# **GROUP REPORT**

Innovations for a better world	2
In the region, for the region	8
Our employees	10
Bühler's core topics	14
Sustainable Development Goals	16

# INNOVATIONS FOR A BETTER WORLD

2019 marked a milestone in the history of Bühler. With the opening of the CUBIC innovation campus, the Bühler Networking Days in Uzwil, and the new partnerships formed, the company has expanded its innovation ecosystem, while the operative business proved its robustness under difficult conditions.

The development of sustainable technologies and process solutions in close collaboration with customers, industry partners, scientific institutions, and start-ups was taken to a new level in the 2019 business year. As a driving force behind this innovation ecosystem, Bühler resolved to elevate its sustainability targets – striving to reduce energy, water consumption, and waste by up to 50% in the value chains of its customers by 2025. Recognizing the increased urgency presented by global climate and environmental challenges, Bühler is committed to transforming them into profitable, quickly growing businesses. Bühler's position and market differentiation have been further expanded and strengthened with these initiatives.

Operationally, Bühler's strategic positioning as a provider of industrial solutions with three segments proved its worth in 2019: In an increasingly challenging and volatile environment, the good performance of Grains & Food (GF) and Consumer Foods (CF) was largely able to balance out the declines in Advanced Materials (AM). On the Group level, the

incoming orders and turnover remained stable, while profitability was further increased. A noteworthy highlight is the successful and ahead-of-schedule integration of the Austrian Haas Group following its acquisition in 2018, and the formation of the new Consumer Foods business in January 2019. In 2020, Bühler plans for a stable and positive business development.

# Increased profitability with stable volumes

The course of the business development in the segments varied widely. While order intake for GF continued to grow at CHF 1.8 billion (+5.2%), for CF it declined slightly to CHF 775 million (-1.7%), and AM had to absorb a decline of 32.2% in order intake to CHF 488 million, largely due to the automotive industry. Overall, order intake for the Group amounted to CHF 3.1 billion (-4.6%). The same picture emerges with regard to turnover. On the Group level, Bühler's turnover was CHF 3.3 billion (-0.5%). With turnover of CHF 1.8 bil-









Excluding corporate bond of CHF 420 m.

lion (+0.9%), GF demonstrated robustness. Getting high levels of orders into turnover in a timely manner remains a key focus. CF turnover was CHF 774 million (+2.5%). At CHF 649 million, the turnover of AM dropped by 8.0%. The order backlog on the reporting date was CHF 1.8 billion (previous year: CHF 1.9 billion).

Along with this divergent course of business, there was also a shift in regional development. While Asia and Europe drove growth in the past year, in 2019 North America and Middle East & Africa took over this role. For the first time in years, Bühler recorded a standstill in China due to market saturation and tariff conflicts. Regardless, its geographic bandwidth remains balanced. With regard to turnover, Europe makes up 30%, Asia 31%, North America 16%, Middle East & Africa 14%, South America 6%, and South Asia 3%.

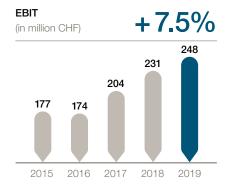
Structurally, Bühler was able to further improve the breadth of its portfolio in 2019. Customer Service (CS) turnover grew by 2.9% to CHF 694 million, and the Single Machine Business (SMB) turnover decreased by 4.0% to CHF 285 million. Together CS and SMB generated total turnover of CHF 979 million, representing a 30% share of total Group turnover (previous year: 30%). The e-commerce platform myBühler made a substantial contribution to the CS business. In 2019, the number of active customers increased from 4,000 to 5,500, the orders through the system

from 8,400 to 13,000, and the revenue from CHF 25 million to CHF 41.5 million. Strategic investments in our infrastructure and research and development (R&D) remained at a high level. The expenses for R&D were increased to CHF 149 million, that is an increase relative to Group turnover of 4.6% (previous year: 4.4%). This is in line with Bühler's strategy to be an innovation leader in its industries.

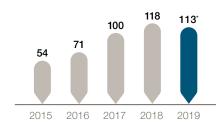
#### Financially sound

By consistently managing resources and costs, Bühler succeeded in increasing profitability while maintaining the same volume. EBIT rose by 7.5% in absolute terms to CHF 248 million, corresponding to an EBIT margin of 7.6% (previous year: 7.1%). The leap in profitability in CF, with an improvement in EBIT of over 50%, is particularly noteworthy. With a tax rate of 19.5% (previous year: 20.1%) and a financial result of CHF 2.4 million (previous year: CHF 4.6 million), net profit grew by 7.2% to CHF 202 million (previous year: CHF 188 million).

