

difference

THE KÄRCHER MAGAZINE

01 | 2021

PETROL RUNNING THROUGH HER VEINS

A woman with the WOW factor

PLASTIC THROUGH THE AGES

Popular, widespread, shunned?

DESIGN MAKES THE DIFFERENCE

Never losing sight of the user experience





➤ 01 | 2021

Dear readers,

In this edition of our customer magazine, we want to focus on the people who do their best for you every day.

Our employees are one of our most important success factors. With their innovative spirit, they develop ultramodern solutions such as needs-oriented cleaning using sensors and artificial intelligence. With their experience, we can preserve cultural gems like the famous Horseshoe Staircase at the Palace of Fontainebleau and help improve quality of life for people all over the world – like in Colombia, where a green filter facility cleans waste water in the fishing village of Bocas del Carare.

In our cover story, you will find out how our employee Vanessa Helpert practises the corporate values of top performance and discipline, both in the workplace and while motocross riding, and relies on Kärcher machines to clean her motorbike. And speaking of trust: on the newly designed product pages, our staff explain why they highly recommend the FC 7 Cordless and also the new generation of high-pressure cleaners.

Have fun reading this edition of **difference!**
With kind Kärcher regards,

Hartmut Jenner
Chief Executive Officer and
Chairman of the Board of Management
Alfred Kärcher SE & Co. KG



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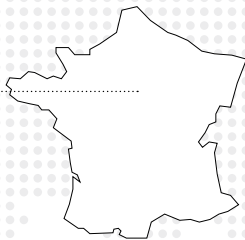
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IMPRINT



PALACE OF FONTAINEBLEAU



1814

EMPEROR NAPOLEON BONAPARTE took leave of his troops on the Horseshoe Staircase after he signed his abdication. The combination of various very sensitive materials and centuries-old dirt required a careful selection of cleaning technologies. The steam stage of a hot water high-pressure cleaner, a steam cleaner, low-pressure shot blasting, a biocide and a wet and dry vacuum cleaner were used.

Within the framework of its cultural sponsorship programme, **KÄRCHER** has restored over 140 monuments worldwide since 1980 and is now also cleaning the Horseshoe Staircase at the Palace of Fontainebleau, near Paris.

A woman in motocross gear stands next to her green Kawasaki dirt bike on a dirt mound in a forested landscape. The bike is adorned with various sponsor logos including Pirelli, Elf, and Bridgestone. The background shows a dense forest of trees under a clear sky.

A woman with the WOW factor

PETROL RUNNING THROUGH HER VEINS

Riding across the terrain at more than 50 hp, you would cut a very athletic figure. But it takes much more than that to race over hills and tackle steep curves on a motocross bike like Kärcher employee Vanessa Helpert: with a great deal of discipline, skill and perseverance, the enthusiastic motorcyclist has been doing laps on the racetrack since the age of three.



» YOU ALWAYS HAVE TO BE 100% FIT, BOTH MENTALLY AND PHYSICALLY. EVERY MUSCLE IS ACTIVE.«

VANESSA HELPERT



For as long as Vanessa Helpert can remember, motocross has been a part of her – it therefore goes without saying that she also performs the technical checks herself before starting.

Many routines become second nature to the extent you are no longer aware of them: speeding up at the right moment, slowing down, accelerating to the maximum, barely losing balance or nerves... for as long as Vanessa Helpert can remember, motocross has been a part of her. The jumps are the hardest, but also very impressive. "You always have to be 100% fit, both mentally and physically; every muscle is active," says the passionate sportswoman.

Vanessa is three years old when she sits on a motorbike for the first time. While her peers are learning to ride a bicycle, the Esslingen-born girl is already taking part in regular race meetings. At six years of age she competes in the Supercross in Stuttgart – against eight boys,

some of whom are two years older. The audience in the Hanns-Martin-Schleyer Hall go crazy as she fearlessly races around bends.

3

YEARS

VANESSA IS THREE YEARS OLD WHEN SHE SITS ON A MOTORBIKE FOR THE FIRST TIME.

Putting her foot down

Vanessa is unstoppable, and the number of championships is increasing. She is able to train two days a week during

school time. She mostly does her laps on the Rudersberg racetrack in the Rems-Murr district, but she also pursues her passion on other tracks. To this day she spends every spare minute practising the sport. "Petrol runs through my veins. I am totally fascinated by vehicles," she says laughing.

Her parents recognise early on that, in addition to driving skills, physical fitness is also very important for safe fun on the racetrack. At five years old the young driver attends Taekwondo classes two to three times a week. She also practises this sport with a lot of ambition and discipline. Vanessa still trains regularly today. She has held a black belt since 2020, thus achieving the master grade. "Sometimes it is not so easy to juggle a job and hobbies," she says. The time for motocross and Taekwondo

has decreased steadily since finishing school; then came university, various internships, a master's in communication management and finally entering working life. When she starts working in Kärcher's Corporate Communications department in 2018, it feels like a happy coincidence. "During my childhood I always cleaned my motorbikes enthusiastically using a high-pressure cleaner from Kärcher."

Clean starting position

An off-road bike is exposed to tough conditions and must be thoroughly cleaned after every trip. "In dry weather sand and clay leave their mark and depending on the soil condition and precipitation, sometimes you have to ride through the mud," explains Vanessa, who also gladly performs the technical checks herself. "Only when my



FIVE FACTS ABOUT GERMANY

- The Federal Republic of Germany covers 357,582 km². The capital is Berlin.
- At 2,962 metres, the Zugspitze is the highest and most famous mountain in Germany. The peak is also known as the "roof of Germany".
- Since the reunification in 1990, the Federal Republic of Germany has 16 federal states, three of which are city states (Bremen, Hamburg, Berlin). The smallest federal state by area is Bremen; the largest is Bavaria.
- While most other countries make do with white bread and toast, the Germans enjoy a wide variety of breads – approx. 3,200 different types of bread are served in Germany.
- The variety is also enormous when it comes to beer, the country's most popular alcoholic beverage: up to 6,000 different beers are brewed.

» ONLY WHEN MY MOTORBIKE IS CLEAN AM I ABLE TO ENSURE THAT EVERYTHING IS OK.«

VANESSA HELPERT



.....
Communications expert Vanessa often gets good ideas for work when out jogging (right). Running also keeps her fit for her great passion: motocross.



ACHING MUSCLES INCLUDED

Motocross is considered one of the toughest sports in the world. On racetracks which are full of bumps, steep curves and bike ramps, the riders have to use their whole body to keep their motorbike under control. Every muscle consumes energy and the heart rate reaches a higher level than in many other sports.

motorbike is clean am I able to ensure that everything is OK and I will be able to enjoy it for a long time."

