



XIII SIMPOSIO EMPRESARIAL INTERNACIONAL - BARCELONA, 3 FEBRERO 2025

# EUROPA: CAMINO HACIA LA SOSTENIBILIDAD ENERGÉTICA



3 de febrero de 2025

# Efficient Decarbonisation of Energy Demand

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Challenges of Energy Transition remain Ahead of us.

How to provide for competitive and secure Energy transition?

Energy systems are stretched (curtailments, intermittency of production, challenge of energy storage and flexibility, tapping in sources)

Urgent measures to Decarbonise AND address the needs of the Clean Industrial Deal.

### ENERGY SYSTEM INTEGRATION:

Flexibility value during times of increased system complexity

Cost efficient principle first (multitude of solutions cheaper than one)

Technology neutrality

Value of existing assets

Repurposing infrastructure reduces significant investments in new networks





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**ELECTRONS & MOLECULES** to Decarbonise industry and enhance cost-competitiveness via:

- cross-energy sector cooperation
- strengthening value chain collaboration
- integrated planning of energy grids

Experience of Infrastructure planning via well-established processes, joint TYNDP scenarios for gas and electricity.

In the future, even closer cooperation and swift integration of hydrogen networks and further on distribution systems.

Integrated planning will ensure assets have the best possibility to be repurposed for clean molecules.





## Value Chain Cooperation and Technology Neutrality

An integrated energy system approach is needed to support supply chains across sectors and address the energy requirements to enable competitive industrial processes

Value chains can be supported by:

