



Generalitat de Catalunya
**Departament d'Empresa
i Treball**

Background: Green hydrogen working group record. From its conception to 2022





Judith Estol - Government of Catalonia

**#EUGreenWeek
June, 1st Brussels**

Background: green hydrogen?

WHY

Main challenges facing Europe

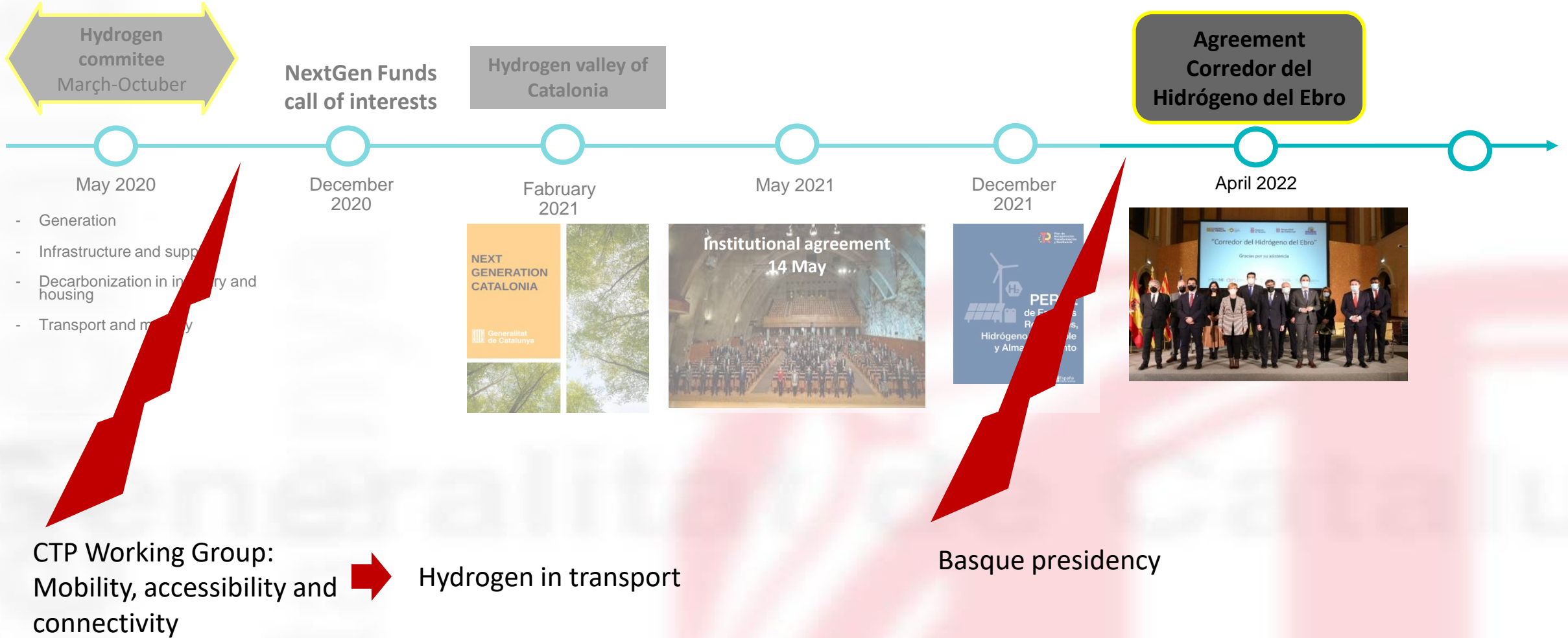
-  Climate neutrality
To fulfil objectives
-  Energy transition
To increase resilience
-  Economic recovery
To cope with the crisis
-  Regional balance
Balanced development

HOW

The role of renewable hydrogen

- Substitution of grey H₂ with renewable H₂
- Decarbonization: industry, mobility, residential
- Energy storage potential
- Added value for renewable energy and wastes
- Guarantee the competitiveness of major sectors
- Adaptation of sectors and new opportunities
- Areas of just transition (e.g. Baix Ebre - nuclear county)
- Intraregional balance in the hydrogen era develop.

