



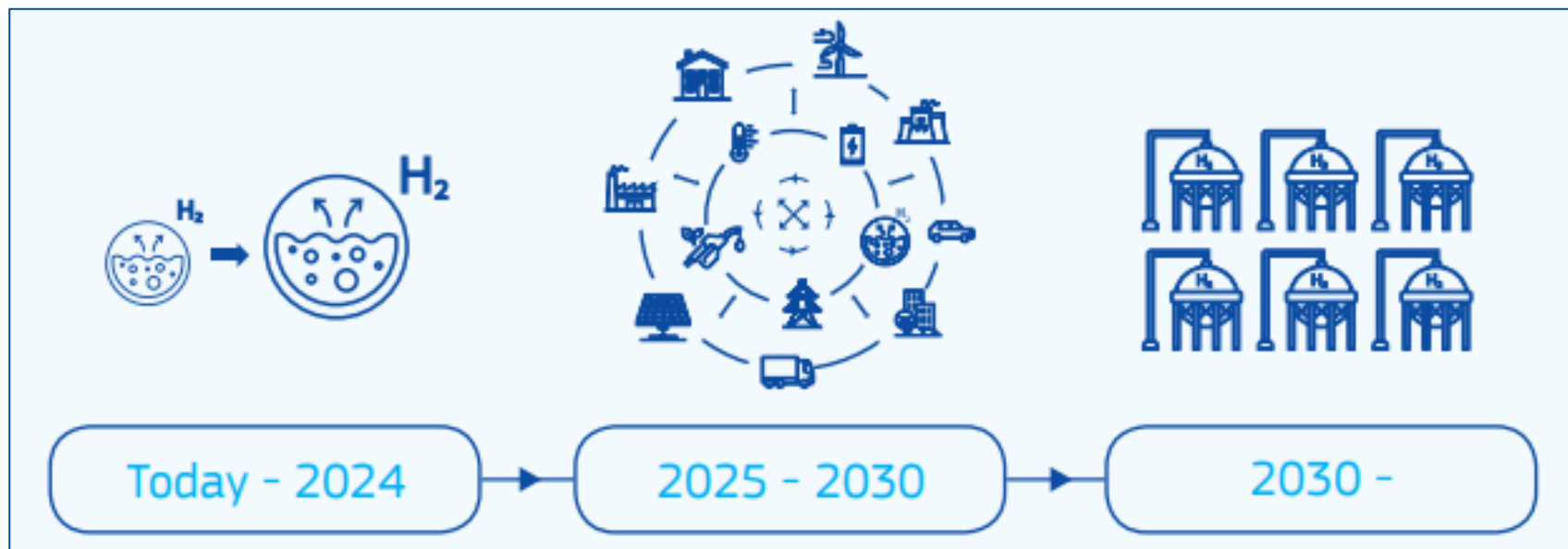
BUILDING A REGIONAL HYDROGEN ECONOMY

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8 February 2022

Interreg Europe Policy Learning Platform

Hydrogen strategy



At least 6GW RES
H2

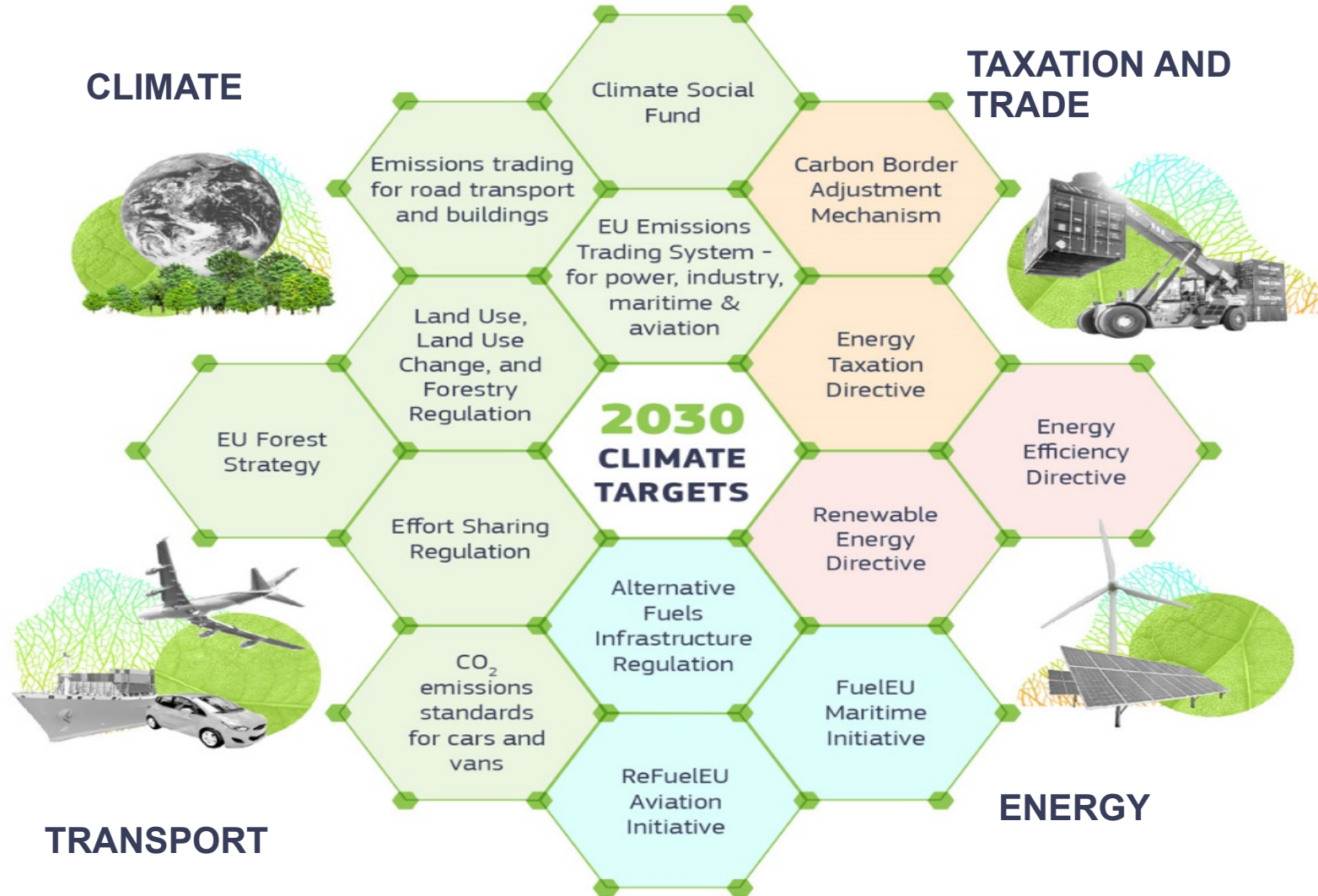
1 mill tonnes

At least 40GW RES
H2

10 mill tonnes

RES H2 deployed
large scale

The Fit for 55 Package – Overview



Hydrogen and decarbonised gas package

Governance and planning

- ✓ A European Network of Network Operators for Hydrogen (ENNOH)
- ✓ National network planning H2 and EU wide ten year network development plan

Fostering hydrogen market

- ✓ Measures to mitigate risks of natural monopolies: unbundling
- ✓ Kick-start market: tariff discounts
- ✓ Cross-financing of hydrogen infrastructures.

H2 certification/ classification

- ✓ Definition and certification rules for low-carbon gases and derivatives

European Clean Hydrogen Alliance

Kick-starting the EU Hydrogen Industry to achieve the EU climate goals



Hydrogen Forum

6 Roundtables (H₂ production, T&D, mobility, industry, etc)

Working groups (standards, permits...)

Project pipeline

Match-making sessions

Barriers report

Project Pipeline



