

diagram

#191 / November 2025

the Bühler magazine

A SPECTRUM OF POSSIBILITIES

MAKING THE MOST OUT OF MAIZE

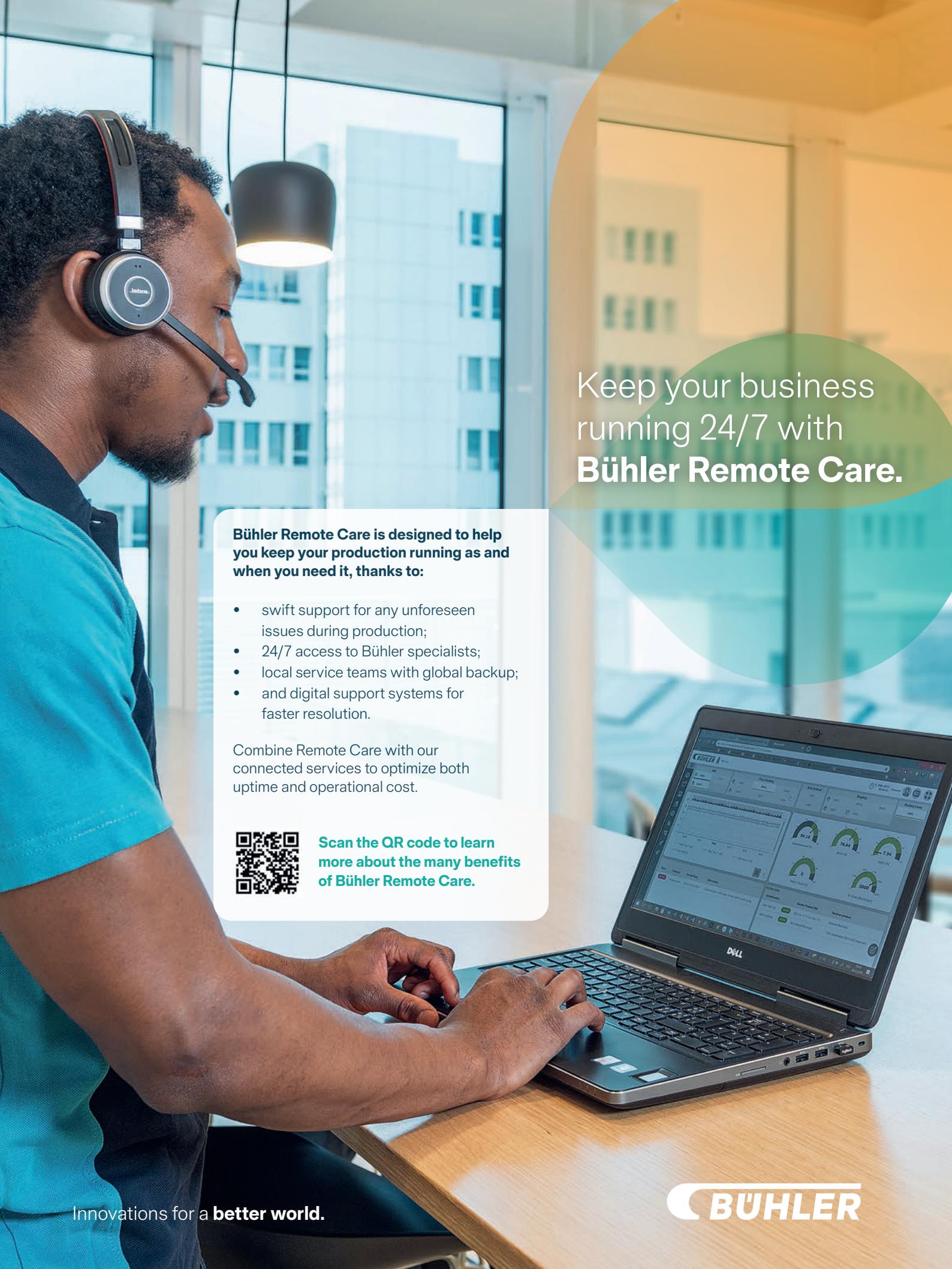
QUALITY CORN'S HYBRID PLANT MEETS BOOMING DEMAND

LOWER YOUR FOOTPRINT, BOOST YOUR BUSINESS

GAIN MEASURABLE RESULTS WITH OUR PORTFOLIO OF SERVICES

EXTRA SHINE WITH ULTRA-FINE COATING

HOW FASHION AND FUNCTION ARE FUSED IN DALLOZ'S LENSES



Bühler Remote Care is designed to help you keep your production running as and when you need it, thanks to:

- swift support for any unforeseen issues during production;
- 24/7 access to Bühler specialists;
- local service teams with global backup;
- and digital support systems for faster resolution.

Combine Remote Care with our connected services to optimize both uptime and operational cost.



Scan the QR code to learn more about the many benefits of Bühler Remote Care.

Keep your business running 24/7 with **Bühler Remote Care.**

EDITORIAL

DEAR READERS.

When a single beam of light enters a prism, it reveals a whole spectrum of colors. In the same way, the right decision in business can open up a spectrum of possibilities – for growth, resilience, and sustainability. At Bühler, we see this every day in our work with you, our customers and partners. Our goal is to deliver that clear beam that opens up possibilities.

Everything we do is designed to support you at many levels because we understand that the processes in your business are interlinked, and so too are the outcomes. For example, when you choose services from Bühler, you not only address specific issues, you also drive improvements across your operations. Through services such as retrofits, digitalization and automation, and environmental impact assessments, we are helping you extend the life of your assets, increase yields, improve efficiency, reduce costs, and reduce your footprint.

All of this helps you to boost your business, unlock new opportunities, and build a pathway to long-term success. This is the message at the heart of this issue of Diagram, and one that we see proven over and again around the world. Whether it is a food manufacturer in Brazil finding ways to increase availability of their line, a human and animal nutrition company in the US looking to improve their processes, or a die caster in China wanting to extend the life of trusted equipment, each story illustrates how Bühler services deliver the intended outcome and much more.

We are very proud to share many more examples of how our customers' ambitions take shape, with Bühler technology and know-how helping to make it



STEFAN SCHEIBER

CEO BÜHLER GROUP

possible – from processing peas in Hungary to highland barley in Tibet, from milling oats in Germany to applying thin-film coatings in China. Each story reflects the same principle: When vision meets collaboration, new possibilities emerge.

This is the spirit instilled in us by Urs Bühler, who passed away this summer. His foresight, values, and humanity shaped our company profoundly. The culture of innovation and responsibility that he lived every day continues to guide us as we work together with you to create a better future.

In this, my final Diagram editorial as CEO of Bühler, I would like to take the opportunity to thank you. It has been my honor and pleasure to get to know many of you personally and, hopefully, to play a small part in your success.

I warmly invite you to explore the inspiring spectrum of stories in this issue. I wish you all the very best and thank you for your trust and collaboration.

Sincerely yours,
Stefan

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One clear choice, a spectrum of possibilities:

Just as a prism transforms a single beam of light into a spectrum of possibilities, lowering your footprint can unlock a brighter, more resilient future for your business. By choosing Bühler services, you turn challenges into opportunities, and measurable positive impact – one clear choice leads to many bright results.

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possibi

UNLOCK A
SPECTRUM OF

TEXT: JANET ANDERSON

ITIES

A spectrum of possibilities / THE SERVICE

From milling to die casting, from North America to Southeast Asia, manufacturers in diverse industries and regions share one desire – to build sustainable long-term success. With Bühler services, they can reach their goals. Designed to drive growth while lowering footprint, our service portfolio offers a spectrum of possibilities, supporting customers to build resilience, unlock profitable success, and boost their business.



DO YOU WANT TO INCREASE yield and efficiency, reduce operational costs, improve quality, unlock growth, and improve the resilience of your business? Are you wondering whether you can achieve these goals and improve safety or lower your footprint at the same time? Bühler's comprehensive portfolio of services, offered through a unique global network, is designed to help customers everywhere to optimize their footprint and improve business performance.

Whether you are looking for a maintenance contract, equipment upgrade, training for your staff, or advice on process improvements, Bühler experts are at your side showing you that sustainability goals and business success go hand in hand.

With deep expertise across many manufacturing processes, Bühler service people know about the specific challenges customers face and apply their wide experience to help find durable solutions.

Always at your side

Take upgrades as an example. Of all the services that a manufacturer requires, retrofits and upgrades provoke the most emotion. At some point, a tried and trusted machine shows signs of age and no longer performs at its best – productivity is declining, energy consumption is increasing, maintenance costs are growing. At this point, you face an urgent question: do I invest in new machines, or opt for an overhaul and upgrade? This was the question facing Ching Ming Group in China. The company started in 1968 as a small machining workshop with five Bühler Evolution 42 die-casting machines. Since then, it has grown into a well-known regional supplier of hardware die castings. In Mr. Wang's point of view

- Ching Ming Group's General Manager
- their Bühler machines are just like old friends.

"They have accompanied us throughout our development," he says. But issues such as hydraulic oil leakage and declining precision were restricting production efficiency and product quality. In weighing up whether to go for a retrofit or invest in new machines, Mr. Wang and his colleagues were supported by Bühler experts. They carried out a comprehensive health check-up to identify the root causes of problems before tailoring targeted solutions. They also provided a detailed analysis of the potential return on investment and proposed a work schedule to minimize production downtime.

On this basis, Ching Ming Group opted for a retrofit, breathing new life into three of their die-casting machines. The issues were all resolved, but more than that, their machines now use 20 percent less energy and there are fewer product defects.

The savings from these improvements will enable Ching Ming Group to recover the retrofitting investment quickly, and with the hands-on training provided by the Bühler team, Ching Ming Group now has an in-house team of experts.

Retrofitting is just one example of the Bühler services portfolio, but it demonstrates how close collaboration with customers achieves a holistic outcome. The goal of services is not just to extend the service life of customers' machines, or to reduce operation costs and energy consumption – far more than that, it is to help customers maximize the value of their investment over the entire life cycle of their assets and, through proactive engagement, to ensure the long-term success of customers' businesses.

"This is the core value of services in the manufacturing industry," says James Zuo, Head of Service Operation, Bühler Greater China. "Earning our customers' trust and satisfaction is the pinnacle of our achievement and the essence of our value."

Bühler's service offering includes everything from spare and wear parts, inspection, and maintenance to equipment upgrades and consultancy. Customers can select a package of these services tailored to their specific requirements. Bühler's global setup, together with digital and remote services, ensures prompt availability at every customer location, serving customers' needs seamlessly from asset and process optimization to output-based and business optimization services.

Interlinking benefits

Just as the Ching Ming Group found, an important part of the service offering also includes knowledge sharing. Bühler's experts provide both technical know-how as well as valuable insights into the latest market developments, supporting customers to achieve short- and long-term goals. They also help develop competencies within customers' own businesses with classroom instruction, e-learning, and on-site training that provide the skills and knowledge for long-term sustainable success.

With 2,200 Bühler experts, 105 service stations, three Customer Operations Centers in different regions providing remote support and digital services, and 30,000 different parts in stock across 10 locations, Bühler can deliver the right bundle of services to each of its customers worldwide. Today, Bühler has long-term service agreements in place with more than 3,000 customers.

"We fully understand that as manufacturers, all of our customers need to produce their products as efficiently as possible and at a defined quality,

says Patrik Meier, Global Director of Product Development at Bühler. "Each of our customers has to meet other requirements and goals too, which might include food safety or sustainability, but fundamentally, they are all looking to produce more for less." Bühler's service portfolio delivers this – whether that means lower costs or a lower environmental footprint, or both. The key is that Bühler experts take the time to understand fully how customers operate their plants and machines before proposing how to improve outcomes.

The proposal might be to ensure that the customer's machines are working at their optimum and will continue to do so for as long as possible, or it might involve looking at processes, such as flow of product or raw materials, and proposing an optimization. This could lead to exploring ways to reduce or reuse side streams and energy. "Everything that flows through the customer's process has value, and ideally there should be no waste. We therefore work to reuse and valorize as much as possible, putting the concept of the circular economy into practice," says Meier.

Cutting costs and emissions

A perfect example of how business and sustainability goals are closely linked is energy consumption. "For most customers, energy has a big financial as well as environmental impact," says Meier. In most cases, heat is the biggest consumer of energy and after that mechanical drive. Bühler experts therefore prioritize improving heat consumption followed by movements and mechanical stresses.

This cuts cost and emissions, but there can be even more benefits. An oven, for example, is a big heat sink, so it is important to optimize that part of the production process first. This involves ensuring that no part of the process uses unnecessarily high temperatures. This leads to reductions in both energy costs and footprint, but that is not all. By achieving more even heat distribution, it is possible to get closer to the required recipe every time and therefore also improve the quality of the output.

"Our approach is holistic because, for our customers, these aspects are all connected," says Meier. "Each of the customer's machines is part of an overall process. If we improve one machine, we ensure that this has a good overall impact across the customer's

whole value chain. If we enable the customer to reduce their water consumption, this reduces their environmental impact and their costs."

Customers' needs vary according to industry, region, and business, and therefore Bühler's service portfolio is highly adaptable. "Our customers are in different industries with different pressures, and they are also at different stages in their journeys," says Meier. "Many of our customers are established producers, whose main focus is on improving their current operation or growing their business. We also have customers who are looking to expand into new market segments. And we help businesses at the very beginning of their journey, the start-ups. We build our service offering around each customer's needs," says Meier.

Bühler also customizes the service package according to regional needs. For example, in some regions, customers place more focus on waste reduction and productivity improvements. In others, the priority is on skills development to help improve the conversion of raw materials to final product.

"We design our service packages to deliver the outcomes our customers require," explains Onkare Gowda, Head of Service Operations, Middle East, Africa & India, at Bühler. "In the regions I serve, our customers may be looking to expand their businesses into international markets. We offer them services to help them do this by enabling them to meet international standards, including sustainability requirements."

Another important aspect is providing support throughout this process. "We work with our customers, offering accountability and commitment and helping them to take these steps," says Saurabh Soni, Head of Service Sales & Channel Management, Middle East, Africa & India, at Bühler.

Tailored to each customer

In Southeast Asia, the drive toward sustainability sometimes comes from customers themselves, and sometimes from external factors. The Malaysian government, for example, provides grants for projects that reduce energy consumption. And in Australia, the steep rise in energy costs drives customers toward the same goal. "There is huge diversity across these regions and that requires tailor-made services," says Jin Kit Chua, Regional Head of Services

THE BENEFITS

Sales, Southeast Asia, at Bühler. "That is why we always sit down and listen to our customers' pains before we propose a service package."

Customers in Europe are driven by a wide mix of factors, from regulations, financing, and requirements of their own customer base to how they position their brand in their market. Customers who serve big supermarket chains, for example, need to meet certain sustainability requirements. Customers who provide volume products know that cost is the biggest driver.

"We understand that there is a variety of drivers for our customers. But we also know that for all of them, sustainability must have a business case behind it," explains Livia Hoehener, Head of Customer Service Europe at Bühler. "Our customers are looking at the return on investment, so we always measure performance and make improvements tangible for them."

Partnering for results

In some cases, providing services becomes a deeper partnership. For example, a customer might want to improve energy efficiency but lack the personnel to track and analyze the data. In these cases, Bühler can act as a companion, helping them interpret the information and make decisions.

"Due to the skills shortage in our industries in Europe, for example, many of our customers here are looking for partnership. With Bühler's deep process knowledge we can help our customers decide which data points will give them valuable results," Hoehener explains.

With transparency, trust, and regular alignment on expectations, the partnership can become a form of co-creation. This involves learning together, adjusting along the way, and sharing the risk. "With Outcome as a Service, we as Bühler have skin in the game – we share the risk with our customers," says Hoehener. "We are prepared to do this because we are confident of what we can achieve together."

WEB

Find the service that is right for you on the Bühler Services website.



COST REDUCTION

Supporting you in reducing operational costs in your production.

PERSONNEL & MACHINE SAFETY

Ensuring safety for your personnel, machines, and the environment.

UPTIME

Enabling you to improve availability and reliability to keep production running smoothly.

CAPACITY

Helping increase the output of your production in volume or product diversity.

FOOD & FEED SAFETY

Supporting you in strengthening food safety and ensuring compliance.

SUSTAINABILITY

Helping you drive more sustainable production, reducing energy, waste, water, and CO₂e.

INNOVATION

Enabling you to innovate, develop, and test new products and processes.

QUALITY

Helping you to increase the quality of your production output on a consistent basis.

LIFETIME EXTENSION

Enhancing your assets to extend their productive lifetime.

SERVICES IN ACTION

**ENERGY CONSUMPTION
REDUCED BY 20%**

Ching Ming Group, China

REAPING THE REWARDS OF RETROFITTING

Ching Ming Group, based in Dongguan, China relies on three Bühler Evolution 420 die-casting solutions to produce screws, fasteners, and tools. After years of reliable service, the company saw an opportunity to improve performance either through replacement or retrofit. Working with Bühler experts and making in-depth calculations, Ching Ming Group weighed the options. Retrofitting proved to be the best course of action – and the results speak for themselves. Overall energy consumption dropped by 20 percent, while overall equipment effectiveness rose from 65 percent to 85 percent. This led to a return of investment in just 14 months, more than justifying the investment in upgrading rather than replacing the machines. The lifespan of Ching Ming's equipment has been extended by 8 to 10 years, giving them peace of mind and the readiness to grow their business with cost-effective technology.

**20% REDUCTION IN
PRODUCTION LOSSES**

Grupo Marilan, Brazil

THE RECIPE FOR RELIABILITY

Grupo Marilan is a Brazilian food manufacturer that specializes in producing a wide variety of savory biscuits, sweet cookies, and other snacks. It is the largest biscuit maker in Brazil with more than 5,000 employees and exports its products to over 30 countries. Grupo Marilan set a strategic goal of increasing the reliability and availability of its wafer lines to enhance operational stability and achieve its wafer segment growth targets. With Bühler's Total Care service package, Grupo Marilan found the perfect fit for proactive asset management and predictive maintenance to improve its production performance. Since integrating Total Care, the company has experienced exceptional results, including a 20 percent reduction in production losses including scraps, sweeps, and overfill. These improvements – along with increased line availability, optimized operating costs, and enhanced plate cleaning – have boosted overall equipment efficiency, and strengthened sustainability and competitiveness.





**50% EMISSION
REDUCTION IN PURCHASING AND
LOGISTICS BY 2030 (TARGET)**

Royal Koopmans, the Netherlands

A STRATEGY FOR GROWTH

Royal Koopmans looks back at 180 years of family-owned company history, evolving from a horse-powered mill into a modern supplier of flour, food coatings, and ingredient solutions to artisanal bakeries and industrial food producers.

By developing innovative grain-based solutions, Royal Koopmans meets evolving consumer demands for tasty, healthy, and sustainable food. Guided by an unwavering commitment to sustainability in every decision, the company collaborates closely with farmers, organizations, and partners in the supply chain to enhance its impact.

With support from Bühler's Environmental Impact Service team, Royal Koopmans has embarked on a journey to fully understand its greenhouse gas footprint (GHG) across Scopes 1, 2 and 3. These insights are crucial to understanding the departure point (baseline) and how each link in the chain contributes to Koopmans' overall CO₂e emissions, enabling the company to define a clear emission reduction strategy, and set challenging yet achievable goals in the areas where the biggest impact can be achieved. Currently, Bühler is calculating the impact of Koopmans' climate strategy to evaluate the impact reduction, assess potential gaps towards its climate goals and crystallize the steps going forward. This will support Koopmans in achieving their ambitious goals: reaching net zero emissions in their own operations (Scopes 1 and 2) by 2040 and cutting emissions in purchasing and logistics by 50 percent by 2030.



**13 PAIRS OF ROLLS
EXCHANGED IN JUST 2.5 DAYS**

ADM, US

**ROLL REPLACEMENT
BOOSTS YIELD**

As one of the world's largest nutrition companies, ADM is a leader in both human and animal nutrition. Covering the full value chain from farm to fork, ADM recognizes the importance of regularly assessing its processes to get the most out of every production day. Bühler experts met with ADM technical support and plant management at their Beech Grove Mill in Indiana, US about trialing a new maintenance concept. The idea was to change out a larger quantity of milling rolls than normal on maintenance days. Roll-Detect was used to help determine which rolls to change that would make the biggest impact to capacity and yield of the specific Milling unit.

To minimize operational downtime, ADM plant management worked with Bühler customer service to design a detailed plan to exchange the rolls during the day then allow the mill to run over night to test the efficiency gains. Thirteen pairs of rolls were exchanged in only 2.5 days with a direct impact on milling performance. According to Nicholas Johnson, Mill Superintendent at ADM Milling in Beech Grove, the results were immediate: "The Mill received a significant increase in yield and capacity after the maintenance was performed." With ADM's commitment to maintain its mill at the highest level of production and efficiency, the company is set to continue reaping the rewards of this new maintenance concept. Prior this type of maintenance could take months of scheduled repair time.

Process Improvement and
Environmental Impact Services

BETTER BUSINESS OUTCOMES

Unlocking a spectrum of possibilities

Remote Support

EXPERT ADVICE IN REAL TIME

Total Care

HIGHER RETURNS ON YOUR ASSETS

Bühler's Environmental Impact Services together with process improvement link business objectives with sustainability targets. With the support of our experts, customers can quantify and understand the environmental footprint of their operations and products, identify where the real levers for decarbonization, resource efficiency, and cost reduction lie, and build a practical strategy to achieve reductions annually. The identified opportunities are then realized through process modifications, optimization, and maintenance activities under Bühler's service solutions such as Total Care.

- ⊕ Identify environmental hot spots and improve operational and financial performance.
- ⊕ Leverage Bühler's unique combination of process expertise and quantification knowledge.
- ⊕ Build resilience while unlocking business opportunities.

