

ANNUAL REPORT 2021

NEXT LEVEL

2021

Innovations for a **better world.**

BUHLER

BUSINESS REVIEW

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A NEXT LEVEL



Dear customers, partners, and colleagues,

We would like to start this letter with an expression of sincere thanks: the trustful collaboration with you has never been more appreciated than during these dynamic times. “Creating tomorrow together” is a deeply rooted credo of Bühler – and together we have achieved reasonable results in 2021 and strengthened our financial stability for the future. For us, 2021 was marked by the clear objective to support and provide service to our customers, at all times, irrespective of the many challenges of the year – be it the ongoing pandemic or its implications such as travel restrictions, raw material shortages in global supply chains, logistic bottlenecks, and shifts in customer buying behavior.

Fulfilling contracts on schedule and keeping your plants running with our services was of utmost importance to us. Our global network of Bühler offices, manufacturing sites, service stations and Application & Training Centers has, yet again, proven to be a key enabler for our reliability. Furthermore, health and safety – not only of Bühler employees, but also of employees of our customers and partners – remained our priority No. 1, and due to the respective measures implemented globally, we were able to keep operations up and running at any point throughout the year. This enabled us to service, install, and commission the plants of our customers globally, despite the ever-changing restrictions our teams faced in the more than 140 countries in which we are active. New digital tools smartly applied throughout our platforms were instrumental to this task.

2021 was also the year where we brought innovations to the next level: in all our businesses, in food- and feed-processing, as well as in technical material processing. The pandemic offered many new opportunities in markets, technologies, and consumer habits and we have seen big shifts in preference and demand. Our creative experts in all business areas and regional organizations were successful in launching a record number of innovative technologies, products, and services, and it is owed to them that Bühler

was able to create a competitive edge in all the key markets in which we are active. We are very aware of the fact that this would not have been possible without the unwavering support of our partners and customers around the world.

Bühler solutions not only stand for the next level of performance and value for our customers, but also for a next step in living our purpose of “innovations for a better world”. They all create impact in our endeavor to have solutions ready to multiply by 2025 that will reduce energy, water, and waste by 50% in the value chains of our customers.

Despite the challenging environment, we are happy to report considerable improvements in orders and have a backlog of nearly CHF 1.94 billion, up 27.2% from 2020. Due to the time lag between orders and delivery – which is the nature of our engineering business – we expect our profitability to improve in 2022.

And for all of these reasons, mentioned above, we are looking optimistically into the future. We wish to express our sincere gratitude to our customers, employees, bondholders, business partners, and owners for their ongoing trust and support.

We are excited to continue our journey of successful, trustful, and sustainable collaboration with you for the years to come.

With best personal regards and thanks,
Yours sincerely,

Calvin Grieder
Chairman of the Board

Stefan Scheiber
Chief Executive Officer

A NEXT LEVEL

Continuous innovation, even during challenging times, is a key pillar of our success. On this foundation, we took important steps in 2021 in implementing our commitment to reduce climate change and generate solutions that unlock sustainable businesses. And we brought our innovation to a next level by reinforcing our position as a solution partner to our customers. While the pandemic continued to present challenges, we successfully secured operations, supply chains, deliveries, and services to our customers. With a positive turnaround of orders, stable turnover, and profitability, our financial position in 2021 was improved and we are very satisfied with the outcomes of the year. Despite an ongoing challenging economic environment and strained supply chains, we remain optimistic and expect a continuation of our profitable growth.

BUSINESS REVIEW 2021

The business environment for Bühler in 2021 was characterized by three key topics: the ongoing Covid-19 pandemic; strained supply chains with shortages of parts and components, soaring raw material prices and logistic costs; as well as the recovery and accelerated transition of major markets especially in the northern hemisphere driven by changing consumer behavior, digitalization, and the demand for sustainable value streams.

Our top priority continued to be the health and safety of people, not only of Bühler but also of our customers and partners. In close alignment with the safety requirements and regulations of the different global locations, we worked to bring our employees safely back to our sites wherever possible. During 2020, whenever possible, we switched to digital solutions to ensure continuation of the business and to communicate, and we discovered the benefits of this in many areas. From online commissioning of plants and production lines to product development with our customers in our Application & Training Centers and virtual communication with webinars or the Bühler Virtual World. In 2021, as more and more of our workforce became vaccinated, we resumed in-person meetings and events, internally but also with our customers – with all safety precautions. In our experience, more face-to-face communication with some virtual and hybrid events helped keep the energy level of our organization high after months of lockdowns and isolation.

To ensure the safety of in-person interactions, in addition to our ongoing safety measures, we rolled out vaccination campaigns at the earliest possible point in time at all our global sites. In the majority of our locations, our vaccination drives were open to both employees and their families, for example in Switzerland, India, China, Vietnam, Austria, South Africa, and others. Uptake of the Covid-19 vaccines overall was high, so that we can report an 83% vaccination rate of Bühler's workforce worldwide as of December 2021.

In retrospect, managing the pandemic from the beginning of 2020 could be seen as an opportunity to test and increase the agility of our company. In 2021, our regional set-up and 103 service stations across the globe again proved to be very robust, and we were able to honor all our contracts. As supply chain and logistics issues became more challenging, including dealing with energy shortages

in Asia, we managed the situations with the high engagement and flexibility of our colleagues across our organization, including procurement, commissioning, logistics, services, and human resources. Our employees globally ensured that we could always keep our promises to our customers. Even the largest plants, such as green-field complexes in various countries, were completed and started operations within this tense period.

Keeping innovation pace high

Because of our reliability and ability to deliver, we were able to benefit from market recoveries and the growing demand for new solutions in several segments. This demand was driven – among others – by the accelerated transformation of the food, feed, and mobility industries with a view toward decarbonization and new consumer trends. We could meet these market needs with innovative, new solutions which were launched in the markets. These include our extrusion technology for batteries, the launch of large-scale die-casting machines for large body in white parts, systems for plant-based meat alternatives, insect processing, the Mill E3 and SmartMill – our new generation of fully digital mills – along with many digital services and an expanded CO₂ equivalent quantification program.

In addition, we expanded our innovation ecosystem with strong partnerships to complete our offerings along integrated value chains. For example, with Balaguer on roll services, Vyncke on energy recovery solutions, Givaudan and Migros on cultured meat, DIL on plant-based proteins; and the existing joint-venture with Premier Tech on packaging went operational and have proven to be a success.

Back to growth

Based on our position as a technology leader and solution partner, we have been able to turn order intake around after the severe decrease in 2020 caused by the pandemic. On Group level, order intake went up 15.6% to CHF 3.0 billion. Because of the time shift in the investment goods industry from orders to sales, but it improved our orders on hand by 27.2%. This upward trend is not yet fully visible in turnover, which remained stable at CHF 2.7 billion. Due to continued strict cost management and margin protection, EBIT (earn-

BUSINESS REVIEW 2021

ings before interest and taxes) stood at CHF 146 million (prior year: CHF 146 million), reflecting an EBIT margin of 5.4% (prior year: 5.4%).

Following the vast variety of impacts caused by the pandemic and market recovery patterns, the businesses and regions showed strong variance in performance. Advanced Materials performed at an outstanding level with an order increase of 36.8% to CHF 620 million, and a turnover growth of 14.9% to CHF 509 million. Our Grains & Food business achieved a strong upturn with an order intake growth of 12.2% to CHF 1.8 billion and stable turnover of CHF 1.7 billion. For the Consumer Foods segment including the Chocolate, Wafer, and Biscuit business units, the market recovery started with a time lag, so that the business grew orders by 6.5% to CHF 584 million at a decreased turnover of CHF 509 million (-11.3%) related to the low order intake in 2020.

