

Renewable and low-carbon hydrogen, a key vector for the decarbonisation and industrial competitiveness

Renewable and low-carbon hydrogen is a clean energy vector that can be used in hard-to-abate sectors, such as intensive industry and heavy transport.

The European Commission has emphasized hydrogen as a key pillar in achieving the 2040 greenhouse gas (GHG) reduction targets, enhancing energy resilience and strengthening the European Union's industrial competitiveness. The expansion of hydrogen in the EU will rely on the development of a large-scale infrastructure network, linking supply from producer countries to demand centers.

Collaboration between companies and institutions on projects such as H2med, supported by the development of essential national networks, will be key to achieve the European hydrogen targets while enhancing the security of supply and price competitiveness.

Potential and benefits for Europe



Socio-economic

- Industrial development
- Innovational development
- Investment attraction
- Price competitiveness
- Market integration



Energy and environmental

- Emissions reductions
- Air quality improvement
- Renewables promotion
- Contribution to national objectives



Social indicators

- Just transition
- Employment
- Contribution to local economies
- Sustainable development goals

an example of European energy cooperation

Co-funded by the European Union

enagas naTran OGÉ REN TERÉGA



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H2med is an essential element for the configuration of a hydrogen corridor from the Iberian Peninsula to Central Europe, connecting supply from producing sites to demand centers.

Driven by the governments of Spain, Portugal, France and Germany, with the support of the European Commission, it is promoted by the Transmission System Operators (TSOs) of the countries: REN, Enagás, NaTran, Teréga and OGE.

On the 8th of April 2024, the project was included on the list of Projects of Common Interest (PCI).

In December 2025, the European Commission proposed the renewal of the PCI status for the 2nd PCI list, to be published in 2026.

The project

H2med is made up of two interconnections, CelZa between Portugal and Spain, and BarMar, an offshore pipeline between Spain and France. The joint investment of these two projects is estimated at €2.5 billion.

| 1 CelZa | 2 BarMar |
|--------------------|----------------------|
| Maximum capacity | 0.75 Mt/year |
| Length | ≈ 270 km |
| Diameter | 28" |
| Max. depth | - |
| Design pressure | 100 barg |
| Compressor station | Zamora ≈ 30 MW |
| Investment | ≈ €350 M |
| | 2 Mt/year |
| | 42" |
| | 120 m |
| | 100 barg |
| | Barcelona ≈ 60 MW |
| | ≈ €2,135 M |

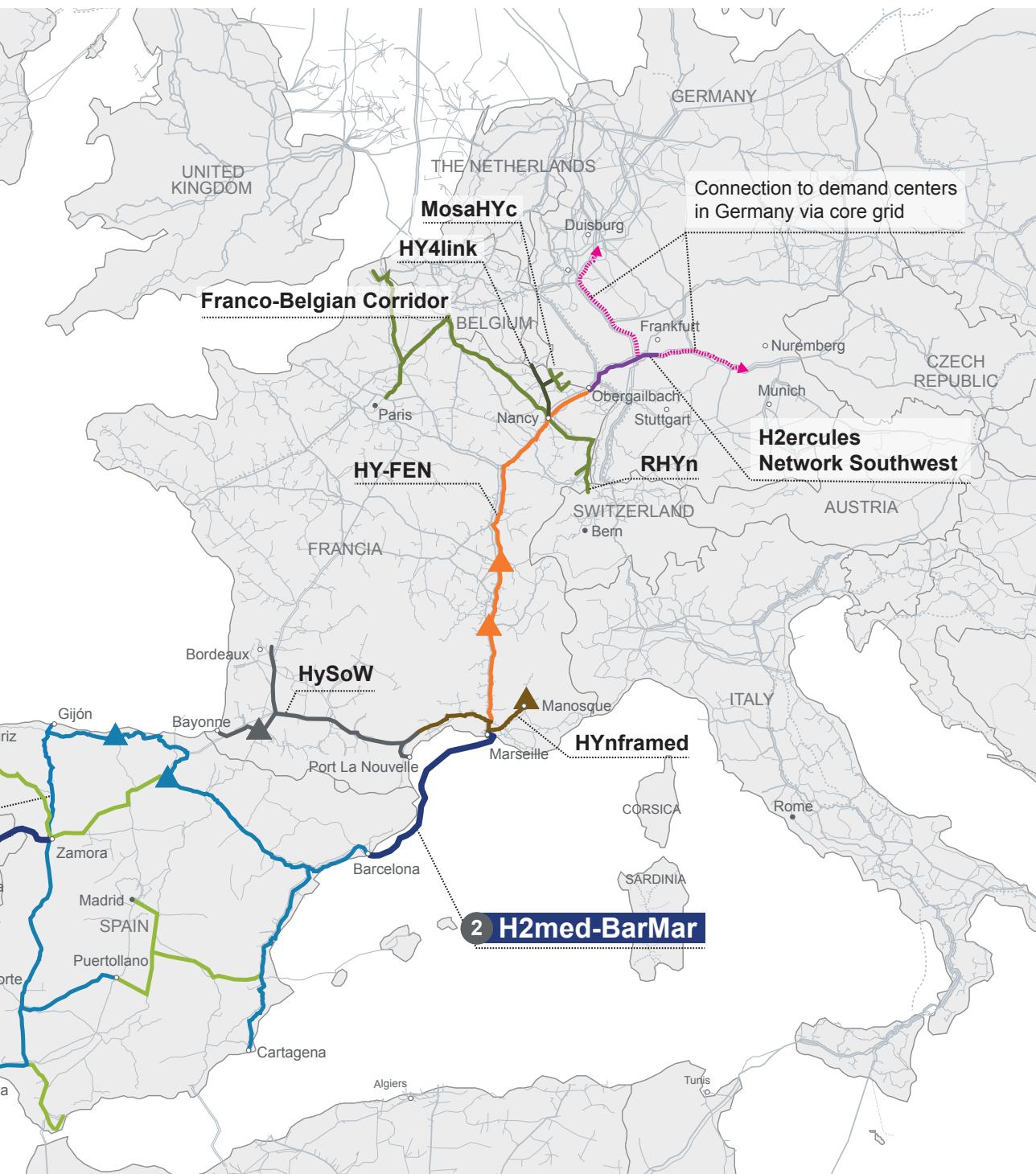
It will be able to transport 10% of expected European demand by 2032

H2med Corridor and connecting projects

Projects on the route to Central Europe

The main projects on the route to connect the Iberian Peninsula to Central Europe are the Spanish Hydrogen Backbone, the Portuguese Hydrogen Backbone and major pipeline projects in France: HYnframed, HySoW and HY-FEN, supported by a grant under the Connecting Europe Facility for Energy, acknowledging their contribution to the European Energy transition. HY-FEN will connect to the H2ercules Network South West in Germany, a part of the German core grid, reaching all main demand centers in Germany.

Other relevant projects connected to the route and supplying other consumption areas are mosaHyc, RHYn and the Franco-Belgian Corridor.



Schedule