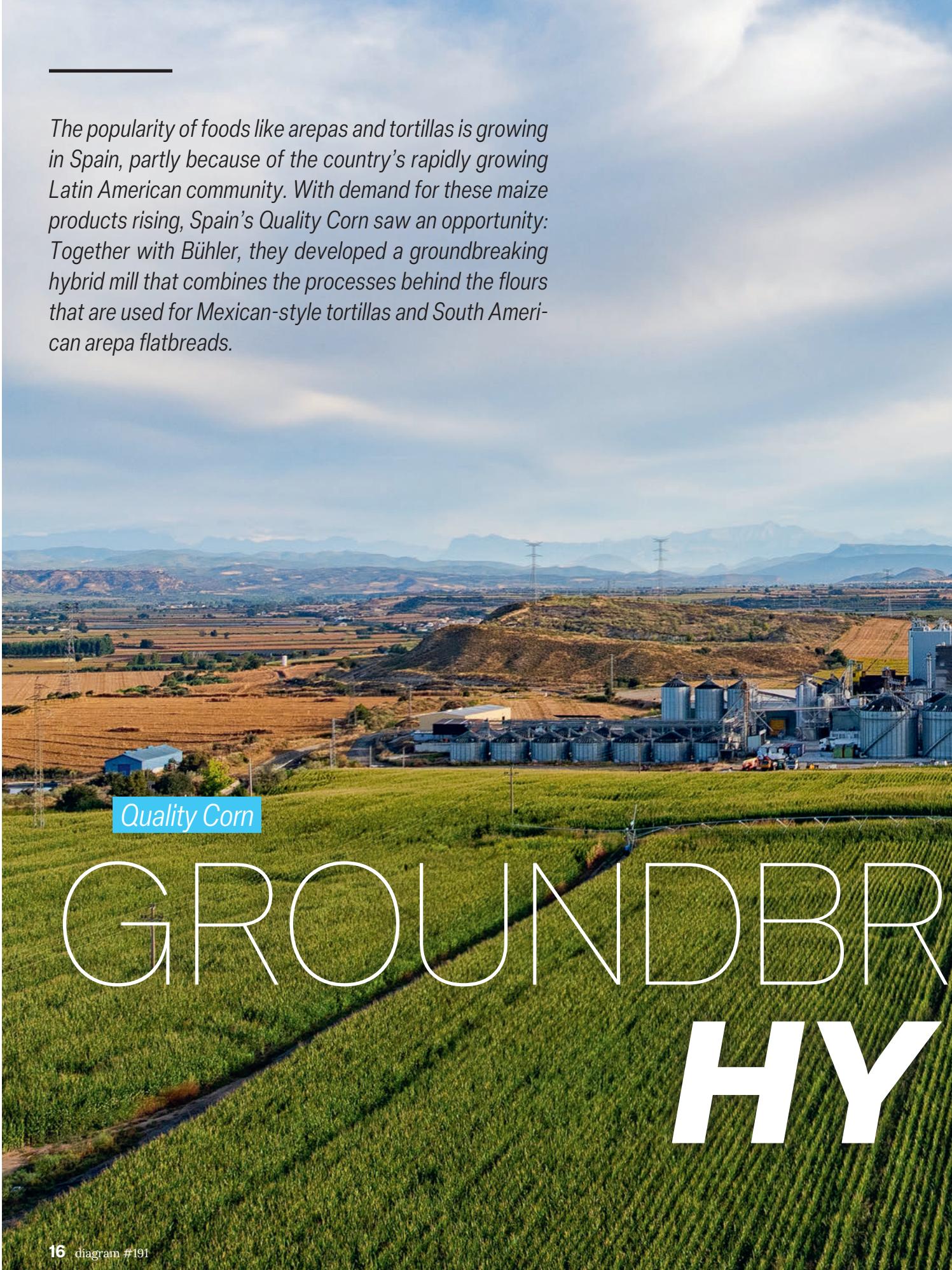
Every hour your production stands still, you lose money. With remote support Bühler can reduce that quickly. Bühler's global network of Customer Operation Centers gives you access to remote services in your regional language, in your time zone, 24/7. With Bühler experts connected to your operation, they can look at the production data and analyze the issue. Often, they can resolve the problem without sending a technician to the site. Cutting travel saves time, cost, and emissions.

- ⊕ Bühler experts know the optimum moment to replace parts.
- ⊕ They analyze what is happening in your operations in real time and optimize processes on the spot.
- ⊕ Bühler has ISO 27001 certification and handles data with the utmost care and diligence.

Maintenance is the bedrock of Bühler services. Whether it's new parts, a software update, or machine maintenance, we deliver what you need as fast as possible, at the best quality and price. Through our global network of hundreds of field service engineers, supported in selected markets by our subsidiary BenLink, we ensure fast, high-quality service worldwide. But Bühler's services go beyond this. With a Total Care service agreement, our experts are not just available to solve problems but are at your side looking for ways to make improvements in your assets, processes, and overall business. From training to process support, analytics and beyond, we collaborate with you to make sure you are successful over the whole of your asset lifecycle.

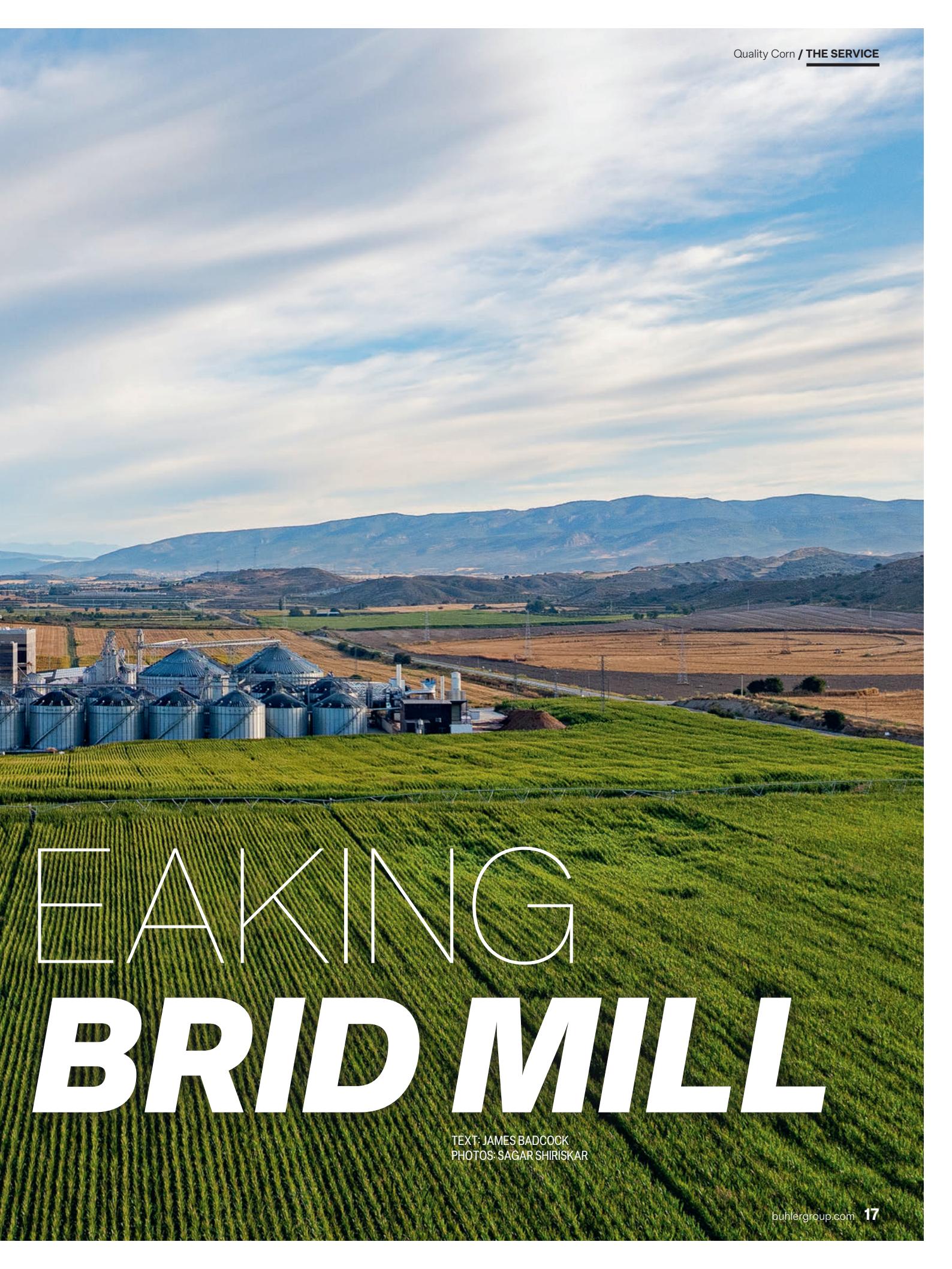
- ⊕ Prolong the life of your machines, increase uptime, and ensure consistent output.
- ⊕ Choose between reactive, preventive, and predictive maintenance.
- ⊕ Tailored to your needs to help you optimize your business.

The popularity of foods like arepas and tortillas is growing in Spain, partly because of the country's rapidly growing Latin American community. With demand for these maize products rising, Spain's Quality Corn saw an opportunity: Together with Bühler, they developed a groundbreaking hybrid mill that combines the processes behind the flours that are used for Mexican-style tortillas and South American arepa flatbreads.



Quality Corn

GROUND HY



BAKING BRID MILL

TEXT: JAMES BADCOCK
PHOTOS: SAGAR SHIRISKAR

WHEN AGUSTÍN MARÍNÉ TRÍAS TOOK OVER the family farm near Monzón, in the Huesca province, on the Spanish side of the Pyrenees in the mid-1990s, he was convinced that the local maize crop was being undervalued in its traditional uses as cattle feed and fodder. Time proved Mariné Trías right as he first shifted into production of grains for the snack industry and then into milling maize to make flour and semolina for beer brewers.

Now the 56-year-old CEO and Owner of Quality Corn believes he is again ahead of the curve by moving into milling pre-cooked maize flour for use in traditional Latin American bread making, a major growth sector in Spain due to the arrival of immigrants from Latin America in the past few decades. But the collaboration between Quality Corn and Bühler grew into an even more ambitious project: a hybrid plant that can make pre-cooked maize flour for traditional Venezuelan arepas, or prime masa nixtamalized maize flour, in which the maize grain is first subjected to a special chemical process before milling. The new plant represents a first in Europe and a new development for Bühler, and Mariné Trías is sure of Quality Corn's direction of travel. "We have always expanded, from agriculture to specialized production and then milling. When we made the first mill here, I was down there with a screwdriver in my hand," he says.

The story of Mariné Trías' business endeavors mirrors the development of maize in Spain, a country where wheat has long dominated the milling industry. His father grew the crop as fodder for the livestock he also reared. In 1998, Mariné Trías signed his first deal with a Barcelona-based company to produce maize grain for popcorn, followed by further ventures in which new varieties of maize were planted to provide the raw material for other snacks including corn chips and kikos, a popular nibble in Spain made of toasted or fried grains.

"Maize in Spain in 2000 was kikos, popcorn, and nachos, then an ingredient in the form of semolina for brewing or for puffed corn snacks, plus a small market for gluten-free products such as pasta," says Mariné Trías. He founded the company Quality Corn SA in 2012 and built what at the time was Spain's second maize mill. It was a big jump from agriculture to industry, but he had a customer already lined up: The Barcelona beer company Damm needed locally produced quality maize for brewing.

"Investing 7 or 8 million euros in a mill was like leaping into a swimming pool, but at least with Damm on board we knew there was some water in it," says Mariné Trías. The leap worked out well and soon Mariné Trías was looking for new ventures. His next big idea came in around 2021 and was prompted by remarkable recent changes in Spanish society sparked by a shift to mass immigration in the space



Quality Corn grows yellow maize, which is typically used for tortilla chip flour, and white maize, used for arepa flour.



Arepas, a Latin American favorite, are now popular in Spain, driving pre-cooked maize flour demand.

of a single generation. In 1995, before the start of a decade-long economic boom that would transform the country, there were 1 million immigrants living in Spain. By 2024, that number had risen to close to 9 million – 18 percent of the population. Of these, people from mainly Spanish-speaking countries in Latin America make up almost half. Spain currently hosts some 4.2 million immigrants from South America, Central America, and the Caribbean, plus others who made the move in previous decades and are now Spanish nationals.

Such numbers obviously point to new markets for maize products given the prevalence of maize flour in different Latin American culinary traditions, including arepas – flatbreads from Colombia and Venezuela – and tortillas, globally famed for their use in Mexican tacos and a staple throughout Central America. Today, their popularity has spread beyond



Quality Corn has decades of experience in farming. This knowledge informs their food business as well as their relationship with their suppliers – the local farmers.



“TECHNOLOGY AND SUSTAINABILITY REALLY CAN COME TOGETHER TO USE RESOURCES MORE CAREFULLY ON THE LAND AND IN THE MILL.”

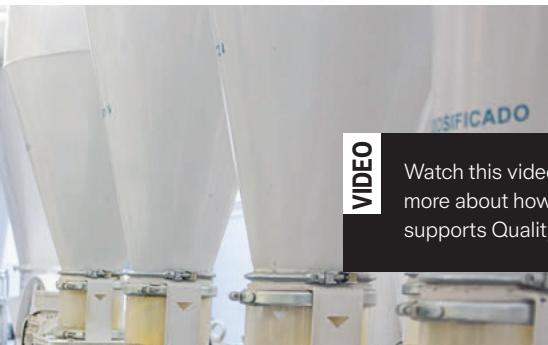
AGUSTÍN MARINÉ TRÍAS
Executive Manager at Quality Corn

the Latin American community in Spain and has an influence on the culinary habits of the whole country. This is driving demand for pre-cooked maize flour for arepas and nixtamalized maize flour for tortillas. “Today, Latin American culture, including food and music, have blended into Spain, and people’s eating and cooking habits are changing all the time,” says Mariné Trías.

The only problem for Mariné Trías was that he had no experience making such products, so he found that expertise in Luis Miguel Vivas Martínez, who he headhunted in 2021 from a pre-cooked maize flour mill in Venezuela. Vivas Martínez, who moved to Spain with his family, was signed up to become mill director of the Quality Corn facility when it was still in the planning phase. At that time Mariné Trías was still consulting with Bühler’s technologists on the new direction.

Then Vivas Martínez received a curve ball: the plant would be a unique hybrid facility for pre-cooked maize flour and also be able to do nixtamalization. This ancient process, which allows maize meal to be made into flour that can be used for dough, was first developed in Mesoamerica between 1,500BC and 1,200BC by the Aztecs and Mayans, who learned to add ash or limestone rocks to pots of maize grain. Nixtamalized maize is soaked and cooked in an alkaline solution – today limewater (calcium hydroxide) is generally used.

“I was surprised by this. I had no experience at all in nixtamalization,” says Vivas Martínez. Nor had Bühler ever designed a hybrid plant for pre-cooked and nixtamalized maize flours, but it had been developing the idea on a smaller test-level scale in Uzwil. The ambition of Quality Corn to position itself prominently in several new markets in Spain all at once



VIDEO

Watch this video to learn more about how Bühler supports Quality Corn.



“MERCURY IS HOW WE COMMUNICATE WITH THE MACHINES. WE SEND INFORMATION ON WHAT TO DO AND DATA COMES BACK FROM THE PROCESSES, WHICH ENABLES US TO BE EFFICIENT IN SO MANY WAYS.”

meshed with Bühler's innovative nature. "This is a key plant for Bühler – our first hybrid project of this kind," explains Nadeem Nashashibi, Bühler Area Sales Manager for Milling. "We had one machine set up at a near-industrial level in Switzerland, so the next step was to put something like it into a real production situation."

Bühler was eager to try out its new Prime Masa technology, a way of creating the nixtamalization effect in which maize grits – rough-ground maize kernels – are used instead of whole grains, and steam applied instead of soaking in water in an innovative process that is efficient in terms of energy and water use. "Here we could roll out the Prime Masa technology and arepa flour milling in the same plant. In fact, there are three processes, with the pre-existing Quality Corn mill effectively providing the raw material – grits and semolina – for the new processes," says Nashashibi.

The resulting plant is an important showcase for Bühler technology, combining the latest milling technology innovations and its characteristically advanced digitalization for efficient operation.

Close collaboration drives results

"It was a long process to get it right. We listened closely to the customer and there was a massive exchange of ideas. You could say it was a mutual journey of discovery, and a learning process for Bühler that will help with projects to come – hopefully including expanding Quality Corn's facilities and for other future clients," says Nashashibi.

Vivas Martínez agrees that the process of dialogue was long, but ultimately fruitful. "Between 2021 and 2023 I think there were 14 different plant diagrams we worked through." Building took place between early 2023 and spring 2024, and by February 2025 the hybrid plant was installed. Finally, after the Quality Corn production team and Bühler technologists had worked together on the final set-up, test

LUIS MIGUEL VIVAS MARTÍNEZ
Mill Director at Quality Corn

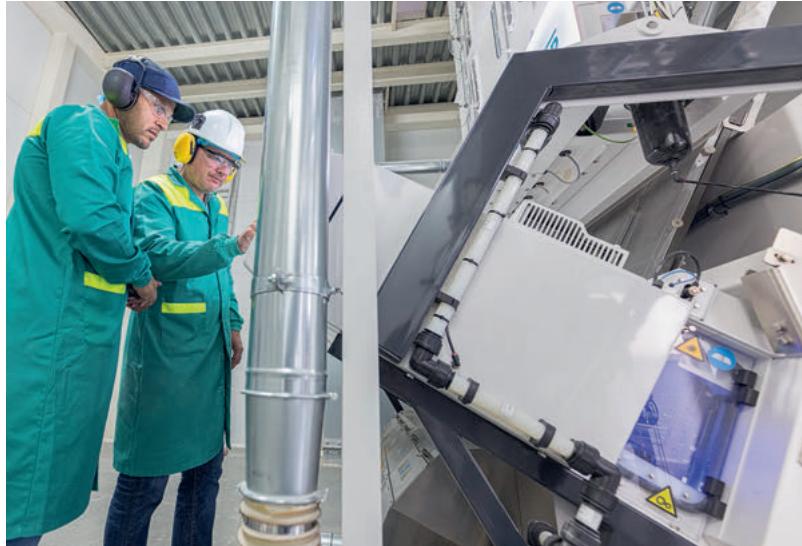
batches of product began to be processed. "We have been playing with the plant and seeing how far this R&D project can really go," Vivas Martínez says. What he and his production team have to play with is a 20,500-cubic-meter, five-story mill, which, once it is operating at full capacity, will be able to process 100,000 tonnes of maize per year.

Quality Corn's annual production targets are 30,000 tonnes of pre-cooked corn flour and nixtamalized flour as well as 28,000 tonnes of semolina and 6,000 tonnes of dry-milled maize flour. Vivas Martínez thinks the plant will hit peak production within two years as there is no other mill in Spain making pre-cooked corn flour for the local market.

Carlos Olivares, Bühler's Technical Senior Sales Advisor Maize, says that installing the hybrid plant for arepa and nixtamalized flour was an exciting challenge. The key was to allow for flexibility, especially given that the customer had identified various market opportunities for finished products but did not have a precise breakdown of exactly what would be produced and in which quantities.

"With these products you are putting steam into the grain, so there are similarities but also differences, because of the alkaline solution involved in nixtamalization. We had both processes conceptualized separately but we needed to design a plant that allowed Quality Corn the flexibility to make one product or the other as it meets growing demands in Spain and Europe," Olivares explains. "On top of this, the plant is an annex to an existing mill, so we had to avoid affecting the ongoing operations."

From Mercury MES to advanced analytics and 24/7 in-line NIR sensing, Bühler's digital services help Quality Corn optimize milling.



The SORTEX LumoVision optical sorter (left) and Bühler's flaker (above) are central to Quality Corn's processes.

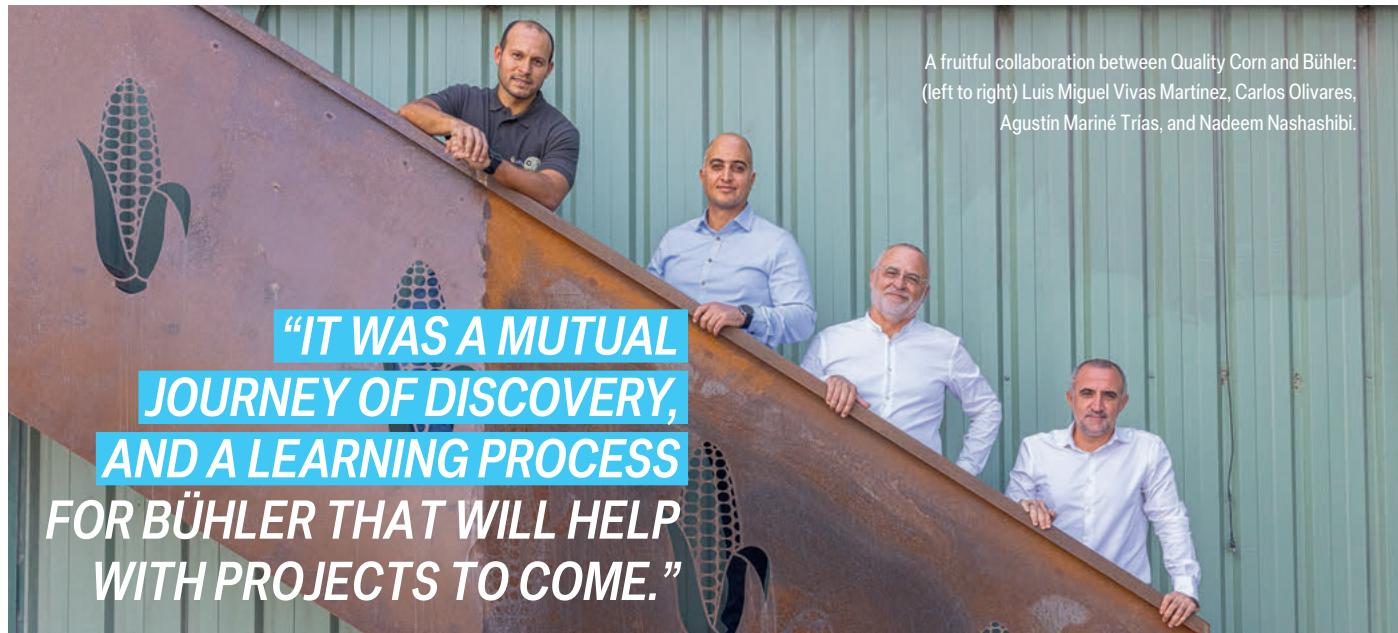
Key to flexibility and finding the right processes is Mercury MES (Manufacturing Execution System), Bühler's digital operating system, which uses sensor technology to control the different production aspects of the plant from raw material storage to processing. "With Mercury installed, this plant can be operated by one person," says Vivas Martínez. But it is much more than a tool that saves on manpower. Olivares explains how, as the millers seek out the methods that will produce the exact results desired, Mercury allows them to create different recipes – settings plant operators can store and later repeat with precision, affecting parameters that include temperature, pressure flows, air pressure, and retention time for each product. This means quality can be guaranteed and time saved in switches between products and processes.