Net profit increased slightly to CHF 113 million (prior year: CHF 110 million). The expenses for research and development (R&D) increased to CHF 141 million (5.2% of Group turnover) in line with our strategy to be the innovation leader of our industry.

Services as a game changer

Our fast-growing Customer Service business with a 15.1% growth rate in order intake to CHF 746 million and 8.6% in turnover to CHF 693 million, contributed to this outcome. The continuation of new digital methods, for example to commission equipment, lines, and plants remotely, was an essential element in supporting our customers during difficult traveling circumstances resulting from the pandemic. As a side effect, we increased the efficiency and reach of our services for customers.

With this, the share of Customer Service on turnover increased from 24% to 26%, combined with the short cycle Single Machine business that increased to 34% of the total turnover. This growth was driven not least because of three factors: the expansion of our services portfolio, for example comprehensive service contracts (TotalCare) which include the presence of Bühler technicians at customer sites, and remote maintenance service offerings using our digital platform Bühler Insights.

The expansion of our e-commerce service myBühler, bringing more customers and regions onto our platform;

and the utilization of our service offerings to improve the performance of the installed base of our customers – not only in terms of efficiency and productivity, but also in terms of sustainability. Increasingly it is realized that the strongest lever to reduce energy, waste, and water lays within the vast number of existing plants and services to enhance their ecological footprint.

Strong global network

2021 again proved Bühler's global network of production sites, Application & Training Centers, and service stations to be a key strength of the company. Locally, even in regions with ongoing travel restrictions we were able to serve customers. It allows our factories and supply chains to breathe and to mitigate risks by a flexible activation of our assets. The background for the robustness of our supply chain and next level agility lays with the real-time management of this network.

Along with the divergent course of our businesses, there was also a shift in regional developments. Regarding orders released, our South Asia region experienced strong growth at 52%, followed by Middle East & Africa at 31%. Share of turnover in the regions was: Asia 33%, Europe 32%, North America 17%, Middle East & Africa 10%, South America 5%, and South Asia 3%.

Financial stability improved

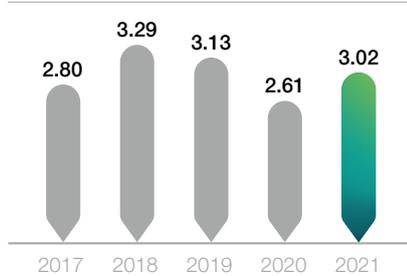
In 2021, we were successful in further strengthening our financial position. This provides us with the financial capability to remain fully independent and to continue investing in new solutions and services for the benefit of our customers. At the same time, our strong balance sheet allows us to repay the first tranche of our bond in 2022 and to be a reliable long-term partner also for the financial markets.

Driven by diligent finance management, operating cash flow was CHF 256 million, and net liquidity went up from CHF 159 million to CHF 329 million (+107.1%). Equity increased with a ratio of 47.2% (reported prior year: 44.2%).

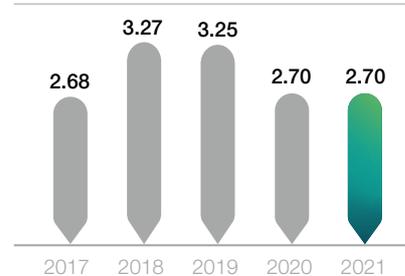
This financial strength enables us to continue executing our strategy including strategic investments into assets and innovation, and provides our customers, suppliers, and partners security in a volatile economic environment.

RESULTS AT A GLANCE

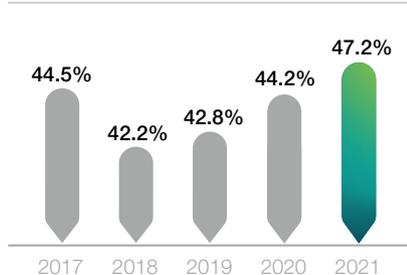
Order intake
(in billion CHF) **+15.6%**



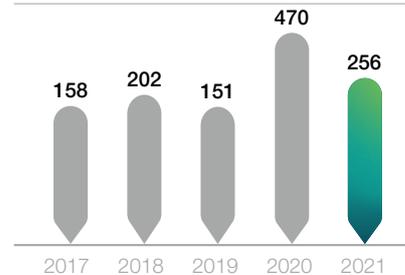
Turnover¹
(in billion CHF) **+0.1%**



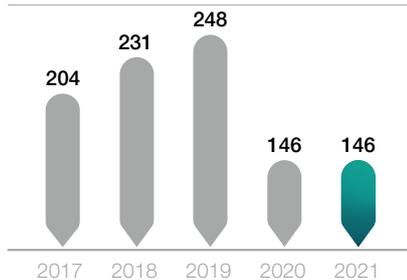
Equity ratio¹
(in %) **+3.0pp**



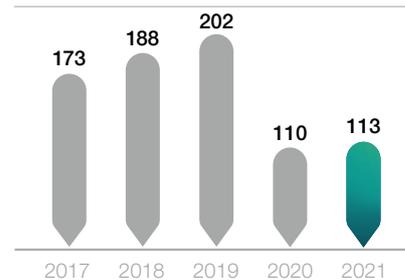
Operating cash flow
(in million CHF) **-45.6%**



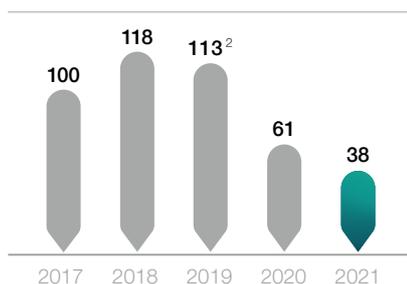
EBIT
(in million CHF) **+0.2%**



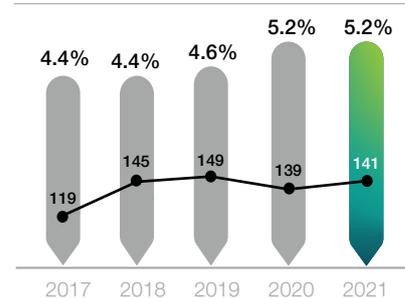
Net profit
(in million CHF) **+3.2%**



Investments into asset base
(in million CHF) **-37.6%**



R&D expenses
(as % of turnover) **+0.0pp**



● – in million CHF



More about the
2021 business year

¹ Prior years as reported. ² Excluding changes in accounting standards and others.

Grains & Food

Order intake

CHF **1.8 billion** **+12.2%**

Turnover

CHF **1.7 billion** **-0.7%**

GRAINS & FOOD: STRONG PERFORMANCE

For Grains & Food, 2021 was a very good year with a strong recovery. The segment grew its order intake by 12.2% to CHF 1.8 billion, coming close to pre-corona levels and had a stable turnover of CHF 1.7 billion. All business areas of Grains & Food contributed to this positive development. Regionally, the upturn was strongest in the northern hemisphere. Regarding innovative solutions, all businesses report important milestones, be it with new orders (insect processing), start-of-operations (Mill E3/SmartMill), or market launches (Optical Sorting, Rimomalt). New strong partners add to Grains & Food's innovation ecosystem and the joint venture with Premier Tech has proven to be an enormous success.

In the Grain Quality & Supply business area, all units recorded good business development. The Grain Handling business area benefited from a reshaping of the global grain value chains which lead to huge investments into the build-up of a new infrastructure in China. In this context, Grain Quality & Supply won large orders for ship loaders at the Yangtze River. The Malting & Brewing business unit continued to secure important orders. With our new Belgian technology partner Vyncke we are now able to provide integrated solutions for low carbon food plants by transforming biomass by-products into clean energy. One of the first implementations was for a new malting plant for our customer Malteria Oriental S.A. in Montevideo, Uruguay.

