

## Air Liquide paves the way for ammonia conversion into hydrogen with new cracking technology

Air Liquide announces the construction of an industrial scale ammonia (NH<sub>3</sub>) cracking pilot plant in the port of Antwerp, Belgium. When transformed into ammonia, hydrogen can be easily transported over long distances. Using innovative technology, this plant will make it possible to convert, with an optimized carbon footprint, ammonia into hydrogen (H<sub>2</sub>). With this cracking technology, Air Liquide will further contribute to the development of hydrogen as a key enabler of the energy transition.

Ammonia - a molecule made of hydrogen and nitrogen - can be used as an energy carrier. It can be produced with a low-carbon footprint from hydrogen in geographies with abundant renewable energy sources such as sun, water and wind, or other low-carbon power. A global supply chain infrastructure is already in place for its production, transportation and utilization at large scale to serve various industries. This allows regions with abundant renewable energy to export ammonia to end users across the globe, where it can be converted back to hydrogen to contribute to the decarbonization of industry and mobility.

The innovative pilot plant, which combines a novel efficient process with Air Liquide's proprietary technologies, is planned to be operational in 2024. The Flemish Government, through the VLAIO (Flemish Agency for Innovation and Entrepreneurship), has confirmed a financial support to the project.

For over 60 years, Air Liquide has mastered hydrogen from production, transport, storage and distribution to its final usages. Within the context of its ADVANCE strategic plan, the Group is committed to investing globally approximately 8 billion euros in the low-carbon hydrogen value chain by 2035.

**Michael J. Graff**, Executive Vice President, Air Liquide Group, said: *"Ammonia cracking complements Air Liquide's already thorough portfolio of hydrogen technologies and adds yet another technological solution to enable the development of a hydrogen global market. More than ever, the Group is committed to making hydrogen a key element of the fight against climate change, in particular for the decarbonization of heavy industry and mobility."*

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A world leader in gases, technologies and services for Industry and Health, Air Liquide is present in 73 countries with approximately 67,100 employees and serves more than 3.9 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.

Taking action today while preparing the future is at the heart of Air Liquide's strategy. With ADVANCE, its strategic plan for 2025, Air

Liquide is targeting a global performance, combining financial and extra-financial dimensions. Positioned on new markets, the Group benefits from major assets such as its business model combining resilience and strength, its ability to innovate and its technological expertise. The Group develops solutions contributing to climate and the energy transition—particularly with hydrogen—and takes action to progress in areas of healthcare, digital and high technologies.

Air Liquide's revenue amounted to more than 29.9 billion euros in 2022. Air Liquide is listed on the Euronext Paris stock exchange (compartment A) and belongs to the CAC 40, CAC 40 ESG, EURO STOXX 50, FTSE4Good and DJSI Europe indexes.