

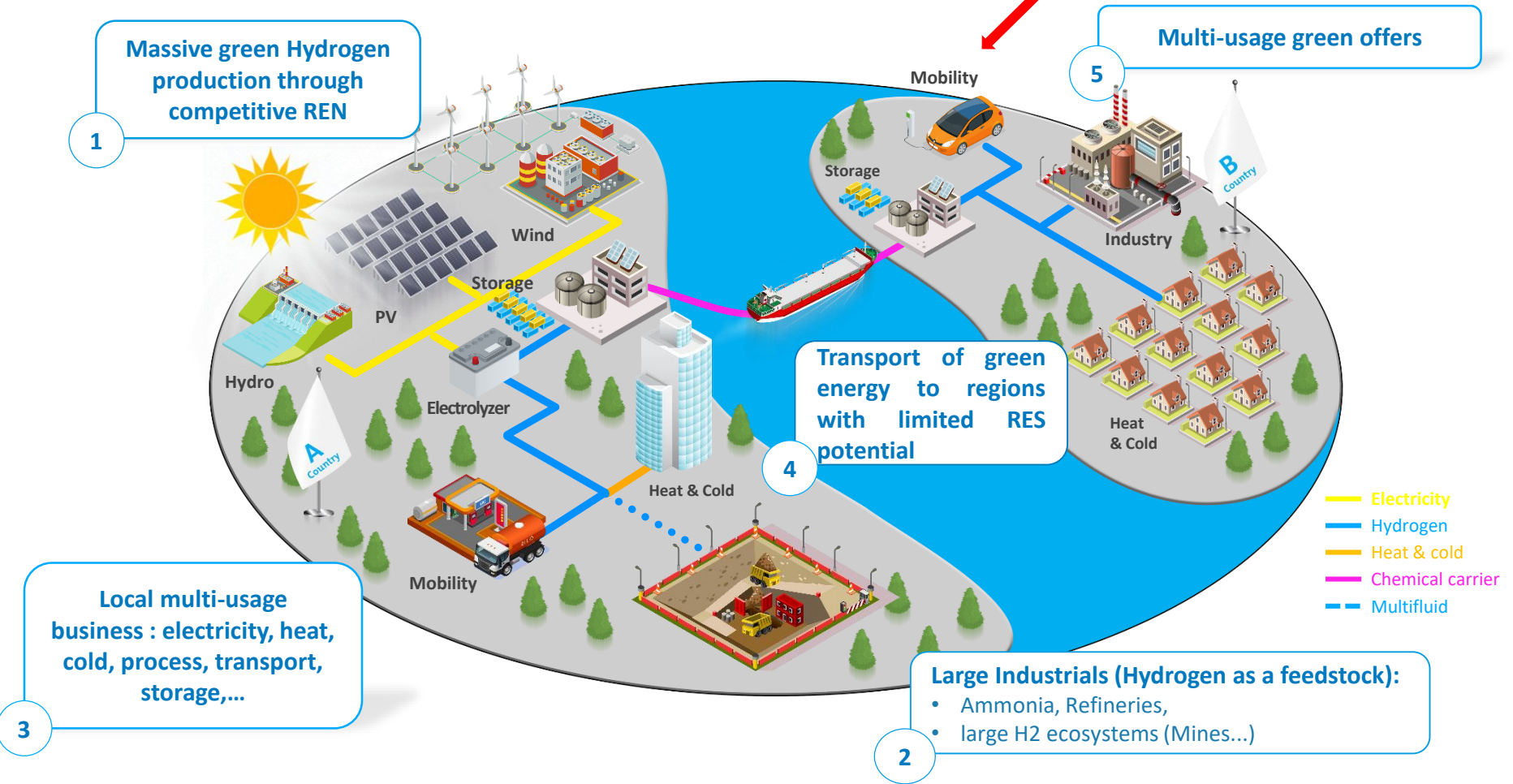
Zero Emission Valley

Auvergne Rhône Alpes Region (France)