Olivares points out that the real-time measuring offered by sensors feeding data into Mercury means the miller can get constant and exact readings on product parameters such as fat and water in the maize flour. Minimum levels can be ensured and excesses avoided, leading to more efficient exploitation of the raw material and, ultimately, greater profit margins.

"Mercury is how we communicate with the machines. We send information on what to do and data comes back from the processes, which allows us to be efficient in so many ways, such as with use of power depending on production at a given time," says Vivas Martínez. "It even calculates which problems are critical and must be addressed immediately, and which ones can be left for a less busy moment."

All of the equipment is from Bühler – most importantly for the process, the flaker and steamer, but also the sifters, de-stoner, Antares roller mills, and more. Crucial to any maize operation is avoiding the entry of grain affected by mycotoxins. These are naturally occurring by-products of the metabolism of molds that can harm humans, pets, or livestock if consumed in contaminated food or feed. Bühler's SORTEX LumoVision optical sorter identifies and separates grains with visual mold signatures.

As well as making quality food, Quality Corn aims for the highest standards of sustainable production. The use of steam for the pre-cooked flour and in the prime masa nixtamalization leads to a 90 percent saving in water use and 50 percent less energy, but it still needs to be heated. Instead of using a gas-fueled system, the mill has teamed up with a special-



“IT WAS A MUTUAL JOURNEY OF DISCOVERY, AND A LEARNING PROCESS FOR BÜHLER THAT WILL HELP WITH PROJECTS TO COME.”

NADEEM NASHASHIBI

Bühler Area Sales Manager for Milling

ist maker of biomass boilers. Maize plants after harvesting account for much of the biomass, together with brushwood from local forestry management and discarded wooden crates and pallets. The mill has enough solar panels installed to be self-sufficient in energy once battery storage technology has scaled sufficiently to be economical.

From fields to food

Despite having become a major presence in the milling industry, Quality Corn remains connected to the land and manages 20,000 hectares as well as working with independent farmers. Mariné Trías believes that starting in the fields before moving into the food industry gives him the advantage of a rounded view. “Industry doesn’t understand agriculture and vice versa,” he says. “Generally, mill owners know about milling, not farming; all they say to farmers is ‘give me more tonnes for less money’.” Mariné Trías, by contrast, aims to help farmers he works with, in Spain and France, to thrive through the use of technology. “There was no tech around when I was farming, sitting on my tractor. Now there are a thousand applications and it’s hard for farmers to know which will help them; we select just a few,” he says.

One of the latest developments Mariné Trías is most excited about is an efficient way to rid maize fields of the plant Datura stramonium, more commonly known as jimson weed, an invasive species whose seeds contain the harmful drug scopolamine, the presence of which can invalidate yields. “If a farmer saw this plant, he would automatically spray pesticide across his land, with the consequent cost for him and the environment,” Mariné Trías says.

Quality Corn is working with a US tech company that uses drones to take millions of images of maize fields, coupled with software that can distinguish the

A fruitful collaboration between Quality Corn and Bühler: (left to right) Luis Miguel Vivas Martínez, Carlos Olivares, Agustín Mariné Trías, and Nadeem Nashashibi.

harmful weeds and create detailed maps of where they are. These maps with GPS coordinates can be shared with the drivers of harvesters who inspect for jimson weed among crops and can even be fed into larger drones that deliver doses of herbicide at the points affected.

“Technology and sustainability really can come together to use resources more carefully on the land and in the mill,” says Mariné Trías.

INFO

Quality Corn SA

Huesca, Spain

Founded in 2012.

Quality Corn produces nixtamalized corn flour (tortillas), pre-cooked maize flour (arepas), maize semolina, and dry-milled maize flour.

The company serves globally renowned customers across Spain and abroad.

Quality Corn benefits from degerminator, flaker, LumoVision, SORTEX optical sorters, Mercury MES, NIR-sensors, Bühler Insights, and ProPlant preventive maintenance from Bühler.



Milling, your way.

“Arepá flour and tortilla flour are similar, but made with different recipes. Thanks to the plant design we developed with Bühler, we can produce both using the same machinery. The results have been extraordinarily positive.”

Agustín Mariné Trías – CEO and Owner of Quality Corn

Innovations for a **better world.**

 **BÜHLER**

When Gebrüder Kümmel + Co. decided to build a new oat plant in Vetschau, Brandenburg, Germany the company faced a key decision. Should they opt for a standard solution, or should they invest in a customized facility with combined milling technology, raw oat kilning, and Bühler's SmartMill IoT technology? They decided for a solution that not only promised efficiency and sustainability but also brought to life their vision of a "transparent mill" – where digitalization and data drive optimization.



AMBITION
DRIVES

Gebrüder Kümmel + Co.

INNOVATION

TEXT: JANET ANDERSON
PHOTOS: SAGAR SHIRISKAR



JUST OVER AN HOUR BY TRAIN from Berlin, Germany lies the unique historic landscape of the Spreewald. Here, the River Spree branches into countless small waterways before flowing toward the capital. Declared a UNESCO Biosphere Reserve in 1991, the region has developed into a thriving hub for the food industry. One of its success stories is the Gebrüder Kämmel oat plant in Vetschau – a business whose history mirrors the social, economic, and technological shifts of recent decades, while also reflecting the entrepreneurial skill and innovative spirit of the region.

Deeply rooted in the Spreewald community, Gebrüder Kämmel is a family business spanning three generations of millers. In 1957, Uwe and Frank Kämmel's grandfather purchased a small mill in Burg, where rye, wheat, and spelt were milled using traditional processes. From early childhood, the brothers grew up in the mill, and with the trade of milling deeply embedded in their identity.

Alongside this strong sense of tradition, the family has always embraced change. Time and again, they have put this into practice – from the early days of the business to the ambitious expansion of their new Plant 3, a project designed to secure the company's long-term future.

A milling family set on future success

The family's entrepreneurial spirit shone through even in difficult times. The reunification of Germany in 1990 brought with it sweeping social and economic upheaval that the business felt firsthand. "With the reunification, our products were no longer in demand," says Uwe Kämmel, Co-Managing Director of Gebrüder Kämmel. "We had to explore new business areas and expand our portfolio." The company pivoted to producing barley groats, used in the making of Grützwurst (a kind of sausage). This was soon followed by other new product areas such as buckwheat processing. The growing demand confirmed the wisdom of the decision.

"Our growth has been founded, from the very beginning, on the principle that we always listen to what our customers want," says Frank Kämmel, Uwe's brother who is Co-Managing Director and CFO. "We never say 'impossible'. If a customer comes to us with a problem they can't solve, we work to find a way to solve it – and in most cases, we've succeeded. That's something we're hugely proud of."

To meet changing market needs and the rising demand for oat, spelt, and similar products, the family decided to move into the next generation of oat processing. But the old Burg site was too small. In Vetschau, they found a suitable property with buildings that could be adapted. Early on, the brothers committed to producing gluten-free and organic products – a smart move that anticipated consumer trends. Shifting dietary habits and new finished

products such as oat drinks have since boosted their business. A new facility for oat production was planned, and a 12-story structure began to rise. At its core was the vision of a “transparent mill”, with digital processes designed to optimize efficiency.

“Our goal was to build a transparent plant with Bühler,” explains Robert Kümmel, Master Miller at Gebrüder Kümmel and representative of the next

generation of the family. The 26-year-old is determined to drive the company’s digital transformation. “By integrating Bühler Insights and more than 30 scales that constantly monitor product parameters and alert us to deviations, we can respond quickly to changes and keep a constant eye on the quality of our product,” he says.

For Randy Urban, Head of Sales Grain Processing at Bühler Germany, who worked closely on the project, the realization of this vision by Gebrüder Kümmel will have even wider benefits. “Our shared vision was the creation of a fully transparent, smart oat mill,” he explains. “I believe this step is a key success factor not only for Gebrüder Kümmel’s future, but for the oat industry as a whole.”



Bühler hullers minimize breakage of the oat groat to maximize yield and quality.



Precisely flaked oats offer uniform thickness, superior texture, and optimal retention of nutrients, flavor, and soluble fiber.



The PolyFlake flaking mill is designed to meet the highest food safety standards while ensuring consistent product quality.



“WE STARTED WITH A BLANK PAGE. TOGETHER, WE FOUND THE BEST WAY TO BRING TO LIFE GEBRÜDER KÜMMEL’S VISION OF A TRANSPARENT MILL.”

RANDY URBAN

Head of Sales Grain Processing at Bühler Germany

Gebrüder Kümmel achieves end-to-end transparency with Bühler Insights, over 30 integrated scales, various flow balancers, and a technologically optimized line configuration.

"WE OPTED FOR THE RAW OAT KILN TO KILN UNHULLED OATS. WE EXPECT IT TO GIVE US A MARKET EDGE BY ENABLING US TO MEET OUR CUSTOMERS' REQUIREMENTS MORE EXACTLY."

UWE KÜMMEL
Co-Managing Director at Gebrüder Kümmel



VIDEO

Watch this video to learn more about how Bühler supports Gebrüder Kümmel.



The new plant is an all-in-one solution covering everything from intake, cleaning, kilning, dehulling, cutting, flaking, and grinding to bagging and loading – all customized to the Kümmel family's needs.

One of the first challenges was integrating the installation into an existing building. Using full 3D scans of all floors, Bühler designed the optimal layout. Conveyor routes, for example, were kept as short and as efficient as possible. "We worked with the Bühler team to develop ideas and incorporate the latest technological advances," says Uwe Kümmel.



The tallest raw-oat kiln Bühler has ever built delivers exceptional oat flavor.

For Paul Heine, Senior Process Engineer Oats at Bühler, those early site visits were invaluable. "Walking through the empty building with Uwe Kümmel and envisioning each component and the finished plant was a hugely enriching process," he says.

The building's height – with views from the 12th floor stretching far across the surrounding countryside – is ideal for energy-efficient flow of materials. Raw oats are lifted to the 11th floor and then processed largely "by gravity," cascading floor by floor until the finished product arrives at ground level. The result is maximum energy savings, improved margins, and a smaller carbon footprint.

Kilning at the highest level

The plant includes a raw oat kiln that improves yield and flavor and delivers a lighter-colored final product. Spanning nine floors, it is the tallest Bühler has ever installed. The oats are then flaked using Bühler's premium PolyFlake flaking mill. "We debated extensively which kiln to use. Should we, like other mills, kiln only hulled oats, or go a different route with raw oat kilning? That was a key question," Uwe Kümmel says. "Together with Bühler, we opted for the raw oat kiln. It allows us to kiln unhulled oats, which adds depth to the flakes' flavor profile. We also expect it to give us a market edge by enabling us to meet our customers' requirements more exactly."

Next, the oats pass through five hullers. "They're the heart of the mill," says Heine. "The quality of dehulling is critical – precision is everything."

“WE’VE SIGNIFICANTLY REDUCED PRODUCTION COSTS. I’M PLEASED BY THE SHARP DROP IN ENERGY USE, THE REDUCED CARBON FOOTPRINT, AND THE IMPROVED CO₂ BALANCE OF OUR PRODUCTS.”

FRANK KÜMMEL

Co-Managing Director and CFO at Gebrüder Kümmel



INFO

Gebr. Kümmel + Co.
SCHÄLMÜHLE

**Gebrüder Kümmel + Co.
Dehulling Mill**

Vetschau, Brandenburg, Germany

Founded in 1998.

Gebrüder Kümmel processes raw oats into premium products.

The company serves customers in Germany and across Europe.

Gebrüder Kümmel uses a range of Bühler solutions, including a raw oat kiln, hullers, a flaking mill, over 30 scales, and Bühler Insights.

The “hullability” of the oats varies according to the harvest. Lab technicians therefore test samples from each delivery using Bühler’s prototype lab dehuller before the raw oats even enter the plant. This innovation simulates the actual dehulling process with much greater accuracy than conventional methods, enabling the millers to set the correct parameters in the mill that will minimize breakage and maximize yield for each batch.

The new oat mill demonstrates how sustainability and profitability can go hand in hand – from reduced energy use to fewer byproducts. Multiple optical sorters, including Bühler’s SORTEX H SpectraVision, guarantee gluten-free quality.

But perhaps the greatest breakthrough is the new level of transparency in the operations. Over 30 scales collect process data, enabling optimal control and rapid response. Variations in yield or process parameters are continuously and precisely tracked. Bühler’s Varion G fully automatic loss-in-weight scale – which runs without compressed air and measures moisture, temperature, and bulk density – enhances both energy efficiency and product quality. That’s good for business, and good for the environment.

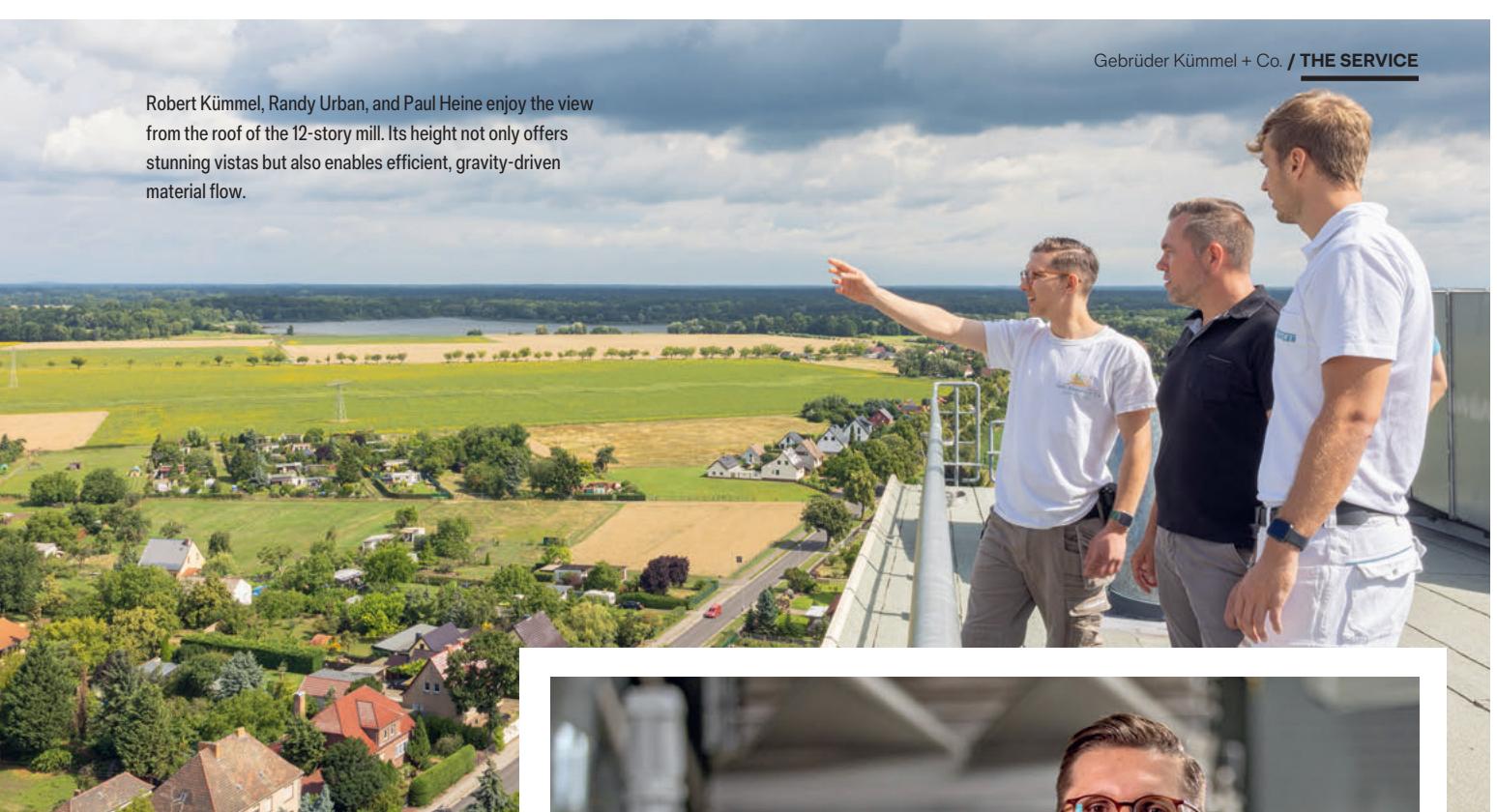
Higher yields, lower footprint

“It’s important to constantly consider how energy consumption can be reduced, or how raw materials can be cultivated more efficiently – ideally with shorter transport routes,” says Uwe Kümmel. “My main focus is to strengthen local cultivation and promote winter oat varieties suited to regional soils. That way we can boost agricultural success while achieving high yields and efficient processing.”

Even during the early phase of commissioning, the plant delivered higher yields with improved hygienic conditions. The facility operates with outstanding energy efficiency while producing top quality products.

“As the CFO, numbers are what count for me,” says Frank Kümmel. “And the results speak for themselves – we have significantly reduced production costs. But I’m also someone who cares about the

Robert Kümmel, Randy Urban, and Paul Heine enjoy the view from the roof of the 12-story mill. Its height not only offers stunning vistas but also enables efficient, gravity-driven material flow.



“OUR JOURNEY WITH BÜHLER IS FAR FROM OVER. NEW DIGITAL SOLUTIONS AND GREATER AUTOMATION WILL KEEP US MOVING FORWARD, DRIVEN BY OUR ENTHUSIASM FOR INNOVATION.”

ROBERT KÜMMEL
Master Miller at Gebrüder Kümmel



environment, so I'm especially pleased by the sharp drop in energy use, the reduced carbon footprint, and the improved CO₂ balance of our products."

For Randy Urban, success comes down to collaboration and shared values. "We didn't arrive with a ready-made concept – we started with a blank page. Together, we found the best way to bring to life Gebrüder Kümmel's vision of a transparent mill," Urban explains. "And we share the same approach. Both Gebrüder Kümmel and Bühler put customer needs at the center and do everything possible to find the right solution."

Throughout the project, the Gebrüder Kümmel and Bühler teams maintained an open and frequent dialogue. What bound them together was their shared passion for milling, and this fostered trust

and close cooperation. "We know we're in good hands. Bühler works with the same passion as we do, and that gives us confidence," Robert Kümmel says. "Our journey with Bühler is far from over. New digital solutions and greater automation will keep us moving forward, driven by our enthusiasm for innovation."

Passion that connects

This drive – to find the best solutions for customers, society, and the environment – is deeply ingrained in the DNA of Gebrüder Kümmel. "You have to be ambitious to stay innovative; those who are complacent grow lazy," says Frank Kümmel. "If you want to remain innovative and help shape new trends, Bühler is the answer."

Helvét-Farm Zrt.

A PIONEER IN PEA PROCESSING

TEXT: PETER JON CRESSWELL
PHOTOS: SAGAR SHIRISKAR





In the heart of southern Hungary, a state-of-the-art pea processing facility is redefining the future of sustainable agriculture. Tradition meets innovation at Helvét-Farm, where peas, once overlooked, are now powering a new protein paradigm. It is a bold response to shifting market demands.

AGRICULTURE IN HUNGARY has traditionally focused on farming corn, wheat, and livestock. In recent years however, peas are making a comeback on the plates of health and eco-conscious consumers in Hungary and beyond. What was once a humble side dish is becoming a star ingredient. And the data underscores that it's more than a trend: Market analyses by the European Commission and other stakeholders predict strong growth of over 5 percent for the pea protein market in the coming years.

Helvét-Farm in Oroszáza in the southeast of the country recognized the opportunity of scaling pea production to meet growing consumer demand for alternative proteins well before the market began to accelerate. Their visionary project is driven by the desire to deliver the highest quality product to customers by controlling every process step from farm to fork.

"We have been growing peas for the over a decade. They add a lot to biodiversity in the local area, and our goal is to offer them as an alternative to soy. We want to provide strong competition through a controlled supply chain and efficient technology," explains Mr. Szemerey, Managing Director of Helvét-Farm.

Reading the signs of the time

It may be the most advanced farm of its kind in the region, but Helvét also harks back to classic agricultural lore. "You might call us progressive," says Mr. Szemerey. "But our approach means we are going back to the traditional methods of farming, where we place much more emphasis on crop rotation. We fight against weeds with metal and not with chemicals. It's progressive in that finding the market might be more difficult, but it's a more traditional way of farming."

