



## Press release

### **Hydrogen is the energy source of the future - but can only be safely handled using this storage technology**

**Following an explosion at a hydrogen filling station in Norway, it is clear to many experts that hydrogen can only be safely handled with the help of LOHC technology. This solution makes a global energy transition feasible – and it is a German invention**

**Munich, 16 July 2019** – A global energy transition requires modern, efficient forms of energy storage – such as hydrogen technology. This has been around for a long time, but has one major drawback: hydrogen is extremely reactive: just 4% of hydrogen in a closed space forms a highly explosive mixture. It is possible to store and transport the gas under high pressure or at low temperatures, but this is expensive and requires sophisticated infrastructure. And even this does not reduce the risk of explosion in case of leakages.

Something can always happen – like the explosion at a hydrogen filling station for cars in Sandvika (Norway). Many experts therefore agree that hydrogen can only be established as a safe global energy source of the future with the help of LOHC storage technology. The German-based company H<sub>2</sub>-Industries SE entered the international market with this 100 percent emission-free storage technology in 2018. Renewable energy can now be stored almost anywhere and easily stocked and transported. Making renewable energy available whenever and wherever it is needed. Series production will start in 2021.

LOHC technology is based on liquid organic hydrogen carriers, an organic oil-like substance that chemically binds hydrogen. The LOHC storage tank is loaded with the produced hydrogen and can be stored or transported at ambient temperature and pressure. To recover the energy, the LOHC storage tank is unloaded and the hydrogen, which is once again gaseous, can be used by a fuel cell. This is done safely in a very small space.

The advantages of LOHC technology from H<sub>2</sub>-Industries are impressive. It is safe and environmentally-friendly, has almost unlimited storage capacity and is rechargeable and stable for long periods of time. It is also compatible with the existing infrastructure and its price is unrivalled: the electricity-to-electricity storage price is 3.5 cents.

H<sub>2</sub>-Industries' products can be used in a particularly sustainable manner on vessels whose diesel engines heavily pollute the air with CO<sub>2</sub> and NO<sub>x</sub> emissions, because they can do away with diesel by using LOHC. The company has set its sights on every type of ship, from container ships to private yachts. H<sub>2</sub>-Industries is also collaborating with the Dutch company PortLiner, on the first all-electric inland container ships based on LOHC power storage technology. This will allow future freight traffic on rivers and canals to be emission-free and sustainable.

## **About H<sub>2</sub>Industries**

H<sub>2</sub>-Industries SE develops innovative, effective and environmentally friendly LOHC energy storage solutions. The company was founded in 2010 by entrepreneur Dipl.-Ing. Michael Stusch and is headquartered in Munich. Research, development and production are located in Hamburg.

The products from H<sub>2</sub>-Industries make it possible to produce hydrogen with any (renewable) source of electricity and to store it at ambient pressure and temperature in the oil-like liquid organic hydrogen carrier (LOHC) safely and chemically. LOHC-bound hydrogen can be easily transported and released again when needed. LOHC technology makes it possible for the first time to store large amounts (up to several terawatt hours) of electricity safely and cheaply. This allows H<sub>2</sub>-Industries to make renewable energy available everywhere, 24/7.

The aim of H<sub>2</sub>-Industries is to industrialise LOHC technology, thus establishing hydrogen as a safe source of energy for the future.

### **Please direct any inquiries to:**

Diane R. Riedel  
Head of Global Communications  
Tel.: +49 89 215 43 70-40  
dr@h2-industries.com

H<sub>2</sub>-Industries SE  
Theresienhöhe 30  
80339 Munich

[www.h2-industries.com](http://www.h2-industries.com)