

## Press Release · Pressemitteilung

### **Megatrend Hydrogen Reloaded: H2EXPO & CONFERENCE enters its second round Germany tops the list of patent applications relating to hydrogen technologies**

*Hamburg, 31 January 2023. Green hydrogen is on the rise, and more hydrogen projects are now being initiated worldwide than ever before. This was also emphasised at the opening event of the H2EXPO & CONFERENCE, which was held last September parallel to WindEnergy Hamburg, the leading global trade fair for the wind industry. This year, the hydrogen industry will be convening again from June 28th to 29th at the Hamburg Messe and Congress to present their developments and innovations. The attractive industry event will show for the second time how the internationally networked market ramp-up can succeed as an interaction between politics and industry.*

Hydrogen is increasingly becoming a core issue in the energy debate. As a storage medium, the element is fast becoming an energy and geopolitical pillar for our future fossil-free energy supply. Its use is not just restricted to heat and energy generation, since hydrogen can also be used within industrial companies, in mobile technologies for transport and traffic, as well as for reconversion. As an example, construction work on a 40 km long hydrogen network is being started this year in the port of Hamburg. This is just one of around a dozen projects that will be receiving funding under the "Important Projects of Common European Interest" programme. As **Bernd Aufderheide, CEO of Hamburg Messe and Congress**, put it: "The innovation cycles in this industry are extremely short and the variety of circumstances both domestically and internationally is making a continuous exchange of information necessary. This is exactly where the H2EXPO & CONFERENCE will make its entrance: for two days, innovation drivers from politics and business will meet in Hamburg to jointly launch novel H2 technologies and processes for the energy challenges of our future."

### **The top topics for the hydrogen industry in 2023:**

#### **The expansion of infrastructure: the decarbonisation of energy-intensive industries**

In order to achieve global climate neutrality by 2050 and to meet the even more ambitious European climate targets, a comprehensive hydrogen infrastructure will need to be set up. In addition to providing sufficient capacities for large-scale industry, this must also allow for medium-sized companies to be connected as quickly as possible. Various consortia are currently assessing the possible uses of existing natural gas networks for transporting hydrogen across Europe. Plants with capacities within the gigawatt range are being planned, and which are to be production ready by 2030, in the port of Rotterdam as one example.

### **Making mobility climate-neutral: fuel cells and hydrogen combustion systems**

When used in cars, trucks, ships and airplanes, fuel cells act as energy converters. In the field of mobility, industries for producing and continuously optimising fuel cells and electric drives are currently emerging all across the world. The first mass-produced hydrogen-powered car was put on the market in China in June 2022. The Changan Shenlan SL03 represents a project developed jointly by Changan New Energy, CATL and Huawei. The sedan has an output of 160 kW, consumes 0.65 kilograms of hydrogen per 100 km according to the manufacturer, and has a range of 700 km. Similar ranges were also presented for hydrogen-powered trucks at the International Motor Show (IAA) last September. Furthermore, industrial companies are also cooperating closely on the integration of cryogenic tanks into the combustion systems of ships and aircraft. A great number of different drive technologies have already reached market maturity.

### **Promoting innovation: the EU and Japan are world leaders in hydrogen patents**

On January 10th, 2023, the European Patent Office (EPO) and the International Energy Agency (IEA) published a joint study on patents related to hydrogen technologies. The facts show that most patents for the hydrogen industry are registered in the European Union, and that Germany is the front runner in the field of hydrogen technologies. Patents in the production, storage, distribution, processing and end-use sectors were counted for the ranking procedure. Japan topped the nations list with 7.5 percent of all patents. One side note to this survey: patent applications in the USA are currently declining.

### **Accelerating the H2 market ramp-up: European hydrogen bank planned**

On October 18th, 2022, the European Commission presented its working programme for 2023. One of the central elements was the proposal for a comprehensive reform of the EU electricity market. The rapid development of a green hydrogen economy was a core element of the working paper, for which the EU Commission proposed the establishment of a new European hydrogen bank at the beginning of this year. This institution shall invest three billion euros in measures to boost the hydrogen market within the EU.

In June, the H2EXPO & CONFERENCE shall tackle the latest topics in the industry and invite the exhibiting companies and visitors to network with the performance drivers for this economic sector. This is because in order to achieve dynamic development for the hydrogen economy, intensive dialogue between politics and industry will be an absolute must. **Andreas Arnheim, Project Director of the H2EXPO & CONFERENCE**, summarises: "Hydrogen is a central pillar of the energy transition, and our desire is to become a hub for the latest technologies and regional and international project initiatives here in the hydrogen metropolitan region of Hamburg with our trade fairs and conferences."

## **H2EXPO & CONFERENCE - the networking event of the international hydrogen economy**

The H2EXPO & CONFERENCE, the international rendezvous for everything to do with the production, distribution and use of hydrogen, will take place from June 28th to 29th, 2023, in Hall B6 of the Hamburg Messe site. Over two days, an appealing networking platform will be established for stakeholders from both business and politics, who will exchange views on the latest trends and the future of the international hydrogen economy in networking areas and side events. H2 technology providers from Germany and abroad will be presenting their solutions, innovations and projects. Parallel to this, there will be a top-class conference programme at which leading figures from politics, science and business are expected to speak on topics such as regulation, technologies and the future of hydrogen. Just one more thing: Every two years (in even-numbered years), the H2EXPO & CONFERENCE shall take place parallel to WindEnergy Hamburg, the leading global trade fair for the wind industry. [www.h2expo.de](http://www.h2expo.de)

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