

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

Renewable hydrogen is a clean energy vector that can be applied in sectors with difficult decarbonisation solutions, such as intensive industry and heavy transport.

The European Commission has emphasized hydrogen as a key pillar in achieving the 2040 GHG reduction targets. 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 centres.

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



an example of European energy cooperation



H2med is an essential element for the configuration of a hydrogen corridor from the Iberian Peninsula to North Western Europe, connecting supply from producer countries to demand centres.

Driven by the governments of Portugal, Spain, France and Germany, with the support of the European Commission, it is promoted by the TSOs of the countries: REN, Enagás, GRTgaz, Teréga and OGE.

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

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.

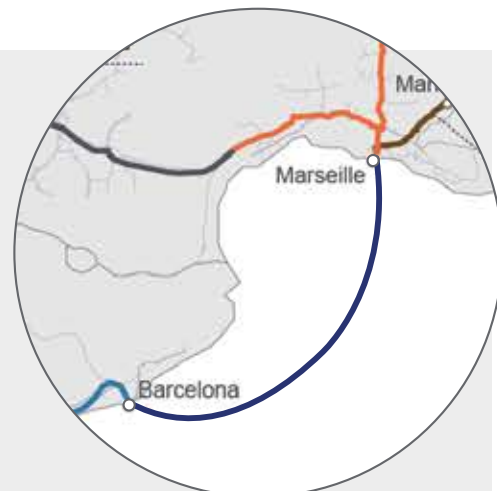


1 CelZa

Maximum capacity	0.75 Mt/year
Length	248 km
Diameter	28"
Design pressure	100 bar
Compressor station	Zamora
	24.6 MW
Investment	≈ €350 M

2 BarMar

Maximum capacity	2 Mt/year
Length	455 km
Diameter	28"
Max. depth	2,600 m
Operating pressure	210 bar
Compression station	Barcelona
	140 MW
Investment	≈ €2,135 M



It will be able to transport **10%** of total European demand by 2030

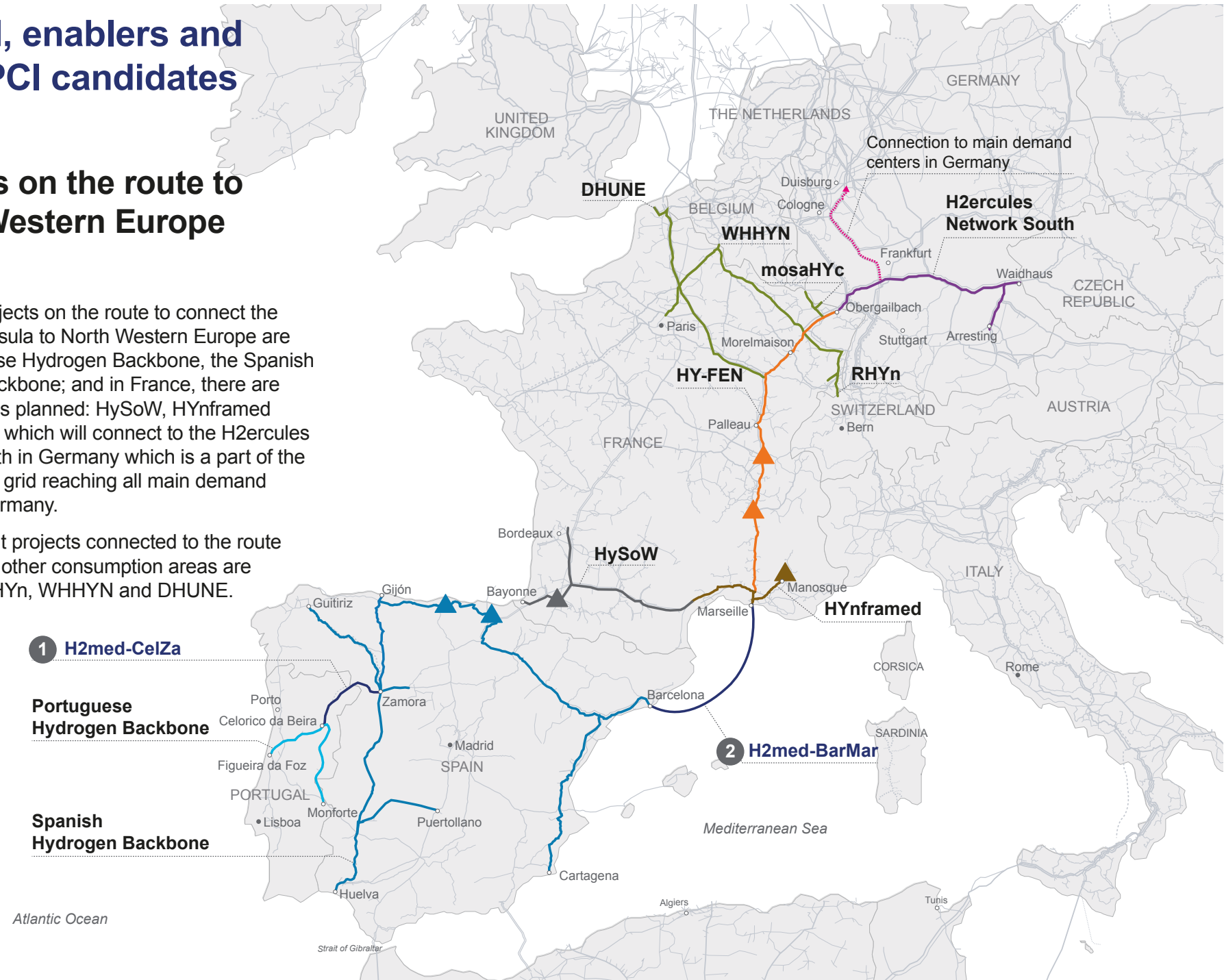
Alternative maritime route under consideration

H2med, enablers and other PCI candidates

Projects on the route to North Western Europe

The main projects on the route to connect the Iberian Peninsula to North Western Europe are the Portuguese Hydrogen Backbone, the Spanish Hydrogen Backbone; and in France, there are three pipelines planned: HySoW, HYNframed and HY-FEN, which will connect to the H2ercules Network South in Germany which is a part of the German core grid reaching all main demand centers in Germany.

Other relevant projects connected to the route and reaching other consumption areas are MosaHyc, RHYn, WHHYN and DHUNE.



1 H2med-CelZa

Portuguese Hydrogen Backbone

Spanish Hydrogen Backbone

2 H2med-BarMar

Schedule

