

Zero emission mobility: EU flagship project *Hydrogen Mobility Europe* (H2ME) demonstrates the need to be more ambitious about hydrogen mobility

International roundtable of public authorities and industry representatives from multiple European countries highlights the possibility of rolling-out hydrogen fuel cell vehicles and infrastructure on a large scale

Brussels, 10 October 2018 – As the European Union and member states discuss reducing CO₂ emissions from cars and vans, today's [Hydrogen Mobility Roundtable](#) will highlight that local authorities, large industrial companies, and global vehicle OEMs are prepared to deploy zero emission mobility as an economically attractive solution requiring no compromise to operational requirements.

Hosted by Hydrogen Mobility Europe ([H2ME](#)) in partnership with the European Commission's Fuel Cells and Hydrogen Joint Undertaking ([FCHJU](#)) and [Hydrogen Europe](#), the roundtable event comes the day after the European Parliament voted on setting tougher carbon dioxide emissions limits for cars and vans, in line with the policy aim of driving the adoption of low and zero emission vehicles. As part of the legislation, the EC will treat both hydrogen fuel cell electric vehicles (FCEVs) and battery electric vehicles (BEVs) as zero emission vehicles.

The roundtable highlights that today's technological advancements can support Europe to become an ambitious leader in zero emission mobility, underlining the inherent potential of hydrogen to deliver global emission reductions whilst meeting our future energy needs. The H2ME project is playing a critical role in creating the world's largest network of hydrogen refuelling stations (HRS). 49 stations will be funded under the H2ME project, of which 15 are already in operation¹.

Hydrogen can be part of the solution as a fundamental step in the transition towards a cleaner future. It can be generated from a wide variety of sources and when used in FCEV

¹ The Hydrogen Refuelling Stations funded under the H2ME projects and in operation are: Kolding and Mariestad (NEL), Reykjavik and Keflavik (H2 Iceland/Nel), Sandviken (Linde/AGA), Sarreguemines (CASC/McPhy/EIFER), Hovik (HYOP), Paris Orly and Versailles (Air Liquide), Leipzig, Potsdam and Aachen (H2Mobility Deutschland), Beaconsfield and Swindon (ITM Power) and Aberdeen (Linde/BOC).



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vehicles produces zero harmful tail pipe emissions, with water vapour being the only by-product. Range and refuelling times are comparable to conventional petrol and diesel cars.

At the event, representatives from the initiative met with local municipalities and regional government representatives from across Europe to discuss real-world experiences, best practice and proven business models for the increased roll-out of FCEV vehicles and cross-border hydrogen refuelling infrastructure. Under the H2ME project 360 vehicles have already been delivered to end users and have been driven for close to 2 million kilometres. Attractive ownership models are developing in use cases such as taxis, captive fleets, and in cities with strict environmental targets.

As well as benefiting the environment by reducing emissions at local and national levels, hydrogen and fuel cell technologies provide a leadership opportunity for European businesses, supporting the creation of new green jobs as the industry develops. Additionally, the Electrolyser-HRS technology being deployed within H2ME can make a significant contribution to balancing future high Renewable Energy Supply^{2*} (high-RES) in electricity grids and increase grid utilisation without growing peak demand.

Interest in FCEVs is increasing across Europe, with national governments in Norway, the Netherlands, the UK, France and Germany, amongst others, all supporting greater adoption. However, municipalities are waiting for greater direction from EU legislation to provide them with clear guidelines before rolling-out hydrogen fuelling stations and fuel cell fleets.

Mirela Atanasiu, Head of Operations and Communications, FCH JU stated: “The H2ME projects are of particular importance for the FCH JU as they bring together various national hydrogen transport initiatives, which vary in aim and scope. The event today allows us to take this one step further by connecting these initiatives with the concrete needs of Europe’s regions and cities. This demonstrates the potential of hydrogen-fuelled road transport as a solution to the need for viable and competitive alternatives to fossil fuels at all levels: regional, national and pan-European.”

Mathieu Gardies, Hype founder presented the commercial case for FCEVs in taxi operations at the roundtable event. He said: “Our fleet in Paris expanded to 100 FCEVs

² Hydrogen can be produced via electrolysis when there is renewable electricity available in the grid. This is particularly useful as hydrogen can provide a longer-term energy storage option.



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earlier this year. As a zero-emission option for on demand transportation, with no compromise for the driver nor for the customer, and when considering the total cost of ownership of the vehicles, FCEVs will very soon represent a fully credible alternative for all operators of on demand transportation, therefore allowing the EU and cities to implement stricter rules to definitively ban diesel and petrol vehicles for these activities. We are now aiming at 600 vehicles by the end of 2020.”

Ben Becker, Funding Manager for H2 MOBILITY Deutschland, commented on the important stage in the development of hydrogen mobility recently achieved in Germany: “In September H2 MOBILITY Deutschland and its partners Air Liquide, Daimler, Linde, OMV, Shell and TOTAL celebrated the opening of the 50th public hydrogen filling station in Germany. The hydrogen refuelling network is growing at speed. Every two weeks we put another station into operation – the number of green dots on our map at www.h2.live will multiply rapidly over the coming months. We are achieving this thanks to the EU, which is providing funding to us, as is the case in Potsdam. Anyone interested can follow our progress very simply via our H2.LIVE app.”

Mathilde Cadic, Policy officer for Energy, Environment, Transports for the French Auvergne Rhône Alpes Region presented on its “Zero Emission Valley” program: “The French Auvergne Rhône Alpes Region is betting on hydrogen and is ambitiously aiming to be the first decarbonised region in Europe. Through our ambitious “Zero Emission Valley” program, the region aims to deploy 20 hydrogen refuelling stations and 1,000 vehicles. This project sets the scene for the industrialisation phase of hydrogen technologies, which can then be duplicated in France and abroad. It provides a strong path to reassert the role of hydrogen in both the energy transition and local economic growth.”

About H2ME

This €170 million demonstration project is co-funded with €67 million from the Fuel Cells and Hydrogen Joint Undertaking (FCH JU), a public-private partnership supporting fuel cell and hydrogen energy technologies in Europe.

Partners include project lead Element Energy, alongside AGA, Air Liquide, AREVA H2GEN, Audi, BOC, BMW, Cenex, City of Copenhagen (Kobenhavns Kommune), Communauté d’Agglomération Sarreguemines Confluence, Communauté Urbaine Du Grand Nancy, CNR, Daimler AG, Danish Hydrogen Fuel, EIFER, Falkenberg Energi, GNVERT, H2 Logic, H2 Mobility Deutschland, Honda, Hydrogene de France, HYOP, hySOLUTIONS, Icelandic New



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Energy Ltd, Intelligent Energy, Islenska Vetrnifélagid (H2 Iceland), ITM Power, Linde AG, McPhy Energy, Michelin, Netherlands Ministry of Infrastructure and the Environment (Ministerie Van Infrastructuur en Milieu), Nissan, OMV, OPEN ENERGI, Renault, Renault Trucks, SEMITAN, Stedin, STEP, Symbio FCell, The Danish Partnership for Hydrogen and Fuel Cells (Partnerskab for brint of braensdels cellar), The University of Manchester, WaterstofNet.

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