



**SMART
HY AWARE**
Interreg Europe



Sustainable public transport through hydrogen fuel bus route

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Region of Aragon



Aragon is one of the pioneering regions in Spain and Europe for the promotion of hydrogen technologies. Since 2003, with the creation of Foundation for the Development of the New Hydrogen Technologies in Aragon , various plans of Hydrogen Master Plan have been carried out. Currently, we are in the fourth plan. Additionally, Aragon is part of the S3 Hydrogen Valleys and Hydrogen Europe.

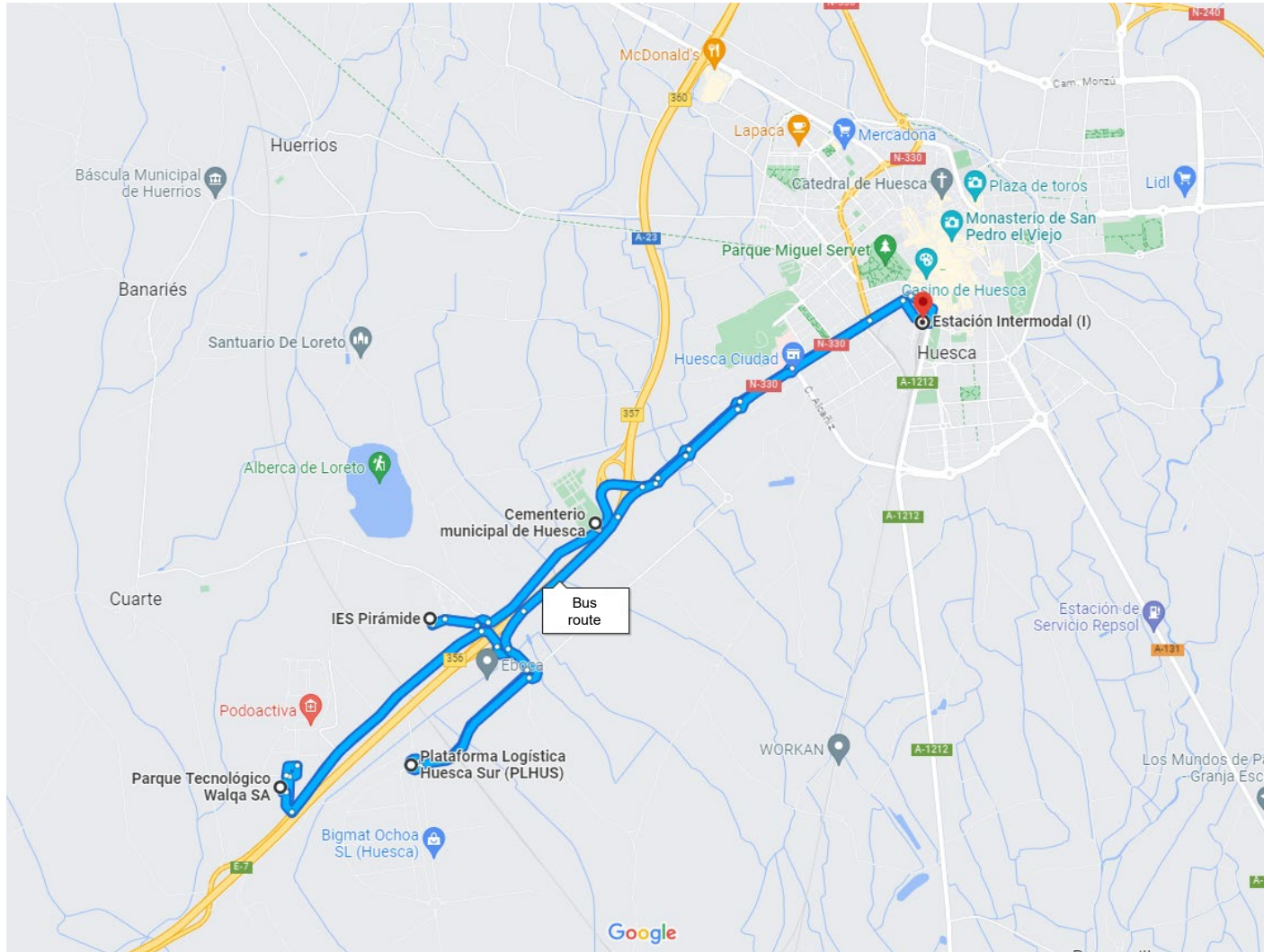
Aragon RAP



The objective of the action Plan is to demonstrate the technical and economic viability of the implementation of a hydrogen bus route with two vehicles to offer sustainable public transport and connect the center of the regional capital of Huesca with its main technological and commercial centers, as well as with public schools.



Hydrogen Bus City of Huesca



Action

- Study of the needs of adaptation of the existing hydrogen refueling station for the supply of hydrogen to the two buses of the demonstration project.
- Adaptation of the existing hydrogen refueling station to cover the demand of the two hydrogen buses demonstration project.
- Implement two hydrogen buses in a demonstration project covering a strategic route in the city of Huesca.
- The multi-disciplinary technical team of the FHa will study and optimize the operational parameters of the fleet, with the aim of carrying out a replication study of the project in other cities of Aragon.
- Addressing the associated cross-cutting issues, such as training for operators, outreach to the general public, and compliance with local rules and regulations for both the operation of a refueling station and the circulation of hydrogen vehicles for public use.

Target Group

- General population: implementation of the bus fleet on routes traditionally covered by fossil fuel buses.
- Policy makers: demonstrative action to develop and implement hydrogen mobility and achievement of the objectives of the Hydrogen Master Plan (2021-2025).
- Industrial sector: The multidisciplinary team of the FHa will develop valuable know-how from which numerous third parties in the region can benefit through the dissemination of technical results.
- Academic sector: a more theoretical sector that can now make use of a real and demonstrative application, which could inspire new training vocations among students, and confirm the interest in these study and research paths among teachers and those responsible for the project definition and academic programs.



Timeframe and costs

Month	2022					2023						
	8	9	10	11	12	1	2	3	4	5	6	7
Current situation assessment	■	■										
Technical-economic feasibility analysis			■	■	■	■						
Demonstration phase							■	■	■	■		
Results analysis											■	■

120,000.00 €



Interreg C & I3



Hy2Market

- New EU financing instrument for innovative interregional projects.
- It brings together regions from all over Europe working on different innovations to boost the production, transport and use of green hydrogen
- The main objective of Hy2Market is to achieve a more mature hydrogen value chain across Europe. With an interregional approach, insights into building a strong and innovative hydrogen production- with particular attention to management system-, hydrogen transportation in existing and new infrastructures, and the uptake of green hydrogen by industrial and mobility partners. Various companies, including SMEs from all regions, participate in collaboration with regional entities that focus on improving the hydrogen ecosystem in their region, and across Europe.

Hy2Market

- Preparatory study in Constanta region (Romania)
- Pilot in Médio Tejo region (Portugal)
- Pilot in Aragón region (Spain)
- Pilot in Asturias region (Spain)

Good practice

Hydrogen Buses



Hydrogen Refuelling Stations



Bus Testing in Zaragoza

A zero-emission hydrogen fuel cell bus has already been tested on the Airport line.



<https://www.zaragoza.es/sede/servicio/noticia/306643>

2 buses lines to the airoport

The new dedicated line to Zaragoza Airport will be operated with hydrogen buses by the ALSA group.



<https://www.zaragoza.es/sede/servicio/noticia/318446>



Partners and players involved





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European Union
European Regional
Development Fund

Thank you!

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Project smedia