

USA, Spain, China, Canada, and Portugal, in the race to lead green hydrogen projects worldwide

Experts from Vueling, Cepsa, BP or Deutz explored in the H2 - Hydrogen World Congress, held within the framework of eMobility Expo, opportunities and challenges faced by the sector in the application of this energy resource

The event highlighted the importance of incentives and appropriate regulation to promote green hydrogen in the mobility sector

Madrid, February 21st, 2024 – *"The largest green hydrogen projects that are currently under development are in Europe. The reason is that after the war in Ukraine, Europe realized it needed its own resources. Despite that, China is one of the main countries investing in green hydrogen".* This was highlighted by **Curro Nicolau**, Chairman & Founder Go Energy Group during the first edition of [H2 - Hydrogen World Congress](#), held in Valencia, Spain, within the framework of [eMobility Expo World Congress 2024](#).

For two days, the H2 - Hydrogen World Congress brought together experts in the field to address the challenges and opportunities of this new sustainable energy source that is attracting the interest of more and more countries and regions. According to Nicolau, the USA (California), Portugal and Canada are the countries that have been working on green hydrogen projects for the longest time, while others such as Japan, Australia, Norway, Germany, or Spain are just now entering, albeit with a lot of strength. *"I see much more private initiative than public, governments are behind the private initiative and have to ask themselves why this is happening and how to reverse it,"* he said.

In addition, Nicolau assured that *"at the public level, we have some regulations, but they are more about standards and certifications on hydrogen, but not specifically on green hydrogen,"* he clarified. However, some countries are working on specific regulations for green hydrogen, such as France or Germany, *"probably the country that is making the most effort to regulate green hydrogen. Other countries that are legislating well are Namibia, USA, Australia, Morocco, or United Arab Emirates (UAE)"*, he concluded.

Challenges and opportunities of green hydrogen in air, maritime and ground transport

The costs of green hydrogen, supply constraints, the importance of promoting incentives and the need for regulation that understands the complexity of the energy transition were some of the issues also addressed at the first edition of the H2 - Hydrogen World Congress.

Leading world speakers analyzed its use as an alternative fuel for more sustainable air, ground and maritime transport. To achieve its implementation, **Santiago Lopezbarrena**, Head of Sustainability at **Vueling**, stressed that, *"in the case of air transport, it requires a transversal change beyond propulsion. The big challenge is to scale it up to a commercial level and for this, we must consider availability and price. In Spain there is a lack of many megawatts of renewable energy, and if this is lacking it will continue to be very expensive and we will not be able to scale it."*

In maritime transport, **Javier Cervera**, President of the **Net Zero MAR Alliance** and Head of energy transition of **Baleària**, clarified that the use of hydrogen depends on the type of ship and route, since *"when we go to long-distance routes, hydrogen occupies too much, so in those cases we talk about derivatives and synthetic fuels"*. He added that *"the technology is mature, and hydrogen can already be used in electric ships. We are working a lot with dualization with diesel and methanol"*.

As for ground transport, **Mario Canet**, Head of New Developments at **TMB** (Transports Metropolitans de Barcelona), said that *"electrification makes perfect sense, but it involves two major problems: first, the weight; and second, it requires a large infrastructure. We need a power plant just for one bus depot and if it fails, we have 400 buses that will not leave the next day. For this reason, we chose not to put all our eggs in the same basket and bet on hydrogen as an alternative"*. The specialists agreed that hydrogen will not be the only energy solution, but that the combination of different vectors will contribute to achieving sustainability objectives.

In addition, the conference discussed the impact of hydrogen technologies and their exploitation in electric motor applications. **Xavier Boncompte**, Chief Engineer at **Phinia**, shared his experience in the field of vehicles retrofitted with hybrid systems as demonstrated at Dakar. *"In the short term, we are betting on HVO (renewable diesel from hydrotreated vegetable oil) combined with hydrogen. It's a mature technology that works, as we proved this year. In the medium term, we are focusing on the potential of fuel cells, although the challenge is autonomy and cost-effectiveness. Finally, in the long term, we don't look at the battery, we focus on the combustion engine,"* he said. After stating that hydrogen is currently a high-priced resource, he emphasized that *"in 5-7 years companies will invest in mass production of hydrogen and then it will be cheaper, and the rules of the game will change."*

On the use of this resource in internal combustion engines, **Xavier Ribas**, R&D Director at **EVARM Innovation**, pointed out that *"the time to market is too long and capital investment is still low. The technology is mature, what worries me is the speed at which the hydrogen infrastructure is growing as it is not the same as the market. The administration must support investment in infrastructure and ensure the same speed as in the rest of the actors,"* he emphasized. Something he agreed on with **Àngel García**, Business Development Spain, Portugal & LATAM at **Nedstack**: *"In Spain we need to accelerate a lot, if we don't have refueling infrastructure nobody will invest in the technology,"* he said.

Likewise, experts such as **Sebastian Schulte**, CEO of **Deutz**, **Daniel de Miguel**, Head of Technology, Development, Business and Regulation in Biofuels at **Cepsa**, and **Irene Lores**, business development manager of hydrogen at **BP**, shared how green hydrogen is a key piece for the decarbonization not only of mobility, but of the industry in general, and for the reindustrialization of our country.

About [eMobility Expo World Congress](#) (February 13th-15th, 2024 – Feria de Valencia): eMobility Expo World Congress is a professional event for the sustainable mobility industry. For three days eMobility Expo will bring together in Valencia the leading firms specializing in micromobility, the automotive industry, technology, manufacturers of electric batteries and charging systems, new fuel sources, products for automated and autonomous driving, components industry, logistics, aeronautics, rail and shipbuilding, as well as startups that are revolutionizing the sector. The eMobility World Congress will be held as part of the event, where more than 375 experts will share the keys to implementing new business models and present the most cutting-edge technological and sustainable trends in the field of mobility.



About [H2 - Hydrogen World Congress](#) (14-15 February 2024 - Feria de Valencia): it is the largest congress dedicated to the world of green hydrogen as a potential energy source to decarbonize the industrial and mobility sector. For two days, the H2 - Hydrogen World Congress will bring together in Valencia the leading firms specialized in the manufacturing and distribution of green hydrogen, the related technology sector, manufacturers of charging systems, new fuel sources, products for sustainable mobility, components industry, logistics, aeronautics, rail and shipbuilding, as well as startups that are revolutionizing the sector. The eMobility Expo World Congress will be held as part of the event, where more than 375 experts will share the keys to implementing new business models and present the most cutting-edge technological and sustainable trends in the field of mobility.