The Grain Quality & Supply rice business was still impacted by lockdowns in Southeast Asia due to the pandemic. However, one highlight was the assignment for a large rice mill in Bangladesh with a production capacity of 40 tons per hour. Regarding innovations, Grain Quality & Supply launched Rimomalt, a new solution for small- to midsize malting plants with a capacity range from 1,000 to 17,000 tons, a modular and expandable layout, small space requirements, short installation times, and high efficiency. The market reaction was positive and the first projects are in progress.

Within Grains & Food, the Milling Solutions business unit saw the strongest growth with a 18% higher order intake. This upward trend was very much driven by oats solutions, which doubled volumes, but also fueled by pulse applications and the traditional milling business for wheat and rye. A highlight of the year was the start-of-operation of the first Mill E3 of our customer Whitworth Bros. Ltd. in the United Kingdom. Mill E3 is a revolutionary concept to build a mill, saving around 30% of building volume, 10% of energy, and 30% of installation time. The background of these achievements is a new, integrated, innovative arrangement concept, and modular design of key components such as the Arrius fully integrated grinding system. Around three years ago the Mill E3 concept was publicly announced; now this vision has become reality. At the heart of the Mill E3 are more than 15,000 data points collecting information on all aspects of the production process. It is the volume of data being analyzed, along with the cutting-edge application of blockchain technology, that enable the most efficient, transparent, and consistent production possible, and therefore the highest quality product. In its first month of operation, Mill E3 confirmed all predictions about the values this new concept will bring for our milling customers. With this, the journey towards a fully digitalized milling future has just begun.

Our Value Nutrition business area continued the protein success story in all aspects. In the past, our feed business was growing mostly in China. Yet we managed to position our leading feed solutions also much stronger in other important regions, for instance in South America and India. Our Human Nutrition business unit launched PolyCool 1000, a high-performance cooling die that, together with an extruder, provides an efficient and flexible solution for food producers creating tasty and sustainable plant-based meat or fish alternatives at highest available capacities. With the PolyCool 1000 it is possible to produce wet-textured proteins based on a wide range of raw materials including soy, pulses, oilseeds, upcycled by-products such as brewers' spent grains, as well as newer ingredients such as microalgae, at high-capacity rates with throughputs of up to 1 ton per hour. With this, Bühler is the clear technology leader in this fast-growing food market. The inauguration of the Technology Center Proteins of the Future to further develop extruded meat substitutes together with the DIL (Deutsches Institut für Lebensmitteltechnik) underpins this position. With this latest addition we are operating 10 such facilities around the world and can ensure maximum proximity to our customers.

For the insect protein business, we achieved a breakthrough with the first order for a large-scale insect plant from the French biotech company Agronutris. The 16,000 square meter insect plant in Rethel, France, will be ready to operate in the first quarter of 2023. When operating at full capacity, the facility will process up to 70,000 tons of organic residues for the aquaculture and pet food markets every year. With this milestone, we are a key solution provider for the insect industry and increase the inclusion of insect proteins in animal feed, thus contributing to more sustainable feed supply chains.

Our Digital Technologies business area experienced challenging market conditions. A key factor to secure competitiveness was the launch of new products from our facilities in China. Now we are offering a full range product portfolio specially optimized for applications in Asia and Africa from China. We are also proud that the product quality and sorting performance of this new generation was very well received.

To strengthen our market position in optical sorting even more, Digital Technologies has developed the next generation of "engines" for sorting technologies. This engine, or "brain" of the machines, is a combination of electronic hardware and software. The first products equipped with this revolutionary "brain" were launched on the market. This new generation marks a breakthrough in flexibility and reliability to sort different raw materials at the highest speed and at the highest sorting quality with a very intuitive and easy user interface. The new Bühler sorters will not only reject conventional defects such as discolored or broken grains, but also mycotoxins, alkaloids, and allergen free material. It encompasses the sorting algorithms for color detection, defect sizing, self-learning, tracking, calibration, and defect removal. At the same time, we now offer full connectivity to our digital cloud platform Bühler Insights with all enabling services, increasing usability. With the new generation, optical sorting is reaching a next level to cater to the increased complexity and requirements from the markets.

Regarding partnerships, the joint venture with Premier Tech for fully-automated packaging solutions turned out to be a remarkable success. The first machines from the joint venture were delivered at the beginning of the year. Together, we are now leading the trend to fully-automated solutions with a cost-efficient and productive portfolio.



More about
Grains & Food

CONSUMER FOODS: STARTING THE RECOVERY

Step by step the recovery of our Consumer Foods segment began, resulting in an increase in order intake of 6.5% to CHF 584 million. The main driver for this upward trend was the baked goods business (Wafer and Biscuit), where customers appreciated our ability to integrate solutions along complete value chains. Due to the time lag between orders and commissioning, turnover went down by 11.3% to CHF 509 million. The integration of the Consumer Foods units itself and the former Haas entities into the Bühler organization progressed further and will be concluded shortly.

The Chocolate & Coffee, and Confectionery business units of Consumer Foods reported stable orders, while Wafer and Biscuit experienced accelerating demand, starting from Europe, and now expanding since the second half of the year to other key regions such as Asia and North America.

An important differentiator in the markets is our capability to test and develop innovative ideas for consumer products together with our customers in our network of Application & Training Centers– and afterwards to engineer and implement the respective integrated solutions. This not only within the Consumer Foods segment, but also in combination with technologies of our Grains & Food business, starting from grain handling and logistics to milling, sorting and protein processing. Our application centers for joint product development have been sold out during 2021. Our extended service offerings with service level agreements and retrofit packages to update lines with energy efficient ovens, and our Bühler Insights cloud applications have been perceived positively in the markets and added to the value creation of our portfolio.

A highlight of 2021, which showcases the unique breadth of our abilities, was the inauguration of a food park for our Egyptian customer NSPO – one of the largest food parks worldwide. Irrespective of the adverse conditions of the Covid-19 pandemic, we have built this food park in only two years and started operations in July. The huge complex in the desert between Cairo and Alexandria with a size of 567,000 m² contains six silos, two mills, plants for bakery, wafers, biscuits, crackers, Halawa, tahina, pasta, and noodles. A TotalCare service level agreement contract with a Bühler services team on site ensures safe operations at high productivity level. The order origins from the ambition of the Egyptian government to improve the nutritional system with healthy and affordable food, especially for schools and universities. Up to 4.5 million meals are delivered to pupils and students on a daily base.

The efforts of our customers to increase the sustainability of their processes have been another important reason to engage with Bühler and to benefit from the technologies we bring to life. One solution is for the packaging industry, and it enjoys growing interest, allowing producers to switch from plastics to compostable materials. We are offering –

Consumer Foods

Order intake

CHF **584 million** **+ 6.5%**

Turnover

CHF **509 million** **-11.3%**

among others – lines for edible cups which can safely hold hot drinks for around an hour. Based on the same idea, we developed an application for making cutlery sustainable out of a special dough.

The bulk of requests from customers to improve their ecological footprint, however, is about how to reduce the energy consumption of lines with new ovens, retrofits, and energy recovery systems. What we can achieve today with state-of-the-art technologies, can be observed at our customer Joh. Johannson Kaffe in Vestby, Norway. The Norwegian coffee manufacturer Joh. Johannson and Bühler built the world's first 85% CO₂-neutral coffee processing plant, which opened in 2021. Joh. Johannson is the largest coffee manufacturer in Norway with a market share of more than 40%. Bühler supplied all the processing equipment except packaging at the green field plant. Two InfinityRoast-2000 roasters powered by biogas, along with green bean pre-heating units are at the heart of the factory. Sophisticated energy recovery systems and emission control technologies further reduce energy consumption and cut the emission of detrimental greenhouse gas. The remaining energy consumption and CO₂ emissions of the factory are compensated by hundreds of photovoltaic solar panels. The entire plant is digitally connected with Bühler automation systems, enabling more oversight over the final products. Here too, a Total Care service level agreement contract with a Bühler services team on site ensures high productivity levels.

