hydrogenious TECHNOLOGIES

New approaches for storing and transporting hydrogen

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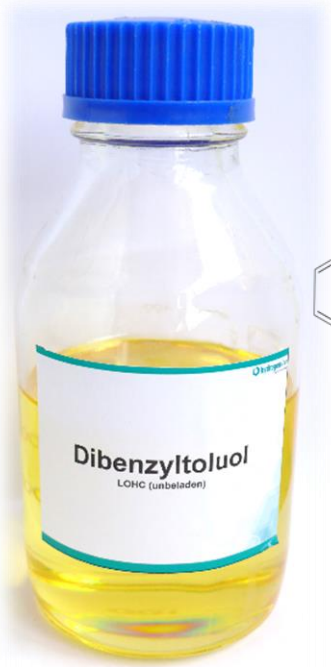
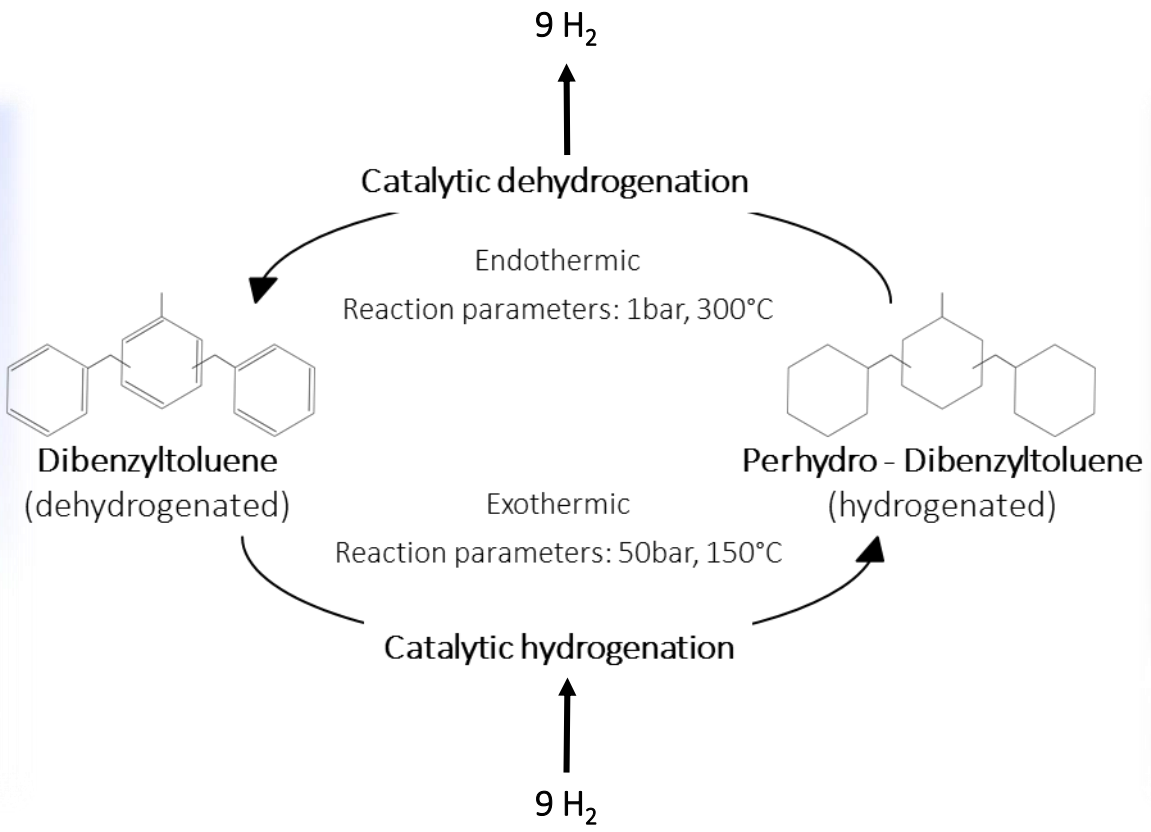
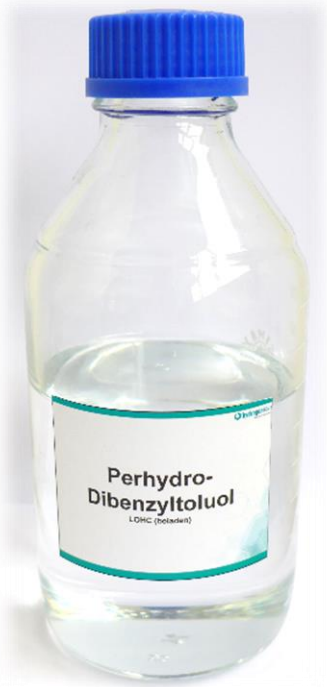
Liquid Organic Hydrogen Carrier (LOHC) - safe and efficient storage of hydrogen through molecular binding







