

Future50

Energy

Energy Storage (Thermal or Electricity)

Hydrogenious^{LOHC}

Hydrogenious LOHC Technologies GmbH



<https://hydrogenious.net/>

#ClimateTech

Headquarters:

Germany

Middle East operational countries:

Saudi Arabia, United Arab Emirates

Summary

Hydrogenious is a clean tech company that provides **hydrogen storage technology** using **liquid organic hydrogen carriers (LOHC)** to store and transport hydrogen. The company's technology is designed to collect and reserve hydrogen gas that can be released and converted back to supply off-takers in the industry and mobility sector.

Hydrogenious notes that LOHC is not consumed but can be reused similar to a deposit bottle, and can be transported as easily as diesel without the need for it to be pressurised or temperature-regulated. The company states that it can **reuse existing liquid-fuel infrastructure**, bringing the safely stored hydrogen to wherever it is required for usage or export – including hard-to-reach places across the country.

Impacts

Hydrogenious believes that hydrogen transportation will be fully decarbonised in the long-term, **bringing zero-CO2 energy** to every region in the world. Hydrogenious indicates that its offering allows for flexible hydrogen supply to consumers in industry and mobility across the globe, utilising **conventional liquid-fuel infrastructure**. The company adds that its solution infrastructure can be reused throughout the transporting cycle, resulting in an efficient circular system.

Highlights

The company has reported that it has **55 patent families** around the world along with a diverse portfolio of investors, including large private corporations, such as **VOPAK**⁹⁶ and **Chevron**,⁹⁷ financial investor giants, such as **Temasek**⁹⁸ and **AP ventures**,⁹⁹ as well as public investments and grants from the EU. The company also indicates that it is partnering with major energy players in the region, such as **ADNOC**,¹⁰⁰ and Europe, such as **Uniper**¹⁰¹ and the **Port of Amsterdam**.¹⁰²

Strategic alliances:

- Businesses (Large Companies)
- Government (Central Authorities)

List impact technologies:

Hydrogen Transport Infrastructure

