

COSMHYC

Hydrogen Compression for Refuelling Stations



Key Facts



Funding Agency
EU FCH-2-JU



Project Call
Transport Pillar – FCH2-
RIA Research and
Innovation action, Topic
1.8



Duration
01/2017 – 02/2021



Coordinator
European Institute for
Energy Research (EIFER)



Partners

- Nel Hydrogen
- MaHyTec Sarl
- Steinbeis 2i GmbH (S2i)
- Ludwig-Bölkow-Systemtechnik GmbH (LBST)



Website
<https://cosmhye.eu/>

This project has received funding from the European Commission's Fuel Cells and Hydrogen 2 Joint Undertaking (JU) under grant agreement No 736122.



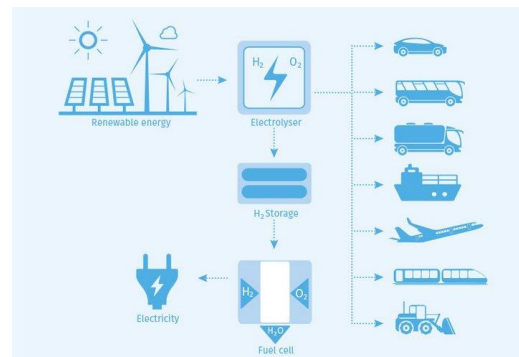
FUEL CELLS AND HYDROGEN
JOINT UNDERTAKING

Project Objectives

COSMHYC develops and tests an innovative combined compression solution based on a hybrid concept for hydrogen refuelling stations (HRS).

The objectives are to lower the costs and the noise level of hydrogen refuelling and to further increase the availability of stations. This will contribute to the efficiency of hydrogen conditioning and delivery.

By developing a new compression technology, COSMHYC addresses the major challenge of assuring an attractive hydrogen fuel price at the pump.



Caption: COSMHYC website

EIFER's Contribution

- EIFER coordinates the project.
- EIFER is leading the work package dedicated to the design and construction of the metal hydride compressor prototype.
- EIFER is supervising the long-term test phase of the compressor system in real-world conditions.

Main Project Outcomes

The project results of COSMHYC will lead to an overall reduction of about 20% of the hydrogen costs thanks to:

- ✓ Improved energy efficiency
- ✓ Reduction of capital costs
- ✓ Maintenance optimisation

Contact

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