Motocross racetracks are full of bumps, steep curves, bike ramps and hollows. The drivers jump as far as 30 metres, often at frequent intervals. A race is over after 20 or 25 minutes and two laps, and each competition consists of two races. It is not without reason that motocross is considered one of the toughest sports in the world. "After a race day you are completely exhausted, but incredibly satisfied", she adds. The most strained areas are the arms, shoulders and legs. "The aching muscles are persistent, often lasting several days." On top of this is the back pain. "The most important thing is to enjoy the sport," says the experienced racer with confidence. "Otherwise, you won't survive." And

because of the constant risk, training rides are also only completed in full gear: with helmet, goggles, neck guard, chest protector, back protector, knee pads, elbow protectors, gloves and boots.

Support for success

Rituals also provide support. Before a race many people say a quick prayer or put on their lucky charm. Vanessa needs the start number 7, "her" number. And family. Father Hans-Peter gives his daughter a "high-five" when she goes on the track. It has always been like this, and the two continue the ritual to this day. "You cannot practise the sport without the support of family, without a team," highlights Vanessa. She knows that it has also placed tremendous demands on her parents to support her motocross career over the

years and to nurture her talent. Both financially and emotionally.

30
METRES

THE DISTANCE MOTOCROSS RIDERS JUMP - OFTEN AT FREQUENT INTERVALS.

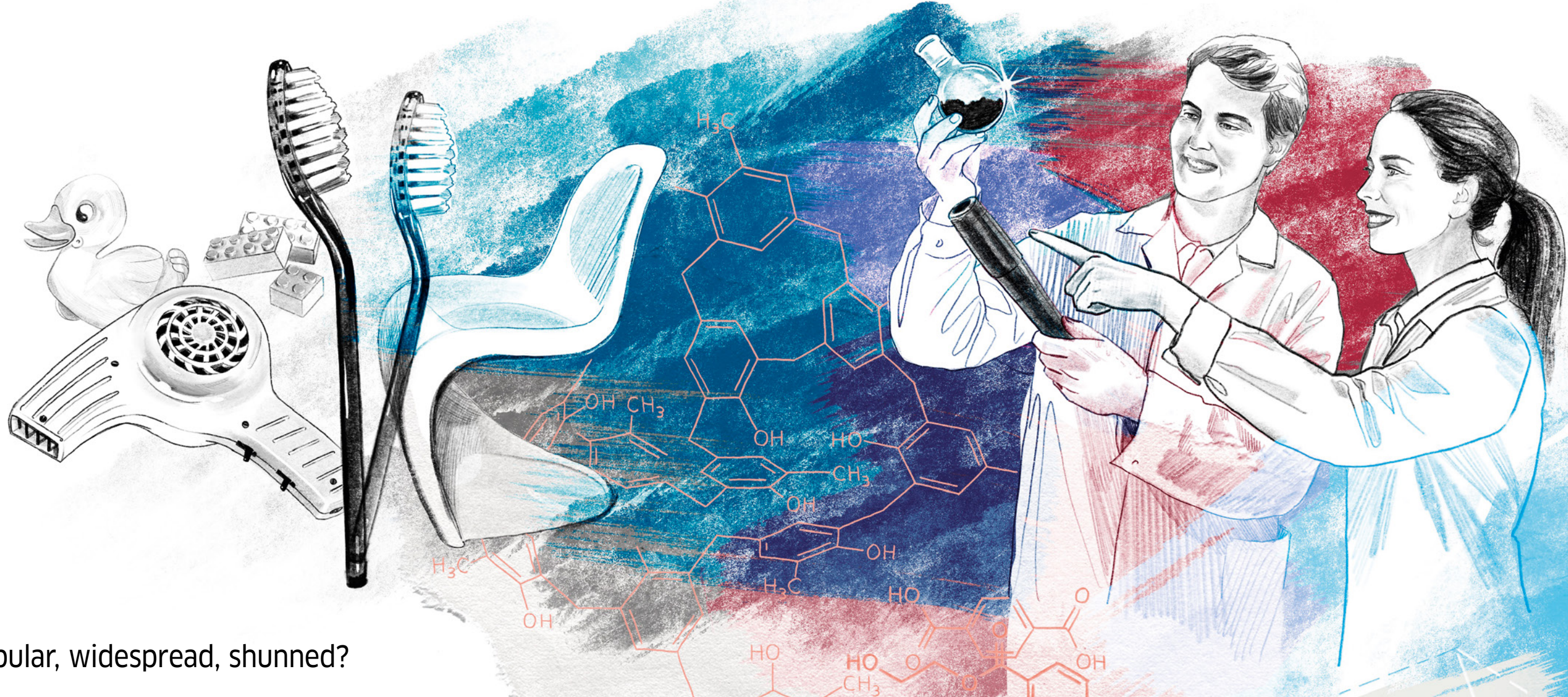
Motocross is a man's world. For a long time Vanessa is the only girl on the track and races alongside the boys. Later on she also competes at national and international level with other, sometimes older female riders. In 2019 she is runner-up in the Baden-Württemberg

Motocross Ladies Cup. But she still prefers competing with the men. Before every race her heart is racing. It beats at record speed beside the competing at the starting gates during the countdown to zero - each second a small eternity for Vanessa. Finally the engines are turned on and the adrenaline pumps through her body. Now it's time to step on the gas and speed away ...

The communications expert also works at full speed in her job. At the Kärcher headquarters in Winnenden, she not only creates cross-media content for various media and manages international projects but also works creatively. Just like in motocross, she also has to be flexible here and never lose sight of the objective. Vanessa embodies her aspiration to motivate herself to achieve top performances and by enjoying what

she does and excelling to the extent that she also meets every challenge at Kärcher full of ambition. ■

