

SWAN-H : The French startup raises 1.3M€ to accelerate R&D in green ammonia

Toulouse-based startup Swan-H proudly announces the closing of a second round of financing worth 1.3 million euros. The funds were raised from the industrial partner Thermi Lyon Développement, the VC fund IRDI Capital and the Banque Publique d'Investissement (BPI).

This sum will enable Swan-H to develop its prototype for the production of green ammonia, thereby reducing the carbon footprint and facilitating the energy transition.

Goals of this fund-raising round

The €1.3M investment will be used to **develop a prototype for decentralized ammonia production** with a reduced carbon footprint.

Steve van Zutphen, CEO of Swan-H, comments: *“Ammonia is well known for its role in fertilizers and its potential for storing hydrogen, but many industrial sites also use this molecule and would dream of being able to produce it on site. This is the aim of our partnership with Thermi Lyon Développement.”*

Towards sustainable local ammonia production

Ammonia is essential in various sectors, notably agriculture, but its massive production is responsible for 2% of global CO₂ emissions, due to the use of fossil resources (natural gas). Unlike the current “Haber-Bosch” process, which is highly energy-intensive (high temperature, high pressure) and emits much CO₂, **the “Mézailles” process**, named after the inventor and company CSO Nicolas Mézailles, **uses the exceptional reactivity of boron radicals with the nitrogen molecule, in a low-temperature, low-pressure process.**

This innovation paves the way for a revolution: **producing ammonia in a way that is compatible with intermittent renewable energy production.** This discovery could have a significant impact on the CO₂ footprint of ammonia production. In addition to transforming the green ammonia sector, by enabling it to be produced locally, **this technology also paves the way to accelerate the development of green hydrogen.**

Florent Monier, CEO of Thermi Lyon Développement, adds: *“True to our history of innovation, our investment is not limited to a desire to decarbonize, it is part of a strategic perspective to secure our supply of a critical raw material and control costs.”*

About Swan-H

Swan-H is developing a radical innovation enabling the green production of ammonia. The company is a CNRS spin-off created with the support of Toulouse Tech Transfer in December 2021. The laboratory is located at Paul Sabatier University in Toulouse. The startup now has 14 members and is led by four experienced entrepreneurs. It secured seed funding from business angels in February 2022 and from the Banque Publique d'Investissement (BPI) Deeptech Development Grant.

A Series A financing round, designed to accelerate the scale-up of the ammonia production system, is planned for 2025. www.swan-h.com

About the Thermi Lyon Group

The THERMILYON Group specializes in heat treatment and vacuum coatings for mechanical engineering. Active since the 60s and with 9 industrial sites, 8 of which are in France, Thermi-Lyon is a European pioneer in contract heat treatment. To meet the changing needs of its customers and anticipate market developments, the group has a track record of investment in cutting-edge, innovative and environmentally-friendly technologies. www.groupe-thermi-lyon.com/

About IRDI Capital Investissement

With €550 million in assets under management in 14 funds, including 2 evergreen funds, IRDI Capital Investissement is a partner to nearly 200 companies in a wide range of sectors. For over 40 years, IRDI Capital Investissement has been the leading asset management company in the South-West of France. Based in Toulouse, Montpellier and Bordeaux, the company provides equity financing to regional companies at all stages of their development (seed, venture capital, expansion capital/transfer and rebound). www.irdi.fr

Contacts

Augustin de Bettignies – Directeur partenariats & communication – swan@swan-h.com



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