

# diagram

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the Bühler magazine

THE NEXT

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INDUSTRIAL INSECT PROCESSING  
IS NOW A REALITY

**TURNING UP THE HEAT  
FOR CLEAN ENERGY**

REDUCING COSTS AND CO<sub>2</sub> BY  
BURNING BIOMASS

Vyncke combines inventiveness and craftsmanship for sustainable energy production from biomass.

A close-up photograph of a welder wearing a black protective helmet with orange accents and yellow gloves. The welder is focused on a task, with a bright light emanating from the point of contact between the welding torch and a metal beam. The background is dark and out of focus.

# TURNING UP **THE HE**



*For more than 100 years, the Belgian technology supplier Vyncke has been building its expertise on energy production from a wide range of biomass by-products, including industrial and municipal waste. This year, Vyncke entered a strategic partnership with Bühler to scale up the impact of Vyncke's solutions in the food and feed industry – playing a major part in creating more sustainable value chains and the business success of our customers.*

**WHEN PETER VYNCKE**, owner of Vyncke Clean Energy Technology, and Johannes Wick, CEO Grains & Food at Bühler announced a strategic partnership between Vyncke and Bühler in March 2021 to offer low-carbon-emission food plants, it wasn't a big surprise in the global food and feed industry. The dedicated Vynckeneers – the nickname of the family-owned company's close to 400 employees – and Bühler's engineers have been collaborating on a host of projects for customers across the globe for decades. From City Group in Bangladesh to Malteria Oriental in Uruguay to Olam plants in Singapore and the Netherlands to name but a few; wherever Vyncke and Bühler join forces, the customer and the environment benefit.

Thinking outside the box to find new ways to convert biomass and industrial waste into clean energy is in every Vynckeneer's DNA. Founded in 1912 by Louis and Flavie Vyncke as a blacksmith company, Vyncke started making steam boilers in the 1920s as the flax industry began to flourish in Flanders. Thermal energy was in high demand to remove the flax fibers from their stalks, and with soaring coal

**AT**

TEXT: LUKAS HOFSTETTER

prices, Vyncke entered the biomass market with their technology to burn flax straw waste in boilers to generate affordable energy. “Our founders saw a great opportunity to support a growing local industry and do good at the same time. We have been driven by that very principle ever since, long before terms like global warming and Kyoto were added to our vocabulary,” says Peter Vyncke.

Today, his company enables its customers to reduce their CO<sub>2</sub> emissions by 3 million tons annually with their solutions for food and agriculture, wood, and recovered fuels. The partnership with Bühler will primarily focus on food and feed customers.

“Whether it’s grain, rice, corn, or cocoa, our solutions turn food and feed manufacturers’ biomass by-products into a climate-neutral form of energy,” Vyncke says. “The use of biomass energy helps to control greenhouse gas emissions as the only fraction released is what the plants absorb from the atmosphere during their growth. This creates a neutral CO<sub>2</sub> cycle and enables customers to save energy costs – a great example of how smart engineering drives sustainability while creating economic value.” Vyncke’s food and agriculture business focuses on converting organic by-products into reliable and stable process energy. That’s where the partnership with Bühler comes into play.

### **A natural evolution**

“Since we moved into the food and feed industry, we’ve done some fantastic projects together with Bühler and achieved significant impacts on CO<sub>2</sub> reduction and cost savings for our customers. The real strength of our strategic partnership with Bühler is that it has in essence been a bottom-up project,” Vyncke explains. “Our teams were collaborating for years before we decided to officially join forces. They already think, plan, and execute as one cohesive unit with the customer’s benefits in mind, and the official partnership is just the natural next step rather than a ‘forced’ decision.”

What’s the foundation of this fruitful partnership? Peter Vyncke believes there is a clear recipe for success: “Have no secrets and be the first one to give. What it translates down to is that we always shoot straight, call things as they are, and avoid losing precious time by beating around the bush. The second mantra we all adhere to is to offer something first, especially when a project is under threat of getting stuck. I learned this a long time ago from a partner in India, and this attitude of being the first one to give only brings benefits. If a negotiation or an installation gets a little bumpy, reaching out rather than persisting on your opinion opens up new possibilities you haven’t even thought of.”