One of the European Clean Hydrogen Alliance's main objectives is to facilitate investments in clean hydrogen. To this end, the alliance prepared a pipeline of viable investment projects. The project pipeline provides an overview of hydrogen projects, helps create integrated European hydrogen value chains, and profiles projects, including with investors.

The pipeline was unveiled at the third Hydrogen Forum in November 2021. It includes over 750 projects from all parts of the value chain, including

- hydrogen production
- transmission and distribution
- application in industry, transport, energy systems and buildings

Many projects cover hydrogen production and its use in industries such as chemicals, refining, steel, or transport, particularly heavy-duty road transport and maritime transport. The projects are located across Europe, with many set to enter into operation by the end of 2025.

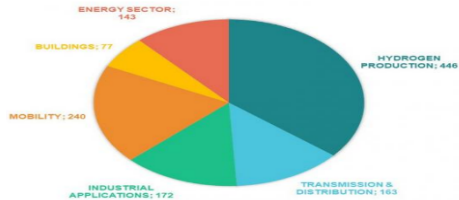


Fig 1: Project pipeline archetypes

Alliance members originally submitted over 1000 projects for the investment pipeline. The Commission services assessed these projects against a set of criteria, including project scope, project size, project maturity and emission reductions. Inclusion in the alliance project pipeline does not entail any direct financial or regulatory advantage. The alliance does not award any financing to projects.

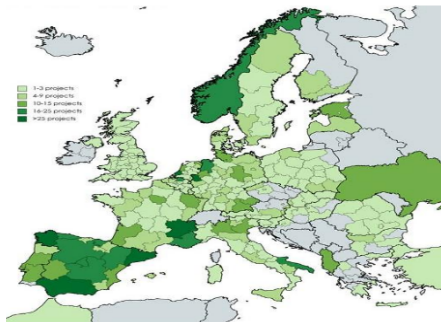


Fig 2: Project pipeline location

Download the complete project pipeline.

