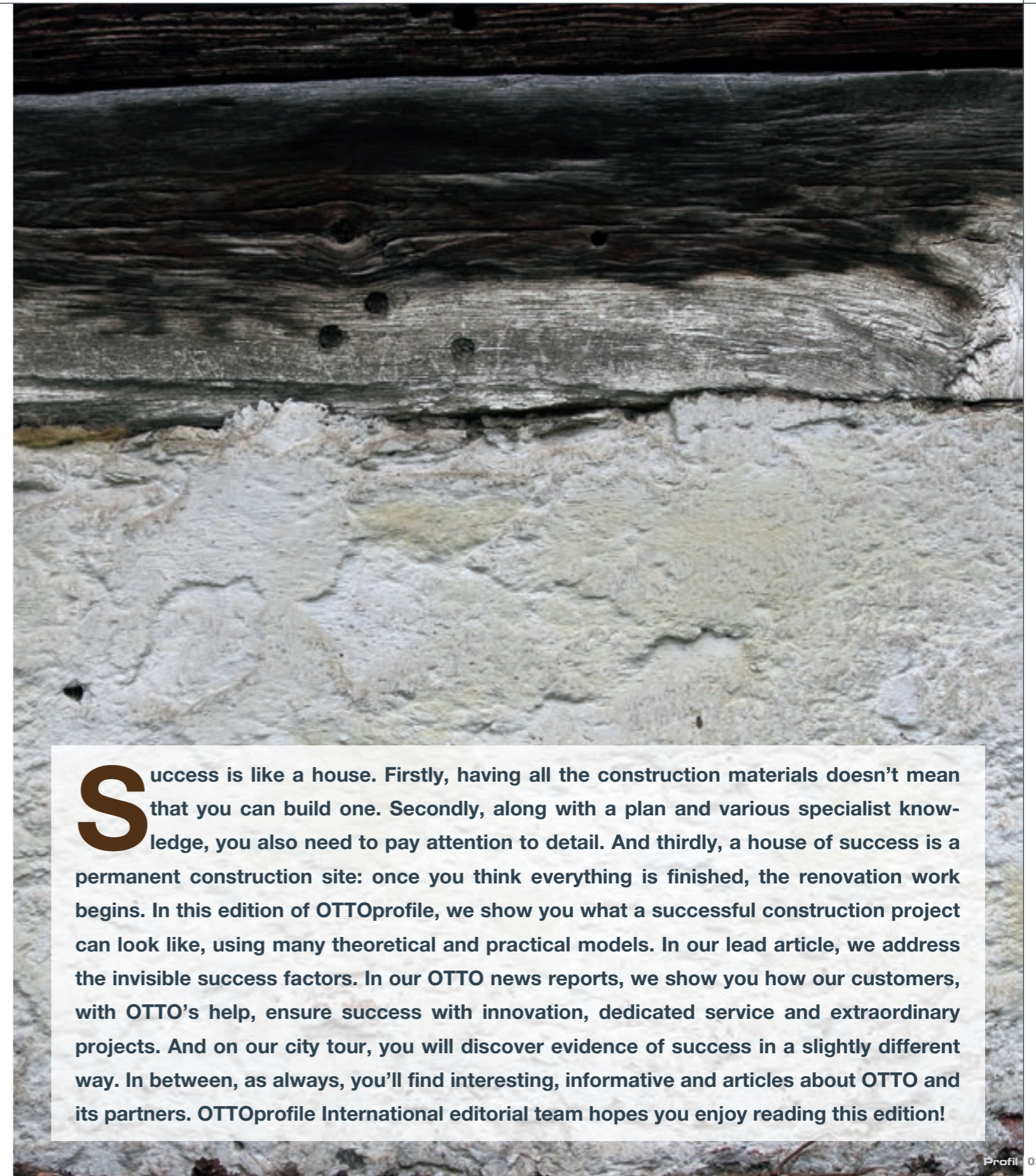
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## The house of success – more than bricks and mortar.



**S**uccess is like a house. Firstly, having all the construction materials doesn't mean that you can build one. Secondly, along with a plan and various specialist knowledge, you also need to pay attention to detail. And thirdly, a house of success is a permanent construction site: once you think everything is finished, the renovation work begins. In this edition of OTTOprofil, we show you what a successful construction project can look like, using many theoretical and practical models. In our lead article, we address the invisible success factors. In our OTTO news reports, we show you how our customers, with OTTO's help, ensure success with innovation, dedicated service and extraordinary projects. And on our city tour, you will discover evidence of success in a slightly different way. In between, as always, you'll find interesting, informative and articles about OTTO and its partners. OTTOprofil International editorial team hopes you enjoy reading this edition!





THE SECRETS OF COMPANIES' SUCCESSES  
BEYOND THEIR PRODUCTS.

# Behind the scenes,

**H**igh-quality products are, without a doubt, one of the main criteria for success when taking a close look at a successful company. But the product quality is far from the only crucial success factor. If you analyse successful companies and take a step back to observe

the general corporate purpose at a distance, you will quickly identify why: only the companies that solve customers' problems or satisfy their customers' needs are generally able to survive on the market. The products are only a means to that purpose – along with many other factors.





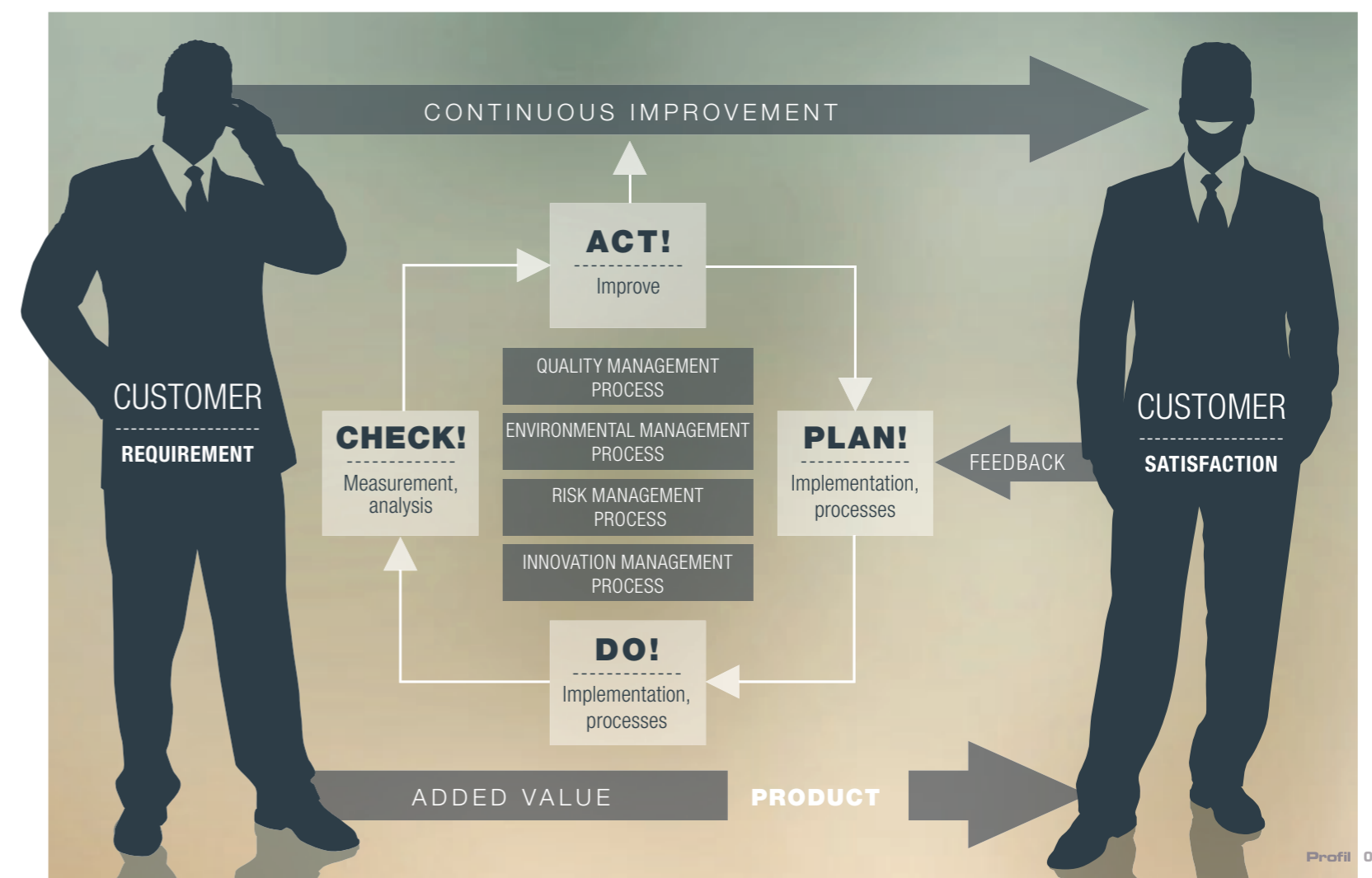


### Customer focus as a management motto.

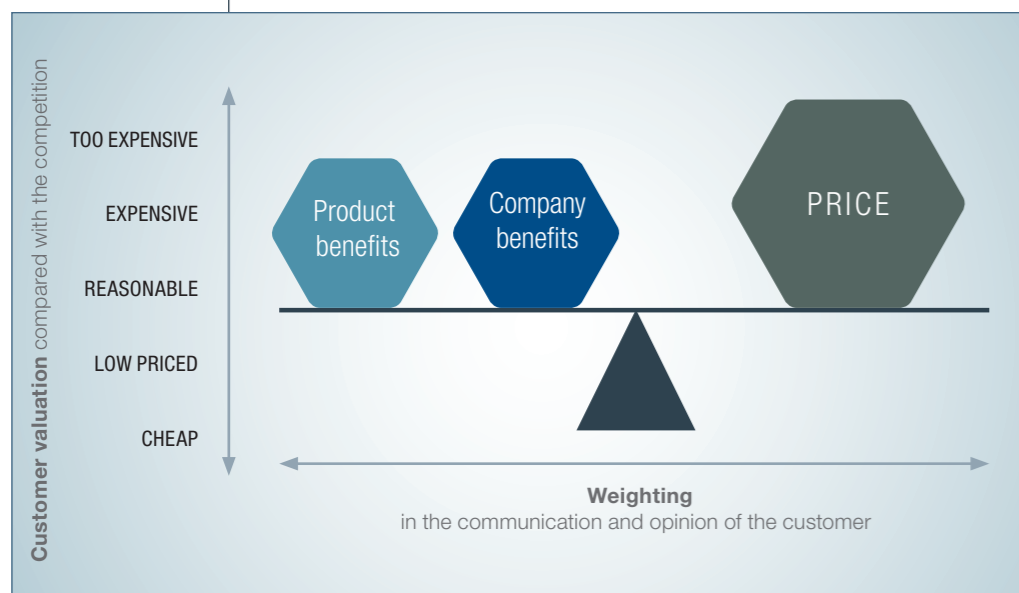
In addition to expectations for the product, every customer has requirements that the product has to meet and therefore expectations of the company. Initially, they need to know which product they require for their task; then they need to be able to use or operate it correctly; and finally they want to have this product available when they need it. For a company that thinks, plans and acts with a customer focus, this has specific consequences on purchasing and production planning, warehouse infrastructure, supply logistics, setting up and maintaining a network of retailers or distributors, and advising and providing customers with information. The advent of the Internet has meant that many newly founded distribution companies, for example, have had to learn through bitter experience that it is not enough to offer inexpensive products, but that consultation, availability and swift delivery are also key. However, customer focus also means that the product itself poses no risks and always corresponds to current market expectations. If at all avoidable, it must have no negative impact on health or the environment and it must comply with the latest legislation, regulations and standards.

