



HyER

**Hydrogen, fuel cells and electro-mobility in
European regions**

Hydrogen Trains Workshop – 15.05.17

Javier Navarro ⚡

HyER membership



Aberdeen
UK



Akershus
NO



Aragon
ES



Arnhem/Nijmegen
NL



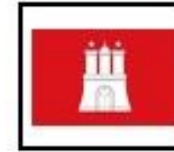
Berlin
DE



Bolzano
IT



Groningen
NL



Hamburg
DE



NRW
DE



Occitanie
FR



Rogaland
NO



Riga
LT



Skane
SE



Torres Vedras
PT

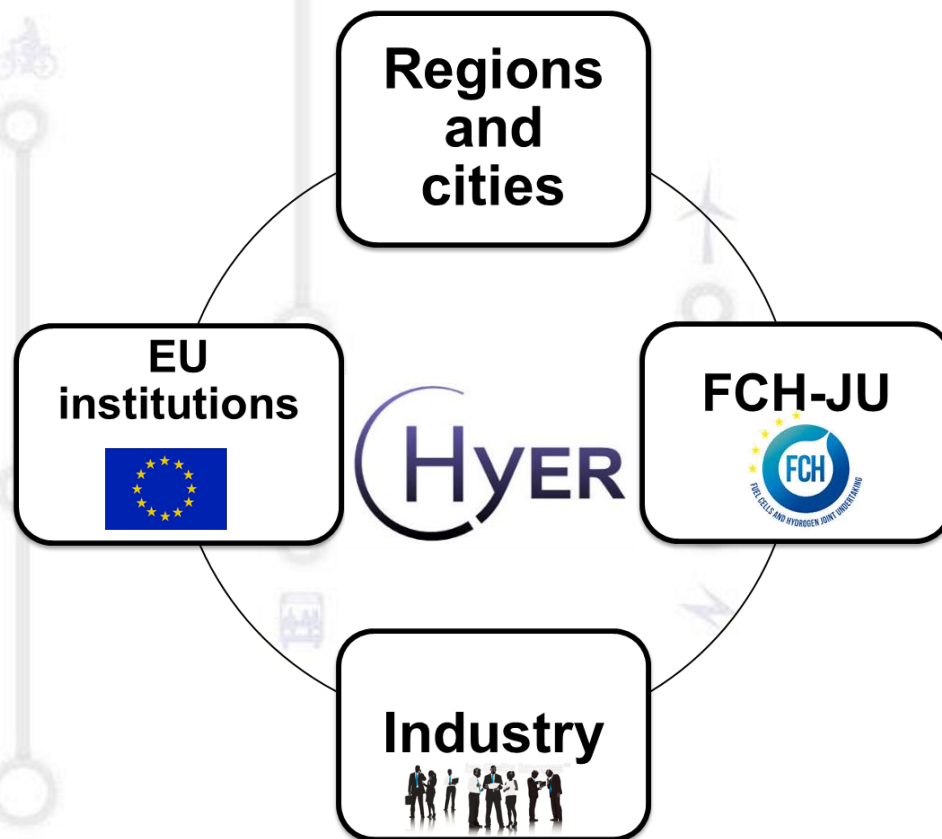


Transp. Scot
UK

- Membership based network / political organisation
- 15 members in 10 countries (May 2017)
- Representing the interests of European regions and cities active in the field of hydrogen, fuel cells and electro mobility.

Aim: help our members to develop their hydrogen and electro-mobility activities

- Enabling the share of knowledge
- Political leadership in Regions and Cities



Energy/transport: challenges for cities and regions

- Almost 25% GHG emissions from transport – need for energy transition
- Growing mobility needs, congestion, bad air quality → impact on health and quality of life on the local level
- Clear political push in Cities and Regions to reduce CO₂ emissions and improve air quality. Low emission zones and prohibition of diesels begin
- Only fuel cell and electric vehicles offer zero emissions
- Cities and Regions have a major role through the use of policy levers

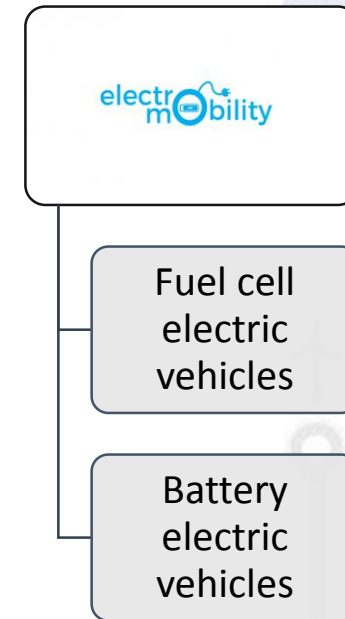
→ **Local authorities will need to deliver solutions**



Electrification of transport...

Key element in a low carbon society

- Zero-emission transport solution – potential for complete decarbonisation
- Sustainable Public Transport: local authorities do have an impact
- But also Council fleets, in service fleets, taxis, car sharing...
- Different technologies for different applications: the technology is ready



Hydrogen trains



Rail connectivity is a national and international priority but...

- **Cities and Regions are often direct operators of rail transport, in particular regional trains**
- **Rail transport is part of an integrated multi-modal transport system**
- **Cities and Regions play a key strategic role in planning transport services and often financially support routes**
- **Efficient and effective cities have a well developed transport system that moves people around quickly and cheaply - trains are part of that system**

Hydrogen trains



Hydrogen trains – regional and urban interest

- **German initiative has stimulated a great deal of interest especially in neighbouring areas (Denmark and Netherlands)**
- **Up to now, the electrification of lines has been the only alternative to diesel trains**
- **Many rail routes and lines do not generate enough traffic to justify rail electrification**
- **Hydrogen offers an attractive alternative especially when it is not cost effective to electrify lines**
- **Cities and Regions that have introduced hydrogen fuel cell technology in buses or cars/vans are keen to diversify into other forms of transport**
- **Support of Cities and Regions – both financial and political – could be crucial**

Thank you for your attention

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