Background: *CTP Catalan presidency*



Results: Project *PYCASSO*

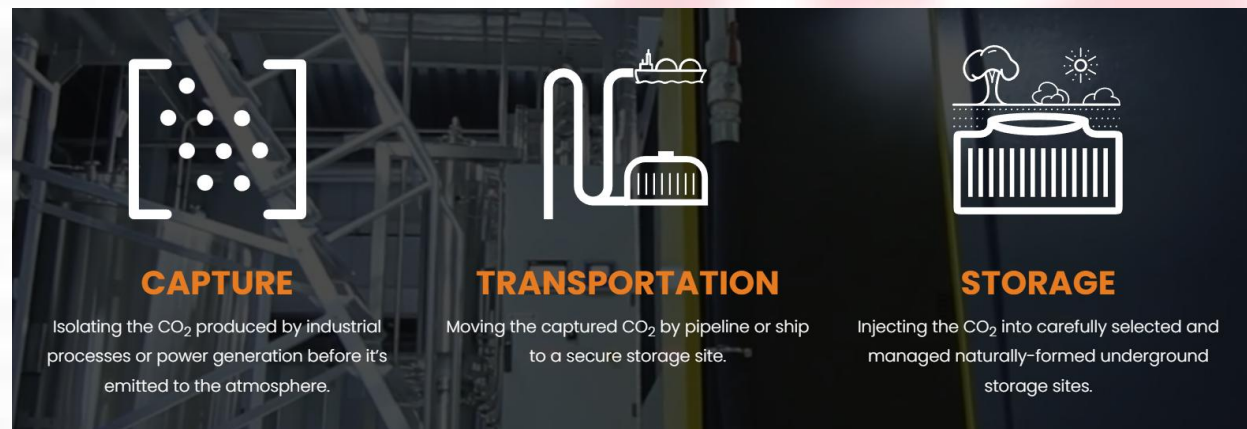


Goal: Valorize and stockage CO2 emissions

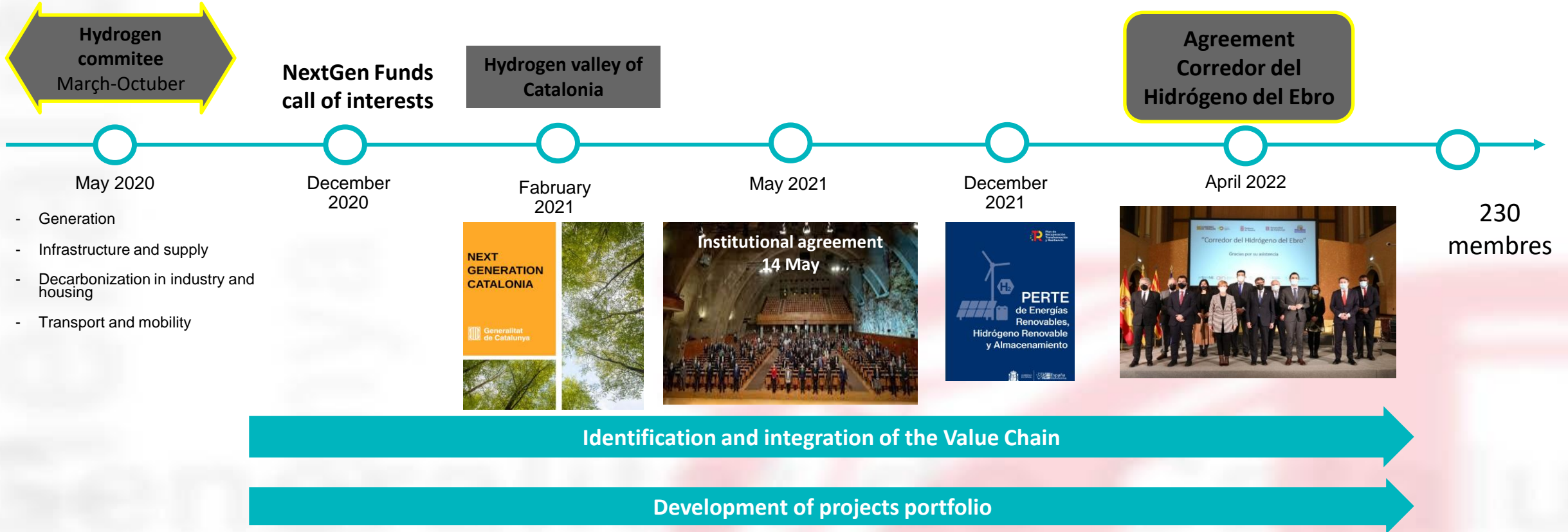
1-adapt capture processes to local emissions

2-create a transport network

3- set up a CO2 recovery and storage hub based on the capacities of industrial platforms and depleted gas fields in the Pyrenean foothills.