Alternatively, you can search for projects by project archetype (type of project), location, promoter, or planned launch date.

Select project

All projects



Searchable online database:

https://ec.europa.eu/growth/industry/strategy/industrial-alliances/european-clean-hydrogen-alliance/project-pipeline_en

Pipeline includes for each project:

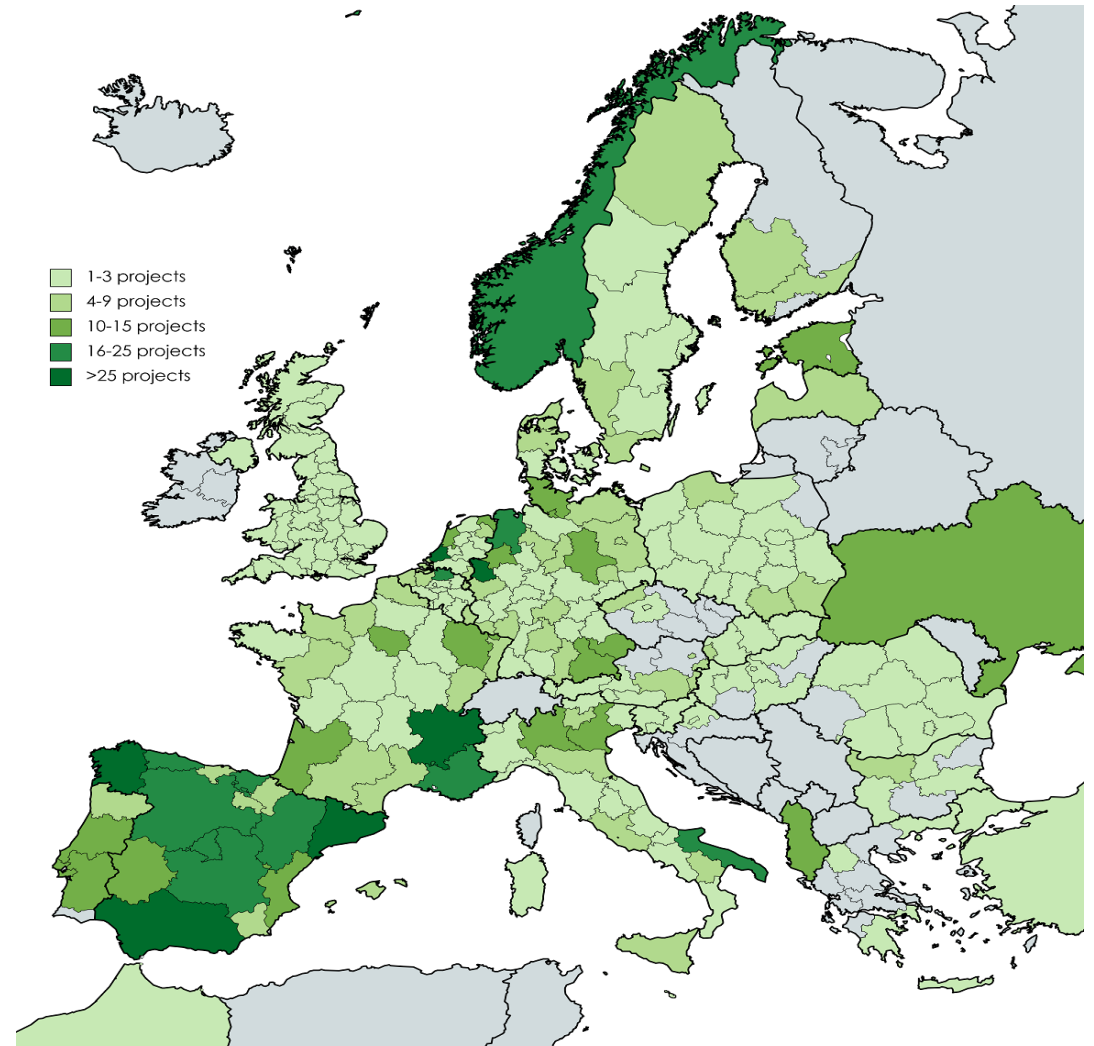
- Name of project
- Company(ies) undertaking the project
- Project archetype (project type)
- Location of project
- Maturity of project (start date)*
- Size of project*