First field demonstration system for transport and storage of renewable energy via LOHC in operations

Hydrogenious HQ (Erlangen)

98kWp PV
@ Hydrogenious HQ

Excess heat
10kW

50kW Siemens
PEM Electrolyzer

StorageBOX 10

Transport of loaded
LOHC

Fraunhofer IAO (Stuttgart)

ReleaseBOX 33

PEM Fuel Cell

electric car filling station

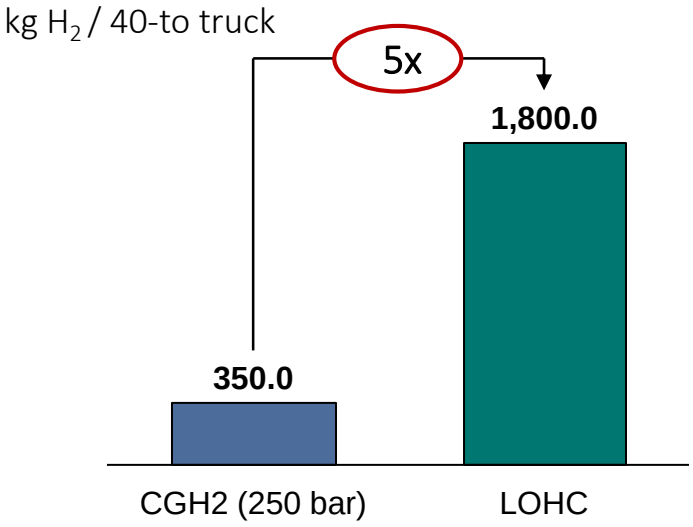
Easy and safe hydrogen supply with LOHC proven in operations

Transport of 57kg of hydrogen

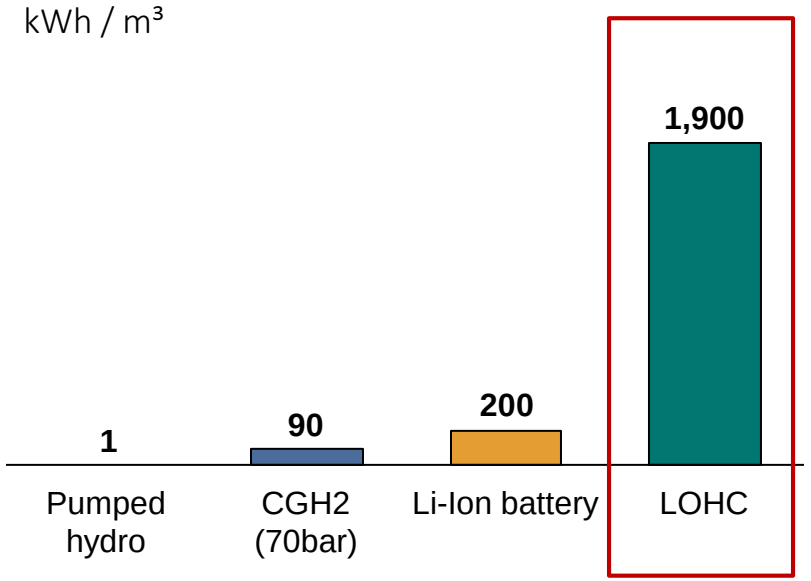
Decanting with standard fuel pump

Our LOHC technology has significant advantages in performance and handling compared to competing technologies