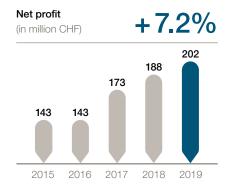
From a healthy basis, Bühler's financial position remains solid and strong. Investments in infrastructure were reduced to CHF 113 million (-4.5%). Operating cash flow declined by 18% to CHF 166 million. Net liquidity remained high at CHF 449 million (+0.3%). The equity ratio grew slightly to 42.8% (previous year: 42.2%).







\*Excluding changes in accounting standards and others.





More about the 2019 business year

# **Grains & Food**

## Order intake

CHF 1.8 billion	+5.2%
Turnover	
CHF 1.8 billion	+0.9%

# **OPERATIONAL ACTIVITIES**

# **Grains & Food**

Grains & Food (GF) continued on its successful course in 2019, with growth in all four business units and notable profit from numerous large projects. Order intake grew by 5.2% to CHF 1.8 billion, and turnover increased by 0.9% to CHF 1.8 billion. With the introduction of numerous innovations, GF further expanded its position of technological leadership. To develop highly efficient packaging solutions, GF initiated a strategic partnership with the Canadian company PremierTech.

In 2019, Milling Solutions was able to win large global projects, including Ardent Mills (US), Barilla (Italy), Fahem (Yemen) and City Group (Bangladesh) - and thereby further expand its already strong market position. The first order for the new, revolutionary generation of mills - the Mill E3 - made by British customer Whitworth Brothers Ltd., was a milestone. With a more compact, modular design, new components and full digitalization, the Mill E3 saves about 10% in energy and significantly reduces construction costs and installation time. The start of production for the first Mill E3 is planned for mid-2020. The digital services launched at the Networking Days 2019, held in August in Uzwil, Switzerland, met with a positive response, especially the Yield Management Service (YMS) and its associated interactive dashboard. For one German customer of YMS, yield was increased by up to 2% with the help of this digital solution.

Value Nutrition also saw strong growth in most application areas, particularly in pet food, cereals, and pasta. Its solutions for manufacturing plant-based meat alternatives gained significance. With the market introduction of a single-screw extruder, Value Nutrition was able to supplement its product portfolio and is now in a position to offer the entire range of processing technologies.

Based on its leading innovations, Digital Technologies recorded high growth for optical sorting machines, especially for nuts, frozen fruits, and vegetables, as well as for plastic recycling. The business unit was honored with the Queen's Award for Enterprise for the seventh time since its first win in 1968. The United Kingdom's most prestigious innovation

award was received in recognition of the development of a unique camera technology used in sorting machines capable of recognizing the subtlest color and shading contrasts in materials and foods, thereby significantly increasing detection rates for foreign materials or contaminated foods. Digital Technologies also introduced Laatu, a new technology for microbial reduction in dry foods that does not introduce heat, water, chemicals, or radioactive sources, to make foods safe. It also reduces waste, energy, and other natural resources.

Grain Quality saw positive growth in all areas in 2019, including malting, brewing, rice, and storage. Many large malting projects went to Bühler, confirming its global market leadership. With new process solutions to increase yield, it was possible to reinvigorate the brewery business. In the

rice business, Bühler saw strong growth primarily in Southeast Asia and secured a foothold in China with important key contracts. The business unit recorded its first orders for silos and conveyor belts related to China's Belt and Road Initiative, a mega-project for infrastructure. Grain Quality also benefited greatly from joint projects with other business units.



More about Grains & Food

#### **Consumer Foods**

The Consumer Foods (CF) segment was established at the beginning of 2019 from the acquired Haas Group and the associated business areas at Bühler and was operational in 2019 as the third strategic pillar. In a positive environment, the strengths of the new market presence were demonstrated in just the first year of its existence. The CF segment decreased in order intake by 1.7% to CHF 775 million, and turnover increased by 2.5% to CHF 774 million. The segment was able to significantly improve profitability.

In 2019, the Haas business units were rebranded and integrated with the corresponding Bühler businesses into the Bühler Consumer Foods business segment. The goal was to offer complete process solutions under the Bühler brand for the manufacturing of items such as wafers, cookies, and

# **Consumer Foods**

# Order intake

CHF 775 million	-1.7%
Turnover	
CHF 774 million	+2.5%

# **Advanced Materials**

## Order intake

CHF 488 million	-32.2%
Turnover	
CHF 649 million	-8.0%

bars. The integration was concluded ahead of schedule. The consumer foods market and its customers responded extremely positively to the merger. The Egyptian customer NSPO ordered four complete wafer and cookie lines in January, not least thanks to Bühler's ability to provide fully-integrated solutions. The close collaboration between the GF and CF business segments led to more orders from this customer. Over the course of the year, NSPO ordered a mill, a pasta line, and a chocolate line, and the extension of one wafer and one biscuit line each with a chocolate coating line.