* Available for many projects

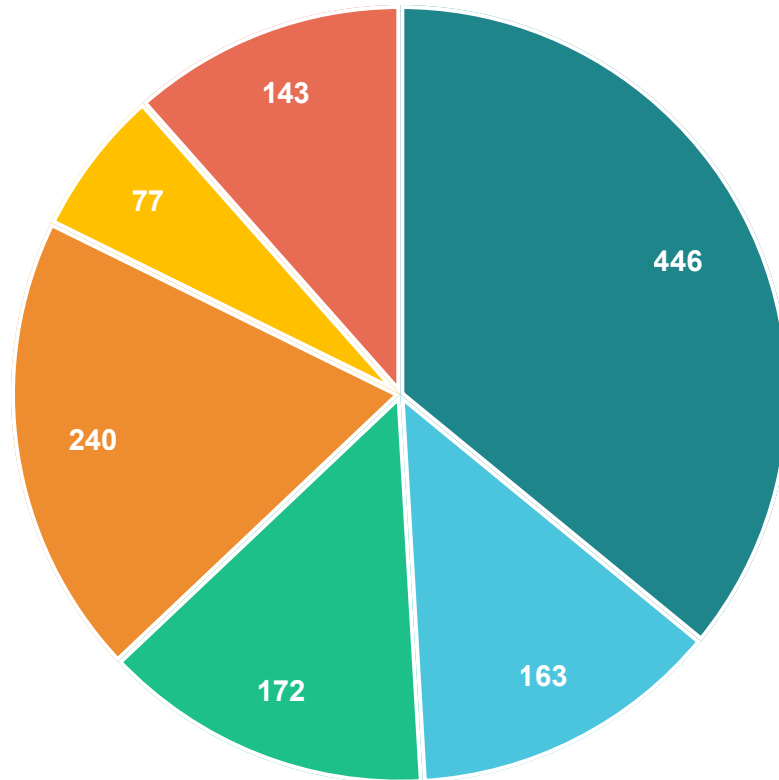
Location of projects

Countries with large number of projects:

- Spain: 337
- Germany: 299
- France: 180
- Netherlands: 151
- Italy: 120
- Portugal: 88
- Belgium: 73
- Sweden: 65



Project categories (archetypes)



- HYDROGEN PRODUCTION
- TRANSMISSION & DISTRIBUTION
- INDUSTRIAL APPLICATIONS
- MOBILITY APPLICATIONS
- BUILDINGS APPLICATIONS
- ENERGY SECTOR

- Projects cover **all hydrogen value-chain**
- **Single largest category is hydrogen production:** corresponds to initial need to ramp up production.
- Similar number of projects in **hydrogen end-use** in mobility, industry and buildings.
- Important number of projects also on **infrastructure and energy sector.**

Main take-aways from project pipeline

- ✓ **Size:** 750+ projects; estimated 52 GW electrolyser capacity (2030)
- ✓ **Dynamism:** almost 600 projects are planned to enter into operation by 2025
- ✓ **Focus:** 87% of hydrogen production projects are electrolysers potentially producing green hydrogen
- ✓ **Coverage:** projects cover all identified types and applications, especially in mobility, industry and energy sectors
- ✓ **Scope:** projects located in all but 2 Member States, plus neighbouring countries

Investment agenda

- ✓ Mobilising EU Funds: Target: **€800m per year**
- ✓ **EU Recovery and Resilience Facility**: Member States earmarking above €10bn
- ✓ Priority to EU **state aid clearance** of hydrogen projects
- ✓ **Hydrogen Public Funding Compass**: https://ec.europa.eu/growth/industry/strategy/hydrogen/funding-guide_en

Role of regions / municipalities

- ✓ Support emerging hydrogen valleys / clusters (policy; administration)
- ✓ Actively use opportunities in emerging clusters / valleys
- ✓ **Provide early offtake opportunities**
- ✓ **Use EU and national funding instruments ((e.g. European Regional Development Fund, Cohesion Fund, Just Transition Fund)**

Projects with local/regional authorities

The SeaH2Land vision is supported by:

Ørsted, Yara, ArcelorMittal, Dow Benelux, Zeeland Refinery, North Sea Port, Smart Delta Resources, Province of Zeeland and Province of Oost-Vlaanderen.

[Read more about the involved companies and parties →](#)

France: EIB and Occitanie Region join forces to develop hydrogen-based transport

9 DECEMBER 2020

The screenshot shows a news article from the website HERALDO Economía. The page features a search bar, a navigation menu, and a notification that says "Te quedan 9 noticias gratis este mes" with a "ÚNETE" button. The article is categorized under "ENERGÍA" and has the headline "Repsol refuerza con apoyo aragonés su gran proyecto de corredores de hidrógeno verde". The sub-headline reads: "La Fundación del Hidrógeno y Calvera participan en la iniciativa Shyne, que estructura los valles del noreste del país." At the bottom of the article, it states "NOTICIA ACTUALIZADA 29/1/2022 A LAS 05:00" and "LUIS H. MENÉNDEZ". Social media sharing icons for Facebook, Twitter, and WhatsApp are visible in the top right and bottom right corners of the article preview.

Thank you



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