### Listening to customers.

To meet all these expectations, which are continually changing, requires a customer-oriented management system that incorporates each of the company's divisions and processes, and covers every single member of staff. In simple terms, this continuously records and analyses the customers' needs and requirements and enables a company to react accordingly or even to anticipate these when developing or improving its products and services. Besides satisfaction surveys and integrated complaint systems, this includes a constant dialogue with customers and, above all, that everyone in contact with customers is ready to listen to their concerns. At the same time, changes in technology, society and the respective industry should of course be embraced and implemented in product and service innovations to remain in pole position for customers and to develop their position with new customers.







### Value and price in balance.

Needless to say, an integrated customer-oriented management also entails additional costs that other providers without this kind of system will save. This again results in higher prices when realistically calculating the costs of these products and makes these products less attractive at first glance in the market. Those who are only looking for a low price will often pass by a customer-focused provider. To avoid this dilemma, the customer should learn what added value they are buying with the products. This occurs as a result of experiencing the service itself or – even if customers cannot

experience it directly – as a result of relevant information. When making a purchasing decision, a customer will generally consider several factors. Not only do they compare the prices of different providers, they also set the price against the value they receive with the purchase. The value, in turn, arises first from the product features and then from the company characteristics. If the company benefits are not adequately communicated, then the product loses its value in the eyes of the customer and the price – particularly when compared with cheaper competitive products – appears too high.

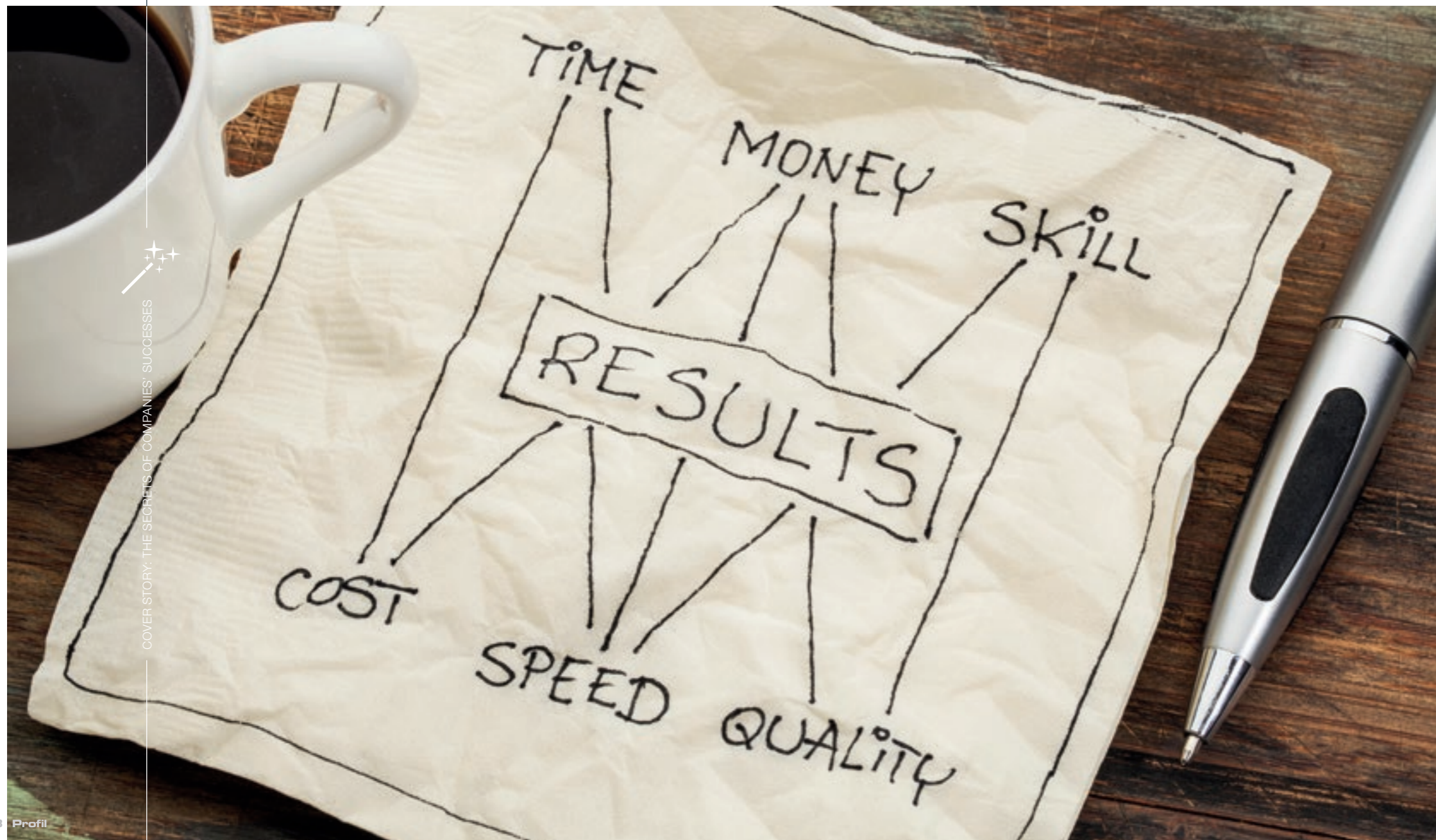
### Making hidden benefits measurable.

The problem in weighing up different parameters: whilst the price is a fixed parameter, benefits created by the product and company are highly individual and are difficult at first sight to express in measurable indicators. To properly assess the actual value, it first needs to be converted into monetary terms. This is where questions such as the following help: 'What costs and cost risks am I saving by purchasing this product and the company services?'. When investigating new suppliers, professional industrial businesses have long considered more than just the price and product features; they also consider so-called soft factors to systematically avoid cost risks at a later date. The individual weighting of the company's features also has a part when assessing value. If certain features are unimportant to me as a customer, then they represent no value. Being a German manufacturer or having a long company tradition do not necessarily influence the valuation, although many customers 'invest' confidence in a supplier. Communicating specific measurable and non-measurable benefits changes the perception of value once again and therefore the assessment of, or decision to use, a product or its supplier. If specific products and suppliers have emerged over time as being particularly valuable to a customer, then experience and custom contribute to increasing customer retention. This effect can be observed particularly with established brands. It is at this point that a company's efforts are converted into systematic customer focus.

### Customer focus modifies structures.

A good example of how consistent customer focus at the management level can even modify the organisational structures of a company is the Technical Application Development department at OTTO. Usually, a company's development and customer service departments are strictly separate because this does not conform to the 'normal' internal production process. OTTO, however, has combined development and application consultation in one department. Background: Despite a detailed information system both in hard copy and on the Internet, processors there still continue to have specific questions. To answer these questions as quickly as possible whilst also solving urgent customer problems, OTTO set up a telephone hotline. Three technically experienced members of staff provide information eight hours a day, on matters such as processing properties, material compatibility, the preparation of adhesive areas or other technical queries. The fact that these staff members are assigned to the development department for organisational purposes means that they can quickly perform individual tests, if applicable, or get to the bottom of complaints. Another advantage of the telephone hotline being in their own department is that the development department learns directly where there is a need for new products or product features and can react accordingly with new developments. Problems of understanding or gaps in knowledge in relation to processing are passed on by the development department as suggestions for improvement to colleagues who handle training or prepare the information materials. This is just one of many examples of how customer focus at OTTO weaves through all the company processes and divisions. ■

Telephone hotline for technical queries: +49 (0)8684 908





The Kult store in The Hague.

## GLASS BLOCKS IN A MODULAR CONSTRUCTION SYSTEM.

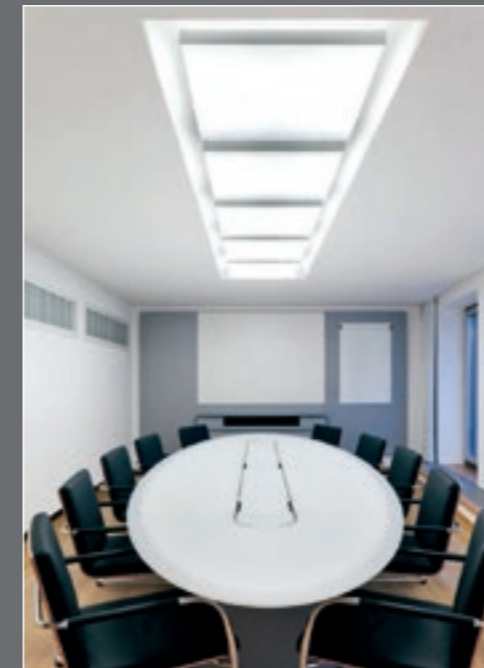


The system created by STECKfix is so simple, it's genius: glass bricks are joined to each other by mounting with a simple clip-on and attached to flat vertical sections – entirely without grout. Then sealed with OTTOSEAL® S 28, thereby creating interesting facades and attractive room partitions. OTTO's specialist sealant completes the powerful bond. It was tested specifically with the STECKfix system and demonstrated a multitude of benefits: the material is extremely resilient and weather-resistant, and its effective thermal insulation reduces mould formation and condensation. Two sealing surfaces are sealed, internally and externally of the glass brick wall, which means it also protects against frost and corrosion. The small joint dimension (3 mm) increases the aesthetic value and the transparency of the wall. The latest project with STECKfix is the fashion brand Kult's spectacular store in a shopping centre in The Hague. It was constructed by the conservatory and assembly company Wintuk GmbH from Dresden.



The lights of the RIDI Group.

## A SHINING EXAMPLE FROM SWABIA.



RIDI Leuchten GmbH is a medium-sized, family-run company in the second generation, which has been established on the technical lighting market for more than 60 years. Across Europe, more than 500 RIDI employees develop, produce and distribute technical lights and lighting systems. The company headquarters are in Jungingen in Swabia (Baden-Württemberg). The products are manufactured at the headquarters and in Zeuthen (Brandenburg), Rellingen (Schleswig-Holstein) and Lodz (Poland). RIDI also operates subsidiaries in Austria, Switzerland, France and Great Britain. Being represented across Europe enables RIDI to be local to all its customers.