Similar success was achieved with the Italian customer Ferrero, which put an integrated wafer bar line into operation in October. Bühler's complete competence in the areas of wafer, creme, chocolate, bar, and coating technology were fully deployed for this customer. The 2019 business year was also characterized by the introduction of numerous innova-

tions most of which, were aimed at increasing sustainability through energy efficiency, reducing waste, and raising productivity. The new SWAKT-ECO oven saves up to 25% of energy in waffle manufacturing and reduces emissions by up to 90%. A newly developed process for producing edible to-go coffee cups made from waffle dough was developed to reduce the use of single-use plastic.



More about Consumer Foods

### **Advanced Materials**

After five years of uninterrupted growth, Advanced Materials (AM) had to accept a decline in order intake and in turnover due to the global slowdown and saturation in its key markets – automotive and precision optics. Order intake fell by 32.2% to CHF 488 million, and turnover dropped by 8.0% to CHF 649 million. Due to the order backlog in the previous year and timely, consistent cost management, the segment remained satisfactorily profitable. AM used the generally tense market situation to assert its position as the market and technology leader by introducing several forward-thinking innovations.

Die Casting was heavily affected by the weakness in the global automotive industry, most notably from the decline in China. About 80% of the business for the unit stems from this industry. It was therefore decided to maintain market and technology leadership with innovations and improve the range of services.

Die Casting introduced its new modular machine platform Fusion in Düsseldorf, Germany, at the GIFA trade show, making a resounding argument with 1,400 tons of clamping force. At the center is the digital die-casting cell, consisting of the machine itself, supplemented with the integrated cell control system Smart CMS and additional digital services such as downtime analysis and maintenance forecasting. In Brescia, Italy, the business area opened a new service center for retrofitting machines. In addition, Die Casting succeeded in anchoring itself in new, non-automotive end markets, for example with orders in regard to 5G mobile communications.

Leybold Optics was also affected by the decline. In precision optics for mobile devices, there was a delay in investment due to the effects of international trade conflicts. In the area of coating systems for architectural glass, a slowdown occured due to saturation after several strong years. In the case of coating systems for front and rear lights, the slowdown in the automotive sector was noticeable. The ophthalmics business with coating systems for lenses held its ground. Innovation highlights included the introduction of the Helios 1200 precision optical filter for coating 12-inch semiconductor wafers, and Leybold Optics' market entry into ion beam sputtering technology for applications in high-power lasers and optical telecommunications.

In Grinding & Dispersing, sales of single machines remained solid in 2019. For paint production systems, the United States punitive

tariffs on key chemicals from China led to a significant slowdown.

Good progress was made in building up the business of systems for electric battery manufacturers. Bühler has installed over 20 production lines with a mixing capacity of half a gigafactory (16 GWh).



More about Advanced Materials

# FOCUS ON SUSTAINABILITY

It is obvious that global challenges regarding climate change and mobility are accelerating and becoming increasingly urgent. Climate change, the protein gap, loss of biodiversity, and population growth – all will have a greater impact if we don't act now as individuals, businesses, and industries to drive change. In 2018, the United Nations Intergovernmental Panel on Climate Change (IPCC) reported the consequences of 1.5°C global warming above pre-industrial levels compared with a 2°C increase. If we do not stay within the 1.5°C threshold, the risks of floods, extreme heat, food scarcity, and poverty for hundreds of millions of people will increase.

For this reason, Bühler has raised its own sustainability targets in 2019. Bühler aims to reduce energy and water consumption, as well as waste in customers' value chains by 50% by 2025. It is Bühler's goal and corporate purpose to transform these urgent challenges into quickly growing and profitable businesses in alignment with its purpose of "Innovations for a better world".

No single company can address global challenges on its own. On the contrary: Only through close cooperation can the necessary solutions be developed and scaled in a timely manner. For this reason, Bühler broke ground on a new epicenter for its collaborative innovation ecosystem in Uzwil, Switzerland, in September 2017. After 20 months of construction, and an investment of more than CHF 50 million over three years, the CUBIC and the associated application centers were opened in early 2019 – and with it, a new chapter in Bühler's corporate history started.

Bühler is strengthening its model of collaborative innovation and education with the CUBIC, a total of 25 application centers for joint development with customers and start-ups around the world, more than 7,800 continuing education courses, about 600 apprentices at 25 locations, and dozens of partnerships with universities, industrial partners, start-up accelerators, and NGOs.