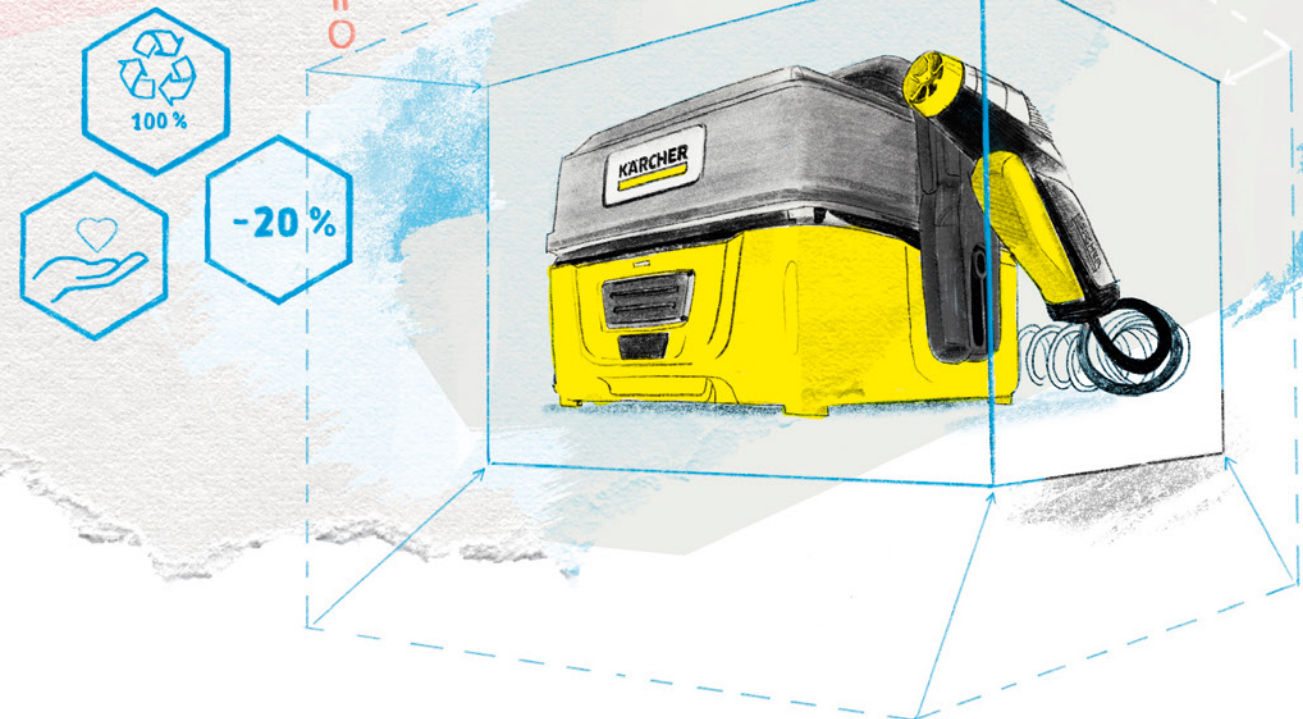
Join motocross rider Vanessa Helpert on the racetrack: www.kaercher.com/difference



Popular, widespread, shunned?

PLASTIC THROUGH THE AGES

There was a moment in the 1950s when everything was suddenly made of plastic. The new, versatile material was inexpensive and popular due to its durability. It soon became clear that it also had downsides, and recycling would be important. Nowadays plastic is facing some criticism, but many applications are simply not feasible without the material. And various alternatives that claim to be sustainable have an impact on the environment in other ways. Following the trail of a much-discussed material.



»A MATERIAL THAT WAS DURABLE INSULATING, SOUND-ABSORBING AND HEAT-INSULATING, LIGHTWEIGHT AND INEXPENSIVE - IT WAS REVOLUTIONARY.«

DANIEL CARMINE MANOCCHIO

Where we come from...

...AND WHERE WE ARE GOING

Not all plastics are the same. Whereas mass-produced goods must be pure, i.e., they may not contain any toxic substances, technical plastic is very complex. It must meet mechanical requirements and legal conditions. So it is not as easy as it might seem to identify where savings can be made, or where less or recycled material can be used. The fact is that there is a lot to learn, relating to both the past and present.

Review: Plastic is lightweight!

The absolute plastic buzz in the middle of the 20th century may not be easy to understand for many today. On closer examination, it is quite clear that the euphoria was justified by its clear advantages. Until then, metals were the construction material for all types of devices and machines - and metals were expensive and heavy. Here was a material that was durable insulating, sound-absorbing and heat-insulating, as well as being lightweight and inexpensive; this was the equivalent of a technical revolution. Its properties and suitability for mass production made plastic the material on which the German economic miracle was built after World War 2.

Daniel Carmine Manocchio, manager of the materials laboratory at Kärcher, explains: "With every new technology, there is hype when it is rolled out to the mass market. One need only think of the dreams of nuclear-powered private cars or the current wave in artificial intelligence. However, in the end the excitement has to come back down to earth." For Kärcher, too, plastic was a step

towards ergonomic, sustainable products. The first mobile high-pressure cleaner, the HD 555 from 1984, weighed a full 15 kilograms. This meant that mobile use was possible, but not convenient for the user. "Plastic offered the possibility of reducing the weight considerably. Today such products weigh between five and ten kilograms," says Manocchio.

Another aspect that got people fired up about plastic in the early days was its durability, which at that time was a clear advantage in terms of value preservation.