The wide range of lighting applications is reflected by three product brands at RIDI. Where functionality, durability and lighting ergonomics are a priority – in other words, for the industrial sector and also for public buildings such as schools or public authorities – lights are sold under the brand name RIDI. Under the brand name Spectral, RIDI offers design-oriented lights with clear lines and innovative lighting technology. This architecturally designed brand promises exclusive lighting accents of the highest technical level. The RIDIhomelight brand com-

pletes the range with lights for a cosy atmosphere at home, in hotels or residential homes.

The commercial success of the RIDI Group is based on three pillars: on customer focus by being close to its customers, training, well-thought-out supply logistics and many other services; on consistent quality management in terms of its staff, materials and in production; and, finally, on continuous innovation. For example, its own development and production department for LEDs was set up at the headquarters in 2010. Its first highlight was the R-Tube in 2012, an LED illuminant developed and manufactured by RIDI that can be replaced as easily as conventional fluorescent tubes. By having its own LED assembly lines, RIDI is able to produce customised LED modules. Irrespective of suppliers, the company can then react quickly to the growing requirements of this still young market. The flexible fitting enables it to be perfectly adapted to the respective type of light and provide the best possible illumination. RIDI has found a partner in OTTO that not only follows very similar principles in its corporate philosophy, but also sets similarly high standards on the quality of its products. It's no coincidence that

for the lights in the Norea and Eno series, the OTTO adhesives provide a strong join between the light cover panels and the frames.

Web tip [WWW.RIDI.DE](http://WWW.RIDI.DE)





A SPECIAL KIND OF PARTNERSHIP.

100 years

# Wacker

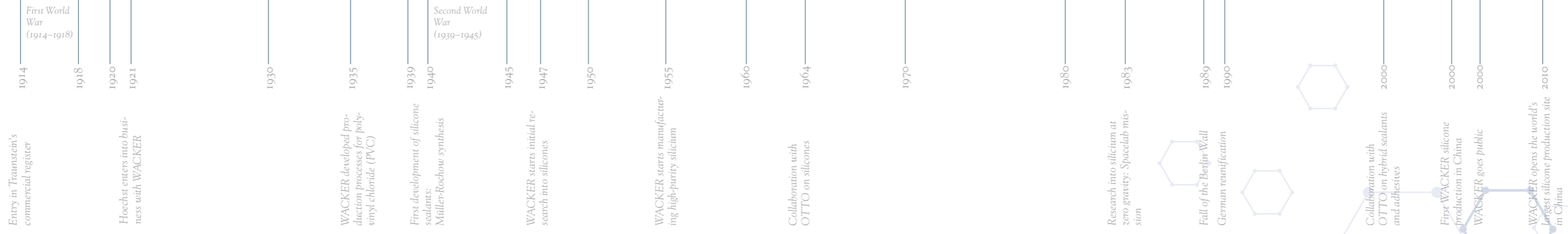
Chemie AG

On 13 October 1914, a new company was entered in the commercial register of the local court of Traunstein: 'Dr. Alexander WACKER, Gesellschaft für elektrochemische Industrie, KG'.

At that time, even the visionary founder didn't suspect that in the next 100 years a world-leading chemical company would develop. In 2014, Wacker Chemie AG celebrated its anniversary while boasting an enviable balance sheet: 16,000 employees on five continents, 25 production sites, 5,500 active patents and 2,400 patent applications, 53 sales offices in 28 countries, 21 technical centres. Turnover: nearly €4.5 billion. 2014 was also a special occasion for OTTO looking back on 50 years of collaboration with WACKER. Five decades in which both companies have benefited from a close partnership that goes far beyond a supplier-customer relationship.







### Through the storms of time.

Dr Alexander WACKER was already 68 years old when he founded his company at the Burghausen site. It was not the first time he had founded a company. The skilled cloth merchant and businessman had already worked with a partner to make Elektrizitäts AG (EAG) in Nuremberg one of the leading companies in the electricity industry. He then wanted to give it another try with an absolutely innovative business model in the young electrochemical industry. The First World War had nearly destroyed his life's dream. Instead of researching the possibilities of industrial acetylene chemistry, the chemist and technician was enlisted for military service. But then it emerged that acetone is an important product for wartime. You need it to produce hard rubber, which was used for insulation in submarines. For Alexander Wacker, this meant that in October 1915 he could start building an acetone factory in Burghausen. Four forms of government, two world wars, the Nazi regime in between, the threat of bombing by the Americans – none of this could stop WACKER's success, a success driven by its staff and management.



The WACKER plant built in Burghausen (1916).

### The miracle material silicone as a basis for collaboration.

OTTO first established contact with WACKER Chemie in 1964. One of its first employees and later managing director, Jürgen Lohre, came across the miracle material of silicone on a sales trip across Germany and considered it the sealant of the future. The managing director and owner at the time, Dr Nath, used his Rotary contacts to reach the management of WACKER Chemie, whereupon Lohre received an invitation from WACKER's plant director for a site visit. The foundation was laid for decades of close collaboration. OTTO was one of WACKER's first customers to be supplied with silicone raw materials for compounding.

### Collaboration for better quality.

From the 1980s onwards, the cooperation expanded to include so-called amine compounds. WACKER's expert Dr August Schiller, who for years has also presided over the DIN committee for sealants as chairman and who co-founded the Industrieverband Dichtstoffe (IVD – industrial association for sealants), has proven to be a competent companion and contact for OTTO. The IVD's quality requirements for industry and skilled trades are being pushed upwards. The partnership then deepened further in the field of neutral oxime-based silicones and alkoxy silicones. WACKER has become one of the key suppliers of raw materials of different silicone sealant systems. The technical support and consultation has been provided by Dr Herbert Söllradl and in the silicone domain by Dr Wolfram Schindler since 2013.



The premises of WACKER in 1950.

### Successful by sharing knowledge.

Besides collaborating in the field of formulation development, there continues to be close contact and exchange of expertise in analysing sealants (e.g. using chemical analysis, exchanging physical and chemical data). Wacker Chemie AG supports OTTO with its wide range of analytical options in the company's own laboratories.

Hybrid adhesives and sealants are another area in which WACKER and OTTO have been working closely together for several years in research and development on various projects. The first joint development results were successfully placed on the market in the form of new products.



Wacker Chemie AG today: a global corporation with Bavarian roots in Burghausen.

Burghausen an der Salzach: the town is nearly as big as Wacker Chemie AG.



At the beginning,

there was

# pitch.

**THE ANCIENT HISTORY OF ADHESION.** Most people today associate adhesives with chemistry and consider them to be a relative recent innovation, as with the industrial manufacture of chemical products. Yet this apparently modern joining technique at 180,000 years is as least as old as mechanical joining. Even 'Ötzi', the Stone Age man who died in the Ötztal Alps around 3340 BC and was first discovered as a glacial mummy in 1991, fixed the shafts of his wooden arrows to the flint tips using plant fibres and birch pitch. →





Stone Age people had already invented the adhesive and there is some evidence that this adhesive joining – aside from joining techniques using plant fibres – was used long before mechanical technologies. The all-purpose adhesive from nature's store cupboard?



Researchers even believe that the adhesives from that time were equal to today's all-purpose adhesives. We still don't know for sure how people extracted the birch pitch 'betulin' from the white bark. This specifically requires distillation processes in the absence of air and at temperatures of 340 to 400 degrees Celsius. However, researchers assume that the Stone Age chemists tightly rolled the bark and then covered it with ash in an earth pit and carbonised it. The black, sticky distillate would be left behind.

It seems that birch pitch was the prehistoric all-purpose adhesive per se: in 2001, specialists analysed old findings from excavations in the 1960s in Königsau (Saxony-Anhalt) in more detail and found traces of birch pitch in tools that were more than 80,000 years old. In southern Italy something even more spectacular was discovered in 2006: birch pitch was found on a stone tool that was at least 180,000 years old. Along with beeswax, which can also be used as an adhesive to a limited extent, birch pitch is also incidentally a 'hotmelt'. It just needs to be heated up to redissolve the bond.

The creativity of our ancestors was not just limited to birch pitch. In the Middle East, 6,500 years ago, the Mesopotamians used asphalt from natural oil sources for building. Early people also extracted adhesives based on animal protein. In 3,000 BC, Sumerians created hot glue from animal skins – and in 1,500 BC, the Egyptians used animal glues (e.g. out of fish offal) for veneer work. Evidence of how important adhesives were for life at that time is provided by a bar of hide glue, which was found in the grave of King Tutankhamen.

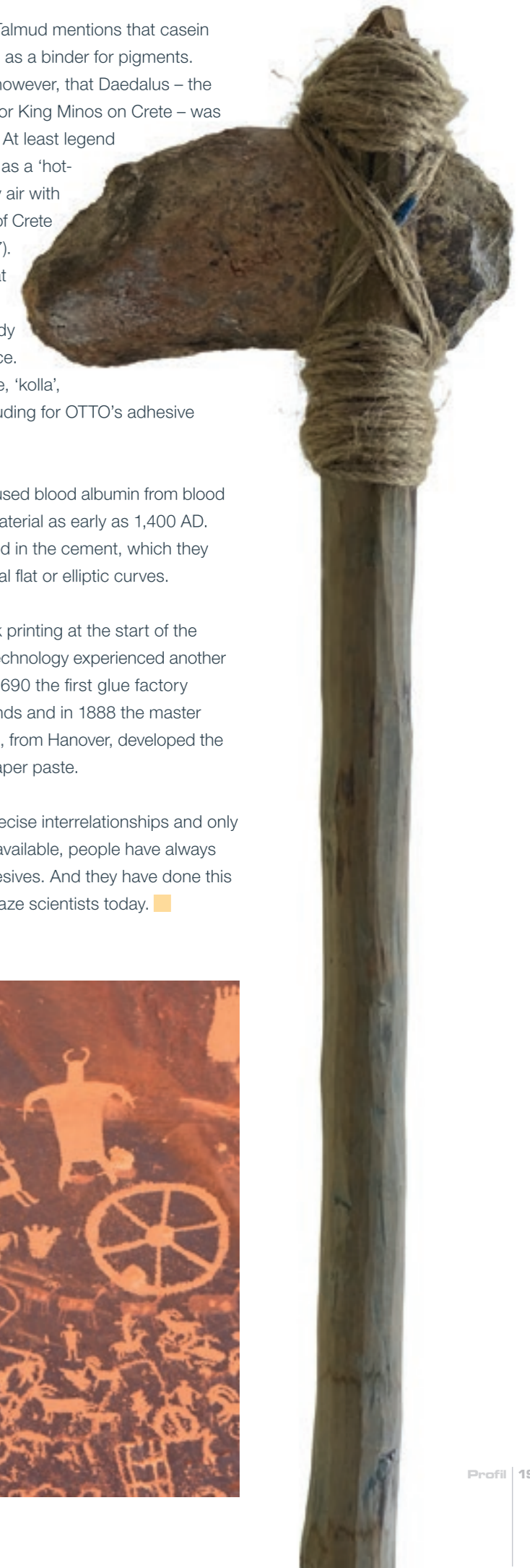
Other craftsmen in early times used albumins as a binder, a protein of animal origin that they extracted from animal blood or eggs. And the empire of Genghis Khan would hardly have been possible without ancient adhesives: the bows of his quick Asian horsemen were bonded using a glue made from boiled bones and cartilage.