# Opening the CUBIC innovation campus

The CUBIC is integrated into the Uzwil location so that it forms a bridge between development, engineering, and design teams, eight modernized application centers, and production. As a result, customers, start-ups, industry and research partners can develop solutions more quickly and efficiently to reach market readiness. The CUBIC specifically promotes new methods of learning for training and continuing

education. Here, working apprentices and researchers, and both young and experienced employees work together in project teams across business units, and with a strong focus on digital solutions. The campus embodies the innovative spirit and inclusive culture of the company.

The three-story CUBIC facility is itself an example of sustainability and innovation. The building consumes 35% less energy than a building of similar size. Its smart, electrochromic glass façade was manufactured on glass-coating machines from Bühler Leybold Optics. The innovation campus is certified with a Gold label from LEED (Leadership in Energy and Environment Design).

# Creating tomorrow together

Bühler once again invited industry leaders, partners, customers, scientists, and start-ups to convene in Uzwil and join its Networking Days 2019 event. The motto was: "Creating tomorrow together". The first Networking Days in 2016 focused on food, while at the 2019 event, food and mobility of the future were in the spotlight.

At the heart of the presentations, discussions, and exhibits was the question of how to provide the projected population of 10 billion people in 2050 with sustainable nourishment and mobility. The 800 attendees discussed the need for increased collaboration across sectors and industries to drive the transformation needed to address the climate crisis.

The attendees not only heard from Bühler leaders, but also the views of knowledgeable authorities from broad fields of expertise, including Dr. Gro Harlem Brundtland, former Prime Minister of Norway and advocate for sustainability; and Stefan Palzer, Chief Technology Officer of Nestlé; Patrick Dupin, CEO of Saint-Gobain Northern Europe; and Francois Pienaar, who led the South African national rugby team to a world championship title in 1995 as team captain. Sunny Verghese, the co-founder and CEO of Olam International as well as President of the advisory board to the World Business Council for Sustainable Development (WBCSD) spoke of the need for companies to work together to leave a better world to future generations, and John Harthorne, founder of the start-up accelerator MassChallenge, expressed the need to pave the way for innovators.

The Networking Days 2019 participants represented companies that manufacture food for 4 billion people every day and contribute to the mobility of about 1 billion people. The



Bühler employees form "TOP"; our new corporate values that stand for Trust, Ownership, and Passion.

group as a whole was in agreement that continuing the status quo is not an option for dealing with today's global challenges, and that broadscale collaboration is vital to making the food and mobility industries more sustainable.

# With positive energy into the future

Another milestone in 2019 was the refinement of our corporate values to TOP: Trust, Ownership, and Passion. The global challenges and risks that we face today have become more acute, and the world is changing quickly. Taking the TOP values as the guideline, Bühler's ambition is to transform the global challenges it faces into sound business opportunities. Values play a crucial role for a company's success and they set the foundation for the company culture. With the TOP values as a framework for behavior, Bühler aims to profitably grow its businesses, and at the same time, contribute to a sustainable world, which gives future generations the same chances to live and develop as today's societies.

# Outlook

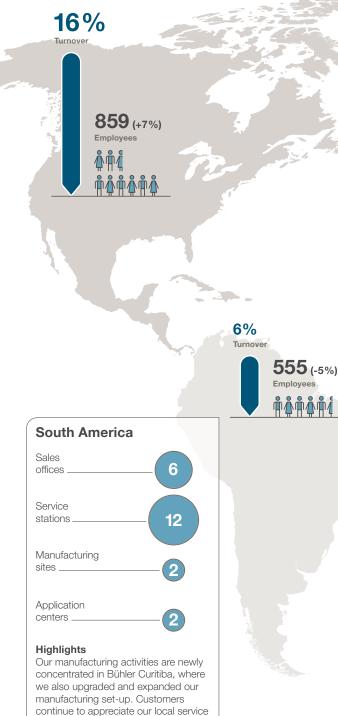
Looking at the current fiscal year, the framework of the global economy looks bleaker. The trade conflict between the US and China, Brexit, and political unrest in Venezuela and Chile, are leaving their mark on global growth prospects. Starting in the second half of 2018, Bühler noted greater reluctance for large projects. The upheavals created uncertainty in the industries, such as on the issue of electromobility.

On the other hand, many new business opportunities were created as a result of China's Belt and Road Initiative – an ambitious global development program for infrastructure – and there were positive developments in many African countries. Both resulted in the necessity for developing sustainable solutions for nutrition and mobility. With its global positioning, a strong foothold in Asia, and a growing innovation ecosystem, Bühler is well positioned to benefit from these opportunities. In 2020, Bühler plans for a stable and positive business development.

