Future Business and Open Innovation

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ERRIN - Brussels, June 11th, 2009

Solvay today

- **3 Sectors : Chemicals, Plastics and Pharmaceuticals**
- **29.400 workers**
- **Founded in 1863 and currently present in 50 countries and 5 continents**
- **Turnover of €9.5bn and a Net income of €449m in 2008**

Global presence

Europe	**57%**	America	**31%**
European Union (27)	**51%**	NAFTA	**22%**
Other European countries	**6%**	Mercosur	**9%**
Asia-Pacific Ocean	**9%**	Rest of the world	**3%**

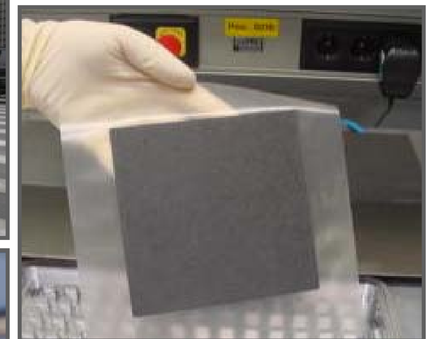
End-user market

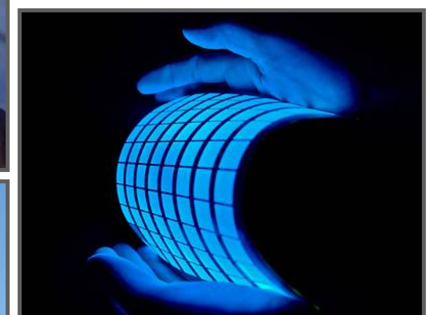
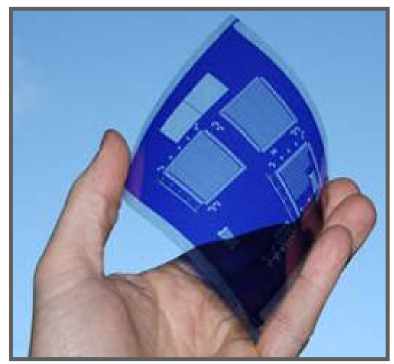
Human healthcare	**30%**	Paper	**4%**
Construction & architecture	**14%**	Detergent, maintenance, hygiene products	**3%**
Automotive industry	**9%**	Packaging	**3%**
Chemical industry	**9%**	Consumer goods	**2%**
Glass industry	**6%**	Human & animal nutrition	**1%**
Electricity & Electronics	**5%**	Other industries	**9%**
Water & environment	**4%**		

Future Businesses Activities

In line with the innovation Group strategy, “think next” and using the Open Innovation model (internal competences, a network of external partners and a corporate venture tool), we build a selected portfolio of innovative programs structured in strategic platforms.

- Strategic Platforms
  - ➔ *Sustainable Energies*
  - ➔ *Organic (Printed) Electronics*
- Corporate Venturing
- Opportunities




Sustainable Energy Platform

Solvay and its partners are developing the materials required for new sustainable energy solutions through :

- Fuel cells
  - ➔ They offer the best energetic and environmental balance by converting hydrogen into electrical power.
  - ➔ Fuel cells will be developed for a large range of applications, from portable (mobile phones, PC) to automotive (electrical engines).
- Organic photovoltaic cells
  - ➔ They will provide a low-cost solution based on organic materials printed on flexible supports.
  - ➔ In the medium term this technology should prove more competitive than silicon-base cells.
- Hydrogen storage
- New generation of batteries