In 500 BC, the Jewish Talmud mentions that casein was already being used as a binder for pigments. The Hellenes claimed, however, that Daedalus – the builder of the labyrinth for King Minos on Crete – was the inventor of the glue. At least legend has it that he used wax as a 'hot-melt' when escaping by air with his son from the island of Crete (see also pages 36 & 37). One thing is certain: that the profession of glue boiler ('kellepsos') already existed in ancient Greece. The Greek word for glue, 'kolla', is still used today – including for OTTO's adhesive products (OTTOCOLL).

In America, the Aztecs used blood albumin from blood to bond construction material as early as 1,400 AD. They mixed animal blood in the cement, which they used to build their typical flat or elliptic curves.

With the advent of book printing at the start of the modern era, adhesive technology experienced another upsurge until finally in 1690 the first glue factory opened in the Netherlands and in 1888 the master painter Ferdinand Sichel, from Hanover, developed the first ready-to-use wallpaper paste.

Without knowing the precise interrelationships and only using what nature had available, people have always known how to use adhesives. And they have done this with results that still amaze scientists today. ■





# A monument

to customer focus,

CONVERSION AND  
RENOVATION OF  
HOTEL SCHLOSS  
MÖNCHSTEIN.

## In the race against time and stone.

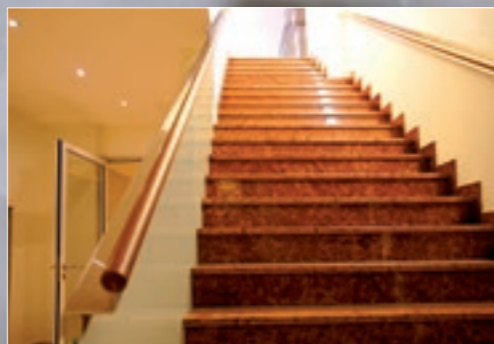
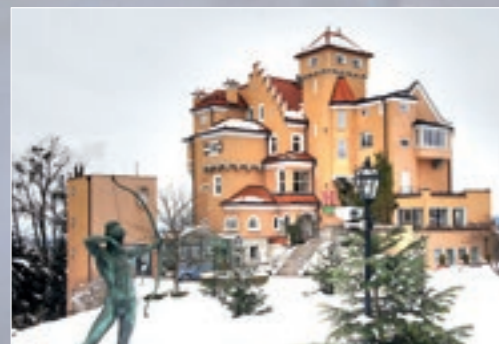
'Mr Steindl, can we do this?' The anxious question of the site manager, responsible for the conversion and renovation of Mönchstein castle hotel, was more than justified. It was raised at the start of an extraordinary physical effort and the perfect collaboration of the building owner, architect, site manager and Marmorwerk Steindl. Strictly speaking, the situation was hopeless: the renovation work was, as is often the case, delayed. One of the reasons was the rock subsurface of the castle. In the gompfolite, a conglomerate stone, underground passageways and shafts had been created to connect the hotel to a conference and wellness area. Ultimately, there was too little time left for the natural stone work. The opening date with firm bookings was fixed and could not be moved. It was also made more difficult by the construction crane having to be dismantled on time as a result of the exposed location on the Mönchsberg mountain for reasons of aircraft safety, which placed further obstructions in the path of site logistics. Wolfgang Steindl senior countered the site manager's question with another: 'Do you want an honest answer or a philosophical one? The honest: No, that's impossible. The philosophical: If it has to be, then we will find a solution.' To cut a long story short: Wolfgang Steindl found a solution. He organised a dedicated team that worked around the clock in a three-shift operation. Consequently, not only were the passageways and shafts shaped by the rocks and designed out of conglomerate repair mortar, more than 480 m<sup>2</sup> of Untersberg marble from its own marble plant were also supplied and laid. To complement this, OTTO contributed a colour-matched natural stone joint silicone – OTTOSEAL® S 70.

## Perfect reopening for a fairy-tale castle.

Around midnight before the official reopening, nearly everything was ready. But the road leading to the hotel still looked bad – not least because it had rained in the past few days. Yet using Untersberg decorative gravel, a by-product of marble production at Steindl's plant, and several helpers, who set about the final cleaning work, everything was completed before dawn. The discerning guests could arrive. And they only had eyes for the architectural innovations and the new finery in the hotel. The efforts that it took to reach this point remained hidden. Surrounded by castle grounds of more than 14,000 m<sup>2</sup>, directly on Mönchsberg mountain – with a magnificent panoramic view of Mozart's city of Salzburg – is arguably the most breathtaking city hotel in the world: Hotel Schloss Mönchstein. The estate, which was first mentioned in 1350 and which was converted into a castle hotel in 1948, is not only a culturally significant sight in Salzburg; it is also a romantic castle hotel with luxurious rooms and suites at the absolute peak of the Austrian hotel industry. The Austrian Hotel Association has also recognised this and awarded the five-star hotel the 'superior' distinction. The numerous sights of Salzburg can be clearly identified from the Mönchsberg lift (about a five-minute walk from the hotel). The hotel is an ideal starting point for cultural and corporate events. The 24 exclusive rooms and suites are individually and lovingly furnished – either in a Viennese workshop design or in the incomparable character of a castle.

## Island in the ocean of five-star hotels.

The careful attention to detail is reflected in the valuable antiques, exquisite materials and sophisticated interior design with the latest technology (free-of-charge WLAN, flat screens, etc.). The baths, fitted with precious Calacatta marble, are particularly exclusive. The hotel is a culinary gem with various terraces and restaurants and provides an exceptional setting for its guests and visitors to dine on first-class cuisine. Whether in the Schloss Mönchstein restaurant, in the romantic 'smallest restaurant in the world', in the listed Gothic salon or in the light-flooded Apollo orangery – the renowned chef de cuisine Markus Mayr and his team delight gourmets with refined Austrian dishes and international delicacies. In the exclusive 300 m<sup>2</sup> wellness oasis of Mönchstein Spa, discerning visitors will find a steam room, a Finnish sauna, Thalasso baths, a peaceful terrace, a quiet room and generous treatment rooms. An experienced team pampers both hotel and day guests with soothing massages and a wide range of beauty treatments. Even without its cosy, warm and open atmosphere, the Hotel Schloss Mönchstein would 'still' be a luxury hotel in a class of its own. Making sure that everything runs smoothly, and that even unexpected events have the perfect ending, is a well-coordinated team of people who have earned their own stars on top of the five stars awarded to the hotel. ■





Cooking becomes digital with the new Thermomix.

## REVOLUTION IN THE KITCHEN.

For more than half a century, the multifunctional food processor Thermomix from Vorwerk has delighted millions of owners around the globe. Now, Vorwerk has modernised the classic. Its innovative recipe chips, a touchscreen and its unique guided-cooking function mean that the new Thermomix makes cooking even easier and sets new standards. When the new Thermomix is operating, the lid locks automatically. The bigger stainless steel mixing bowl with 2.2-litre capacity is also new. Its powerful motor with speeds of up to 10,700 rpm makes the Thermomix the ideal partner in the kitchen. One bowl, one blade, 12 functions – and thousands of cooking and baking ideas with guaranteed success: not only can the Thermomix stir, mix, blend and crush, it can also cook, steam, weigh, grind, knead, whip, simmer and emulsify. All without the inconvenient dismantling and changing attachments, a real all-rounder. The recipe chips are digital cookbooks for the new Thermomix. Once inserted

in the device, all the recipes on the recipe chip are shown on the Thermomix display. Thermomix cooks conveniently and easily leaf through the recipes. If you find a favourite, the recipe can be prepared with ease using the step-by-step instructions of the guided cooking function. For this new development, the Wuppertal engineers have preset the time and temperature for each step. Thermomix cooks just follow the instructions on the display, add the ingredients and tap on the next step – the rest is completed by the new Thermomix. OTTO contributed the two-component adhesive Novasil® S44 SP 5349 and OTTOCURE S-CA 2160 to the digital Thermomix's new recipe for success.

Web Tip [HTTP://THERMOMIX.VORWERK.DE](http://thermomix.vorwerk.de)



Solar heat on trial.

## SUMMIT.

In the SpeedColl project, accelerated ageing test methods are being developed for thermal solar collectors. Working behind the scenes of this community project are the research and testing centre for solar power plants of the Institute of Thermodynamics and Thermal Engineering at the University of Stuttgart and the Fraunhofer Institute for Solar Energy Systems in Freiburg and project partners from industry such as OTTO.



The project consortium then met for a 'summit' at the Zugspitze, to assess the solar collectors that were exposed there after a two-year trial operation. The extreme weather conditions and the high UV radiation were reasons why the Zugspitze was selected as one of six exposure sites around the world for the test. As a result of operating in different environmental conditions such as extreme temperatures, UV radiation, high salt levels and humidity, solar collectors are the most hard-working components of a thermal solar power plant. To obtain evidence of the long-term resilience of solar collectors under different climate conditions, these influencing factors need to be reproduced in the laboratory using rapid testing methods. The quality of the products is of particular importance for the German industry to open up new markets. In the visual inspections of the products in the trial at the Zugspitze, scientists ascertained no significant changes to the series products. Even the absorber temperatures (collector temperatures) showed no significant changes in these extreme conditions after two years of exposure.

MUMUTH in Graz.

## LIGHT. DESIGN.

XAL GmbH, a Graz company, has used adhesives for about ten years in its light production. Up to now, it was almost exclusively for reasons of design that they used adhesive: because there are no screws or cover frames, the lights have a more puristic effect. Yet when developing a new exterior light, there was also a need to reduce the production time by minimising the pot life. An in-house workshop was the basis of the collaboration with OTTO, because OTTO provides its developing capacity at no cost so that its customers do not have to be satisfied with a standard solution. Together with its customer, OTTO developed the solution that best suited the customer, its materials, production and assembly process as well as its application technology.

Consequently, OTTO was able to offer a specialist product for XAL: OTTOCOLL® S 610. The high tensile stress value of the 2K silicone adhesive and sealant ensures the bond is very stable. Due to rapid hardening, bonded parts can be further processed very quickly. OTTO supported XAL from the development stage and manufacturing prototypes and processing test series to optimising its logistics and production. The STILA LED exterior light by XAL is available as standard as a surface-mounted and recessed light and is the product of this close collaboration and development work. The results are plain to see – in Graz. The House of Music and Music Theatre of the University of Music and Performing Arts Graz (MUMUTH for short) designed by the UN Studio, Amsterdam, demonstrates the fascinating effect of profile lighting installed horizontally on all levels. The STILA LED exterior lights in the RGB light colours means that virtually any lighting moods can be created.



