COSMHYC
Hydrogen Compression for Refuelling Stations

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.

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

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