Vyncke employs 370 like-minded change makers in nine locations. “Today we engineer, install, and start up around 40 energy plants per year all over the world. There’s nothing quite like the feeling of what we call ‘the first fire’ and we celebrate it every time with our customers to share our joy and passion for fire,” explains Vincent Weyne, Sales Director at Vyncke. “Each solution is tailor-made to a plant’s needs, and the fire burns up to 1,000 degrees Celsius to generate between one and one hundred

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**PETER VYNCKE**

Owner of Vyncke Clean Energy Technology

Megawatt thermal (MWth) for hot water, steam, thermal oil, or gas, and one to twenty Megawatt electric (MWe) for power generation.”

There’s every reason to celebrate the start-up of a new energy plant according to the Vynckeneers. “Lighting this fire together is the culmination of all the hard work everyone has put into a project. It’s also the first day when a customer starts reaping the benefits of their investment. If you look at the installation at City Group’s plants in Dhaka in Bangladesh – one of our biggest common installations so far, which we completed in 2017 – the impact on energy usage and the subsequent cost reduction is staggering,” says Weyne. “We installed two highly efficient steam boilers, each generating 32 tons of process steam for the parboiling plant. When both boilers run at full capacity, they convert nearly 300 tons of rice husk per day that would otherwise be dumped or landfilled. This solves a waste problem and also allows City Group to save 250 tons of fuel oil a day, enabling them to reduce the CO<sub>2</sub> emissions of their parboiler plant by 60 percent.”

The boiler ash is of highest quality and can be further used in the steel industry without any processing. Vyncke’s customers even further purify the boiler ash and sell it to the tire industry as a source of green silica. This is just one of many examples how a circular economy should work.





The biomass-fueled Vyncke power plant in the Netherlands.



Peter Vyncke and Johannes Wick announced a strategic partnership between Vyncke and Bühler in March 2021.

***“WE SHARE THE SAME COMPANY CULTURE: WE’RE BOTH FAMILY-OWNED, DOWN TO EARTH, WITH AN UNDETERRED FOCUS ON DELIVERING THE BEST QUALITY TO OUR CUSTOMERS.”***

**JOHANNES WICK**  
CEO Grains & Food at Bühler



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**VINCENT WEYNE**  
Sales Director, Vyncke

Johannes Wick looks forward to leveraging the enormous potential this new partnership offers to all parties involved. “We share the same company culture as Vyncke: We’re both family-owned, down to earth, with an undeterred focus on delivering the best quality solutions for our customers. We can now expand our service portfolio along the food and feed value chains and create meaningful impact to deliver on our targets of reducing energy, waste, and water usage in our customers’ value chains by 50 percent by 2025,” he explains.

#### **Part of the solution**

Now that Vyncke and Bühler offer the energy part of a food or feed plant as one unit, their competitiveness has sharply increased – to the benefit of their customers. “Our customers now get a fully integrated solution from two experts in their fields acting as one partner. This will enable us to improve efficiency, transparency, and speed of installation,” Wick says. In times of rising energy prices, demands of increasing profitability, and societal and political calls to reduce emissions, there’s pressure on industry to deliver meaningful results quickly.

Peter Vyncke is excited about the prospect of scaling up Vyncke’s impact and drastically reducing CO<sub>2</sub>. “When Bühler’s CEO Stefan Scheiber said during the Bühler Networking Days 2019 that industry must become part of the solution instead of being part of the problem, hundreds of leaders carried that call to action back to their companies,” Vyncke explains. “So did we, and by teaming up with Bühler, we set ourselves the target of equipping 20 percent of their customers’ installed base and 80 percent of new plants that Bühler builds with our solutions. We’re just scratching the surface so far and we’re ready to provide an economic and ecologic energy boost for an industry that literally feeds the world.”



Vyncke's focus is on designing and building custom high-tech solutions that light the fire in customers' eyes.