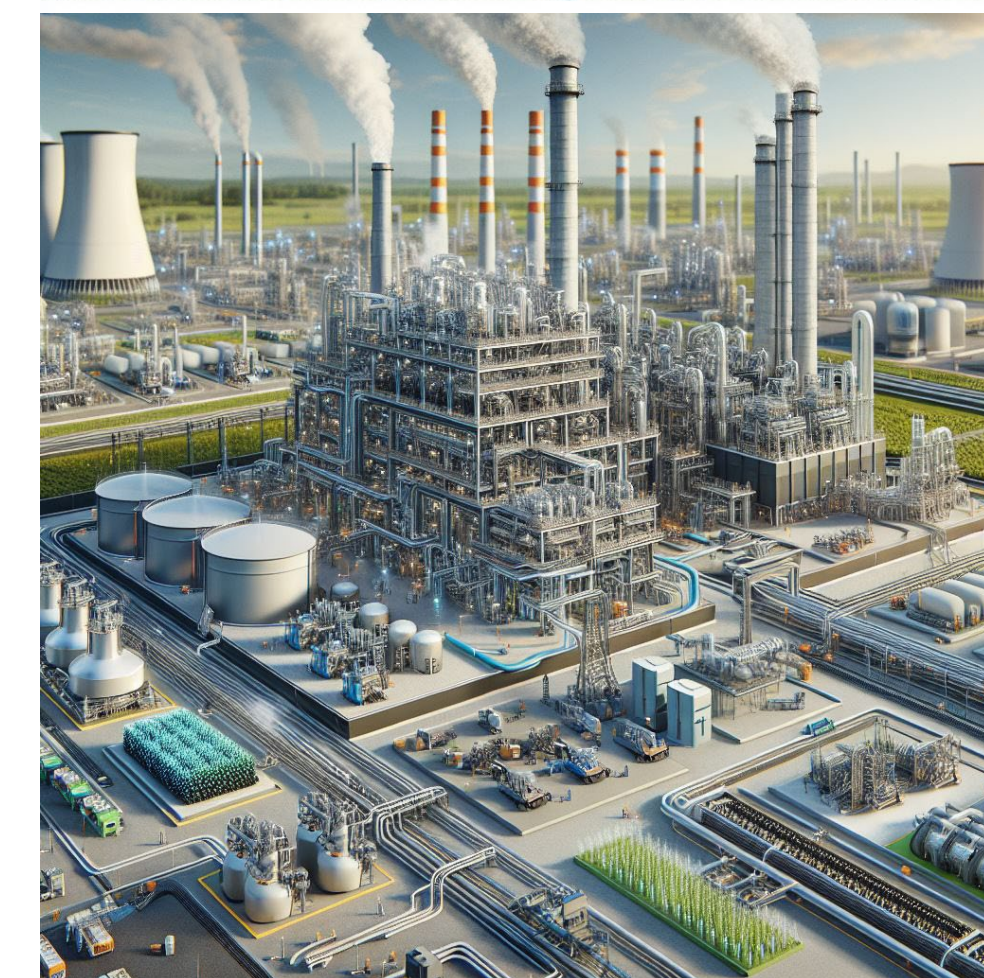
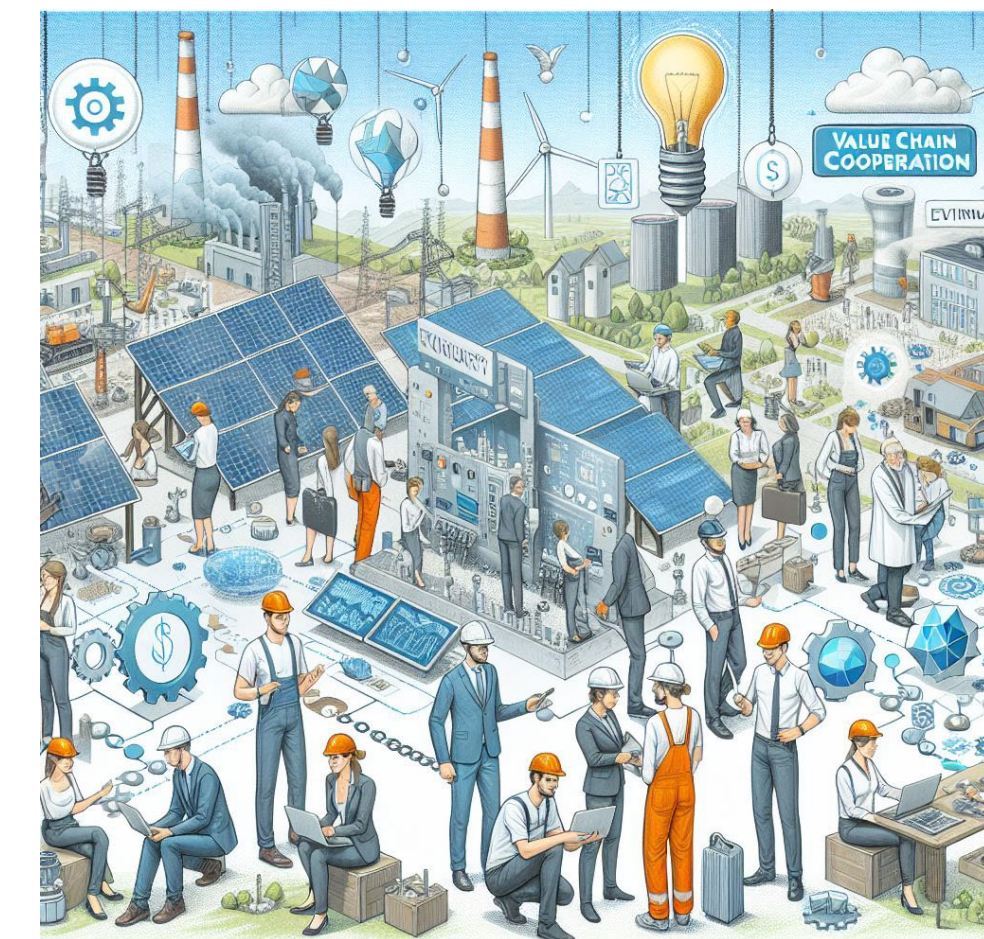
Technology-neutrality and innovation across the grids

Cross system cooperation and holistic approaches

Derisking mechanisms for fostering the investments

Consideration is needed for both H<sub>2</sub> and CO<sub>2</sub> transport technologies

CCUS will be vital for high-heat energy intensive industry, low-carbon hydrogen production.  
Support needed in short term to de-risk investments in CCS for industry, the CO<sub>2</sub> grids and capture facilities



# Hydrogen Infrastructure Map

Version: status Q4 2024

Legend Filters PCI / PMI status

Find Project or Prom...



