

# 5th International Conference on Hydrogen Safety Tudor Constantinescu Principal Adviser, DG Energy, European Commission

Energy



## **RM 2050 - Fuel Ranges**

(primary energy consumption)





### A "no regrets" scenario for Europe





## Hydrogen – Potential role in the energy chain

- Helps integrating RES in the energy chain putting a value on excess production while reducing the need for subsidies
- Helps balancing the electricity networks
- Helps the integrated and more cost –effective operation of electricity and natural gas grids, therefore
- Reconciling renewables and fossil fuels in a new dynamic equilibrium
- Creating new opportunities for decarbonisation in transport sector (HCNG, SNG and FC cars)
- Provides for higher levels of EE (in micro-CHP, FC cars)





#### HYDROGEN AS RES POWER COMMODITY - STORAGE MEDIUM & END USE -

#### Attention on the whole energy chain:

- Enabling a large-scale RES energy integration business case
  - Including re-electrification and direct end-use
- Regulations for H2 access to NG grid & storage
- Standardisation providing high Safety of H2 installations and equipment
- Research on Materials and on Efficiency improvements
- Research and Demonstration on Storage
- Shift towards gas and H2 directly in end-use
  - Micro-CHP, Fuel cell cars (H2) and ICE cars (NG and NG & H2 blends)
- Focus on the best solutions: affordability, industry, end-users, environment, etc.

