

Joint press release

## NEW HYDROGEN FILLING STATION IN COLOGNE

- **Linde and Total open filling station at Cologne/Bonn Airport**
- **H<sub>2</sub> Mobility to handle the operation of the hydrogen filling station**
- **Federal Ministry of Transport and Digital Infrastructure (BMVI) provides EUR 1.3 million of support**

Cologne, 17 October 2017 - The expansion of the nationwide hydrogen filling station network for environmentally friendly fuel-cell vehicles continues. Today, Linde and Total jointly inaugurated another new public hydrogen filling station in Germany, at Cologne/Bonn Airport. The station is an important building block for further hydrogen projects in North Rhine-Westphalia, for the operation of passenger car fleets and, in future, for buses as well.

The new H<sub>2</sub> station in Cologne is one of the 50 first hydrogen filling stations to be built in Germany as part of the Clean Energy Partnership (CEP) and subsidised by the Federal Ministry of Transport and Digital Infrastructure via its National Innovation Programme for Hydrogen and Fuel-cell Technology (NIP). The expansion of the nationwide H<sub>2</sub> network is progressing well, with several sites officially opening in October: on 16 October, the H<sub>2</sub> filling stations in Bad Rappenau and Bremen, on 17 October the inauguration of the Cologne/Bonn site, and on 18 October the CEP partners are opening a H<sub>2</sub> filling station in Munich. This brings the total number of filling stations in the German H<sub>2</sub> network to 41.

The stations will be operated by the H<sub>2</sub> Mobility joint venture, in which Air Liquide, Daimler, Linde, OMV, Shell and TOTAL have joined forces to build a network of as many as 400 service stations by 2023. The filling station at Cologne/Bonn Airport can store up to 370 kg of hydrogen, which can fuel around 90 vehicles. In addition to the 700-bar fuel pump for cars, equipment for an optional 350-bar fuel pump for bus refuelling is pre-installed. This also opens up the prospect of establishing a fleet of H<sub>2</sub> buses at the airport and in the region.

Thorsten Herbert, Head of Traffic and Infrastructure at NOW, said: "The construction of charging and refuelling infrastructures for vehicles with alternative drive systems featuring batteries and fuel cells is an important prerequisite for accelerating the market ramp-up of such vehicles in Germany. This is imperative for achieving the sector's goal of reducing CO<sub>2</sub> emissions in the transport sector. Compared to conventional infrastructure such as power generation and roads, investment in the alternative infrastructure is much lower. "

Bernd Eulitz, a Member of the Linde AG Executive Board, says: "The progress in the construction of a nationwide hydrogen infrastructure is reflected in the multiple openings we are seeing. Our investment in this project reflects our continued confidence in the development of a hydrogen



society. Beyond this, as a place of intersection between private transport, public transport, and air transport, Cologne/Bonn has a special symbolic significance.”

“TOTAL Deutschland has been continuously involved in pilot projects to develop the hydrogen infrastructure for 15 years,” says Bruno Daude-Lagrave, Managing Director of TOTAL Deutschland GmbH. “One in every three public hydrogen filling stations in Germany today is at a TOTAL service station. Together with our H<sub>2</sub> Mobility partners, we are creating the foundations for a nationwide hydrogen supply and thus for the market launch of hydrogen vehicles. With hydrogen vehicles, we achieve all the advantages of electric mobility, combined with long ranges and short refuelling times. A hydrogen vehicle can be fuelled with enough energy for more than 500 kilometres in under five minutes.” Unlike battery-powered cars, hydrogen vehicles generate their own electricity on board by reacting hydrogen with air in the fuel-cell, thereby creating the electricity to power the car.

“The expansion of the hydrogen infrastructure is gaining momentum. Only yesterday, stations opened in Bremen and Bad Rappenau, and another will follow tomorrow on Kreillerstrasse in Munich. 100 stations should ensure an unconditional basic supply, independent of vehicle numbers. Anyone interested can track the growth of the filling-station network using the H<sub>2</sub>.LIVE app. The station at Cologne-Bonn Airport closes an important gap on the north- south axis, and we look forward to taking over its operation,” says Nikolas Iwan, Managing Director of H<sub>2</sub> Mobility Deutschland GmbH & Co. KG.

Michael Garvens, Chairman & CEO of Cologne/Bonn Airport, says: “Innovative drive technologies are already a mainstream topic at our airport. Most of our vehicle fleet is already electric, and we also have a fuel-cell vehicle in our fleet. As an innovative airport, we are delighted to be the location for the first public hydrogen filling station in Cologne – and to be able to refuel our own vehicle at the H<sub>2</sub> pump as well.”

### About NOW

NOW GmbH (National Organisation Hydrogen and Fuel Cell Technology) was founded in 2008 by the German government, represented by the Federal Ministry of Transport and Digital Infrastructure (BMVI). It coordinates two federal funding programmes - the National Innovation Programme for Hydrogen and Fuel Cell Technology (NIP), and the BMVI's Electromobility Model Regions. Both programmes serve to prepare the market for making mobility and energy supply efficient and low-emissions in future. **NOW also supports the BMVI in implementing the electromobility infrastructure programme and in advancing the mobility and fuel strategy.** [www.now-gmbh.de](http://www.now-gmbh.de)

### About The Linde Group

In the 2016 financial year, The Linde Group generated revenue of EUR 16.948 bn, making it one of the leading gases and engineering companies in the world, with approximately 60,000 employees working in more than 100 countries worldwide. The strategy of The Linde Group is geared towards long-term profitable growth and focuses on the expansion of its international business, with forward-looking products and services. Linde acts responsibly towards its shareholders, business partners, employees, society and the environment in every one of its business areas, regions and locations across the globe. The company is committed to technologies and products that unite the goals of customer value and sustainable development. Information about The Linde Group is available online at [www.linde.com](http://www.linde.com)

### ABOUT TOTAL

TOTAL is a global integrated energy producer and provider, a leading international oil and gas company, and a major player in solar energy with SunPower and Total Solar. Our 98,000 employees are committed to better energy that is safer, cleaner, more efficient, more innovative, and accessible to as many people as possible.

In Germany, TOTAL has the country's third-largest filling station network, with around 1,200 stations and offers a wide range of energy and mobility services, with the sale of heating oil and liquefied gas, lubricants, aviation and bunker fuels, bitumen, and special products for industry. The Group also operates one of Europe's most state-of-the-art plants for crude oil processing, the TOTAL refinery in Leuna. The group's activities in Germany also include the distribution of SunPower natural gas and solar solutions, as well as the chemicals segment, with everything from petrochemical products to special applications for the automotive and aerospace industries. TOTAL employs more than 3,000 people in Germany. [www.TOTAL.de](http://www.TOTAL.de), [www.de.TOTAL.com](http://www.de.TOTAL.com)

### About H<sub>2</sub> Mobility Deutschland GmbH & Co. KG

**H<sub>2</sub> Mobility Deutschland GmbH & Co. KG** is responsible for the nationwide expansion of Germany's hydrogen infrastructure. The first 100 H<sub>2</sub> service stations are being built in metropolitan areas and along trunk roads and motorways, irrespective of how the market develops. Another 300 H<sub>2</sub> filling stations are planned by 2023, depending on the market ramp-up of fuel-cell vehicles. The H2.LIVE app can be used to follow the growth of the filling-station network. [www.h2.live](http://www.h2.live), [www.h2-mobility.de](http://www.h2-mobility.de)

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