



# 2026

## EUROPEAN HYDROGEN ENERGY CONFERENCE

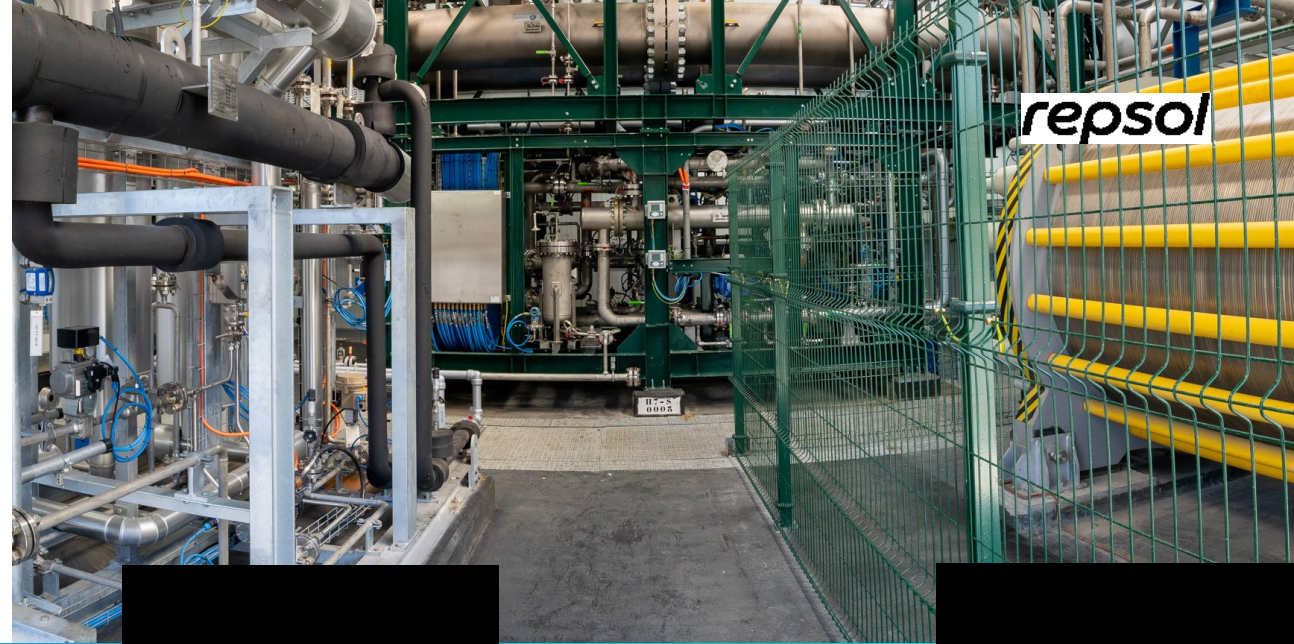
### SEVILLE

11<sup>th</sup> · 13<sup>th</sup> March 2026

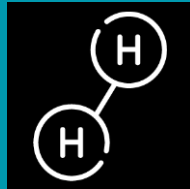
# Repsol's Three-Phase Renewable Hydrogen Strategy

## Repsol's Vision for a Sustainable Hydrogen-Powered Future

Repsol envisions hydrogen development through a three-phase roadmap.

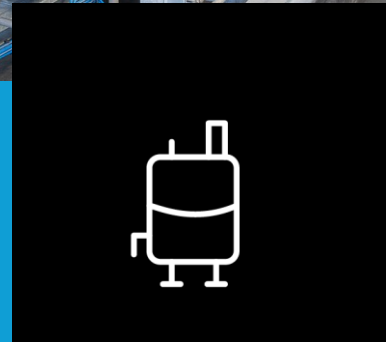


### Phase I (2027-2030) Decarbonizing today



Replacing grey hydrogen with renewable alternatives

### Phase II (2030+) Fueling tomorrow



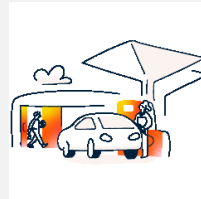
Scaling up the production of synthetic fuels and direct consumption

### Phase III (2035+) Connecting markets



Enabling hydrogen trading and full market integration

Leveraging the low marginal costs of large-scale renewable hydrogen production, **additional applications will emerge.**



