

PRESS INFORMATION

Hydrogenious LOHC receives official notification by European Commission for IPCEI Project “Green Hydrogen@Blue Danube”

Germany/Erlangen, 16 February 2024. Hydrogenious LOHC Technologies, German pioneer in the field of liquid organic hydrogen carriers (LOHC), is proud to announce that its project "Green Hydrogen@Blue Danube" has been officially notified by the European Commission of the European Union within the framework of the Important Projects of Common European Interest ("IPCEI") Hydrogen.

Green Hydrogen@Blue Danube focuses on the use of the LOHC benzyltoluene as a carrier for the safe and efficient transport of green hydrogen to supply industrial offtakers in the Danube region.

To achieve this, a ReleasePLANT sized to supply and release approximately 1,000 - 2,000 tons of green hydrogen per year from LOHC will be constructed near the Danube to create an early hub for green hydrogen supply in Bavaria.

The project is an important milestone for Hydrogenious and will play a key role in the ramp-up of the European hydrogen market in the coming years, enabling safe and efficient green hydrogen supply chains within the EU.

Green Hydrogen@Blue Danube is part of the IPCEI "Hy2Infra" wave, following the IPCEI "Hy2Tech" and "Hy2Use" waves, which were notified in 2022.

Hy2Infra has been jointly prepared and notified by seven Member States: France, Germany, Italy, the Netherlands, Poland, Portugal and Slovakia. Within this wave, 32 companies will participate in 33 projects - 24 of which are located in Germany.

The German federal government and its states plan to invest about €4.6 billion in the German IPCEI hydrogen infrastructure projects. The companies will invest about €3.4 billion of private funds, bringing the total investment in Germany to about €8 billion.

Dr Daniel Teichmann, CEO and founder of Hydrogenious LOHC Technologies comments:

“We are very happy about the EU Commission's decision to officially notify Green Hydrogen@Blue Danube. It underlines the importance of LOHC technology for the ramp-up of the European hydrogen economy and the funding will accelerate and secure the implementation of the project. We are working tirelessly, together with our partners and in close coordination with other IPCEI hydrogen projects, to make the much-needed energy transition and decarbonization of European industries a reality.”

Robert Habeck, German Federal Minister said:

“The projects in the Hy2Infra wave are important building blocks for ramping up the hydrogen economy in Germany and Europe. I am delighted that the European Commission has now granted the State aid approval. The German government recognises the importance of strengthening the German hydrogen economy along the entire value chain to enable a rapid market ramp-up. Germany and the other participating Member States can now move on swiftly to implementation phase with the companies.”

Margrethe Vestager, Executive Vice-President in charge of competition policy comments:

“While the renewable hydrogen supply chain in Europe is still in a nascent phase, Hy2Infra will deploy the initial building blocks of an integrated and open renewable hydrogen network. This IPCEI will establish the first regional infrastructure clusters in several Member States and prepare the ground for future interconnections across Europe, in line with the European Hydrogen Strategy. This will support the market ramp-up of renewable hydrogen supply and take us steps closer to making Europe the first climate-neutral continent by 2050.”

>> END OF PRESS RELEASE <<

You can find the press release by the Federal Ministry for Economic Affairs and Climate action here, including the statement by Robert Habeck:

<https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2024/02/20240215-european-commission-approves-funding-for-key-hydrogen-projects.html>

You can find the full statement by Margrethe Vestager here:

https://ec.europa.eu/commission/presscorner/detail/en/statement_24_827

Please also see the related press release by the European commission:

https://ec.europa.eu/commission/presscorner/detail/en/ip_24_789

Notes to the editors

About the LOHC technology by Hydrogenious LOHC Technologies

Hydrogenious' LOHC technology enables the safe and cost-effective storage and transportation of hydrogen using existing liquid fuel infrastructure.

Molecular hydrogen is chemically bound to a Liquid Organic Hydrogen Carrier (LOHC) in a so called StoragePLANT in a catalytic, exothermic process called hydrogenation. The LOHC loaded with hydrogen is then safely transported to its destination by tanker, barge, train or truck, using established infrastructure to enable long-distance transportation of hydrogen even to remote areas.

