

The high pressure digitizer

The automation of cleaning tasks is one of the most demanding challenges

At the end of the 1970s, Johanna von Koczyan, a pop singer, sang “Das bisschen Haushalt macht sich von allein” (That wee bit of housework will take care of itself), humorously drawing attention to the fact that cleaning, washing and cooking were activities that had to be taken seriously and were physically strenuous due to poorly developed technology. However, much has changed in recent decades: These days, floors really do clean themselves - with the help of robotic vacuum cleaner. One of the first suppliers of automatic household aids was Kärcher, a company that recognized early on the opportunities inherent in digitalization, whereby – as Hartmut Jenner, alumnus of the University of Stuttgart and CEO of Alfred Kärcher SE & Co. KG – is convinced, the opportunities outweigh the risks.

? Kärcher produced the first ever robotic vacuum cleaner - what is the current situation regarding autonomous cleaning?

➤ In fact, we were the first supplier worldwide to offer a fully automatic floor cleaning robot for private households. At that time, the device was not only at the cutting edge of technology, but also conceptually years ahead of the competition. The current successor model, the RC 3, is even more intelligent thanks to progress in computing power and sensor technology and includes, for example, a laser navigation system for surveying the room. I can also use an app and a calendar function to define cleaning zones and times according to my own personal needs.

We are also much further ahead in research and development in the commercial sector than just a few years ago. This applies to robots for floor cleaning

as well as window cleaning. We invest in start-up companies through Kärcher New Venture GmbH, for example, which are pursuing some very creative approaches in this field.

The one thing you should always keep in mind is that the automation of cleaning tasks is one of the most demanding technical challenges of all and for one simple reason: cleaning is always a downstream process. In terms of complexity, this means, among other things, that the environment in which cleaning takes place is usually pre-defined by someone who is supremely indifferent to how it is subsequently cleaned. In this respect, the same applies to robotics as to conventional cleaning technology: anyone in our industry who fails to understand in detail what the customer actually does and needs every day will not survive in the market for long.

? You have been at the head of Kärcher for almost two decades now. How has digitization changed the market for cleaning equipment during this time?

➤ As I've just indicated on the subject of robotics: by themselves, even the most expensive chips and sensors will not lead to success. What makes a difference are clever concepts tailored to the reality of the customers' work and lives that offer them tangible added value here and now. One key word currently used in this context is “networked cleaning services”. “Networked” in many ways including the networking of machines and software, of user knowledge and database systems, of customers and service providers and, last but not least, of manufacturers and service providers. With our “Connected Cleaning” system solution, for example, cleaning specialists can be deployed exactly when a requirement for cleaning services arises. In this respect, our industry is undergoing a development comparable to that of telematics in road traffic.

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Hartmut Jenner, Chief Executive Officer of Alfred Kärcher SE & Co.

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? How has Kärcher reacted to these challenges and what are the strategies for the future?

➤ We took account of digitization in our strategic planning over a decade ago. This naturally includes our internal processes from the paperless office to industry 4.0, but also completely new, disruptive business models. We are active in the international start-up scene through our subsidiary Kärcher New Venture. In 2017 we founded Zoi TechCon GmbH, our own IT consulting company, which concentrates on the development of digital solutions, cloud transformation and electrical engineering and also offers these services to third parties.

? Industry 4.0 also creates new competitive conditions in global markets. Nevertheless, Kärcher deliberately decided against going public. How can the culture and values of a family business be preserved and developed against the background of globalization?

➤ Family businesses and globalization are not mutually exclusive - on the contrary: the value orientation and the strong cohesion of owners, management and staff, which are typical for family businesses, imbue

people with the security and self-confidence that are necessary to open up to new and foreign ideas. And in the final analysis, it all comes down to people. The statutory provisions force us to list employees not as assets but as expenses in our accounts. However, it is obvious that a company's real value lies not in machines, buildings or financial means, but in its people, because, without people, machines and buildings are worthless, whereas a person without machines and buildings loses nothing of his or her value. So focusing on people is not just an imperative of common decency, but also a basic prerequisite for sustainable corporate management.

? Kärcher also uses its technology for the preservation of cultural monuments, for example in collaboration with the University of Stuttgart's Materials Testing Institute, at Mount Rushmore in the USA. What is the special attraction of such projects?

➤ Our commitment to listed properties is unique in the world. None of our competitors has succeeded in copying us in this so far - although this program has existed since 1980. Which sponsor can say that about themselves? We have restoratively cleaned



Cleaning services 4.0: For Kärcher, the combination of innovative technology and clever concepts that take account of the working and living reality of customers and offer them tangible added value is the basis for the effective, intelligent automation of cleaning tasks.

Image: Kärcher

over 140 monuments during the past 40 years. Each project is unique and presents our specialists with new challenges. In addition to the invaluable experience gained by Kärcher, we can demonstrate our technical competence in these initiatives and associate our cleaning products with cultural assets that are among the most valuable that humanity possesses.

? As an alumnus, you are associated with the University of Stuttgart in many ways. What does your commitment involve and what motivates you?

➤ My university studies in business administration and engineering in Stuttgart laid the foundation for my future career. I'm still very grateful for that today. I continue to maintain close contact with the University of Stuttgart, and am frequently involved in lectures and discussions. Our company collaborates with your university and supports events and

projects, among other things. And last but not least, I am a member of the Board of Trustees for the University of Stuttgart's Business Management Support Group.

? What will students need to be able cope with the changes brought about by artificial intelligence?

➤ Students will need what their predecessors have always needed since antiquity and in every century: curiosity, taking delight in astonishment, which according to Plato is the beginning of all philosophy, which is to say of all scientific reflection. Curiosity is about being open and questioning the seemingly self-evident; taking pleasure in knowledge and research, combined with the will to get to the bottom of things. Also, the willingness to take responsibility for oneself and society: it will take no more than that to make one's way and succeed even in our time, which is certainly one of upheaval. Of course,

no one can say where the journey will lead. But it's always been that way. Whoever invented the wheel was presumably not thinking of Formula 1 at the time. Artificial intelligence is a technology that will revolutionize many areas of human life. It is up to us to make something really good out of it for the benefit of as many people as possible. I actually envy the young people who will have the chance to participate in these developments over the coming decades and drive them forward.

? Against this background, what would you want to see from your Alma Mater?

➤ I'm convinced that digitization will not only pose great challenges for companies, but also for universities, and that it will present opportunities at the same time, more opportunities than risks, in fact. I therefore hope that the University of Stuttgart will assume a pioneering role and also set an example in the field of digitization, and that we in Baden-Württemberg will continue to take control of our technical, scientific and social future in the coming years and help shape it with a plethora of novel ideas.

Questions by Andrea Mayer-Grenu



Image: Kärcher

Business studies and engineering graduate Hartmut Jenner is Chief Executive Officer of Alfred Kärcher SE & Co., where he has worked since 1991. After completing his studies at the University of Stuttgart, he was initially employed as Assistant to the Commercial Director before being promoted to Head of Operational Accounting. He became the Commercial Manager and Deputy Di-

visional Manager for Systems Engineering in 1994 before taking over as Head of the Home & Garden business unit (consumer products) in 1997. He has been Chief Executive Officer for North America since 1998 and was appointed Managing Director in 2000, and, one year later, Chairman of the Board for the Kärcher Group and Member of the Board at the Alfred Kärcher Foundation.