Web Tip [WWW.XAL.COM](http://www.xal.com)





# CAPITAL OF A GLOBAL EMPIRE.

THE BRITISH ISLES HAVE ALWAYS MAINTAINED A CERTAIN DISTANCE TO THE REST OF EUROPE SINCE THE TIMES OF THE BRITISH EMPIRE. 'SPLENDID ISOLATION' DESCRIBES THE STANCE OF LARGELY STAYING ON THE SIDELINES WHEN IT COMES TO DISPUTES ON THE CONTINENT. IF YOU TAKE A LOOK AT THE CAPITAL CITY OF LONDON, HOWEVER, THIS STANCE DOES NOT APPLY AT ALL. NOT ONLY WAS LONDON THE CENTRE OF A GLOBAL EMPIRE, TODAY IT IS THE CAPITAL OF LIBERALISM, DIVERSITY, FINANCE, DESIGN TRENDS, HIGH CULTURE,

SUBCULTURE, MUSEUMS OF PAST ERAS AND THOSE DEDICATED TO CONTEMPORARY ART, AND ARCHITECTURE OF ALL ERAS. IT IS THE OLDEST EXISTING MONARCHY AND AT THE SAME TIME EUROPE'S OLDEST DEMOCRACY, AND NOT LEAST THE CAPITAL OF THE OLD AND NEW MONEYED ARISTOCRACY. A CITY THAT IS CONSTANTLY CHANGING AND YET REMAINS CONSTANT.





Finding OTTO on the Thames, according to the largest independent sealant supplier, County Construction Chemicals, is primarily due to the high quality requirements for new buildings and renovations. James Hurley, the director: 'County Construction Chemicals has been established in London's construction industry for a long time. As a result of the rapidly growing design and structural requirements in and around London, we have taught our customers to use the correct sealant. We take pride in only offering the best products. And OTTO fits in with this philosophy perfectly. We are so impressed by the colour palette that we have now designed a new showroom with it to attract new customers. Sealants produced by OTTO are visual products, which is why it's important to show them to our customers. Just look at the outside wall of our office!' In the city with the highest number of billionaires in the world – 72 people of this rare species list London as the address on their business cards – you don't have to compromise. Following in the footsteps of the Londoner by choice Oscar Wilde: 'I have the simplest tastes. I am always satisfied with the best.'



Design of the building facade by County Construction Chemical with original OTTO sealant samples.

Web tip [WWW.COUNTYCONCHEM.CO.UK](http://WWW.COUNTYCONCHEM.CO.UK)

### Room with a view: the top of the Shard.

Those following in OTTO's footsteps in London need a quick overview. 'Normal tourists' take tours on a double-decker bus or take a ride on the London Eye, a gigantic Ferris wheel. But at OTTO, we have set our sights higher, to enjoy an expensive pleasure and to view London from what is now the second tallest building in Europe. The Shard is in the district of Southwark, it is 310 metres high and was opened on 1 February 2013. Directly beneath the spire, there is a viewing gallery, beneath this are ten wickedly expensive

luxury apartments, an equally expensive five-star hotel owned by the Asian Shangri-La Hotels Group (*Shangri-La* means 'paradise'), restaurants, exhibition rooms, offices with conservatories and a retail area. The joint specialist Colin Hawkins used OTTOSEAL® S 18 in the swimming pool on the 52nd floor and OTTOSEAL® S 70 in all bar areas, the champagne bar and the hotel bathrooms. Marvel at the detailed architecture, but above all at the breathtaking view of city of London.



### Old facade, new heart.

The skilful manner in which London designers combine historical buildings and contemporary design possibilities can be seen by the Regent Street Block W4 project, our next stop on OTTO's architecture tour through London. From the outside, the buildings on Regent Street and New Burlington Road look as if they have been around since the time of Queen Victoria. The impression is not deceiving, but the old face of the building conceals two modern glass buildings with a curved facade to a green courtyard. The movement of the glass structure gives space at the top and bottom of the building, which nicely breaks up the distance to the surrounding development. The enormous glass roof used OTTOSEAL® S 81.





### Among researchers.

The next destination on our itinerary is the brand-new Francis Crick Institute. The centre of biomedical research and development was named after one of the three scientists that discovered the molecular structure of deoxyribonucleic acid (DNA) and received the Nobel Prize for medicine in 1962. It is located in the direct vicinity of the public transport hub Kings Cross station, and it is envisaged that from 2015, as the largest research centre of its kind, it will offer 250 scientists and 1,250 staff space for their important work. Above the cubic building structures, which house the laboratories and the institute's administration, floats a semicircular roof and gives the ensemble a distinct lightness from the outside and in. Does this perhaps emphasise the freedom of science? In any case, one of the innovative results of OTTO's research team was used in the laboratories: OTTOSEAL® S 70.



### A palace for football, the king of sports.

OK, last year there have been plenty of opportunities to worship football, the king of sports. But what die-hard fan would want to pass up the opportunity of seeing the Emirates Stadium, which belongs to the famous Arsenal Football Club, and following in OTTO's footsteps to boot? Arsenal FC is one of Britain's oldest clubs and was the first London football club to reach the final of the Champions League. Just for the name 'Emirates Stadium', the airline paid 100 million dollars, which not only covered the construction costs, but also made it possible to buy good players. Mesut Özil and Per Mertesacker are just as much a part of Arsenal today as the canon in its crest. That and the name of the club allude to the founding history. The founders were workers of Royal Arsenal, an armaments factory in south-east London. Part of the arsenal of the construction works for the new stadium included products by OTTO. In this case, OTTOSEAL® S 100 in flame red, the club colour. This was used to seal the joints between the glass panels outside the stadium.





### A London institution.

On this city tour, we wanted to avoid the London stereotypes as far as possible, but there is one we can't avoid – Harrods. For 15 years it was owned by Mohamed Al-Fayed, whose son Dodi had a close relationship with Lady Diana. Harrods lost its status as a supplier to the royal family as a result of a quarrel between the family and the former owner, but that has had no impact on its popularity. On the ground floor of the building, there is a memorial – to Diana and Dodi. Some may call it tacky but it touches countless fans every year because it expresses the love of a father towards what he believed to be the perfect couple. OTTO entered the building in the form of OTTOSEAL® S 70, which was used to join the tiles of the escalators. Perhaps this is not particularly spectacular given that this place is so steeped in history, but the quality reflects the company's reputation!



### Artist and duke.

Henry Moore was one of the most influential sculptors of the 20th century. His mostly abstract works are known in Germany not least because of the sculpture in the forecourt of the former German Chancellery in Bonn. As a professor of sculpture, Moore taught at institutes, including at Chelsea Art School, from 1932 to 1939. The Chelsea College of Art and Design no longer exists but Moore's name lives on. On the site of the former college, there is now a very exclusive residential building: Henry Moore Court. The district of Chelsea is a popular place for members of the royal family, politicians and the (new) rich from all over the world to live. So it is not surprising that the 15 apartments and two town houses are sold at obscenely high prices. Fitness facilities and a 24-hour concierge service come as standard in this price range.

Understandably, the quality of the expansion joints in the outside area are not left to chance. This is where OTTOSEAL® S 70 was used. Just around the corner, on Kings Road, the same sealant from OTTO was used again – in the luxury apartment block Cheyne Terrace with its 25 apartments, all with terraces and balconies, and of course a spa, fitness area, swimming pool and concierge. The residential project was developed for Gerald Cavendish Grosvenor, the sixth Duke of Westminster and, with an estimated net worth of 8.3 billion euros, the richest aristocrat of the United Kingdom. He will get over the sale of the apartments, because in London alone he owns 1.2 square kilometres of developed properties in the best locations.



Here we finish our slightly alternative tour of London. Those who have some time and money left over will find plenty of opportunities to spend both in Kings Road, one of the best shopping streets in the world. And for those who have previously missed out on the London described in the traditional guidebooks, simply follow the street eastbound. There you will find Buckingham Palace, the Queen's residence, and many other tourist attractions. ■



# OUTSTANDINGLY GREEN!

# OTTO TREND

Sometimes you lose sight of the wood for the 'green' trees with health and environmental protection, for instance. This field has produced a veritable green growth of building certifications and quality seals, which all have a sensible objective; yet the sheer quantity and many different assessment criteria of these make it easy to lose perspective.

Many construction products emit substances that could adversely impact health and the environment. Generally these substances pose no problem with brief contact. However, if people are exposed to various emissions for an extended period, they could cause problems such as the so-called sick building syndrome with various symptoms. The substances primarily suspected of causing this are volatile organic compounds (VOCs) – solvents, for example. The focus on VOC emissions from construction products plays an important part in many assessment criteria of the 'green' awards.

Testing and registering for each individual quality seal or building certification programme is ultimately also a question of economic implications. Another consideration is that the individual environmental labels are seldom relevant across Europe. Even if it entails significant expense: construction products from OTTO already comply with a multitude of the necessary requirements.

In addition to the 'green labels' where individual construction products are tested and distinguished, there are also certifications for the sustainability of entire buildings. In these programmes, the products themselves cannot be awarded these labels. Products that comply with the relevant criteria generally contribute to obtaining the respective building certification. The most sought-after awards today are sustainability labels for the new construction of office and administrative buildings and are now considered to be a key quality standard for investors. More than three quarters of the surveyed 267 architects in a survey at the end of 2013 by Heinze GmbH indicated that, in their opinion, building certification systems will increase in significance in the future.

At the same time, building owners and planners of new constructions and modernisations have become considerably more aware of this topic. 91% of the surveyed building owners now consider emissions from construction materials to be critical to very critical (source: 2nd market study 'Healthy living' conducted by Heinze GmbH; issue January 2014). As we now spend about 80% of our time inside, the emissions issue continues to increase in importance.

By providing this overview of 'green labels' and building certification programmes, we want to shed a little light on the darkness of this green jungle.



