



# Hydrogen Europe: European Hydrogen & Fuel cell Project Database

## Project JIVE

Joint Initiative for hydrogen Vehicles across Europe

The hydrogen fuel cell (FC) bus is one of very few options for the elimination of harmful local emissions and the decarbonisation of public transport. Its performance has been validated in Europe in recent years through various demonstration projects, however, a number of actions are required to allow the commercialisation of FC buses. These include addressing the high ownership costs relative to conventional buses, ensuring the FC buses can meet the high availability levels demanded by public transport, developing the refuelling infrastructure to provide reliable, low-cost hydrogen and improving the understanding of the potential of FC buses for zero emission public transport. JIVE will pave the way to commercialisation by addressing these issues through the deployment of 142 fuel cell buses across 9 locations, more than doubling the number of FC buses operating in Europe. JIVE will use coordinated procurement activities to unlock the economies of scale which are required to reduce the cost of the buses. They will operate in large fleets of 10-30 buses, reducing the overhead costs per bus, as well as allowing more efficient supply chains and maintenance operations compared to previous deployments. By working at this scale and with bus OEMs with proven vehicles, JIVE will ensure reliability at the level required for commercialisation. JIVE will also test new hydrogen refuelling stations with the required capacity to serve fleets in excess of 20 buses. This will not only reduce the costs of hydrogen and increase the availability of equipment but will also test the ability to offer >99% reliability, which is required for the commercialisation of FC buses. A dissemination campaign will use the project results to demonstrate the technical readiness of FC buses to bus operators and the economic viability of hydrogen as a zero emission bus fuel to policy makers will help to catalyse the future development and expansion of the hydrogen bus sector.

## Project Information

**Type of project :** Demonstration

**Timing :** 01/01/2017 > 31/12/2022

**Project Budget :** 106.009.175 €

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## Funding

European Union through FCH JU: [Grant agreement 735582 - CORDIS link](#)

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## Project partners

**Coordinator :**

ELEMENT ENERGY LIMITED

**Partners :****FBK - Fondazione Bruno Kessler**

ABERDEEN CITY COUNCIL\*

BIRMINGHAM CITY COUNCIL

DUNDEE CITY COUNCIL

EE ENERGY ENGINEERS GMBH

EUE APS

HyCologne - Wasserstoff Region Rheinland e.V.

HYDROGEN EUROPE

hySOLUTIONS GmbH

LONDON BUS SERVICES LIMITED

WEST MIDLANDS TRAVEL LIMITED

PLANET PLANUNGSGRUPPE ENERGIE UND TECHNIK GBR

REBELGROUP ADVISORY BV

RIGASSATIKSME SIA

REGIONALVERKEHR KOLN GMBH

SUEDTIROLER TRANSPORTSTRUKTUREN AG

THINKSTEP AG

TRENTINO TRASPORTI SPA

UNION INTERNATIONALE DES TRANSPORTS PUBLICS

VERKEHRS-VERBUND MAINZ-WIESBADEN GESELLSCHAFT MIT BESCHRANKTER HAFTUNG

WSW MOBIL GMBH

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**Sub project(s)****Sub project 1****Country:** United Kingdom**Address:**

TERRINGTON HOUSE 13-15 HILLS ROAD CB2 1NL CAMBRIDGE

**Sub project categories**

Demonstration

Project Id: 1032

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