



# HyER

Hydrogen, fuel cells and electro-mobility in  
European regions

Committee of the Regions – 24.03.17

Jon Jordan



# HyER membership



Aberdeen  
UK



Akershus  
NO



Aragon  
ES



Arnhem/Nijmegen  
NL



Berlin  
DE



Bolzano  
IT



Groningen  
NL



Hamburg  
DE



Occitanie  
FR



Riga  
LT



Skane  
SE



Torres Vedras  
PT



Transp. Scot  
UK



NRW  
DE

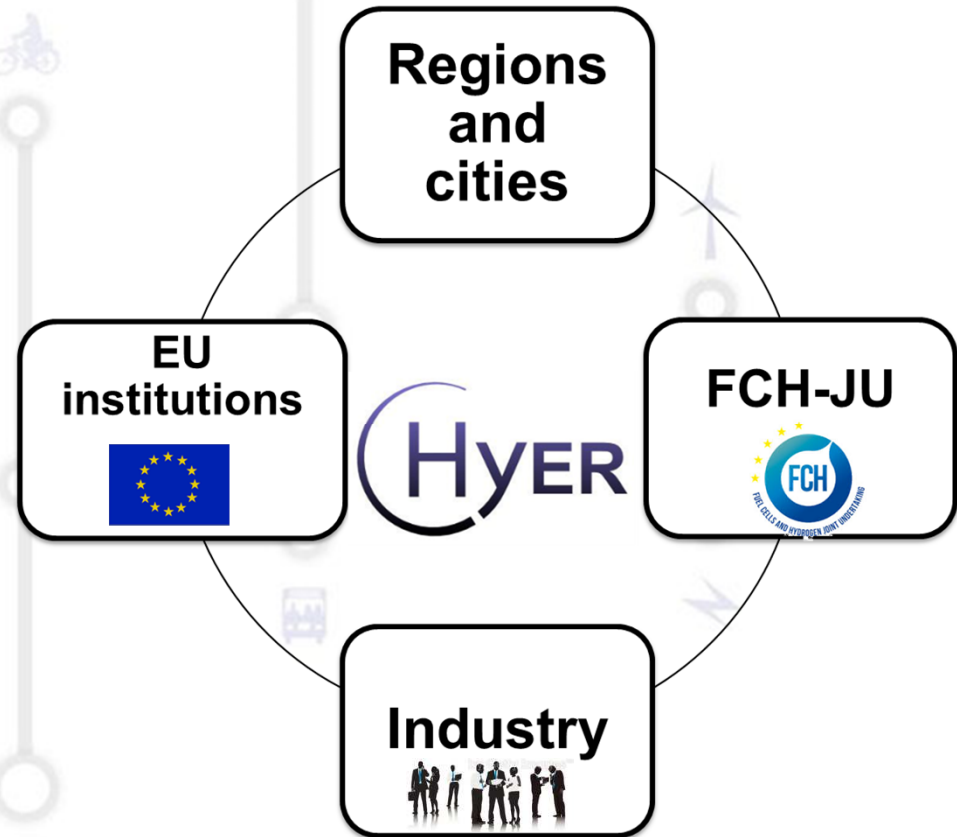
- Membership based network / political organisation
- 14 members in 10 countries (January 2017)
- Representing the interests of European regions and cities active in the field of hydrogen, fuel cells and electro mobility.

# HyER



**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 CO<sub>2</sub> 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

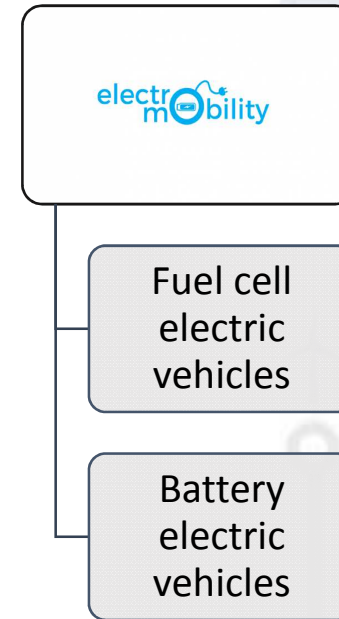
→ **Local authorities will need to deliver solutions**



