Hy Transfer
Pre-normative Research on Gaseous Hydrogen Transfer

Duration:
30 Months: June 2013 – November 2015

Application Area:
SP1-JTI-FCH.2: Hydrogen Production & Distribution

Budget:
Total budget: 3,1 M€ (FCH JU -Funding: 1,6 M€)

Partnership / consortium list:

Summary / main objectives of the project:
HyTransfer aims to develop and experimentally validate a practical approach for optimizing means of temperature control during fast transfers of compressed hydrogen to meet the specified temperature limit (gas or material) taking into account the container and system's thermal behaviour. This project aims to create conditions for an uptake of the approach by international standards, for wide-scale implementation into refuelling protocols.

Future Steps:
1 – Development of simple thermodynamic model
2 – Experimental validation
3 – Techno-economic Analysis
4 – Recommendations for Regulations, Codes and Standards

Contribution to the Programme Objectives:

OBJECTIVES OF THE CALL AND PROJECT

Evaluation of potential benefits with regards to refuelling performance

Proposed approach for standardization

Improved approaches for carrying out the transfer with less pre-cooling

Recommendations for implementation in international Regulations, Codes and Standards

CURRENT STATUS

To be started in 2014

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To be started in 2014

2015

Conclusions, major findings and perspectives:
The new approach to be developed within HyTransfer will allow a hydrogen station to directly and accurately calculate an end-of-fill temperature in a hydrogen tank and thereby maximize the fill quantity and minimize the refuelling time.

www.HyTransfer.eu

Source: JRC

Source: Honda