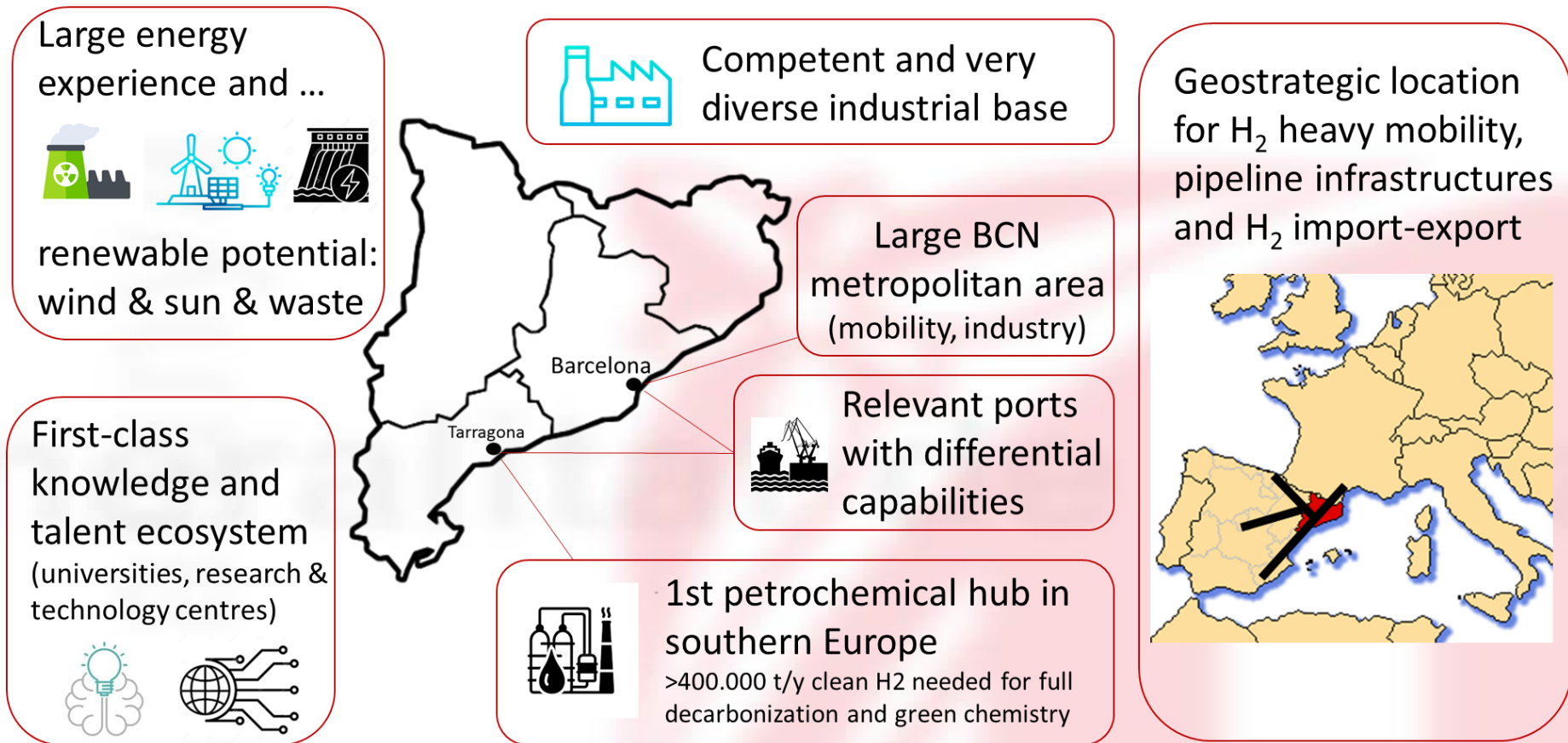


Background: *Route*

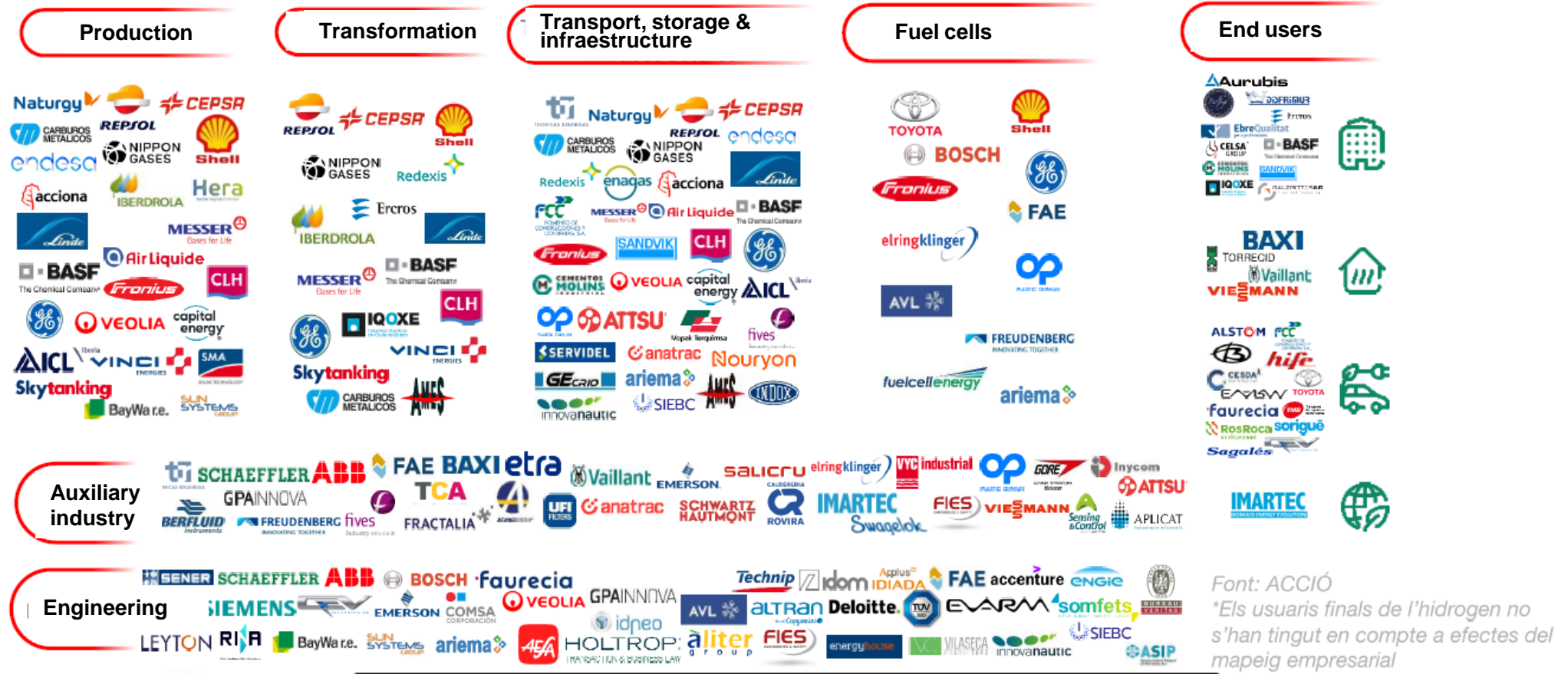


Background: *current assets*

 105 companies  373,5M€  810 jobs 50,5% SMEs  Less 10 yo



