

## **Scenarios for hydrogen production, transport and final use**

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The energy transition is a dynamic matrix of processes that responds to a need to mitigate climate change, but which generates the opportunities resulting from a paradigm shift. The process matrix is based on some main tools: (a) increase in the use of renewable energy sources in all end uses; (b) decarbonisation of industrial processes and end uses of energy; (c) progressive electrification of end uses; (d) global management of CO<sub>2</sub>; (f) circular economy protocols.

A unifying element of this mosaic of interventions, and which can contribute to obtaining the necessary match between the different purposes (for example, the use of renewable sources for the decarbonization of industrial processes) is believed to be hydrogen. This chemical and energy vector, characterized by flexibility of production and use, and by a high environmental compatibility (its oxidation produces H<sub>2</sub>O) is destined to have a growing and decisive role in the paradigm of the energy transition.

The scenarios of production / transport / use of Hydrogen are the subject of discussion. A particular focus will be devoted to innovative pathways for the production of green hydrogen.