This also respects Helvét's origins, not only offering the local workforce around the main town of Orosháza the chance to return to farming after the collapse of heavy industry in the 1990s, but in terms of the business itself. The clue is in the name. "Helvét-Farm was created 35 years ago by a Swiss-Hungarian joint venture with 50 percent Swiss ownership and local Hungarian farmers," says Mr. Szemerey. "My father then bought the company and it's been in Hungarian ownership ever since."

It would be easy to assume that the concept of eco-farming was first introduced by Mr. Szemerey when he took over the reins of the company from his father 7 years ago – but he is the first to acknowledge his father's foresight: "It was his decision. This is a family-run business, and it was already organic when I came on board."

Zoltán Szemerey, now 72 and an ambitious entrepreneur of long standing, takes up the story: "I was a regular shopper at the organic market on Marczi-bányi tér in Budapest. When I was chatting with the vendor-producers there, they used to tell me how trends were changing and that shoppers were now looking for healthier alternatives."

To harness the full potential of changing consumer demands and cater to this growing market, Helvét needed to build a new production process from the ground up. Mr. Szemerey and his team knew from day one that Bühler would be able to support them best as a full value chain provider. "We had already purchased several pieces of equipment from Bühler," he says. "We always knew them as the Mercedes of grain processing, for their superior technology." After visiting Bühler's flagship customer event, the Networking Days in 2022, the Helvét team was convinced and opted for Bühler's technology with the twin-screw extruder PolyTwin at the heart of their operations.

"When we started in-depth discussions with Helvét about their ambitious plans and how we could partner with them, it became clear that this partnership is the perfect fit. We both strive for maximum control of the value chain to ensure the highest quality in all processes. That's why negotiations were so smooth, and we could start the groundwork soon after agreeing terms," explains Martin Krenn, Sales Manager Central Eastern Europe

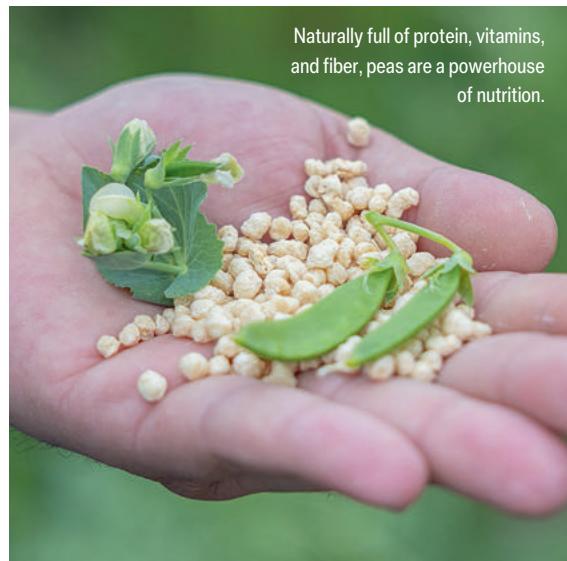
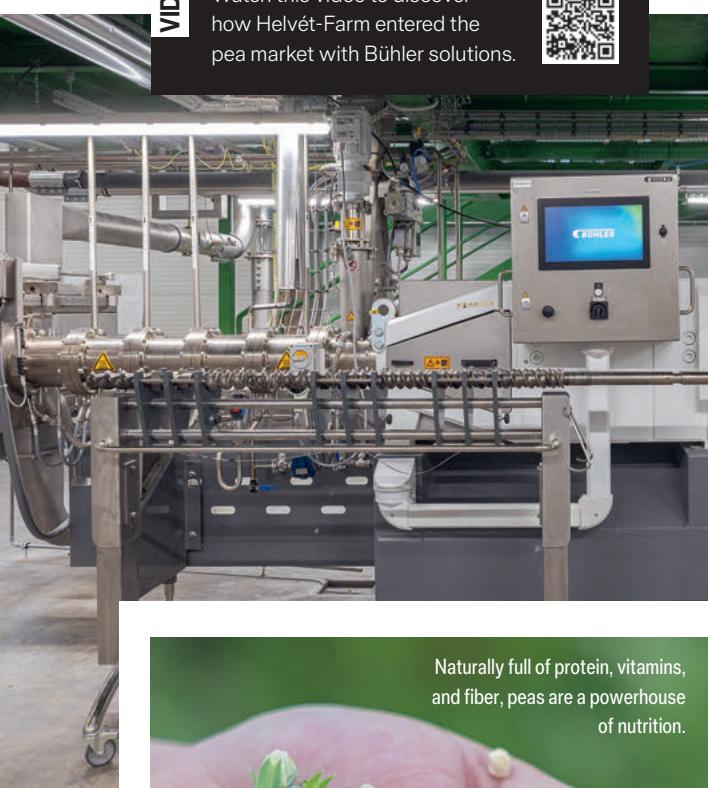
**"MACHINES ARE JUST MACHINES,
THEY NEED TO BE ORGANIZED
INTO ONE NETWORK. THE ESSEN-
TIAL THING IS CONTROL. BÜHLER
BINDS THE WHOLE SYSTEM TO-
GETHER. THEY'RE THE MERCURY."**

BALÁZS DOMJÁN
Factory Manager at Helvét-Farm



VIDEO

Watch this video to discover how Helvét-Farm entered the pea market with Bühler solutions.



Naturally full of protein, vitamins, and fiber, peas are a powerhouse of nutrition.



Left to right: Behind Helvét-Farm, Norbert Aradi (ProcessTrade) with Martin Krenn and Andreas Risch (Bühler) examine finished pea products in the fields.

at Bühler. "Helvét has been such an interesting partner because they can cover the whole chain from farm to fork. It is quite rare to have these capabilities within one company."

A rapidly expanding market

Helvét's farms and processing facilities are located in Békés County, a region often overlooked by investors due to its distance from the capital, Budapest. The relatively flat area with excellent agricultural soil and rich natural resources does have another distinct advantage: proximity to markets and land just over the border in Romania.

"When we started the process, I did not think that the Hungarian market had great potential. In fact, at the beginning I would not have hoped for even 5 per-

cent of our customers to be in the region. But in the past six to eight months, we've been very pleasantly surprised that there are many innovative companies interested in what we will produce," explains Mr. Szemerey. "Now I can envision up to 30, 40, even 50 percent of our customers being within this immediate area, meaning Serbia, Romania, Croatia, and Austria. We can get to these places quite quickly."

For Vivienne Angeli, Head of Business Segment Pulses at Bühler, opting for a full value chain solution was key to Helvét's successful start into the plant-based food business. "Our solutions cover the entire process. We first clean, classify, and dehull the raw product. The streams are then split into a protein-rich and a starch-rich fraction. Creating two high-value fractions allows targeted use in innovative

end products,” she says. “At the end, the twin-screw extruder PolyTwin extrude the protein-rich stream into a fibrous product called dry extrudate for pet food and meat alternatives. The starch stream can be used as a higher-protein pea flour, which can be applied in a wide range of food products to not only add protein, but also fiber, and nutrients for snacks, pasta, and baked goods, to name but a few.”

A name to count on

“The vision of Helvét-Farm is to be a fully integrated end-to-end production line, from the field to the table, and to serve the new demands of the market,” says Norbert Aradi, whose company, ProcessTrade, oversaw the creation of the new factory.

“I first became aware of Bühler in 2012,” says Aradi. “I knew about their quality and reliability, not only in terms of equipment but also for investors – they are easy to partner with, and they have the widest knowledge of the market situation and how to put it into practice. If the Bühler name is involved, it’s also a guarantee for investors and the financing banks. If we are working on the future of food, who could be a better partner than Bühler?”

Construction began in September 2023 and was completed a year later, the finer details smoothed out over the winter. When at full capacity, the plant will process 30,000 tonnes per year.

Just as his father had set the direction of travel a decade or so ago, now Mr. Szemerey is looking at the bigger picture. “Most producers either do dry fractionation or extrusion – very few do both under one roof, which makes us much more efficient,” he says. “As farmers, we also control the whole chain. We keep to a 70/70 rule, which means we source 70 per-

cent of our raw materials from within a 70-kilometer radius. Our total capacity of 30,000 tonnes requires farming approximately 9,000 to 10,000 hectares, which is certainly viable within the area.”

The factory requires a core operational team of around six people per shift. Mr. Szemerey was pleasantly surprised by how smoothly the recruitment process went. “I had been worried about the challenge of attracting people to Orosháza,” he says. “But since this is a greenfield investment, people can see that we are prioritizing quality. Once they understand this, they’re much more open to explore the possibilities we can offer here.”

For example, Helvét-Farm employee Bianka Szőke-Molnár came to Orosháza from a canning factory in Kecskemét, 100 kilometers away. At Helvét, she helps to plan production and works in development technology, learning on the job since arriving in August 2024. “My responsibilities cover so many areas – receiving the raw material, helping with supply, displaying machine specifications, dealing with customer questionnaires, quality control, and preparing areas for inspection,” she says.

Attracting virtuosos

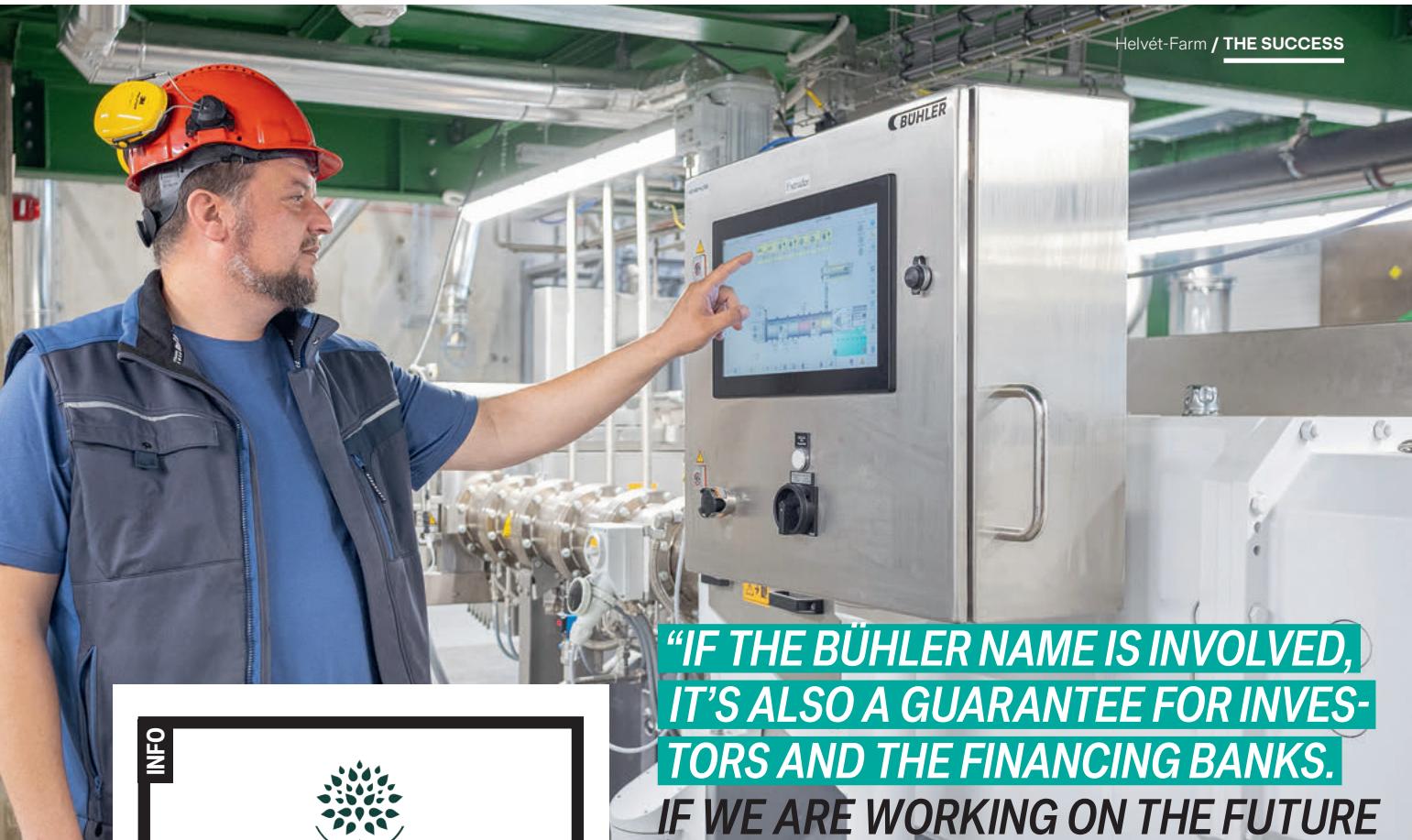
For Mr. Szemerey, the new extruder is a great attraction for experienced members of the industry, too. “We consider our extrusion machine to be the Steinway piano of its genre, which we must learn how to play. And if somebody’s a musician, they don’t mind where it is,” he says.

“THE STREAMS ARE SPLIT INTO A PROTEIN-RICH AND A STARCH-RICH FRACTION. **CREATING TWO HIGH-VALUE FRACTIONS ALLOWS A TARGETED USE IN INNOVATIVE END PRODUCTS.”**

VIVIENNE ANGELI

Head of Business Segment Pulses at Bühler





INFO



Helvét-Farm Zrt.

Helvét-Farm Zrt.

Orosháza, Hungary

Founded in 1980.

Helvét-Farm controls the full value chain of peas from agriculture to processing and separation into protein streams for pet food and plant-based proteins or pea flour.

The company serves customers in Hungary and neighboring states with the aim of expanding its market share in the pea flour, pet food, and plant-based protein market.

Helvét-Farm operates a pea processing facility equipped with Bühler technology for cleaning, classifying, dehulling, and splitting the resulting streams into a protein-rich and a starch-rich fraction. Bühler's twin-screw extruder enables the production of specialized ingredients for the food, pet food, and feed sector.

"IF THE BÜHLER NAME IS INVOLVED, IT'S ALSO A GUARANTEE FOR INVESTORS AND THE FINANCING BANKS."

IF WE ARE WORKING ON THE FUTURE OF FOOD, WHO COULD BE A BETTER PARTNER THAN BÜHLER?"

NORBERT ARADI

Co-Founder and Managing Director at ProcessTrade, who oversaw the creation of Helvét-Farm's new facility

Helvét's virtuoso in the plant is Balázs Domján. "Machines need to be organized into one network," says the plant manager. "The essential thing is control. Bühler binds the whole system together. They're the mercury."

Domján gains great satisfaction out of getting the most out of every pea. "Once it's broken down into starch, protein, and husk, pea is such a rewarding plant, with so many uses," he says. "It's like a blank canvas. It's good for food, feed, and pet food – as well as plant-based proteins."

Thanks to the full value chain solutions from Bühler, Helvét-Farm benefits from maximum flexibility – a key advantage in the rapidly developing alternative protein market. Decisions are being made on the final products, but with their one-of-a-kind setup providing them full control from farm to fork and their mindset of exploring new markets on the go, Helvét-Farm is perfectly suited to continue driving the future of food in Hungary and beyond.

Tanzania Breweries Ltd.

A BREWERY REVIVED

TEXT: SARAH KERNL



In the shadow of Mount Kilimanjaro, the Tanzania Breweries plant in Moshi is humming with activity again. After lying dormant for 5 years, the site has reopened with a new ambition: to establish a fully local value chain from barley to beer. At the heart of the restart is Bühler's RimoMalt solution – a modular, all-in-one malting plant that combines flexibility, efficiency, and sustainability.



IN 2024, TANZANIA BREWERIES brought its Moshi plant back to life. Since then, the company's vision of creating a fully local value chain from barley to beer has come full circle: barley grown by Tanzanian farmers is cleaned using Bühler's grain handling technology, malted on site, and delivered to nearby breweries. This revival not only strengthens the brewing economy but also creates jobs across the region, from field to factory. The result is beer that is truly Tanzanian – from raw material to final brew.

Restarting the Moshi plant demanded a system that could adapt to local harvest volumes. With malting capacities ranging from small to medium, RimoMalt's flexible design adapts to the evolving needs of local breweries and distilleries. The solution integrates all three malting steps – steeping, germination, and kilning – into a standardized structure that reduces handling and ensures consistent quality. Its modular design meant Tanzania Breweries could restart production at a smaller capacity, perfectly matched to local barley availability, and later expand the system with additional units as supply grows.

Each of the three modules is optimized for efficiency. The steeping unit is insulated and enclosed, with integrated grain handling and easy access for operators. The heating and combined germination kiln unit are equipped with advanced systems to



Locally-grown raw materials are transformed into malt for local breweries.



VIDEO

Watch the video
to learn more about
RimoMalt in action.



minimize energy consumption. All modules are designed for minimal water and energy usage, incorporating the latest malting technologies to reduce environmental impact.

“It is user-friendly for us in terms of operation. The system has been running smoothly, allowing us to consistently supply quality malt to different breweries across the country,” says Khasmath Mzee, Shift Supervisor at Tanzania Breweries.

The compact RimoMalt system is designed for outdoor installation, eliminating the need for new buildings and significantly reducing investment costs. With short delivery times and Bühler’s guidance, the plant was up and running quickly. Bühler coordinated closely with local contractors, ensuring smooth installation and commissioning.

A company with deep roots

Tanzania Breweries Ltd. has been part of the country’s history since 1933, when it was founded as Tanganyika Breweries. Today, it is a proud member of the AB InBev Group, the largest brewer in the world, and operates breweries in Dar es Salaam, Arusha, Mwanza, and Mbeya, a distillery in Dar es Salaam, a malting plant in Moshi, and eight grain storage facilities across the country.

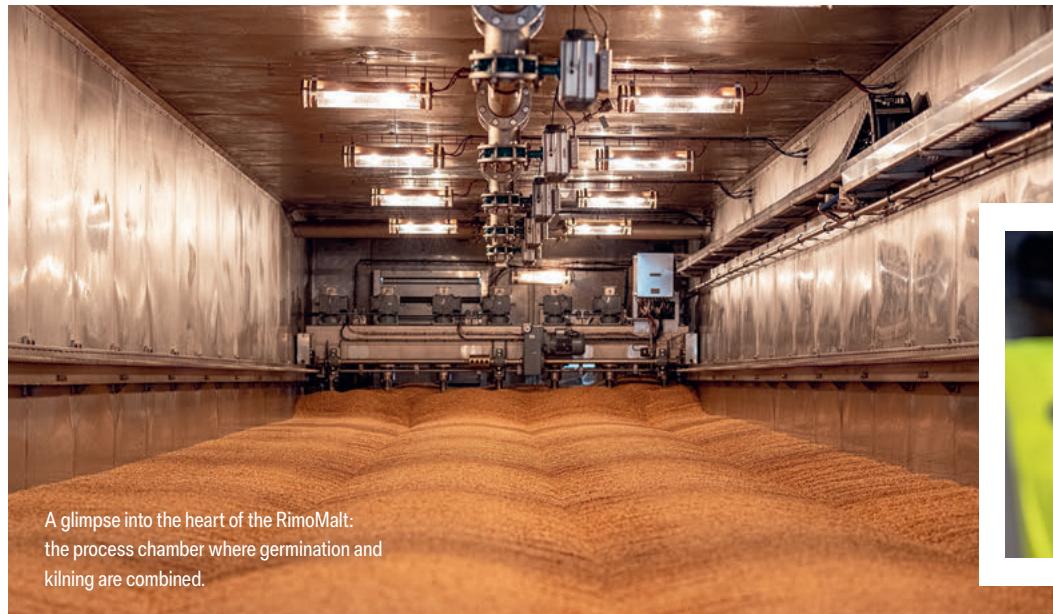
Its principal activities are the production, distribution, and sale of malt beer, non-alcoholic beverages, and alcoholic fruit beverages in Tanzania, with products distributed nationwide and exported to neighboring countries. Tanzania Breweries also holds a controlling interest in Tanzania Distilleries Limited, a Dar es Salaam-based liquor company.

The reopening of the Moshi facility, known as the Kilimanjaro Malting Plant, marks Tanzania Breweries’ return to producing malt locally after years of suspension due to challenges in domestic barley supply and outdated plant technology. Reopened in 2024 after significant upgrades and investment, the site is positioned as a strategic hub for local malt production and agricultural development.

Moshi – whose name means “smoke” in Swahili, a reference to the mist and clouds rising from Kilimanjaro – is not only the gateway to Africa’s highest peak but also a hub for agriculture, with barley and coffee among its most important crops. Like the mist that shifts and transforms on the mountain slopes, the reopening of the brewery is reshaping opportunities across the value chain. Farmers growing barley, transporters moving grain, operators running the plant, and technicians maintaining the system all benefit from the resurgence of local malting.

Collaboration and plant automation

Bühler delivered a complete end-to-end solution, covering grain intake and cleaning as well as the malting stages of steeping, germination, and kilning. Powered by Mercury MES (Manufacturing Execution System), the plant benefits from seamless automation and efficient execution. Mercury MES enables operators to monitor what is happening in any part of the plant. From raw material storage to the final malting stages, it brings all process steps together on one intuitive platform. This not only makes the system easy to operate, but also ensures efficiency, safety, and full traceability. Real-time data helps optimize



A glimpse into the heart of the RimoMalt:
the process chamber where germination and
kilning are combined.

Powered by Mercury MES:
Operators gain full transparency
and control of every step in the
malting process on one platform.



One machine, two functions:
The TAS universal cleaning
machine is the ideal solution
for maltsters, handling both
intake and final product
cleaning with ease.

production and provides transparency across quality and logistics. Local staff were trained quickly and manage production confidently, with Bühler's remote support always available when needed.

