



wintershall dea

OPINION PIECE

EURACTIV

## CLIMATE PROTECTION WITHOUT BARRIERS

**Climate protection and prosperity needn't be mutually exclusive – as long as we remain open to using all technologies to secure the energy supply and decarbonise industry. Policymakers need to set the right course now.**

As a society, we are having to perform a difficult balancing act: On the one hand, it's our job to ensure a secure and stable energy supply – as this is the only way to safeguard economic prosperity and social stability. On the other hand, we will also have to achieve our climate targets in order to keep the planet habitable – for us and the generations to come. We will only be able to achieve this by pursuing smart climate-protection policies and making use of all the options available to us in the short, medium and long terms. Alongside the massive expansion of renewable energies, we need system-stabilising energy sources.

In the near term, we need a fossil fuel that is relatively climate-friendly while ensuring a reliable level of performance. In this case, a good choice is natural gas, which generates 40 per cent less carbon dioxide than coal when combusted. What's important, however, that the gas is

produced efficiently and in compliance with the strictest environmental standards. To this end, Wintershall Dea is active in Norway and Germany, producing gas using the latest low-carbon technologies.

But what will come after that? In the future, policymakers and the business community will rely on a hydrogen economy because the energy-rich gas burns without producing CO<sub>2</sub> emissions. There is a wide range of ways to produce it. In the long term, green hydrogen from renewable electricity will offer the best solution. However, it will take quite some years to build up the necessary production and import capacities. This is because the production capacities of renewable energies in Europe will not be sufficient to independently cover the additional demand for green hydrogen on top of the already large and growing demand for electricity.

**Photo above:**  
**Hugo Dijkgraaf, Chief Technology Officer (CTO) at Wintershall Dea**

The manager has held his position since the merger of Wintershall and DEA in 2019. He joined Wintershall in 2000.

Natural gas will be able to help us here, too, as it can be used to produce low-carbon hydrogen, and the carbon dioxide generated in the process can be collected using carbon capture and storage (CCS) and then safely stored under the seabed. This hydrogen can be produced in large quantities, thereby enabling the market to ramp up in the medium term. What's more, we can also use CCS to capture and permanently store unavoidable CO<sub>2</sub> emissions from industry, which in turn will allow us to safeguard Europe's status as a leading industrial region. Furthermore, we are not alone in calling for the use of CCS, as our voice has been joined by those of the International Energy Agency (IEA) and the UN's Intergovernmental Panel on Climate Change (IPCC).

### **Wintershall Dea's strategic realignment**

The responsibility to secure the energy supply and to decarbonise the industry has prompted us to strategically realign ourselves. On the one hand, we are diversifying our natural gas production. In Europe we focus on Norway.

At the same time, we have also started to transform ourselves into a company with a focus on carbon management and hydrogen – or CM&H, for short. Some initial pilot projects are showing where our journey will be leading us to: For example, at the beginning of March, the first cross-border storage of CO<sub>2</sub> from Belgium took place in the Danish North Sea as part of the "Greensand" project. By 2030, it is planned to store up to 8 million tonnes of carbon dioxide per year under the seabed in this way, which corresponds to 40 per cent of Denmark's total emission reduction target.

In addition, we intend to establish a CO<sub>2</sub> hub – named CO<sub>2</sub>nectNow – in Wilhelmshaven on the German North Sea coast, which aspires to become a decisive building block for CCS in Germany. The plan is to gradually export up to 10 million tonnes of CO<sub>2</sub> from Wilhelmshaven to safe offshore storage sites per year beginning in 2028, including via the NOR-GE pipeline. This 900-kilometre pipeline

stretching from Wilhelmshaven to CO<sub>2</sub> storage sites on the Norwegian continental shelf is supposed to enter into operation by 2032 at the latest. Five years later, it could already be transporting 20 to 40 million tonnes per year.

Besides CCS, another focus of our activities is on low-carbon hydrogen from natural gas. BlueHyNow, a plant for the production of large quantities of low-carbon hydrogen from Norwegian natural gas, is being built in Wilhelmshaven. Its annual capacity will be up to 5.6 TWh. It will be possible to deliver the hydrogen produced here to industrial customers, who will then use it either as a decarbonised energy carrier or as feedstock. BlueHyNow will also help to prevent a hydrogen gap. According to forecasts of the German National Hydrogen Council, between now and 2030, annual demand for hydrogen in Germany alone will increase from 55 TWh to between 92 and 129 TWh. After that, it is expected to rapidly skyrocket, reaching 964 to 1,364 TWh per year in the period between 2040 and 2050.

### **Remove barriers to climate-friendly technologies**

All in all I am convinced that: CCS and low-carbon hydrogen from natural gas can play a crucial role in the decarbonisation of industry in Europe. However, there are still obstacles to the use of CCS. Germany, in particular, must quickly put in place a clear and reliable legal framework for the transport of CO<sub>2</sub> across borders.

Wintershall Dea is determined to be part of the solution for the climate crisis. However, the example of CCS shows that political support will be crucially needed for this. Policymakers must set the right course without blinkers and remain open to all types of technology. The swift ramp-up of the hydrogen market can also only succeed if all options – including blue hydrogen – are taken into account. I am optimistic that we will be able to manage the balancing act between climate protection and prosperity – as long as business and politics work together in a goal-oriented and unbiased way.