

Why is Slovakia supporting hydrogen transformation?

Hydrogen is enjoying a renewed and rapidly growing attention in Europe and around the world. Hydrogen can be used as a feedstock, a fuel or an energy carrier and storage, and has many possible applications across industry, transport, power and buildings sectors. Most importantly, hydrogen does not emit CO₂ and almost no air pollution when used. It thus offers a solution to decarbonize industrial processes and economic sectors where reducing carbon emissions is both urgent and hard to achieve. Hydrogen has potential to replace fossil fuels in some carbon intensive industrial processes, such as in the steel or chemical sectors, lowering greenhouse gas emissions and further strengthening global competitiveness for those industries.

There are many reasons why hydrogen is a key priority to achieve the European Green Deal and Europe's clean energy transition. Renewable electricity is expected to decarbonize a large share of the EU energy consumption by 2050, but not all of it. Hydrogen has a strong potential to bridge some of this gap, as a vector for renewable energy storage, alongside batteries, and transport, ensuring back up for seasonal variations and connecting production locations to more distant demand centres. Europe is expecting that its current hydrogen share in energy mix is projected to grow from the current less than 2% to 13-14% by 2050.

It can offer solutions for hard to abate parts of the transport system, in addition to what can be achieved through electrification and other renewable and low-carbon fuels. A progressive uptake of hydrogen solutions can also lead to repurposing or re-using parts of the existing natural gas infrastructure, helping to avoid stranded assets in pipelines.

All this makes hydrogen essential to support the EU's commitment to reach carbon neutrality by 2050 and for the global effort to implement the Paris Agreement while working towards zero pollution.

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Slovakia is supporting its Dubai Expo via the series of hydrogen workshops that will support the overall storyline of the Dubai Expo. Slovakia is preparing the exhibition of the hydrogen prototypes.

Slovakia presents the metalhydrid hydrogen storage solution implemented in the vehicles. The solution is storing the hydrogen under the lower pressures and provides it many benefits in the transport and automotive industry. As we in Slovakia understand the new trend in the green economy, we will emphasize our Hydrogen workshop towards the Slovak industry and its decarbonization.

We are preparing the series of the hydrogen workshop to present the Slovak commitment to the National and European hydrogen strategies as well as the commitment to the European Green Deal.

Schedule

Slovakia will present the hydrogen workshops in following theme weeks in DUBAI:

- 1. Urban & Rural Development (31.10 – 6.11.2021)**
- 2. Travel and Connectivity (9.1 – 15.1.2022)**
- 3. Slovak National Week (24.1 – 28.1.2022)**

The workshop will be led by the Slovak Innovation and Energy Agency (further "SIEA"). SIEA is a state-owned agency dealing with Renewable energy sources (further "RES"), energy efficiency and related innovations, funded by the national Ministry of Economy.

