



Update of EU activities related to fuel cell and hydrogen technologies

IPHE Steering Committee meeting

Cape Town, 3-4 May 202

Wiktor RALDOW

Content

1. EU policies and initiatives on energy and transport
2. The EU Research and innovation funding programme for 2014-20: *Horizon 2020*
3. Progress of the Fuel Cells and Hydrogen Joint Undertaking (FCH JU)

EU Policies on Energy and Transport

EU Policies are mainly implemented via "*Regulations*" and "*Directives*". Both are binding but Regulations are directly applicable in all Member States and Directives leave to the national authorities the choice of form and methods.

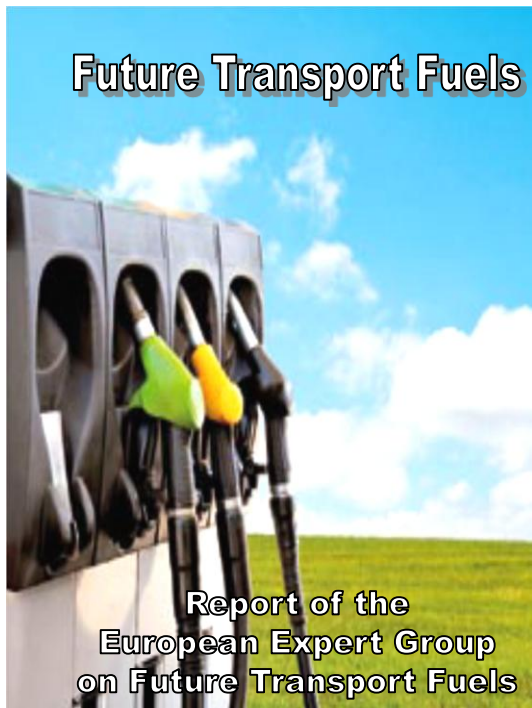
A number of them set up specific targets on energy and transport, which might have a potential impact on FC&H2 technologies:

- 20 % share of energy from renewable sources in overall energy consumption and 10% mandatory target for energy from renewable sources in transport by 2020
- CO2 emissions limits of new cars
- promotion of clean and energy-efficient road transport vehicles
- 6% reduction of GHG emissions from transport fuels by 2020
- Minimum energy performance requirements for buildings

EU Initiatives on Energy and Transport

- Energy 2020 Communication (identifies the priorities for the period up to 2020)
- Energy 2050 Roadmap (to reduce GHG emissions to 80-95% below 1990 levels by 2050)
- Strategic Energy and Transport Technology Plans (SET Plan, STT Plan)
- European strategy on clean and energy-efficient vehicles (aiming at helping car industry to strengthen its leading role)
- European *Green Cars* initiative to support research and demo projects.
- Clean Power for Transport initiative (aiming at developing a comprehensive long-term alternative fuel strategy)

EU Clean Power for Transport Initiative **Future Transport Fuels Expert Group reports**



http://ec.europa.eu/transport/urban/cts/clean-transport-systems_en.htm



Horizon 2020

A single programme for research and innovation bringing together three existing separate EU programmes and initiatives*

Budget proposed for the period 2014-2020: 80 b€

Focus on societal challenges facing EU society, including clean and efficient energy and transport

Simplified access for all companies, universities, institutes in all EU countries and beyond.

Adoption by Parliament and Council expected by end 2013

**The 7th research Framework Programme (FP7), innovation aspects of Competitiveness and Innovation Framework Programme (CIP), EU contribution to the European Institute of Innovation and Technology (EIT)*



