

Fit for the future: thyssenkrupp Uhde enables Fertiberia to decarbonize its existing ammonia plant

- **Green hydrogen injection to replace natural gas**
- **Efficient modification of existing plant to reduce CO₂ emissions by up to 40%**

Decarbonization is a major lever to protect the climate. Even better if existing assets can be preserved while converting them to carbon-free technologies. This is why Grupo Fertiberia engaged thyssenkrupp Uhde to reduce the carbon footprint of its existing ammonia plant in Puertollano, Spain. The original plant was licensed and built by thyssenkrupp Uhde in 1969 with a nameplate capacity of 600 metric tons per day (mtpd). It has been in operation ever since, using naphtha as the original feedstock.

Since the 1980s, Fertiberia has been reducing their GHG emissions through several revamps of the unit. thyssenkrupp Uhde helped their customer to achieve this goal by revamping the plant so it could switch over to natural gas as feedstock and by improving the energy efficiency of the unit. In 2022, with its Net Zero By 2035 strategy, Fertiberia started the production of green hydrogen (20MW water electrolysis unit) and green ammonia at its Puertollano site, becoming a global pioneer in the energy transition of the fertilizer sector.

Today, thyssenkrupp Uhde is providing its expertise to further enhance the feedstock switch and partially convert production from grey to green ammonia by injecting green hydrogen.

David Herrero, Industrial Director at Fertiberia: “We are the first company in the agri-food sector that is committed to being carbon neutral within the next decade. This project is another step forward towards our goal to become one of the world leaders in the manufacture of low-carbon ammonia.”

Nadja Håkansson, CEO thyssenkrupp Uhde: “We are very proud to have been selected once again by our long-standing customer Fertiberia to further decarbonize its production. By gradually replacing fossil-based ammonia production with green ammonia production, we have a huge lever for the green transformation of agriculture and entire industry sectors.”

The revamp concept is to maintain nameplate capacity while minimizing hardware modifications as much as possible. Greenhouse gas emissions will be further reduced by replacing a significant portion of the natural gas with green hydrogen. The necessary green hydrogen will come from a 50MW water electrolysis unit which runs on renewable energies. With this modification, up to 40% of the site production will be decarbonized.

Leading technologies for ammonia along the entire value chain

thyssenkrupp Uhde has over 100 years of experience in the engineering and construction of chemical plants, having built more than 2,500 plants in total. Among the 130 ammonia plants built are some of the world's largest, often setting new industry standards such as with the uhde® Dual-Pressure technology. In addition to the fertilizer business, thyssenkrupp Uhde also offers clean ammonia technologies and ammonia storage, which are relevant for the transition to clean energy and the use of ammonia as an energy and hydrogen carrier.

About Fertiberia

Fertiberia, a group made up of 13 leading companies in the sector located in Spain, France, Portugal, the Netherlands, Sweden, and Greece and more than 1,600 employees, is a European benchmark in the crop nutrition and industry sector, as well as a pioneer in the production of green hydrogen and green ammonia in the EU to decarbonise agriculture and other sectors such as industry and transport. It is also the first company in its sector to commit to achieving net zero emissions by 2035. Fertiberia is owned by Triton Partners, an Investor in the European mid-market that focuses on building better businesses for the long term. Triton supports Fertiberia's strategy in becoming a leader in the fertilization of the future, improving operational, environmental and safety excellence, and enabling farmers to obtain higher yields in a sustainable way. For more information visit: www.fertiberia.com

About thyssenkrupp Uhde

thyssenkrupp Uhde combines unique technological expertise and decades of global experience in the engineering, procurement, construction and service of chemical plants. We develop innovative processes and products for a more sustainable future and thus contribute to the long-term success of our customers in almost all areas of the chemical industry. Our portfolio includes leading technologies for the production of base chemicals, fertilizers and polymers as well as complete value-chains for green hydrogen and sustainable chemicals. www.thyssenkrupp-uhde.com

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