Portfolio in Sustainable Energy platform

In-House Development

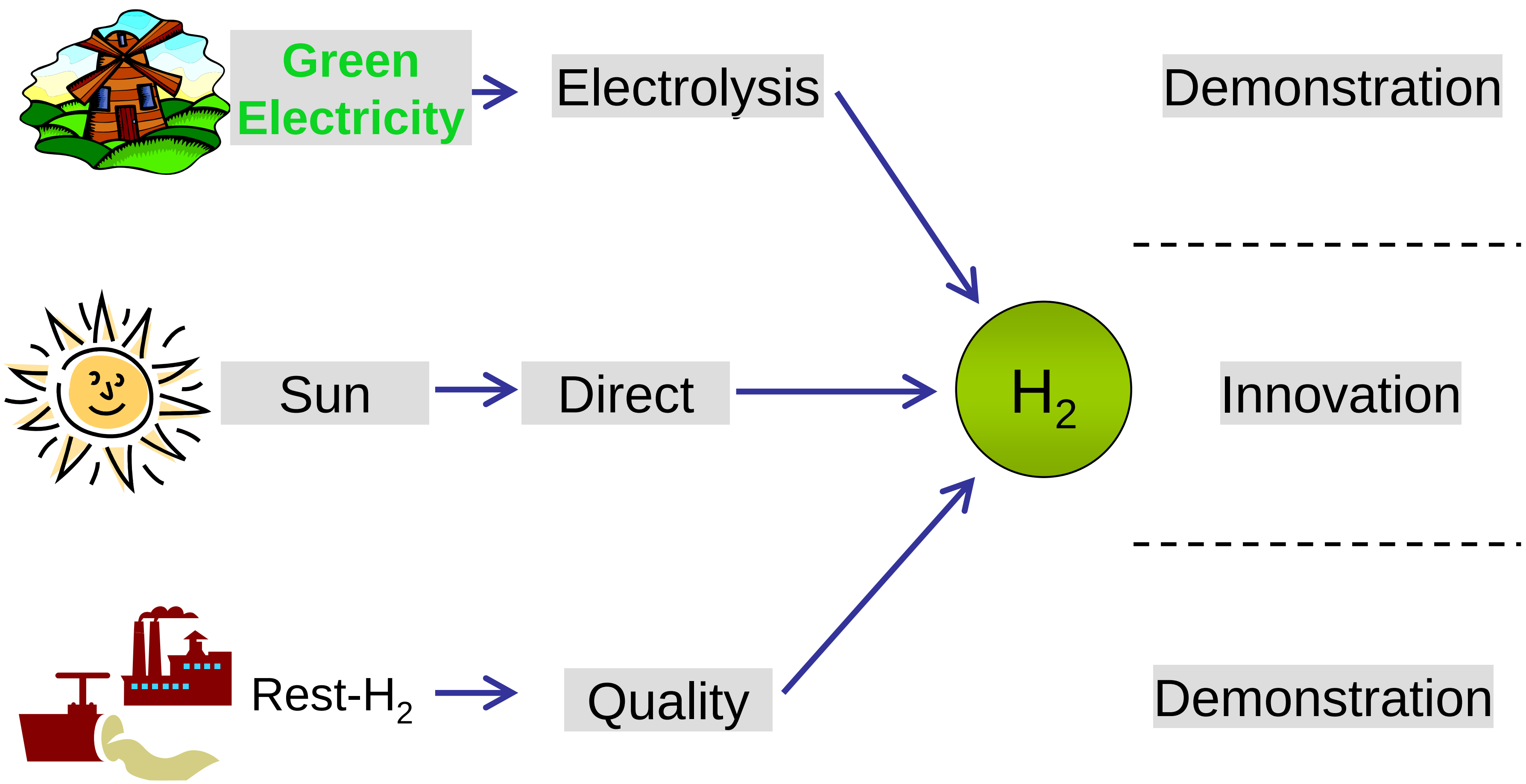
Solvay Solexis

Partnerships

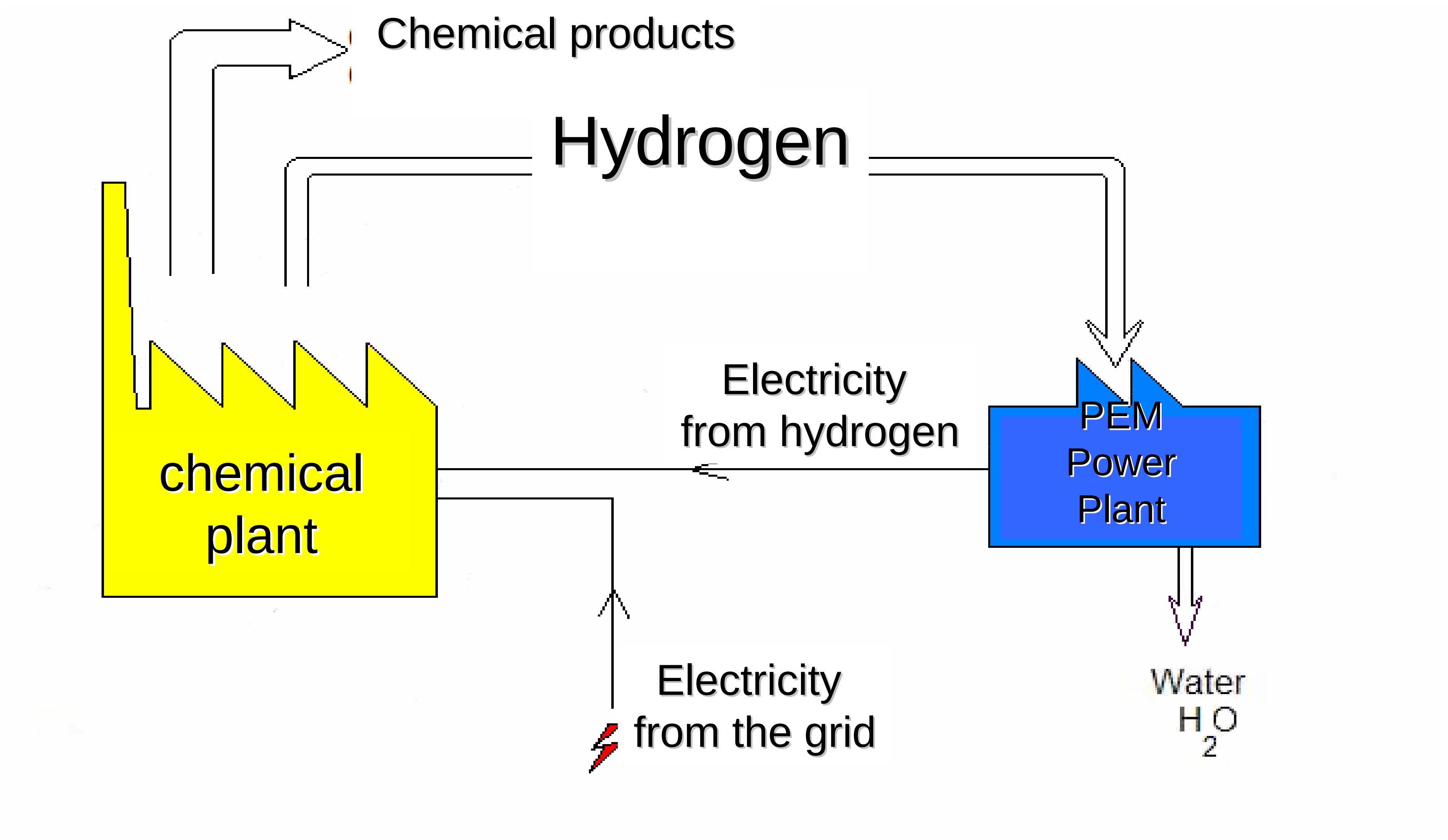
Venturing

Shareholdings

Hydrogen production



PEM Power Plant and Chlor Alkaline



Scope of Lillo project

- Installation & operation of a stationary FC system at Lillo:
  - 1 MW electrical power (1.7 MW peak power)
  - FC system supplier: Nedstack BV
  - FC core components (MEA): SolviCore (JV Solvay:Umicore)
  - Hydrogen supply & purchase of electricity (400 VAC): Solvin
  - Owner: Solvay

