

Press release

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FACT SHEET

Port of Antwerp brings different players together to produce sustainable methanol

Learn more about the different partners



As Europe's second-largest port, the Port of Antwerp is a major lifeline for the Belgian economy: more than 300 line services to over 800 destinations ensure global connectivity. The Port of Antwerp annually handles around 235 million tonnes of international maritime freight, and is home to Europe's largest integrated (petro)chemical cluster. The Port of Antwerp accounts, directly and indirectly, for a total of around 143,000 jobs and more than €20 billion added value.

True to its mission 'a home port vital for a sustainable future', Antwerp Port Authority aims to flexibly respond to a rapidly evolving maritime market, allowing the port to continue playing its role as a leading world port. The emphasis in this respect is on cooperation, adaptability, a strong focus on innovation and digitisation, and on sustainable added value, as well as on responsibility towards society.

Antwerp Port Authority is a limited liability company of public law, with the City of Antwerp as sole shareholder. It employs over 1,500 people. Port alderman Annick De Ridder is chairman of the Board of Directors and Jacques Vandermeiren is CEO and President of the Executive Committee, which is responsible for the day-to-day management.

www.portofantwerp.com



Indaver operates specialist facilities and smart systems for waste management, processing around 5 million tonnes of waste annually for industry, government departments and householders.

Indaver creates value from this waste by recovering materials and energy, thus playing an essential role in the circular economy. The company seeks to close the material circuits in a safe, energy-efficient and low-CO₂ way. As such the power-to-methanol

concept fits in fully with Indaver's sustainability strategy. Indaver will contribute its know-how in carbon capture and utilisation for this project.

Headquartered in Belgium, Indaver has 31 operational sites in Europe, employing 1662 people in Belgium, Germany, Ireland, the Netherlands, the UK, France, Italy, Spain and Portugal.

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Oiltanking has been active in tank storage logistics since 1972, and is one of the largest independent operators of tank terminals for oils, gases and chemicals worldwide. As Oiltanking we want to ensure “peace of mind in liquid storage logistics” going forward. This peace of mind should extend to all stakeholders: We are trustworthy custodians of our customers’ products, we care about our environment, protect our employees and assets, and we comply with the law. As a quality service provider, we focus on our customers’ needs by providing innovative solutions, responsibly and safely.

With two major terminals in the port of Antwerp, a sizeable part of our footprint is situated in this for us important location further strengthened by our ongoing construction project at the Oiltanking Antwerp Gas Terminal. In the port of Antwerp, Oiltanking has also been hosting the largest methanol hub in the region for several years now. Oiltanking is excited to be part of the next step taken by the power-to-methanol consortium and will continue contributing with our logistical knowledge regarding the handling, storage and transportation of methanol as well as other associated aspects.

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Vlaamse Milieuholding NV (VMH) is a government-owned investment company that acquires stakes in companies in the waste industry that are considered strategic by the Flemish government. It provides risk capital for companies at an early stage of development that speed up the transition to the circular economy.

In this way it promotes the development of new, innovative initiatives with a favourable impact on the environment, including start-ups and companies at an early stage of development.

VMH can take a minority stake in rounds of capital-raising of between 200,000 and 3,000,000 euros.

www.vmh.be



ENGIE, leader in the carbon-free transition and partner in power-to-methanol

A collaboration agreement for the power-to-methanol project was signed on 21 March 2019 by ENGIE, Oiltanking, Indaver, VMH and Port of Antwerp. This project demonstrates that methanol can also be produced in a sustainable way. Methanol is an important raw material for the chemical industry and can also be used as fuel both for shipping and for road transport. Methanol is currently obtained from fossil fuels, but with this technology it can be produced in a sustainable way from hydrogen and waste CO₂. This project, in which ENGIE is making a significant contribution, fits in perfectly with the ambition of the ENGIE Group to become a leader in the carbon-free transition.

Hydrogen: the missing link for a low-carbon ecosystem

Sustainable or "green" methanol is produced using hydrogen, which is **the** fuel of the future. Hydrogen offers many possibilities for making industrial processes carbon-free. With the power-to-methanol project, in which ENGIE is one of the partners, hydrogen can be used for sustainable production of methanol. Hydrogen is obtained by electrolysis¹ which in turn can make use of surplus electricity from renewable solar and wind power generation. This is particularly important because with the expansion of renewable power sources there is increasingly liable to be surplus power production at certain times. Since renewable energy tends to be intermittent, and because electricity cannot be stored directly, using it to generate hydrogen which can indeed be stored helps to assure the stability and efficient operation of the network.

