

PROJECT

ZEFER

Zero Emission Fleet vehicles For European Roll-out

Funding: European (Horizon 2020)

Duration: Sep 2017 - Aug 2022

Status: Ongoing

Total project cost: €17,556,029

EU contribution: €4,998,843



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

[CORDIS RCN : 213066](#)

Objectives:

Despite considerable support for the hydrogen mobility sector, there remains low take-up of fuel cell electric vehicles (FCEVs). This is a significant issue for the commercialisation of the sector, as whilst sales volumes are low, vehicle production costs and prices remain high. The lack of demand for hydrogen also damages the business case for investment in early hydrogen refuelling stations (HRS).

The ZEFER project proposes a solution to this issue. ZEFER will demonstrate viable business cases for captive fleets of FCEVs in operations which can realise value from hydrogen vehicles - for example by intensive use of vehicles and HRS, or by avoiding pollution charges in city centres with applications where the refuelling characteristics of FCEVs suit the duty cycles of the vehicles. ZEFER aims to drive sales of FCEVs in these applications to other cities, thereby increasing sales volumes of FCEVs and improving the business case for HRS serving these captive fleets.

ZEFER will deploy 180 FCEVs in Paris, Brussels and London. 170 FCEVs will be operated as taxi or private hire vehicles, and the remaining 10 will be used by the police. The vehicle customers are all partners in the project, so that deployment will occur quickly (the majority of vehicles will be deployed by the end of 2018) and FCEV mileage will be accumulated rapidly (in Paris and Brussels mileages will be 90,000+ km/year; and in London 40,000+ km/year). These applications mean that vehicle performance will be tested to the limit, allowing a demonstration of the technical readiness of new generation FCEVs for high usage applications. The vehicles will be supported by existing and planned HRS. ZEFER will complement these ambitious deployments with robust data collection, analysis of the business cases and technical performance of the deployments. A targeted dissemination campaign will aim to replicate the business cases across Europe.

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: €283,750

Partner Organisations:

Mayor's Office For Policing And Crime

Address:

New Scotland Yard, Broadway
London
SW1 H0BG
United Kingdom

EU Contribution: €224,522

Linde Ag

Address:

Klosterhofstrasse 1
80331 MUNCHEN
Germany

Organisation Website:

<http://www.linde.com>

EU Contribution: €0

Societe Du Taxi Electrique Parisien

Address:

93 RUE DE LA ROQUETTE
75011 PARIS
France

EU Contribution: €1,247,688

Itm Power (Trading) Limited

Address:

ATLAS WAY 22
SHEFFIELD
S4 7QQ
United Kingdom

Organisation Website:

<http://www.itm-power.com>

EU Contribution: €237,300

Air Liquide Advanced Technologies Sa

Address:

QUAI d'ORSAY 75
75007 PARIS
France

Organisation Website:

<http://www.airliquideadvancedtechnologies.com>

EU Contribution: €489,175

Air Liquide Advanced Business

Address:

Rue Cognacq-Jay 6
75007 Paris

France

EU Contribution: €0

Cenex - Centre Of Excellence For Low Carbon And Fuel Cell Technologies

Address:

COLMORE ROW 55
BIRMINGHAM
B3 2AS
United Kingdom

Organisation Website:

<http://www.cenex.co.uk>

EU Contribution: €194,725

Breath

Address:

RUE DE SAINT-HUBERT LAVACHERIE 38
6681 SAINTE-ODE
Belgium

EU Contribution: €1,223,625

Green Tomato Cars Limited

Address:

QWEST, UNIT 3.11 1110 GREAT WEST ROAD
BRENTFORD
TW80GP
United Kingdom

EU Contribution: €1,031,183

Commune De Paris

Address:

Place De L Hotel De Ville 4
75004 Paris
France

EU Contribution: €66,875

Bayerische Motoren Werke Ag

Address:

Petuelring 130
80809 MUNICH
Germany

Organisation Website:

<http://www.bmwgroup.de>

EU Contribution: €0

Technologies:

Fuel cells and hydrogen fuel
Hydrogen refuelling station using ionic compressor

Development phase: Demonstration/prototyping/Pilot Production

Fuel cells and hydrogen fuel

Hydrogen production using an electrolyser system

Hydrogen production using an electrolyser system

Development phase: Demonstration/prototyping/Pilot Production

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

Transport mode: Road transport

Transport sectors: Passenger transport

Transport policies: Environmental/Emissions aspects

Geo-spatial type: Other