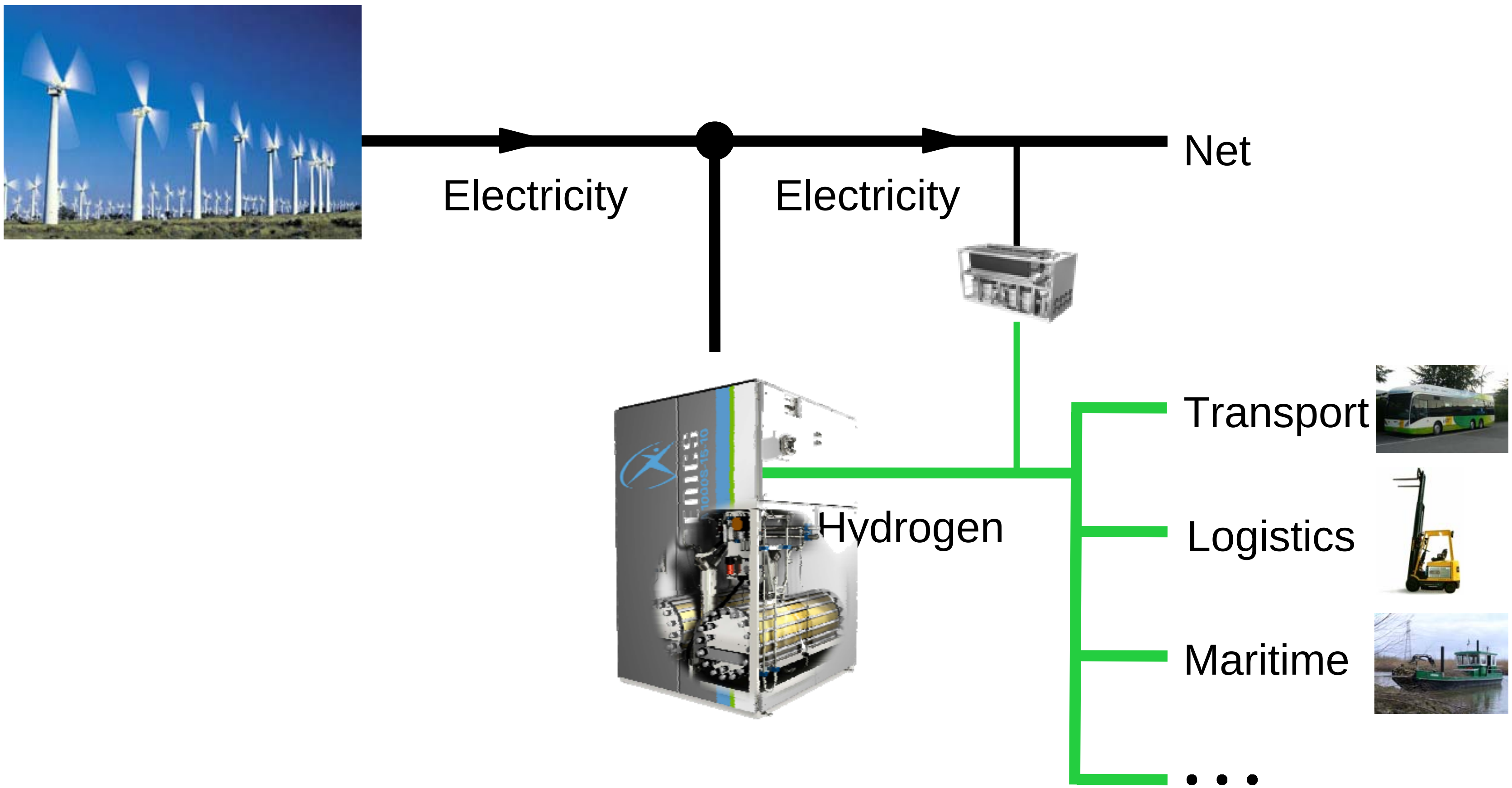
75 kW system at AKZO (Delfzijl)

The pilot 50kW nom PEM FC Power plant
>9500 hours running today at Akzo Nobel, Delfzijl