At the offtake end, the hydrogen is released from the LOHC in an endothermic, catalytic process called dehydrogenation at a ReleasePLANT. The LOHC itself is not consumed during this process but can be reused many hundreds of times to store and transport hydrogen and is also recyclable.

Hydrogenious' technology is based on benzyltoluene (LOHC-BT), which has particularly positive characteristics as a hydrogen carrier for safe handling in ports and urban environments, as LOHC-BT is a non-explosive, hardly flammable thermal oil with a hazard potential comparable to diesel. It can be stored and transported at ambient pressure and temperature and exhibits no hydrogen losses (e.g. boil-off), even over long distances or periods of time. The hydrogen volumetric storage density is competitive to other solutions with 54kg hydrogen per m³ LOHC.

About Important Projects of Common European Interest (IPCEI)

IPCEI stands for 'Important Project of Common European Interest'. IPCEIs contribute to strategic European goals such as growth, employment, and competitiveness of the European Union industry and economy, and are funded by state aid.

An IPCEI requires the approval of the European Commission under state aid law. Companies and Member States must prove that the IPCEI follows an overriding European interest and that projects would not be realized under market forces alone. With their approval, the European Commission ensures that all EU Member States can benefit, that there is no disproportionate distortion of competition, and that companies within their projects adhere to the IPCEI criteria as laid down in the IPCEI communication of 2021.

There are four IPCEIs on the subject of hydrogen (also called "waves"): Two integrated hydrogen IPCEIs were notified in 2022: Hy2Tech and Hy2Use. The latest one, Hy2Infra, which was notified in February 2024, covers a wide part of the hydrogen value chain by supporting the deployment of 3.2 GW of large-scale electrolyzers to produce renewable

hydrogen, the deployment of new and repurposed hydrogen transmission and distribution pipelines of approximately 2,700 km, the development of large-scale hydrogen storage facilities with capacity of at least 370 GWh and the construction of handling terminals and related port infrastructure for liquid organic hydrogen carriers ('LOHC') to handle 6,000 tonnes of hydrogen a year. The last IPCEI wave, Hy2Move is expected to be notified by the Commission later in 2024.

Photos for editorial use only, with indication of image copyrights:

Hydrogenious_LOHC_ReleasePLANT_Rendering.jpg

Example Rendering of a LOHC ReleasePLANT © Hydrogenious LOHC Technologies

inn_ilz_danube_stock_picture.jpg

Stock Footage of Danube region

About Hydrogenious LOHC

Hydrogenious LOHC adds the missing link to high-performing hydrogen value chains globally. Based on its proprietary and proven Liquid Organic Hydrogen Carrier (LOHC) technology with benzyl toluene as carrier medium, Hydrogenious LOHC allows for superior, flexible hydrogen supply to consumers in industry and mobility across the globe, utilizing conventional liquid-fuel infrastructure. Founded in 2013, the portfolio of the market-leading pioneer and its joint venture companies today includes stationary and mobile (on-board) LOHC-based applications: Hydrogenious LOHC Technologies, headquartered in Erlangen/Germany, offers – within an EPC partnership with Bilfinger – (de-)hydrogenation turnkey plants, Operation & Maintenance and LOHC logistics services – ensuring safe, easy and efficient hydrogen storage, transport and distribution. Hydrogenious LOHC Emirates, based in the United Arab Emirates and a joint venture with Emirates Specialized Contracting & Oilfield Services (ESCO), acts as the regional spearhead in the Middle East since the end of 2021. Hydrogenious LOHC Maritime, established in 2021 jointly with Østensjø Group and located in Norway, develops an emission-free onboard propulsion system with a promising LOHC/fuel cell solution for the global shipping industry. With its >230 staff members and investors AP Ventures, Royal Vopak, Winkelmann Group, Mitsubishi Corporation, Covestro, JERA Americas, Temasek, Hyundai Motor Company, Chevron Technology Ventures and Pavilion Capital, Hydrogenious LOHC is a major enabler and accelerator for the energy transition.

www.hydrogenious.net | www.hydrogenious-emirates.ae | www.hydrogenious-maritime.net

Media contact Hydrogenious LOHC

Frank Erik Walter, Global Media Relations & PR

frank.walter@hydrogenious.net