



**EUSALP** EU STRATEGY FOR THE ALPINE REGION

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# Zero Emission Valley « ZEV »

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Project manager ZEV



**La Région**  
Auvergne-Rhône-Alpes

80 million people, 7 countries, 48 regions,  
mountains and plains addressing together  
common challenges and opportunities



**Interreg**  
Alpine Space  
AlpGov



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This project is co-financed by the European Union via Interreg Alpine Space

# THE CONTEXT

## CONTEXT : THE AUVERGNE RHONE ALPES REGION



The primary industrial region in France

**80%** of hydrogen sector workers in France

26 laboratories  
R&D



Central and eastern parts  
of southern France  
The 3rd largest region of  
France: 70 000 km<sup>2</sup>

8 millions inhabitants



55 companies

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## CONTEXT : AIR QUALITY, A CHALLENGE FOR THE REGION

Nine critical zones :

- Lyon,
- Clermont-Ferrand,
- Grenoble,
- la Vallée de l'Arve en Haute-Savoie,
- Le grand Genève
- Saint-Etienne
- Valence
- Chambéry
- Annecy



➔ A desire to develop low carbon mobility and particularly hydrogen

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## CONTEXT : FRENCH AND EUROPEAN POLITICAL AMBITION

- A new **French National Plan** for hydrogen
- French roadmap **H2Mobilité program** which wants to deploy 600 hydrogen refuelling stations in the country by 2030
- European Union's approach to minimise dependence on oil and to mitigate the environmental impact of transport by deploying alternative fuels infrastructure.
- Mediterranean and the North Sea-Mediterranean core network corridors as well as on the road core TEN-T network.



**Zero Emission Valley « ZEV » is awarded the call for projects financed by 2017 Connecting Europe Facility (CEF) for Transport Blending Call: Innovation & new technologies**

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# THE PROJECT : Zero Emission Valley « ZEV »



**Co-financed by the Connecting Europe  
Facility of the European Union**



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## ZEV : MAIN OBJECTIVE OF THE PROJECT

Develop the hydrogen mobility sector in all the **territory** in a **sustainable** and profitable **way** :

- Using a low carbon hydrogen
- To improve the quality of the air, to benefit the public



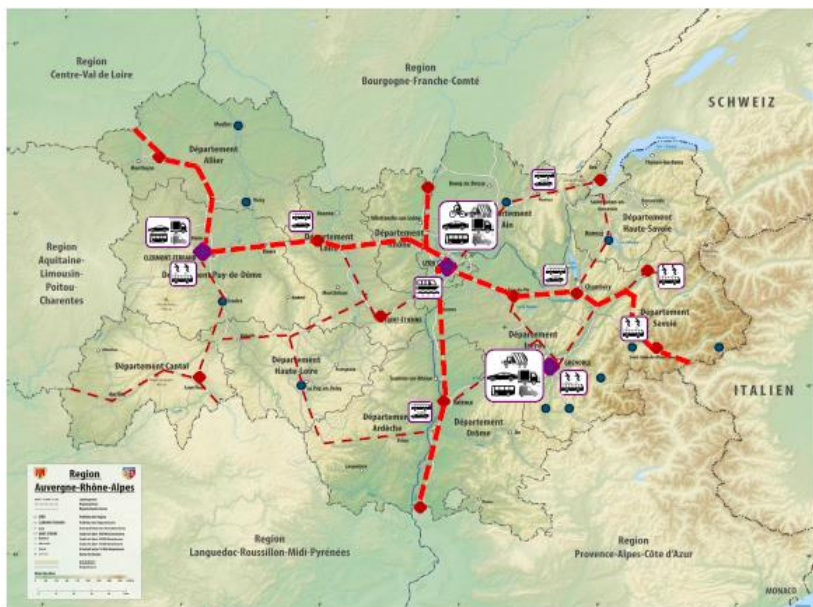
➔ **Be an example to follow, to open the way for other Regions**

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## ZEV : MAIN OBJECTIVE OF THE PROJECT



300 bar  
750 bar

20 hydrogen  
refuelling  
stations by 2021



15  
electrolysers  
by 2021



3 years



1 000 fuel cell electric  
vehicles by 2023

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## ZEV : MODES FOR DEPLOYING STATIONS

- Focus on North-South and East-West axes: **roaming throughout the territory**
- To rely on the **territorial dynamics**: 2 pilots with Chambéry and Clermont-Ferrand
- **Combining** small and large stations to put the brakes on change :
  - Agglomerations with high market potential vehicles, 200kg/year stations
  - For smaller cities 40kg/year, which will allow roaming



Indicative locations of the station:  
 Mâcon, Bourg-en-Bresse, Annecy, Salaise sur Sanne, Chambéry, Grenoble – Saint Egrève, Grenoble – Fontaine, Two in Valence, Montélimar, Saint-Etienne, Meyzieu, Five in Lyon, and Three in Clermont-Ferrand

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## GOVERNANCE

Coordination : by the Region interfacing with **stakeholders**, representatives of local authorities and competitiveness clusters :

- Synchronization of the planning : territorial meetings to present the project
- Deployment of the vehicles: The Region will launch a **regional project call**

## At the same time...

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## GOVERNANCE

Deployment of the stations with a **company** created by **private and public** investors and partially capitalized by the Region : IRR>0

- Light and captive vehicles in phase 1, Taxis and heavy vehicles in phase 2 (2021)
- Investment (CAPEX) and operation (OPEX)
- Hydrogen sales + **News services** (electricity grid...)
- **Engagement letter** for future users

- Removing the additional cost of a hydrogen vehicle compared to a diesel vehicle (25 000km/y)
- Produces and markets hydrogen for mobility from renewable electricity
- Guarantees the same price in all stations

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## Recommendations for EUSALP

- Strong **political support**
- Dedicated human resources for the project
- Working in a **public-private partnership** to increase skills and agility
- Work in **entrepreneurial** mode ( $IRR > 0$ ).
- **New business**: balancing of the electric and gas distribution networks, packaged H2 and after-sales service offer....

## AND THE FUTURE ...

- Work with 100% green electricity producers.
  - Imagine sharing / cooperation with other Regions and all stakeholders to **launch the sector together**.
- ➔ A great opportunity to visit our stations during EUSALP Energy Conference in France in 2020.

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