Inspired by this competence, customers are seeking increasingly close partnerships not only for consumer product development but also for collaborative attempts to improve processes and equipment. An example which illustrates this approach is ChocoX, which we have developed together with an international partner and launched to the market beginning of the year. ChocoX is a new machine concept which enables rapid product changes and unlimited process configurations for new products with the shortest possible changeover times and improved energy consumption.



More about
Consumer
Foods

Advanced Materials

Order intake

CHF **620 million** **+ 36.8%**

Turnover

CHF **509 million** **+ 14.9%**

ADVANCED MATERIALS: STRONG REBOUND

With an order intake growth of 36.8% to CHF 620 million, Advanced Materials has impressively come back from the trough and is already 26.9% above the pre-corona level of 2019. Turnover grew by 14.9% to CHF 509 million. All businesses contributed to this massive turnaround. Key drivers for the Advanced Materials upswing are our leading solutions which enable us to now ride the transition wave of our industries towards electro-mobility. On top, our extended service portfolio has received a positive market response.

Our Die Casting business unit was by far the fastest growing business of Bühler with more than 50% order-intake increase. It paid off that we have not slowed down or even stopped our product development in the past two difficult years. Instead, we kept the innovation pace high to be ready to offer new solutions when markets start to pick up again, which is now the case. The key driver for the market recovery is not only the high demand for new cars in general, but the accelerated transition to electromobility. To increase production efficiency for the new car types, manufacturers must fundamentally rethink car assembly.

There is a clear trend to minimize car components with the effect that big structural parts with a weight of up to 100 kg per part come into play. These parts for the new car architecture offer immense potential for the die-casting industry – and are causing the demand for a new category of large die-casting machines with a locking force of up to 84,000 kilonewton (kN). Over the past years, we have invested in the development of these new machine types. We have already launched the upgraded Carat family and will continue to expand our portfolio.

In Asia, which is leading the electromobility transition, the market response was positive, resulting in multiple orders. The first two Carat 560 machines were successfully commissioned in Vietnam under incredibly challenging conditions. This was only possible thanks to our strong global presence, in this case by the engagement of our local teams in China. We are assuming that this trend will expand to Europe and the Americas, where many feasibility studies are

currently under way. The Carat 840 and Carat 920, were also introduced in 2021, further extending Bühler's portfolio, and meeting the automotive industry's demand for larger and more complex parts. With the Carat 840 and Carat 920 we can offer our customers solutions for large structural parts with complex geometries and new body in white parts.

Our Grinding & Dispersing business unit has not only fully recovered from the pandemic but reports a record order intake. The business is benefiting from two major market trends: the transition towards electromobility and the robust growth of packaging as a result of increased home delivery and traceability requirements. Both the plant and single machine business registered high demand.

Around 10 years ago, Bühler started the development of a new process to produce battery slurry, which is the medium for electrons, and with this, a key component for batteries. The key assumption was that a continuous process using extruders is superior to the existing batch processes in terms of space, quality, and productivity. In 2012 we invested into a new battery lab in China and started the process development in partnership with a key customer. Since then we have worked on market penetration – and 2021 now marks the breakthrough of our solution with the order for 12 continuous mixing lines from car manufacturers and battery producers from China, Europe, and North America. The success in packaging inks was based on the proven performance of our core grinding ma-



More about
 Advanced
 Materials

chines, which we improved significantly with our innovative dispersion technologies MicroMedia Invicta and Genomic. This was confirmed by several orders worldwide with the highlight of a very large turnkey order for a complete plant from a customer in Turkey.

Leybold Optics, which grew its business even in 2020, achieved further growth in 2021. Two trends materialized in additional orders: the shortage of semiconductors as well as the development of autonomous mobility systems with high comfort. The shortage of chips caused manifold challenges globally – however, this situation and the current race who can produce the smallest and most efficient microchips in the world generate extra demand for Leybold Optics Equipment. EUV lithography plays a key role, as this technology enables structural reduction of semiconductors. EUV stands for extreme ultraviolet and refers to light with extremely short wavelength. This can be used to create structures that are roughly one ten-thousandth of the thickness of a human hair. The Nussy system from Leybold Optics meets extreme physical requirements of deposition in atomic layer scale even on coat large, curved substrates.

With regard to electromobility, it has become a major pillar on the road of significantly reducing CO₂ emissions. The acceleration of these technologies and the increasing demand for electric -and hybrid vehicles has a direct impact on the film capacitors market. Leybold Optics is in this market with the vacuum metalizing CAP machine platform. To be able to keep up with the current speed of the market, Bühler launched the Leybold Optics CAPone, a modular system for capacitor applications which enable capacitor manufacturers to upgrade in the speed of their production volume.

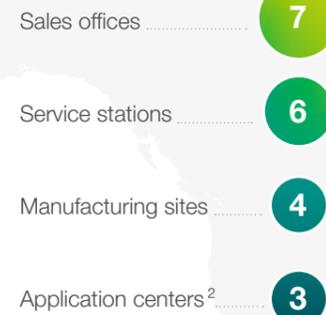


More about
Advanced
Materials

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 & Training Centers across 140 countries.

NORTH AMERICA



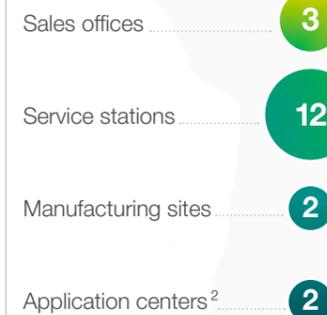
Highlights

We have continued to drive our unique position in region North America with two open-house events which focused on alternative proteins and pulse processing. We went a step further with our market presence with the acquisition of Design Corrugating in January 2021. This added four service workshops with specialist skills in roll grinding and corrugating. We continue to deepen our expertise in key account management to develop real partnerships with our key accounts. These actions combined result in exceeding 2019 orders released levels in 2021.

17%
Turnover



SOUTH AMERICA



Highlights

In region South America, the consolidation of our facilities in Brazil will continue in 2022 with the move of our project execution team to Curitiba over the next three years. Even considering difficult pandemic and political challenges, we were able to strengthen our relationships with our customers through our local structure and agent network.

5%
Turnover



MIDDLE EAST & AFRICA



Highlights

The Middle East & Africa region has shown a great recovery from 2020. We have seen another year with lockdowns and political instability of all kinds. Despite this, we have seen markets grow that have been dormant for some time. Food safety and security has been put into focus by many governments as well as projects that help to extend the local value chain from being only a commodity supplier to a supplier of secondary or even tertiary products. We have been able to extend our network and reach in the region and have increased our service capacities significantly.

32%
Turnover



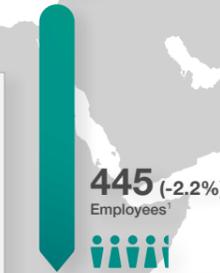
EUROPE



Highlights

In region Europe, customers are again investing at pre-pandemic volumes and requesting digital and sustainable solutions from Bühler. For instance, the revolutionary Mill E3 was built in the United Kingdom, and many electric car makers now rely on Bühler's continuous mixing technology for battery slurry. Bühler was chosen by a French customer to build a large-scale insect plant, which will be operational in 2023.

