



Member Statement

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Challenge Bibendum



16th World Hydrogen Energy Conference

16^{ème} Conférence Mondiale de l'Hydrogène Energie



Public Funding of Hydrogen and Fuel Cells R&D ~ 40M€



www.agence-nationale-recherche.fr



R&D on Hydrogen and Fuel Cells

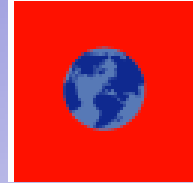


Biotechnologies for energy production



Clean and efficient transport

ADEME



www.ademe.fr

Demonstration projects
Energy and Environnement
Funding SME's projects

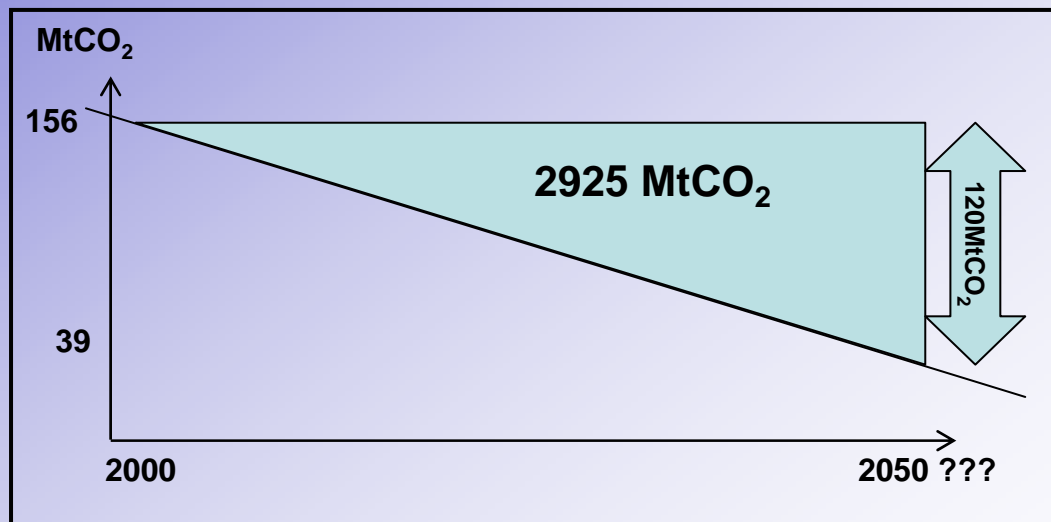


www.aii.fr

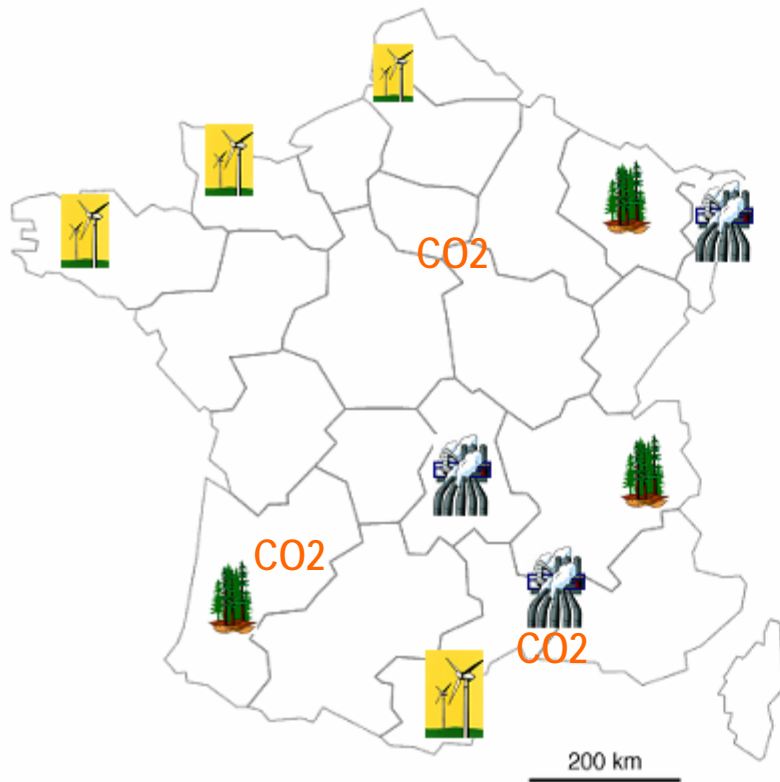
Funding ldevelopment of arge scale industrial projects (ex : hybrid diesel)