### The Blue Angel

CHARACTERISTICS:

- Oldest environmental label in the world with more than 12,000 tested products and services

SPECIFIC FEATURE: cannot be met for current sealants because of the fungicide restriction (award criteria RAL-ZU 123), no award criteria for OTTO adhesives



### EMICODE

CHARACTERISTICS:

- Originally from the flooring industry
- Has been established for 17 years in 15 countries with 89 members

SPECIFIC FEATURE: market monitoring as a result of annual random audits



### M1 – Emission Classification for Building Material

CHARACTERISTICS:

- Has been established for 19 years in Scandinavia
- Odour tests are also required in addition to emission tests

SPECIFIC FEATURE: disadvantage for small surfaces such as sealants due to the defined test parameters



### Indoor Air Comfort

CHARACTERISTICS:

- Label of the testing institute Eurofin
- Criteria are the strictest emission limits of the restrictions that are applicable (in some cases statutory) in Europe

SPECIFIC FEATURE: manufacturer audits and repeat tests



### eco-Institut label

CHARACTERISTICS:

- Label of the testing institute UL ECO
- Emission and ingredient analysis

SPECIFIC FEATURE: only established to date in the flooring and wall covering sector



### DGNB – Deutsche Gesellschaft für nachhaltiges Bauen e.V.

CHARACTERISTICS:

- Founded in 2007 and now more than 1,200 members
- Already more than 1,000 registered/certified projects
- Ecology, economy, sociocultural and functional aspects, technical quality, process quality and site quality are assessed

SPECIFIC FEATURE: due to the international version of the DGNB system, it cannot be applied to building projects in Germany



### LEED – Leadership in Energy & Environmental Design

CHARACTERISTICS:

- Has been established for 14 years
- Tests: property site, water/energy efficiency, the used materials and resources and the indoor room air quality

SPECIFIC FEATURE: broad distribution of building projects in approximately 130 countries



### Baubook

CHARACTERISTICS:

- Criteria were set by the IBO (Austrian Institute for Healthy and Ecological Building) in consultation with ÖkoKauf Wien climate protection programme
- Information on criteria compliance of more than 3,000 products in a free-of-charge database

SPECIFIC FEATURE: Relevant to residential building support in Vorarlberg, Lower Austria and Carinthia



20 years of OTTOSEAL® S 70 in Jaffa.

## SUN, SEA AIR AND OTHER STRESSES.

Granted: compared with the 5,000 years of history boasted by the area around the Andromeda Hill Hotel near the ancient harbour in Jaffa, the 20 years of the hotel itself are of course a drop in the ocean. But they are further interesting proof that OTTO sealants keep their promises even under the most adverse circumstances. The Andromeda Hill Hotel and its natural stone facade blend in perfectly with the historic environment. It was sealed with OTTOSEAL® S 70 when it was built. And this OTTO sealant does exactly what it was made to do. It is unobtrusive, adheres just as well today as it did then and does so despite all the natural stresses like salt air, high temperatures and UV radiation. Of course, this specialist silicone does not bleed into the natural stone either, which would lead to unsightly dark areas on the joint edges in the stone. If our pictures are not enough proof of OTTO quality for you, why not go and take a look for yourself? The Andromeda Hill Hotel is worth a visit anyway and always looks forward to welcoming new guests.



Web tip [WWW.ANDROMEDA.CO.IL](http://WWW.ANDROMEDA.CO.IL)

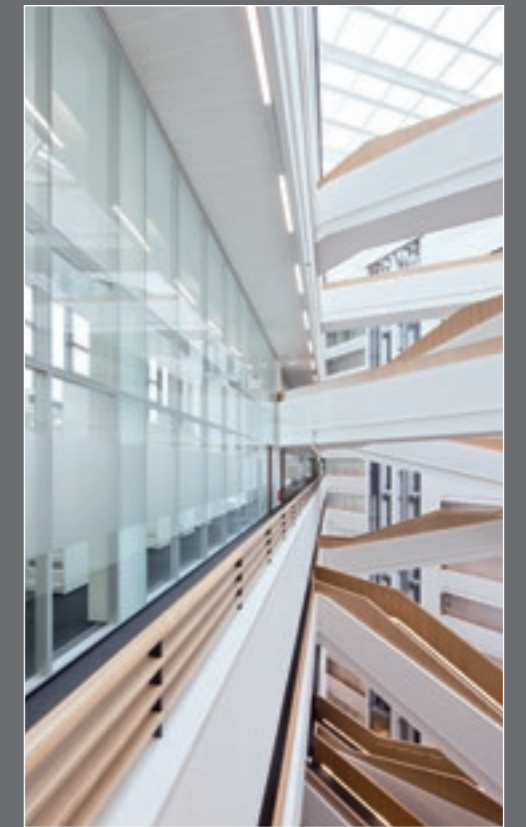
New projects of the conversion specialist Strähle.

## THE ROOM WITHIN A ROOM.

With its move to the new German headquarters in Düsseldorf, Vodafone provides its approximately 5,000 staff members with all the possibilities of mobile working. The open-plan, high-quality office environment in the campus is primarily set up to enable its staff to exchange information both formally and informally. Alongside various communication areas, there are designated retreat locations which can be used very flexibly. The planners also took new approaches here. Flooded with light, open-plan and furnished to a high quality, the office environment is intended to reflect the values and innovativeness of the company and to offer its employees the best possible work environment. The basic cross-campus layout assigns a fixed, so-called 'home base' to each department. The short routes primarily intend to make collaboration within the department easier. The arrangement of the work and communication areas corresponded to the specific tasks of a division, and include work stations facing opposite each other, various configured team situations and open lounges. In addition to traditional work stations the campus also offers 3,200 alternative work locations whether in the open retreat areas, the libraries, cafes or think tanks.

When selecting the think tanks, the planners placed special attention to the acoustics and ventilation and cooling technology in addition to the design, transparency and modular construction. The Kubus room-within-a-room system from Strähle scored highly not just for its functionality, but the sample design impressed the planners with its quality of design and workmanship. For the meeting and conference areas, the building owners and architects decided on the MTS and 2300 partition wall systems. The project covered 2,000 running metres and 450 doors. Once again, products from OTTO were of course used in all systems for bonding and sealing.

The Strähle experts from Waiblingen were also in demand to design the new offices of the Spiegel publishing house at the Ericusspitze in Hamburg's Hafencity. This entailed a similar brief, to plan and implement a representative exterior design in accordance with functional requirements and a pleasant and motivating atmosphere for its employees.



Web tip [WWW.STRAEHLE.DE](http://WWW.STRAEHLE.DE)







# For all it's worth!

REACTIVE PUR HOTMELTS FROM OTTO.



**O**mnia possideat, non possidet aera Minos! (Minos may possess everything, but he does not possess the sky!) With these words, the ingenious inventor Daedalus summarised his plan. Together with his son Icarus, he was held captive on Crete by King Minos to be of service to him with his inventions. Consequently, among other things, he was the architect of the famous labyrinth that housed the Minotaur.

But then Daedalus devised an escape plan: fitted with artificial wings, he and his son wanted to escape the ruler by air. Daedalus fixed the feathers to a frame with hot wax and in this way built artificial wings. Before taking off, he also advised his son not to fly too low because the waves would make the feathers heavy and would pull him down, nor should he fly too high. For then the heat of the sun would remelt the wax and the unique construction would come apart. But it ended as expected: full of euphoria over the feeling of freedom when flying, Icarus flew too high and crashed in front of the eyes of his fathers.

The crash site is named after Icarus today. It is the island of Icaria in the eastern Aegean.

As far back as Greek mythology, there is mention of simple melt adhesives – in this case, wax. However, the short story also identifies its weak point: purely thermoplastic adhesives lose their adhesion as soon

as they are reheated. If he had used the modern, reactive PUR hotmelts from OTTO, the flight of Icarus would probably not have ended in tragedy.

## A class of its own.

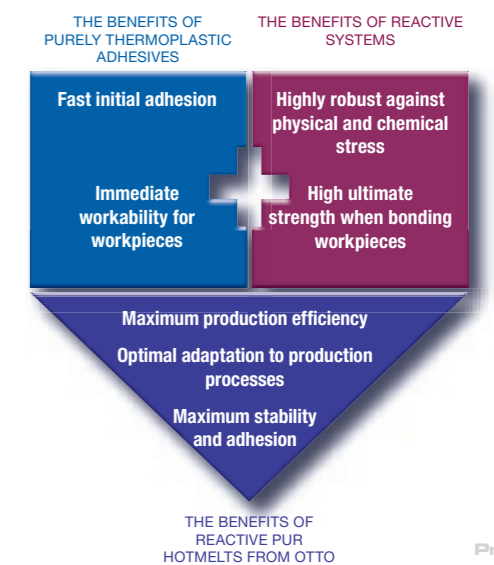
Today, reactive polyurethane hotmelts are an extremely popular adhesive system for the most diverse industrial applications. They can be found as adhesives in sectors such as the automotive industry, the wood and furniture industry (e.g. as laminates), the book industry (bookbinding), the textile industry (e.g. as a coating) and the shoe industry. The main reason for this is their ease of use and the speed with which you can continue work on the workpieces or components bonded, moulded or coated with them. These benefits are based on a combination of physical and chemical bonding: after melting, they are very easy to apply and the cooling causes physical adhesion to occur quickly, meaning that parts can be further processed or transported in the shortest possible time. After cooling, they react chemically with the moisture contained in the air and in the materials to be bonded. This is an additional hardening, leading to a highly stable ultimate state with maximum strength. PUR hotmelts therefore unite the positive properties of pure thermoplastics

with those of two-component adhesives: high initial strength in a very short time, on the one hand, and high ultimate strength and stability, on the other.

## Designer adhesives from OTTO for individual requirements.

Reactive PUR hotmelts from OTTO can be adapted very precisely in many parameters such as viscosity, application life, pressing time, final strength and other process- and application-based requirements, such as high temperature resistance. In this way, OTTO develops tailored designer products with unique property profiles for bonding, potting or coating. Previously, reactive PU hotmelts were primarily only available to industry as standardised mass-produced products; now OTTO supports industrial processors as a partner with the necessary specialist knowledge and capacity to develop customised products in this category of adhesives. Together with competent providers of application plants, the customer is advised, supported and looked after until this

interesting bonding technology is integrated in the production and logistics processes. OTTO's existing industrial customers can thereby use a technology that is better suited to them in many areas without having to forego OTTO's service. ■





# IN DIGITAL WORLDS.

OTTO'S NEW  
WEBSITE.

It took more than a year. OTTO's new website is now online – with a new design, a new structure and new content. It goes without saying that the website is also responsive – automatically adapted for all modern devices such as smartphones or tablets. This enables anyone interested in information by and about OTTO to access this on any platform, from anywhere in the world and around the clock.

The design is striking with a dark background, the headings and the squares with their distinct, white borders. If you notice a certain similarity to the design of OTTOprofil, this is entirely intended. In terms of content as well, the new website is intended to be more attractive, more engaging and more intuitive to use at the same time. It is now clearly structured into three submenus: OTTO construction, OTTO industry and OTTO profile. Whilst the content of first two topics focuses on our main customer groups' requirements for in-

formation on products and systems, the third topic deals primarily with the added value provided by the company itself and current news. In this section you can also 'leaf' through our corporate brochure or issues of OTTOprofil.

Web tip [WWW.OTTO-CHEMIE.COM](http://WWW.OTTO-CHEMIE.COM)



## Web support for construction professionals.

The new website provides contractors in the construction industry with an entire range of available accessories, clearly arranged to make their daily work easier. From application and processing videos to colour charts, colour recommendations, primer tables and usage calculators to the OTTOapp, which can be downloaded.