# IN THE REGION, FOR THE REGION

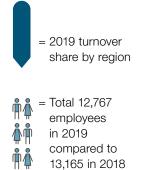
Bühler has systematically localized its resources and offers manufacturing sites, service stations, sales offices, R&D facilities, and application and training centers across 140 countries.





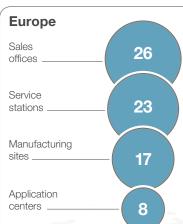
support and the short delivery times for

our single machines.





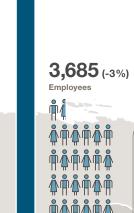




# **Highlights**

With the opening of the CUBIC and the brand new application centers in Uzwil, Switzerland, we offer state-of-the-art facilities and unique capabilities to support our global customers with any of their challenges. With our new wafer and biscuit business we have also further expanded our European set-up and know-how.





Asia Sales

Service 25 stations

Manufacturing sites.

Application centers

offices

8

23

14%

Middle East & Africa

446 (-7%)

14

15

3%

Turnover 605 (-1%)

# South Asia

offices Service 14 stations

Manufacturing sites

Application

# **Highlights**

With our new zonal concept in India, our organization has become much closer to our customers and can now offer tailor-made services and expertise close to the location of our customers. The zonal offices are supported by our know-how and application test base in Bangalore.

Sales

centers .

# **Highlights**

Our impressive set-up in China and Asia has further been strengthened with a new manufacturing facility for vacuum coating solutions in Beijing. Across the region we have further expanded our local service set-up and test and application know-how to serve our customers' special requests with local expertise

# Total number of Bühler sites across the world in 2019:



85 sales offices



98 service stations



32 manufacturing sites





Application

centers

Sales

offices

Service

stations

sites

Manufacturing

Our recognized and leading milling school in Kenya was further expanded with rice and feed milling expertise, and we added a new cocoa expertise center in Abidjan, Ivory Coast (to be opened in 2020). We continue to invest in the development of its local set-up in the region as well as in the training of local experts.

# **OUR EMPLOYEES**

With numerous training opportunities for its employees and its customers, and a highly-established vocational training program, education is in Bühler's DNA.

Our employees are our key to success. They are our most important resource and our future profitability depends on what we do now to adapt to a fast-changing employment landscape. An increasingly digitalized business world means staff have to be adaptable and able to think creatively and strategically as technology drives both commercial opportunities and threats. It means getting the right people in the right roles to achieve maximum competitiveness.

According to a recent McKinsey report, women are a vast untapped resource, to the point where advancing women's equality would lead to a massive USD 12 trillion being added to global Gross Domestic Product by 2025. For the second year running, Bühler has pledged, along with a hundred other Swiss-based companies, to support gender equality by improving its gender balance by 1%

REYOUD BY

Jessica Jones, Management Trainee, and Irene Mark-Eisenring, Head of Corporate Personnel Development, discuss Bühler's Diversity & Inclusion strategy.

year on year. We are all capable of unconscious prejudices, so in 2019 Bühler launched its Beyond Bias workshops to increase understanding of the different aspects and consequences of unconscious bias and to foster an inclusive environment. To date, over 300 top managers have attended the workshop. An unconscious bias awareness "Train the Facilitator" program is currently being rolled out to support workshops across the regions. The first training for facilitators took place in 2019 in Uzwil, Switzerland. Every region can tailor the training sessions to address local cul-tural circumstances.

Retaining and regaining talent is also part of the story. At the start of 2019, Bühler partnered with Women Back to Business, a continuous education program at the University of St. Gallen, Switzerland, to help support women back into the workplace after short or longer breaks. In September, Bühler hosted a Project Management module in Uzwil, where 33 participants from 21 nationalities participated.

#### **Bridging generations**

All employees, regardless of age, nationality, gender, or circumstance, should feel their voices are heard. To support all employees, the Bühler Diversity & Inclusion initiative has been developing tools and events to ensure everyone is recognized and has the same opportunities for personal and professional development. In August 2019, over a dozen Generations Day events were held around the world in recognition of the need for greater collaboration between employees of all ages. Knowledge sharing across ages is especially important given the speed at which workplaces are currently evolving.

One challenge all employers face is that different generations often have very different expectations of their employers. For example, personal development is ranked far higher than progression among younger employees. The next generation is looking for more cooperative, transparent, and value-orientated management styles. Bühler recognizes the need to adapt to ensure it can meet these changing needs.

