



# Hydrogen Europe: European Hydrogen & Fuel cell Project Database

## Project SHEL

Sustainable Hydrogen Evaluation in Logistics

Materials handling vehicles are currently powered by either electric motors based on lead-acid batteries or combustion engines employing diesel or liquefied petroleum gas. A number of disadvantages have been encountered with these current power systems and many efforts have been undertaken to find new ways to power the vehicles. Here, fuel cells offer advantages over the competing electrochemical technology, including sustained high performance over the operating period and faster time to return the system to a full state. The overall purpose of the SHEL project is to demonstrate the market readiness of the technology and to develop a template for future commercialization of hydrogen powered fuel cell based materials handling vehicles for demanding, high intensity logistics operations. This project will demonstrate 10 FC forklift trucks and associated hydrogen refuelling infrastructure across 4 sites in Europe. Real time information will be gathered to demonstrate the advantages of using fuel cells to current technologies and fast procedures will be developed to reduce the time required for product certification and infrastructural build approval. Moreover, to ensure the widest dissemination of the results, the project will build a comprehensive Stake Holder Group of partners to pave the way for wider acceptance of the technology.

## Project Information

**Type of project :** Demonstration

**Timing :** 01/01/2011 > 30/06/2014

**Project Budget :** 4.680.613 €

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## Funding

European Union through FCH JU: **Grant agreement 256837 - CORDIS link**

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## Project partners

**Coordinator :**

Tekniker

**Partners :**

INTA - Instituto nacional de Técnica Aeroespacial

Aragon Hydrogen Foundation - Fundación para el Desarrollo de las Nuevas Tecnologías del Hidrógeno en Aragón

HyGear B.V.

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

AIR PRODUCTS PLC

CENTRE FOR RENEWABLE ENERGY SOURCES AND SAVING FONDATION

JRC - JOINT RESEARCH CENTRE - EUROPEAN COMMISSION

ASOCIACION DE INVESTIGACION DE LA INDUSTRIA DEL JUGUETE, CONEXAS Y AFINES

THE UNIVERSITY OF HERTFORDSHIRE HIGHER EDUCATION CORPORATION

FAST - FEDERAZIONE DELLE ASSOCIAZIONI SCIENTIFICHE E TECNICHE

CEGA MULTIDISTRIBUCION SA

CUKUROVA MAKINA IMALAT VE TICARET AS

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**Sub project(s)****Sub project 1****Country:** Spain**Address:**

Parque Tecnológico de Miramon, Paseo Miramon 196 20009 DONOSTIA - SAN SEBASTIAN

**Sub project categories**

Demonstration

Project Id: 1086

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