

Enabling the success of the hydrogen-energy chain through international cooperation

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Hydrogen is considered worldwide as an essential vector for freeing our societies from fossil fuels and effectively initiating the energy transition. Offering high energy density, hydrogen can be used for mobile, stationary, or industrial applications of all sizes. This perspective on the crucial role of hydrogen is shared by a growing number of countries (e.g., Australia, China, France, Germany, Japan, Republic of Korea, United States of America...), which are publishing ambitious roadmaps for the development of hydrogen and fuel cell technologies, supported by substantial financial efforts. Turkey also takes an active part in this direction through the definition of priority areas aiming to define a national roadmap [1].

This contribution highlights the vision of different countries on hydrogen-energy, with especial emphasis on French, German, and European policies [2] as well as the Australian case. Even though all these countries share the common vision of boosting the hydrogen chain for attaining a carbon-free world, strategies differ depending on national energy policies. But, as a common rule, all underline the needs of establishing international collaboration in research and development to share knowledge on hydrogen technologies and/or to accelerate import-export hydrogen markets. Thus, the implementation of international cooperation tools is a key factor to enable the success of the hydrogen vector. In this context, the International Research Network FACES (Figure 1) was created in 2020 [3]. The IRN-FACES is the collaborative French-Australian research network on energy materials and integrated systems for electrochemical storage and hydrogen energy. Its expertise concerns not only the hydrogen chain but also electrochemical energy storage. IRN-FACES aims and expertise in the framework of international collaborations will be presented.



Figure1: IRN-FACES: International Research Network - French-Australian research network on Conversion and Energy Storage

References

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