In October, Bühler sent 13 delegates to the One Young World Summit held in London as part of its collaborative approach to help tackle environmental challenges. Delegates took part in four days of speeches, panels, networking events, and workshops to discuss issues around climate change, human rights, governance, and business ethics. Talented young representatives from organizations based in 190 countries got the chance to listen and discuss contemporary concerns with world leaders and influencers. Delegates are encouraged to return to their workplaces as agents of change, emboldened with new ideas.



Bühler's Management Trainees who started the program in 2019. From top left to bottom right: Christoph Evertz, Xuechun Yang, Prasanna Premendra, Jessica Jones, Maphrida Forichi, and Jan Luca Ernst.

# Virtual learning and attracting talent

Every individual deals with different types of demands both in their professional and personal lives. It means learning programs have to be flexible, enabling employees to use whatever medium best suits their specific circumstances. Bühler has continued to develop B-Learning, a state-of-the-art learning platform that delivers a broad spectrum of learning opportunities through videos, e-learning, classroom training, webinars, or mobile apps. It provides the chance to expand and deepen knowledge anytime and anywhere. Moreover, thanks to its global accessibility it is helping to do away with geographical barriers to learning.

In 2019, Bühler launched its Next Generation Learning program to address how innovations shape the way employees are trained. In the fast-changing economy, new knowledge and skills are needed at a rate that changes quickly. The initiative was launched to strengthen a lifelong-learning and development culture at Bühler. The goal is to establish a recognizable "learning brand" whereby all employees are empowered and encouraged to continue learning and developing. Future training concepts have to be short and relevant, more engaging, personalized, and mobile for modern learners.

Bühler is working with learning professionals to create training formats that underscore those pillars and that foster a strong and unified learning organization. It offers high-end training programs not only to employees, but to customers as well. In its 25 application centers around the world, experts run practical tests with customers to help them develop and improve products.

Bühler has also established training centers across the globe, such as its milling schools in Switzerland and Kenya, chocolate and cocoa training centers in Ivory Coast, Indo-

nesia, and Switzerland, and a rice milling academy in India. New advances in technology are requiring staff to adapt to increasingly complex markets. With this in mind, Bühler continues to develop its Service Excellence & Sales Leadership for Profitable Growth program, launched in 2017, to support front-line sales teams to become agents of change. The three-day program, designed and delivered by a leading global business school, provides service and sales leaders with the necessary skills to help customers navigate market complexities. Bühler also launched a new Value Selling E-Learning program to help staff further develop their sales skills. To date, over 1,000 employees have completed the curriculum.

Bühler improved its Employee Performance Management System for greater transparency, to discuss what is going well on the job and what requires improvement or a rethink, and to formally check in with employees to determine where they need support. The Employee Performance Management System is used for establishing targets for the next year, and for development and training plans.

# Vocational training going strong

Bühler reached a watershed moment in 2019 as the 8,000<sup>th</sup> trainee began his vocational apprenticeship in Switzerland, along with 70 new apprentices who started in 2019. The new apprentices began their journey just six weeks after 83 students received their diplomas for completing three-and-four-year courses in a total of eight different professional fields. More than 70% will continue their careers with Bühler. The program provides training to over 600 trainees worldwide each year. Sites offering vocational training include Switzerland, Germany, Austria, India, Brazil, the US, and South Africa. Currently, there are 269 apprentices in Switzerland,



Jacob Chacko, Technical Project Manager Engineering Backbone, and Sabrina Niederer, Project Manager Strategic Development, are part of the team that is digitalizing project execution at Bühler.

214 across Europe, 14 in the Middle East and Africa, 20 in North America, 10 in South America, and 91 in South Asia. Under the Swiss model, apprentices receive a mix of practical and academic training. Candidates are paid during their apprenticeships, and Bühler also provides the training, classes, tools, books, computers, and uniforms. The courses are designed to develop the skills that future employees will need to be able to adapt to often fast-changing work environments. Bühler invests around CHF 30,000 per apprentice per year for training and education. The Swiss vocational training model is seen as a global benchmark and is being adopted by other countries. The global apprenticeship model is evolving successfully, ensuring our talent pipeline at the entry level. The participants will be supported with skills training throughout their careers with Bühler.

# Succession planning and talent development

Bühler has a number of different initiatives designed to nurture the best talents from within the company into tomorrow's leaders. One such pipeline, in its third year, is the Excelerator program, an initiative that tailors career development to the specific needs of an individual. With such a wide geographical spread, Bühler has access to some of the best talents the world has to offer. The aim of the Excelerator program is to ensure that these talents are first recognized and then enabled to mature and develop into leadership roles. The initiative involves employees being nominated for a two-day assessment program from which 20 candidates are selected. An individual development and coaching plan is then drawn up for each successful candidate to build on their strengths and develop their leadership abilities.