Ecosystem: *what do we have*



Ecosystem



Tech and research centers



Universities & education



Associations

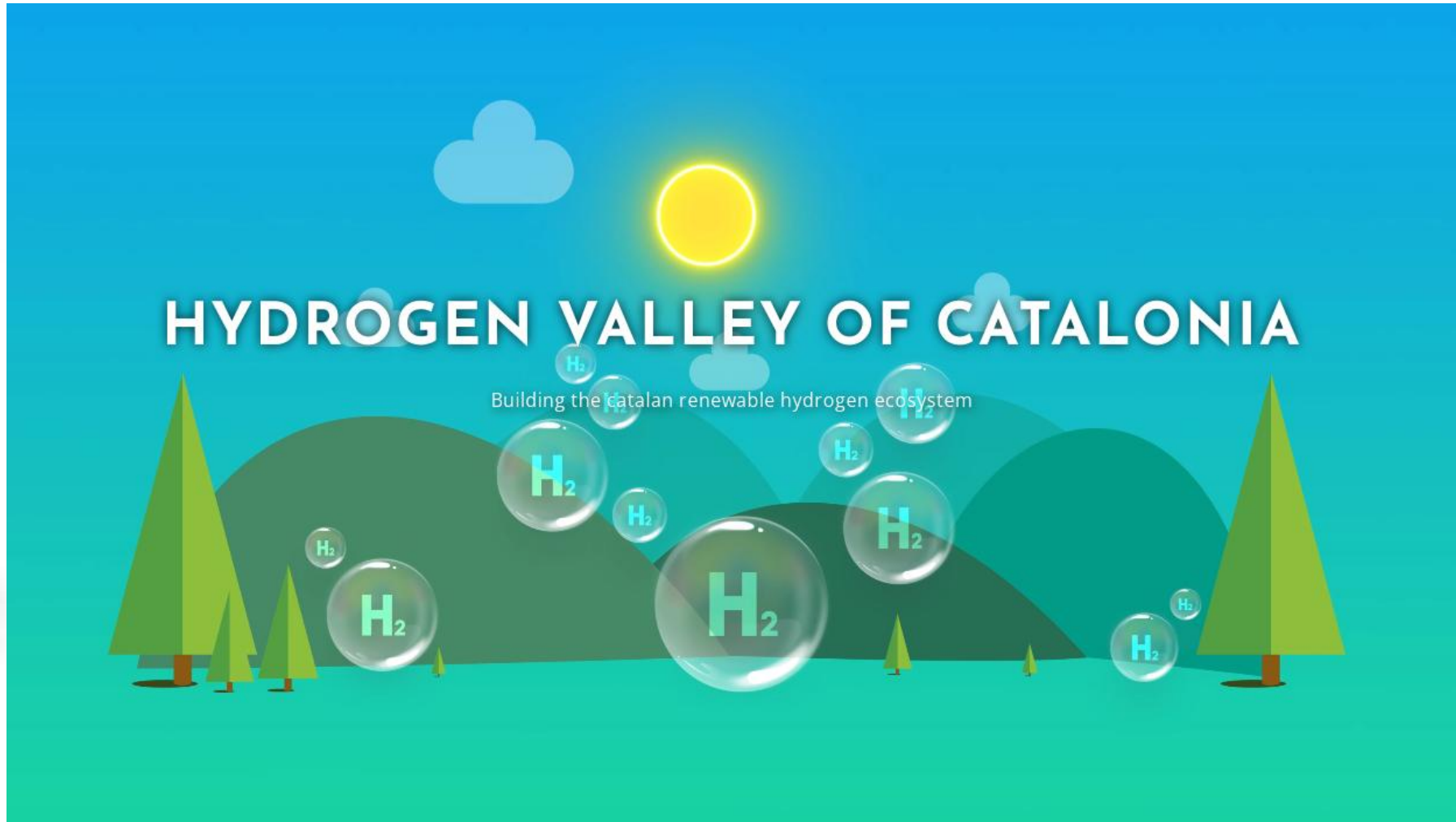


Institutions & public admin





Tools: *Hydrogen Valley of Catalonia*



H2 Catalan Valley: *Actors*

188 organizations are members of the Valley (May 2022)