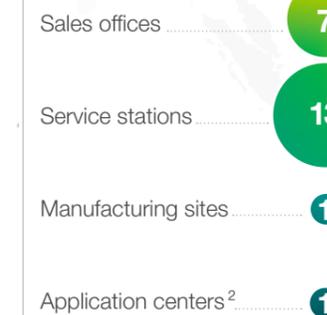
10%
Turnover



3%
Turnover



SOUTH ASIA



Highlights

The South Asia region demonstrated its ability to shift from "survival to growth" mode during the pandemic. The courage shown by our teams during difficult times in the region reflects Bühler's TOP values and the true culture of our organization which was well appreciated by all stakeholders, especially customers.

33%
Turnover



ASIA



Highlights

Despite ongoing implications of the pandemic, our Asia region worked with the mindset of "play to win" and achieved overall growth of 7% in new orders driven by a strong business growth in China and recovery in South East Asia. The main challenges in Asia remain the rise of raw material costs in key commodities and electricity shortages.

Total number of Bühler sites across the world in 2021:

- 86 sales offices
- 103 service stations
- 30 manufacturing sites
- 24 Application & Training Centers²

² Bühler has Application & Training Centers in 24 countries, some of which cover multiple industrial applications.

= 2021 turnover share by region

= Total 12,489 employees¹ in 2021 compared to 12,456 in 2020

¹ FTE (= full time equivalent)

OUR STRATEGY

Our purpose: Driving our business performance with high societal impact

2021 marked the first year of the implementation of our Destination25 strategy, our pathway for creating real impact for a better world. For the years to come, we have set goals for improved profitable growth while balancing humanity, nature, and economy in every decision and thereby delivering impact on the purpose that binds us together – our commitment to reduce climate change and generate solutions that unlock sustainable business opportunities in the global food, feed, and automotive industries for our customers.

We engineer customer success

Our customers are key to our success, and we strive to be a trusted and reliable partner that maximizes business outcomes for them with innovative technologies, processes, services, training, and partnerships. Our strategy of being “in the region, for the region” continues to prove its value for our customers, and thereby for Bühler. With our 103 service stations, 30 manufacturing sites, and Application & Training Centers in 24 locations around the globe, we are close to our customers and support them with new innovations and services to make the most of their asset base. This customer proximity enables Bühler to support its customers and deliver on promises even in highly dynamic markets.

We invest in innovation – nearly 5% of our turnover each year is dedicated to research and development to create value for our customers with innovations that open new business opportunities and contribute to a sustainable future.

- **We make our customers successful:** We strive to create the best technologies to make our customers more successful in very dynamic market environments.
- **We create impact for a better world and a healthy planet:** The demand for sustainable solutions is revolutionizing our markets in the food, feed, and mobility industries, and as a technology provider with a clear aim to reduce climate change, we see ourselves as a driving force for the transition ahead.
- **We want every human being to have access to affordable and healthy food:** With our food and feed business solutions and our focus on safety, we contribute to this human right.
- **We want to protect the environment with energy-efficient cars, buildings, and machinery:** With the solutions of our Advanced Materials business, we lower the energy consumption of various applications, most importantly in the mobility industry.

- **We build safe and attractive workplaces:** Since its founding, people have been the top priority at Bühler – from education and training to career development, health, and safety.
- **We remain independent as a company by achieving sustainable success:** The freedom of being family owned enables us to set a long-term strategy for sustainable company development.

The way forward

After years of building up an industry-wide global ecosystem to address the impacts of climate change and the growing population, we have taken the next steps to focus on the solutions to create impact. We want to evolve our industries and ourselves such that every human being can enjoy a good life, and have access to affordable, healthy food, and clean mobility within the boundaries of our planet. We continue to grow our innovation ecosystem with our customers, academia, industry partners, start-ups, and business accelerators to attain this. The Bühler Networking Days, to which we invite the leaders of this ecosystem every three years, have become a unique platform to jointly drive the industry transformations ahead of us.

We have defined goals and targets to contribute to the betterment of the planet and are acutely aware of the urgency to act now. We believe industry has a key role to play in leading the transition to more sustainable business practices and our targets have been carefully selected according to where we can bring impact as a company and make our customers more successful by doing so.

We remain driven by our vision to create “innovations for a better world” and our mission to “engineer customer success”, and we are guided by our values of trust, ownership, and passion (TOP). These form the foundation on which our Destination25 strategy will be achieved. All our businesses and functions have created a specific strategy within this framework, underpinned by our sustainability goals.

We aim to achieve this by continuously developing new innovative technologies, products, and services. This requires highly skilled, engaged, and purpose-driven employees, along with a strong collaboration and innovation ecosystem.

Our 50/50/50 goals

We develop services and solutions for material transformation and processing, which improve the business outcome for our customers with a substantially lower ecological footprint. Within our strategy, it is our goal to have solutions ready to multiply that reduce energy, water, and waste by 50% in the value chains of our customers by 2025.

OUR STRATEGY

For ourselves, we have developed a pathway to achieve net zero in our Manufacturing, Logistics & Supply Chain activities by 2030. The higher the business value we can provide for our customers, the better our financial performance and the investment we can make to deliver on our purpose, and the impact we can generate.

As a relevant player in the global food, feed, and mobility value chains – around 2 billion people get their daily food processed on Bühler equipment, and the mobility of around 1 billion people is based on parts made with our technologies – we have taken on this responsibility. Being a family-owned company allows us to reinvest most of our profits in innovations for this purpose – and to scale them as fast as possible within our innovative ecosystem and with our customers. In this sense, sustainability is embedded in all functions, responsibilities, and activities of our company.

There are three key elements that contribute to the upcoming transition of our industries: new solutions, services, and people (education & ecosystems).

Solutions

Providing adequate food and nutrition within more sustainable food value chains is more important than ever. Major opportunities lie in reducing the antibiotic use and CO₂ footprint of livestock, developing great-tasting meat and dairy alternatives, and reducing waste, water, and energy use along the value chains. Sustainable protein supply is another core theme which will be addressed through solutions such as side stream upcycling through insect rearing and processing for feed, plant-based proteins valorization opportunities and much more. The biggest opportunities for the mobility industries lie in ultra-large structural aluminum parts, improved battery components as well as optical systems to allow for autonomous, safe, and comfortable transportation.

Services

To create impact for the new balance of nature, humanity, and economy, services are decisive. They allow us to improve the performance and productivity of the existing installed base and with this to minimize energy, water, and waste. With our services, we create a solution where our customers and their efforts towards sustainability benefit. To achieve this, Bühler has developed a comprehensive services portfolio from process optimization and maintenance over hardware and spare parts to knowledge transfer and upgrading packages. A key element of our services are digital platforms (myBühler and Bühler Insights) and the applications running on them, for example, to calculate, monitor and report on impact along complete value chains such

as CO₂e (CO₂ equivalent) calculation from planted coffee beans to a cup of coffee. Our monitoring services ensure the optimal operation of process technologies to save energy, water, and reduce waste at any point in time, for example by increasing uptime of equipment. Retrofit services to renovate the installed base allow us to make sustainability step changes – new equipment and plants could never fully compensate for the existing production capacities.

People (collaboration and ecosystems):

Every progress toward the new balance depends on people, their skills, behavior, collaboration, and the ecosystems we build. On the individual level, it is about awareness and the right skills to take necessary decisions and actions. This applies to all levels – from a leader who might decide to deploy a carbon-neutral company strategy to an operator who is keen on saving CO₂ by running a machine as efficiently as possible. On a company level, it is important that sustainability is not seen as an add-on but is fully embedded in all facets of the enterprise. On an industry level, it is all about collaboration and building ecosystems, as no individual or company alone has the intellectual or financial power to create the impact needed to ensure a high standard of living within the boundaries of our planet.

