

Why hydrogen is now ready to enable the energy transition?



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The potential of H₂ as a future fuel has long been seen as a promising ... future solution. However, to date, each attempt to bring this technology potential to scale has failed, or has proven too early to match expectations.

The current renewed interest for this technology, shown by a significant increase of reports, announcement, policies from different countries, should this time be taken seriously. The presentation will explain the key reasons for this change in outlook for hydrogen.

First we will look back to the new energy and climate situation, which calls for urgencies.

Second we will take into account the evolution of renewable primary energy sources which have now reached significant scale benefits and become very competitive.

Third, now that it appears possible to partially reduce the fossil source of our primary energy, the world turns to the key other emitting sectors, transport and industry, to look at option for decarbonizing them. And here, we will see that Hydrogen becomes an unavoidable solution.

Fourth, technologies have made significant progress along all the value chain from producing to using hydrogen in many different applications, with no significant series development and first sign of market level readiness.

Last, the industry itself has organized and is now structured, with a vision, a road map, and a set of key primary industry targets to move to scale.

Key hurdles remain, from regulation to cost to make sure we are capable to develop clean hydrogen pathways so that H₂ solutions effectively benefit to the Energy Transition target. But all lights are leaning towards green. Policy alignment, more financial support and increasing engagement from the financial community should enable the scale needed to bring H₂ where it should be, as the key vector of our future energy system.

The presentation will illustrate along those lines also how one of the key players in this nascent market, Air Liquide, is developing its strategy to ensure its development.

