

Bioenergy Insight spoke to Kevin Vandewalle, sales director at VYNCKE, who gave a comprehensive picture of its business model, its agility during challenging times and ongoing technological innovations

VYNCKE: Family-owned business with global presence

VYNCKE was established in 1912 in Flanders by Louis Vyncke, a blacksmith by trade. As Flanders' flax industry was flourishing by the 1920s, so demand for steam boilers grew – to generate energy to remove flax fibres from their stalks. Coal was expensive, and these boilers were designed to burn flax straw waste. The company expanded rapidly.

In 2002 Peter and Dieter Vyncke took over the family business, now in its fourth generation. Headquartered in Harelbeke, the organisation has over 380 employees spanning the globe. *Bioenergy Insight* was curious to know how the business had thrived for so long, and what it perceived to be the industry's greatest challenges.

Vandewalle explained that VYNCKE's business model has remained quite unchanged since it started 110 years ago. Its business operation involves going to industries and transforming a process waste flow they have into a solution for their energy needs.

For Vandewalle, the current-day context remains much better than it was 110 years ago, but key obstacles remain. One of these concerns was high governmental focus on renewable electricity. The effect of this has been "a lot of subsidies for utility power plants to burn biomass to become more green [causing] a strange set up in some biomass supply



Project in Ghana: a full scope cogeneration plant for the growing energy demands of the palm oil mills and refineries of this palm oil producer

markets, because we are transporting fuel or biomass halfway across the world."

One result of this has been heightened opposition to biomass, noted Vandewalle, with the new RED III directive imposing possible restrictions upon subsidising projects burning primary woody biomass, which consists of forestry residues.

Such opposition does make sense for Vandewalle, who emphasised the challenge acts as an opportunity for the company too. The organisation has always tackled biomass waste streams that are more challenging, and it has been prepared for these circumstances. Vandewalle

added that it is important to consider under-utilised biomass waste streams, as well as decentralised plants – using biomass waste at the location where it is being disposed.

The EU's stricter emissions regulations could also make smaller capacity biomass-to-energy projects economically unviable, continued Vandewalle. One solution to that is for best available technologies to be "framed towards the scale of a project both economically and technically".

New developments

In terms of new developments at VYNCKE, Vandewalle told

"Peter and Dieter Vyncke are driving the family business into a proactive industrial group, but still with the view on a sustainable future"

Bioenergy Insight the company is drastically expanding its solution portfolio. It took a step into waste-to-energy a couple of years ago – an area for which the firm sees a high demand. It is also developing engineering, procurement and construction (EPC) projects on a larger scale, predominantly in Europe.

It is continuing to expand into new geographies too, having opened an office in Abidjan, Ivory Coast, in March 2022 – meaning the firm is looking into developing in high-growth geographies.

Another notable change from a company development perspective has been the introduction of a non-Vyncke family member as CEO – Stefaan Lauwers, who was appointed to the role in October 2021. The brothers Peter and Dieter Vyncke, with the help of the holding company, are driving the family business into a proactive industrial group, but still with the view on a sustainable future, Vandewalle said.

Emerging economies

Bioenergy Insight asked Vandewalle whether the company experiences differences working with countries that have developing economies. He replied that there is definitely a difference, and that both worlds are quite different.

He explained that, in Europe, the majority of its business is subsidised,



Project in Java: The engineering and construction of the 6 tph rice husk-fired water-tube steam boiler

with capital expenditure or operational subsidies offered by governments, departments or particular industry groups. However, in developing economies, this is not the case. In some countries in Asia, for example, fossil fuels are still subsidised.

Another point he made was that subsidies create a different dynamic in the market. They cause biomass supply chains to become better-organised, with more transparent pricing. This is not always the case in many of the other developing economies where the firm works. Additionally, developing economies tend to have more dynamic markets, which means investments need to make returns more quickly. All this means is that VYNCKE has to adapt the solutions it brings to those markets.