Bühler has a strategy of people development, starting from apprenticeship education, and internal programs, to schools and Application & Training Centers for our customers. People development has always been vital at Bühler. Our company was one of the first starting a systematic vocational training. Since then, we have continued to develop and expand our education and training system. Bühler provides apprenticeships for 542 apprentices globally and has trained over 9,200 since 1915. We run schools for milling, grain, rice, and cocoa processing along with Application & Training Centers at 24 locations around the world.

Our values

To give orientation to our employees and lay the foundation for a corporate culture that supports our endeavors, we renewed our company values in 2019. They are trust, ownership, and passion. Designed to be concise and unambiguous, our values are encompassed in the acronym TOP. Trust relates to integrity, partnership skills, and the 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 decisions taken in the interest of our customers, and passion drives people at Bühler to live their intentions, to learn each day, to support others, and to drive success. ([See Our People section for more info](#))

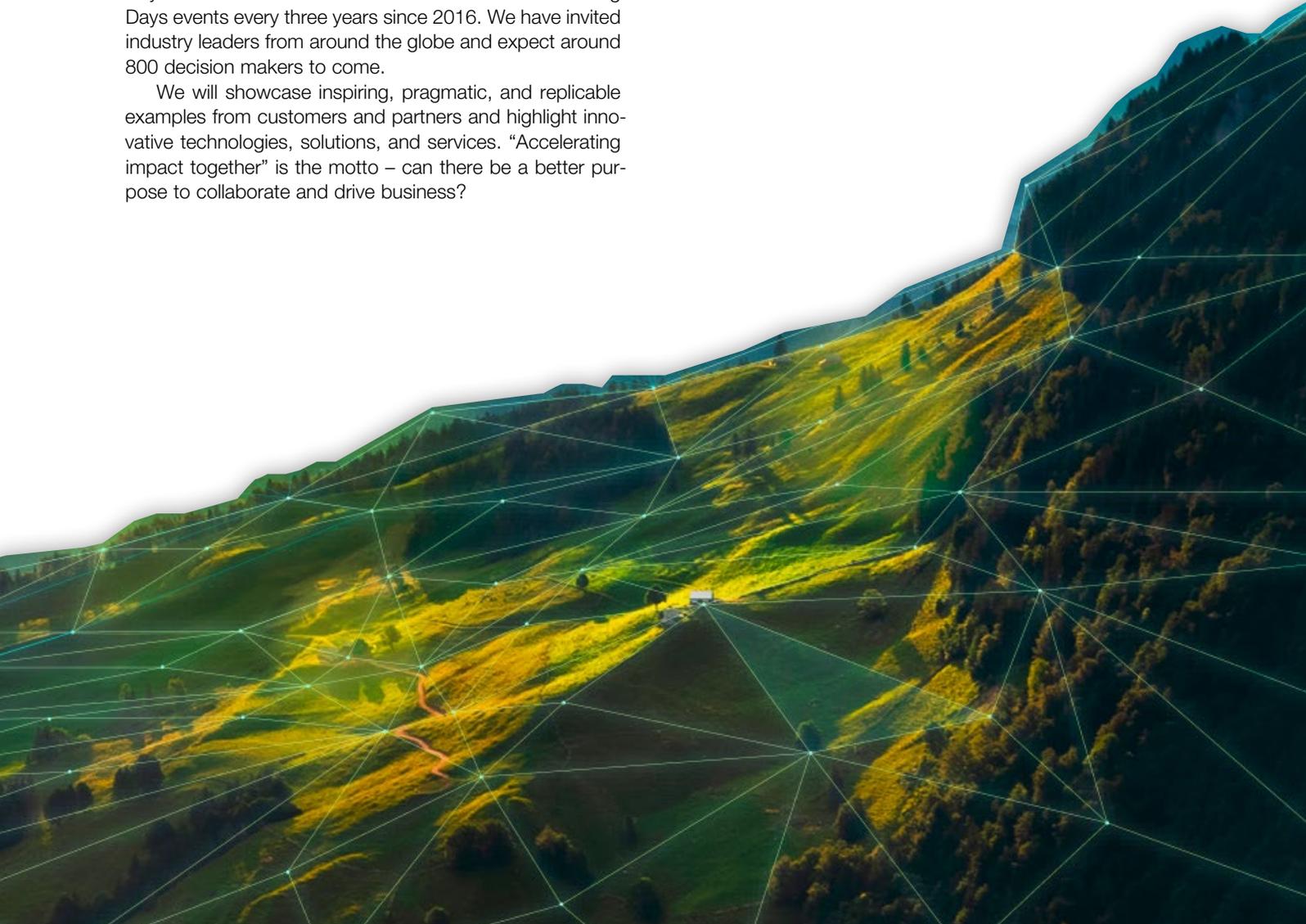
OUTLOOK: IMPROVING PERFORMANCE, IMPROVING IMPACT

In our view, the economic environment will continue in its main patterns. The Covid-19 pandemic will continue to have impacts on the markets. The high volatility and unpredictability will remain, so too the tensions and shortages in the global supply chains and transportation systems. On the other hand, the recovery and transition of key industries such as food, feed, and mobility will continue creating new demands for solutions and services.

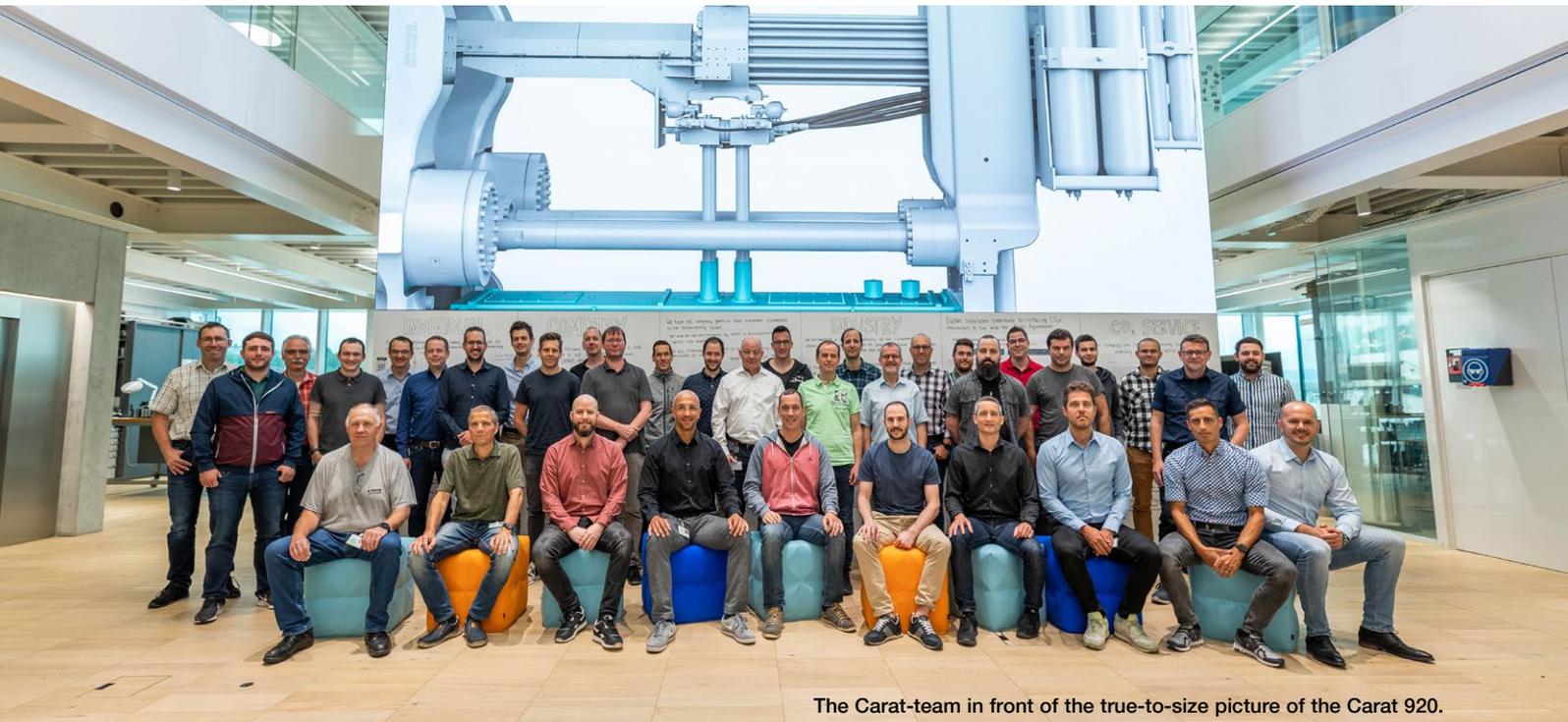
For Bühler, this means keeping the innovation rate high and utilizing the many opportunities arising in this challenging time. We assume that we will improve our performance with good growth at an increased profitability level in 2022.