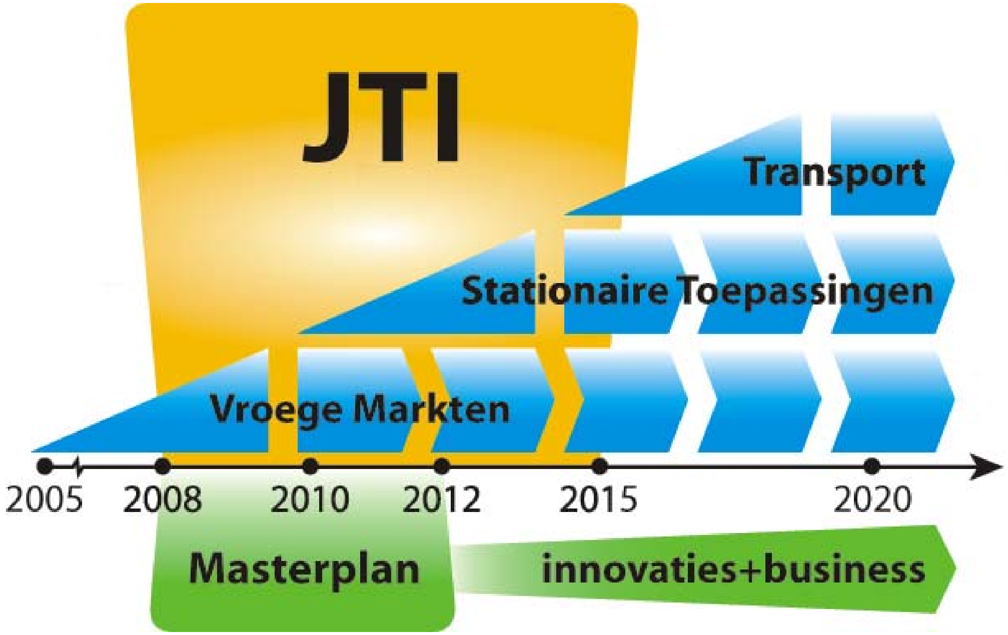
City bus project for 2009

Partners
APTS, GVB A'dam
Vossloh, NedStack

From demonstration to market



Europe has ambitions

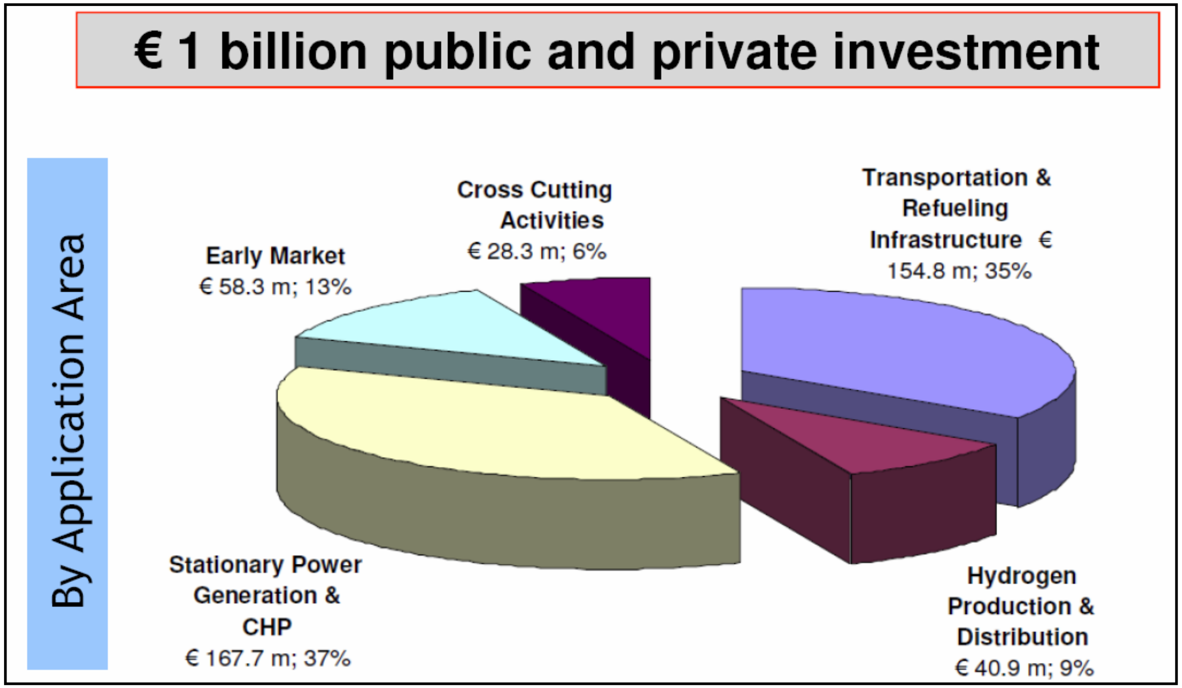


- 470 Meuro * 2 for 2009 - 2013

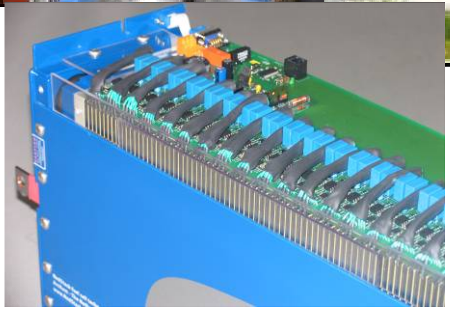
European JTI Relevance

