

# **Hydrogen an enabler of the Grand Transition**

FEL position paper

# Project Team

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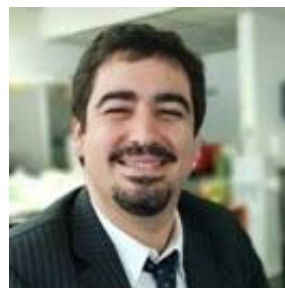
Alena  
France



Bart  
Australia



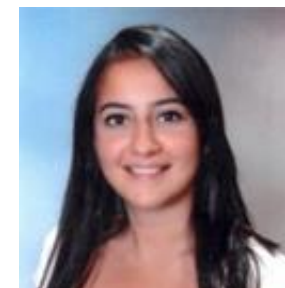
Laura  
Spain



Andrés  
Chile



James  
Ireland

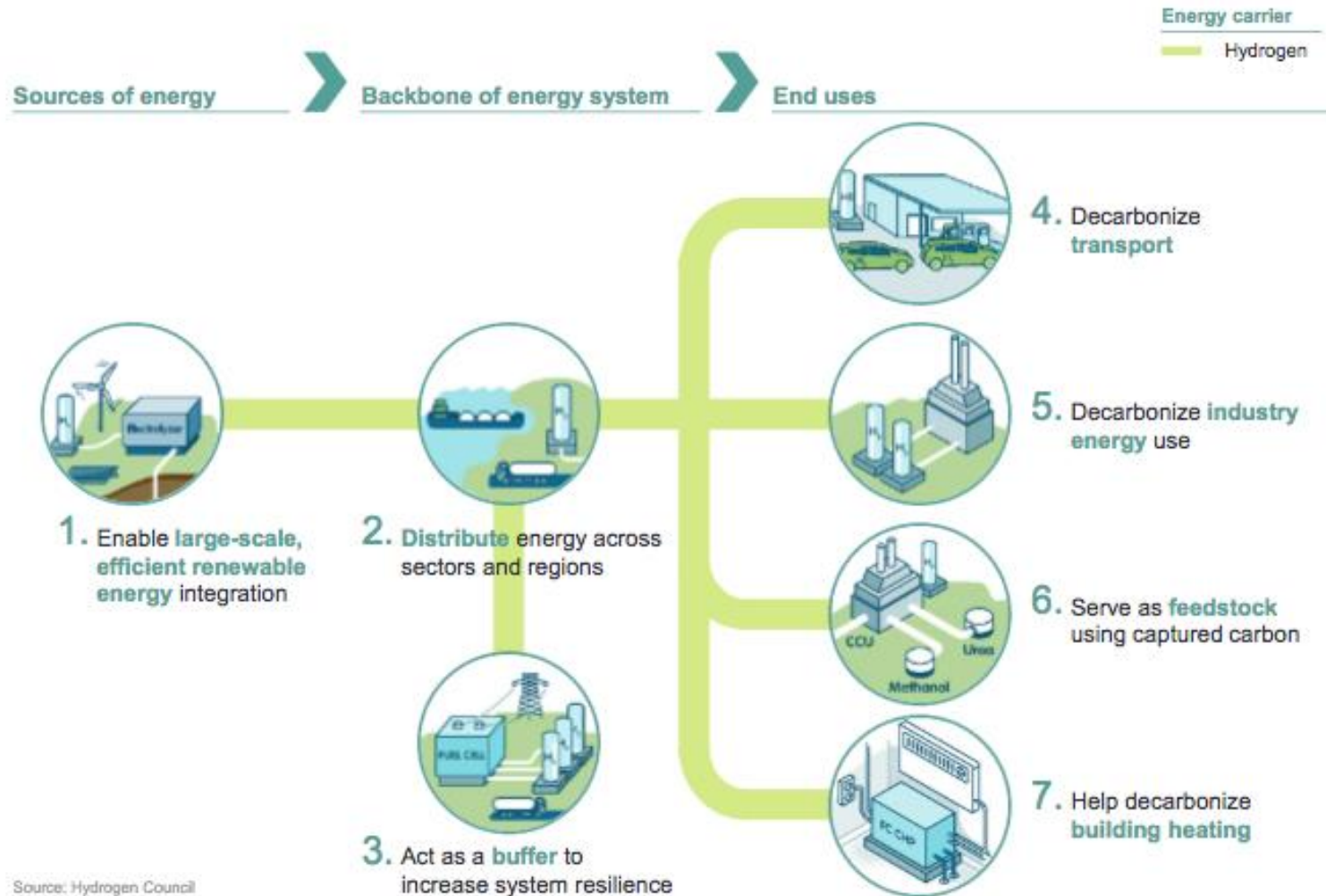


Cansu  
Turkey



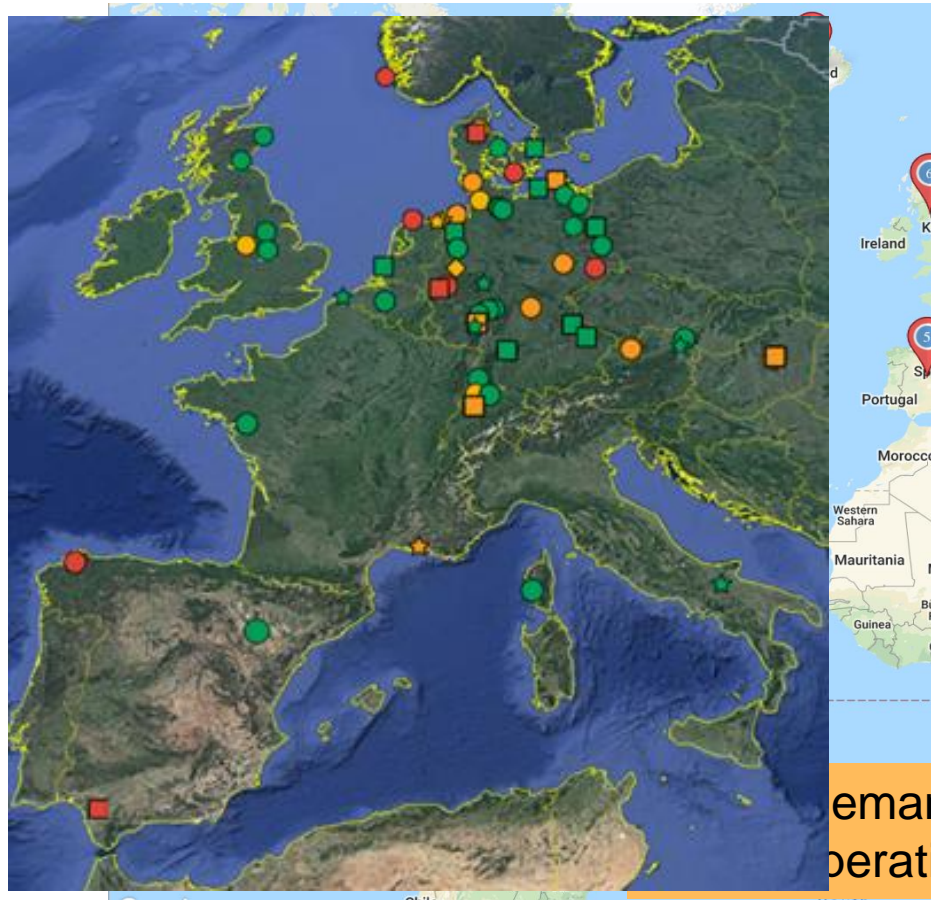
Yena  
South  
Korea

# 7 roles of hydrogen to enable energy transition



Source: Hydrogen Council

## Zoom: Power to Gas



### Example: HyBalance, Denmark

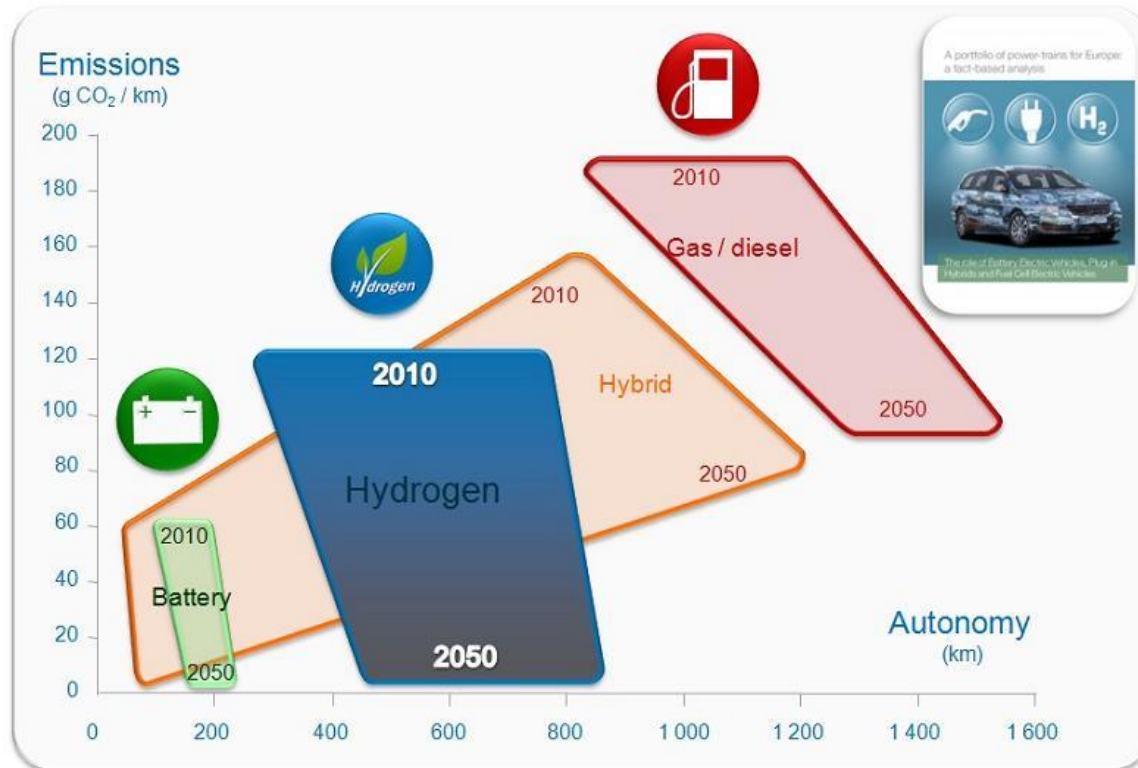
- 1.25MW electrolyser
- connected to a wind farm
- hydrogen used for:  
mobility, industry, & grid services
- european & Industrial funding
- mature, is at scale, flexible



Source: European Power to Gas, Power-to-gas (demonstration) projects in Europe and own project data



# Zoom: Transport



## Hype, hydrogen taxi in Paris

- greater ranges and faster recharging time compared to BEV
- city and national support for ZEV



# Zoom: Gas grid conversion



## Leeds, UK

- conversion of the existing gas grid to hydrogen
- accounts for size, location, grid complexity, high demand
- £150 billion cheaper than electrification



## Key messages

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- Hydrogen may enable the Grand Transition through systemic impact to the whole energy system
- Hydrogen technology is mature and is starting to be deployed to decarbonize different sectors across the globe
- Industry leads early market deployment to anticipate future regulation [e.g. Hydrogen Council counts 42 multinational companies]

## Key messages

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- **Need for** coherent low carbon regulation to ensure short term profitability of hydrogen solutions
- **Need for** extensive communication, education and future workforce training to enhance social acceptance of hydrogen technologies



# Thank you!

We are looking for your professional review and feedback!

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