Renewable hydrogen, a key vector for the decarbonisation

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

REPower EU establishes a demand of 20Mt of hydrogen by 2030, of which 10 Mt will be produced domestically. This European plan considers that corridors linking supply from producer countries to demand centres, will be essential.

Collaboration between companies and institutions for the development of projects such as H2Med with the necessary national networks, will be key to achieve the European hydrogen targets.

Potential and benefits for Europe

Socio-economic

- Industrial development
- Innovational development
- Investment attraction

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

H2med

an example of European energy cooperation

REN enagas TERĒGA GRTgaz OGE

H2med

an example of European energy cooperation

REN enagas TERĒGA GRTgaz OGE

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

It was submitted to the European Union's Projects of Common Interest application on 15 December 2022.

The project

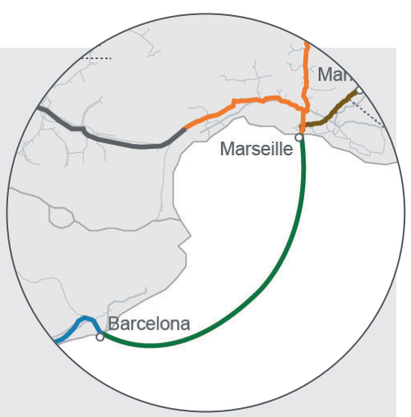
H2Med is made up of two interconnections, CelZa between Portugal and Spain, and BarMar, an offshore pipeline between Spain and France. The joint investment of these two projects is estimated at €2.5 billion.

1 CelZa

Maximum capacity	0.75 Mt
Length	248 km
Diameter	28”
Operating pressure	100 bar
Compression station	Zamora 24.6 MW
Investment	≈ €350 M

2 BarMar

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



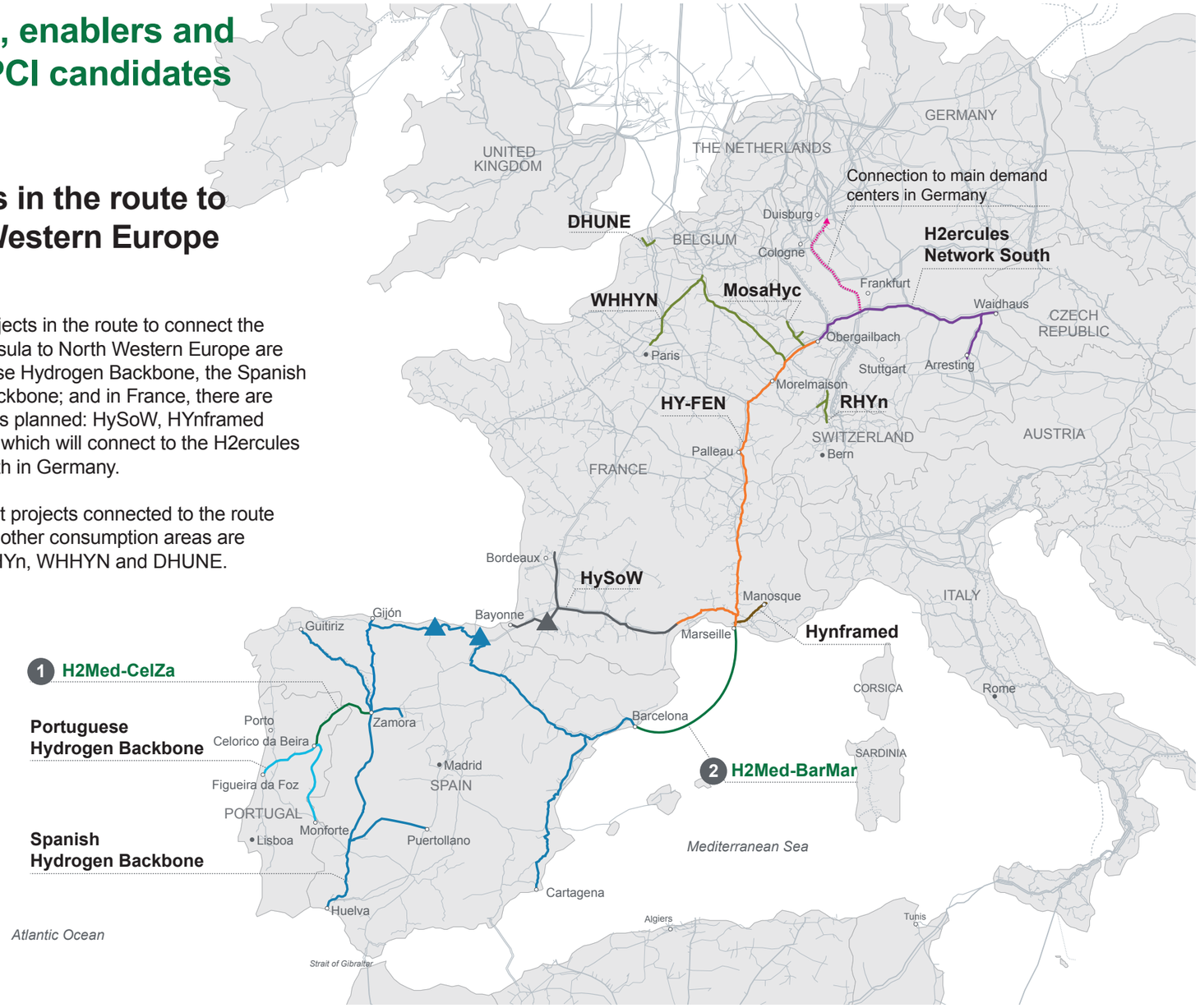
It will be able to transport 10% of total European demand by 2030

H2Med, enablers and other PCI candidates

Projects in the route to North Western Europe

The main projects in 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.

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



Schedule

STUDIES
CBA (Cost Benefit Analysis)
Feasibility studies
Environmental impact study
Technical proposal

Public consultations
Open Seasons
Definition of tariffs and access rules

IMPLEMENTATION
Engineering
Permits Mgmt.
Procurement
Execution
Date of commissioning

COMMERCIAL OPERATION DATE

9/12/2022
Mandate to TSOs to create development consortium for H2MED

START OF CONSTRUCTION

Oct-Dec 2022	2023	2024	2025	2026	2029	**2030**

15/12/2022
PCI presentation

Publication PCI list
Application for CEF-E grants for studies*

Investment request*

CEF-E application for construction

CEF-E decision for construction

*Conditional on schedule for resolution of PCIs