MOBILITY

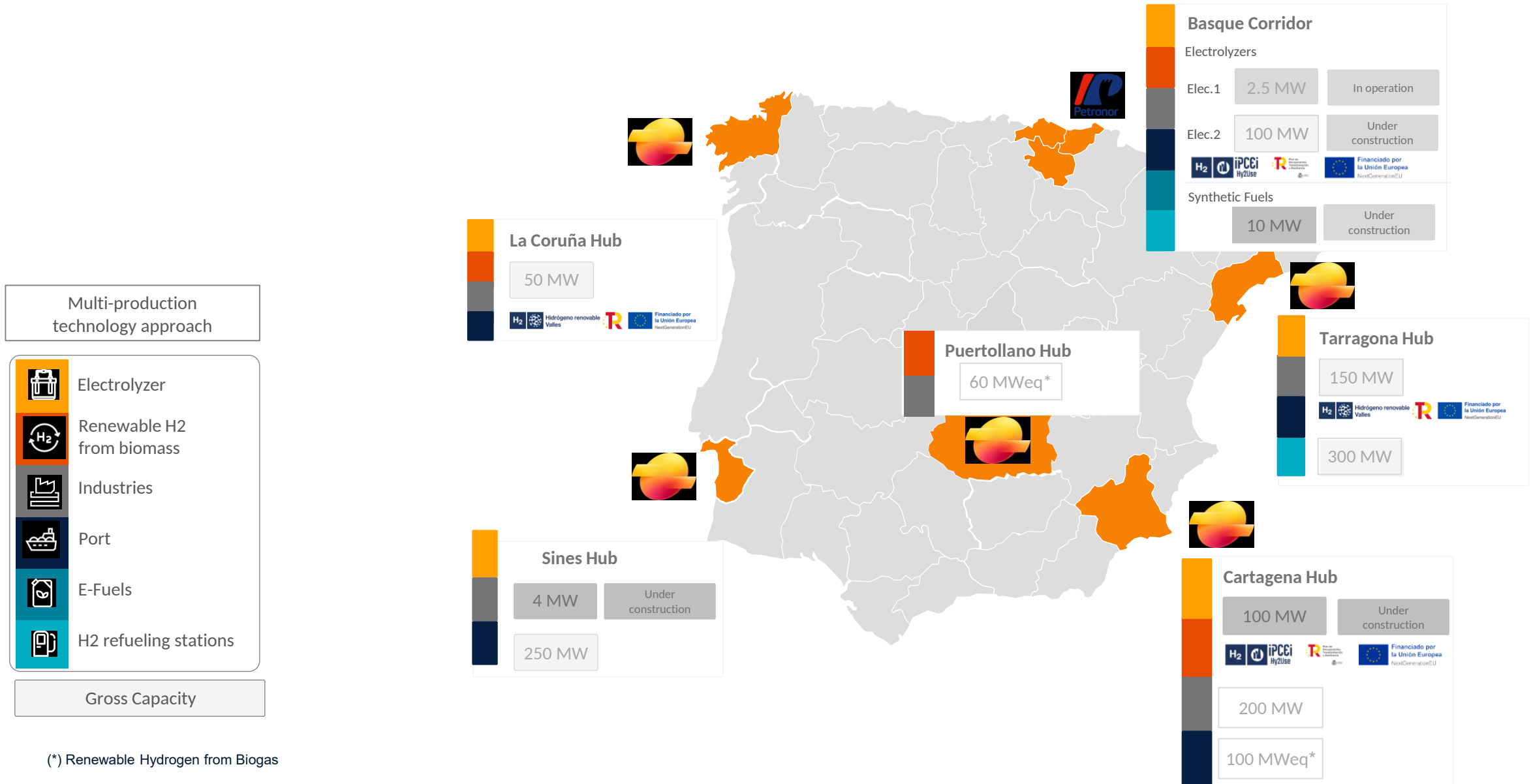


Industrial heat



Power system flexibility

# Scaling up renewable hydrogen: building a reference pipeline across all Repsol's industrial facilities in Iberia

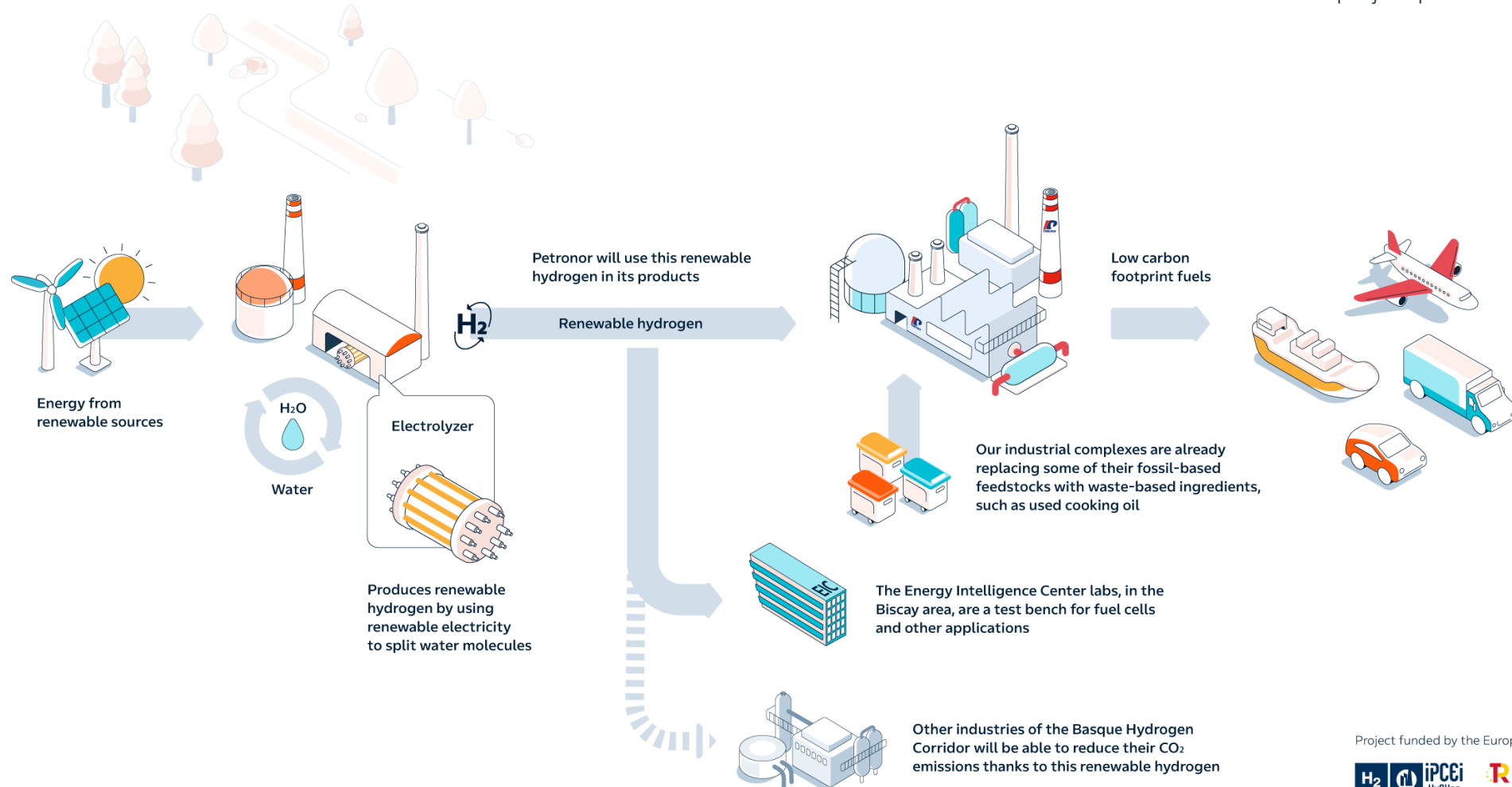


# Petronor Electrolyzer- 100MW

Repsol will build a 100 MW electrolyzer at its Petronor industrial complex. The renewable hydrogen generated will be used to produce fuels and other products with a low carbon footprint.

