

## **A combination of low-carbon technologies key to advance decarbonisation of the ammonia production in Europe by 2030, DECHEMA study shows**

Brussels, 23 February 2022: DECHEMA study commissioned by Fertilizers Europe demonstrates that a variety of available low-carbon technologies will be needed to reduce CO<sub>2</sub> emissions from existing European ammonia plants to maximise industry's mid-term abatement potential. To this end, the policymakers must ensure a legislative framework that recognizes regional differences and solutions just as the framework should not discriminate between technologies in the interim transition phase.

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On 23 February 2022, DECHEMA has published the full report "Perspective Europe 2030: Technology options for CO<sub>2</sub> emission reduction of hydrogen feedstock in ammonia production". The study concluded that in the best-case scenario, the European fertilizer industry has the potential to reduce CO<sub>2</sub> emissions from ammonia production by 13-19% in 2030.

Fertilizers Europe Director General, Jacob Hansen, said: *"The European fertilizer industry recognizes the urgency of addressing the climate crisis and is committed to play its part by accelerating the decarbonization of fertilizer production. The DECHEMA study shows that a variety of available technology options will be needed to reduce CO<sub>2</sub> emissions from existing ammonia plants situated across Europe to maximise industry' abatement potential by 2030."*

The report took a regional approach (North, West, South and Central Europe) when looking into possible implementation of available low-carbon technology options. Each region has been characterized by the prospective availability and cost of renewable electricity, assumed availability of infrastructure (power, hydrogen, CO<sub>2</sub>) as well as policy constraints towards CCS.

Hansen commented: *"The study clearly demonstrated that there is no universal path to decarbonize the fertilizer sector across Europe. Given that all assessed technology options covered by the study display a significant potential for CO<sub>2</sub> emissions abatement, the policymakers must ensure that legislative framework recognizes regional differences and does not discriminate technologies that offer the biggest abatement potential in the interim transition phase"*.

He added: *"The study concluded that towards 2030, the largest CO<sub>2</sub>-emissions abatement is expected by implementation of blue hydrogen, which is projected to produce ammonia at costs at par with conventional technology in 2030. Other technologies, including green hydrogen onsite and via pipeline, will come at significantly higher production costs compared to conventional production"*.

*"Our industry has an ambition to advance even faster in the green transition. But to enable higher pace of investments, the fertilizer sector calls for a regulatory framework that supports investments in clean technologies, improves access to abundant and affordable renewable energy and provides financial support. All these elements are a prerequisite for the industry to deliver on the objectives of the green transformation in Europe"* concluded Jacob Hansen.

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**Note to editors:**

DECHEMA study - "Perspective Europe 2030: Technology options for CO<sub>2</sub> emission reduction of hydrogen feedstock in ammonia production" ([LINK](#))

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