## Hydrogen Infrastructure Map 2024Q4\_WFL1

### Distribution

### Demand And Production

#### Project Type

- Demand
- Production

### Terminals And Ports

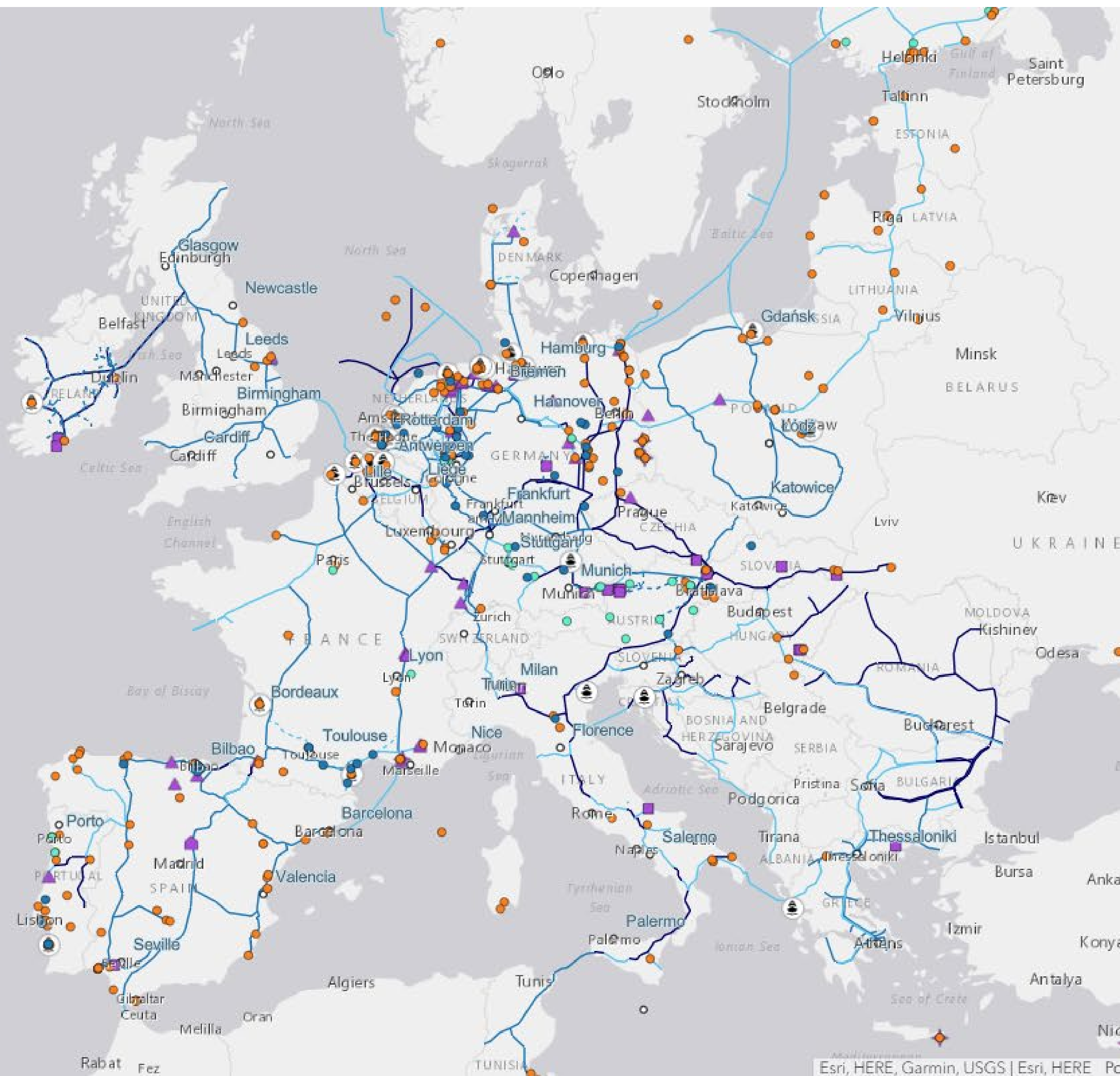
### Storage

- ▲ Aquifer
- Depleted field
- ▲ Salt cavern
- ✦ Surface storage (tanks, etc.)

### Capitals

### BigCities

500 km



– More than 600 hydrogen projects for transmission, distribution, storage, terminal/ports, production & off-takers. <https://www.h2inframap.eu/>



Thank you for your attention

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