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Spain's Hydrogen Ambition

Between reindustrialization and export-led energy integration with the EU

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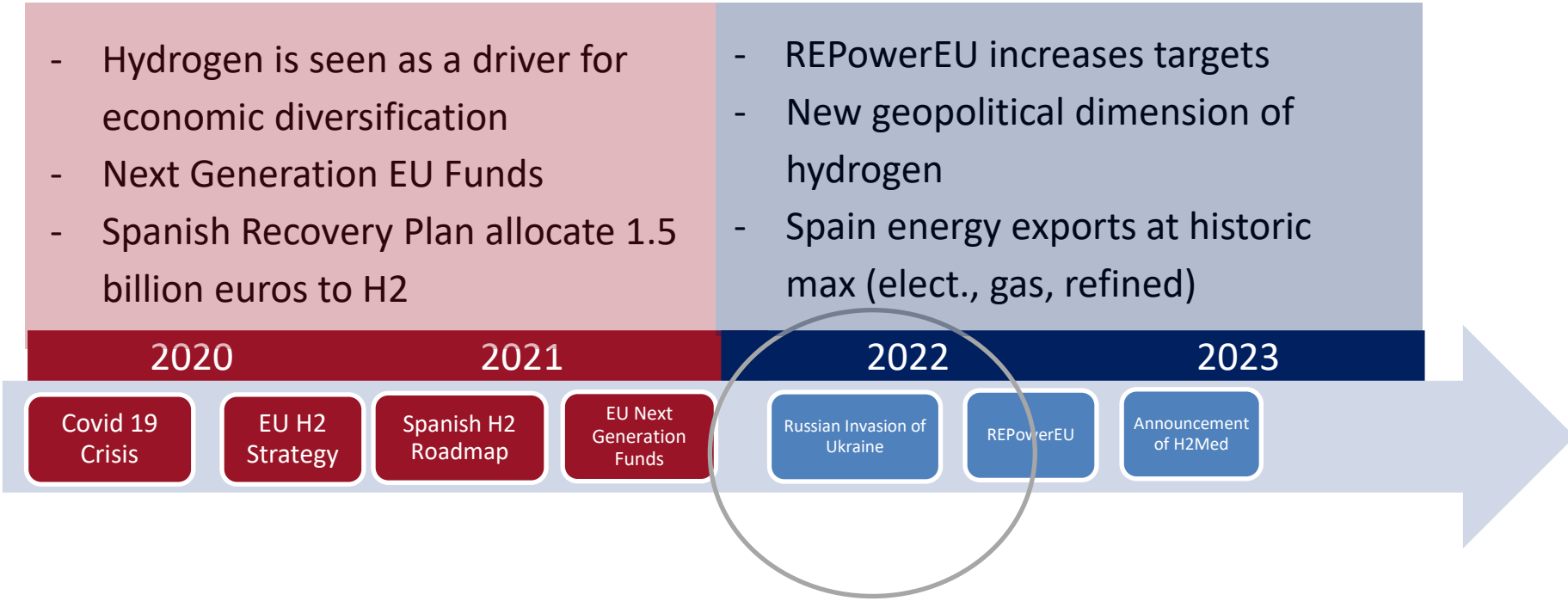
1. Drivers of Spain's Hydrogen Strategy: timeline 2020-2023

The Spanish Strategy evolves from an inward-looking approach (2020-2021) towards an international approach associated with infrastructure development (2022-2023)