Funds invested  
**€292**  
million

Job creation  
**~900**  
direct, indirect, and  
induced jobs across  
all project phases



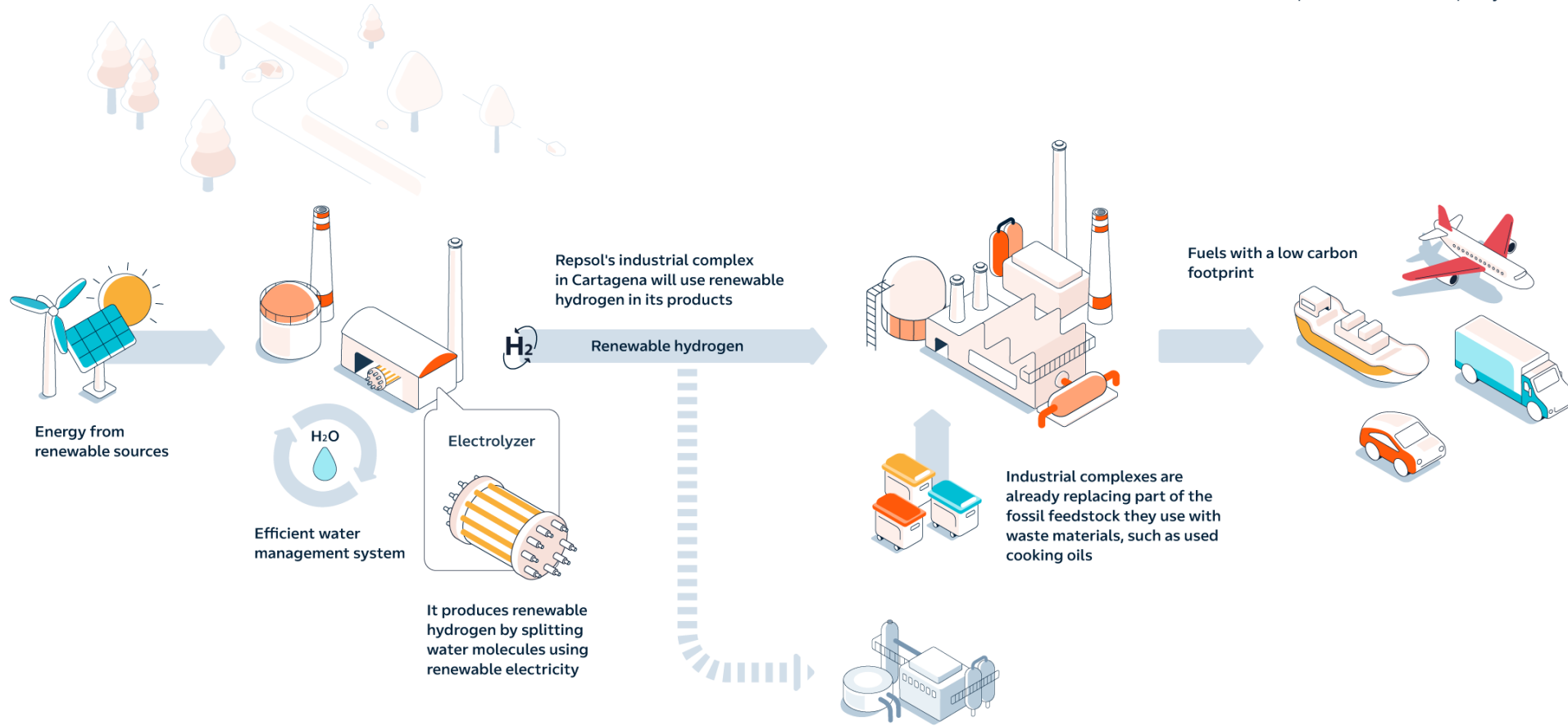
Project funded by the European Union-NextGenerationEU

# Cartagena Electrolyzer- 100MW

Repsol to build a 100 MW electrolyzer at its industrial center in Cartagena (Spain). The renewable hydrogen will be used to produce fuels and other products with a low carbon footprint.