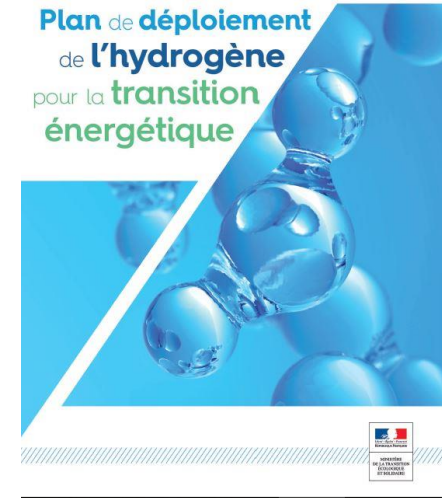
An Innovative Public Private Partnership
Initiating the Hydrogen Mobility in a Region

Franck LE BARON
ENGIE Hydrogen

ENGIE's vision on Green Hydrogen



France has a plan

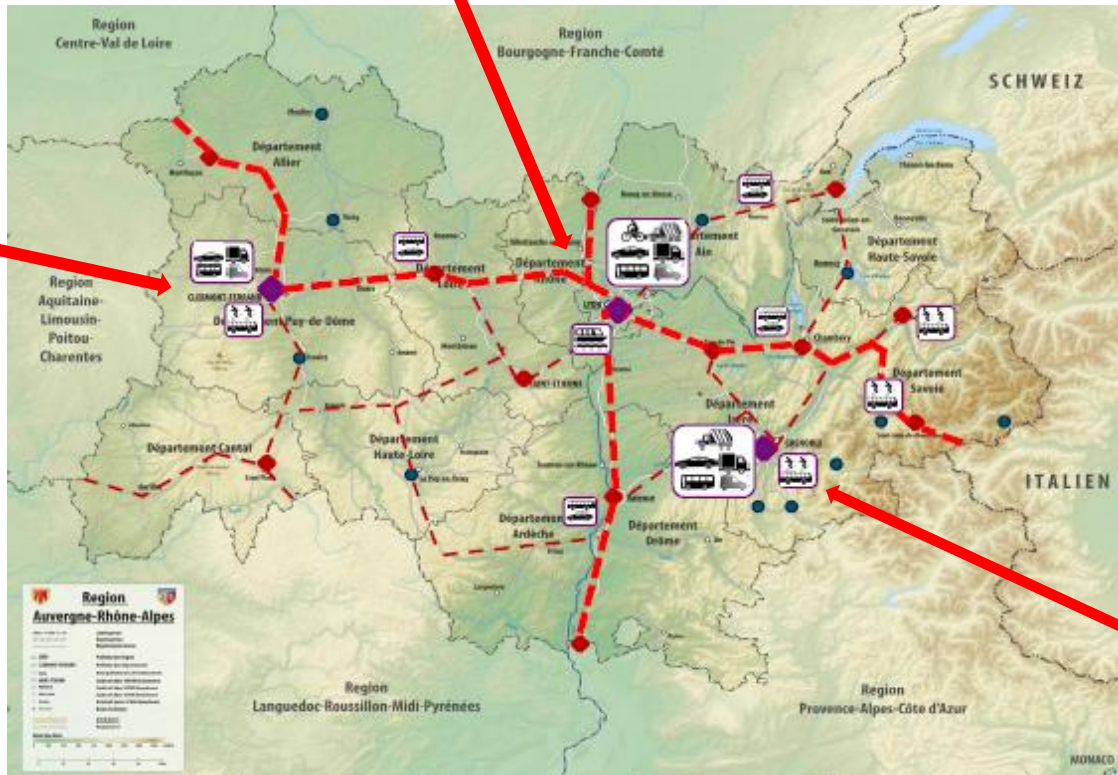


- Green Hydrogen to decarbonize industry
 - Develop zero emission solutions for transport
 - Develop hydrogen storage of renewable energies
- 23 Stations - 300 Vehicles **today**
 - 5000 light duty and 200 Heavy duty vehicles (Buses, Trucks, Trains, Ships + 100 stations in **2023**)
 - From 20 000 to 30000 light duty vehicles and 800 to 2000 heavy duty vehicles + 1000 stations in **2028**