2.1 Early domestic approach in 2020

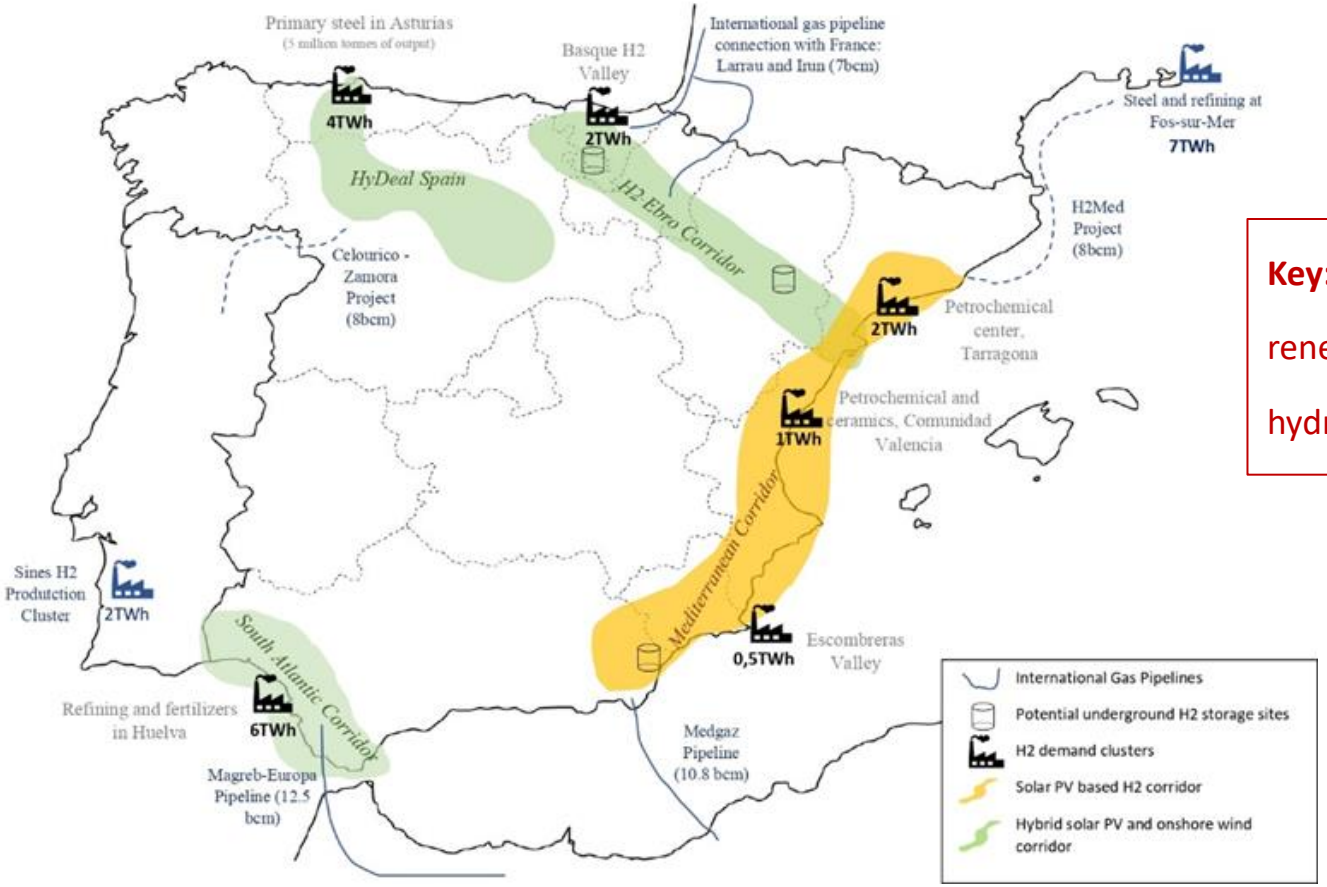
The Spanish Hydrogen Roadmap has consistently **focused on green hydrogen**

- 600MW of electrolysis capacity by 2024 and **4GW by 2030** **(Targets to be updated)**
- **Main goal:** Attracting downstream activities associated with the molecule to reindustrialize Spain as part of the Just Transition.

Puertollano, a former coal mining basin is today the location selected by Iberdrola and Fertiberia to develop one of the EU largest fertilizers and green ammonia pilot project.