- In line with European JTI Industry Group targets:

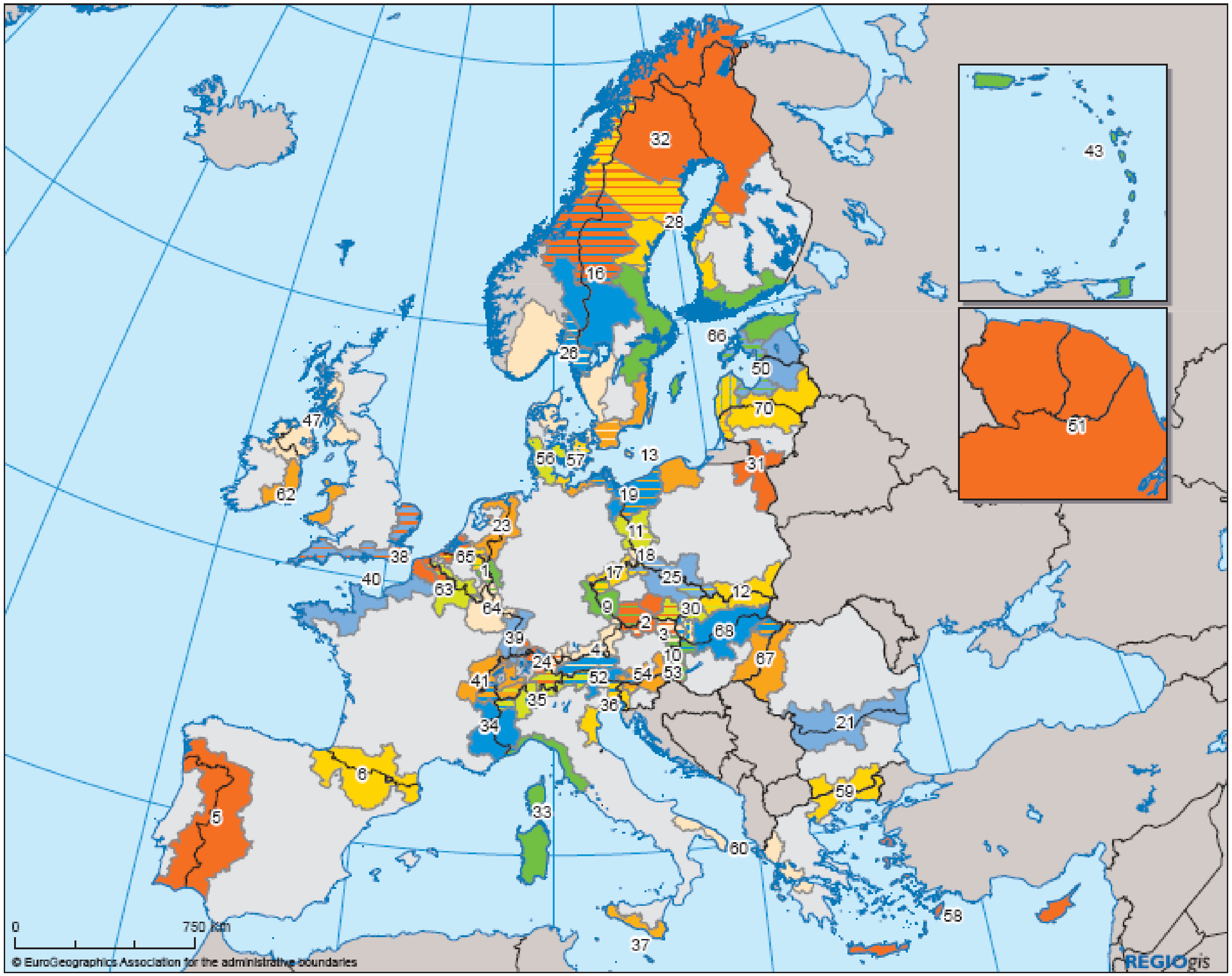
Stationary Power & CHP	2010	• 3 - 7MW electrical capacity installed for pre-commercial demonstration phase
	2015	• 100 MW electrical capacity installed • Cost of 5 000 - 6 000 €/kW (Micro CHP FC) and 1,500 - 2,500€/kW for commercial/industrial units