French Government has decided to reduce GHG emissions by 75% in 2050

- Reduce CO₂ 2004 emissions (535 Mt)
- Single Installations > 20MW / 10ktCO₂, 156 MtCO₂/ year



Most promising renewable sources and CO₂ storage capacity for a carbon-free H₂ production



Concentrated scenario by ADEME for wind energy: 15 GW installed in 2020 (2/3 in four regions)



Estimated geothermal potential by BRGM in favourable areas (T>180°C at 5000 m depth): 15000 GW.year, in three regions



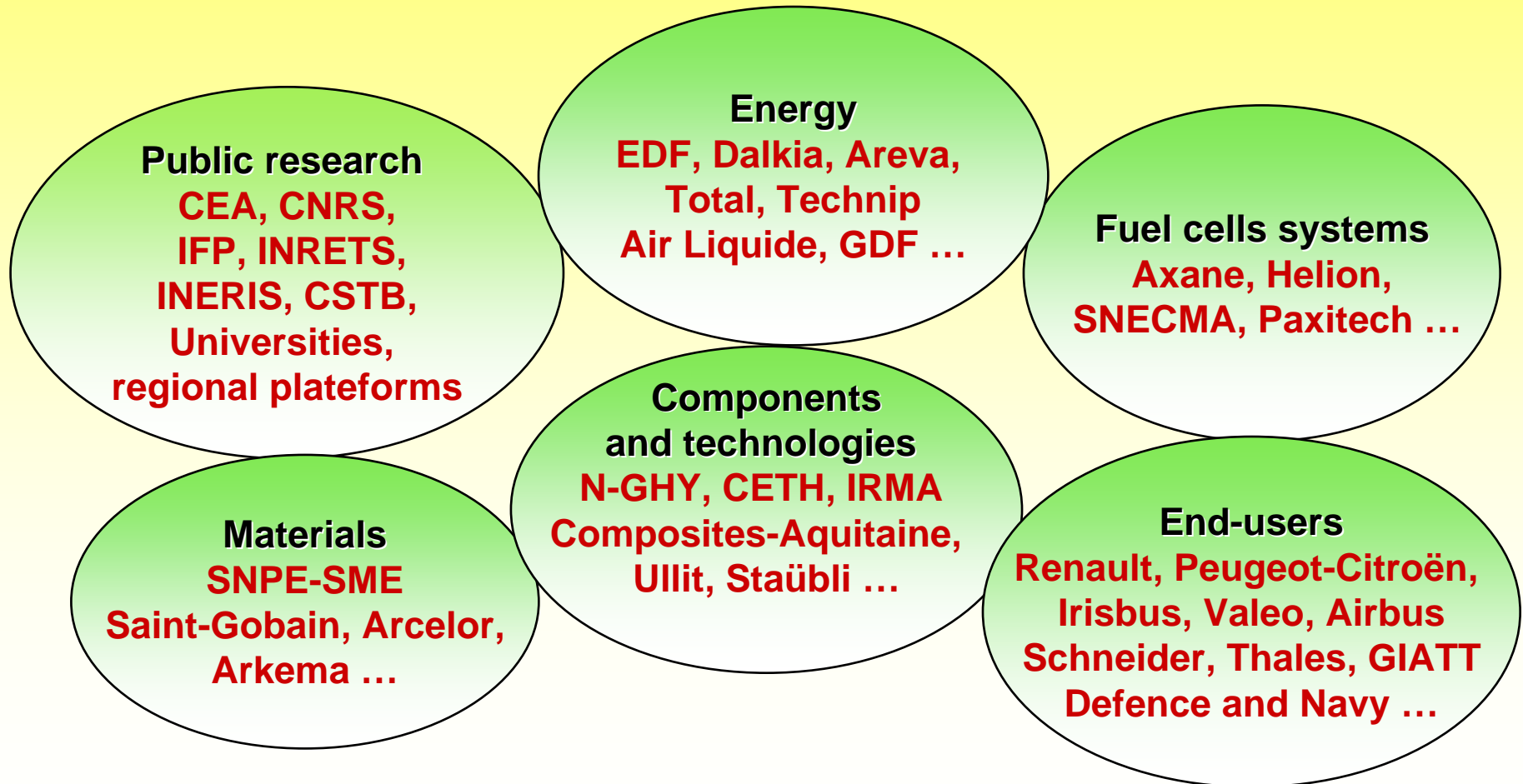
Best resources used in three selected regions:
- existing wood;
- ligneous/cellulose cultures

