



**"SPEEDING UP THE ENERGY  
TRANSITION IS KEY:  
WE HAVE PUT OUR FOOT  
ON THE ACCELERATOR"**

# AN INTERVIEW WITH PASCAL DE BUCK



**PASCAL DE BUCK**

CEO AND MANAGING DIRECTOR OF FLUXYS

**Pascal De Buck (°1966) is the driving force behind Fluxys and its 1,300 employees. He joined the company in 1995, came on board the management team in 2008, and has been CEO and Managing Director since 2015. Pascal studied Law, Industrial Policy, and Financial Management, and also graduated in the IESE Business School's Global CEO Program.**

Headquartered in Belgium, Fluxys is a fully independent infrastructure group with 1,300 employees active in gas transmission & storage and liquefied natural gas terminaling. Through its associated companies across the world, Fluxys operates 24,000 kilometers of pipeline and liquefied natural gas terminals, totaling a yearly regasification capacity of 380 TWh. Among Fluxys's subsidiaries is Euronext, listed Fluxys Belgium, owner and operator of the infrastructure for gas transmission & storage and liquefied natural gas terminaling in Belgium.

As a purpose-led company, Fluxys, together with its stakeholders, aims to contribute to a better society by shaping a bright energy future. Building on the unique assets of its infrastructure and its commercial and technical expertise, Fluxys is committed to transporting hydrogen, biomethane, or any other carbon-neutral energy carrier, as well as CO<sub>2</sub>, accommodating the capture, usage, and storage of the latter.

## THE TRANSITION TO NET ZERO

The energy transition to enable net-zero targets by 2050 is a reality being addressed by the energy sector. This includes the global gas transport infrastructures that today provide reliable and consistent energy supply to industries and households across the world. These infrastructures will need to diversify and transform to do their part in helping to deliver on climate targets by providing means for transporting alternative gases, such as hydrogen and carbon dioxide from carbon capture.

We talked to the CEO and Managing Director of Fluxys, Pascal De Buck, to understand his perspectives on the contribution of the hydrogen economy toward achieving net zero.

## WHAT WILL IT TAKE FOR THE HYDROGEN ECONOMY TO CONTINUE TO GROW IN THE FUTURE?

We need to move, and to move now, to reach these targets. That means we must speed things up. As an essential infrastructure partner with our 1,300 employees across Europe, Brazil, and Chile, we are developing infrastructure for hydrogen and CO<sub>2</sub> to ensure a rapid scale-up of decarbonization solutions. The speed of the energy

***"INFRASTRUCTURES WILL NEED TO DIVERSIFY AND TRANSFORM TO DO THEIR PART IN HELPING TO DELIVER ON CLIMATE TARGETS."***

transition will – more than we can imagine today – largely impact the competitiveness of European industry, and thus employment. That is why every type of support, be it technological, financial, or legal, from the European Union is crucial. A regulatory

framework for both H<sub>2</sub> and CO<sub>2</sub> infrastructure is also key to ensure we reach the EU's 2030 CO<sub>2</sub> reduction targets. (Note: in May 2023, the hydrogen and decarbonized gas market package was not yet finalized.) At the same time, quickly decarbonizing our industries, ensuring the availability of enough low-carbon hydrogen, will be a challenge.

## HOW DO YOU SEE THE SYMBIOSIS OF ELECTRONS AND MOLECULES, PARTICULARLY IN THE EUROPEAN CONTEXT?

The answer lies in the word symbiosis. I am a strong believer in an integrated energy system where electrons (energy from electricity) and molecules (energy from gases) work together in a mutually beneficial relationship. I often refer to this symbiosis as an "and-and" approach for our future energy mix. By putting together the strengths

of carbon-neutral electricity and carbon-neutral molecules such as hydrogen, biomethane, synthetic methane, and biofuels, one can build an affordable, always-available, and sustainable energy system.

Some voices advocate for extensive electrification and minimizing key features of an energy system and the cost/benefit ratio of electrification in the long term. In view of security of supply, a more balanced energy mix with molecules is preferable. Imagine a factory fueled with wind power. On windy days there will be an abundance of energy, and on others a shortage. This instability of energy supplies from renewables can be absorbed, among others, through

interconnections, of course, but also diversification by molecules.

In addition, the outstanding power density of molecules such as hydrogen is one of the best ways to store and deploy renewable energy, as one does not want to see a single gust of wind go to waste.

***“IN TERMS OF THE POTENTIAL USE FOR HYDROGEN, WE SEE IT BEING USED TO FUEL INDUSTRIES, TO STORE RENEWABLE ENERGY, AND TO PRODUCE CHEMICALS.”***

The European Green Deal also refers to a 50/50 relation of electrons and

molecules in Europe’s energy mix by 2050. Recent developments in this area are promising. Together with the transmission system operators (TSOs) surrounding the North Sea – Energinet, Fluxys, Gascade, Gas Networks Ireland, Gassco, Gasunie, GRTgaz, National Gas Transmission, and OGE – we are working towards a balanced system of green electricity and green hydrogen from North Sea wind.

