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## World Energy Council - Germany: The Global Hydrogen Age Has Come

New study on international hydrogen strategies published

- The international hydrogen market is on the move: 2020 is the year of public hydrogen strategies
- National plans for the development of a hydrogen market often lack reliable instruments for implementation
- World Energy Council - Germany calls for more cooperation with regard to certification and infrastructure development

Hydrogen (H<sub>2</sub>) has become a new political priority on the international agenda. Twenty countries worldwide have already published their own H<sub>2</sub> strategy or plan to finalise it in the coming months. More than 30 other countries either support pilot and demonstration projects or are discussing political action towards hydrogen use. "The year 2020 has seen a boost in H<sub>2</sub> activities, not only in Germany but also internationally with the announcement of many new government strategies. It is expected that 40 billion Euros will be invested in production capacities for green hydrogen in the EU alone by 2030", Carsten Rolle, Executive Director of the World Energy Council - Germany, explains on the occasion of the presentation of the study "International Hydrogen Strategies". The analysis compares the H<sub>2</sub> plans of 16 selected countries and the European Union to derive recommendations for a global H<sub>2</sub> market.

The national H<sub>2</sub> strategies differ in their measures and their level of ambition. However, the motivation behind the announcement of a hydrogen strategy is often similar. Most countries focus on the reduction of national greenhouse gas emissions and the increased integration of renewable energies, as well as a diversification of energy sources. Many governments also emphasize the opportunities for economic growth, for example, through the creation of new jobs and additional revenues from hydrogen and technology exports. By establishing a domestic H<sub>2</sub> economy, large industrialized nations hope to maintain a strategic advantage in global competition through technology leadership.

The World Energy Council study reveals, however, that most of the hydrogen initiatives examined still focus on the formulation of goals rather than on concrete plans for their implementation. "The measures currently described will, in many cases, not be sufficient to trigger the envisaged growth", says Carsten Rolle. "In order to make climate-friendly hydrogen competitive, reliable planning instruments are needed, which, above all, reduce operating costs. Such a stronger and longer-term OPEX funding will also require changes to the subsidy framework in place, especially in the EU." On an international level, a global certification system for green or low-carbon hydrogen is needed.

The study estimates that the global hydrogen demand for 2050 will add up to 9000 TWh - or 270 million tons – per annum. This would correspond to about half of the total primary energy consumed annually by the EU28. Countries with a high energy demand, such as Germany, Japan and South Korea, are expected to cover most of their needs through imports. Therefore, the development of corresponding transport infrastructures will be indispensable. "Hydrogen offers great opportunities for cooperation and trade relations along new value chains. After all, the high level of required investments in the exporting countries will not happen on its own, but will only be realized in international partnerships", Rolle continues.

The study, which Ludwig-Bölkow-Systemtechnik GmbH elaborated on behalf of the World Energy Council - Germany and with the support of 21 member companies and partners, is available [here](#).

To access the Executive Summary please click [here](#).

A video of the study presentation is available [here](#).

**Contact:** Maira Kusch / T: (+49) 30 2028 1626 / E: [kusch@weltenergierat.de](mailto:kusch@weltenergierat.de)

*The Weltenergierat – Deutschland, through its members, represents all energy sources and technologies and serves as the independent voice for international energy issues in Germany. Its aim is to bring the global perspective into the national debate and to shape the energy system of the future. As part of the World Energy Council, the Weltenergierat represents the German energy system in the largest international energy network in the world. For almost 100 years, the World Energy Council has been committed to a sustainable energy supply for the benefit of all people worldwide.*