



Hydrogen Europe: European Hydrogen & Fuel cell Project Database

Project DeliverHy

Optimisation of Transport Solutions for Compressed Hydrogen

Compressed hydrogen trailers are cost efficient for near term distribution. However, with the currently used 20 MPa trailers the supply of larger refuelling stations would result in multiple truck deliveries per day, which is often not acceptable. In order to increase the transported quantities, lighter materials and higher pressure must be adopted. The cost increase of the hydrogen trailers resulting from advanced technology can be off-set by the distribution cost savings from increased truck capacity. This project will assess the effects that can be achieved by the introduction of high capacity trailers composed of composite tanks with respect to weight, safety, energy efficiency and greenhouse gas emissions. Transport of compressed hydrogen today is strictly regulated by international and regional regulations. New materials and product capacities available today have the potential to increase the payload of a single trailer from about 350 kg hydrogen today to more than 1000 kg. Materialising this potential is therefore of great importance for the efficient distribution of hydrogen to refuelling stations with high throughput. This will require changes to existing Regulations, Codes and Standards (RCS) in particular for proof pressures higher than 65 MPa and tubes larger than 3000 litres. Adopting these changes is a time consuming process and will only happen if authorities are convinced that the necessary safety precautions are taken care of to achieve a level of safety at least as high as observed with today's distribution technologies for hydrogen. The proposed project will address these challenges by means of a detailed assessment of safety, environmental and techno-economic impacts of the use of higher capacity trailers and subsequently by the development of a preliminary action plan leading to a Roadmap for the required RCS amendments, which will be communicated to the authorities in charge.

Project Information

Type of project : Research

Timing : 01/01/2012 > 31/12/2013

Project website: <http://www.deliverhy.eu/>

Project Budget : 1.249.566 €

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European Union through FCH JU: Grant agreement 278796 - [CORDIS link](#)

Project partners

Coordinator :

Ludwig-Boelkow-Systemtechnik GmbH

Partners :

[Air Liquide Group](#)

[CCS Global Group Ltd.](#)

[NTNU - Norwegian University of Science and Technology](#)

H2 Logic A/S

HEXAGON RAUFOSAS

Sub project(s)

Sub project 1

Country: Germany

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Sub project categories

Research

Project Id: 940

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