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PRESS RELEASE H2 MOBILITY WINS GERMAN-FRENCH BUSINESS AWARD IN THE CATEGORY 'ENVIRONMENT, CLIMATE AND ENERGY'

- Praise for German-French pioneers of future mobility
- Partnership currently building hydrogen infrastructure across Germany
- Only an international alliance can drive forward clean mobility

Paris, 12 December 2017 – This evening, under the auspices of the German and French Ministers for Economic Affairs, the President of the German-French Chamber of Industry and Commerce, Guy Maugis, officially presented H₂ MOBILITY with the German-French Business Excellence Award 2017. Impressed by this joint venture's construction of a Germany-wide hydrogen infrastructure, the jury awarded the prize for the category 'environment, climate and energy'.

Drivetrain electrification and the switch to battery-electric and electricity-based synthetic fuels is considered the only way of achieving the European climate targets in the transport sector and thus of decisively reducing vehicle-induced carbon dioxide emissions. Hydrogen (H₂) produced from renewable sources is intended to provide a way forward here. But its success depends heavily on the full transnational expansion of relevant infrastructure.

And it is in this domain that the international partnership H₂ MOBILITY Deutschland GmbH & Co. KG and its shareholders Air Liquide, Daimler, Linde, OMV, Shell Deutschland and TOTAL are blazing a trail by constructing 100 hydrogen gas stations in Germany – unconditionally and independent of the number of hydrogen-powered cars on the road. This project is unparalleled anywhere in the world and carries a high financial risk. Research, testing and standardisation have been at the forefront of various projects in recent years, such as the Clean Energy Partnership, for example. But now it is time to take the H₂ infrastructure to the next level and to continue improving and adapting it in line with the latest technical innovations.

With their immense knowhow, the French partners Air Liquide and TOTAL are providing essential support to this German venture. Together they form an alliance that mitigates the financial risks, gives French companies access to the German market and thus creates the best-possible basis for the transport sector's transnational renewal.

Air Liquide is one of the main suppliers of hydrogen technologies and equipments, including storage and compression systems and filling stations. 'Air Liquide is providing strong support to H₂ MOBILITY: Technology made in France for rollout in Germans hands,' says Pierre-Etienne Franc, Vice-President of Air Liquide Hydrogen Initiative. The world leader in gases, technologies and services for Industry and Health, Air Liquide is present in 80 countries with approximately 65,000 employees and serves more than 3 million customers and patients. 'Our decades of experience make us pioneers in the hydrogen sector. Air Liquide masters the entire hydrogen value chain – from production, storage and distribution to the many different applications notably



to develop cleaner mobility. To date, we have already set up nearly 100 H₂ refuelling stations worldwide,' explains Pierre-Etienne Franc.

One of the solutions is to integrate the system into TOTAL's petrol stations. This is a definite challenge, seeing as some of the work is done while the stations are in operation. 'Our ambition is to integrate the pumps as fully as possible into traditional petrol station forecourts and so show people that hydrogen mobility is just as convenient as conventional mobility in terms of driving comfort, distance and refuelling,' says the Managing Director of TOTAL Deutschland, Bruno Daude-Lagrave. The French petroleum company TOTAL has been involved in hydrogen projects in Germany for the past 15 years. Besides the current 12 petrol stations, its activities also include plants for piloting the production of 'green' hydrogen from solar and wind energy. The TOTAL Group is a global integrated energy producer and provider and one of the leading international oil and gas companies. With SunPower and TOTAL Solar, it is also one of the biggest players in the solar energy sector. Around the globe, TOTAL employs some 98,000 people. In Germany, it has around 1,200 petrol stations, making TOTAL the third-largest network in Germany.

Air Liquide, Daimler, Linde, OMV, Shell Deutschland und TOTAL coming together to form H₂ MOBILITY – and to embark on the unconditional construction of the first 100 hydrogen filling stations – these companies have resolved the chicken-or-the-egg conundrum and made a decisive contribution to a future of clean and quiet mobility. In the second phase of operations, this joint venture is set to construct up to 300 more H₂ stations in Germany through to 2023, depending on the volume of hydrogen-powered cars.

Outlining the advantages of hydrogen, Nikolas Iwan, Managing Director of H₂ MOBILITY states that, 'Drivers of hydrogen vehicles will barely notice the difference with this new refuelling system. They simply drive to the hydrogen pump on the forecourt where hydrogen is refuelled as a gas. The entire procedure only takes about three to four minutes. Hydrogen-powered vehicles can travel for up to 500 to 800 km before refuelling which means everything is the same, just fewer emissions.'

H₂ can be distributed in many different ways – by pipeline, tanker or even produced locally at the actual petrol station. A key feature of H₂ MOBILITY is its focus on standardisation, compact onsite refuelling systems and delivery by trailer.

Hydrogen fuels generated from renewable sources of energy are good for reducing the volume of CO₂ emissions on the roads. But hydrogen has the capacity to do more, namely network the electricity, heating and transport energy sectors. Given the need for climate protection and the drive to expand the renewable energy sector, it can thus contribute to an efficient, sustainable and integrated energy system. Hydrogen is an energy carrier that can generate new interfaces at a central and decentralised level, and thus enhance the flexibility of a system with a substantial share of volatile renewable energies.

Germany currently has 42 hydrogen refuelling stations in public use (for the latest update of all hydrogen stations, see www.h2.live). Another 37 are currently in the pipeline or under construction. Since the start of the year, the number of hydrogen refuelling stations in the Federal Republic of Germany has doubled.

More: Sybille Riepe | +49 (0) 40 80 79 04 612 | riepe@h2-mobility.de