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Stefan Scheiber, CEO, and Calvin Grieder, Chairman.

THE FUTURE IS NOW!

Dear customers, colleagues, and business partners,

Any strategy is only as good as the operational implementation it precedes. In this sense, 2019 was a confirmation of our fundamental orientation in several respects.

First, this applies to the acquisition of the Austrian Haas Group at the beginning of 2018. Our goal was to form a third strategic pillar together with the leading company for wafers, biscuits, and cookies. The Consumer Foods segment, which was formed in 2019 from Haas and the corresponding Bühler business areas, is in a position to cover our customers' integrated processes and value chains and thus to develop and offer comprehensive solutions. This strategic step was rewarded by our customers. We have won market share on the basis of this new solution competence. We were able to complete the integration of Haas earlier than planned, and we fulfilled the business plan underlying the acquisition.

Bühler Group's business performance was stable in a volatile market environment. While the turnover of the food and feed business continued to grow, Advanced Materials had to cope with a decline, mainly caused by the current weakness of the global automotive industry and ongoing international trade conflicts.

Second, our multi-pillar strategy has proven its worth under difficult conditions. Overall, Bühler's order intake reached CHF 3.1 billion (-4.6%), turnover was CHF 3.3 billion (-0.5%), and EBIT increased to CHF 248 million (+7.5%), with an EBIT margin of 7.6% (previous year: 7.1%).

Third, our focus on innovation and sustainability was met with impressive approval at the opening of our CUBIC innovation campus and during the Bühler Networking Days 2019 in August. More than 800 executives from customers, industry partners, scientific institutions, start-ups, and NGOs from all over the world came to Uzwil for several days to work with us on developing sustainable solutions for the future. The challenges are enormous, and so is the potential of new technologies. As an industry, we have a responsibility to respond to these pressing threats with new solutions and concepts. Therefore, we have applied the credo "The future is now" to our 2019 Annual Report. Our key factors for success – now and in the future – are people, innovation, and collaboration.

We wish to express our sincere gratitude to our customers, partners, our workforce and their families, and our owners. Our success and our ability to feel good about all that we have achieved is due to your commitment and trust. We look forward to working closely with you for years to come.

Yours faithfully,



Calvin Grieder
Chairman of the Board



Stefan Scheiber
Chief Executive Officer



More about
our sustainability
strategy

“OUR MISSION HAS JUST BEGUN”

Bühler Chief Technology Officer, Ian Roberts, explains industry's role in creating a sustainable future and underlines the importance of collaboration and digitalization in reaching our new sustainability targets.

Interview: Michèle Bodmer, Head of Publications and Multimedia

Ian, what motivates you to work at Bühler?

Bühler is a family company, and the family holds us to two guiding principles: we must be technology leaders in our industries, and we must run the company like a family, taking decisions on behalf of future generations. Combining these principles, it is possible to create a powerful culture of innovation, sustainability, and entrepreneurship. Our strong market positions in the food system and in automotive enable us to scale solutions globally and multiply the impact they bring.

What is your focus for the coming years?

In short, it is to create new business opportunities that drive financial sustainability, while enabling us to play a key role in tackling global issues. The Intergovernmental Panel on Climate Change (IPCC) report of November 2018 outlined our challenge very clearly – if we are to have a chance of restricting climate change to less than 1.5°C in 2030 versus pre-industrial times, we must act now. We announced our targets at the Networking Days 2019, to reduce energy, waste, and water consumption in our customers' value chains by 50% by 2025 and we are focusing our R&D activities, our ecosystem activities, and our energy on achieving these targets.

How have advances in technology changed Bühler's approach to sustainability and innovation?

Digital technology has changed industry, and it has also touched every facet of life. Twenty years ago, it was unimaginable that we could connect data across complete value

chains from, for example, farm to consumer. Today, we can do that. Our partnership with Microsoft has been a great example of working together to create a platform to provide the data transparency necessary to optimize value chains as a system. This provides another means with which to contribute to our targets of reducing energy, waste, and water consumption by 50%.