To improve on the new balance of nature, humanity, and economy, we will conduct our next Bühler Networking Days in June 2022 in Uzwil. We have hosted Networking Days events every three years since 2016. We have invited industry leaders from around the globe and expect around 800 decision makers to come.

We will showcase inspiring, pragmatic, and replicable examples from customers and partners and highlight innovative technologies, solutions, and services. “Accelerating impact together” is the motto – can there be a better purpose to collaborate and drive business?



OUR PEOPLE RISING TO THE CHALLENGE



The Carat-team in front of the true-to-size picture of the Carat 920.

In 2021, Bühler continued to prioritize the safety and well-being of all employees. In the meantime, we maintained our focus on career growth, customer training, and project development – all in alignment with our overall Destination-25 strategy for the company. With over 12,500 staff spread across the globe it has taken flexibility and resilience to react, as countries responded differently to public health challenges. The two main bulwarks against the spread of infection have been varying degrees of societal controls in the form of lockdowns and vaccination programs. Wherever possible, Bühler chose to be at the forefront of the battle against Covid-19, not only organizing vaccination programs for our colleagues, but also for their families and the communities in which we operate.

As the next wave of Covid-19 caused severe disruption across India, the Bühler South Asia management team formed a task force to plan, monitor and implement a response in line with government advice. In April, the team launched its first voluntary vaccination drive for eligible employees and their immediate families. As infection rates rose, Bühler provided essential staff needed on the premises with medical backup from doctors and paramedics who had access to personal protective equipment and oxygen cylinders.



The organizers and volunteers of the vaccination days in Uzwil.

Bühler vaccination days were also organized in other countries such as South Africa, China, Austria, and at our headquarters in Uzwil, Switzerland. With the help of the vaccination team at the Cantonal Hospital of St. Gallen, 500 people received Covid jabs as well as help with their electronic vaccination registration. Bühler employees, along with their families, local businesses, and people from surrounding communities were invited to get vaccinated. Uzwil staff self-test weekly and are tested monthly for Covid-19.

The pandemic took a toll on the mental health and well-being of many people globally, prompting governments, organizations as well as employers to take action. Bühler is offering a range of mental health support to our employees with the first priority of keeping our employees safe. Six global health ambassadors were appointed to help drive both physical and mental health strategies across the organization. Pulse surveys were carried out across our regions to assess the wellbeing of colleagues.



Living up to our corporate values

Our people strategy, which is anchored in our Destination 25 Business strategy, has excellence in leadership and engaged employees who operate in a fully inclusive culture at its core. Our corporate values are the compass that guides us in how we want to interact with each other. The TOP values, which we launched at the end of 2020, were this year incorporated into our Employee Performance Management System. TOP stands for “Trust, Ownership, and Passion”. Trust relates to integrity, partnership skills, and the 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 decisions taken in the interest of our customers, and passion drives people at Bühler to live their intentions, to seize each day, to support others, and to drive success.

Corporate culture needs to be driven from the top of any organization. Bühler has in 2021 kicked off the TOP leadership program, which targets our hundred plus top leaders and provides them with the tools to develop as individuals and enables them to live our TOP values and build a high-performance culture across the organization.

Driving Diversity and Inclusion

Bühler is continuing to focus on fostering gender balance with the launch of the Women@Bühler network and the further development and growth of the Women in STEM (Science, Technology, Engineering and Mathematics) initiative in 2021. The Women@Bühler network currently has 200 members who meet monthly. It provides a global support network designed to empower women throughout the organization by helping them share knowledge, learning opportunities, and experiences across borders.



Bühler’s Women in STEM.

The aim of the Women in STEM initiative at Bühler is to defeat gender stereotypes by helping employees, leaders, parents, and students to empower women towards STEM careers and into future leadership roles within the company. The initiative has grown significantly this year with the support of 25 passionate ambassadors from Bühler who organized 20 events attracting a thousand internal and external participants. These include school visits, leadership workshops, a mentoring program with a children’s home in Kenya, and two global events, including a panel discussion around “women’s empowerment across continents” and a collaborative event with Microsoft for the “International LGBTQ+ (Lesbian, Gay, Bisexual, Transgender, Transsexual, Queer/Questioning+) in STEM Day” on November 18.

Bühler published its second Diversity & Inclusion Annual Report in 2021 outlining our key achievements and plans. In 2020 we launched our online diversity dashboard, enabling employees to access specific diversity metrics to support key performance indicators. This year, the program has been further developed through the quarterly publication of diversity metrics relating to specific regions and businesses so that local leaders can take appropriate actions. Bühler also marked various diversity and inclusion events throughout the year such as International Women’s Day on March 8 and Pride Month in June, to celebrate the company’s diverse workforce and raise awareness around the challenges often faced by under-represented groups.

The Bühler Beyond Bias workshops continued throughout 2021 with the aim of addressing unconscious bias in the workplace and to help foster an inclusive environment. Workshops were carried out across global locations, with every region able to tailor the training sessions to address local cultural circumstances. Over 300 participants attended 30 workshops in 2021. Five new internal facilitators were certified in Bühler’s Beyond Bias “Train the Facilitator” program, adding to a total of 21 passionate facilitators who support running these workshops.

Generation B at One Young World Caucus 2021 in Arosa, Switzerland.



Shaping the Bühler of the future

Bühler's Generation B (Gen B) is an employee driven movement that empowers employees to create the company they want to work for. The global movement aims to inspire employees to be engaged and motivated through initiatives that will shape the future of the company. Gen B is an opportunity to look at global challenges and take ownership of how Bühler can address them. The topics addressed this year included discrimination, the climate crisis, Women in STEM, and sustainable food choices.

Throughout 2021 the Gen B team organized over 50 events with more than 2,000 participants as the membership grew to 900 employees around the world. A team of 90 active ambassadors from different countries led projects that they have a passion for and that benefit the company. Gen B has further developed long-term change initiatives such as the SWAP (Seeing With Another Perspective) collaborative mentoring program where staff are connected across the company to share insights and knowledge and help foster inter-company dialogue. This year the SWAP program included 150 global mentoring pairings.

In June, the One Young World Switzerland Caucus, which was supported and hosted by Bühler, brought together 400 passionate people from different industries and backgrounds to connect and exchange ideas, discussing how we can live within the boundaries of our one planet. The two-day event allowed participants to collaborate on building sustainable start-ups, fostering sustainable tourism and pushing grassroots change in corporations. This enabled the development of business ideas to build both a more sustainable planet and ecosystems with the creativity and passion to make real change.