According to ENGIE this makes hydrogen the essential missing link in a low-carbon ecosystem. As a leader in the energy transition ENGIE intends to pursue this technology vigorously and so become a major player in the hydrogen sector. In addition to power-to-methanol ENGIE is working on various other projects for production of hydrogen, for use as transport fuel among other applications. In this way the company can contribute

¹ A process in which hydrogen and oxygen are released when electricity is passed through water.

towards harmonious progress for cities, regions and indeed the whole of society all over the world.

Circular use of carbon

The second component for production of sustainable methanol is waste CO₂. With this technology CO₂ is first collected from flue gases and then purified before being combined with hydrogen, thus avoiding a significant amount of CO₂ emissions. This process, known as "carbon capture and utilisation" or CCU, is a way of using carbon in a circular manner. Thus less new fossil fuels have to be taken out of the ground, and less CO₂ is emitted into the atmosphere. Power-to-methanol is therefore a further step towards a carbon-free economy and a more sustainable society. As such the project fits in perfectly with ENGIE's ambition to be a leader in the carbon-free transition.

First step towards storage

Finally this project can also be an important first step towards seasonal storage of intermittent wind and solar energy. With the further development of renewable energy we will increasingly be confronted with the need to store the energy being produced. Because of its physical properties methanol can play an important role in this power-to-gas or power-to-liquid scenario.

ENGIE as an important partner of Power-to-methanol

Power-to-methanol is a type project which demands collaboration between important sectors, namely electricity, chemicals and fuels. This means that know-how from all these sectors has to be combined in order to ensure a successful outcome. ENGIE has an important contribution to make to this project, both as the country's largest green electricity producer and as a socially responsible company. Together with the other partners ENGIE will work on perfecting the technology in the course of this year, ensuring regulatory compliance of the project and covering the logistical aspects (supply of raw materials and finding markets for the methanol that is produced). The intention is to arrive at a final investment decision in the autumn of 2019.

Philip Pouillie, CEO of ENGIE Generation Benelux, explains: "The collaboration agreement that we have signed for the Power-to-methanol project is an important step forwards in the energy transition. As the largest producer of green electricity in Belgium and as the leader in the carbon-free transition, ENGIE is making an important contribution to this project. The ENGIE teams can draw upon not only their knowledge of the electricity market but also their technical know-how in electrolysis and CO₂ capture."

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Headquartered in Belgium, Fluxys is a fully independent gas infrastructure group with 1,200 employees active in gas transmission & storage and liquefied natural gas terminalling. Through its associated companies across Europe Fluxys operates 7,600 kilometers of pipeline and liquefied natural gas terminals totalling a yearly throughput capacity of 29 billion cubic meters. Among Fluxys' subsidiaries is Euronext listed Fluxys Belgium, owner and operator of the infrastructure for gas transmission & storage and liquefied natural gas terminalling in Belgium.

As a purpose-led company Fluxys together with all its stakeholders contributes to a better society by shaping a bright energy future. Building on the unique assets of gas infrastructure and its commercial and technical expertise, Fluxys is committed to accommodate hydrogen, biomethane or any other carbon-neutral energy carrier of the future.

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INEOS is a global manufacturer of petrochemicals, specialty chemicals and oil products. In 20 years, the Company has grown into a global player: its production network spans 183 sites in 26 countries throughout the world.

From Zwijndrecht, where INEOS started its first activities in 1998, INEOS expanded its position in Belgium with 9 production sites and R&D centres in Antwerp, Jemeppe and Neder-Over-Heembeek. Today, INEOS has 2,500 employees in the region. In early 2019, INEOS announced a mega investment in Antwerp: the construction of an ethylene and propane plant for the production of ethylene and propylene. It is the largest investment in European chemistry in the last 20 years, which will create around 450 jobs. www.ineos.com

INOVYN is an INEOS business. Formed on 1 July 2015, it is one of the top three vinyls producers in the world. With a turnover above €3.5 billion, INOVYN has more than 4,300 employees and manufacturing, sales and marketing operations in ten countries across Europe. In Belgium, INOVYN operates production plants at Antwerp Lillo and Zandvliet, Jemeppe (including a world-class RT&E centre) and a sales office in Evere.

INOVYN's portfolio consists of an extensive range of class-leading products arranged across Organic Chlorine Derivatives; Chlor Alkali; General Purpose Vinyls; Specialty Vinyls; Sulphur Chemicals; Salt; and Electrochemical and Vinyls Technologies. Annual production volumes are more than 40 million tonnes. www.inovyn.com

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