

## Benelux: Air Liquide signs a new long-term contract with Covestro for the supply of hydrogen

Air Liquide and Covestro, a world-leading supplier of high-tech polymer materials, have recently signed a new long-term contract for the supply of hydrogen at Covestro's production site in the port area of Antwerp. Air Liquide will invest 80 million euros in the construction of a "new generation" hydrogen production unit. This state-of-the-art plant will be fitted with a new Air Liquide proprietary technology that improves energy efficiency and the overall environmental footprint of the production process. The hydrogen produced will also enable Air Liquide to supply customers in this industrial basin in Europe.

In connection with this new long-term contract, the **hydrogen** will be used in the production of aniline, which is one of the base chemicals of the polyurethanes found in many applications **in the sectors of construction, automotive or home appliances**.

Air Liquide will design, build and operate a **"next-generation" hydrogen production unit - SMR-X™<sup>1</sup>** - producing hydrogen **with an increased energy efficiency and a reduced carbon footprint**. Overall natural gas consumption to produce hydrogen, as well as CO<sub>2</sub> emissions will be **reduced by around 5%** compared with conventional SMR. At the same time, part of the CO<sub>2</sub> generated during the production process will be captured by Covestro and used as a feedstock in its production process. By **capturing carbon and upgrading the recovered CO<sub>2</sub>**, this model is part of a **circular economy** system.

Expected to start operation **in 2020**, this **new SMR-X™ unit** will offer optimal performances in terms of **energy efficiency, safety and reliability**. The new plant will also support the development of the Covestro production site in Benelux and will strengthen Air Liquide's existing network for the supply of hydrogen in the Antwerp industrial area.

**Guy Salzgeber**, Executive Vice-President and member of the Air Liquide group's Executive Committee supervising industrial activities in Europe, said: **"We are delighted to strengthen our partnership with Covestro, a strategic customer of the Group. With this next-generation hydrogen plant, Air Liquide demonstrates its ability to meet its customers' needs thanks to solutions offering an increased energy efficiency and a reduced carbon footprint. This project illustrates our innovation capacity and enable us to reinforce our presence in one of the most dynamic industrial basins of northern Europe."**

**Volker Weintritt**, Managing Director of Covestro in Antwerp, said: **"We are pleased to strengthen our partnership with Air Liquide. Thanks to this new investment, not only will a reliable and flexible supply of raw materials to our site be guaranteed, but also the new facility and its capacities could open up new perspectives for our Antwerp site."**

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<sup>1</sup>Steam Methane Reformer - steam reforming natural gas unit. SMR-X™ is a new generation of SMR equipped with Air Liquide's proprietary technology that produces hydrogen without co-producing excess steam.

### **The Large Industries business line of Air Liquide**

Offers gas and energy solutions that improve process efficiency and help achieve greater respect for the environment, mainly in the refining and natural gas, chemicals, metals and energy markets. In 2017, revenues were €5,336 million.

### **Air Liquide in the Benelux**

Founded in Belgium in 1906 and in the Netherlands in 1913, Air Liquide currently operates 27 industrial sites throughout the Benelux. The Group currently employs more than 1,200 people in this region, all activities taken together, and it supplies more than 65,000 customers and patients. The Air Liquide Benelux Large Industries business line operates a pipeline network stretching 2,225 kilometers, which supplies the industrial basins from Mons to Rotterdam.

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The world leader in gases, technologies and services for Industry and Health, Air Liquide is present in 80 countries with approximately 65,000 employees and serves more than 3.5 million customers and patients. Oxygen, nitrogen and hydrogen are essential small molecules for life, matter and energy. They embody Air Liquide's scientific territory and have been at the core of the company's activities since its creation in 1902.

Air Liquide's ambition is to lead its industry, deliver long term performance and contribute to sustainability. The company's customer-centric transformation strategy aims at profitable growth over the long term. It relies on operational excellence, selective investments, open innovation and a network organization implemented by the Group worldwide. Through the commitment and inventiveness of its people, Air Liquide leverages energy and environment transition, changes in healthcare and digitization, and delivers greater value to all its stakeholders.

Air Liquide's revenue amounted to 20.3 billion euros in 2017 and its solutions that protect life and the environment represented more than 40% of sales. Air Liquide is listed on the Euronext Paris stock exchange (compartment A) and belongs to the CAC 40, EURO STOXX 50 and FTSE4Good indexes.