



Vyncke and Bühler cooperation to reduce carbon footprint in the food industry

Energy Recovery Center at Bühler's headquarters is up and running

Uzwil (Switzerland), Harelbeke (Belgium), December 13, 2023 – Bühler's Energy Recovery Center, built in partnership with Belgian company Vyncke, is fully operational and ready for customer trials. Officially opened on November 20, the facility provides heating for Bühler offices in Uzwil by using biomass generated at its application and training centers. Moreover, the Energy Recovery Center, the world's only application center of this kind and size, works as a platform for customers to explore the potential of using side streams through energy recovery, which can lead to the reduction of their carbon footprint, waste, and energy costs.

The Energy Recovery Center (ERC) combines Bühler's expertise on biomass fine grinding and preparation (leading to the most optimum fuel) with Vyncke's combustion knowledge and the latest technology (optimizing the energy yield), resulting in an integrated and cost-efficient energy solution. Vyncke installed its classic, red-walled boiler at Bühler's site. This is also the first time that the technology of multi-staged pyro gasification turbix combustion for agricultural fuels is used. The fuel injection system combined with the injection of the primary and secondary combustion air will lead to better combustion, and therefore, lower emissions.

The plant has two purposes. The first objective is the management and generation of sustainable energy. The ERC will be fed by various side streams generated by the application and training centers in Uzwil. This fully integrated solution will go on to process the fuel, generate hot water, and send this energy back to heat the buildings.

The second function is to test the biomass side streams from the processes of Bühler's global customer base. The side streams that will be tested in the center cover a broad range of materials including wheat bran, rice husks, and cocoa shells. The by-products will be combusted either individually or in a mixture with a test and learn approach. The ERC is scientifically supported by the Swiss Federal Laboratories for Materials Testing and Research (EMPA) to evaluate research and development (R&D) results and further applications of boiler ash (i.e., as fertilizer or building material production).

This platform is a demonstration of how businesses can valorize their by-products and explore ways to reduce the carbon footprint in the food industry. Guided by the ongoing sustainable transformation, this is a unique, one-stop research facility to test all types of side streams coming out of food and agriculture processes. At the heart of this technology-driven center is the mission to provide the industry with a high-efficiency and low-emission solution that contributes to a sustainable future.

"By adding Vyncke's energy recovery processes to our portfolio, we can offer our customers new processes towards a more sustainable production," says Johannes Wick, CEO of Grains & Food at Bühler. "With the Energy Recovery Center and Bühler's application and training centers, our customers have the ideal platform and expertise to make sure their investments for the future are sound and proven."

Collaborating for a sustainable future

Bühler and Vyncke entered a strategic partnership in 2020. While Bühler plays a pioneering role in development through innovation, Vyncke brings to this equation sophisticated craftsmanship and expertise in combustion technology. In business since 1912, Vyncke has been offering state-of-the-art energy solutions to all industries that aim to transition away from fossil fuels and work towards decentralized solutions. The technology operates on the principle of harnessing energy from organic process waste by diverting it from landfills and converting it into valuable resources. With over 4,000 references spanning

across various industries, Vyncke is at the forefront of innovation and technological proficiency in its field of expertise.

Peter Vyncke, owner of Vyncke, says: "Many industries rely on our solutions to reduce their fossil fuel consumption. With Bühler, we now aim to also become the standard to reduce the CO2e footprint of the food industry."

Leveraging their respective strengths, the close collaboration between Bühler and Vyncke intends to steer the industry toward a resilient future.

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Peter Vyncke, owner of Vyncke

Johannes Wick, CEO of Grains & Food at Bühler

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About Bühler

Bühler is driven by its purpose of creating innovations for a better world, balancing the needs of economy, humanity, and nature. As a relevant solution partner for the food and mobility industries, Bühler has developed a pathway to achieve a 60% reduction of greenhouse gas emissions in its operations by 2030, meaning Greenhouse Gas Protocol Scopes 1 & 2, against a 2019 baseline. It has committed to having solutions ready to multiply by 2025 that reduce energy, waste, and water by 50% in the value chains of its customers. Billions of people come into contact with Bühler technologies as they cover their basic needs for food and mobility every day. Two billion people each day enjoy foods produced on Bühler equipment; and one billion people travel in vehicles manufactured using parts produced with Bühler technology. Countless people wear eyeglasses, use smart phones, and read newspapers and magazines – all of which depend on Bühler process technologies and solutions. Having this global relevance, Bühler is in a unique position to turn today's global challenges into sustainable business. Bühler contributes to safely feeding the world and is doing its part to protect the climate, producing solutions that make cars, buildings, and machinery more energy efficient.

Bühler spends up to 5% of turnover on research and development annually. In 2022, some 12,700 employees generated a

turnover of CHF 3.0 billion. As a Swiss family-owned company, Bühler is active in 140 countries around the world and operates a global network of 105 service stations, 30 manufacturing sites, and Application & Training Centers in 23 countries.

www.buhlergroup.com

About Vyncke

VYNCKE designs & builds industrial energy plants that produce clean energy from biomass or sorted commercial, industrial waste. Our solution range includes steam boilers, hot water heaters, thermal oil heaters, hot gas generators, CHP plants and multimedia energy plants in the range of 1 to 100 MWth thermal capacity and 1 to 20 MWe. of electricity.

VYNCKE provides solutions for the agri and food industry, the wood industry, and in general all industrial energy consumers worldwide who want to reduce their carbon footprint by moving away from fossil fuels. Each solution is tailor-made to the unique needs of each customer.

4300 references spread around the globe and many more each year benefit from over 100 years of craftsmanship and quality since the company was founded by Louis VYNCKE in 1912. Rooted and headquartered in West Flanders, Belgium, the company has settlements in Brazil, Ivory Coast, Spain, Germany, Czech Republic, Thailand, Malaysia, Singapore & China and follows today the leadership of the family's 4th generation. Industries all over the world, even in the most remote areas, can achieve net-zero waste or become CO2-neutral by adopting VYNCKE technologies that convert waste and biomass into clean energy.

www.vyncke.com