

PROJECT

## JIVE 2

### Joint Initiative for hydrogen Vehicles across Europe 2

**Funding:** European (Horizon 2020)

**Duration:** Jan 2018 - Dec 2023

**Status:** Ongoing

**Total project cost:** €106,578,606

**EU contribution:** €25,000,000



**Call for proposal:** H2020-JTI-FCH-2017-1

[CORDIS RCN : 213068](#)

#### Objectives:

The spotlight on health impacts of poor air quality and the renewed focus on reducing GHG emissions in recent years provide a strong impetus for cities to seek clean, low carbon transport solutions. When it comes to meeting growing demands for public transport and addressing environmental issues, hydrogen fuel cell (FC) buses offer significant potential.

A commercialisation process for FC buses is underway, through which a shared vision has been agreed between vehicle suppliers and their customers. This is based on reducing costs through scale via a phased approach of pre-commercial demonstrations that will provide the evidence for wider uptake of these vehicles in the 2020s.

The first step in upscaling FC bus deployment is underway through the JIVE project, which began in January 2017. JIVE 2 is its successor and is Europe's most ambitious FC bus project to date: 152 buses in 14 cities across seven countries. JIVE 2 involves regions with experience of the technology scaling up fuel cell bus fleets (e.g. Cologne), and those seeking to build their knowledge and experience by demonstrating FC buses in small fleets for the first time (e.g. Auxerre, Gävleborg). All deployment locations in JIVE 2 share an ambition to increase the size of their FC bus fleets following successful initial demonstrations, hence the participating cities/regions will be natural locations for larger scale roll-out of the technology in the 2020s.

A comprehensive data monitoring and assessment exercise will capture the relevant evidence to inform next steps for the sector, and the project's impacts will be maximised by a high-impact dissemination campaign. This will involve reaching wide audiences via various channels, including a series of international Zero Emission Bus Conferences.

The JIVE and JIVE 2 projects together will see the deployment and operation of nearly 300 FC buses in 22 European cities/regions, thus providing a sound basis for further development of this sector.

#### Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

**Institute type:** Public institution

**Institute name:** European Commission

**Funding type:** Public (EU)

#### Lead Organisation:

**Element Energy Limited**

**Address:**

Station Road 20  
Cambridge  
CB1 2JD  
United Kingdom

**EU Contribution:** €380,000

## **Partner Organisations:**

### **Brighton & Hove Bus And Coach Company Limited**

**Address:**

Grey Street 41-51 3Rd Floor  
Newcastle Upon Tyne  
NE1 6EE  
United Kingdom

**EU Contribution:** €3,105,921

### **Provincie Zuid-Holland**

**Address:**

Zuid-Hollandplein 1  
2509LP Den Haag  
Netherlands

**Organisation Website:**

<http://www.zuid-holland.nl>

**EU Contribution:** €3,105,921

### **Rigas Satiksme Sia**

**Address:**

KLEISTU IELA 28  
Riga 1067  
Latvia

**EU Contribution:** €0

### **Rheinsche Bahngessellschaft Aktiengesellschaft**

**Address:**

LIERENFELDER STRASSE 42  
40231 DUSSELDORF  
Germany

**Organisation Website:**

<http://www.ricardo.com>

**EU Contribution:** €1,552,960

### **Kolding Kommune**

**Address:**

AKSELTORV 1  
6000 KOLDING  
Denmark

**EU Contribution:** €1,552,961

### **Straeto Bs**

**Address:**

THONGLABAKKA 4  
109 REYKJAVIK  
Iceland

**EU Contribution:** €776,480

**Rebelgroup Advisory Bv**

**Address:**

WIJNHAVEN 23  
3011 WH ROTTERDAM  
Netherlands

**EU Contribution:** €100,000

**Hydrogen Europe**

**Address:**

Avenue De La Toison D' Or  
1060 Brussels  
Belgium

**Organisation Website:**

<http://www.fchindustry-jti.eu/>

**EU Contribution:** €350,000

**Thinkstep Ag**

**Address:**

Hauptstrasse 111-113  
70771 Leinfelden-Echterdingen  
Germany

**EU Contribution:** €415,000

**Dundee City Council**

**Address:**

50 NORTH LINDSAY STREET DUNDEE HOUSE  
DUNDEE  
DD1 9LY  
United Kingdom

**EU Contribution:** €1,863,553

**Openbaar Lichaam Ov-Bureau Groningen En Drenthe**

**Address:**

OVERCINGELLAAN 15E  
9401 LA ASSEN  
Netherlands

**EU Contribution:** €3,105,921

**Ruter As**

**Address:**

Dronningensgate 40  
154 Oslo  
Norway

**EU Contribution:** €1,552,961

**Landstinget Gavleborg**

**Address:**

.  
826 81 SODERHAMN  
Sweden

**EU Contribution:** €776,480

**Union Internationale Des Transport Publics****Address:**

Rue Ste. Marie 6  
1080 BRUXELLES  
Belgium

**Organisation Website:**

<http://www.uitp.org>

**EU Contribution:** €150,000

**Syndicat Mixte Des Transports Urbains De Pau Porte Des Pyrenees****Address:**

2 BIS PLACE ROYALE  
64000 PAU  
France

**EU Contribution:** €776,480

**Ca De L'auxerrois****Address:**

6B PL DU MARECHAL LECLERC  
89010 AUXERRE CEDEX  
France

**EU Contribution:** €776,480

**Noord-Brabant Provincie****Address:**

BRABANTLAAN 1  
5216 TV 'S-HERTOGENBOSCH  
Netherlands

**EU Contribution:** €1,552,961

**Wsw Mobil Gmbh****Address:**

BROMBERGER STR. 39-41  
42281 WUPPERTAL  
Germany

**EU Contribution:** €0

**Engie Energie Services****Address:**

1 PLACE SAMUEL DE CHAMPLAIN - FAUBOURG DE L'ARCHE  
92930 PARIS LA DEFENSE CEDEX  
France

**EU Contribution:** €776,480

**Regionalverkehr Koln Gmbh****Address:**

THEODOR-HEUSS-RING 19-21  
50668 KOLN  
Germany

**EU Contribution:** €2,329,441

**Technologies:**

Fuel cells and hydrogen fuel  
Fuel cell hybrid bus

**Development phase:** Implementation

**STRIA Roadmaps:** Transport electrification, Low-emission alternative energy for transport

**Transport mode:** Road transport

**Transport sectors:** Passenger transport

**Transport policies:** Environmental/Emissions aspects, Decarbonisation

**Geo-spatial type:** Urban