## OTTO's industrial expertise as a short film.

In the industrial sector, regular visitors will have primarily noticed the new OTTO system tree. Prepared as a short film, this tree demonstrates the entire scope of OTTO's product expertise from the functional branches (sealing, bonding, potting, coating) to the individual types of cross-linking. Industrial contractors will also find, of course, clearly structured links to specialist pages on the topics of solar and photovoltaics, lighting, household appliances and hotmelts.

## Statistics of a mammoth project.

Now it is becoming clear why the development, design and implementation of the new OTTO website took more than a year. And that is just the tip of the iceberg. An interdisciplinary and cross-company team of 30 people worked on compiling and preparing the content, layout, copy and programming. In the German language alone, this produced 426 pages, and 689 images had to be chosen and uploaded. The data volume of the entire website is equivalent to about 12.5 music CDs with 250 tracks. The 4,405 downloadable PDF forms in the different language versions amount to an average of 5.64 Brockhaus encyclopaedias in the number of pages. And the newly launched adhesive compass contains 4,849 possible material combinations and 8,894 possible product assignments.





EXPERT PANEL  
ON THE CAUSES AND  
SOLUTIONS FROM  
DIFFERENT  
PERSPECTIVES.

# UNITED AGAINST MOULD.

It was a high-quality panel of experts that met at the invitation of the Institut Kommunikation Bau und Technik (institute of communication, construction and technology, IKBT) in Düsseldorf under the direction of Louis Schnabl. And the panel, consisting of experts in the fields of planning, trade, cleaning, damage assessment, repair, consumer protection and construction chemicals, was appropriate for the complexity of the topic. The discussion addressed issues such as what factors trigger a mould problem,

how dangerous is mould, who is largely to blame for mould in residential areas, to what extent new construction standards are promoting the development of mould and whether we can ultimately manage the mould issue. At the end, the panel members were united on two things: efforts need to be made from many sides and measures spanning specialist areas need to be taken to resolve the problem. And, above all, awareness of the topic needs to be raised among all concerned.

**Louis Schnabl**  
Institute for Communication in  
Construction and Technology  
(IKBT)

**Manfred Schmitt**  
National Guild of House  
Building Maintenance Trade  
(Friedrich / Westfalen)

**Klaus-Peter Böge**  
Dipl.-Ing.  
Mold Expert  
(Lüneburg)

**Markus Ramrath**  
Master Tile  
(Rheinland)

**Dr. Walter Weidmann**  
Managing Director  
Institute for Green  
Building

**Dr. Wolfgang Lorenz**  
Federal association master  
building supervision (BIB)  
Institute for interior design  
(Gießen)





**M**ould in German homes and bathrooms has been a constant topic in the media for years. The risk to health has long been the 'state of the art'. Rent reduction, moving out, compensation, etc. are the order of the day. The increasingly stringent requirements of the German Energy Conservation Regulation (EnEV) with a view to increasingly impermeable residential buildings, is cause for concern. In Düsseldorf, experts and leading representatives of trade associations came together to look at the cause of the mould issue as part of the IGBT expert discussion. And to answer the questions: What can be done? And what really helps in the long term?

KLAUS-PETER BÖGE



'Health has no advocate. If half of our children today – partially as a consequence of fungi and other residential toxins – suffer from allergies with respiratory and skin problems and no-one does anything, then this is scandalous.'

MARKUS RAMRATH



'The tiling trade is predestined to professionally renovate bathrooms. Provided there is qualified training. Unfortunately, eliminating the master craftsman obligation has led to more and more tradespeople without this qualification working on the construction site. This is not without consequences.'

DR. WOLFGANG LORENZ



'Our ancestors built similar structures for centuries and learnt from their experience. Nowadays, at ever shorter intervals, poorly conceived regulations, construction materials and ideas are coming to the market without any assessment of the technological impact being undertaken. Mould is just one consequence of this.'

### The search for the culprit.

But who is to blame? And who pays? The architect that designed the airtight building shell, or the government that required this? The site manager that economised on the necessary drying times during construction so that too much moisture was trapped in the building structure? Or the user that doesn't clean or ventilate enough? Since it was generally acknowledged that the standard DIN 4108-2:2013-02, as a recognised technical regulation, does in fact stipulate air circulation, in which every two hours the air is entirely replaced, though no-one can perform twelve burst ventilations in 24 hours, the time of hasty assignment of blame between owners and tenants has passed. The impermeable building shell is indeed legally compliant. But proper ventilation 'by hand' is unrealistic and pure wishful thinking.

### Automatic ventilation as a solution and a problem.

Ventilation is the be-all and end-all of mould prevention. And it needs to work independent of the user. This only works with technical equipment to ensure sufficient air circulation and the necessary moisture extraction. Irrespective of whether this means an exhaust air system with air vent openings, a supply/exhaust air system with heat recovery or other technical equipment – the moisture from the bathroom needs to go, and independent of the resident. For instance, the extractor fan can be connected to the light switch. Ideally, a shower cubicle that is largely enclosed should be ventilated and directly carry away damp air. If possible, the structural conditions should be preventive.

### Stainless steel in the joint.

Nevertheless, if a biofilm has developed on the joint silicone into a mould habitat, specialist joint cleaning by a qualified tradesman is necessary. Here, the tiler will remove all silicone sealant from the joints; this is, also from the wall connection joints or the joints between tiles and bath or shower tray. The backing material, for instance, a backer rod, underneath also has to come out, as this may also be housing mould residues. The decisive marker, however, is the choice of appropriate sealant. Not all silicone is equal. Sanitary sealants without anti-mould features are sealants for 'joints requiring regular maintenance', for which you can wait until the next repair. Sealants with fungicides are effective for a

defined period. For, once the active ingredient has washed out, mould has a quick and easy job. A look back to old company knowledge and to modern medical knowledge points to the active substance that is highly effective against mould: silver, in its ionic form. This what OTTO's Fungitect® silver technology is based on – silver ions.

### Sealant equipped with Fungitect®.

This innovative technology was developed for sealing and grouting in sanitary rooms, even those subject to heavy stress. The premium silicone OTTOSEAL® S 130 proves not only to be ideal in terms of mould protection, it is also UV- and weather-resistant and doesn't cause any migratory staining on natural stone. And because the innovative sealant is available in many colours, the site manager can either perfectly match up the sealant and tile or make a conscious creative statement with contrasting colours. But, above all, the mould protection is sustainable and non-hazardous to health. In comparison with other silicones containing anti-mould protection, Fungitect® is not washed out. It is effective for a long time – and the building owner has no pressing need to renovate.

### Time for hygiene.

Proper ventilation and the correct sealant – two key requirements for a mould-free bathroom in the long term. Two factors for which in rented accommodation, the housing company or private owner is responsible. A third factor is the resident's responsibility: regular cleaning to prevent a breeding ground for mould forming from biofilm. For example, by using OTTO anti-mould spray on tile grouting, elastic joints and walls in bathrooms, to supplement the anti-mould sealant. It reliably and durably removes the beginnings of mould formation, acts as a disinfectant and eliminates odours.

DR. OLIVER NICOLAI



'Sweeping accusations such as "improper ventilation" or "defective building structure" do not usually get anyone anywhere. Often, mould formation is a combination of several causes.'

INGO APEL



'If visible a fungal attack occurs as a result of poor ventilation and hygiene, the tenant calls the home owner, who is supposed to pay for the repair. It usually rests with the home owner, because poor hygiene and bad ventilation cannot generally be proven.'

MANFRED SCHMIDT



'Proper cleaning prevents mould. In the public and commercial sector, this is usually ensured by professional building cleaning services. However, in the private arena, we also need to learn how to ventilate correctly.'

LOUIS SCHNABL



'If a legal dispute arises as a result of mould formation in the home, German judges will tend to resolve the case with a settlement. In view of their caseload, this is understandable, but in the interests of ascertaining the truth, it is fatal. Only if the culprit is clearly and regularly named and therefore also held liable, will anything change with regard to the causes!'

DR. VOLKER WEIDMANN



'It's a matter of not allowing mould to form in the first place. Regular cleaning combined with silver as a fungicide in sealants prevents mould forming for long periods.'

Web-Tip WWW.INSTITUT-BAU-TECHNIK.DE



### IT'S GOING TO THE DOGS.

We usually only take mould seriously when it's too late. Once mould becomes visible on the surfaces, residents are already suffering from previously unexplained symptoms such as fatigue, allergies, a weakened immune system or respiratory diseases. For this reason, for the past 15 years, the mould expert Klaus-Peter Böge has been relying very successfully on the significantly more sensitive noses of trained mould-tracker dogs. In locations where air measurements only show the problem, his mould sniffers find the source of the malady. Often it is concealed behind plasterboard constructions, in insulation or behind thick layers of wallpaper. Incidentally, the useful four-legged specialists are trained in Sweden. The number of dogs found in service in Germany can be counted on one hand.

Web-Tip WWW.BOEGE-AMBULANZ.DE



# Utilising our joint strengths.

ON COURSE FOR SUCCESS IN THE INDUSTRY WITH SCA.

**The industrial application of sealants and adhesives not only requires high-quality products but also integration into the respective production processes. As a solution-based supplier, OTTO therefore works closely with leading manufacturers of dosing and application systems.**

To organise this collaboration from the initial enquiry to the finished production plant in the best possible way both internally and externally, OTTO has appointed a 'project manager for industrial partnerships' since 2011. He keeps in contact with partners – which includes regular visits – stay in touch, exchange information on joint activities and projects, coordinate the approach when applying OTTO products as part of demonstrations and sample adhesions and undertake the organisation of joint customer visits.

**From an inventor in Baden to a global high-tech company.**

For many years, OTTO has been working closely with SCA Schucker from Bretten-Gölshausen in Baden on its activities in sectors such as the solar, household appliances and the lighting industry. The company was founded in 1986 by the engineer Josef Schucker with four employees. Today, SCA employs about 480 members of staff in 26 countries, achieves a turnover of more than 125 million euros and is a world leader in many market segments. The developments of SCA include application control systems, drum pumps with control cabinets, metering units, application heads and specialist plants and accessories.



SCA and OTTO working together: the perfect interaction of adhesive and automated application.

## Integrated solutions for all industrial partners.

The specialist in adhesive systems and metering technology could quickly make a name for itself, primarily in the automotive industry, with its premium products. The uncompromising quality standard in this market was the best prerequisite for SCA successfully implementing services in many other industries with comparably high requirements. Since 2011, SCA has therefore also focused on customers from the general industry and has established a separate part of the business for this.

At its annual customer days, which SCA set up for the automotive sector and separately for companies in other industry sectors, the adhesive system manufacturer demonstrates solutions for many application areas. In June of this year, more than 100 interested people attended the SCA customer days for the general industry to find out more about the possibilities of adhesive technology. For many visitors from these non-automotive industries, adhesion is a new topic; others who bond

manually were seeking inspiration for automating mass production or wanted to find out about a specific process.