Encouraging lifelong learning

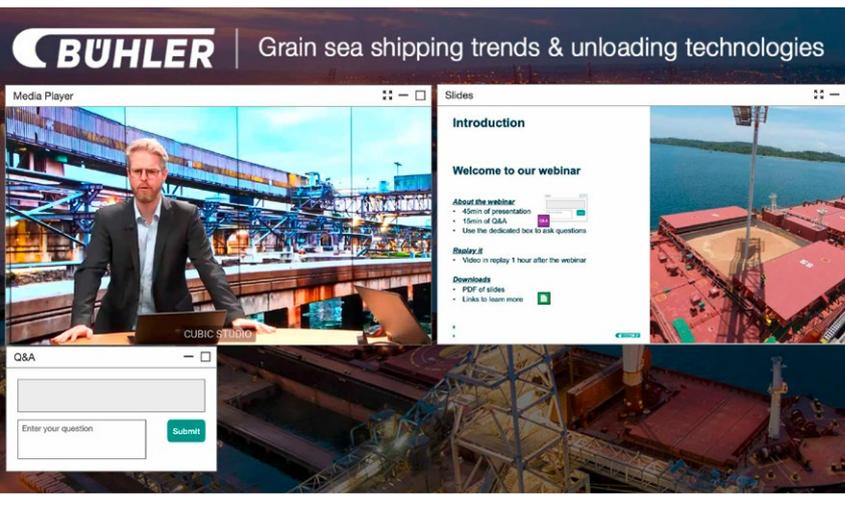
As public health interventions help combat the increase of infection rates, it has allowed the cautious loosening of pandemic controls and a reintroduction of face-to-face elements in our learning and development program. Bühler is adopting a hybrid approach while maintaining safety as our primary objective. The pandemic has shown that learning, collaboration, exchange of ideas, and networking can be effective using virtual technology. However, in some circumstances face-to-face contact is needed to fully leverage creativity and team collaboration and best achieve our goals.

Lifelong learning for all employees is a core principle for Bühler regardless of age, location, or career stage. The pandemic has taught us that employee versatility is integral to business resilience. Today's employees need the skills and knowledge to quickly adapt to new technologies and economic drivers. To help achieve this, Bühler has continued to develop its Next Generation Learning Program designed to explore how innovation can shape employee learning. Flexible learning programs help employees choose the most appropriate learning medium at different life stages. Bühler continues to develop the B-Learning platform delivering a broad spectrum of learning opportunities through videos, e-learning, classroom trainings, webinars, and a mobile app. This year Bühler launched a new learning commitment, accompanied by a series of skill-building webinars available to all employees on topics such as cultural awareness, collaborative mentoring, and the power of self-belief.



Ismail Mohammad Haji and Stefan Schroff, ITP.

An example of one of the many webinars held in 2021.



Customer training and sales staff development

Our customers attend high-end training programs at our Application & Training Centers in 24 locations around the world – from our Die Casting Technology Center in Switzerland to our Rice Milling Academy in India, to our Cocoa Training Center in Ivory Coast to name but a few.

Subject experts running the training programs help customers develop and improve their knowledge of Bühler technologies and services. At Bühler’s African Milling School in Nairobi, Kenya, dozens of apprentices finished their apprenticeships in 2021, 17 participants graduated from the third Head Miller Class, and 106 employees from 24 different customers took part in trainings such as Mechanical Maintenance, Baking Technology, or Milling for Executives.

This year has involved a major redesign of the internal Bühler salesforce training program. Bühler recognizes that frontline staff need to be highly adaptable to quickly react to dynamic market changes. Sales employees are often the first contact customers have with the company, which is why Bühler is dedicating resources and time to developing the sales training skills matrix, building the skills required by the individual salesperson. Rather than having a fixed sales license, Bühler is developing a “dynamic license in sales” where tailored training provides individuals not just with additional technical skills but also with soft skills in areas like communication. Test pilots for the new training concept were run throughout 2021 for 80 colleagues in South America, Middle East, Africa, and Europe who underwent one-week virtual training courses.

By adopting a blend of virtual and face-to-face learning, Bühler is leveraging the best out of the new hybrid training world we now find ourselves in. To support this, a dedicated sales training room has been created to accommodate the new hybrid training format.

Fostering vocational training

In 2021, Bühler provided 542 apprenticeships globally, of which 275 were in Uzwil. These apprenticeships are based on the Swiss dual-vocational model, a global benchmark that has been adapted by other countries, where students receive a mix of practical and academic training. These three or four-year education programs cover eight different professional fields. The programs continually evolve to meet



Bühler apprentice Jan Meier won the SwissSkills competition in 2020 and came fourth this year in the EuroSkills in Graz.

the changing skill sets required by companies. This year 65% of the apprentices finishing their apprenticeship chose to pursue careers within Bühler.

We are proud to announce that the Bühler apprentice Jan Meier not only won the SwissSkills competition in 2020 but came fourth this year in the EuroSkills in Graz, Austria. These events are part of the global WorldSkills movement to raise the ambitions and opportunities of vocational education and training for young people, employers, and societies. Jan Meier will also be competing in the WorldSkills competition in Shanghai in 2022.

In 2021 we made substantial investments in practice equipment and machinery to drive forward apprenticeship training within the topic of Industry 4.0, developing the future skills of our apprentices. We are among the first private sector companies to have introduced practice equipment and machinery to deepen Industry 4.0 knowledge and skills in Switzerland and we plan to make this training program available to a wider range of employees in the future.

Bühler continues to affirm its commitment to train apprentices across the globe and value them as vital contributors to our success. Our approach has long been recognized by other countries including the United States. In 2014, Professor – and now First Lady – Jill Biden visited Bühler in Uzwil to see first-hand how we train and promote apprentices. In November 2021, Bühler broke ground for the new Energy & Manufacturing Technology Center. The state-of-the-art building in Uzwil will become the central hub for vocational training and offer space for prototyping and innovation in manufacturing.

Bühler Management trainees 2021.
Each trainee is given the opportunity
to work closely with regional heads
and top management on the
Executive Board.



Securing a strong talent pipeline

To help develop future leadership, the Bühler International Management Trainee Program is designed to attract the best talents leaving universities and business schools and fast-track them through the Bühler corporate experience.

This year saw the first trainee from our Middle East and Africa region join the three-year internal training program. Each trainee is given the opportunity to work closely with regional heads and top management on the Executive Board. This year, Bühler collaborated with Ashesi University in Accra, Ghana, and the Swiss Federal Institute of Technology in Zurich (ETH) to select Master's Degree students in engineering and provide them with internships to ensure African talent is being developed for employment opportunities in Africa. Bühler is also working with ETH to send Swiss ETH interns to gain work experience in Africa. The project aims to encourage the sharing of ideas and experiences across cultural borders and increase understanding of the African food industry.

The Exceleator Program, now in its fifth year, continues to develop the specific needs of individuals so that talented employees are first recognized from within the company and then enabled to mature and develop into leadership roles.

Expanding employer branding

For the third year in a row, Bühler is pleased to announce winning the prestigious 2021 Swiss Leading Employer Award ranking us among the top 1% of nominated Swiss employers. Over 2021, Bühler has been adapting its approach to our company branding in the light of pandemic restrictions. We continue to leverage our social media presence in the absence of face-to-face opportunities to build our employer brand amongst potential recruits to the business.

We have also revamped our career website to provide more tailored and targeted information on job opportunities at Bühler. A global talent ambassador community with 25 members was created, where experiences and best practices stemming from local employees branding activities are shared. We continue to clearly articulate our corporate ambitions to encourage the best talent who want to work for Bühler and join us in our ambition to make meaningful changes to planetary and human wellbeing.

In 2021, Bühler was again awarded the Swiss Leading Employer Award.