Since commissioning, the RimoMalt system has delivered consistently high-quality batches of malt while optimizing both energy and water use. Its integrated safety features protect workers and safeguard the product. The proof is already visible: Malt has been successfully produced and sold to breweries across the country, building a resilient and sustainable supply chain.

The return of the Moshi plant is more than a technical achievement; it is a story of partnership. Tanzania Breweries and Bühler worked side by side to bring the plant back to life, laying the foundation for future growth and new investments in local brewing capabilities. "We look forward to partnering with Bühler on future projects because of the strong collaboration and teamwork we experienced during the execution of this one," says Mashaka Fanedy, Project Manager at Tanzania Breweries.

With RimoMalt at its core, Tanzania Breweries has the flexibility to grow as the local barley supply increases, ensuring that the nation's brewing industry continues to thrive sustainably – and that every bottle of beer remains truly Tanzanian.



Tanzania Breweries Limited
part of the AB InBev Group

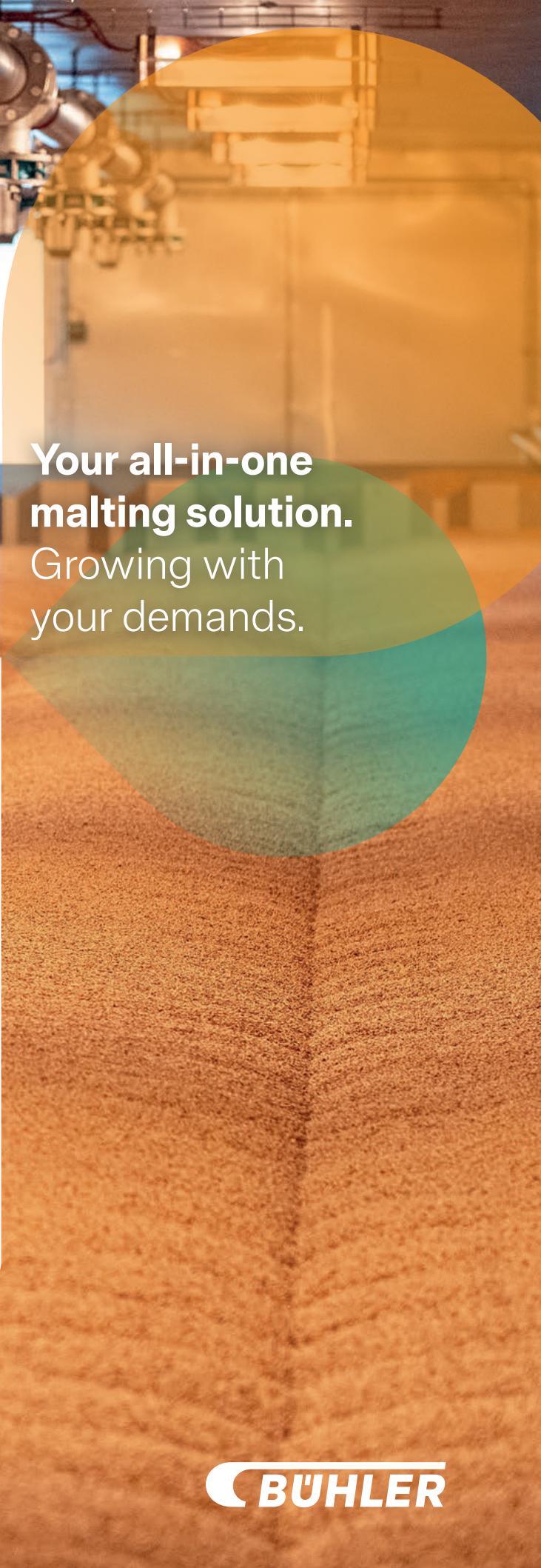
Moshi, Tanzania

Founded in 1933.

Tanzania Breweries Limited produces, distributes, and sells malt beer, non-alcoholic beverages, and alcoholic fruit beverages.

The company distributes across Tanzania and exports to neighboring countries.

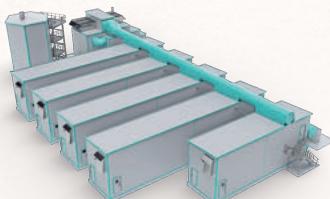
Tanzania Breweries Limited uses end-to-end Bühler malting solutions including grain intake, cleaning, steeping, germination, and kilning, supported by the Mercury MES plant automation system.



**Your all-in-one
malting solution.**
Growing with
your demands.

RimoMalt combines all three process steps – steeping, germination, and kilning – in a single solution, and offers a yearly production capacity of up to 17,000 tonnes of malt.

Starting with a batch size of 16 tonnes, each germinating-kilning unit can be extended via intermediate modules to a batch size of 56 tonnes. Unlike other comparable malting systems, RimoMalt is designed for outdoor installation and therefore needs no additional building to operate.



Scan the QR code or visit
www.rimomalt.com for
more information.



In the Himalayas, highland barley has been cultivated for more than a thousand years. As the staple crop of the Tibetan people, it thrives in frost, drought, and poor soils at altitudes above 4,000 meters. For centuries, however, its processing never advanced beyond traditional products including Tibetan tsampa porridge or barley spirits. Today, the partnership between Xizang Keyan Agricultural Technology and Bühler is unlocking the full potential of this super grain.

HIGHLAND BARLEY, known scientifically as *Hordeum vulgare* var. *nudum*, is often called the plateau warrior among cereals. The Gangba variety, rich in dietary fibers known as beta-glucans, is prized as China's super grain. Yet for all its resilience and nutrition, major challenges stood in the way of its wider use. Traditional stone milling yielded less than 65 percent flour, and the product was often dark and coarse, making it unsuitable for modern baking and food industries. And with virtually no gluten, highland barley performed poorly in fermentation, keeping it locked out of premium markets.

"As a company dedicated to the entire barley value chain, we want to expand the industry and develop more diversified barley foods and beverages," says Guo Wenhong, Chairman of Xizang Keyan Agricultural Technology Co., Ltd. "Partnering with Bühler allows us to focus on refined, deep processing to enhance the value of barley products."

Xizang Keyan

A GOLDEN FUTURE FOR HIGHLAND BARLEY

TEXT: CECILIA LIAN AND LEI LEI



In August 2024, that vision took shape when a new Bühler-designed processing line went into operation at Keyan's plant. It is the first modern, large-scale production line customized specifically for highland barley, covering every step from raw material intake to final packaging.

A benchmark for the industry

Bühler's engineering team designed the system to overcome the grain's unique challenges while enabling efficient, stable production at industrial scale. One of the biggest breakthroughs came in baking. Without gluten, highland barley was once considered off limits for breads and cakes. Working together, Bühler's R&D specialists and Keyan's technologists pioneered a modification process: Ultra-fine grinding combined with enzymatic treatment reconstructs the molecular network of the flour, lifting fermentation performance by 50 percent.

Thanks to this innovation, highland barley pre-mixes, breads, and cakes have moved from the lab to the market – delivering what the company calls "highland flour with undiminished flavor."

"As the health and wellness sector expands and demand for functional foods grows, Bühler is bringing fresh momentum to highland barley processing," explains Jacky Zhang, Vice President of Grains Business, Bühler Greater China. "With our global experience and advanced technology, we are supporting the industry's continuous progress and sustainable development."

The results are already impressive. The new line has an annual capacity of 13,000 tonnes of refined barley flour and 26,000 tonnes of premix, generating an expected output value of more than RMB 300 million (around CHF 33 million). The portfolio spans over 40 product categories across bakery, beverages, and snacks. Keyan's highland barley bread has

The lush green fields of resilient highland barley stretch across the Himalayan foothills, a vital crop adapted to the region's high altitudes and harsh climate.



VIDEO

Watch the video to see how Xizang Keyan transforms highland barley.



INFO



Xizang Keyan Agricultural Technology Co., Ltd.

Tibet

Founded in 2024.

Xizang Keyan Agricultural Technology produces up to 13,000 tonnes of refined barley flour and 26,000 tonnes of premix annually.

The company supplies the growing Chinese functional food market, with products including barley bread, cakes, premixes, and beverages.

Xizang Keyan Agricultural Technology operates a large-scale Bühler production line dedicated to highland barley, covering intake to packaging. Technology innovations include ultra-fine grinding and enzymatic modification to boost fermentation performance by 50 percent, enabling highland barley breads, cakes, and premixes to enter the market.



The Bühler SORTEX SPARK Pro optical sorter detects and removes defective grains, ensuring high product quality and food safety.

already won gold at an international baking competition, while its barley beer has become the golden invitation from the hometown of highland barley to the world. "This is currently Bühler's highest-altitude project in the region," explains Tan Zhigang, Director of Special Grains & Pulses, Bühler Greater China. "Our team accounted for the unique conditions of Tibet's high elevation and delivered world-leading flour technology and complete equipment. With Swiss precision and craftsmanship, we have turned this project into a milestone for the industry."

For Guo Wenhong, the achievement for his company goes beyond production volumes: "Through close cooperation with Bühler, we have ensured stable product quality and improved flour yields. The entire project has reached an internationally leading level, becoming a benchmark for the industry."

From the fields of Tibet to supermarket shelves worldwide, highland barley is enjoying a new lease of life. What was once a subsistence crop confined to the plateau is now a branded product, a signature of Tibetan agriculture. For both Xizang Keyan and Bühler, the collaboration is not only a technological upgrade but also a joint step in the ecological and economic evolution of the highland barley industry.

Milling, your way.

“At Bühler, we innovate with you to meet market shifts head-on with tailored solutions that help you stay ahead in dynamic times. Wherever you are – from the highlands of Tibet to the plains of Hungary – we’re at your side.”

Andreas Risch – Managing Director Special Grains & Pulses, Bühler

Innovations for a **better world.**

 **BÜHLER**

Planted Foods AG

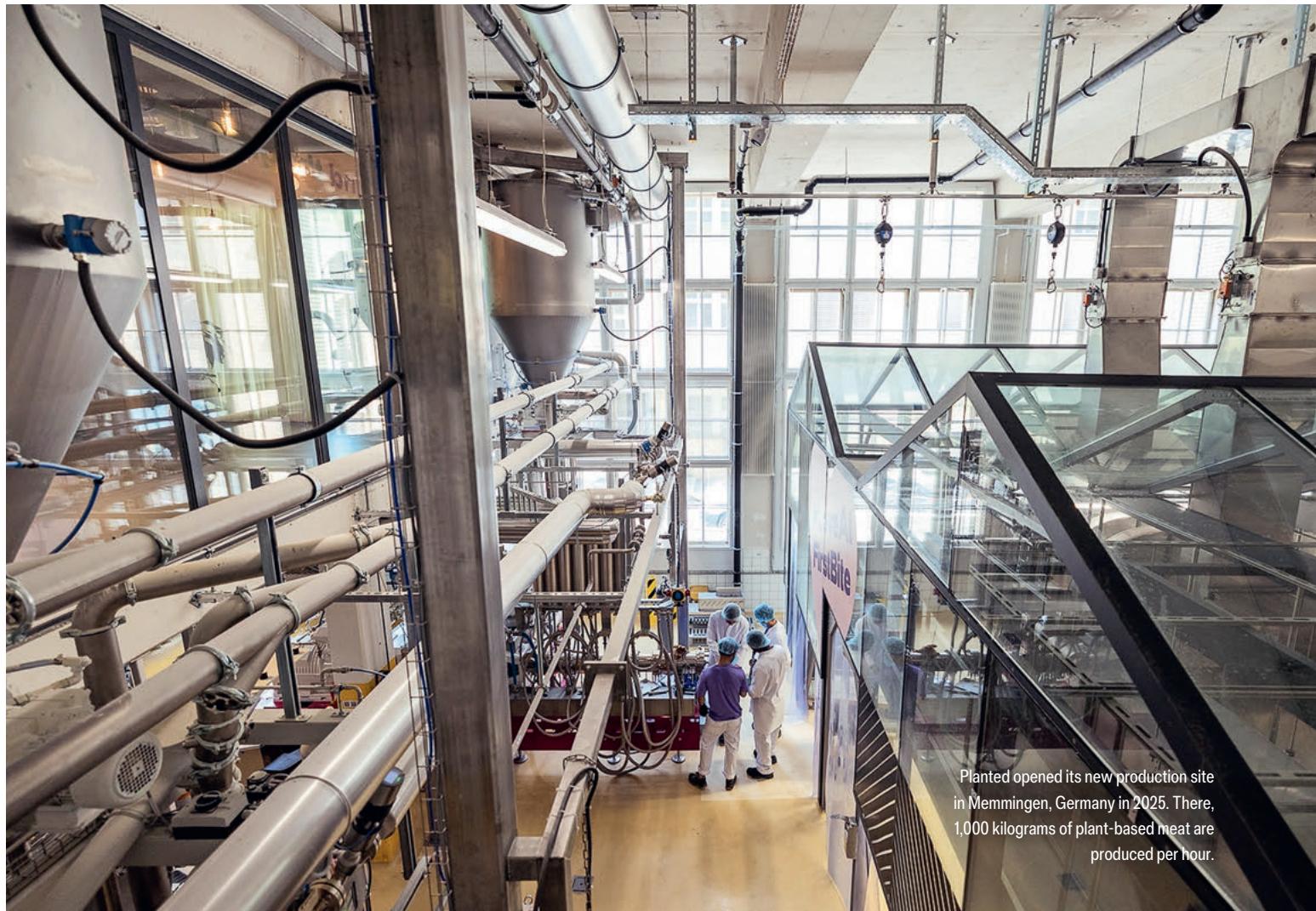
TAKING A BITE OUT OF SUCCESS

TEXT: BURKHARD BÖNDEL
PHOTOS: PLANTED FOODS AG



From start-up to industry frontrunner: Switzerland's Planted Foods AG is carving out a new category of delicious foods made from plant proteins and racking up one success after another. Their story is driven by innovation, perseverance, and a strong partner that believed in the idea from day one.





Planted opened its new production site in Memmingen, Germany in 2025. There, 1,000 kilograms of plant-based meat are produced per hour.

MEMMINGEN, GERMANY, JUNE 17, 2025, just after 9 a.m. Summer air shimmers between the brick facades of the old brewery. Photovoltaic modules hum on the roof, groundwater cooling rushes up from the cellar, and in the hall, extruders and packaging lines whir to life. In a city that made cultural history in the Middle Ages with one of the first declarations of human rights, a new chapter in food history is being written: Planted Foods AG has just opened Europe's most advanced production site for bio-structured proteins. The move doubles the FoodTech pioneer's capacity to over 20 tonnes per day, creates around 50 new industrial jobs, and brings production into the heart of its most important market – Germany. The plant draws its energy from biomass district heating, photovoltaics, and groundwater cooling, offering a model for tomorrow's food industry.

The new facility is only the latest chapter in the company's rapid rise. In 2019, four graduates from ETH Zurich, the University of St. Gallen, and the University of Zurich founded Planted with the clear vision of reinventing the enjoyment of "meat", but plant-based, healthy, and with no additives. Early prototypes were developed on Bühler extruders at ETH and the first scale-ups ran at the pilot plants in

Uzwil. The early products won over customers and Planted moved quickly into food service and retail. After that came the typical start-up phase with successful fundraising, which in 2020 made it possible to establish the first site in Kemptthal, not far from Zurich. The company's first in-house production line – equipped with Bühler technology – caused capacity to skyrocket from hundreds of kilos per day to 500 kilograms per hour.

Since then, expansion has followed in rapid succession. In 2022, capacity was doubled with additional extruders, followed by another funding round of CHF 70 million and now, the new factory in Memmingen. The start-up has matured into the industry's innovation leader.

"Our success is no accident," explains Planted Co-Founder Christoph Jenny. "It's the result of innovation, hard work, and a partnership that's supported us from day one."

Today, Planted products are on the shelves of more than 10,000 supermarkets across Europe and featured on the menus of over 7,000 restaurants. The company has created over 200 jobs and collected more than 30 national and international awards, including multiple wins as Swiss Start-up of the Year



Bühler's extrusion technology has been a decisive factor in Planted's success story.



Planted.steak is cut from whole, muscle-like structures.

and a top-three ranking among Switzerland's most innovative companies in 2024. "Many of the first-wave providers have disappeared because they failed to excite consumers," explains Ian Roberts, CTO of Bühler. "In the food world, one rule always applies: If you don't excite consumers, you don't exist. Planted is among the few that have truly managed to bring convincing texture, bite, and flavor to the plate."

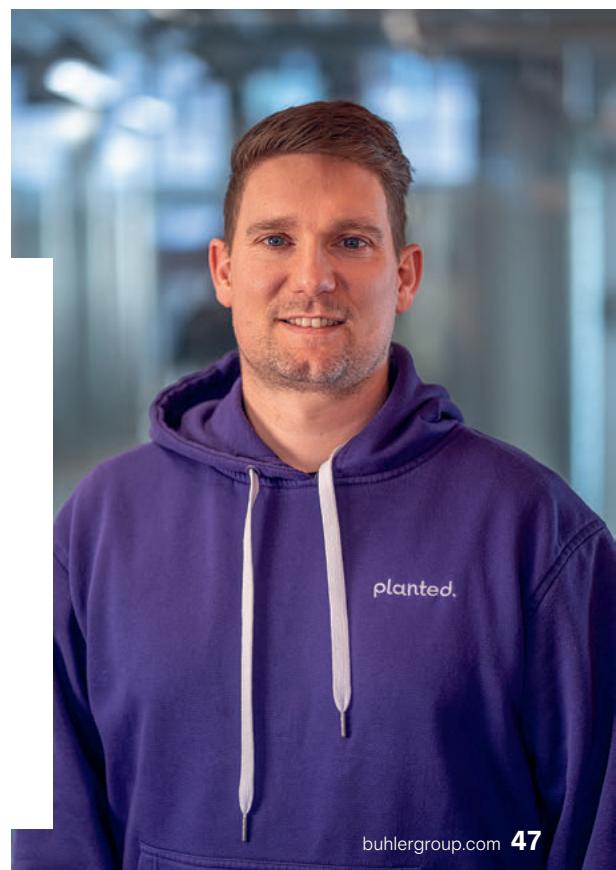
Great taste is the key to success

Planted's marketing plays with the contrast to animal meat and carries the claim: "Approved by meat lovers." The food technology pioneer isn't trying to imitate animal meat, it is creating the meat of the future. "Our ambition is to create a new category of food with plant proteins that taste fantastic," says Jenny.

The company's current flagship product is its planted.steak, launched in 2024. This isn't simply a meat imitation. This muscle-like piece of "steak" is

**"OUR VISION IS THAT
PLANT-BASED PROTEINS WON'T
JUST REPLACE MEAT, THEY'LL
SURPASS IT - IN TASTE, SUSTAIN-
ABILITY, AND HEALTH."**

CHRISTOPH JENNY
Co-Founder, Planted Foods AG



juicy, tender, and rich in umami, approved by meat lovers and top chefs. "This is a steak you eat with pleasure and forget it's plant-based," enthuses Planted's brand ambassador Christian Stucki. The former Schwingerkönig (Swiss wrestling king) is a self-proclaimed meat lover who turned to plant-based meat to improve his diet and his footprint.

Planted's taste sensation was crafted through proprietary fermentation processes from natural ingredients. Within a short time, planted.steak made it into major supermarket chains across Europe, including REWE, Kaufland, Tesco, Carrefour, Albert Heijn, and Migros.

A new food era

With products like planted.steak, a new chapter in nutrition is beginning. Each kilogram saves up to 97 percent of CO₂ emissions and 81 percent of water compared with beef. Scaled to the company's total production so far, Planted has saved millions of liters of water, avoided emissions equivalent to tens of thousands of flights, and, most importantly, spared the lives of hundreds of thousands of animals.

The nutritional facts are compelling, too. Planted products deliver high protein, valuable fiber, less saturated fat, no cholesterol, and added vitamin B12. "Our vision is that plant-based proteins won't just replace meat – they'll surpass it: in taste, sustainability, and health," says Jenny.



"PLANTED IS AMONG THE FEW THAT HAVE TRULY MANAGED TO BRING CONVINCING TEXTURE, BITE, AND FLAVOR TO THE PLATE."

IAN ROBERTS
CTO at Bühler Group

At Planted, innovation doesn't stop at the plate. The company is pushing processes forward as well. Combining extrusion and fermentation makes its products unique. Extrusion creates the fibrous structure, fermentation builds flavor and muscle-like texture. At the Memmingen plant, this interplay is being realized at industrial scale for the first time. The factory also makes a strong sustainability statement: Groundwater cooling, solar panels, biomass district heating – virtually all energy comes from renewable sources. Industrial scaling thus becomes a lever for impact, not an ecological problem. "From day one, our aim was to bring great taste and sustainability together," Jenny explains. "Our site in Memmingen proves it works at large scale."

Was everything always smooth sailing? Not quite. Jenny recalls a particularly tough moment: "After the cancellation of an European Union funding agreement, we suddenly lost a promised sum in the millions. It was a shock – we had to improvise, raise new financing, and reassure our employees. Moments like this are part of the journey."

These experiences, Jenny says, accelerated the company's development and further strengthened its partnership with Bühler.

A partnership that delivers

For Bühler, Planted is far more than a customer. It is a showcase for collaboration, as Roberts puts it: "Building a partnership takes trust and that trust has grown over years."





Planted Food's founding team: Lukas Böni, Christoph Jenny, Judith Wemmer, and Pascal Bieri (from left to right).

INFO



Planted Foods AG

Kemptthal, Switzerland

-  Founded in 2019.
-  Planted Foods AG produces meat from plant-based proteins, focusing on great taste, satisfying texture, and strong nutritional value.
-  The company supplies more than 10,000 supermarkets and 7,000 restaurants across Europe with its plant-based meat products.
-  Planted Foods relies on Bühler's extrusion technology at its sites in Kemptthal, Switzerland and Memmingen, Germany.