As part of these customer days, on which the focus was on practical adhesive applications, Otto Chemie was presented as a partner of SCA. Otto Chemie provides a wide range of specialist products for adhesive applications that are exposed to specific stresses such as chemicals, heat or humidity. General industry customers were also interested in the fact that products are mixed specifically as required – and yet are still available in flexible packaging sizes.

Web tip [WWW.SCA-SCHUCKER.COM](http://WWW.SCA-SCHUCKER.COM)



From left to right: Andreas Holzwarth, Regional Manager for Industry, Ralf Burzlaff, Project Manager for Industrial Partnerships, Georgi Jossifov, Industrial Sales Manager (all OTTO), Oskar Sörensson, Manager of the General Industry Business Division, Christian Ostermann, General Industry Sales Manager (both SCA)



# WHEN PAPER BECOMES ACIDIC,

## Historical documents with a shelf life.

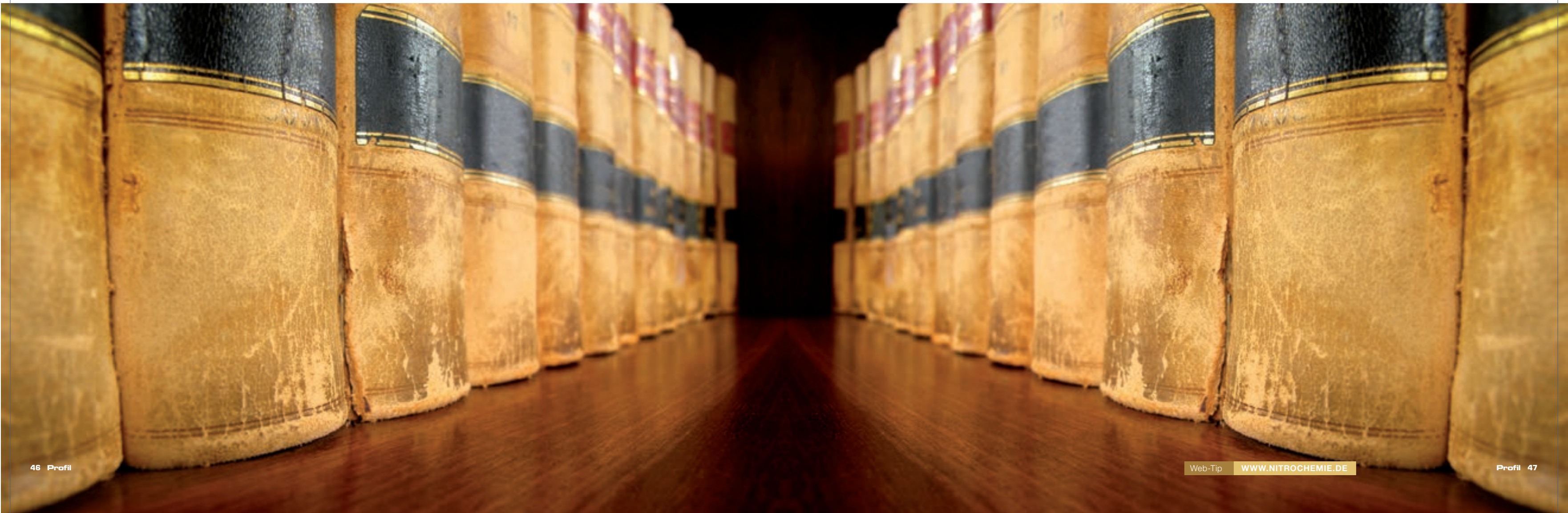
At the end of 1843, Friedrich Gottlob Keller invented the process for producing paper from wood pulp. And more than 150 years later, he created a new business field for the company Nitrochemie. But let's start at the beginning. By producing paper from wood pulp, Keller revolutionised the industrialised production of paper. The method had just one little snag: the wood powder had to be chemically macerated with sulphite. The sulphurous acid contained in the paper changed over time and as a result of the influence of humidity into sulphuric acid. However, other methods, especially those papers made from wood pulp, also led to yellowing and to reduced tensile strength, wet strength and flexural strength. The paper becomes brittle and therefore also the knowledge, cultural treasures, memories, stories and history stored on the paper. It was only from the 1980s that acid-free paper was produced on an industrial scale and introduced to the market. Consequently, entire libraries and archives whose books and paper dates back to the period 1850 to 1990 are at risk of decay.

## The book washing machine.

Nitrochemie's solution to this problem initially sounds very simple: wash the books! As part of Nitrochemie's paper de-acidification, the publications that could be adversely affected by being put through this process are released and first dried. They are then put into a vacuum chamber, where they are bathed in a special alkaline treatment solution. Firstly, this solution neutralises the acid contained in the paper and binds it; secondly, it doesn't change the properties of the paper or the printing on it. In addition, the solution forms an alkaline reserve with carbon dioxide and further protects against any low quantities of acid that the paper still contains. After the drying process, the books and archives are conditioned for three weeks in a mild airstream to complete any de-acidification reactions. The alcohols produced by this reaction could cause damage in the event of prolonged exposure time. For this reason, the formation of alcohol is controlled in a corresponding process management step in the reconditioning plant, and alcohol is rapidly dissipated. After reconditioning, no further negative odours can be detected.

## Saving precious cultural treasures.

Paper de-acidification is a cost- and time-intensive process overall, but it has already helped to save many book and archive collections. In addition to numerous collections and libraries in Switzerland and Liechtenstein, since 2013 this method has saved precious books and documents for posterity in Germany – for example, at the Deutsches Literaturarchiv Marbach (German literature archive in Marbach), the Philipps-Universität Marburg library, Landesarchiv Baden-Württemberg (Baden-Württemberg state archives) and Stadt- und Kreisarchiv Reutlingen (Reutlingen city and district archive). The quality requirements at Nitrochemie are not only seen in the successful salvage of these books by highly specialised methods, but also by the use of OTTOSEAL® A 205 for dry construction in the office and production areas, OTTOSEAL® S 100 in the sanitary areas and the OTTOFLEX system under tiles. For the exposed natural-stone brickwork, OTTOSEAL® S 70 was used in the joints between the sand-stone wall and the floor. The reconditioning chambers between the metal walls and the floors were also sealed with OTTOSEAL® S 70. ■





# THE POWER OF THE MASK

A vibrant tradition  
from the homeland  
of OTTO.

Masks mesmerise – the audience as well as their wearers. Not only do they demonstrate power, they also impart this. Even just through the anonymity given to the wearers of the mask. Masks therefore change the identity of those behind them – externally as well as internally. And masks protect in a variety of ways.

The perception of a mask therefore always has two sides. It simulates a reality that does not exist as such. Or does it? We dare to take a peek behind the mask as a cult and cultural object and part of human life all over the world. Especially, though, in OTTO's home region, the German-Austrian borderland in the Alps.







The term 'mask' comes from the Arabic word *maskharat* (meaning 'fool', 'buffoonery', 'pleasantry', 'clown'). Its origin, however, is less clear and remains a mystery. All over the globe, there are face coverings of various forms and guises. They were initially used for rituals and religious purposes and later entered the world of theatre and art – though also that of war, sport and crime. The transitions between these were fluid.

### Mysterious rituals as social bonding.

Even today, masks are used by ethnic groups and indigenous populations for ritual dances. By wearing masks, they worship protective spirits and drive away evil demons. The face coverings are often accompanied by full-body costumes made from textiles, plants, skins or other items of animal origin. The masked characters adopt roles of helpful spirits or personified natural forces, which communicate between this world and the worlds of gods and ancestors. And they do this so impressively that it sends shivers down the spines of spectators. The masked performers are therefore something of a messenger or interpreter of requests and threats.

In the historical kingdoms of Africa, for example, the masked characters in rituals play an important social role: the performances served to educate and teach but were also used as a social control and had a judicial and penal function. The audience of such rituals do not recognise the people dressed up; rather, they viewed them as spirits, gods or ancestors. For this reason, the masks were made by a few select people, in complete isolation and in accordance with specific rules. They could even be possessed with special forces by means of sacrificial offerings or magic spells.

### With bells against the cold and darkness.

Across the entire Alpine and neighbouring regions, masked rituals have now become very individual. Could it have been the traumatic experience of an ice age lodged in the memory? In any case, the masked dances and processions usually start in winter, usually in the twelve nights after Christmas shortly before the winter solstice, and last until first plants emerge and they begin to flower. Their aim: to drive away winter and its spirits and to ask for fertility in the coming annual agricultural cycle. In the Bavarian-Austrian customs of the Alpine region – where OTTO has its headquarters – you'll see *Perchten* (wooden masks originally related to the ancient goddess *Perchta*) during this period. The *Schönperchten* ('beautiful Perchten') take on the role of the 'good', and the *Schiachperchten* ('ugly Perchten' – *schlach* means 'ugly' or 'evil' in Bavarian) take on that of the 'evil'. To drive out winter, its spirits or simply the old year, the *Perchten* usually carry big bells. At the same time, the *Perchten* oversee the religious food, cleanliness and work rules between Christmas and the new year. Whilst the *Schiachperchten* often travel through the countryside in large numbers and with an entourage at dusk and night, the *Schönperchten* appear by day and allegedly bring the residents of the village and farms luck and blessings.

### Regional customs – with high-tech support.

The *Perchten* procession is frequently combined with another Alpine custom: the *Krampus* procession. However, this starts earlier on 5 December – Krampus day – or the day before St Nicholas Day. As St Nicholas's dark companions, the *Krampus* figures appear alongside the *Buttnmandln* (bell-ringing characters, usually covered in straw). You can still marvel at the 'traditional' *Perchten* processions in the Salzburg region, Rupertiwinkel, in and around Bad Reichenhall and the Inn-Salzach region. The *Pongau Perchten* procession is particularly famous and takes place on 6 January, alternating between four districts. It includes figures such as the *Tafelperchten* ('panel Perchten'), the *Kappenperchten* ('cap Perchten'), the *Haber-goß* (a half goat, half human), bears with a herder, *Rettenbachbock* ('Rettenbach goat'), *Werchmandln* (a figure covered in tree lichens), hunters, poachers and the *Teufelsbrünnljäger*. They all have specific roles, and in their design and appearance, they follow historical, religious and ritualistic dramatic representations.

Alongside these events that strictly follow the traditional customs, each generation interprets the rituals in their own way. As is the case for 39-year-old Franz Metzger from Straßwalchen. Even as a child he experimented with masks and at 15 years old he joined a Krampus group. Today, he has two sons and for the past four years he has also been carving individual masks for fans. To make the masks he uses carefully selected wood, furs and horns as well as OTTOCOLL® Rapid for the adhesive. And so the cultural heritage of an ancient mystical tradition lives on, even in this modernised form. ■



For once - say cheese Franz Metzger (Mask Carver) and son.





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