**Investment**  
**+300**  
million euros

**Job creation**  
**~900**  
Direct, indirect, and induced jobs in all phases of the project

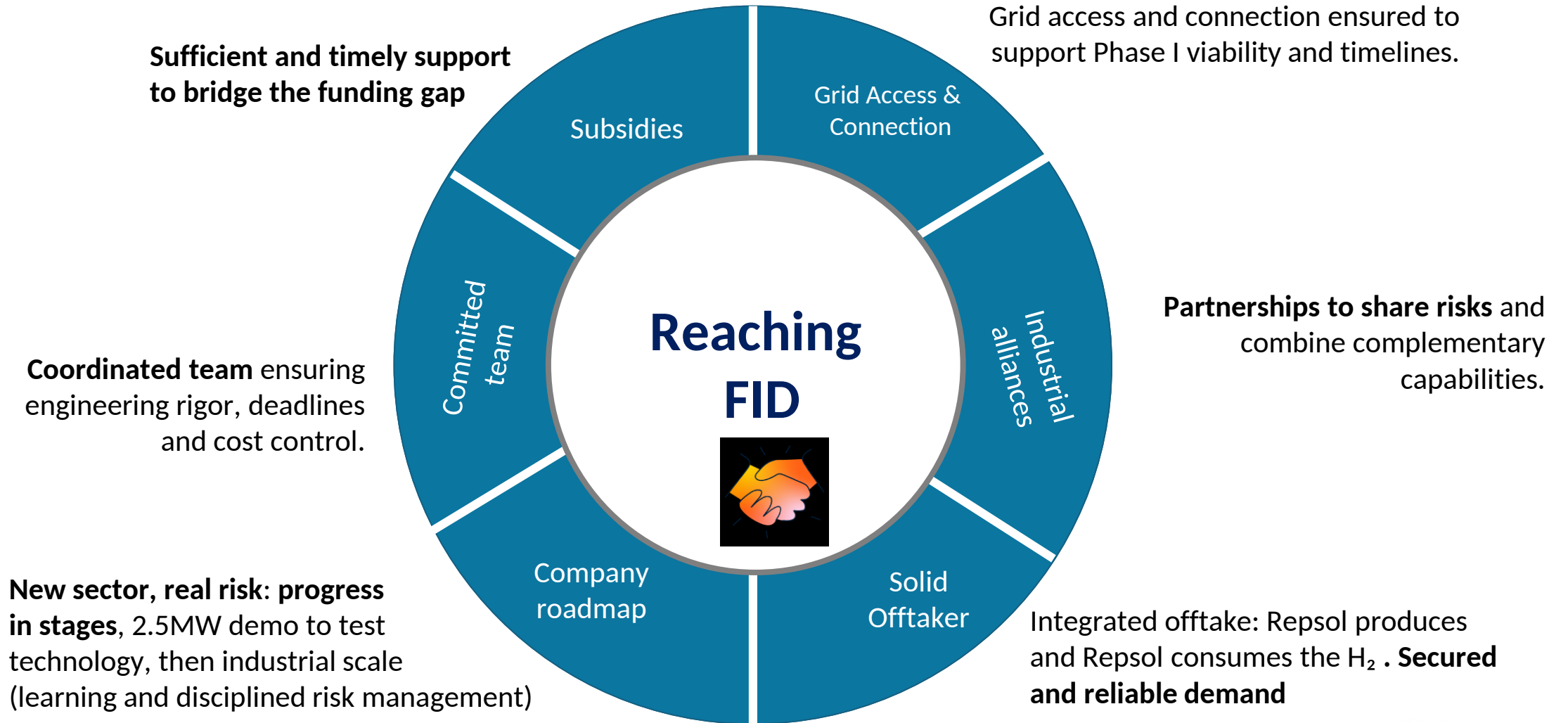


In the future, this hydrogen could supply other industries, consolidating itself as an anchor project for the development of hydrogen valleys in Spain

Project funded by the European Union-NextGenerationEU

# Keys to Success

## Electrolyzer FID Achievement Process



Reaching FID requires a major investment, risk control and coordination effort



# Risks that compromise project bankability

repsol

1

**Tecnologies still at early-stage maturity.** Non standardized performance and high cost.



2

**Slow and non-aligned permitting processes: electrical, environmental, operational...** plus uncoordinated critical permits (water, grid, evacuation line, land-use) causing duplication and delays.



3

**Overly restrictive and complex regulatory framework.**



4

**Public support programs lacking sufficient funding to bridge the financial gap and delays in fund disbursement**



5

**Uncertain grid connection grant and mismatch with the electrolyzer capacity awarded by a subsidy .**  
Lack of guaranteed capacity, long lead times, or network reinforcement requirements.



6

**Electrolyzer not recognized or remunerated as flexible or electro-intensive demand, nor eligible for tariff/charge exemptions.**



# Enabling Hydrogen to become Industrial Reality

This is an emerging sector, and every step remains a challenge

**Regulatory flexibility** temporal correlation and additionality. This is essential for project viability.



**Transitional periods and grandfathering** are needed to allow the industry to mature at a realistic pace.



**Complementary consortia** that strengthen the project are essential to its overall success



This is how hydrogen evolves from an ambition into an industrial reality

**Thank you**