Planted.steak is hugely popular in restaurants across Europe, as seen here at Restaurant Gartenhof in Zurich.

Now, that foundation of trust is enabling the next step: purpose-built equipment. Together, the partners aim to develop technologies and processes that will take the production of plant-based protein foods to the next level – improving texture, increasing energy efficiency, and reducing costs.

“We’re currently using processes that weren’t originally designed for our application. That’s exactly what we’re now tackling with Bühler.”

From Memmingen to the future

Memmingen, December 2025: The new factory is fully operational and running at full speed. Even as Planted's industrial maturity and scale have taken a decisive step forward, its ambition remains undiminished, with many more ideas in the works. As Jenny says: “We may no longer be a start-up, but we’re still only at the beginning.”

AROUND THE WORLD

Find out how Bühler is expanding its global network to increase capacity, strengthen supply chains, and serve customers even better. Also discover how our young professionals excelled at SwissSkills 2025, securing their place at WorldSkills 2026.



Torreón, Mexico

INCREASING GLOBAL MANUFACTURING CAPACITY

Bühler has broken ground on a new manufacturing facility in Torreón, Mexico, a USD 24 million investment that will create 200 jobs and expand production capacity in the Americas. Planned to open in mid-2026, the site will start with sheet metal work, equipment assembly, and painting, with later phases adding further capabilities.

The new plant strengthens regional supply chains and supports Bühler's "in the region, for the region" approach, improving customer proximity while advancing sustainability goals through lower Scope 1 and 2 emissions. "Torreón is exceptionally well situated for our purposes," says Regis Esteves, Head of Manufacturing, Americas. "It allows us to draw on a skilled and educated population, while providing excellent infrastructure and a welcoming and accommodating government." Local leaders also emphasized the project's wider impact. "This investment will generate new and qualified jobs for our state — and that translates into prosperity," says Manolo Jiménez Salinas, Governor of Coahuila. The facility adds to a global network of more than 30 Bühler manufacturing sites and positions Torreón as a strategic hub in the region's growing industrial landscape.

Stockton, California, US

MEETING CUSTOMERS WHERE THEY ARE

A new optical sorting research and training center has opened in Stockton, California, strengthening support for food processors across the western US. Developed by Bühler in partnership with West-Link, a leading equipment supplier for the food industry, the facility showcases the latest optical sorting technologies and provides hands-on opportunities for product testing, demonstrations, and specialized training.

Strategically located in California's Central Valley, the center gives nut, seed, fruit, vegetable, and food processors easier access to advanced sorting solutions. It also doubles as a refurbishment lab and parts warehouse, ensuring rapid service and minimizing downtime. "This location provides a technology-forward platform for growers and processors to test their products, explore the newest optical sorting solutions, and receive dedicated training," says Brian Sears, President and owner of West-Link.

The center replaces Bühler's earlier Stockton site, expanding capabilities while also combining Bühler's optical sorting portfolio with West-Link's strong regional expertise. Mobile testing and demonstrations further extend its reach, meeting customers where they are.



From left to right: Cedric Gätzi, silver, Technical Designer EFZ; Cyrill Koller, gold, Industry 4.0; Joas Konrad, bronze, Industry 4.0; Lars Blumer, gold, Technical Designer EFZ; Lukas Fritsche, bronze, Sheet Metal Worker EFZ; Niklas Daniel, bronze, Industry 4.0.



3

Bern, Switzerland

TWO SWISS CHAMPIONS, SIX PODIUM PLACES – BÜHLER SHINES AT SWISSSKILLS 2025

At SwissSkills 2025, Bühler's young professionals delivered an outstanding performance: 11 employees competed in Bern and six returned with two gold, one silver, and three bronze medals. Technical Designer Lars Blumer and Industry 4.0 specialist Cyrill Koller were crowned Swiss champions, securing their place at WorldSkills 2026 in Shanghai.

From September 17 to 21, more than 1,100 young professionals demonstrated their skills across 92 professions. For Bühler's team of 11, the challenges ranged from welding and sheet metal construction to design, Industry 4.0, and web technologies. Six months of preparation culminated in long hours of programming, designing, testing, and presenting – all in front of hundreds of visitors at BERNEXPO.

In Welding, Nicola Fässler and Loris Muff impressed with precision seams, while in Sheet Metal Work, Alina Friederich and Lukas Fritsche built a windmill. In Technical Design, Cedric Gätzi, Pascal Schildknecht, and Lars Blumer worked under intense concentration despite the trade fair bustle.

Two teams competed in the Industry 4.0 category. Joas Konrad and Niklas Daniel worked side by side, analyzing data, programming, and testing functions. Cyrill Koller impressed with his teammate Ian Hofer from the MSW Mechatronics School, Winterthur. Levin Bänninger tackled Web Technologies as a solo competitor.

The competitive atmosphere was electric, with families, colleagues, and trainers cheering from the stands. Their presence created a strong sense of solidarity that visibly boosted the competitors' morale.

The results spoke for themselves:

- Technical Designer EFZ: gold for Lars Blumer, silver for Cedric Gätzi.
- Industry 4.0: gold for Cyrill Koller (with teammate Ian Hofer from the MSW Mechatronics School Winterthur), bronze for Joas Konrad and Niklas Daniel.
- Sheet Metal Worker EFZ: bronze for Lukas Fritsche.

With six podium finishes, Bühler once again demonstrated the strength of its training program. "The last few days have been full of stress, relief, and pure joy. The competition in Bern was unique, and I haven't yet realized what lies ahead of me," said Swiss champion Lars Blumer.

For Cyrill Koller, this year's victory builds on past experience: after silver in 2023, he now claimed gold. "I feel great and look forward to traveling to Japan and Shanghai with the national team next year," he said.

SwissSkills underlined why Switzerland's dual vocational system is recognized worldwide. "Vocational training not only lays the foundation for our apprentices' careers, but also for Bühler's future viability as an employer. Their passion inspires us to shape the working world of tomorrow together," said Bühler CEO Stefan Scheiber.

The success of Bühler's delegation shows the depth of young talent in the company. With dedication and team spirit, they turned SwissSkills into a showcase of excellence. Next stop: WorldSkills 2026 in Shanghai, where Blumer and Koller will represent Switzerland on the global stage.

CARRYING HIS SPIRIT *INTO THE FUTURE*

TEXT: BURKHARD BÖNDL

DURING THE BÜHLER NETWORKING DAYS in June 2025, more than 1,000 guests – customers, partners, and academics – created an unforgettable moment. As CEO Stefan Scheiber closed the event with words of thanks to Urs Bühler and his daughters, the audience spontaneously rose for a standing ovation. There could be no stronger expression of respect for what our company's patron had built over the decades, and for how the next generation of owners is carrying his legacy forward. Regrettably, Urs passed away just weeks later, on August 1, 2025.

He was born in 1943 in Uzwil, where his family's company took root in 1860. From an early age, it was clear that Urs not only had an engineer's analytical mind; he also possessed a natural empathy that made him deeply attuned to both people and animals. His curiosity often drew him out of the classroom and into the woods or to the nearby factory, where he enjoyed many adventures. After earning a degree in mechanical engineering from ETH Zurich, Urs could have become a doctor or a pilot. But family came first – and in 1970, he joined the company.



Urs Bühler profoundly shaped the course of the company and set the foundation early on to ensure that it would remain a successful family-owned business for generations to come. His legacy is both an inspiration and a responsibility. We look back on a life driven by curiosity, guided by vision, and shaped by genuine humanity.



Standing ovation for Urs Bühler at the Networking Days 2025.

Urs hit the ground running when he started his career at the company. He quickly took on responsibility and proved himself a capable leader. Within just 5 years, he became a member of Bühler's Executive Board. In 1980, he and his family moved to Braunschweig, Germany, to oversee the Bühler-MIAG production site and ensure the full integration of MIAG – the company's strongest competitor in the milling industry – into Bühler. This was a vital assignment, since the acquisition of MIAG had secured Bühler's position as the undisputed world market leader in milling.

However, in the years following the acquisition, the integration faced significant challenges. To optimize the organization, Urs recognized the need for restructuring – a move that led to an employee protest. Rather than turning against his workforce, he chose to listen to their concerns. He even joined the protest, marching alongside the employees on crutches due to an injury. This unconventional act of solidarity made a lasting impression, and was the start of making the company fit for the future. After 5 successful years in Germany, he returned to Uzwil.

His warmth and empathy were not tools but genuine traits. He knew his customers by name, traveled to see them in person, and always listened attentively. Urs also never shied away from engaging with competitors, and it was precisely this openness that earned him respect and was never forgotten. The thousands of letters that arrived after his death – not only from friends but also from rivals – bear witness to the extraordinary esteem in which he was held.

Becoming CEO

When Urs took over as CEO from his father in 1986, he brought this experience with him to lead the company through the deep recession that Switzerland was experiencing in the 1990s. Urs sought solutions that were focused both on people and on the future. There were moments when he made decisions that required exceptional courage and resolve. In 1990, he bought out his cousin for a nine-figure sum, taking on personal debt to become the sole owner of the company. This meant liberation from complex ownership structures – a step into a future where he could act faster and drive growth.

Another turning point came in 2001, when he entrusted the CEO role to Calvin Grieder – the first leader in Bühler's history not from the family. For a man whose name had been tied to the company for generations, this was a break from old thinking and a commitment to something greater. Urs knew that the well-being of the company mattered more than his personal status. He remained as Chairman of the Board, granting his successor full freedom as CEO. The trustful partnership between Urs Bühler and Calvin Grieder shaped the decades that followed.

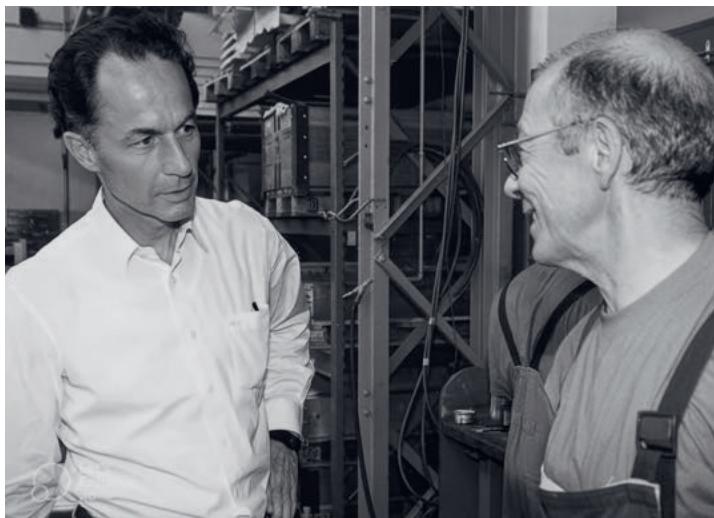
1981: Bühler receives a contract for the first new grain mill in the People's Republic of China – a combined durum and soft wheat mill with a processing capacity of 240 tonnes per day.



Urs Bühler's leadership sparks innovation and growth.



Always curious, always close to the action, always close to people.



Urs Bühler often sought direct conversations with employees – here with Costantino Marchioni.



Distinguished visitors from Japan at Bühler's 150th anniversary in 2010: Urs Bühler and Calvin Grieder with Mr. and Mrs. Shoda. As former CEO and now Honorary Chairman and Executive of Nissin Seifun Group Inc., Mr. Shoda represents one of Bühler's most important customers.

Urs Bühler also planned the succession of ownership with great foresight and clarity. In 2014, he transferred his company shares to his three daughters, Karin, Maya, and Jeannine, securing the company's future as a family business. It was a decision borne of a deep sense of responsibility for the company's welfare and of trust that his children would carry forward the values he embodied.

Humility, humanity, respect, a spirit of innovation, empathy: these were the values that guided his leadership. He demonstrated that being a great leader does not mean being harsh, but rather acting with integrity, that even in difficult times, one must not lose the courage to invest in research and development. He stood for "innovations for a better world" long before "purpose" was a corporate buzzword.

Humility as a hallmark

His close relationships with people made Urs special. Whether at the village café enjoying a croissant or having lunch in the employee cafeteria in Uzwil, he genuinely enjoyed connecting with others. He was always a grounded person – at equestrian tournaments, he would even sweep up the horse manure after the competitions.

Along with humility, humor was at the heart of his character. "How many people work at Bühler?" he was once asked. "About half of them," he jokingly replied. "We call the others managers." The line quickly made the rounds – not only because it was witty, but because it captured Urs' dry humor and his ability to laugh at himself.

Another colleague recalled how, after a presentation full of complex calculations, Urs dryly remarked, "That's surely correct – but please explain it again so that even my horses would understand." The room erupted in laughter, and what followed was an open, relaxed discussion that quickly got to the essence of the issue.

As calm and attentive as Urs was in conversation, he was equally passionate in his pursuits. Off-piste skiing, cross-country rides, risky safari moments: he sought adventure just as he sought the new as an entrepreneur. Once, in Canada, he was caught in an avalanche, buried, and rescued at the last minute. Barely freed, he joked about the torn-off tip of his cap – always guided by humor even in precarious situations. This mix of daring and composure gave him the lightness that fascinated so many.

Just as telling was his love of engineering. His legendary Audi Ro 80 – equipped with a twin-rotor Wankel rotary engine – served as both a rolling office and an expression of his joy in technical ingenuity. Considered one of the most technologically advanced cars of its time, it reflected his lifelong fascination

with innovation and his appreciation for the beauty of precision engineering. Urs' curiosity was never limited to machines. His entrepreneurial spirit, paired with an openness to new ideas, continued to drive him even after stepping down as CEO and entrusting the company to Calvin Grieder. He turned that same spirit of discovery toward a completely new field: kinesiology. What began with the healing of his horse led him to study, to explore, and eventually to found the Health Balance Animal Health Center and the Vital Quelle in Niederuzwil. In doing so, he united technology, empathy, and healing into a single vision.

He remained an experimenter at heart, exploring new methods and approaches right to the end – even delving into artificial intelligence, whose progress he followed with fascination, always asking himself: Can this help others?

His sense of wonder and engagement never faded. In the spring of 2025, he visited the newly opened Grain Innovation Center, celebrated a pizza making

Humble, respectful, empathetic – Urs Bühler embodied the values that mattered to him and showed integrity even in challenging times.





Horses were his great passion. Through the Health Balance Animal Health Center and the Vital Quelle, he developed a holistic view of the health of animals and humans.

“THAT’S SURELY CORRECT, BUT PLEASE EXPLAIN IT AGAIN SO THAT EVEN MY HORSES WOULD UNDERSTAND.”



Urs Bühler and Calvin Grieder: Their partnership shaped the company for decades and was built on trust and respect.

event with Italian customer Caputo, and he also attended the Networking Days in June – completely involved and enjoying being in the midst of it all.

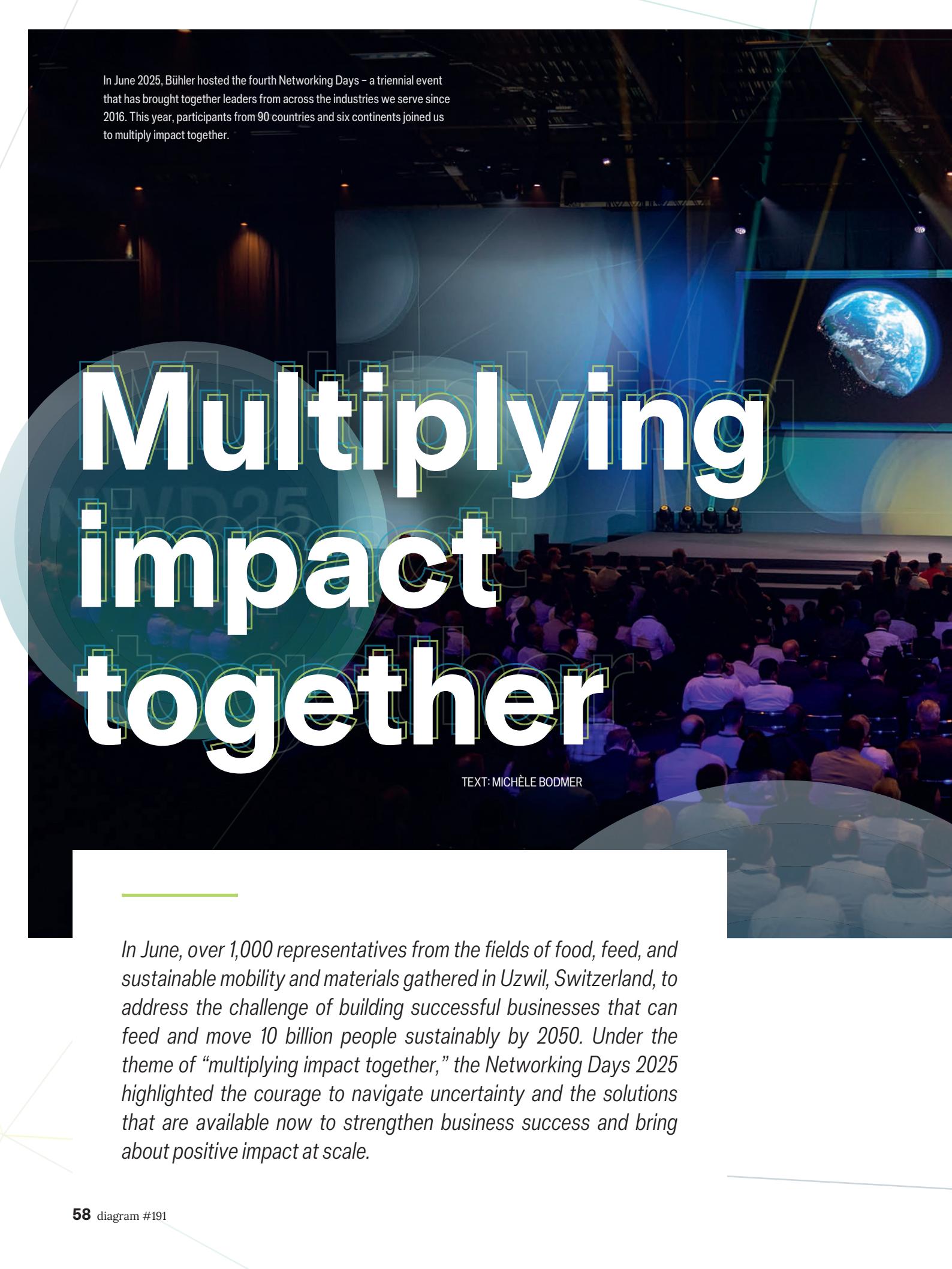
When Urs Bühler passed away on August 1, 2025, a great and fulfilled life came to an end. Yet what continues to live on is his spirit. This is reflected in the close relations with customers that defines the company's culture, in the courage to make decisions that open paths for future generations, in the foresight to hand over responsibility at the right moment, and in the conviction that humanity, sustainability, and innovation are not in conflict but belong together. Urs Bühler's spirit endures as both a legacy and a guiding promise – for his family, for the company, and for all who believe in a better world.

URS BÜHLER

Urs Bühler, Former CEO, Chairman of the Board, and Owner of Bühler



Urs Bühler's guiding philosophy was: "Why should I care about the past? I want to know what the future holds."



In June 2025, Bühler hosted the fourth Networking Days – a triennial event that has brought together leaders from across the industries we serve since 2016. This year, participants from 90 countries and six continents joined us to multiply impact together.

Multiplying impact together

TEXT: MICHÈLE BODMER

In June, over 1,000 representatives from the fields of food, feed, and sustainable mobility and materials gathered in Uzwil, Switzerland, to address the challenge of building successful businesses that can feed and move 10 billion people sustainably by 2050. Under the theme of “multiplying impact together,” the Networking Days 2025 highlighted the courage to navigate uncertainty and the solutions that are available now to strengthen business success and bring about positive impact at scale.



Watch the video about Networking Days 2025 to experience the energy and impressions of the event.



“EVERY BREAKTHROUGH, PARTNERSHIP, AND BOLD DECISION HAS THE POTENTIAL TO CREATE RIPPLES – BUT THEIR TRUE POWER LIES IN THE MULTIPLIER EFFECT.”

STEFAN SCHEIBER
CEO Bühler Group

SET AGAINST A BACKDROP of global transformation marked by political and economic shifts, accelerating climate challenges, and growing demands for sustainable food and mobility, the event served as a call to action. On June 23-24, representatives from industry, business, and academia exchanged practical solutions to ongoing and emerging challenges at this unique platform designed to advance innovative approaches, foster meaningful partnerships, and spotlight education and leadership. The goal: to point the way toward resilient businesses with mea-

surable impact. One of the strongest messages to emerge was that resilience demands courage, and courage is magnified through collaboration.

Bühler Group CEO Stefan Scheiber described the power of cooperation to multiply the impact of innovation. “Every breakthrough, partnership, and bold decision has the potential to create ripples – spreading knowledge, inspiring action, and driving progress,” Scheiber said. “But their true power lies in the multiplier effect: When these ripples connect, they create waves of change. By working together,

“WE MUST ACT WITH FOCUS AND COLLABORATION TO BRING ABOUT THE IMPACT NECESSARY TO PRESERVE THE HEALTHY STATE OF OUR PLANET.”

IAN ROBERTS
CTO Bühler Group



businesses and industries don't just add incrementally to progress – they accelerate it by compounding their influence and scaling solutions far beyond what any single effort could achieve.”

Chief Technology Officer Ian Roberts built on this idea, emphasizing the need to move decisively from dialogue to action. “It is so clear now that we must act with focus and collaboration to bring about the impact necessary to preserve the healthy state of our planet,” he said. “I am energized by the potential and willingness shown by our guests – not to simply talk, but to build concrete actions and to share what they have already achieved to accelerate group learning and impact multiplication.”

