Making an impact on the clean energy transition

TRANSPORT

HYDROGEN-POWERED TAXICABS CRUISE INTO EUROPE'S CITIES

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H_2O instead of CO_2

FCEVs have a vital role to play in European cities striving to reduce urban pollution. The FCH JU is helping Paris, Brussels and London to adopt a new business model that incorporates FCEVs into taxicab fleets. The fast refuelling times of FCEVs allows for a high intensity of usage which is not feasible with electric battery vehicles.

Three FCH JU-financed projects have helped promote the adoption of FCEVs in European cities: Zero Emission Fleet vehicles for European Roll-out (ZEFER), Hydrogen Mobility Europe (H2ME), and Hydrogen Mobility Europe 2 (H2ME 2). In Paris, STEP taxi fleets will deploy 60 FVECs. In Brussels, BREATH taxi fleets will use 60 hydrogen vehicles. In London, Green Tomato Cars will adopt 60 vehicles and the Metropolitan Police will use 10. To date, these projects have resulted in 1.7 million kilometres driven and 200,000 kilograms of CO_2 not emitted.

Tomorrow's fuel, today

In cooperation with the FCH JU, these projects provide a 'complete package' for hydrogen taxi services: the vehicles themselves, the hydrogen refuelling station network they require, the ride-booking system, and even taxi licensing. Held in demanding conditions, these project demonstrations are raising awareness that hydrogen-powered vehicles are ready for widespread use. FCEVs are matching both city expectations for improved air quality and commercial expectations from taxicab operators.

Fuel cell electric vehicles (FCEVs) show great promise in reducing CO_2 emissions, particularly within European cities. Powered by hydrogen, FCEVs have short refuelling times, and the only waste they produce is water. But their novelty and a lack of refuelling stations have discouraged captive fleet operators such as taxi companies from adopting them. Now the FCH JU is working with industry leaders and municipal authorities to bring vehicles such as taxicabs and police vehicles on to our streets.

HYDROGEN-POWERED TAXICABS CRUISE INTO EUROPE'S CITIES

KEY ACHIEVEMENTS

250+
taxis to be deployed in fleet operation including London, Paris and Brussels

4 000 TO 6 000 km
travelled by each taxi every month in Paris

130 000
expected FCEV mileage in km/year in London, Paris and Brussels

385 TO 700
new FCEV driving range in kilometres from one full tank of hydrogen

IMPACT

STRONG POTENTIAL FOR DECARBONISATION
Taxis represent 5% of the European local public transport

12,000
customers per day is the potential capacity to be served through 250 deployed taxis

3 TO 5
minutes required to fill a new FCEV's tank

200,000
kilograms of CO_2 not emitted from 2017 until 2018

1.1 MILLION
kilograms of CO_2 per year can be saved when full deployment of 250 taxis

2025
when a mature, self-sustaining market for FCEVs is expected to be created

CLEARING THE AIR

Hydrogen-fuelled taxicabs will lower CO_2 emissions in European cities, reduce other forms of pollution and help to create and promote a circular economy.

THE FUTURE IS CLEAN

The FCH JU has collaborated with industry operators and public authorities to ease the adoption of hydrogen-powered taxicabs in European cities. **The goal?** To create a 'complete package' business model that encourages FCEV use in captive fleets such as taxicabs. **Key results?** Some 180 FCEVs will be deployed in Paris, Brussels, and London in taxicab and municipal police fleets. Potential customers – both captive fleet operators and individual vehicle owners – are starting to realise that FCEVs are safe, reliable and practical.

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FIND OUT MORE

www.fch.europa.eu/page/fch-ju-projects
ZEFER https://zefer.eu
H2ME AND H2ME 2 https://h2me.eu

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FUEL CELLS AND HYDROGEN JOINT UNDERTAKING

A partnership dedicated to clean energy and transport in Europe