Insight: The issue of recycling

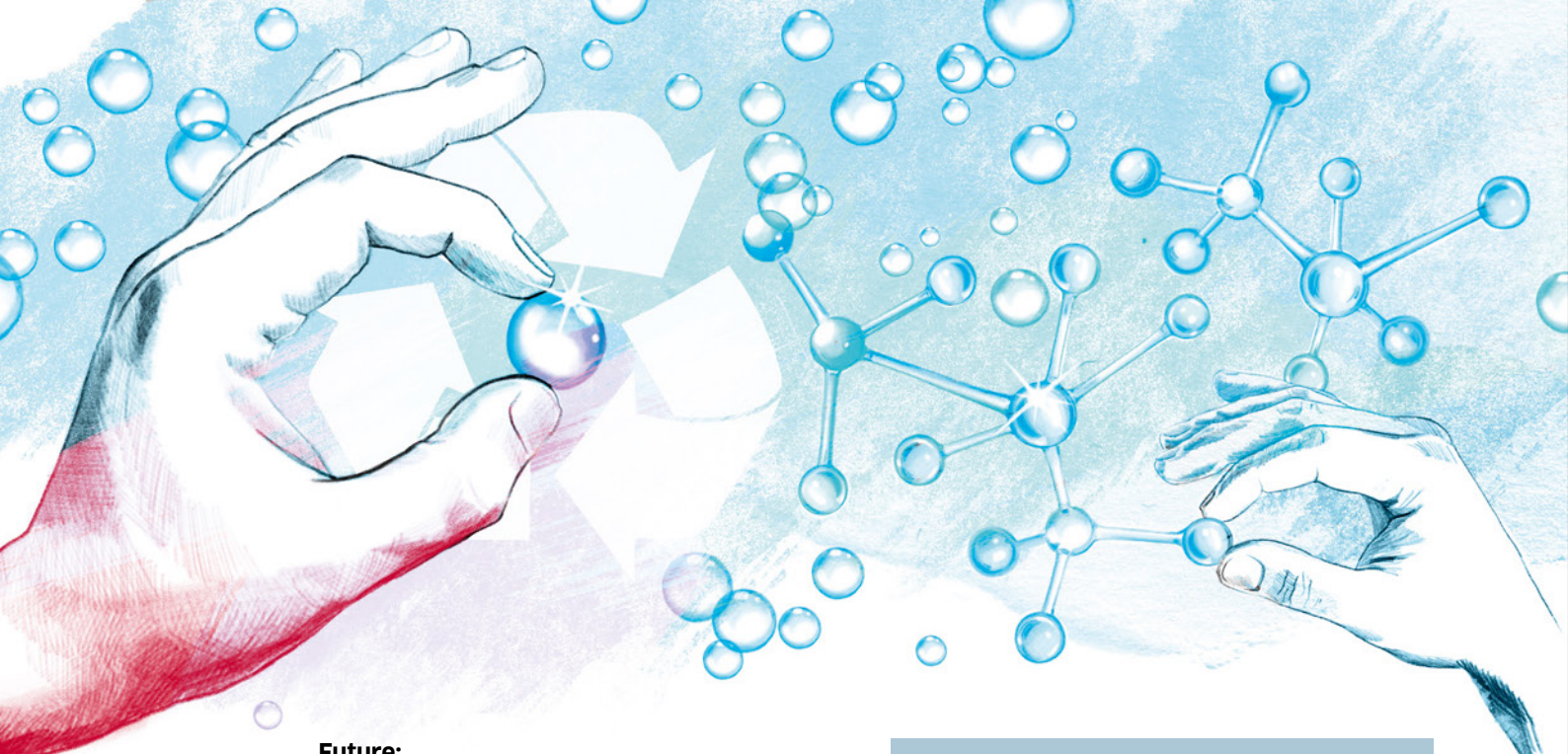
The first recycling wave came at the beginning of the 2000s, simply because the grinding and adding of production residues led to material and therefore cost savings. However, recycling, whether it is by remelting sorted waste or chemically by pyrolysis, is still expensive and not widely established. "Plastic is of great importance in the technical sector because its properties can be modified by adaptations to the structure and composition," adds Manocchio. "The meticulous separation of different plastics is very important in recycling as otherwise the properties of the recycled material are drastically impaired. This is tricky for technical components." Virgin material is often not only of better quality but also cheaper than recycled materials.

Nevertheless, Manocchio can see a shift in the market: "Everyone understands that using a bottle of shampoo every week is a problem. But the focus is increasingly on the fact that plastic is also used in a high-pressure cleaner, for example, and electrical devices are generally not disposable devices." Since 2012, Kärcher has increased the proportion of recycled plastics in its machines by a factor of four. Since the end of 2018, the company has been using the Technyl4Earth technology for the manufacture of spray lances (see box: Making New From Old). Within the framework of the sustainability strategy, more changes are being introduced across the entire company, right through to the reduction of packaging materials (see box: Less Is More).

MAKING NEW FROM OLD: AIRBAGS AND OCEAN PLASTIC

Kärcher is one of the first companies to use the Technyl4Earth technology from manufacturer Domo in series production for the consumer market. Polyamide is recycled from the fabric of old airbags and remnants from their production. In order to make the material tough enough for spray lances and generally robust, it is reinforced with 30 per cent glass fibres.

Kärcher is also carrying out intensive research into the use of ocean plastic. The largest proportion of plastic prevalent in the oceans is made up of packaging materials such as PET, PE, PP and PVC. These are virtually useless for Kärcher due to their properties but are nevertheless monitored constantly.



**Future:
What is sustainable?**

Every human being probably secretly asks themselves the question of what behaviour ultimately makes a contribution to protecting our planet. "The situation is extremely complex, even for the simplest applications," states Manocchio. "If a paper shopping bag is only used once because, for example, it got wet and ripped, then a reusable plastic bag would have been more sustainable."

At Kärcher, the aim is to keep a close eye on sustainability in the development of products. The EU Ecodesign Directive provides a legal framework, that has also been adopted globally in some instances. A core idea is design for recycling, which also counteracts the image that sustainability is always expensive. "If I reduce the use of materials, this is less expensive. If I replace composites with recycled materials, this is less expensive in the long run," explains Manocchio. "Take one small detail: if I leave out the plastic bag packaging the accessories, this is less expensive. And all this is good for the environment." Another key concept is the recycling economy aspired to by the EU, which also focuses on the

**LESS IS MORE:
REDUCTION OF PACKAGING**

Packaging is a key issue when it comes to saving material. Up to now, four polystyrene inserts were used for the OC 3 mobile outdoor pressure washer in order to protect the device during transportation: plastic waste that is avoidable. The box was made smaller and a cardboard insert was developed. The packaging size was also reduced by 20 per cent, no more plastic is used – and the costs for the packaging have dropped 45 per cent.

principles prevention, reduction and reuse of materials (see interview with Leo Stein, Manager Environmental Policy at the ZVEI – the German Electrical and Electronic Manufacturers' Association).

To ensure the world remains liveable for subsequent generations, every company and every single human being are ultimately required to change their behaviour. Daniel Carmine Manocchio sums it up: "The path to the future consists of so many small steps that so many people have to take together. We should make a start and not be daunted by the complexity." ■

Find out more about this topic:
www.kaercher.com/difference

**» THE PATH TO THE
FUTURE CONSISTS OF
SO MANY SMALL
STEPS.«**

DANIEL CARMINE MANOCCHIO



Leo Stein,
Manager Environmental Policy at
the ZVEI – the German Electrical and
Electronic Manufacturers' Association



Interview with Leo Stein (ZVEI)

**“PARTNERSHIPS ARE THE
WAY FORWARD”**

Mr Stein, in your opinion what are the relevant trends with a view to sustainability for companies?

There are all sorts of trends, I'll confine my answer to the institutional side. The European Commission's Circular Economy Action Plan sets out some guidelines for companies over the next few years. It is about a sustainable product policy, ecodesign and the right to claim for repair. This aspect perfectly highlights the complexity of the connections: who may carry out the repair so that the legal obligations of the manufacturer are not counteracted with respect to the warranty? We need new ideas and approaches to succeed – and they are also in development.

What exactly is being developed?

Various companies are working on new recycling methods, e.g., for secondary plastics. Recycled materials using chemical processes are pure, but still somewhat expensive. Mechanical processes do not always yield the level of quality that is required for product safety. In this respect, in future there will probably be a mix of methods and materials because there is no "one size fits all" principle in industry.