The Bühler International Management Trainee Program offers another pipeline into senior management and leadership. Designed to attract the best talents leaving universities and business schools, the three-year program takes seven trainees a year and fast-tracks them through the Bühler corporate experience. They have the opportunity to work with top management at the Executive Board member or regional head level, where they learn leadership skills. Candidates take responsibility for a major Bühler project and experience all the entrepreneurial

challenges that go with a new business venture, such as a start-up. Management Trainees also have the chance to work abroad for one year as part of the program.

Key global positions are defined by the Executive Board and the global Human Resources team. The most important among these are reviewed and discussed by the Executive Board and Annual Talent Board. For each key position, an immediate replacement is nominated, along with mid- to long-term succession candidates. Two to three candidates are defined and developmental plans are established.

## Strengthening culture

In 2019, Bühler adapted its corporate values to ensure the right corporate culture is in place to meet current and future challenges. The foundation of our values remains, but we have made them more concise: "Trust, Ownership, and Passion" (TOP). These are the guiding principles for everyone in the company. "Trust" relates to the integrity, partnership skills, and credibility required for Bühler to form collaborative networks with customers, start-ups, academia, and NGOs to address global challenges. "Ownership" is about taking responsibility for making decisions in the interest of customers, and "Passion" drives people at Bühler to live their intentions, to learn each day, to support others, and to drive success.

Bühler continues to build the strength of its employer brand to attract the best talent with the focus in 2019 on raising social media presence. The strategy has resulted in early successes, with more traffic directed to the Bühler website and a higher response rate to company job advertisements. Bühler is delighted to have received

the prestigious Swiss Leading Employer Award in 2019, ranking it among the top 1% of nominated Swiss employers. The judging process involved a thorough evaluation of employee assessments, studies, and public surveys, resulting in Bühler achieving first place within the mechanical and plant engineering sector.



More about our wide range of careers for all levels



Harald Neelsen, Senior Automation Engineer, and Gospa Tesic, Assistant to Head of Project Execution Milling Solutions, in the CUBIC.





Alex Ammann, Lecturer Feed Technology, explains a feed machine to customers.

REDUCE HUNGER

# **BÜHLER'S CORE TOPICS**

During the Networking Days 2019, Bühler raised its sustainability targets with the aim to reduce energy, water, and waste in our customers' value chains by 50% by 2025. To achieve these targets, we identified five core topics and four enablers. We will only be able to reach our ambitious goals by applying a holistic approach across value chains and by harnessing the power of all the enablers.



# **FOOD**

According to the United Nations, we will have to be able to feed 10 billion people by 2050. To make it even more challenging, we will have significantly less land to do so. That's why in 2019 we invested 4.5% of our R&D budget into food trends such as alternative proteins. We also intensified our collaborative approach by joining the Future Food Initiative launched by ETH Zurich and EPFL.

# **ENERGY**

To reach the goal of the Paris Agreement of reducing greenhouse gas emissions by at least 40% by 2030 compared to 1990, energy consumption in industry plays a key role. In 2019, we invested CHF 149 million to find new ways of making our customers' value chains more energy efficient, among other initiatives. Our new Fusion die-casting platform, for example, can reduce energy requirements by up to 40%.



Digitalizing processes is key to achieving our sustainability goals. 85% of our technologies are able to connect to our digital platform Bühler Insights, which allows customers to improve the performance of their machines and reap both sustainability and financial benefits.



Education and knowledge transfer are in Bühler's DNA. From vocational education and digital training to hands-on learning in our application centers, we continue to harness the power of sharing our 160 years of experience with employees and customers.



# **MOBILITY**

The transportation sector accounts for over 20% of global CO<sub>2</sub> emissions. We address this issue by making cars lighter with our die-casting systems, and electric vehicles more energy efficient with our solution for electrode slurry. In addition, we are driving collaboration between industry and academia by bringing stakeholders together, for example in our new Die Casting Technology Center in Uzwil, Switzerland.



km

More about our key topics and enablers

# **WATER**

Agriculture uses 71% of the global fresh water supplies. To feed up to 10 billion people sustainably by 2050 and achieve our goals of reducing water usage by 50% by 2025, we must drastically improve efficiency. We see great potential in applying steam instead of water in food processing, as seen in our Prime Masa process for manufacturing Nixtamal corn flour, which reduces water usage by a staggering 90%.

