



International Partnership
for Hydrogen and Fuel Cells
in the Economy

***France* Update**

35th IPHE Steering Committee Meeting

22 – 23 June 2021

Virtual Meeting

Announcements / New Initiatives

France



- **Establishment of the French National Hydrogen Council**

It brings together major industrialists representing several industrial sectors and has the task of evaluating the smooth running of the actions planned in the strategy and to identify, if necessary, any possible obstacles or new actions to be put in place.

- **Governmental Roadmap to Decarbonize the Chemistry Sector**

It sets a target to reduce its annual greenhouse gas emissions by 26% by 2030 (compared to 2015). The production of fossil H₂ by chemical companies in France amounts to 300 kt/year and represents GHG emissions of about 2.7 MtCO₂eq/year. Its substitution by **decarbonised hydrogen** is considered.

- **Governmental roadmap for the decarbonisation of the mining and metallurgy sector**

It sets a target to reduce its CO₂ emissions by 31% by 2030. The sector, which accounts for 24% of total industry emissions, will therefore have to reduce its emissions by 7.4 MtCO₂eq compared to 2015. This could be achieved by increasing the recycling rate of circular steel, reducing the use of coal in blast furnaces, CCS or **low-carbon hydrogen** for the pre-reduction of iron ore.

- **Government unlocks €47 million for 14 hydrogen train order**

Occitanie, Bourgogne–Franche-Comté, Grand Est and Auvergne–Rhône-Alpes regions will contribute the remaining €83 million for a total investment of €160 million.



Announcements / New Initiatives

France



- **CNRS inaugurates its Hydrogen Federation**

Created on the 1st of January 2020 and formalised early March 2021, CNRS Hydrogen Federation brings together more than 270 researchers and 28 CNRS laboratories, in partnership with universities, research organisations and engineering schools. It will coordinate the research efforts of these numerous teams on the major issues of decarbonised hydrogen, ranging from its production, purification, storage, to the production of systems for its use as fuel cells.

- **Creation of GENVIA, a joint venture between Schlumberger, CEA, Vinci Construction, Vicat and AREC Occitanie**

The JV aims at producing high-temperature solid oxide electrolysers. A gigafactory will be manufactured in Béziers (South of France).

- **SAFRA and SYMBIO partner to produce 1,500 hydrogen buses**

Already partners in the design of the first French hydrogen buses, Safra and Symbio have signed a contract for the development of 1,500 buses equipped with an optimised hydrogen system.



France – Profile June 2021

Status of Deployments

- ✓ Electrolysers: 5 MW
- ✓ FCEVs: ~380
- ✓ FC Bus : 22
- ✓ Forklifts: 325
- ✓ HRS: 32 for vehicles
7 for bikes

Leading Government Initiatives

- ✓ National Hydrogen Strategy
- ✓ Multi-annual Energy Plan (2019-2028)
- ✓ Energy-Climate law
- ✓ Sectorial Strategic Contracts between State and Industry

Goals or Focus Areas

3 main priorities:

- 1/ Industrial decarbonisation
- 2/ Clean H2 for heavy duty transport application
- 3/ Support Research, Innovation & know-how dvpt for tomorrow's usages

Deployment Goals

By 2028

- Vehicles: 20,000 – 50,000
- FC Bus and trucks: 800 - 2,000
- HRS: 400 - 1,000
- 20-40% of decarbonised H2
- 6.5 GW of electrolysers by 2030

Funding

€7.2bn for 2021-2030
(with €3.4bn for 2021-2023)

Thank you



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