Role of the regions ?



Kaart Structural Funds 2007-2013
Cross-border Coorporation programmes



CCI programme codes:
2007CB163PO0..

1	Euregio Maas Rhein
2	Österreich - Česka Republika
3	Slovensko - Österreich
4	Deutschland/Bayern - Österreich
5	España - Portugal
6	España - France - Andorra
9	Bayern - Česka Republika
10	Österreich - Magyarország
11	Województwo Lubuskie - Brandenburgia
12	Polska - Slovensko
13	South Baltic
16	Sverige - Norge
17	Sachsen - Česka Republika
18	Sachsen - Polska
19	Mecklenburg-Vorpommern / Brandenburg-Zachodniopomorskie
21	România - България/Bulgaria
23	Deutschland - Nederland
24	Alpenrhein-Bodensee-Hochrhein
25	Česka Republika - Polska
26	Öresund-Kattegatt-Skagerrak
28	Botnia-Atlantica
30	Česka Republika - Slovensko
31	Lietuva - Polska
32	Nord
33	Italia - France Maritime
34	Italia - France ALCOTRA
35	Italia - Schweiz / Suisse / Svizzera
36	Italia - Slovenija
37	Italia - Malta
38	Deux Mers
39	Rhin supérieur - Oberrhein
40	France (Manche) - England
41	France - Schweiz / Suisse / Svizzera
43	Espace Caraïbes
47	Northern Ireland, the Border Region of Ireland and Western Scotland
50	Eesti - Latvija
51	Amazonie
52	Italia - Österreich
53	Slovenija - Magyarország
54	Slovenija - Österreich
56	Syddanmark - Schleswig - K.E.R.N.
57	Fehmarnbelt region
58	ΕΛΛΑΔΑ - ΚΥΠΡΟΣ
59	Ελλάδα / Ellada - България/Bulgaria
60	Ελλάδα / Ellada - Italia
62	Ireland - Wales
63	France-Wallonie-Vlaanderen
64	Grande Region
65	Vlaanderen - Nederland
66	Central Baltic
67	Magyarország - România
68	Magyarország - Slovensko
70	Latvija - Lietuva

Interreg Vlaanderen-Nederland
Kaart Grensregio

VSWB: Network

Masterplan

- Purpose:
  - From “fragmented in the region” to “leading in Europe”

- Principles of the Hydrogen Masterplan:
  - Transgressing cooperation
  - Regional technology players
  - Coherent with European ambitions
  - Total value chain: from production to end-use
  - Renewable hydrogen (no fossil fuels)
  - Concrete, tangible results within 3 years
  - Start-up programme for education/extra training
  - Coordination of hydrogen programme by WaterstofNet