## **IN WHICH APPLICATIONS OF THE HYDROGEN INDUSTRY DO YOU SEE THE GREATEST POTENTIAL FOR GROWTH?**

Every industry that needs a constant flow of energy at an optimal cost should consider a diversified and balanced energy mix, plus, for some process industries, a combination with carbon capture.

In terms of the potential use for hydrogen, we see it being used to fuel industries, to store renewable energy, and to produce chemicals. By 2026, Fluxys’s first pipelines will be ready to transport hydrogen. This is the first step in our aim of establishing connections between industrial zones, as well as implementing connections with neighboring countries.

Let's also not forget carbon capture usage and storage (CCUS), one of the quickest ways to decarbonize some industries. Based on these interactions, we see a market potential by 2030 for Belgium, the North of France, and the industrial Ruhr-area in Germany of approximately 30 million tons of CO<sub>2</sub> per year. (Note: Belgium industry yearly puts out 40 million tons of CO<sub>2</sub>.) With Fluxys, we invest in an open-access infrastructure in close interaction with these markets.

## WHAT SIGNALS DO YOU HEAR IN THE MARKET, ON BOTH DEMAND AND SUPPLY?

We notice that industries are considering various solutions today. Some of these solutions are brought in as stand-alone technologies, and some in combination, because of, among others, the characteristics of an industrial process. I can think of low-carbon molecules, carbon capture usage and storage, and electrification. So many options are still open, and one has to be careful in advocating for one solution.

Our first interactions with the market currently show hydrogen demand in Belgium at a level of 15 to 20 TWh/y horizon by 2030. This confirms the 20–30 TWh/y range estimated in the study, informing the Belgian federal hydrogen strategy and pointing at a 100–200

TWh/y demand range by 2050.

***"OVERSEAS HYDROGEN DERIVATIVES IMPORTED BY SHIP ARE EARMARKED TO DEVELOP IN THE SECOND HALF OF THIS DECADE, AND THE FIRST GREEN HYDROGEN PRODUCTION FROM NORTH SEA WIND IS TARGETED FOR 2030."***

The hydrogen network we have on the table in Belgium is also set to quickly develop as a hub for Northwest Europe, linking directly to the Netherlands and France, and into Germany shortly after. Hydrogen flows into Germany are estimated at a level of up to 10 TWh/y in 2030, and up to 100 TWh/y in 2050. On the supply side, our interactions

with the market at this stage show projects for 10 to 25 TWh/y by 2030, combining electrolyzer capacity, blue hydrogen production, and cross-border flows. Overseas hydrogen derivatives imported by ship are earmarked to develop in the second half of this decade, and the first green hydrogen production from North Sea wind is targeted for 2030.

## HOW DYNAMIC IS EUROPE COMPARED TO THE REST OF THE WORLD?

Europe is taking a leading role in shifting to the climate goals set out in the Paris Agreement, and in achieving its “Fit for 55” targets, referring to the EU’s target of reducing net greenhouse gas emissions by at least 55 percent by 2030. With the war in Ukraine, the dependency on Russian gas has been at the center of all discussions. REpowerEU and several other policy steps taken by the European Union have determined the beat of the energy acceleration in Europe.



## FLUXYS HAS COMMUNICATED A LOT ABOUT H2 BEING A GAME CHANGER – HOW DO YOU PREPARE? HOW ARE YOU TRANSFORMING THE COMPANY IN THIS FUNDAMENTAL SHIFT? WHAT ARE YOUR INITIATIVES?

We have put our foot on the accelerator. As an essential infrastructure partner, we are developing infrastructure for hydrogen and CO2 to ensure a rapid scale-up of decarbonization solutions. This comes with ambitious targets we have set ourselves of offering a capacity of 30 TWh of hydrogen and of 30 million tons of CO2 a year by 2030.

At the same time, we will continue enabling the supply of natural gas to society at large for as long as is required.

To intensify our focus on energy transition projects, we have established a new business unit within Fluxys Belgium, called Fluxys nextgrid. At the center of Fluxys nextgrid’s mission is building the first transmission infrastructure for hydrogen/CO2 in 2026, and bringing to life terminaling projects for hydrogen and CO2 in Antwerp, Ghent, and Zeebrugge. In turn, partnering with industry, other TSOs, and international ports is the way forward.

Simultaneously, we are rolling out large-scale digitalization projects, developing digital solutions backed by robust business processes for our customers, employees, and other stakeholders.

## **HOW DO YOU SEE THE ROLE OF FLUXYS IN THE ESTABLISHMENT OF HYDROGEN?**

As an essential infrastructure partner putting emphasis on a network accessible to all and managed by a single operator in a regulated market.

As one team, we have set ourselves the ambition to accelerate this transition with a double mission: firstly, creating solutions for large-scale decarbonization through hydrogen and CO2 infrastructures, and secondly, providing the infrastructure needed for securing the supply of energy. This is how we provide continuity while speeding up towards a sustainable future.

***"THE ENERGY TRANSITION IS A MAJOR CHALLENGE FOR US ALL. AS ONE TEAM, WE HAVE SET OURSELVES THE AMBITION TO ACCELERATE THIS TRANSITION."***



**ARTHUR  LITTLE**