CO₂

Sediment basin favorable for CO₂ geological storage

HyFrance contribution to HyWays

French actors in the hydrogen & fuel cell R&D, and supply chain



Applications and Technologies

Air-independent propulsion

Transport



Onboard applications

Modular H₂/O₂
and H₂/air PEMFC
Technologies

Stationary applications



Back-up power system

Distributed Generation

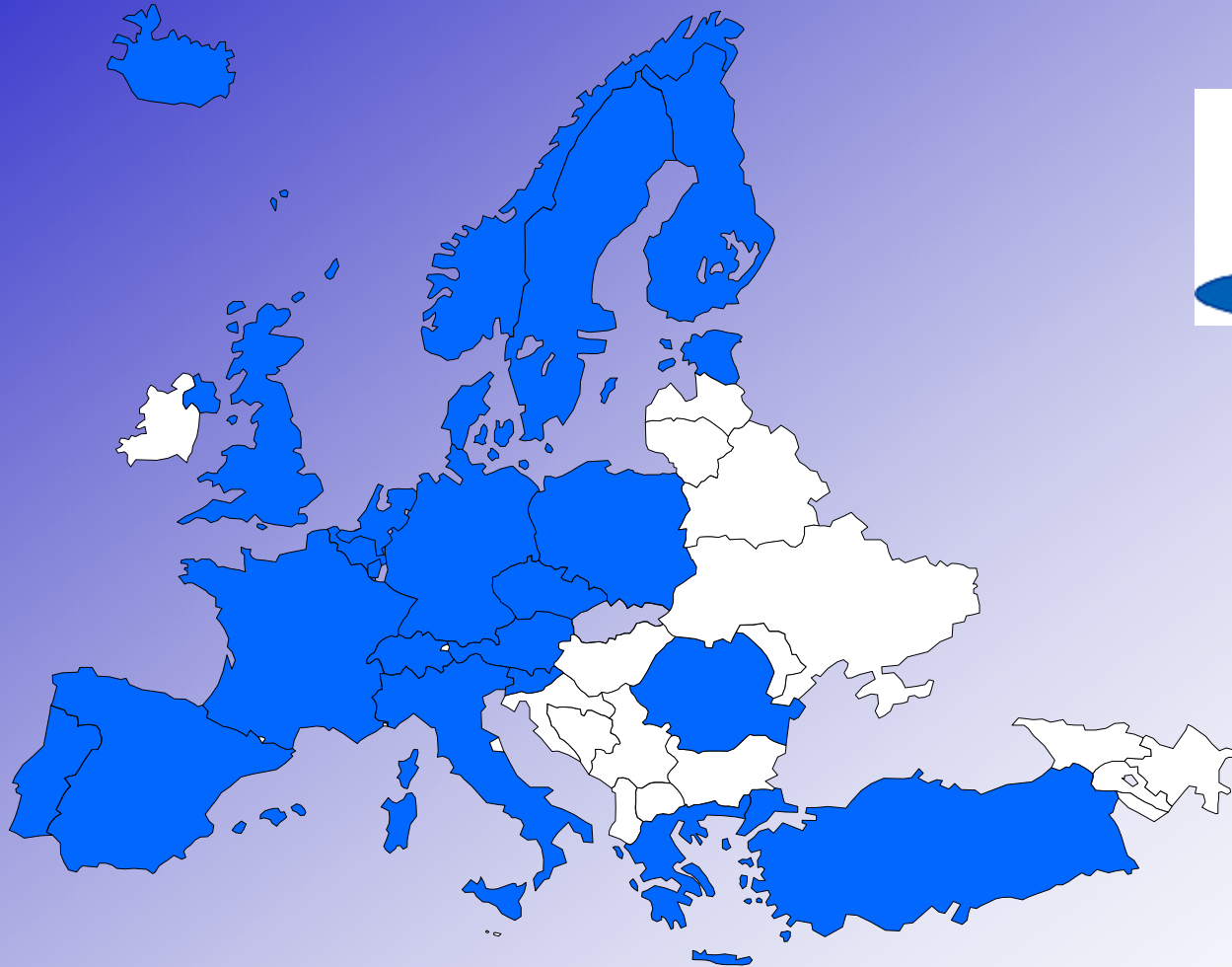
Cogeneration

Backup Power Systems based on H₂/O₂ PEM Fuel Cell Technology

- ▶ **2006: SAS, a 30 kWe backup power system in a real use situation at the new CEA headquarters**



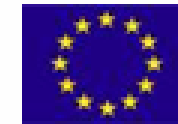
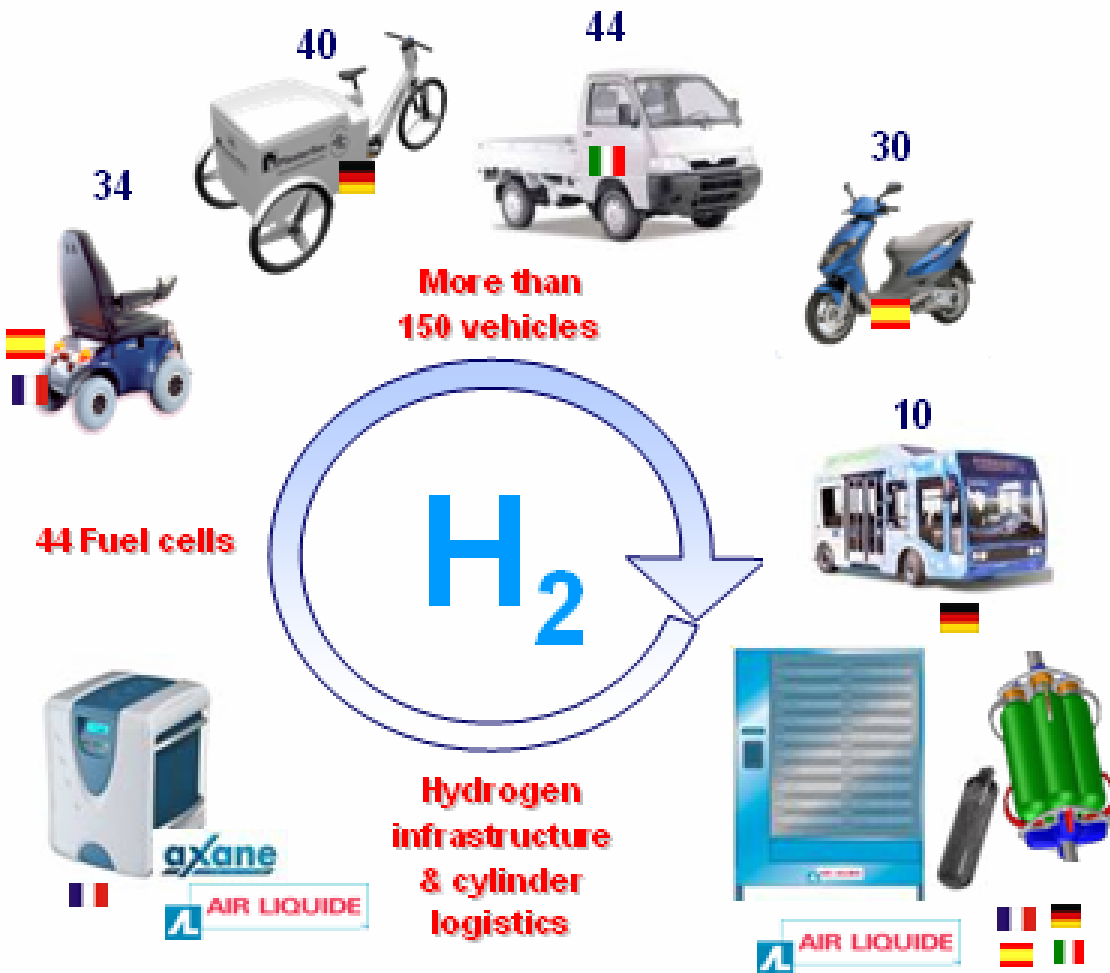
Networking EU