144

COMPANIES

41

PUBLIC ENTITIES

11

ASSOCIATIONS
AND CLUSTERS

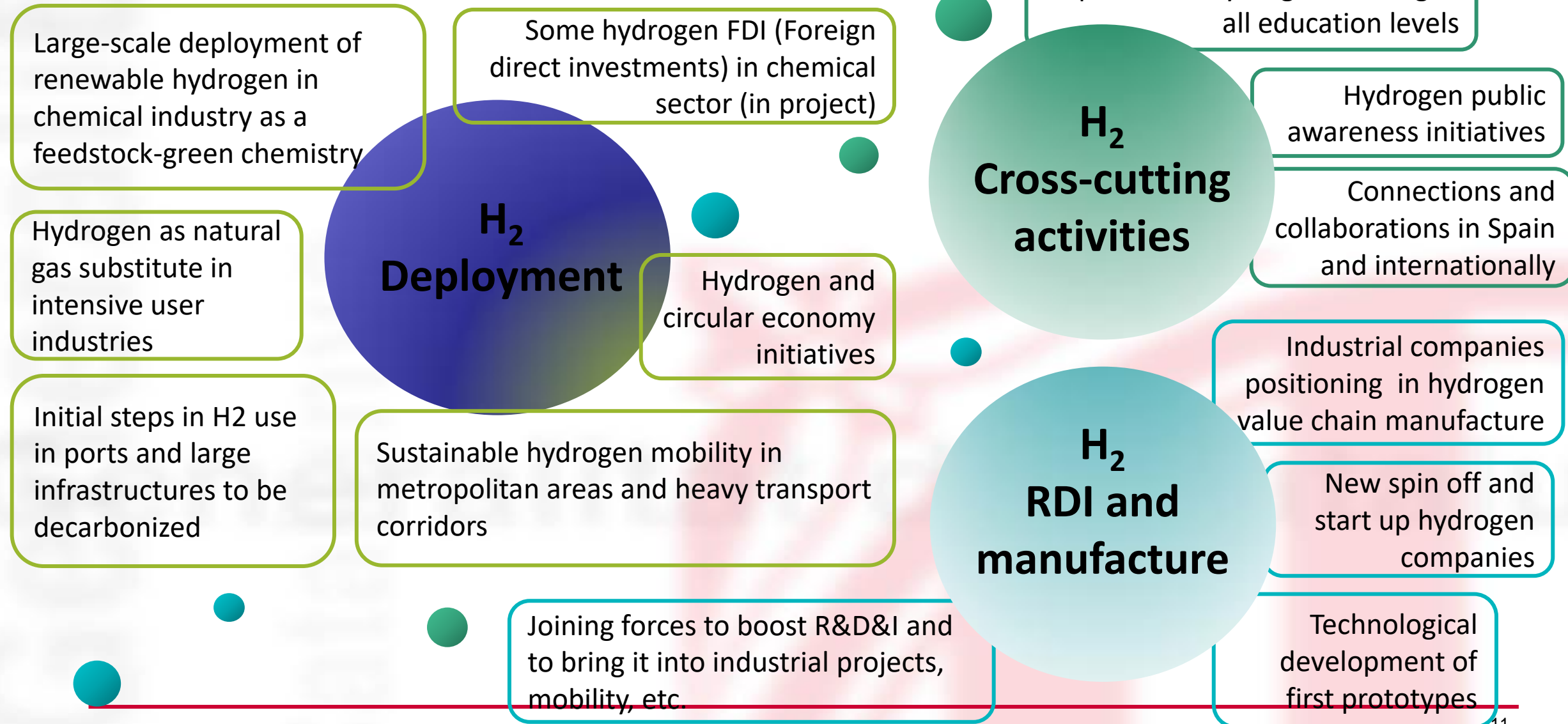
8

TRAINING, RESEARCH AND TECHNOLOGY
CENTRES

INSTITUTIONAL AND BUSINESS PROMOTERS

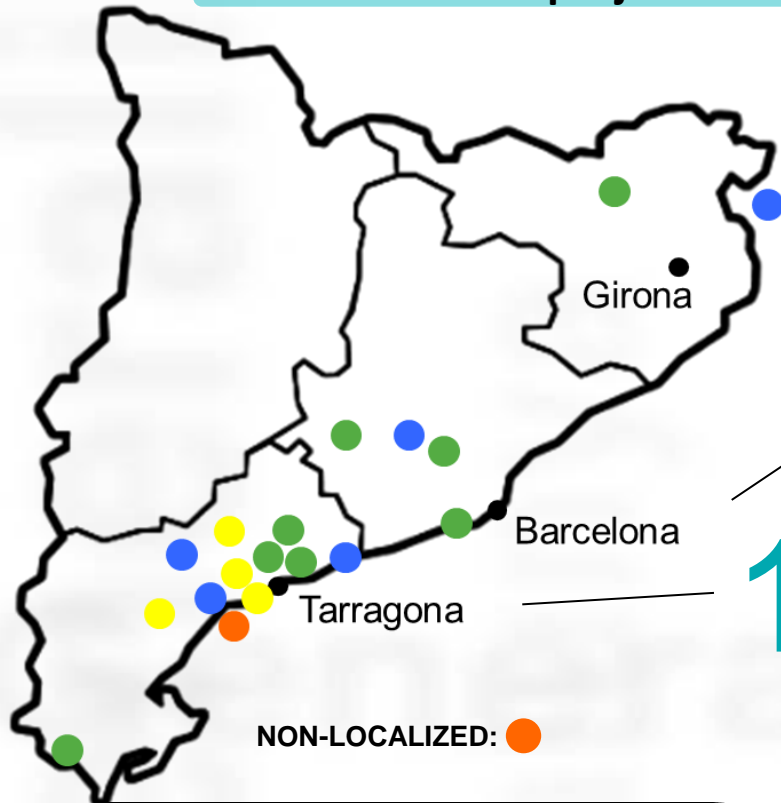


H2 Catalan Valley: *What's emerging*



H2 Catalan Valley: *Main projects*

19 Industrial projects



Industrial projects H₂ production ≈ 102,000 t/y*

50% Tarragona large-scale Hub
20% Barcelona Hub
30 % distributed

*8,000 t/y
additional in
mobility projects