Other ideas aim to reduce the use of materials – and not just in terms of plastic. In accordance with an EU regulation, all relevant data must be enclosed with a product, which uses vast amounts of paper and resources. At the ZVEI there is an exciting project underway: the digital type plate. It makes the information available to companies online in a standardised manner.

For you personally: what do we need to make the future sustainable?

Firstly, it can already be seen that partnerships bring progress. The manufacturers of electronic equipment, the recycling industry and the manufacturers of primary plastics can achieve a great deal together. Secondly, we should stop focusing on our concerns or reservations – in many cases we simply need to act. And thirdly, I think we all need to take responsibility: even I, Leo Stein, have to take a good look at myself and consider what I need, how I can properly dispose of products and what can be repaired. ■

OUR HIGHLIGHTS OF THE KÄRCHER RANGE

The trainers of the Kärcher Sales & Service Academy are the experts when it comes to machine know-how, care, cleaning and hygiene. Here in this issue, they present their current favourite products and give specific tips on the usage.



Evelin Osswald,
Specialist Sales Training
Home & Garden Products



Marian Anton,
Specialist Sales Training
Professional Products

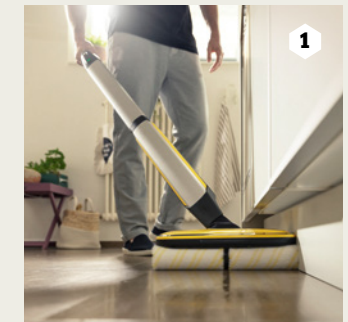
Home & Garden

» THE FC 7 CORDLESS REACHES INTO EVERY CORNER AND EVERY NOOK AND CRANNY.«

EVELIN OSSWALD, SPECIALIST SALES TRAINING HOME & GARDEN PRODUCTS



WITH THE FC 7 CORDLESS the search for power outlets and tripping over cables are a thing of the past.



The **FC 7 CORDLESS FLOOR CLEANER** is a genuine all-rounder: it removes all types of wet and dry everyday dirt in a single step. This saves lots of time and effort.

1 TIP 1: CLEAN AND COMFORTABLE WIPING

Four counter-rotating rollers ensure that the device glides effortlessly over the floor. What I find especially great is that the rollers are constantly moistened with fresh water, while the dirt is collected in the dirty water tank. In addition, the compact design means you can avoid the tedious task of moving furniture and allows perfect corner and edge cleaning.

2 TIP 2: TWO CLEANING METHODS PLUS BOOST FUNCTION

With the FC 7 Cordless, you can set the roller rotation and water flow to the floor and dirt type. This means that you can also safely clean sensitive parquet floors with the device. The boost function is practical – it even removes stubborn dirt.

More product information online at: [kaercher.com/home-garden](https://www.kaercher.com/home-garden)



» DEVICE AND APPLICATION CONSULTANT IN ONE. «

EVELIN OSSWALD, SPECIALIST SALES TRAINING HOME & GARDEN PRODUCTS



SHARE BEFORE AND AFTER PHOTOS on social media, check consumption data and lots more – smart cleaning with the Home & Garden app.

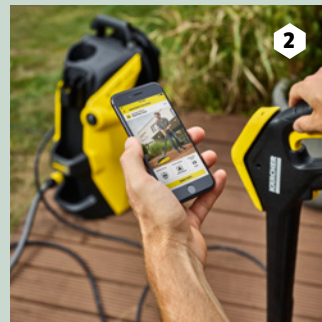
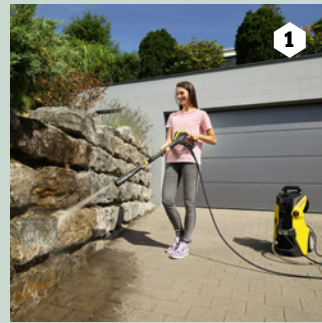
Cleaning has never been easier because the new pressure washer generation “thinks for itself”: with the **HOME & GARDEN APP** the user is guided through various cleaning tasks step by step.

1 TIP 1: CONCENTRATED KNOW-HOW IN AN APP

I really like how practical the app is. If, for example, the customer wants to use a pressure washer to remove algae from a stone wall, the app provides an explanation of the cleaning problem. For example, suitable settings and the proper spray lances are recommended.

2 TIP 2: STEP-BY-STEP GUIDE

The Home & Garden app guides the user through the cleaning process step by step and warns of damage to the object being cleaned in the event of incorrect pressure application. With the K 7 Premium Smart Control, the boost function can be controlled directly on the device or conveniently via the app.



3 TIP 3: CLEAN IN EVERY CORNER

Kärcher also provides compatible accessories for the Smart Control range. I like the PS 30 Plus power scrubber because it includes an innovative corner and edge cleaning nozzle and is therefore perfect for cleaning stairs and other smaller surfaces.



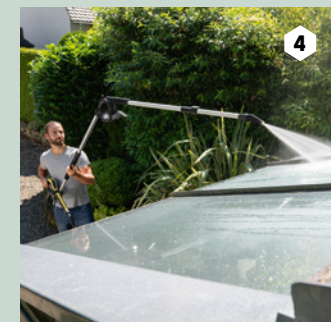
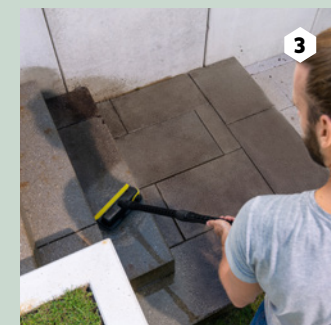
4 TIP 4: CLEANING CONSERVATORY ROOFS

The telescopic spray lance with 180° joint makes life easier for the user because it can flexibly adapt to every cleaning situation and easily reaches both vertical and horizontal areas. In combination with the glass attachment, the walls and the roof of a conservatory, for example, can be comfortably cleaned.

More product information online at: [kaercher.com/home-garden](https://www.kaercher.com/home-garden)



THE EXCHANGEABLE SQUEEGEE BLADE removes puddles where you could otherwise easily slip and at the same time accelerates the drying time of the surface.



» VERY QUIET AND EASY TO OPERATE – THAT’S WHAT SETS THE B 110 R Bp APART.«

MARIAN ANTON, SPECIALIST SALES TRAINING PROFESSIONAL PRODUCTS

The **B 110 R Bp** impresses with its robustness and many innovations that facilitate daily work for the user. Highlights include the new roller brush head and the new squeegee.