Vandewalle went on to identify a different kind of customer in countries with developing economies. VYNCKE serves the corporate industrials, but it also serves “local champions” – defined as strong local industrial players who like to do business on trust. These local champions value the

organisation as a family business: “they always say friendship before doing business and this is very true”.

Achievements and developments

VYNCKE’s biggest achievement for Vandewalle consists of its agility. The business has remained agile whilst growing – and has been able to geographically alter its focus, and deliver solutions to different industries, and adapt to cyclical investment rounds and navigate changing market dynamics.

The company continues to

innovate, and Vandewalle said it is focusing on the broader concept of thermal recycling in all aspects. This includes waste-to-energy – a path it took a couple of years ago. It correctly predicted that cleaner biomass streams would move up the ladder into recycling and reusing into higher-value products.

To handle more difficult biomass streams, VYNCKE is developing a concept to handle biomasses with low ash fusion temperatures, which Vandewalle observed is a challenge in biomass combustion.

VYNCKE has also experienced increasing demand in recycling components or elements after the combustion process – such as for potassium and phosphorus from ash to use in higher-added-value products, like fertilisers.

A lot of attention is going to CO₂ as well. VYNCKE captures flue gas CO₂ and tries to utilise it or go for storage. Three years ago it completed a project in the Netherlands where the biomass boiler was equipped with a CO₂ capturing unit. The captured CO₂ is utilised in greenhouses by plants for photosynthesis during daytime.

Furthermore, there is increased scrutiny upon nitrogen oxides, which Vandewalle said will trickle down into emission regulations. The business is going to build a new combustion technology which will remove the necessity of making use of urea to reduce NO_x.

Another key consideration is digitalisation. VYNCKE has an application called SMARTPLANT, which processes analytics and is a cloud-based application. It is moving towards a digital twin of its installation – with the company’s ultimate dream being achieving full plant autonomy. That is still a couple of years away, Vandewalle commented.



Project in Sweden: RDF-fired heat plant for Nordic energy provider. A turnkey superheated water boiler will process RDF and provide district heating to a network of approx. 2,500 homes in Säfte, Sweden



Project in The Netherlands: the first in the world to capture CO₂ derived from biomass on site and to inject it directly into the greenhouses as a locally sourced fertiliser

Supply chain

Bioenergy Insight then asked about the supply chain challenges, and Vandewalle said the difficulties are still being experienced today. He observed that major problems began with COVID where everybody was somewhat paralysed. After a couple of months “we saw heavy interruptions, steep

rise increases, unreliable schedules in all aspects of logistics, which of course had a very big impact in promising delivery prices and timings towards our customers.” Following that was a shortage in chips and Russia’s invasion of Ukraine, resulting in a European energy crisis.

All of this has led to volatility in availability and in price. However, VYNCKE

has been able to utilise its aforementioned agility to develop solutions built upon open dialogue with customers.

The year ahead


Although 2023 looks optimistic with strong market potential and an expansive pipeline, Vandewalle emphasised the reservation being kept in mind – the lack of clarity in

how the possible recession will manifest and play out.

Nevertheless, the market and its indicators suggest strong demand for the organisation’s work. The turmoil in Ukraine has shown a lot of industries and countries that dependency on other nations is dangerous. Self-reliance of energy is very high on the agenda. Energy bills remain sky high, the climate crisis is still raging and many of the company’s customers have made a pledge to decarbonise – with all elements perhaps contributing to a perfect storm for VYNCKE.

Vandewalle added “we’re Flemish, our nature is to be conservative”. However, as of the day the interview was conducted, “the year 2023 looks very, very promising.” ●


More information:
Visit: Vyncke.com





8-9 february 2023


expo Nantes FR

bring on the **biotransition!**
it's for good!
the rendez-vous for **bioenergy**
bioeconomy
& **ccu/s**



SUPPORTED BY: 

PARTNERS: 

follow @[bio360expo](https://twitter.com/bio360expo) on  www.bio360expo.com

formerly **BOIS ÉNERGIE** & **Bio-gaz Europe**