

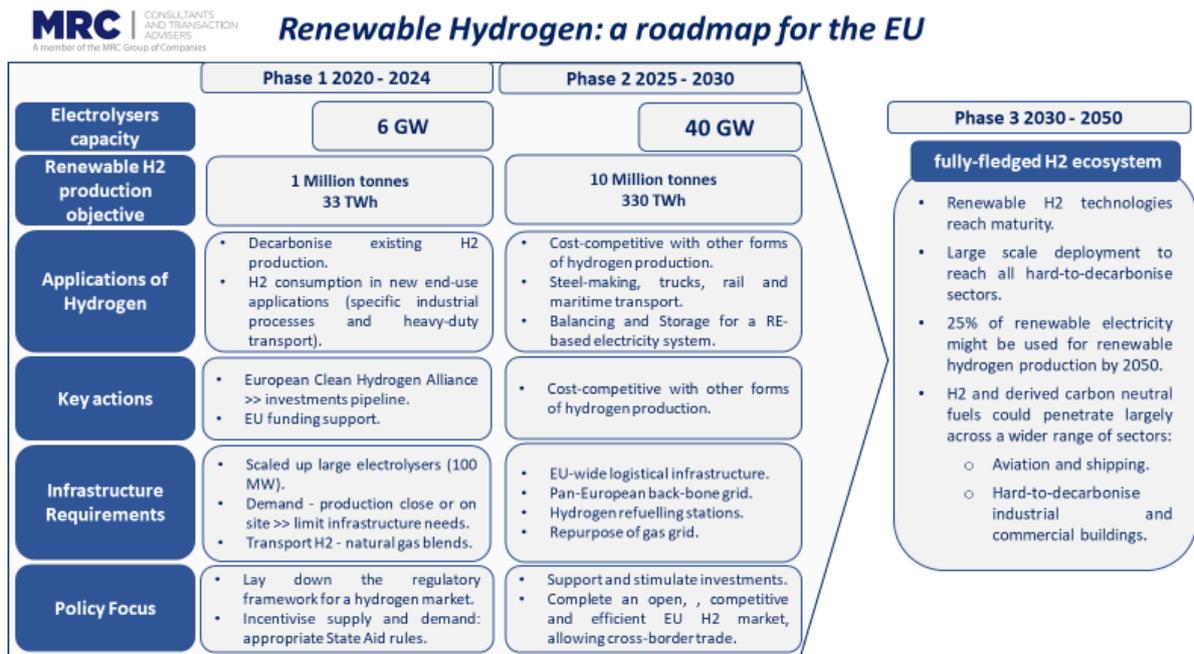
A hydrogen strategy for a climate-neutral Europe

In July 2020, the European Commission published a *hydrogen strategy for a climate-neutral Europe* with a strategic road map for hydrogen.

The priority for the EU is to develop renewable hydrogen, produced using mainly wind and solar energy. Renewable hydrogen is the most compatible option with the EU’s climate neutrality and zero pollution goal in the long term and the most coherent with an integrated energy system. The choice for renewable hydrogen builds on European industrial strength in electrolyser production, will create new jobs and economic growth within the EU and support a cost-effective integrated energy system. On the way to 2050, renewable hydrogen should progressively be deployed at large scale alongside the roll-out of new renewable power generation, as technology matures and the costs of its production technologies decrease.

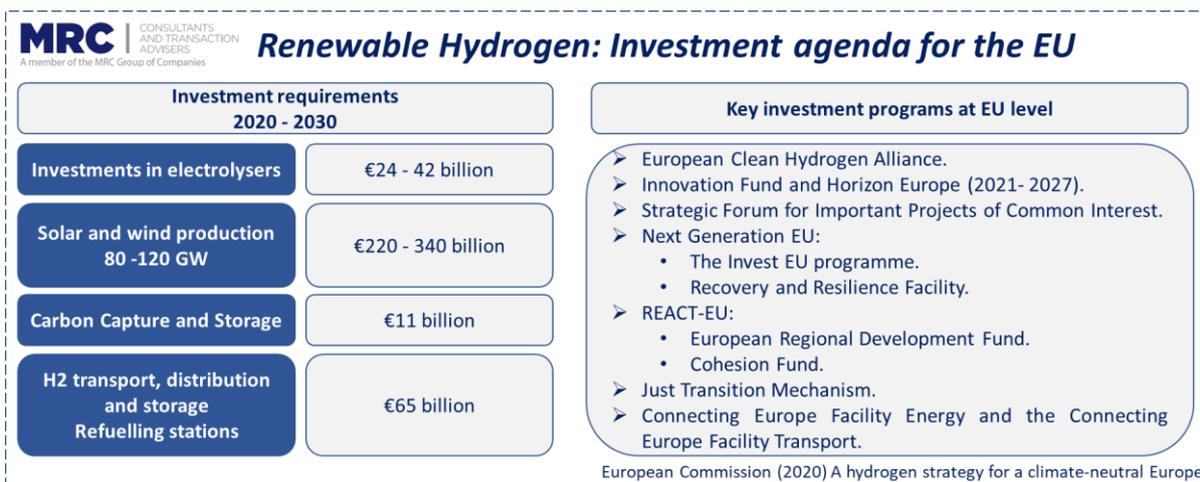
Renewable hydrogen offers a unique opportunity for research and innovation, maintaining and expanding Europe’s technological leadership, and creating economic growth and jobs across the full value chain and across the Union.