1 TIP 1: QUIET CLEANING

Sweeping and scrubbing in a single step? Not a problem for the B 110 R Bp because the roller technology makes this possible. The brush head has been completely renewed and offers many advantages, including a significant noise reduction. The high cleaning and suction performance also sets completely new standards.

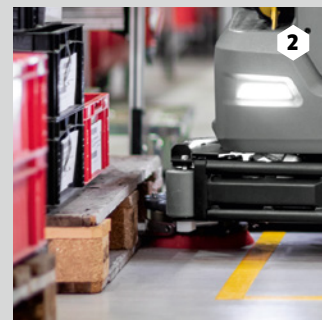
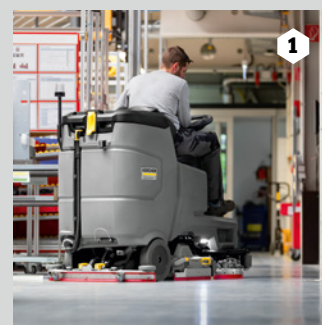
2 TIP 2: CLEAN RIGHT TO THE EDGE

Edge cleaning often involves the risk of getting the machine caught on shelves or walls. With the new side scrubber deck, this can no longer happen because it swerves inwards. Manual reworking at the edges is thus eliminated.

More product information online at: [kaercher.com/professional](https://www.kaercher.com/professional)



THE IMPACT PROTECTION AND THE WORKING LIGHTS on the B 110 R Bp ensure a positive user experience.



» ONE SYSTEM, COUNTLESS FIELDS OF APPLICATION.«

MARIAN ANTON, SPECIALIST SALES TRAINING PROFESSIONAL PRODUCTS



THE CARRIER SYSTEM reduces the necessary holding force when working with the individual facade cleaning system components.



The **SYSTEM SOLUTION FOR FACADE CLEANING** achieves optimal cleaning results for solar panels, ground areas and aluminium, glass, stone and plaster facades.

1 TIP 1: CAN BE USED FLEXIBLY ANYWHERE

With the up to 14-metre-long multi-functional telescopic lance, you can reach even remote and lofty heights. A simple water connection is sufficient - there is no need for high-pressure cleaners, scaffolding or a cherry picker. It is important to only use osmosis water in order to avoid water stains. The soft, blue brush is perfect for glass and other sensitive surfaces.

2 TIP 2: VERSATILE

Apart from overhead facade cleaning (as shown above), the telescopic lance also enables efficient cleaning of areas that are difficult to access in high-ceiling rooms. A vacuum cleaner simply needs to be connected and then the telescopic lance acts as a suction tube.

More product information online at: [kaercher.com/professional](https://www.kaercher.com/professional)



WHEN SOAP DISPENSERS SCHEDULE OPERATIONS

Avoid unnecessary work, eliminate paperwork - with digital tools

What is needed to clean a building? A cleaner, cleaning technology and a work schedule. Nothing else? Cleanliness is currently very important, and at the same time in many places there is a lack of cleaning personnel. The key to success is efficiency, even in the cleaning sector. How the use of sensors is leading to chatty soap dispensers, what artificial intelligence (AI) can do for work scheduling, and how cleaners get their jobs via their smartphones in real time.

Take John F. Kennedy Airport in New York. Its overall terminal surface area is over 350 hectares. Even with clever work scheduling, cleaners sometimes have to walk long distances from one work location to the next. At the same time, the cleaning work is mostly performed in accordance with the visual control principle. "I am out and about for quite a while just checking that the rooms are clean and the soap or hand towel dispensers are still full," explains Sri Sridharan, CPO of Zan Compute Inc. The AI specialist from Santa Clara (California) aims to make unnecessary trips and work visible for their customers and thus reduce them.

"A GOOD THIRD OF CLEANING TOURS ARE USUALLY UNNECESSARY"

The concept of needs-oriented cleaning can be implemented with the clever use of sensors and artificial intelligence. "Our sensors record the footfall in a room and measure the filling levels of consumables," says Sridharan. In order to ensure anonymity, reliable radar sensors monitor the number of visitors - no photos are taken.

"Our AI uses the information collected to calculate recurring patterns and a dynamic cleaning schedule. It reduces the time spent on unnecessary tasks and tours by up to 30 per cent." Real-time adjustments are possible at any time. Thus, for example, if there is an increase in footfall in an area that is usually less frequented, the system immediately reports the resulting cleaning requirements.

"EVEN A DETAIL SUCH AS A REFUSE BAG IS RELEVANT"

Meanwhile, 15,000 sensors have been installed by Zan Compute in the USA alone. The data evaluation for various buildings has shown that every minor detail plays a role. "Refuse bags are often replaced even though they are only half full or less," explains Sridharan. "If the specification states they should be replaced only when 70 per cent full, time and consumables are saved. In combination with the information as to how often sanitary facilities are frequented and must therefore be cleaned, in one large building we were able to reduce the working time for inspection tours by 50 per cent."

"THINGS ARE EASIER WHEN EVERYTHING IS DIGITAL"

Besides more needs-oriented building cleaning, efficient work scheduling and control play an important role. In many companies, a significant amount of organisation is still based on paper notes and instructions, i.e., passing around performance specifications or manually documented working times that subsequently have to be entered into a PC. Such media discontinuities take up a lot of time and cost money.

WHO IS WHO: SRI SRIDHARAN

Sri Sridharan is a partner and CPO (chief product officer) at Zan Compute Inc. As an expert in software development, he was employed by the Intel Corporation for 26 years, built up extensive expertise there and obtained numerous patents. He studied at the Indian Institute of Technology (IIT Madras) and has qualifications including master's degrees in chemical engineering and computer science from Southern Illinois University. Privately, Sridharan founded the Sankara Eye Foundation, which fights treatable eye diseases in India.



Sri Sridharan, Partner and CPO (Chief Product Officer) at Zan Compute Inc.



“Previously there was no comprehensive solution that small companies could also afford. Our mission is to organise the digital management of buildings, employees and work assignments,” states Philipp Andernach, managing director of SoniQ. “Building managers have to keep track of so many things. We help them to concentrate on the quality of the cleaning service.”

“THE COMPLETE PROCESS FROM A TO Z”

In contrast to already available solutions, which cover only part of the process, the SoniQ solution has the entire process in view. On the basis of building data and performance specifications, a building manager can assign employees via a PC or an app – taking into account hours already worked, qualifications, availability on site, illness or holidays.