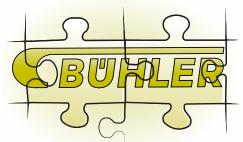


30% of food is lost or wasted from field to fork. Meanwhile, an estimated 840 million people are suffering from hunger. We continue to improve our solutions to prevent losses in food processing: from intake to cleaning, sorting, storing, processing, and bagging. Our LumoVision, for example, identifies and removes cancer-causing, aflatox-in-infected grains and reduces yield loss to below 5%.

# Collaboration

The motto of the Bühler Networking Days 2019 was "Creating tomorrow together". With our new CUBIC innovation campus, the global network of application centers, and our

Networking Days concept, we want to establish an innovation ecosystem which enables the rapid transformation needed to reach our goals.



# BÜHLER AND THE SUSTAINABLE DEVELOPMENT GOALS

The Sustainable Development Goals (SDGs) are the United Nation's universal call to action to end poverty, protect the planet, improve health and education, spur economic growth, and reduce inequalities. Bühler respects and supports all of the 17 SDGs. It has defined seven core SDGs where it drives positive impact and five where it makes relevant contributions.



Bühler technology is driving innovation and development in the electric car, solar panel, and advanced materials sectors, while the new Mill E3 uses up to 10% less energy. Bühler has also ensured that its own CO<sub>2</sub> emissions have been substantially reduced.



Bühler is helping to provide thousands of worthwhile work opportunities around the world. It offers education opportunities and employee development programs, while its own Code of Conduct ensures that every one of its nearly 12,800 employees across 140 countries enjoys equal rights.



= These SDGs are also important to Bühler.



Bühler supports a broadscale approach to collaboration to create sustainable business. For over a decade, Bühler

has developed close partnerships with customers, suppliers, leading academic institutes, start-ups, and non-governmental organizations to share knowledge, drive innovation, and meet its sustainability targets.



Bühler's digital technologies are helping to reduce levels of energy consumption,

water use, and food loss in the production and supply chains of its customers. Bühler's own sites are being ISO 14001 certified and the company requires its suppliers to comply with its global environmental standards.



In 2019, Bühler increased expenses for R&D projects to CHF 149 million to encourage sustainable innovation. Bühler continuously invests in its global production network and the modernization of its sites. Its 2019-opened CUBIC innovation campus is a symbol of its

dedication to fostering a collaborative environment that encourages innovation. The CUBIC has been certified with a gold rating from LEED (Leadership in Energy and Environmental Design).



Bühler develops food production systems to maximize productivity and safety, while reducing energy, food loss, and water. Various Bühler technologies aim at establishing sustain-

able protein sources to ensure sufficient and healthy food for a growing population. Food safety innovations such as LumoVision drastically reduce food contamination to mitigate the number of deaths and illnesses caused by eating unsafe food. In partnering with the Food Fortification Initiative, Bühler supports actions against malnutrition, focusing on the most vulnerable, including children, pregnant women, and elderly people.



More about our sustainability strategy



Bühler is playing its part in ensuring equal access to education for employees

and customers worldwide. Its Ivory Coast cocoa training center and African Milling School are just two examples. For its employees, Bühler established an online training platform to ensure continuous education for all ages. Bühler supports employees in their further education at universities and business schools. The company's inclusive apprenticeship model has become a benchmark for many countries and companies.



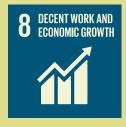
AFFORDABLE AND **CLEAN ENERGY** 

Bühler invests up to 5% of its revenue each year into R&D. Digital solutions enable Bühler to significantly improve

to reduce unplanned downtime. Today, 85% of Bühler solutions can be connected to the Bühler Insights online platform and benefit from the enhanced data analytics that improve machine efficiency. Bühler is a leader in lithium-ion battery technology, which is used in the growing electric car market. It also develops low-emission facilities for customers such as the new Mill E3.

energy efficiency in customer plants, and

Motivated employees and dedicated management staff are key to Bühler's long-term growth and business performance. In 140 countries, Bühler offers well-compensated employment opportunities and safe, rewarding



work in an inclusive environment. In 2019, 600 apprentices were enrolled worldwide in 25 countries. Nearly 70% of apprentices remain with the company after completing their training. In 2019, Bühler welcomed its 8,000th apprentice since 1915.



Bühler's range of advanced e-mobility technologies is helping to cut levels of harmful CO2 emissions, while its food solutions continue to ensure high levels of nutrition and food safety, and the eradication of dangerous contaminants.



Diversity and inclusion are central to Bühler's philosophy. Its growing network of training and employment opportunities is helping to boost equality in the developing world. The company is committed to increasing the percentage of its female employees vear-on-vear.



Agriculture accounts for more than two-thirds of all freshwater use. Bühler aims to ease this burden on diminishing freshwater resources by enabling its customers to cut the use of water in their production processes by up to 50%.