Federal Ministry
Republic of Austria
Sustainability and Tourism

The Hydrogen Initiative

We, the signatories of this initiative, gathered in Linz, Austria, on the 17th and 18th of September 2018, collectively aim to maximise the great potentials of sustainable hydrogen technology for the decarbonisation of multiple sectors, the energy system and for the long-term energy security of the EU.

Acknowledging climate change as a common global challenge and focusing on our commitments to the UNFCCC, we especially underline the key role of sustainable energy technologies in the targeted process of decarbonisation. We need to increase our ambition in all sectors to fulfil the targets set by the Paris Agreement, namely to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.

The signatories of this declaration stress that in light of the continuous progress of automation and digitalisation in industry, the energy sector should prepare for new challenges in energy demand, usage, transport and storage.

We highlight the potential of renewable hydrogen as an energy storage solution as well as a sustainable climate neutral energy carrier and feedstock. Therefore, renewable hydrogen is able to store as well as provide reliable and timely access to renewable energy, thus offering new opportunities to increase energy security and reduce the Energy Union's dependency on fossil imports.

In order to accelerate the growth and integration of renewable energy sources in the internal energy market, we will strive to maximise synergies through regional and multilateral cooperation regarding the exchange of technological expertise, data, results and best practices.

Taking into account the obligations of the UNFCCC, the UN 2030 Agenda for Sustainable Development as well as the energy and climate targets of the European Union for 2030, the signatories underline that renewable hydrogen has the potential to contribute to the Union's pathway of decarbonising the economy.

In order to promote the potential of hydrogen for the supply of efficient, safe and clean energy for all users throughout Europe, research and innovation in the field of hydrogen technology must be further intensified. Simultaneously, we note that the acceleration of early implementation and wider application of sustainable hydrogen technology is able to contribute to the economic competitiveness of the Energy Union.

Our ambition

Welcoming the range of opportunities of sustainable hydrogen technology in decarbonising the economy and ensuring safe, competitive, available and sustainable energy supply for the Energy Union, we want to increase our focus, ambitions and efforts in the following fields:

Sector integration and coupling

We underline the need for a safe, low carbon and sustainable transformation of the energy sector moving towards an integrated energy approach, in which synergies in the operation of electricity, gas and heat networks can be exploited.

Accordingly, we emphasise the role of hydrogen as a promising link between the electricity, industry and mobility sectors, opening new windows of opportunity in energy flexibility, availability, security, as well as improved efficiency and cost-effectiveness in the energy transition, contributing to the decarbonisation of the economy.

Short- and long-term energy storage

We strive to deploy storage options for renewable hydrogen, including the use of existing infrastructure.

We highlight the capability of short- and long-term storage of renewable energy with hydrogen as an energy source, hence contributing to energy security.

Direct injection into the gas-grid

We aspire to investigate how to integrate renewable hydrogen into the gas grids gradually, which could substantially contribute to "greening" of the gas infrastructure and decarbonisation of the heating and cooling sectors as well as reducing natural gas imports.

Additionally, we highlight that injected green hydrogen from electrolysis could improve the efficient use of variable and intermittent renewable energy.

Conversion of hydrogen to renewable methane

We dedicate ourselves to explore the most effective conversion of renewable hydrogen into synthetic methane and other renewable fuels. We draw attention to ongoing research activities regarding biological conversion of hydrogen to methane and other hydrocarbons.

Industry

We stress that green hydrogen provides wide application possibilities in conventional industries, possibly replacing carbon intensive processes. Following, we will promote the use of renewable hydrogen as well as derived products in industrial processes, where applicable.

Transport and mobility

We highlight the need to investigate options to support hydrogen application in transport and mobility. Additionally, we strive to facilitate the establishment of the necessary fuelling infrastructure to provide for increasing hydrogen demand.

In addition, we focus our ambitions on setting multilateral frameworks and standards to ensure maximum consistency for implementing hydrogen technology application in diverse sectors.

We are convinced that Europe should be at the forefront of the sustainable transformation of the energy sector as an international leader in clean energy technology development and implementation. Moreover, we strive to raise public awareness and acceptance for hydrogen technology.

Furthermore, we encourage third countries and industry to join our efforts set out in this declaration to promote a worldwide supporting framework for sustainable hydrogen technology.

Political character of this initiative:

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Signing institutions, states and provinces:

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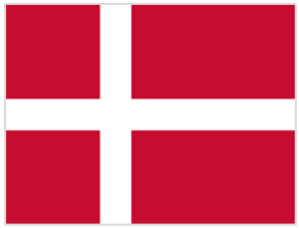

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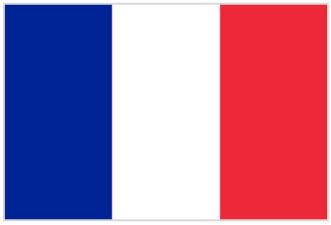

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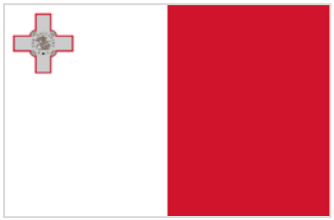

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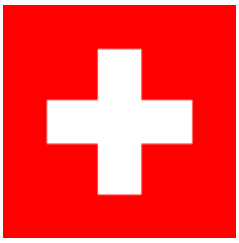

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Region of Heide

Signing companies and organisations:


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