The cleaner can be navigated to the assigned work location, log in and out at the start and end of work, and accept new assignments by app. The photographic documentation of completed jobs increases transparency for the customer. “That’s a competitive advantage because activity that the customer can follow increases customer satisfaction,” says Andernach. “At the same time, our solution is so intuitive and simple to use that no training is necessary.”

“WHEN I’M DESPERATELY LOOKING FOR BUILDING MANAGERS...”

Administration is necessary, but unnecessary time-consuming activity lowers productivity – nowadays hardly any company can afford this. On average, users of the SoniQ solution save 30 per cent of the working time for administrative tasks, and thus around 20 per cent of the costs. Experience proves that small companies can keep their administration lean enough so that one back-office worker can implement all the process steps without any problems.

“With large companies, the lack of specialised personnel is particularly apparent,” explains Andernach. “When I’m desperately looking for building managers, I’m glad if I can save the working time of up to three building managers through the use of software. Not because I want to cut back on staff, but because I can’t find them.”

“WHEN A SMILEY SHOWS APPRECIATION...”

Were you satisfied with the level of cleanliness? Building users are increasingly confronted with this question, for example, when they leave sanitary facilities. Meanwhile, the operation of such systems is contact-free in order to avoid



unnecessary contact with surfaces – and they make an additional contribution to visualising the result of cleaning. “Of course, it’s always about working efficiently and making a company economically fit,” sums up Andernach. “But the transparency that is now possible through digitalisation also achieves something else entirely. A simple smiley helps to make the appreciation of cleaning services visible and to encourage it.”

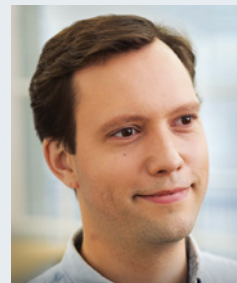
better. This is exactly where SoniQ is going, explains Philipp Andernach: “Our objective is ultimately to make all digital offerings available for building service providers and other users via the [SQ] ONE platform.” When a user-friendly, multilingual interface can provide access to cross-manufacturer fleet management, to the control of needs-oriented cleaning, to the recording of building user satisfaction and to the digital control of all business processes – then everything is digital, except the cleaning itself. Welcome to the future. ■

“IN THE END, EVERYTHING WILL BE DIGITAL - ALMOST”

Even in a world characterised by physical work and hands-on activity, digital tools bring progress if they are used correctly. The fewer different systems have to be combined with each other, and the more strictly a solution is applied, the

**WHO IS WHO:
PHILIPP ANDERNACH**

Philipp Andernach is managing director of SoniQ Services GmbH. The manager and tech entrepreneur has extensive experience in the area of mobile and cloud services and has built up various technology start-ups. He has worked for Home24 SE, Rocket Internet SE and Axel Springer SE, amongst other places. Andernach studied business management, law and political sciences in London, Berlin, Paris and Munich and has an M.Sc. in business management/market economics from ESCP Europe.



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Philipp Andernach,
Managing Director of
SoniQ Services GmbH





Intuitive operation, easy handling, compact stowability – clever product design makes the advantages of a product visible and tangible.



Powerful, rectilinear, refreshing – our industrial designers are always guided by these Kärcher brand values when they are designing new products such as the K Mini pressure washer.



Michael Meyer,
Director Industrial Design
Home & Garden Products



Never losing sight of the user experience

DESIGN MAKES THE DIFFERENCE

When it comes to the exact definition of “design”, opinions often vary greatly. However, one thing is clear: it involves much more than aesthetic aspects. Instead, successful product design is based on clear rules that have been developed continuously at Kärcher over the years.

Clever design breaks through traditional ways of thinking and questions human habits. It creates new products that are not only better than their predecessor models but also take sustainability aspects into account and turn overall product handling into a positive experience. This starts with the unboxing, continues when using the product and ends when storing it away.

As soon as design relates to consumer or capital goods, it is referred to as “industrial design”. Like all industries, industrial design is also subject to changing times, and the fulfilment of customer requirements plays an even more central role. The two industrial design directors, Michael Meyer (Home & Garden) and Denis Dammköhler (Professional), explain how Kärcher manages to offer worldwide users more and more solutions for all types of cleaning tasks. “At the moment we are working very hard on delivering a repeatable, positive ‘Kärcher experience’ to our customers,” explains Michael Meyer. “For this, we developed what is known as a corporate user journey. It aims to make using our products a great experience – at all points of contact that the user has with the product.”

FOCUS ON ADDED VALUE

Linking the three aspects of functionality, user friendliness and aesthetics in order to create a unique brand experience with a “WOW effect” has always been firmly anchored in the Kärcher design DNA – across all product groups. As a result, the design teams focus not only on user-friendly design but also on all downstream processes such as the product manufacturing technologies. The overall target is to generate added value. This is also subject to social developments and megatrends such as digitalisation, sustainability, robotics or urbanisation. This means that people make increasingly higher demands of goods and examine products very critically before they make a decision to buy.

Often it is emotions that trigger the first impulse as to whether or not to buy a product, because a product should also bring the user enjoyment. That’s why the Kärcher designers take a closer look at the everyday lives of customers. “In my opinion, the product design process in the future will be increasingly tied to the goal of designing experiences for the customer and not “just” products.



»» OUR DEVICES SHOULD DO A GOOD JOB AND AT THE SAME TIME BRING OUR CUSTOMERS JOY.««

MICHAEL MEYER

Because technically perfect products and services have long been considered a matter of course. Therefore, the individual “journey” of the customer with our products will be crucial for the long-term success of the Kärcher brand. Our products can also be understood as an emotional commitment that we give our customers,” adds Michael Meyer.

Therefore, customer needs and a positive user experience are also the focus of the design strategy in the Professional area. Denis Dammköhler has been with Kärcher for 22 years and has witnessed at first-hand how the perception and importance of design have changed over time: “Nowadays it is no longer primarily about appearance and functionality, but also always about the communication of values and corporate culture.” For Denis Dammköhler, design is of course much more than mere visual appearance. “A smart, thought-through product design always involves forward planning based on sense and logic,” something that becomes especially noticeable with digitalisation, which is increasingly taken into consideration in product design. Over the years, processes have increasingly shifted to the virtual world – this means that work methods have become faster and more flexible, which opens up completely new design possibilities.

PRODUCTS THAT PROMISE PERFORMANCE AND FUNCTIONALITY

Another key aspect in product design is the working environment. Denis Dammköhler explains: “Because a professional user works several hours every day with our cleaning machines, our machines must create the best possible working conditions. This also relates to the health of the user and intuitive handling of the machines.”