We also see diet evolving rapidly. News of epidemics, such as swine fever and the growing awareness of the CO₂ footprint of meat, fuel dietary changes towards sustainable proteins while consumers have access to more information and to more opinion leaders. This strongly influences their purchasing decisions. Meanwhile, the role of electric, hybrid, and ever-more intelligent vehicles is changing infrastructure and technology requirements, leading to increased need for new materials and greater connectivity.

More than technology, how we innovate is changing. Start-ups, developing new products with high speed and agility, are disrupting value chains with new business models. More and more, innovation occurs among an ecosystem of partners, be they academics, suppliers, customers, start-ups, NGOs, or institutions, thus the capability to partner and create win-win relationships is increasingly important.

How do we create business opportunities for our customers out of mitigating climate change?

Industry can become part of the solution for today's challenges. More than that, it makes good business sense. The challenge many of our customers face today is that

they will be held accountable by consumers, the public, and their investors on how they run their operations. Running production facilities with lower energy, lower emissions, less waste, less water, and higher yield lowers operational costs and is more sustainable. It is also an important factor in attracting talent – the lifeblood of any company. Most young people today want to work for a company that is delivering on a great purpose and has a genuine and significant positive impact.

Looking back at 2019, what are some of the solutions we have brought to market that are going to create an impact on our sustainability targets and those of our customers?

There are numerous examples that have come to market in 2019. The Mill E3 demonstrates how we can create a step change in a traditional industry. Another example is in our CUBIC innovation campus. The use of Saint-Gobain SageGlass, with its electrochromic coating, enables us to reduce energy consumption of the building by up to 35%. SageGlass is coated with Bühler Leybold Optics technologies.

Our Digital Cell for die casting, which enables us to reduce unplanned downtime through preventive maintenance, reduces the production of scrap. Or look at Laatu, our food safety solution for dry goods. It's a wonderful example of collaborative innovation between several technology partners to create a solution that makes foods safe without the use of heat. This non-thermal solution reduces energy consumption by up to 80% compared to solutions using steam and it eliminates water or chemical use. It inactivates harmful microorganisms such as E. coli, salmonella, and spores in milliseconds. We just treat the surface of the dry goods, which means we don't damage the nutritional profile of the product and we deliver a safe product at a high throughput.

In 2019, our colleagues in Bühler Digital Technologies in London won the Queen's Award for Enterprise for a unique camera technology they designed for sorting machines. This breakthrough innovation will make a major contribution to ensuring healthier and safer nutrition around the world.

In terms of digitalization, how far have we come and what do we still need to change?

We have gone very quickly from being digital novices to being among the leading players in our industry. But this did not happen overnight. We started this journey at least 15 years ago, by working on the quality of our data and standardizing the systems deployed across the company. We have automation, control systems, data storage, and customer service in place, and we have the data scientists to create value using advanced mathematical techniques.

With our digital platform Bühler Insights, we now have the capability to connect 85% of the technologies we have in the market. We can capture data and optimize processes in a way that brings huge value to our customers, not just in terms of visibility and transparency, but in terms of the actions they can take to optimize their processes. For example, we can now improve the yield of flour mills by several percentage points, after generations of optimization, this is significant. Every month we quantify additional benefits for our customers. We've come a long way in terms of digitalization, but the journey will not only continue, it will accelerate.

What are you doing to drive innovation globally?

We are replicating the strong ecosystem approach that we have in Switzerland in other regions of the world. In the United States, for example, we have built partnerships with start-up accelerators and academia, centered around our new innovation center in Minneapolis, Minnesota, and our upgraded facilities in Raleigh, North Carolina. In China, we have a strong R&D presence and have established partnerships with start-ups, accelerators, and academia. China is one of the most digitalized nations on earth, with a rapidly moving innovation space. Around London, we access a strong ecosystem of start-ups, accelerators, partners, and some of the leading academic institutes. We are also excited about the burgeoning innovation ecosystem in Singapore.

Where is our innovation journey ultimately leading?