This requires ambitious and well-coordinated policies at national and European levels, as well as diplomatic outreach on energy and climate with international partners.



European Commission (2020) A hydrogen strategy for a climate-neutral Europe

Achieving the deployment goals outlined in this strategic roadmap by 2024 and 2030 requires a strong investment agenda exploiting synergies and ensuring coherence of public support across the different EU funds and EIB financing, harnessing the leverage effect and avoiding excessive support.



Key actions at EU level

An investment agenda for the EU

- Through the European Clean Hydrogen Alliance, develop an investment agenda to stimulate the roll out of production and use of hydrogen and build a concrete pipeline of projects (by the end of 2020).
- Support strategic investments in clean hydrogen in the context of the Commission’s recovery plan, in particular through the Strategic European Investment Window of InvestEU (from 2021).

Boosting demand for and scaling up production

- Propose measures to facilitate the use of hydrogen and its derivatives in the transport sector in the Commission’s upcoming Sustainable and Smart Mobility Strategy, and in related policy initiatives (2020).
- Explore additional support measures, including demand-side policies in end-use sectors, for renewable hydrogen building on the existing provisions of Renewable Energy Directive (by June 2021).
- Work to introduce a common low-carbon threshold/standard for the promotion of hydrogen production installations based on their full life-cycle GHG performance (by June 2021).
- Work to introduce a comprehensive terminology and European-wide criteria for the certification of renewable and low-carbon hydrogen (by June 2021).
- Develop a pilot scheme – preferably at EU level – for a Carbon Contracts for Difference programme, in particular to support the production of low carbon and circular steel, and basic chemicals.

Designing an enabling and supportive framework: support schemes, market rules and infrastructure

- Start the planning of hydrogen infrastructure, including in the Trans-European Networks for Energy and Transport and the Ten-Year Network Development Plans (TYNDPs) (2021) taking into account also the planning of a network of fuelling stations.
- Accelerate the deployment of different refuelling infrastructure in the revision of the Alternative Fuels Infrastructure Directive and the revision of the Regulation on the Trans European Transport Network (2021).
- Design enabling market rules to the deployment of hydrogen, including removing barriers for efficient hydrogen infrastructure development (e.g. via repurposing) and ensure access to liquid markets for hydrogen producers and customers and the integrity of the internal gas market, through the upcoming legislative reviews (e.g. review of the gas legislation for competitive decarbonised gas markets (2021).

Promoting research and innovation in hydrogen technologies

- Launch a 100 MW electrolyser and a Green Airports and Ports call for proposals as part of the European Green Deal call under Horizon 2020 (Q3 2020).
- Establish the proposed Clean Hydrogen Partnership, focusing on renewable hydrogen production, storage, transport, distribution and key components for priority end-uses of clean hydrogen at a competitive price (2021).
- Steer the development of key pilot projects that support Hydrogen value chains, in coordination with the SET Plan (from 2020 onwards).
- Facilitate the demonstration of innovative hydrogen-based technologies through the launch of calls for proposals under the ETS Innovation Fund (first call launched in July 2020).
- Launch a call for pilot action on interregional innovation under cohesion policy on Hydrogen Technologies in carbon-intensive regions (2020).

The international dimension

- Strengthen EU leadership in international fora for technical standards, regulations and definitions on hydrogen.
- Develop the hydrogen mission within the next mandate of Mission Innovation (MI2).
- Promote cooperation with Southern and Eastern Neighbourhood partners and Energy Community countries, notably Ukraine on renewable electricity and hydrogen.
- Set out a cooperation process on renewable hydrogen with the African Union in the framework of the Africa-Europe Green Energy Initiative.

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