Zero Emission Valley (ZEV): initiating the Hydrogen Mobility in the AURA Region

Lyon

Clermont
Ferrand



Grenoble

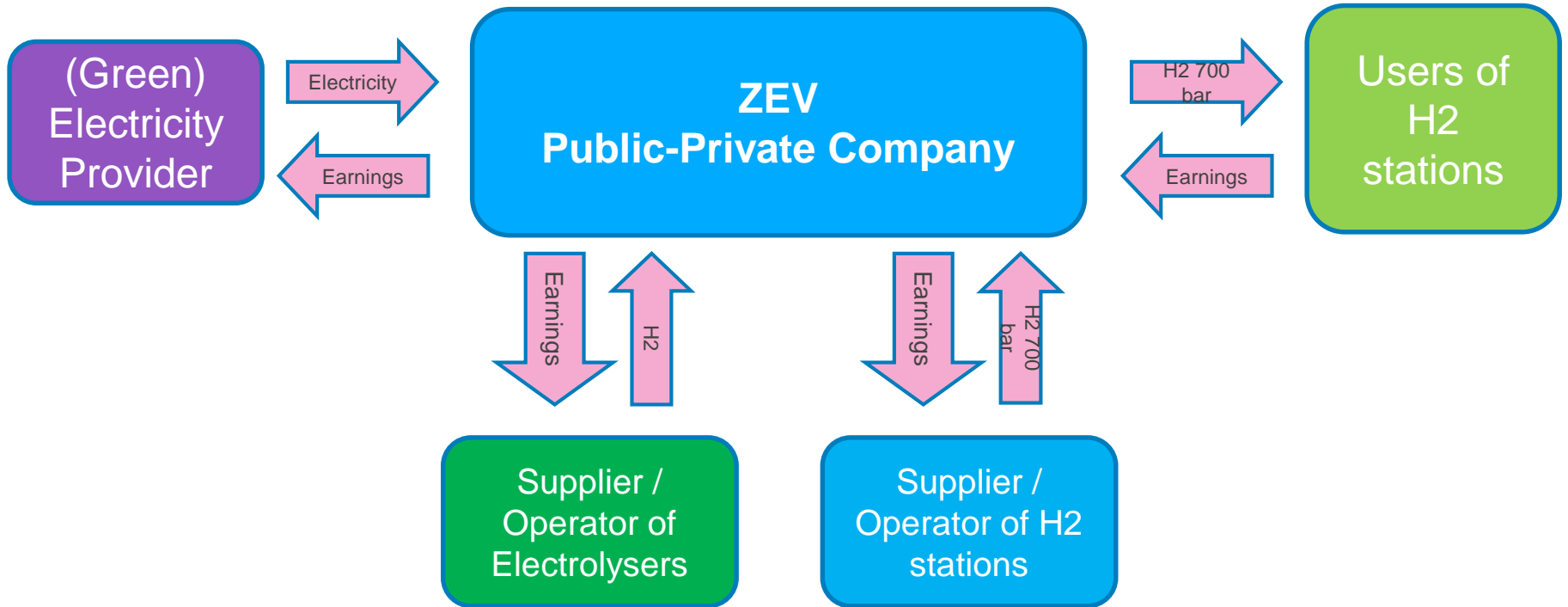
Zero Emission Valley (ZEV): the organisation

La Région
Auvergne-Rhône-Alpes

ENGIE



+ Financial Partners



Zero Emission Valley (ZEV): a network of 20 HRS over a Region

- **The Project includes**

- Production of green Hydrogen by electrolysis
- **20 HRS** (Design Build and Operate) over all the region
- European and Regional subsidies for the purchase of the first **1000 vehicles**