I think it's very clear. According to the IPCC report, a rise in global temperatures of 2°C instead of 1.5°C above pre-industrial times will result in catastrophic, irreversible consequences for our planet. That means by 2025 we must have solutions available across our ecosystem that will enable us to reduce energy, waste, and water consumption by 50%. That is the last moment that it will be possible to scale these globally before 2030.

Some of these will be disruptive and some will be a case of optimizing the installed base. We shouldn't forget how important that is. The biggest, fastest impact we can have is to take the globally installed base of technologies and processes and make them more efficient. That will have a profound impact on CO₂ and greenhouse gas emissions.

We increased our targets to reduce waste and energy in our customers' value chains from 30% to 50% and we've added water. Have we already achieved the first goals?

We were making progress on our mission to achieve the 30%; we were beginning to get the first results and the first impact. But now we feel 30% was not enough. We can see that the need to act is critical. Will the legacy of our generation be that we acted or that we did nothing? At Bühler, we will be able to say that we are working to be part of the solution. We have a phenomenal opportunity with our customer base, our innovation ecosystems, and our partners to bring profound and wide-scale impact that will directly mitigate climate change. There is no silver bullet, however. We have to reduce emissions, but that's not all. We will also need carbon sequestration programs, global education programs, and changes in diet, to name but a few. And if we are going to feed nearly 10 billion people in 2050, we also have to do it with less land.

Considering that 71% of the world's fresh water is used in agriculture, but one-third of the world's food is lost or wasted, this equates to 24% of the world's fresh water used to create waste or loss. That is just untenable. We have to play our role, but it requires a systems approach, where there are multiple solutions and everybody can play a part.

How are we going to track progress toward achieving these 50% goals?

We have taken 2016 as our baseline. With rigorous CO₂ evaluation tools we will quantify the impact of our technologies, solutions, and products. We will ensure that the CO₂ impact of



Ian Roberts has been working at Bühler since 2011. He was named European CTO of the Year in 2016.

“The biggest, fastest impact we can have is to take the global installed base of technologies and processes and make them more efficient.”

IAN ROBERTS
Chief Technology Officer

our technologies and activities is understood. We believe that this will support our customers to take informed decisions and focus our innovation activities.

We have kicked off a program to support our employees to calculate their own CO₂ footprint, and we will propose ways to reduce wherever possible and, if not, to draw down carbon emissions using validated programs. We have ambitious plans to have this in place during 2020. We have access to extraordinary technologies and networks – now we have to go to full value-chain thinking. If I could drive one culture change across industry, it would be to make collaboration a core competence. Only then can we really talk about industry being not just part of the solution, but a key driver in the solution.

Which collaborations are good examples of how we should work in the future?

One is the Future Food Initiative, launched by ETH Zurich and EPFL in cooperation with three industry partners, including Bühler, that are investing to build a critical mass of knowl-

edge and capability that will be beneficial on a global level. Another is MassChallenge, which is a number of companies that sometimes have a competitive overlap in their business working together to support and boost the start-up ecosystem without taking equity. Then there is Unitech, which teaches engineers how they can use their skills for the future.

At Networking Days 2019, you asked: “Are we doing enough as an industry? Are we doing enough as a business? Are we doing enough as individuals?” What has changed since then?

As an industry, we have tremendous impact. We are committed to finding partners and supporting our customers to bring about this 50% reduction in their value chains. We will convene, inspire, learn, share best practices, and act. We encourage a mindset of collaboration to drive change. As a business, our focus is on achieving the 50% reduction targets by 2025. If R&D investment requests do not support us in achieving these goals, then money will not be forthcoming for projects.

And as individuals, we are supporting our employees to understand their carbon footprint to learn how they can reduce it with lifestyle choices or with validated drawdown programs. I am also delighted that we are moving ahead with our partnership between MassChallenge, the World Business Council for Sustainable Development, and One Young World in order to identify the 10 most promising solutions or technologies to mitigate climate change every year. With our collaborations and partnerships, we can then determine real solutions that could make a difference, support them with access to financing, expertise, and more importantly, to the global companies that will enable them to scale their solutions. I think if we pull that off, I can look my children in the eyes and say: “Yes, we did act.”