



Energy & Infrastructure Insights

The Global Race for Hydrogen

We spoke with Markus Exenberger of H2Global about the opportunities and challenges of building the global hydrogen supply



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Latham's energy and infrastructure partner Tobias Larisch sat down with Markus Exenberger of H2Global to talk about the opportunities and challenges of using green hydrogen for the complete transition to a carbon-neutral economy.

Markus Exenberger is executive director of H2Global Stiftung and managing director of H2Global Advisory GmbH. The H2Global promotion concept is of fundamental importance to the National Hydrogen Strategy of the Federal Ministry for Economic Affairs and Climate Action (BMWK). H2Global Stiftung is the owner of an intermediary (HINT.CO) that has received €900 million in subsidies from the federal government. The purpose of these subsidies is to help companies embark on the production of green hydrogen and to accelerate a diversified market ramp-up of green hydrogen and Power-to-Gas (PtX) products, such as ammonia gas, methanol and sustainable kerosene, as well as synthetic crude oil to an industrial scale.

Larisch: Thank you for spending time with us today, Markus. Could you please briefly share the mission of H2Global?

Exenberger: Until now, the production of green hydrogen was not profitable for many countries and companies due to a lack of assured demand. H2Global will act as a bridge by first creating a managed demand for green hydrogen. The demand will persuade potential producers of “green” electricity to invest in technical installations for the production and further processing of hydrogen, as well as the storage and transport of hydrogen-based products. To this end, both 1) long-term purchase agreements with producers of green hydrogen or hydrogen secondary products and 2) short-term resale agreements with consumers in the industrial, transport and energy sectors shall be concluded. The federal government will use the subsidies granted by the BMWK to equalise the difference between the offer price and the selling price.

Larisch: Why is green hydrogen such a great hope for the decarbonisation of the economy?

Exenberger: Hydrogen plays a key role if we wish to significantly reduce, and in the long term even end, our dependency on fossil energy sources. However, we need more speed in the ramp-up of the hydrogen economy to actually achieve the current targets of **10 gigawatts** by 2030 set in the National Hydrogen Strategy of the Federal Ministry for Economic Affairs and Climate Action. To accomplish this, it is necessary to scale up production as quickly as possible — that is, to produce hydrogen at an industrial scale. The good news is that German research and German companies are among the world-leaders in hydrogen technologies. Moreover, the construction of complex industrial plants is a core competence of German plant engineering. What we need now are companies and consortia willing to invest in this early market phase. To support them, H2Global will assure the long-term establishment of the value-added chains and supply chains, and additionally will give them security for their planning and investments.

Larisch: How is Europe positioned with respect to hydrogen?

Exenberger: We are still relatively at the beginning, with a few pilot plants that are at the top of the market in terms of technology but carry no weight in terms of output. However, there is much movement at the moment, not least because the pressure on the energy economy has increased enormously due to the war in Ukraine. What we need now are major investments into large production facilities to actually acquire the necessary production capacities.

Larisch: Where will the hydrogen for the European industry come from?

Exenberger: I am hopeful that much of it will come from within Europe. However, there certainly will be a large portion that will need to be imported from more distant countries. We need to enter into new strategic hydrogen partnerships across the globe, using the principle of concentric circles to continuously expand. Australia and Latin America, for example, will become incredibly important in my view, just like some states in southern Africa. The challenge now is to lay the foundations for an international hydrogen trade that benefits all sides.

Larisch: What is the essential political and legal framework that companies now need?

Exenberger: To enable companies to make major investment decisions, they need regulatory certainty. Here, many issues are still unclear, primarily with regard to the specification, certification, and standardisation of hydrogen and the lengthy approval processes in Germany and abroad. Of course, there also are questions regarding the infrastructure that needs to be built in parallel, because a large portion of the hydrogen will be imported to Germany. This certainly includes the expansion of the existing ports and the conversion of existing gas pipelines, but also the inevitable construction of new pipelines. Another area needing improvement, which in my view has an inhibiting effect on investment decisions, is the promotional funding framework. There still are many open questions in this area that need to be answered.

Thank you very much for your time with us this interview, Mr. Exenberger, Markus. We appreciate your insights, and look forward to seeing H2Global's role as the industry continues to develop.