Deployment of hydrogen small vehicle fleets : first step towards a clean transportation



Jan 2006 - Dec 2010

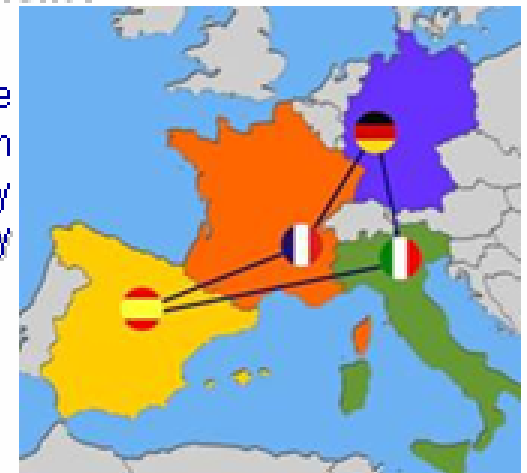


FP 6 - 2004 TREN.

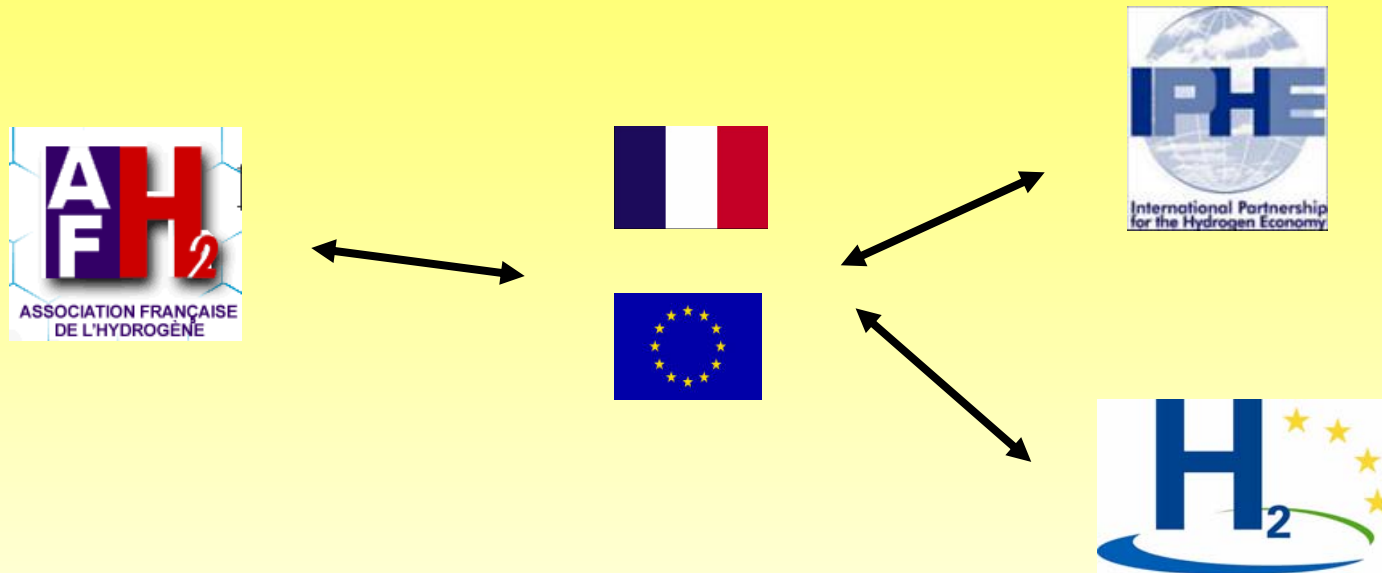
Budget
40 Million €

26 partners
Coordinated by Air Liquide
4 European regions for deployment :

France
Spain
Germany
Italy



International Cooperation



- France has a strong will to develop international cooperation
- French R&D is directly linked with the European FP program and to Hydrogen or Fuel Cell integrated projects
- France strongly supports the European Technology Platform on Hydrogen & Fuel Cells
- IPHE has a major added value as an international Forum