Big change needs bold leadership

This call for bold leadership was echoed by keynote speaker Ranjay Gulati, Professor of Business Administration at Harvard Business School. “The currency to survive in an era of uncertainty is courage,” he said. “Uncertainty causes fear, and fear can be paralyzing. But to survive and thrive, you must be bold and take action.”

His remarks reflected the themes of his 2025 book, *How to Be Bold: The Surprising Science of Everyday Courage*. Gulati argues that courage is not an innate trait but a discipline that can be cultivated individually and collectively. His message: Boldness is not reckless but principled – and it is indispensable for leadership in volatile times. This mindset of



VIDEO

Watch the interview with Ranjay Gulati to find out why leaders should not give in to fear.



“THE CURRENCY TO SURVIVE IN AN ERA OF UNCERTAINTY IS COUR- AGE. UNCERTAINTY CAUSES FEAR, BUT TO THRIVE YOU MUST BE BOLD AND TAKE ACTION.”

RANJAY GULATI

Professor of Business Administration, Harvard Business School

VIDEO

Watch the interview with Johan Rockström to learn why driving sustainability makes businesses resilient.



“WE MUST THINK OF SUSTAINABILITY AS CENTRAL TO COMPETITIVENESS, STABILITY, AND HEALTH. IT IS NO LONGER OPTIONAL – IT IS ESSENTIAL TO SUCCESS.”

JOHAN ROCKSTRÖM

Director, Potsdam Institute for Climate Impact Research

embracing uncertainty with purpose shaped many conversations at Networking Days, particularly the recognition that sustainability is no longer a “nice to have” but a business imperative.

Sustainable business success

Professor Johan Rockström, Director of the Potsdam Institute for Climate Impact Research and architect of the Planetary Boundaries framework, reminded participants that industry must operate within Earth’s safe limits. He stressed that sustainability is central to resilience, competitiveness, and long-term success and encouraged leaders to speak openly about the business value of sustainability. “We must think of sustainability as central to competitiveness, security, stability, and health,” Professor Rockström said. “When a decision improves your performance, attracts talent, opens new mar-

kets, or enhances resilience, communicate that clearly. Show that sustainability is not a burden – it’s a competitive advantage.”

Leaders across sectors echoed this framing of sustainability as a driver of profitable growth. Calls were made for accelerated innovation in digital tools, process technologies, and business models that deliver more value with fewer resources.

Johan Westman, CEO of plant-based oils producer AAK, offered a compelling example of how environmental and economic goals can align. Since 2019, AAK has transformed its palm oil supply chain, prioritizing sources verified as deforestation-free. By 2024, 91 percent of its palm oil supply met this standard. “Palm oil offers yields per hectare four to 10 times greater than any other plant-based oil. That is important when you need to feed the world,” Westman explained.



"INDUSTRY HAS THE ABILITY TO TAKE SCIENTIFIC IDEAS AND TRANSFORM THEM INTO INNOVATIVE SOLUTIONS THAT MAKE A REAL DIFFERENCE."

THOMAS ZURBUCHEN

Leader of ETH Zurich | Space and former Head of Science at NASA



Collaboration between science and industry emerged as another powerful lever for change. Thomas Zurbuchen, Leader of ETH Zurich | Space and former Head of Science at NASA, spoke about how scientific ideas gain impact when industries bring them to scale. He cited satellite imaging as a breakthrough that enables farmers to make precise decisions about fertilizer use. "Industry has the ability to take scientific ideas and transform them into innovative solutions that make a real difference," Zurbuchen said. "Sometimes the future is already here, you just need to scale it."

Circular economy principles offered further proof of how collaboration can unite profitability, growth, and sustainability. Julia Binder, Professor at IMD, described it as an ecosystem approach: "The circular economy is an ecosystem play – it's very customer-centric, it's extremely collaborative. The companies that really make money in the future will be those that use the license to innovate."

Industry examples reinforced this perspective. Michele Andriani, CEO of Andriani S.p.A., explained how his company developed new markets by reusing side streams from its food production business with the support of Bühler and other partners. The materials were converted into new product lines, such as pet food and nutritional supplements, while residual material was used for energy generation. "Sustainability is not a goal, but a way of acting and doing business," Andriani said. "For us, circularity is not just a sustainability concept – it's an engine for innovation and growth that has opened doors to entirely new sectors."

Similarly, Andrea Illy, Chairman of illycaffè S.p.A. and Co-Chair of the Regenerative Society Foundation, described how illycaffè has created a new business stream by repurposing coffee byproducts as bio-active ingredients for the cosmetics sector. The company is also working closely with its growers to advance regenerative farming practices.

“WE ALL NEED TO MOVE AWAY FROM BUSINESSES THAT DEPEND ON DESTROYING NATURAL CAPITAL AND TOWARD MODELS THAT REGENERATE THE BIOSPHERE.”

ANDREA ILLY

Chairman, illycaffè S.p.A.; Co-Chair, Regenerative Society Foundation

NWD25



VIDEO

Watch the interview with Andrea Illy to learn how circular economy principles benefit companies.



VIDEO

Watch the interview with Julia Binder to explore the shift needed to scale the circular economy.



“We all need to move away from businesses that depend on the destruction of natural capital and toward a new model where you turn a vicious circle into a virtuous one in which you regenerate the biosphere as you grow the economy,” Illy said.

Delivering on promises

For Bühler, the flagship event was also an opportunity to report progress on its own commitments. At Networking Days 2019, the company promised to have solutions ready to multiply by 2025 to reduce energy, waste, and water in its customers' value chains by 50 percent. Since then, Bühler has invested nearly CHF 500 million in research and development to deliver on that promise. It has analyzed the savings potential of 15 key value chains and developed new technologies and solutions. “Reflecting the urgency with which we need to act, our efforts go beyond simple compliance, drawing on partnerships,

innovation, and a focus on building businesses that deliver measurable reductions in environmental footprint, while supporting profitable growth for both our customers and our company,” Ian Roberts said. “This work not only benefits the environment but also drives operational efficiency, creates jobs, and builds long-term resilience. We are helping our customers achieve significant reductions in energy consumption, waste generation, and water usage – delivering real impact up and down the value chain.”

Bühler’s analysis of 15 value chains shows that savings potential can exceed 80 percent in some chains when its technologies are combined with others. For example, the CO₂e reduction potential in processing is 71 percent for aluminum, 77 percent for cocoa to chocolate, and 65 percent for rice. These results highlight how technological progress can directly reduce environmental impact while also improving operational performance.

Day two expanded the conversation to global trade and food systems. Stefan Legge, Vice Director and Head of Tax & Trade Policy at the University of St. Gallen, challenged narratives of deglobalization: “Deglobalization is not yet showing in the data. Global trade is still growing, just at a slower rate,” he said. Yet Legge warned that volatility and mistrust are on the rise, making reliable partnerships more valuable than ever.

Shifting demand in China and Africa is already reshaping global grain flows, noted Rabobank Senior Analyst Vito Martielli, driving investment in infrastructure such as ports and storage in Brazil and Southeast Europe. Meanwhile, technology is playing an increasing role in managing supply chain disruptions. Neil Barua, CEO of the software company PTC,

stressed the importance of robust data: "AI is going to help organizations handle supply chain disruptions more effectively. But you need robust data on your supply chain to make that happen."

Opportunities for improving nutrition

The focus then turned to feeding a growing global population. Abigail Stevenson, Chief Science Officer at Mars, underlined the rising importance of nutritional density in packaged foods, pointing to initiatives to add more whole grains, nuts, and pulses. Collaboration, Stevenson argued, is essential: "Looking beyond our industry is critical for broadening perspectives and for really thinking differently. By coming together with people from different parts of the industry and the ecosystem, we find novel ways to think about how to address the challenges we all face."

Florian Schattenmann, Chief Technology Officer at Cargill Incorporated, added that improving nutrient density is a delicate balancing act. "Products need to offer the right taste, the right nutrition profile, the right sustainability profile, and the right cost," he said. "And of those, taste is king."

Perspectives from Africa highlighted how global trends play out locally. Simon Tecleab, CEO of Naval Group, described how his company expanded from Eritrea into neighboring countries, building processing and logistics infrastructure and is now partnering with Bühler to create a food park in Angola. Mandla Nkomo, CEO of Partners in Food Solutions, stressed the importance of linking African food companies with global expertise. "Talent is evenly distributed, but opportunity isn't," he said, calling for the creation of "an opportunity superhighway" to unlock the continent's full potential.

True to tradition, Networking Days extended well beyond the food sector. This year's program included sessions on sustainable mobility and advanced materials, tackling issues such as vehicle weight reduction and the scaling up of battery production in Europe.

The event also marked a milestone for Bühler itself: the 50th order of its Carat megacasting solution, a technology that is reshaping how automotive components are manufactured. Visitors in Uzwil were able to see innovation up close in the company's research and training facilities – from AI-driven process optimization and advanced milling technologies to new extrusion systems and energy-efficient solutions for plant-based proteins.

As the event drew to a close, the conversation returned to leadership. Francois Pienaar, captain of South Africa's Rugby World Cup-winning team in 1995, and founder of the Make A Difference Leadership Foundation, shared lessons on resilience, integrity, and the responsibility leaders carry to

VIDEO

Watch the panel discussion with Abigail Stevenson and Florian Schattenmann about collaboration.



"LOOKING BEYOND OUR INDUSTRY IS CRITICAL. BY COLLABORATING ACROSS SECTORS, WE DISCOVER NEW WAYS TO ADDRESS THE CHALLENGES WE ALL FACE."

ABIGAIL STEVENSON
Chief Science Officer, Mars



“TALENT IS EVENLY DISTRIBUTED, BUT OPPORTUNITY ISN’T. WE NEED AN ‘OPPORTUNITY SUPERHIGHWAY’ TO LINK AFRICAN FOOD COMPANIES WITH EXPERTISE.”

MANDLA NKOMO
CEO, Partners in Food Solutions

VIDEO

Watch the interview with Francois Pienaar about values-based leadership and equality of opportunity.



“LEADERSHIP REQUIRES COURAGE UNDER PRESSURE, RESILIENCE, AND INTEGRITY. IT’S ABOUT RESPONSIBILITY – BUILDING STRONGER TEAMS AND COMMUNITIES.”

FRANCOIS PIENAAR

Captain of South Africa’s Rugby World Cup-winning team in 1995 and Founder of the Make A Difference Leadership Foundation

strengthen their communities. Pienaar’s message underscored a broader truth: Whether on the field or in business, leadership demands courage under pressure and principled decision-making.

That theme was carried into the closing remarks of Stefan Scheiber, who urged participants to move from discussion to action: “We need the courage to take decisive action – action that accelerates growth and drives the sustainable transformation of businesses, value chains, and entire industries. By doing this, we will shape a better future for our businesses and our societies and truly multiply impact together.”

“MINI-APPRENTICESHIP”

FOR MAXIMUM SKILLS

TEXT: BIANCA RICHLÉ



Bühler is launching a new initiative that opens its dual education program to customers. Based on the Swiss vocational training model, the program allows customers to send their employees to Bühler for several weeks or months of certified, practice-oriented training in key technical disciplines. It aims to help address the shortage of skilled workers and ensure companies stay up-to-date with the latest technologies and industry developments. The first module, developed in collaboration with customers, will begin in 2026.

AS THE SHORTAGE OF SKILLED WORKERS continues to grow, Bühler's new initiative – offering customized, certified short-term training programs based on the Swiss dual education model – comes at the right time. The first phase includes three-week courses tailored to the needs of maintenance and service technicians. Training takes place at the state-of-the-art Bühler Energy Center in Uzwil, where theoretical teaching is closely integrated with hands-on application in real production environments.

Participants are trained by the same instructors who teach Bühler's apprentices – instructors whose trainees consistently achieve top rankings at national and international competitions. The customer program reflects the core principles of Bühler's apprenticeship model that has shaped Bühler's success for more than a century. One example makes this tangi-



The three-week courses will take place at the Bühler Energy Center in Uzwil.

ble: The three-week Mechatronics course, which will be offered for the first time in 2026, combines theory and practice. Participants receive a theoretical lesson on electrical engineering from a Swiss vocational schoolteacher. Immediately afterward, under the guidance of Bühler trainers, they assemble and wire a control cabinet in a production environment and use measuring instruments to verify the values they previously calculated. This approach enables quick learning and solid retention. Throughout the course, the ratio of theory to practice is one to five.

Modular, scalable, and certified

Participants will later be able to enroll in additional specialized modules such as mechanics, project management, or process engineering. Each module can be taken individually or combined, depending on a company's needs. Every module also includes essential topics in occupational safety and health in accordance with Swiss standards, ensuring participants acquire both technical and safety-related competencies. Upon completion of each module, participants receive a Swiss-recognized certificate confirming their newly acquired skills.

"We're bringing the strengths of the Swiss dual education system into a scalable format for industrial needs," says Irene Mark-Eisenring, Chief Human Resources Officer at Bühler.

Bühler has successfully adapted the Swiss dual education model to a wide variety of cultural and economic contexts. Today, the company runs apprenticeship programs in Austria, Brazil, the Czech Republic, Germany, India, South Africa, and the United States. Since 2012 and 2014 respectively, the Bühler Apprentice Academies in Minnesota and North Carolina have combined theoretical instruction at community colleges with hands-on training at Bühler's production sites.

This extensive experience across different markets enables Bühler's vocational training team to tailor its continuing education modules to customer needs. The Mechatronics module was chosen as the first to launch in 2026, based on customer feedback. Additional modules will be prioritized and introduced step by step, depending on demand. Bühler has already received initial inquiries from customers eager to roll out this initiative in other countries, and concepts for international expansion are currently being developed.

Switzerland's dual education system is internationally recognized for its close integration of theory and practice. Around 70 percent of Swiss students choose an apprenticeship in one of over 230 accred-

ited professions. This contributes to the country's exceptionally low youth unemployment rate of under 4 percent. "The economic success of Switzerland, and of Bühler, is closely linked to the dual education system," explains Sonja Studer, Head of Education at Swissmem, the leading association of Switzerland's technology industry.

With this new dual continuing education program for industry, Bühler is now extending this Swiss vocational excellence to its customers. Developed in close collaboration with Bühler's business units and a Swiss vocational school, the program is designed to be modular and scalable – helping industrial customers build competencies, drive innovation, and shape the future of manufacturing.

INFO

About vocational training at Bühler

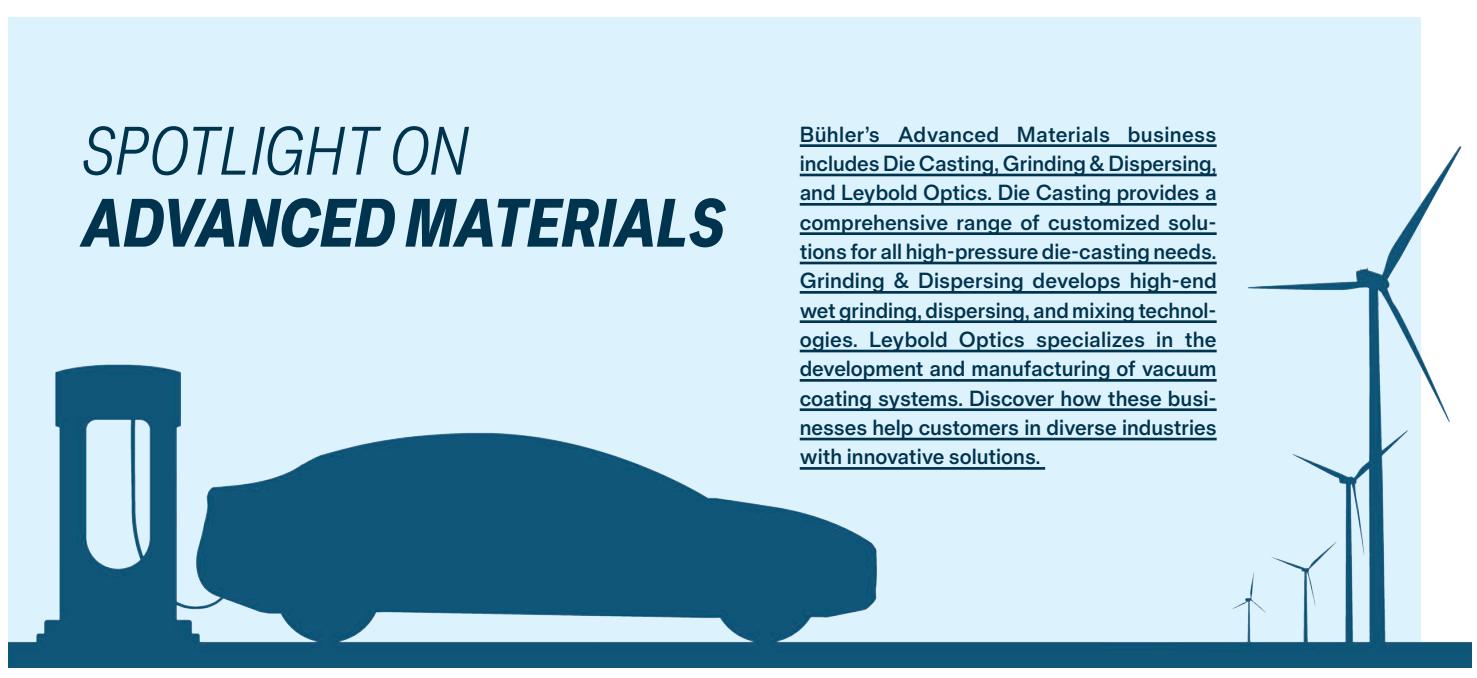
Bühler has been committed to vocational education since 1915, when the company trained its first apprentices. Since then, more than 8,400 young professionals have completed their training in Switzerland alone. Today, it supports over 520 apprentices worldwide – 40 percent of them outside Switzerland. Apprenticeship programs are currently offered at 26 locations across Europe, North and South America, Africa, and Asia. With this new initiative, Bühler is now extending its vocational training expertise to its customers.

INTERESTED IN LEARNING MORE?

Contact us at:

ausbildung@buhlergroup.com

SPOTLIGHT ON ADVANCED MATERIALS



Bühler's Advanced Materials business includes Die Casting, Grinding & Dispersing, and Leybold Optics. Die Casting provides a comprehensive range of customized solutions for all high-pressure die-casting needs. Grinding & Dispersing develops high-end wet grinding, dispersing, and mixing technologies. Leybold Optics specializes in the development and manufacturing of vacuum coating systems. Discover how these businesses help customers in diverse industries with innovative solutions.

Uzwil, Switzerland

CENOMIC HORIZON 3 RAISES PRODUCTIVITY AND EFFICIENCY

Bühler has expanded its wet grinding portfolio with the launch of Cenomic Horizon 3, a bead mill designed to deliver better temperature control, boost product quality, lower energy consumption, and increase throughput. Alongside reduced wear and enhanced flexibility, it offers a cost-efficient solution for industries relying on fine dispersion of solids into liquids. "With Cenomic Horizon 3, we provide customers with more processing stability and also greater confidence when working with temperature-sensitive materials," says Patrick Schwager, Product Manager Grinding & Dispersing at Bühler. "It's about enabling them to expand applications while keeping processes reliable and efficient."

With an active grinding volume of 20 liters and a powerful 30-kilowatt motor, the Cenomic Horizon 3 introduces several key enhancements. These include

a re-engineered grinding chamber for optimized bead distribution combined with the proven silicon carbide liner for maximum cooling.

Bühler's Premium V4 automation system is integrated into the Cenomic Horizon 3, enabling recipe management, real-time monitoring, and predictive maintenance to improve process safety and reduce downtime. With this, it is suitable for a wide range of coatings, paints, inks, pigment concentrates, and agrochemicals. The solution is also available as an upgrade. Retrofit kits enable existing Cenomic 3 and Cenomic Optima 3 machines to be enhanced with the features of the new design. Customers can test Cenomic Horizon 3 at Bühler's Grinding & Dispersing research and training centers in Switzerland, China, and Japan, supported by Bühler process experts to optimize performance and validate results.





Tu Son Town, Bac Ninh Province, Vietnam



WEB

Learn more about Bühler's megacasting solutions:



SEOJIN SYSTEM POWERS UP MEGACASTING PRODUCTION IN SOUTHEAST ASIA

Bühler together with Korean automotive supplier Seojin System have reached a significant milestone with the installation of two Carat 920 megacasting solutions at Seojin's facility in Vietnam. These are the first systems of their kind in Southeast Asia, underscoring Vietnam's rising role in the global electric vehicle (EV) supply chain. Each Carat 920 provides a locking force of 92,000 kilonewtons and can produce up to 200,000 large structural components per year, including battery trays and rear underbodies.

The inauguration of the first system in early 2025 was celebrated at a ceremony with industry leaders and government representatives. Swiss Ambassador to Vietnam, Thomas Gass, highlighted the international relevance of the achievement: "When Swiss innovative technology, Vietnamese determination, and Korean automotive expertise combine, production efficiency improves and supply chains are stronger and more resilient."

For Seojin System, the investment is an important step in strengthening its position as a global Tier 1 supplier. "With Bühler's cutting-edge solutions, combined with Vietnam's advantages in logistics, tax incentives, and its skilled workforce, we gain a substantial competitive edge in supplying superior cast automotive parts worldwide," says Jun Dong Kyu, President of Seojin System. Bühler's Cornel Mendler, Managing Director Die Casting, underlined the strength of the collaboration: "Since our partnership began in 2019, Seojin has invested not only in Bühler solutions but also in building expertise and skills. Together we are shaping the transformation of the automotive industry."