»» A GOOD DESIGN ALWAYS INVOLVES FORWARD PLANNING BASED ON SENSE AND LOGIC.««

DENIS DAMMKÖHLER

This is why the designers also develop user and stakeholder journeys in the Professional area which emerge from direct cooperation with product users. This means that the customer brand experience can be further optimised. One example is the Kärcher platform D municipal equipment, comprising different modules for year-round municipal use – from sweeping to snow removal. Feedback from customers focussed on easy handling, improved spatial awareness and even greater safety. With the market-oriented optimisation of the MIC and MC module structures, Kärcher is pursuing machine concepts that are designed for individually adaptable configurations.

For example, fatigue-free work is possible through intuitive operation using a joystick and a large interface graphics display. Thanks to the networking of individual operating elements through to programme systems, the number of switches in the cab could also be reduced considerably. The forward-inclined windscreen enables better spatial awareness, and the new airflow system allows optimal working conditions in warm and cold weather. The driver benefits from a more pleasant interior climate and has a clear view at all times.

It becomes clear that functional product design not only considers aesthetic aspects but is also a conscious decision based on clear design rules and closely oriented to customer needs. The future of the Kärcher brand will therefore always also be closely linked to the design of products and product experiences. ■



More information about this topic:
www.kaercher.com/difference



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Designed based on customer needs: the Kärcher municipal machines impress with intuitive operation, improved spatial awareness and even greater safety.



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A working environment that is adapted to customer expectations and efficient work processes plays a key role in Kärcher product design.



.....
Denis Dammköhler,
Director Industrial Design
Professional



VISIT TO THE VILLAGE OF HOPE

After a long and difficult past, the small Colombian village of Bocas del Carare now finds itself on its own unique path to the future – green, modern and in harmony with nature.



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Ever since the set-up of the green filter facility, only treated waste water is directed into the Magdalena River – the lifeline of the region.



Alfredo Palacios starts his job at six o'clock every morning. He was previously a fisherman. Now the 47-year-old is responsible for the maintenance of the green filter facility in his home village of Bocas del Carare. "My work makes me feel good. And when you do a job that you like, then you always do it with love."

For Alfredo, the filter facility symbolises the transformation that Bocas del Carare has undergone. "This village has changed considerably," sums up the father of five children. Civil wars have been rife in Colombia for many decades. Particularly in the 1980s and 1990s, there were numerous violent

conflicts nationwide. At the time, paramilitary groups terrorised the area and used violence to force the inhabitants from the village. "But now, thank God, things are very quiet," says Alfredo, who at the time also had to drop everything and flee from the village, but returned again later.

The green filter facility cleans the village waste water before it is directed into Colombia's longest river, the 1,528-kilometre-long Magdalena River. The isolated fishing village is in the north-east of the country in the Santander district and is only one of five places in the country to have such a facility. Before the system was installed, the dirty water from houses,

shops, the local restaurant and the two hotels flowed into the river unfiltered. As a result, the water was very contaminated and many fishermen in the village were left without a livelihood because the fish were inedible.

Clean water thanks to the power of plants

In 2016, the non-governmental organisation Fundación Humedales in Bogotá joined forces with the Global Nature Fund to tackle the problem. With financial support from Kärcher, the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Swiss company Sika, they installed a remarkably simple system to help Bocas del Carare.

» THE GREEN FILTER FACILITY HAS IMPROVED OUR QUALITY OF LIFE SIGNIFICANTLY.«

ALFREDO PALACIOS



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The majority of the village inhabitants make a living from fishing. The green filter facility has improved the water quality significantly, which in turn has had a positive impact on the health of the fish.

Instead of using chemicals, the solar-powered, 1,600-square-metre facility uses plants to treat the waste water – with a very simple operating principle: the community channels its waste water to the pretreatment area of the green filter facility. Firstly, coarse components are filtered out and the flow rate is reduced. Oils and fats are also separated out in the first stage. The water then ends up in open channels filled with water hyacinths. In the shallow and narrow channels, the water flows around the plants' root systems and is cleaned by the interaction of microorganisms and roots. Water samples can be taken from an inspection tank to test the quality. The water flows back into the Magdalena River.

New habitat for flora and fauna

When the water goes back into the natural cycle, it is 95% clean. "The local animal world also benefits from the filter system," explains Alfredo. "There are now many different birds and insects at the green filter facility who were not there previously." In the late summer of 2019, a small cayman even made himself at home in the shallow water of the green filter facility. The local residents hope that more animal species will follow and develop their own ecosystem around the green filter, which also offers highly endangered species a new home. "Zoologists regularly come to the village now. Even students from France and Spain were here to research the

local fauna and flora." Alfredo wants even more visitors. "The green filter facility has improved our quality of life significantly. We can now look to the future full of hope." ■



More information about the topic of green filter facilities can be found here: www.kaercher.com/difference

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Alfred Kärcher SE & Co. KG
Bernd Rützler, Executive Vice President
Corporate Marketing & Brand Management
Alfred-Kärcher-Str. 28-40
D-71364 Winnenden, Germany
T +49 (0) 7195 14-0
F +49 (0) 7195 14-2212
www.kaercher.com

Design, editing, creative direction

Vera Umbrecht, David Wickel-Bajak
Sabrina Fackler

Art direction

Britta Raab/Studio Somo

Authors

Silvia Kling
Alexandra Lachner
Sabrina Fackler
Mathew di Salvo

Photographs

Alfred Kärcher SE & Co. KG
David Franck
Luis Cano

Illustrations

Julian Rentzsch
Irene Sackmann/carolineseidler.com
Claudia Meitert/carolineseidler.com

Sources

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Sustainability at Kärcher

[kaercher.com/CSR](https://www.kaercher.com/CSR)

KÄRCHER is the world's leading provider of cleaning technology. With high- and ultra high-pressure cleaners, vacuum and steam cleaners, vacuum sweepers and scrubber dryers, vehicle wash systems, detergents and cleaning agents, dry ice blasters, drinking and waste water treatment plants, water dispensers, pumps and watering systems for home and garden, Kärcher offers a range of innovative solutions. These include compatible products and accessories, along with advice, service and numerous digital applications. In 2020, Alfred Kärcher SE & Co. KG achieved a turnover of 2.721 billion euros, the highest in its history. The family-run company employs 13,500 staff in more than 130 companies in 73 countries. Over 50,000 service outlets provide comprehensive service for customers all over the world. Innovation is the most important growth factor for the company, and it has been a pillar of our corporate culture since our founding in 1935: around 90 per cent of all products are five years old or younger. A total of more than 1,000 employees work in research and development at the cleaning device manufacturer.

www.kaercher.com