Installed electrolysis ≈ 600 MW

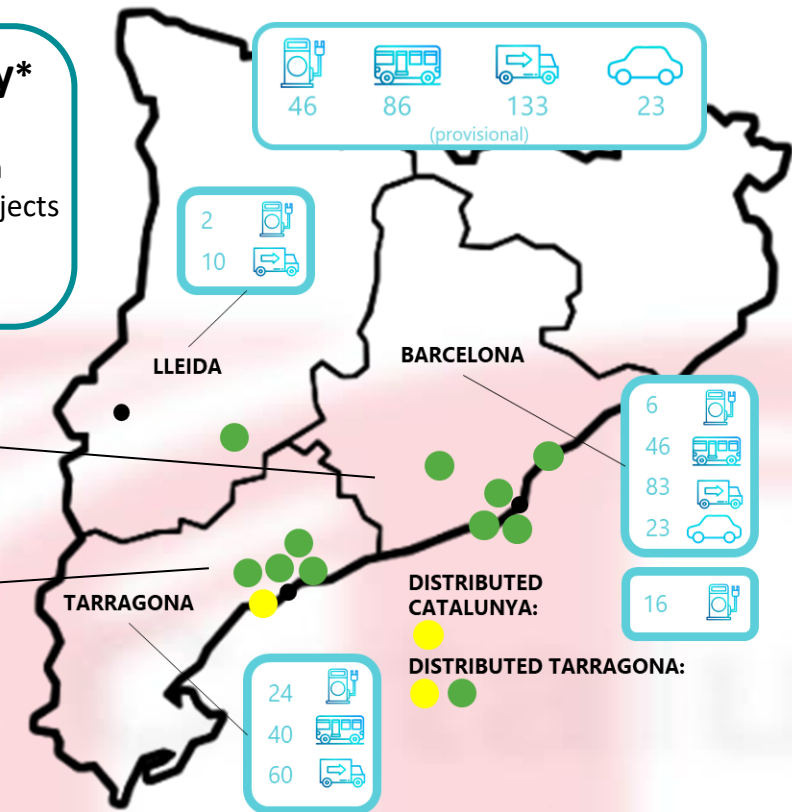
2 Industrial and mobility hydrogen hub in Barcelona Metropolitan Area

1 Large-scale hydrogen hub in Tarragona area mainly associated to the petrochemical complex

- Grey hydrogen substitution and green chemistry and mobility uses
- Large mutualized hydrogen production

3 *Small scale hydrogen industrial (ex. waste to X) and mobility initiatives around the region*
Hydrogen production projects with demand not stablished yet

