

Press release
Feb 7, 2022

ENGIE and Infinium unveil a partnership to develop an industrial hub on an European scale to produce synthetic fuel in Dunkirk

ENGIE and Infinium™, a supplier of technology for ultra low-carbon e-fuels, have unveiled a partnership under which they will together develop “Reuze” – a project to produce synthetic fuels in Dunkirk (northern France) for use in air and sea transport – two sectors which are difficult to decarbonise.

Infinium’s exclusive technology will be used to produce these ultra low-carbon e-fuels: 300,000 tonnes of CO₂ will be captured by ArcelorMittal from his steel production facilities and then combined with green hydrogen, produced by a 400 MW electrolyser installed by ENGIE, which will act on the project as global integrator.

The project was chosen by the ADEME (France's environment and energy management agency) in December 2021 to get financial support for its development. It is thought that it will represent more than €500 million worth of investment and is also being supported by the Dunkirk urban community, the Dunkirk Grand Port Maritime and the Hauts-de-France region.

It will help Europe achieve its targets in terms of using biofuels and e-fuels for air and sea transport (see Fit for 55, the EU's draft directive).

Other applications for the chemicals industry are also envisaged. The final investment decision should come around end 2023.

“We are proud to be developing this large-scale project which combines innovative solutions designed to speed up the transition to net zero. “Hydrogen and e-fuels are going to have an important role to play in reducing the CO₂ emissions of difficult to decarbonise industrial sectors, as well as in ensuring the sustainability of major transport companies”, according to Sébastien Arbola, ENGIE's Executive Vice President. “The Reuze project is scheduled to come into commercial operation in 2026, and will support ENGIE's ambitious strategy of deploying 4 GW of green hydrogen production capacity by 2030”.

“This is a groundbreaking moment for Infinium and electrofuels,” said Infinium CEO Robert Schuetzle. “The future production facility in France is a demonstration of the huge commitment global industry leaders like ENGIE are making to reduce the carbon footprint of aviation, shipping and truck fleets. This unique partnership, based on CO₂ from ArcelorMittal's steelmaking

operations, is also a great example of what can happen when leaders from manufacturing, energy, government and technology come together with a shared mission.”

“We are very proud that this consortium has chosen Dunkirk as a site for its CO2 circular economy hub. Producing e-fuels for the air and sea transport sectors is a way of reconnecting Dunkirk with its oil-refining past – except that henceforth this will be at a net zero industrial hub, guaranteeing long-term industrial development. The industrial hub will also get other manufacturers interested in growing and leveraging synergies interested in Dunkirk. The project will create jobs and new opportunities both for the region and for the country”, said Patrice Vergiete, President of the Dunkirk Coastal Urban Community.

“We are delighted with this new industrial unit which will convert CO2 into synthetic fuel. It is fully in line with the strategy of decarbonising the industry-port area and the region more widely, something we have been working on together for several years now”, said Maurice Georges, President of Dunkirk's Grand Port Maritime Directorate.

About Reuze

According to a Dunkirk legend, Reuze is a giant who protects the town. He is celebrated every year during the carnival. The word Reuze has elements in common with the characteristics of the project described above and has two meanings, depending on how it's pronounced: Reuze [røz]: “giant”, referring to the large-scale the project; or “reuse” [ri'juz] referring to CO2, heat, water and other ingredients all being reused as part of the industrial circular economy.

www.reuze.eu

About ENGIE

We are a leading world group that provides low-carbon energy and services. With our 170,000 employees, our clients, our partners and our stakeholders, we strive every day to act to accelerate the transition towards a carbon-neutral economy, through reduced energy consumption and more environmentally friendly solutions. Guided by our purpose statement, we reconcile economic performance with a positive impact on people and the planet, using our expertise in our key business areas (gas, renewable energies, services) to provide competitive to our clients.

Turnover in 2020: €55.8 billion. The Group is listed on the Paris and Brussels stock exchanges (ENGI) and is represented in the main financial indices (CAC 40, Euronext 100, FTSE Eurotop 100, MSCI Europe) and non-financial indices (DJSI World, DJSI Europe, Euronext Vigeo Eiris - Eurozone 120/ Europe 120/ France 20, MSCI EMU ESG, MSCI Europe ESG, Stoxx Europe 600 ESG, and Stoxx Global 1800 ESG).

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About Infinium

Infinium™ is a leading innovator in the field of clean fuels. The company's exclusive technology is used to convert carbon dioxide and hydrogen into e-fuels – ultra low-carbon fuels. These e-fuels are used with today's aeroplanes, boats and HGV fleets. Infinium's e-fuels can easily be used with existing engines, helping transport suppliers to reduce harmful emissions and reach their carbon emissions reduction targets. For more information, visit www.infiniumco.com.

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About the Dunkirk Urban Community

Ensure the well-being and solidarity of people living across the urban community, while encouraging a coherent form of development that does not harm its environment: that is the aim that the Dunkirk Urban Community has always had (seventeen communes and associated communes, comprising nearly 200,000 residents) ever since it was first set up. As Europe's leading hub, the Dunkirk urban area has a well-established tradition and expertise that the urban community has been able to nourish and enhance by supporting the development of a number of ambitious projects.

For example, the Dunkirk region is where Europe's largest nuclear power station is located; the DK6 is France's biggest gas-fired power plant; one of the world's largest subsea gas pipelines emerges there; and it is home to the largest district heating network in France, installed over a system for recovering waste heat from industry.

A whole range of resources that has been expanded and added to over the last few years through testing and innovative initiatives designed to bring about an exemplary energy transition. For example, an offshore wind field will soon be located off the coast of Dunkirk, continental Europe's largest LNG terminal will be brought into operation there, it is the site of the GRHYD demonstrator for testing the use of hydrogen in transport and housing, and an industrial pilot for next-generation biofuels, the Energy 2020 hub of excellence, Innocold and the Euraénergie innovation park are all installed there. These important initiatives, the consideration given to the concerns of people living locally (solar map, completely free bus service, the eco-winner scheme, etc.) and the desire to establish the Dunkirk region as a showcase for 21st-century industry resulted in the urban community being recognised by the Government as a "Region of Innovation" in 2019.

<https://www.communaute-urbaine-dunkerque.fr>

About the Dunkirk Grand Port Maritime

France's leading port complex (Calais-Dunkirk); as 9th port of the Channel and Northsea Range and France's third-ranking port, the port of Dunkirk plays a key role on numerous market segments: Europe's leading port in terms of passengers (Calais-Dunkirk axis); France's leading energy hub; leading LNG terminal; leading port for importing containerised fruit and vegetables; leading French port for importing minerals and coal; France's leading railway port; leading regional river port; France's third-ranking port for crops. The Dunkirk port is also a sustainable port. The Dunkirk port is the commercial port for the new Hauts de France region, France's leading agricultural region, the leading region for the railway sector and the leading region for the automotive sector. Traffic in 2020: 45.2 Mt

The ADEME in brief

At the ADEME—the French Agency for Ecological Transition—we are firmly committed to combating climate change and resource depletion.

On all fronts, we mobilise people, economic stakeholders, and regions, empowering them to move towards a resource-efficient, carbon-free, fairer, and more harmonious society.

In all areas – energy, the circular economy, food, mobility, air quality, adaptation to climate change, soils, etc., – we advise, facilitate and help finance many projects, from research through to solution-sharing.

At all levels, we dedicate our expertise and forecasting capabilities to help produce public policy.

The ADEME is a public establishment under the joint oversight of the French Ministry for the Ecological Transition and the French Ministry for Higher Education, Research and Innovation.

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