Hydrogen logistics performance



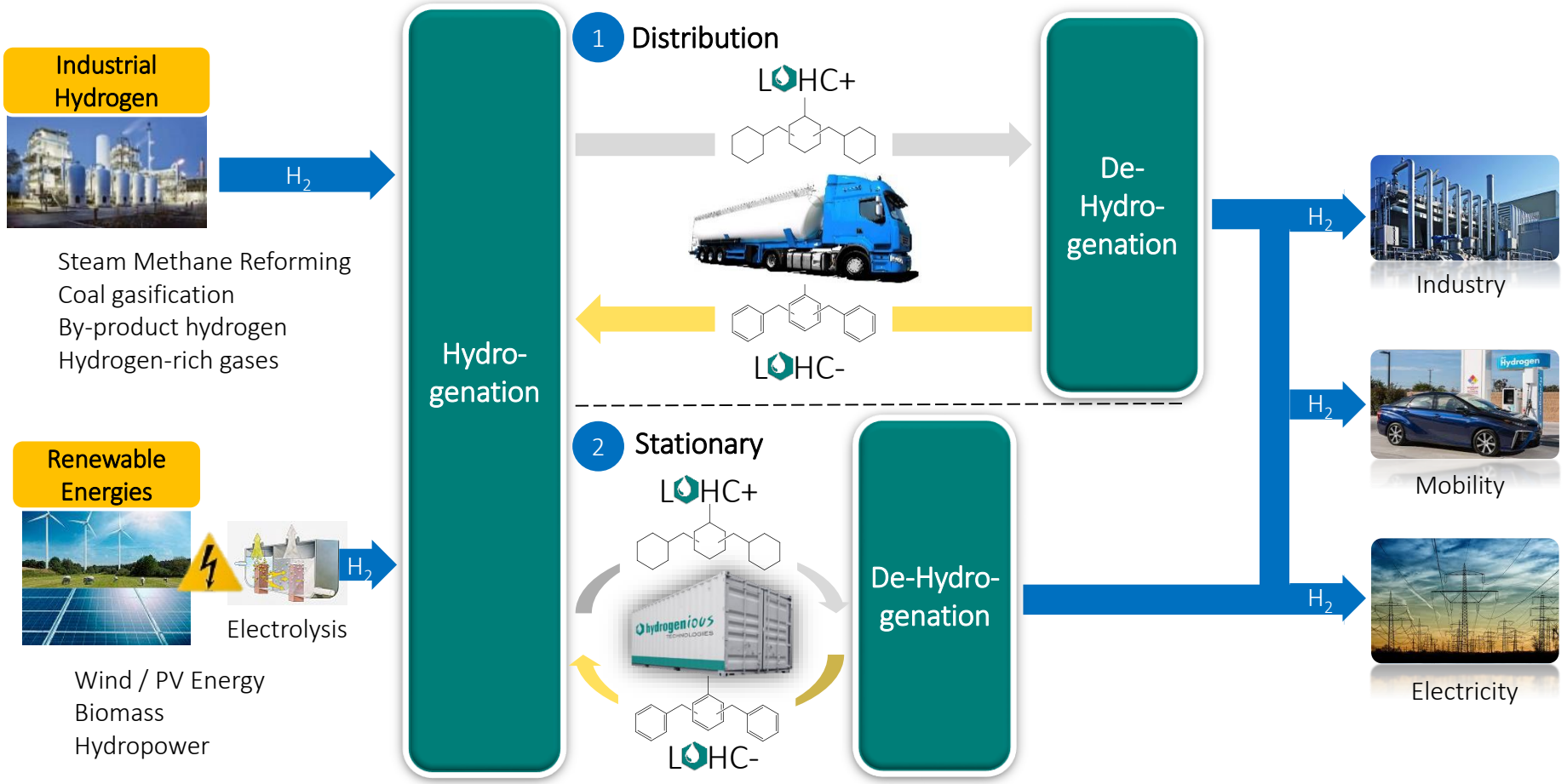
Energy storage performance



Our LOHC is…

- **Efficient**
  - 630 Nm^3 H_2 / m^3 LOHC → 6.23-wt%
  - 1.9 MWh / m^3 LOHC
- **Safe**
  - Non-explosive
  - Non-toxic
- **Easy to handle**
  - Diesel-like liquid
  - Ambient conditions
- **Low priced**
  - ~4 €/l
  - Reusable

Our vision: a socialized hydrogen world to enable global de-carbonization



Thank you for your interest!

Head of Business Development & Sales

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