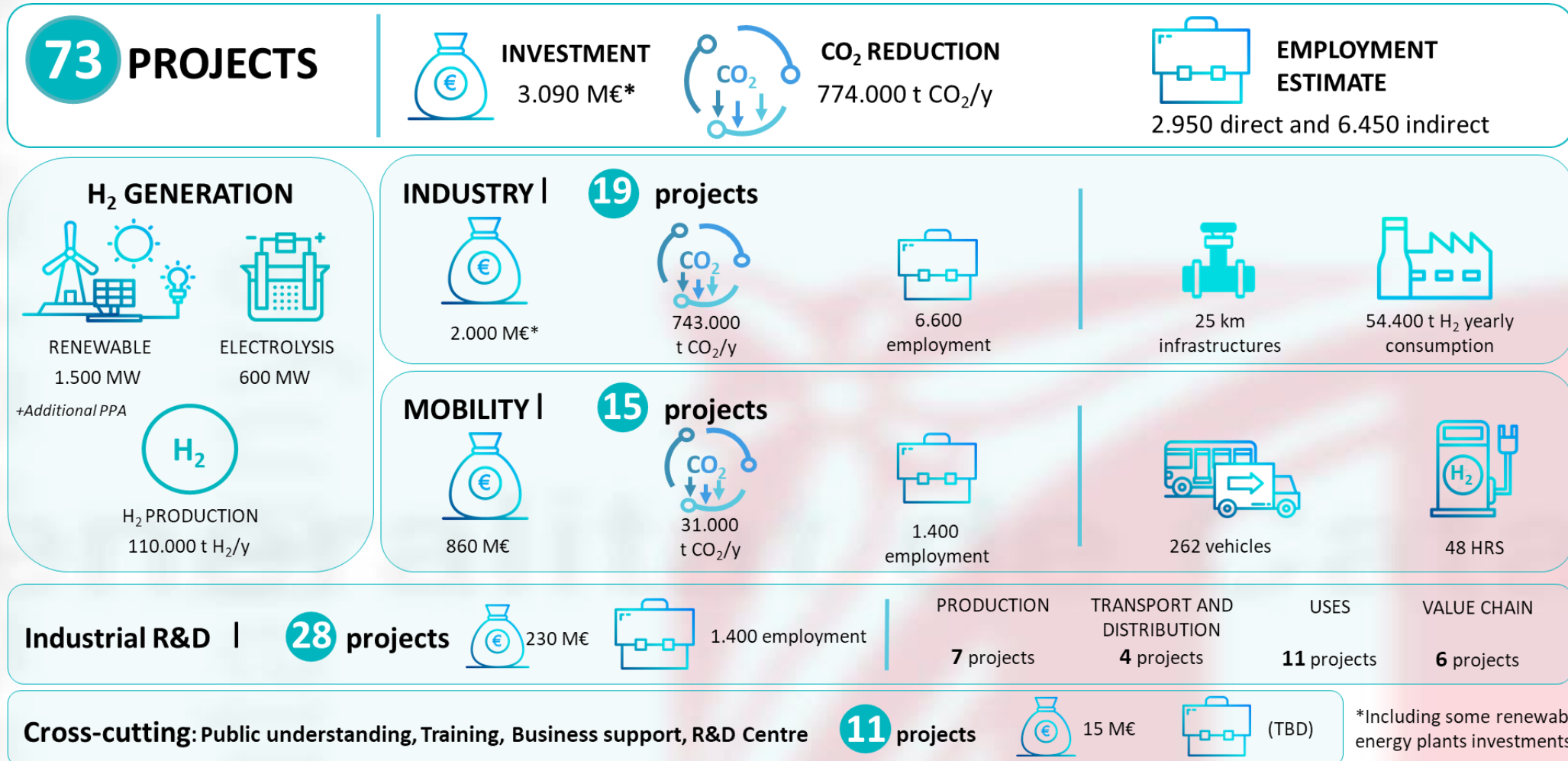
15 Mobility projects



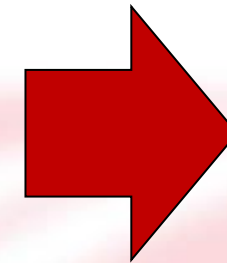
LEGEND:

- **12** Integrated H₂ production and logistics fleet deployment projects
- **3** Infrastructure projects (HRS)

H2 Catalan Valley: *Main projects*



European strategy: *lobby and policy making*





THANK YOU, GRÀCIES

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