Horizon 2020 - Key challenge **'Secure, clean and efficient energy'**

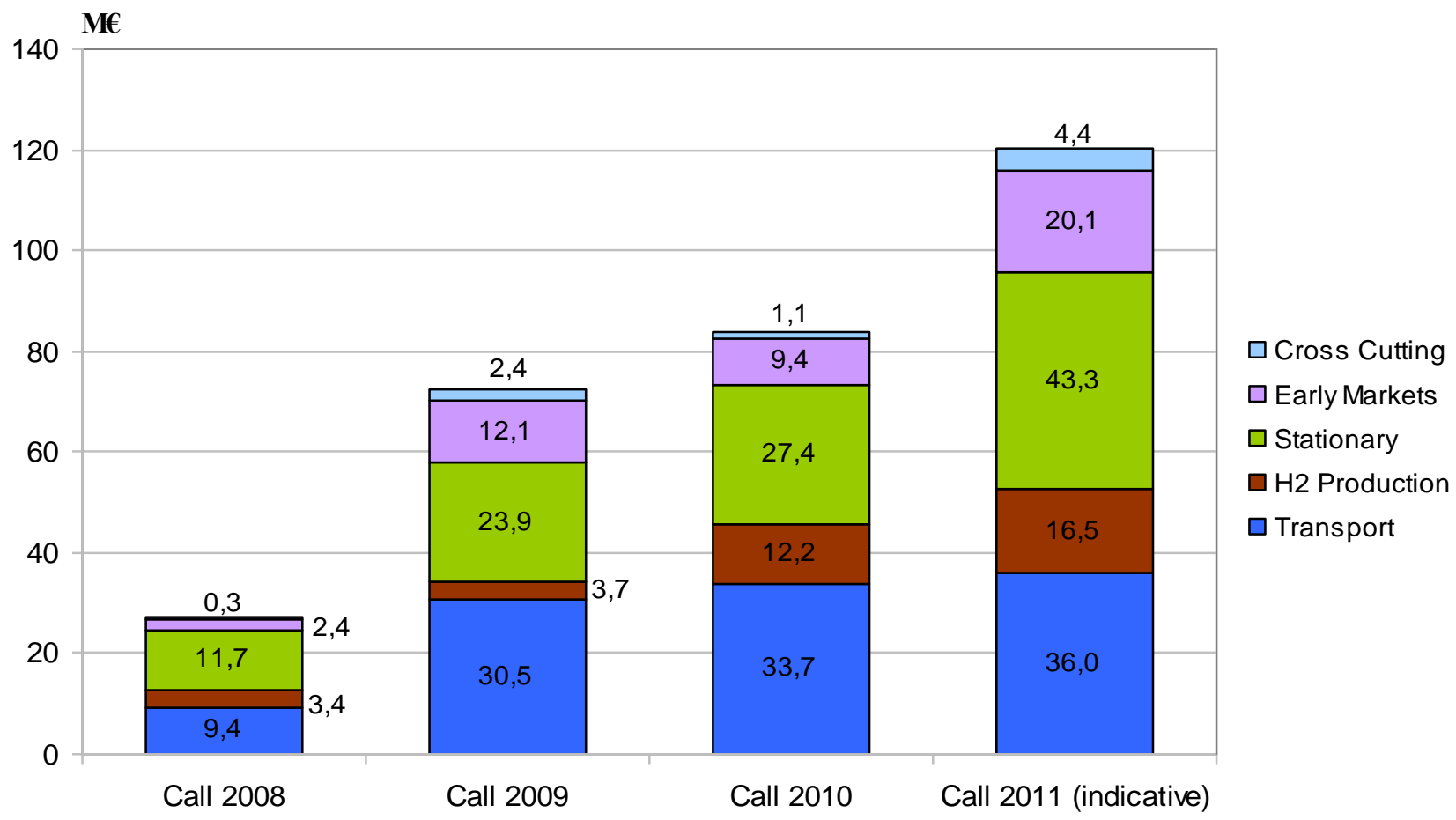
Objective: *to make the transition to a reliable, sustainable and competitive energy system, in the face of increasingly scarce resources, increasing energy needs and climate change.*

Broad lines of activities: *(1) Reducing energy consumption and carbon footprint by smart and sustainable use; (2) Low-cost, low-carbon electricity supply; (3) Alternative fuels and mobile energy sources; (4) A single, smart European electricity grid; (5) New knowledge and technologies; (6) Robust decision making and public engagement; (7) Market uptake of energy innovation.*