2.2 A hydrogen strategy with a decentralized component

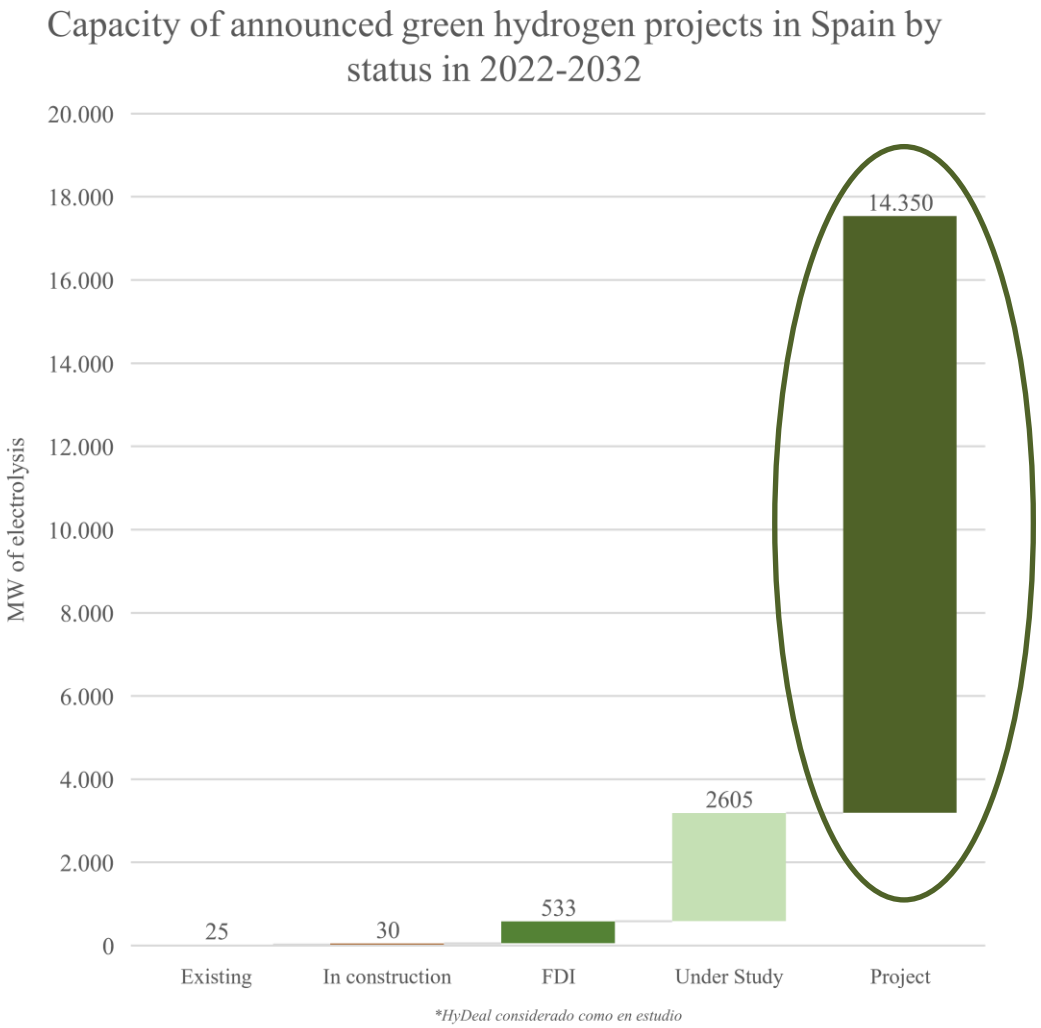
Devolved administrations have developed their own hydrogen plans, articulating inter-regional initiatives around industrial hubs to match renewable resource and H2 demand



Key: create value where renewables are installed and hydrogen is produced

Source: Ignacio Urbasos

2.3 Domestic development: Situation in 2023



- **On track of 4GW by 2030,** but need to move from projects and MoUs to FDI.
- Refining and fertilizers are the early movers with new steel and methanol projects announced.
- Demand expected to absorb most of the early production
- **Lack of domestic technological leadership**

Source: IEA Hydrogen Projects Database

3.1 External dimension of hydrogen in Spain: 2020-2021

- Bilateral treaties signed with Italy in 2020 and Portugal in 2021: focus on information-sharing, policy coordination (EU funds) and integration of technology supply chains.
- No mention to new H2 trade routes.

Spanish PM Pedro Sanchez together with Mario Draghi and Antonio Costa

3.2 External dimension of hydrogen in Spain: 2022-2023

- New infrastructure development around H2Med/BarMar project
- Germany joins France, Portugal and Spain on H2Med project
- Cepsa and Port of Rotherdam sign green hydrogen shipping line
- Non bilateral and multilateral agreements with non-European actors on hydrogen. (Surprising in the case of Morocco).

Proposed H2 Pipelines in Spain

In the current energy crisis Spain presents itself as a key provider of geopolitically, economically and environmentally reliable renewable hydrogen.

4. Hydrogen as a long-term enabler of Euromediterranean Energy Integration

- Geopolitical and geoeconomic drivers support green hydrogen more than other options.
- European industrial and technological cooperation and support projects must be inclusive.
- Cooperation in the Mediterranean basin must be based on sustainability criteria.
- A sustainable H2 transition narrative must be explored with Mediterranean oil and gas producers.

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5. Concluding remarks

- Renewable hydrogen represents an opportunity:
  - It is expected to drive industrial competitiveness at home and become a foreign policy assets at the EU and Mediterranean level
- Spain is willing to contribute to a more geopolitically resilient EU with its renewable potential
- There is a need to reconcile industrial ambition (domestic consumption) with new interconnections (exports).
- Cooperation at the EU level (Portugal, France and Germany) will be key to create a level playing field, build infrastructure and attract investment.

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Many thanks!

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