# Electrification of transport...

## Key element in a low carbon society

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



## Economic development opportunity

- Hydrogen and Electro-Mobility integrated into Smart Specialisation Strategies
- Worth considering if region can produce a lot of hydrogen: great renewable energy potential for instance
- Energy transition represents great opportunities for first-mover Cities and Regions and problems for those slow to transition
- Economic development opportunities: engineering, components, supply chain; transferability of skills
- A H2 strategy will create new markets, increase competitiveness of the territory and lead to job creation

→ **There is also an economic development opportunity to seize**



## The technology is ready!

- Battery electric vehicles and fuel cell vehicles have been demonstrated in various projects everywhere in Europe – numbers of vehicles on the road is rapidly increasing
- Example for fuel cell buses: about 100 buses on the road today in Europe, about 150 more will be deployed through projects approved recently
- Good operational results have been achieved in demonstration projects in both fuel cell and electric vehicles showing technology is reliable  
Similar results for micro CHP.
- Cities and Regions work together to develop markets through initiatives such as joint procurement and captive fleet approaches

**→ Technology is ready to be deployed; creating demand and new energy systems are the key**

## Energy systems

- Integration of renewables → need to store excess renewable energy in the form of hydrogen and batteries
- Local energy systems: production for local use depending on demand (transport applications, combined heat & power etc.)
- Micro-CHP
- Power to gas
- Smart Grids



**Obstacle for cities & regions: investment costs → need to work together and with the industry!**



# Project development

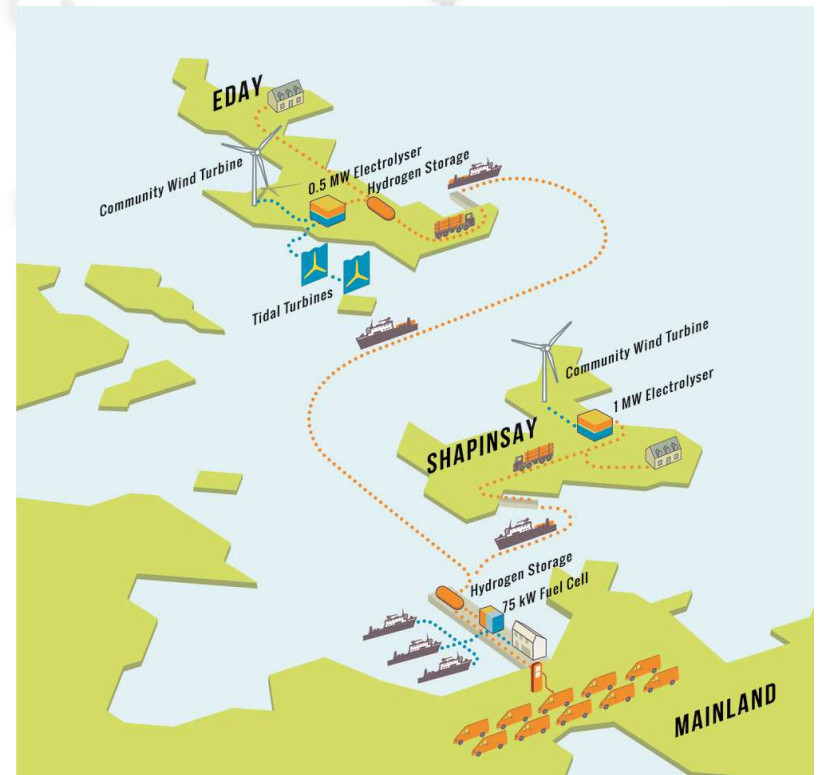
As a project partner:



Facilitate project development:

H2PiyR

BIG HIT



**Save the date – HyER event**



**SAVE THE DATE**

**Seminar on hydrogen trains**

**15 or 17 May 2017**

**HyER office – Brussels**





**Thank you for your attention**

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# HyER membership

