How can the hydrogen economy be promoted regionally?

We answer this question by talking about the 'Ebro Hydrogen Corridor,' a project that seeks to foment cross-territorial coordination among ongoing initiatives in northern Spain to contribute to the rapid and efficient deployment of the hydrogen economy.

Hydrogen is a key energy vector in the energy transition and global economic growth, transcending its large industry scope through small ecosystems structured to facilitate production at smaller scales, but with a greater positive impact on the area. For this development to take hold, many of these <u>hydrogen valleys</u> come together in partnership. **The Ebro [Hydrogen] Corridor** is one of these projects that seeks to strengthen the interterritorial connection and serve **as a liaison between regional initiatives,** in this case, in northeastern Spain. There is currently **no such initiative in the European Union,** involving four leading regions in different complementary aspects between them and a large private initiative. This new ecosystem is called to play a leading role in the decarbonization of the surrounding industry, while improving its competitiveness and attracting new investments.

The project is supported by the association of the <u>Basque Hydrogen Corridor</u>, the <u>Hydrogen Valley</u> <u>of Catalonia</u>, the <u>Aragon Hydrogen Foundation</u> and the <u>Navarra Industrial Association</u>. The creation of the corridor has also been driven by <u>SHYNE</u>, Spain's largest multi-sector consortium for renewable hydrogen.

The Expert's Voice

Fernando Palacín, director of the Aragon Hydrogen Foundation, talks about the keys to boosting the hydrogen economy at different levels and shows us the accomplishments achieved by the Ebro Corridor project, an international **benchmark for an ecosystem adapted to the development of the industry.**

How can the hydrogen economy be fostered regionally?

Technologies are already on the road and in the market; now's the time to continue developing business projects supported by regional, national and European governments' wagers. Thanks to the support programs, the private sector has been invigorated. In Aragon, we are aware of our potential to produce green hydrogen, but we also want a large portion of what is produced to be consumed here, benefiting various economic sectors and seeking to be at the forefront of the manufacturing of equipment goods, a matter with which we already have a lot of experience. The knowledge and training provided by the best professionals adds value to our business fabric.



How does this fast and efficient industry rollout come to fruition?

Working throughout the hydrogen value chain, not only on the technological side (production, distribution and applications) but also in all cross-sectional areas (rules, regulations, training, etc.) that the Foundation identified as crucial 20 years ago and that today **are essential** when executing any industrial project.

Who are the key players involved in this development? What is their role?

There are a wide range of them, both private and public. If we look back at the entire value chain, we have everything **from renewable energy to hydrogen producers**, not to mention the entire distribution phase or final application areas such as mobility, transportation, chemistry, etc.

The **Administration**, for its part, supports and finances. It has been and is the catalyst and has incentivized an attitude of constant momentum, as it has seen in these technologies a means of technological and industrial development. Here, the Government of Aragon has driven a well-defined strategy, embodied in successive plans, so that companies and entities —not only in Aragon— would **retain, identify opportunities and diversify their activity** towards hydrogen technologies, which for many was unknown territory.

"These valleys are initiatives that drive the creation of large hydrogen projects by improving the competitiveness of the project itself"

Could you tell us about the main benefits to residents and the environment if this type of energy ecosystem comes into existence?

The most obvious are the **decarbonization** of the economy and job and wealth creation.

What can be aspired to when the hydrogen industry establishes itself?

The opportunities for hydrogen come from being a technology that can decarbonize the activity sectors in our country. The goal is to be able to transform the industry so as to be able to meet the equipment and product needs that the <u>hydrogen industry will demand</u>. To this end, **it is critical that technological transfer be increased** from the knowledge sectors (university and research centers) to companies.

What is the roadmap for the sector in the development of hydrogen valleys and where is it?



These valleys are initiatives that drive the creation of large hydrogen projects **by improving the competitiveness of the project itself.** This encourages work on other aspects, such as identifying and improving rules and regulations, and the training needed. These are projects that benefit the deployment of hydrogen itself, but given its scale, they continue to meet the challenges encountered by any sector that integrates a new emerging technology of such importance as this.

What would you say are the main challenges you face today, and how do you hope to overcome them successfully?

Difficulties, after all is said and done, are opportunities. In the case at hand, the competitiveness of **this technology requires scalability that improves both investment and operating costs**, as well as defining the regulations necessary to treat hydrogen with the new approach being given to it. Of course, there is also the **training**, preparing the technicians that the local sector will need in the short term. Finally, increase the efforts to make technology known to all the parties in those sectors that are going to have something to say and of course to end users, which is all of us.

The following have participated in this article...

<u>Fernando Palacín Arizón</u> is an industrial engineer from the University of Zaragoza, an MBA from the UNED and AMP from the Institute of Business. He has specialized in the field of renewable energy, always from its R&D&i side and its extension into the business and industrial world.

He began his career in the solar energy sector, later joining the National Renewable Energy Center. In 2013, he joined the Foundation for the Development of New Hydrogen Technologies in Aragon (FHa) as Project Director and subsequently, in 2014, as Managing Director of the entity.

Keep reading about hydrogen... The role of hydrogen in the aerospace industry