FCH JU contributions per call and activity area



~ 300 M€ for grants during 2008-2011



FCH JU funded projects 2008-2012



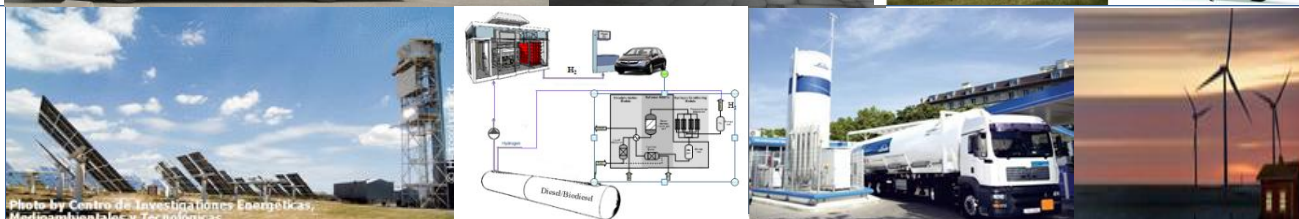
TRANSPORTATION & REFUELLING INFRASTRUCTURE

10 projects
6 demo
2 research
2 studies



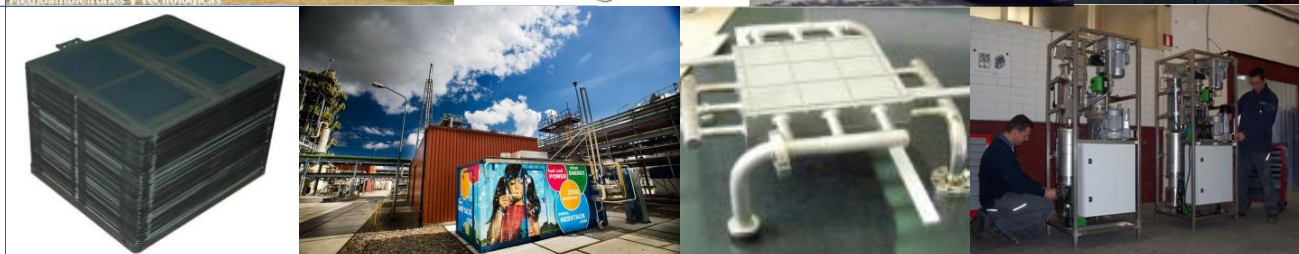
HYDROGEN PRODUCTION & DISTRIBUTION

14 projects
6 demo
8 research



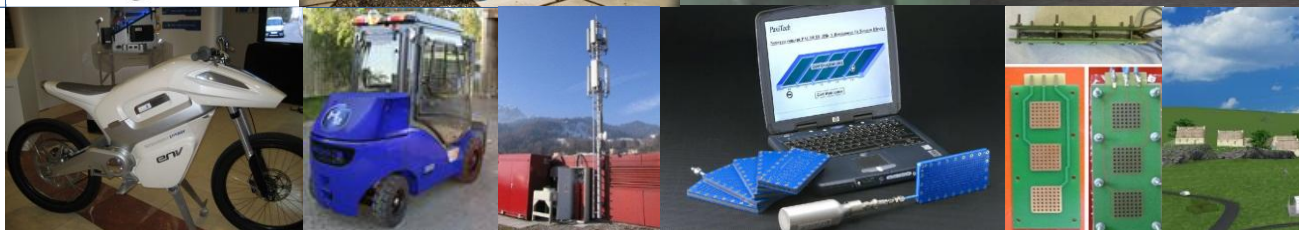
STATIONARY POWER GENERATION & CHP

29 projects
5 demo
24 research



EARLY MARKETS

10 projects
5 demo
4 research
1 study



CROSS - CUTTING

7 projects

RCS, Safety, Education, PNR, ...



**THANK YOU FOR YOUR
ATTENTION**