- **Milestones / Status:**

- Financial Close: imminent
 - **2017:** project starts / EU Grant
 - **2018:** creation of the Project Co
 - **2019:** financial close / 1st HRS start-up

	Number of operational HRS
2019	1
2020	10
2021	17
2022	20

ZEV: A large number of stakeholders have supported the project under the impulse of the AURA Region

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Only for the Workshop Participants***



ZEV: The key drivers

- **Strong European and French (« Hydrogen Plan » - June 2018) ambitions to develop H2 solutions**
- **A Regional / local political strong willingness to develop zero emission solutions**
- **The readiness of key industrial (and local) players to invest and develop zero emission mobility**
- **The selection of the Project to benefit from a European Grant**
- **A critical size which will enable initiating the hydrogen mobility in the Region, and then scale up...**

A few hurdles, removed one by one:

- ✓ **Schedule management (nota: European Grant obtained in December 2017)**
- ✓ **The creation of a joint company with very different shareholders**
- ✓ **A very new subject for most of the parties (incl. lawyers, financiers...)**

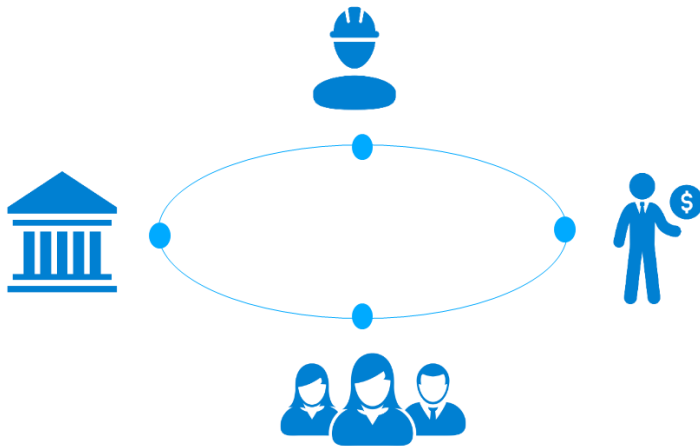
ZEV: The Model

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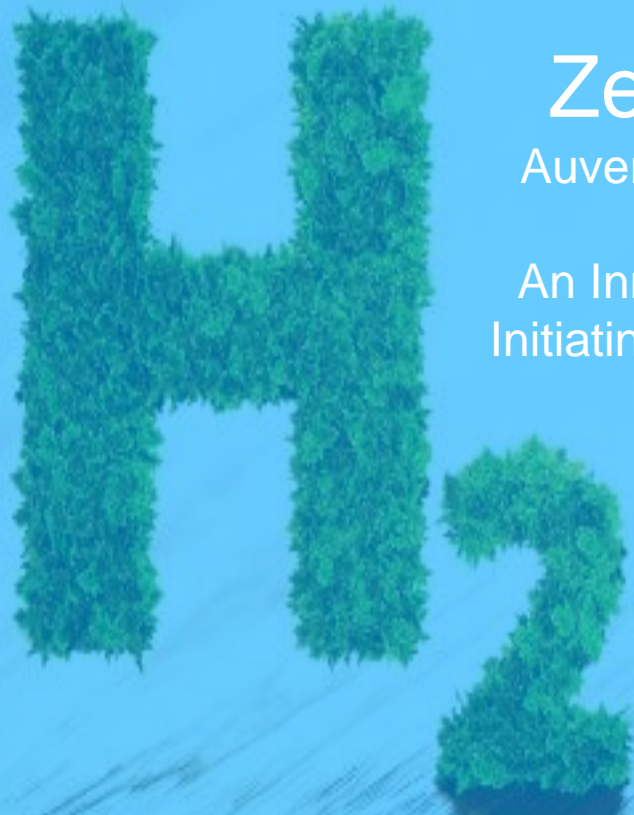


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ZEV:

A solution to the classic example of the chicken & egg problem...
—



It is replicable...
(we are ready to help)



Zero Emission Valley

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