The new installations build on a relationship that started with the Carat 610 project six years ago. Since then, Seojin has continuously expanded its production capabilities, positioning itself as a trusted supplier to global original equipment manufacturers (OEMs). With the Carat 920 cells, the company is now able to manufacture larger and more complex structural parts, enhancing its competitiveness in a fast-changing market.

Megacasting is transforming modern vehicle manufacturing by replacing assemblies of up to 100 individual parts with a single die-cast structure. This simplifies production and reduces welding and joining steps while also lowering scrap rates, cutting material waste, and enabling lighter and more rigid vehicles. For OEMs, it means greater efficiency, less complexity, and improved sustainability.

Bühler has been at the forefront of die-casting technology for nearly a century. Its Carat series was developed specifically to meet the growing demand for larger structural castings in automotive manufacturing, with locking forces ranging from 10,500 to 92,000 kilonewtons. Today, more than 950 Carat solutions are in operation worldwide, making it one of the most widely adopted platforms for large-scale automotive castings.

With the installation of two Carat 920s in Vietnam, Bühler and Seojin System are continuing their joint success story while bringing megacasting to a new region. The project not only enhances Seojin's role in supplying critical EV components but also positions Vietnam as an emerging hub for megacasting and the wider automotive value chain in Southeast Asia.

Dalloz Creations

GET YOUR SHINE ON

TEXT: LUKAS HOFSTETTER
PHOTOS: SAGAR SHIRISKAR





When Dalloz Creations expanded its product portfolio and began fulfilling a large order for sports sunglass lens coating, the company turned its focus to mirror coating technology from Bühler Leybold Optics. Today, this pioneer from the Jura mountains in France has transformed its operations, unlocking new possibilities in both high-end and mass-market sunglass and goggle lenses. The company's story is one of growth, perseverance, and a dedication to perfection – down to the nanometer.

NESTLED WITHIN THE RUGGED JURA MOUNTAINS of the Bourgogne-Franche-Comté region, Dalloz Creations embodies how industrial companies around the world must stay ahead of the curve through innovation and foresight. The producer of sunglass lenses was founded in 1957 by Christian Dalloz, who recognized the potential of polycarbonate in optics. His pioneering research led to the creation of the first polycarbonate lens – a lightweight plastic lens made from a thermoplastic polymer. This paradigm shift ushered in a new era for lens manufacturers worldwide, who quickly adopted the technology for creating lenses in safety glasses, sports sunglasses, and glasses for children. Its durability and high impact resistance accelerated global adoption, opening new possibilities in both design and function.

Over the decades, Dalloz continued to innovate, developing new materials for sunglass production such as bio-based polyamide or specialized polycarbonate for safety applications, for example ballistic resistance. In 2022, the creative minds at Dalloz Creations introduced a bio-circular polycarbonate, which contains 60 percent by-products from the wood and paper industry and received the renowned ISCC PLUS (International Sustainability & Carbon Certification). The company covers the full value chain in sunglass lenses and goggle screens, from the injection molding process to varnishing and mirror coating.

Exciting business opportunities

Until recently, Dalloz's product portfolio primarily served one market, leaving the company exposed to concentration risk. "In the 2010s, we were well-known in the luxury brand sector, predominantly for our applications of pure-gold coatings for high-end sunglasses. That's why we wanted to expand our offering and enter the sport sunglasses market more strategically," explains Frédéric Drivet, General Manager at Dalloz Creations. The breakthrough came when a major sports retail approached them regarding the production of large quantities of lenses for sport sunglasses in September 2021. "One year later, we started production of polarized lenses with mirror coatings for this customer," he says.

The retailer's intention was to increase European production for the European market, reducing dependency on long and fragmented value chains from Asia and gaining access to reliable, locally produced materials. The frames are made in Italy, further boosting European production and shortening the supply chain.

Drivet remembers Dalloz' effort to fulfill its contractual obligations with their previous mirror coating technology. "In the first year, we tried to develop color recipes and mirror coatings with our existing

machines. The biggest challenge was the high scrap rate, which had a detrimental impact on both production and research and development," he says "When production time is extended to reach the required quantities due to the high scrap rate, we have less time on the machine to develop and test new colors and recipes. This leads to longer response times for our customers, who count on fast developments in their dynamic markets. We knew this could not continue and that our contract was at risk."

One meeting changes everything

When Yvonne Bonnin-Degner, Sales Representative at Bühler Leybold Optics, learned about the issues Dalloz was facing, she was eager to help the customer she'd been supporting for years with new solutions. "Before Frédéric approached me, we found ourselves in a traditional supplier role for the occasional spare parts and consumables only. We also supplied evaporation-material mixtures used in the mirror coating machine according to Dalloz's needs," she



Mirror coating offers endless possibilities for adding the final touch to lenses for sunglasses and sport goggles.





“WE WERE KNOWN IN THE LUXURY SECTOR FOR PURE GOLD COATINGS FOR HIGH-END SUNGLASSES. OUR GOAL WAS TO EXPAND OUR PORTFOLIO AND ENTER THE SPORT SUNGLASSES MARKET.”

FRÉDÉRIC DRIVET
General Manager at Dalloz Creations



Dalloz Creations based in the French Jura mountains specializes in manufacturing of functional and fashionable lenses.

explains. "For many years, we had been trying to convince Dalloz of the many benefits of our mirror coating machine. When I met Frédéric at SILMO eyewear exhibition in 2021, we had such an open and fruitful discussion about Dalloz's challenges, and thanks to our preparation work, I was ready to present a tailor-made solution. It was a turning point – a once in a lifetime opportunity to prove that Bühler has the expertise and technology to support their growth."

The solution was the Bühler Leybold Optics ECS 1350. The vacuum coater is designed for mass production with low scrap rates, a throughput of 72 to 94 pairs of lenses per coating run, and a capacity of up to 1,000 pairs per 8-hour shift. It was exactly what Dalloz needed in terms of technological boost, and the advantages went much further. Frédéric Drivet could not believe the impact it had on Dalloz from day one.

"We signed the agreement in December 2022, and we received the machine at the end of 2023. Everyone knew that this was a real game-changer, but its performance exceeded our expectations," Drivet explains. "We developed a new mirror in just half a day – in the past, this would have taken us three, four, or even five days, which means we had to stop production for up to one week. The scrap rate was cut in half immediately, which was an unbelievable boost for our productivity, and the cycle time improved as well."

The curved polycarbonate sport lenses are inspected after the physical vapor deposition process.



The scrap rate became so low that Dalloz no longer had enough defective lenses to use as protective covers for stacked good lenses. "The colleagues in production came to me and said 'Boss, we're running out of defective lenses' – what a nice problem to have to solve," says Drivet.

Transferring knowledge, boosting confidence

The service from Bühler goes beyond delivering and commissioning a solution. Training and support are just as important and create the kind of partnership in which both parties benefit. "After the set up, we agreed that a Bühler expert would support our R&D engineers in developing five processes for our five mirrors for sports applications. By the end of the week, we had 12 recipes. Even more impressive was the dedication of Bühler Process Commissioning Engineer Thorsten Naumann, who trained our young engineers in PVD (physical vapor deposition) mirror





Frédéric Drivet, Yvonne Bonnin-Degner, and Florie Loddo worked closely to bring Dalloz's R&D and production to new heights.

The shield and goggle lenses can reduce glare, prevent fogging, and repel water.

VIDEO

Find out how Bühler supports Dalloz in expanding their portfolio and entering new markets.



Each lens undergoes rigorous quality control before it gets its shine on in the final process step: mirror coating.



“WE ENABLE OUR CUSTOMERS TO EVOKE EMOTIONS WITH COLORFUL MIRROR COATINGS. THIS IS ONLY POSSIBLE WITH THE MOST RELIABLE AND PRECISE TECHNOLOGY.”

FLORIE LODDO

Business Development Manager at Dalloz Creations

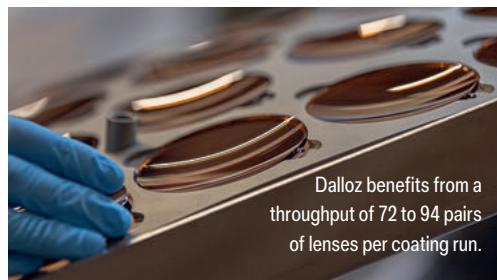
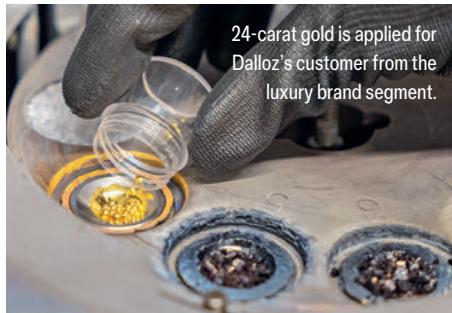


coating. This knowledge transfer enables us to develop at a speed and quality we couldn't have imagined," Drivet explains.

The key advantage for Dalloz is faster turnaround in co-developments with their customers, speeding up their time-to-market. Florie Loddo, who joined Dalloz in 2022 as Business Development Manager, knows how important it is to have confidence in the development and production capacities. "We support two types of customers. One knows exactly what they want and how it should be done, even on a technical level. The other is 100 percent clear on the emotion they want to evoke but relies on us to develop the recipes for them to create this emotion with colorful mirror coatings," Loddo explains "Before Bühler, the challenge was time, quality, precision, stability – and the ability to respond pre-

cisely to customer needs. Today, we translate their needs much more accurately and quickly and are a reliable partner in product development."

Traditionally, Dalloz coated sunglass lenses by loading round lenses on the curved calotte holder to secure them before coating the front surface. In this new process, the raw materials (consumables) such as titanium oxide for the reflective effect are placed on the electron beam gun in the crucible at the bottom of the machine. After the vacuum is created and all remaining moisture has been taken out via a Meissner trap cooled to -152 degrees Celsius, the physical vapor deposition (PVD) process evaporates the materials into a gas. This gas is then applied to the lens with nanometer precision, layer by layer. For context, a nanometer is 80,000 to 100,000 times smaller than a human hair.



Thanks to the extensive training by Bühler's experts, Dalloz creates high-quality recipes for their customers.



"THIS WAS A ONCE IN A LIFE-TIME OPPORTUNITY TO PROVE THAT BÜHLER HAS THE EXPERTISE AND TECHNOLOGY TO SUPPORT DALLOZ'S GROWTH."

YVONNE BONNIN-DEGNER
Sales Representative at Bühler Leybold Optics



WE KNEW THAT THE ECS 1350 WAS A GAME-CHANGER, BUT PERFORMANCE EXCEEDED OUR EXPECTATIONS – AN UNBELIEVABLE BOOST FOR PRODUCTIVITY.”

FRÉDÉRIC DRIVET
General Manager at Daloz Creations

When Daloz's product range further expanded to lenses for sports goggles and larger sunglasses for skiing, cycling, or motorbike helmets, the engineers at Daloz and Bühler co-created a “satellite” fixture for coating the larger, curved, and more complex shapes. While the “umbrella” remains stationary during coating with lenses locked in slots, the satellite rotates curved lenses and inverts them to ensure even layer distribution.

A bright future ahead

The business boost Daloz experienced with Bühler Leybold Optics led to another order. In spring 2025, Bühler installed a second ECS 1350 at the Saint-Claude site to increase production capacity and align R&D and production needs even better. “We manufacture and coat lenses 24 hours a day from Monday to Friday, and sometimes on Saturdays to fulfill our customers' orders. From 24-carat gold coatings for designer brands to sports sunglasses and goggles for outdoor enthusiasts – we've successfully diversified our portfolio and continue developing new solutions with our customers,” says Frédéric Drivet.

The next big challenge for Daloz and Bühler is improving mirror-coating scratch resistance. Florie Loddo and her innovation team are working closely with customers to solve this issue.

INFO



Daloz Creations

Saint-Claude, France

Founded in 1957.

Daloz Creations is a leading European producer of lenses for sunglasses and sports goggles and employs over 30 people.

Daloz supplies lenses for the high-end luxury markets as well as the mass market for leading European sport and fashion eyewear brands.

Daloz relies on two Bühler Leybold Optics ECS 1350 mirror coating machines. One coats sunglass lenses, and the other one coats larger skiing or motorbike goggle lenses. Bühler also supplies some raw materials.

“Consumers love their shiny sunglasses and sports goggles, which offer style and protection from UV rays and glare. But, the price for the stylish look is reduced scratch resistance. We're currently testing how we can integrate Bühler's dry hard-coat solution into our processes, which will significantly improve scratch resistance and allow millions of people around the world to enjoy their sunglasses and goggles without worrying about scratches,” Loddo says.

With their set up, know-how, and understanding of their diverse customer needs, Daloz Creations is well-positioned to continue the legacy Christian Daloz began more than 60 years ago. And Bühler Leybold Optics' experts are ready to support Daloz in their quest of putting function into fashion.

Arcolor

FAST TRACK TO SUCCESS

TEXT: BIANCA RICHLÉ
PHOTOS: LUKAS NAEF

Arcolor, a Swiss company and global market leader in decorative printing inks, decided in 2023 to establish local production in China. For the planning and execution of the entire project, the company turned to Bühler. The results were remarkable: Within just 388 days, production was up and running in Quzhou at a site covering 2,400 square meters.

ARCOLOR has been developing innovative, customized water-based printing inks since 1996. The company's portfolio spans packaging, digital, and decorative printing, with decorative printing as the company's core business. Patterns such as woodgrain effects are printed on paper and film for use in furniture and flooring. Innovation is central to Arcolor's success: about 20 percent of its workforce is dedicated to research and development, a focus that has propelled the company to global market leadership in decorative printing.

With nearly half of the world's decorative printing companies based in China, Arcolor decided in 2023 to establish local production and get closer to its customers. "With this expansion, we wanted not only to be close to our customers in terms of production and logistics, but also to give them the benefit of direct support in China through our own R&D and



VIDEO

Watch this video to learn more about Arcolor's new facility in China.



application technology," says Simon Ruprecht, Chief Operating Officer at Arcolor AG. Bühler has been Arcolor's technology partner since the company was founded nearly 30 years ago at the foot of the Alpstein mountains in Waldstatt, Appenzell Ausserrhoden. Bühler was also on board from the start of the China project.

"Bühler was responsible for the entire plant – from concept, planning, automation, installation, commissioning, and process optimization to training," says Thomas Winiger, Director Global Engineering Grinding & Dispersing at Bühler.

The Arcolor team already had a wealth of experience from its Swiss site – and many ideas about what could be done even better. This led to an intense and highly productive exchange throughout the Quzhou project. "We greatly appreciated that Bühler listened closely to us and contributed valuable ideas to our

plans," says Ruprecht. "Bühler managed to integrate all ideas from both sides into the design. Sometimes we met with our Chinese colleagues and Bühler China in the morning – and by the next day Bühler already had a new layout ready. That happened day after day, and the design kept improving. All this resulted in the highly robust and efficient production plant we have today."

Combining European and Chinese expertise

Bühler's global presence and deep understanding of the Chinese market played a central role in the project. "Thanks to our global footprint, we have a thorough understanding of local requirements," explains Winiger, Director Global Engineering Grinding & Dispersing at Bühler. What really made the difference was the combination of Bühler China's flexibility and engineering speed with the experience



Arcolor relied on Bühler for the complete engineering scope for its new plant in China – from concept and planning to installation, commissioning, and automation.

COO Simon Ruprecht, Arcolor AG and Director Thomas Winiger, Bühler in discussion at the tank storage facility of Arcolor's Waldstatt plant.



“THANKS TO OUR GLOBAL FOOTPRINT, WE HAVE A THOROUGH UNDERSTANDING OF LOCAL REQUIREMENTS.”

THOMAS WINIGER

Director Global Engineering Grinding & Dispersing at Bühler

and expertise of Bühler Uzwil's international project team. "Bühler was able to integrate both European and local technologies into a single plant that met our specific needs," Ruprecht says. "Our collaboration with Bühler China in particular was very close, with extremely efficient communication channels. The core project team even visited us in Switzerland to see how we work and what matters most to us. We really operated as one project team – and that was key to the success."

Working closely with Arcolor, Bühler defined the production process and raw material handling, created process flow diagrams and layouts, and designed the plant's control system. Bühler then delivered the complete facility, including Cenomic Optima bead mills, high-speed and inline dispersers, tanks and agitators, steel platforms, energy distribution, and the automation system. Delivery, installation, commissioning, process optimization, and training were all part of the package.

"The plant's performance has fully met our expectations – and so has the after-sales service," Ruprecht explains. "Of course, commissioning always brings ups and downs, but thanks to the strong commitment and solution-oriented mindset of everyone involved, every challenge was resolved quickly. After just one week, commissioning was complete. And that wasn't just luck. In a project of this scale, you need the right people, the right technology, and the right communication. With Bühler and Arcolor teams in both China and Switzerland, we were able to combine the best of everything."

The expansion continues

Arcolor is already looking ahead. Space for future growth was deliberately built into the plant layout, allowing capacity to be expanded to 15,000 tonnes of ink per year. The first follow-up order – two MicroMedia X3 bead mills – has already been placed with Bühler. "We have many plans to develop new water-based inks in China, for China," Ruprecht explains. "With the best materials and the best engineering, we are ready to create the best solutions for our customers."

“BÜHLER WAS ABLE TO INTEGRATE BOTH EUROPEAN AND LOCAL TECHNOLOGIES INTO A SINGLE PLANT THAT MET OUR SPECIFIC NEEDS. WE REALLY OPERATED AS ONE PROJECT TEAM – AND THAT WAS KEY TO THE SUCCESS.”

SIMON RUPRECHT
Chief Operating Officer at Arcolor AG

INFO


ARCOLOR

Arcolor

Waldstatt, Switzerland

- ⌚ Founded in 1996.
- ⚙️ Arcolor is one of the world's largest producers of water-based printing inks and employs 80 people in Switzerland and 30 in China.
- 🤝 The company supplies around 250 customers worldwide in decorative, packaging, and digital printing.
- 📦 Arcolor's new 20,000 m² production and distribution facility in Quzhou, China was engineered entirely by Bühler from concept and planning to installation, commissioning, and automation. At the heart of the plant is Bühler's Cenomic Optima bead mill. The plant has been producing on a CO₂-neutral basis since 2016.

Around 20 percent of Arcolor employees work in R&D, developing new ink solutions.





Adrien Beauvisage, Head of Southeast Asia Region at Bühler

EFFICIENCY DRIVES SOUTHEAST ASIA'S GROWTH

SOUTHEAST ASIA IS ON THE RISE: dynamic, digitally savvy, and driven by a young, ambitious workforce that embraces change. Yet this momentum is unfolding against a climate reality that has shifted from discussion to disruption. We no longer debate its existence – we experience it. Longer monsoons, harsher droughts, and erratic temperatures have become part of our economic reality, pressuring macroeconomic fundamentals. For businesses across Southeast Asia, these climate extremes now pose direct challenges to production, supply chains, and long-term growth.

At the same time, the region is rising to meet the challenge. Regulatory and market drivers are sharpening the mandate, with governments embedding climate action into policy and introducing measures such as carbon taxes and emissions trading schemes. Japan has led the way, followed by Singapore, whose carbon tax will reach USD 35 per tonne by 2026, as well as Thailand, which is advancing its own market mechanisms. In parallel, governments are integrating mitigation and resilience into national plans, signaling a steady policy tailwind. Many countries are targeting 2030 for carbon neutrality, while others are setting 2050 milestones – deadlines that are fast approaching.

The good news is that the fastest path to lower emissions often delivers the strongest business results. Many manufacturers in Southeast Asia are now reviewing operations through an efficiency lens and capturing quick, measurable gains. This is where Bühler's services make a decisive difference. By providing live energy usage data and transpar-

ency at the plant level, we enable teams to pinpoint waste, optimize processes, and identify savings opportunities. In one reference case, a facility with 7,500 operating hours could save up to 680,000 kWh per year in energy consumption, which translates into approximately USD 81,000 in annual savings, with a projected payback of around 3 years.

The lesson is clear: Sustainability and profitability are no longer at odds. With the right technology, data visibility, and process know-how, businesses can reduce emissions, lower costs, and strengthen performance simultaneously.

Building an actionable pathway to net zero requires focus and discipline. A practical road map starts with optimizing the energy mix, matching real-time consumption to production needs and integrating renewables where feasible. It enables the reduction of emissions through equipment upgrades, automation, and control improvements that raise throughput and quality while lowering energy intensity. Our digital services give customers live insights into energy use, production performance, and efficiency KPIs. This real-time visibility empowers leaders to make informed decisions, identify inefficiencies, and act quickly, turning energy data into strategic intelligence.

In Southeast Asia's dynamic markets, we help our customers to grow more by running leaner and greener, turning climate risk into competitive advantage, and building a future where business performance and environmental stewardship go hand in hand. The transition to a low-carbon economy is not a solo journey. It demands collaboration between technology providers, manufacturers, policymakers, and society.

Southeast Asia's strength lies in its agility, creativity, and drive. Together, with the right technology and vision, we can redefine growth itself – making it cleaner, smarter, and more sustainable.

At Bühler, we are proud to walk this journey with our customers – helping them grow stronger while minimizing impact.

LET'S GET SOCIAL!

Stay up-to-date with the latest trends, innovations, and customer success stories from the Bühler world by following us on our social media channels. You are also welcome to tag us in your posts about how you work with our solutions.



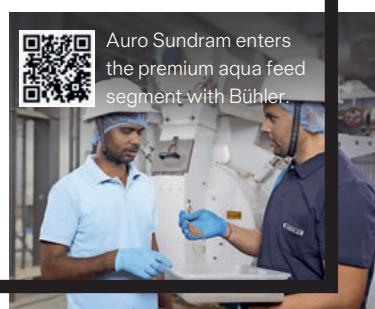
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