



Fuel Cells & Hydrogen

Latest developments at EU level

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1. Fuel Cells and Hydrogen Joint Undertaking (FCH JU)

- ✓ Projects from call for proposals 2012
- ✓ Educational & training projects
- ✓ Market introduction: benchmark studies
- ✓ Upcoming events

2. Update on EU policy initiatives

- ✓ Clean Power for Transport Package
- ✓ Horizon 2020
- ✓ HIT Project (Hydrogen Infrastructure for Transport)

1. Update on the Fuel Cells and Hydrogen Joint Undertaking (FCH JU)



a) Projects from call 2012 (under negotiation)



European
Commission

Application Area	Number of Projects	Total Budget (M€)	FCH JU contribution recommended (M€)
Transportation & Refuelling Infrastructure	7	44,6	23.1
Hydrogen Production & Distribution	4	28.7	15.7
Stationary Power Generation & CHP	9	47.6	26.4
Early Markets	3	17.1	8.8
Cross-Cutting issues	5	9.2	6.1
TOTAL	28	147.2	80.1*

(*) 21.3 M€ in 3 demonstration projects

b) Educational & training projects



Application Area	Number of Projects	Total Budget	FCH JU contribution
TRAINHY-PROF	<i>Building Training Programmes for Young Professionals in the Hydrogen and Fuel Cell Field</i>	0.38 M€	0.27 M€
HYPROFESSIONALS	<i>Development of educational programmes and training initiatives related to hydrogen technologies and fuel cells in Europe</i>	0.43 M€	0.37 M€
HYFACTS	<i>Identification, Preparation and Dissemination of Hydrogen Safety Facts to Regulators and Public Safety Officials</i>	1.4 M€	1.0 M€
HYRESPONSE (under negotiation)	<i>European Hydrogen Emergency Response training programme for First Responders</i>	2.3 M€	2.3 M€
H2TRUST (under negotiation)	<i>Development of H2 Safety Expert Groups and due diligence tools for public awareness and trust in hydrogen technologies and applications</i>	0.98 M€	0.98 M€

c) Benchmark and policy studies



Studies	Total cost
Development of a European Fuel Cell and Hydrogen Vehicles Roll Out Plan (in support to the UK H2Mobility initiative)	€ 92,550
Urban buses: alternative power trains for Europe *	€ 1,056,000
Study on jobs and investment in the fuel cells and hydrogen sector *	€ 160,000

(*) publicly available: <http://www.fch-ju.eu/page/publications>



- **Call for proposals 2013** - Deadline 22 May 2013
Indicative budget: 68.5 M€ (+ 4.65 M€ for studies)
- **FCH JU Programme Review and Stakeholders General Assembly**
 - ✓ Open to public!
 - ✓ 18-20 November 2013
 - ✓ Brussels, Belgium



More info: <http://www.fch-ju.eu/>

2. Update on EU policy initiatives



a) Clean Power for Transport (CPT) Package



Objectives

- Build a competitive and resource efficient transport system in the EU
- Establish a long term fuel strategy
- Remove technical and regulatory barriers across the EU
- Facilitate the development of a single market for alternative fuels infrastructure and alternative fuel vehicles and vessels.



Research and
Innovation



a) Clean Power for Transport (CPT) Package



Legislative proposal for infrastructure build-up for most mature technologies (including hydrogen):

- **Obligation of means** (national policy frameworks + EC recommendations)
- **Obligation of results** (minimum infrastructure)
- Developed in **close consultation with Member States and industry**
- Targeting to unlock private investment = **a pro-business initiative**
- **Full freedom** given **to Member States for implementation**

a) Clean Power for Transport (CPT) Package



- It provides targets for hydrogen infrastructure build-up by 2020
- It addresses only countries where H2 infrastructure already exists.
- Set out **minimum** level infrastructure coverage necessary to:
 - ✓ enable cross-border mobility in-between these 15 Member States
 - ✓ support the commercialisation of hydrogen vehicles in the 2020 horizon
- Total estimated cost for 77 refuelling stations * 1.6 M€ = 123 M€

b) Fuel Cells and Hydrogen in Horizon 2020



- **Horizon 2020** is the Framework Programme for Research and Innovation (2014-2020) of the European Union
- The European Commission proposes to continue the activities on Fuel Cells and H₂ technologies using the **public-private partnership** approach of the current FCH Joint Undertaking
- **Scientific & technical objectives** are already defined – Detailed scope and budget are under elaboration/discussion
- RTD programme will be structured around two main **innovation pillars**: "*Energy*" and "*Transport*"
- Main priorities will be: H₂ based solutions for **storing renewable electricity** and **road transport** (+ infrastructure)

c) HIT Project: Hydrogen Infrastructure for Transport



Objective:

To define optimum strategies to migrate from H2 hotspots in densely populated areas to actual local markets for H2 Refuelling Stations (HRS) and from there to long distance transport and mobility along the Trans-European Transport Networks' (TEN-T) corridors.

Four National Implementation Plans (NIP) will be developed for France, Sweden, Denmark and the Netherlands.

Budget: €6,936,000 (EU contribution: 50%)

Project Coordinator and Beneficiaries: Agentschap (NL), Ministry of Infrastructure and the Environment of the Netherlands, Air Liquide, Copenhagen Hydrogen Network A/S (AFHYPAC), Vätgas Sverige Ideell Förening, Hydrogen Link Denmark Association, HyER

More info:

http://tentea.ec.europa.eu/download/project_fiches/multi_country/fichenew_2011eu92130s_final.pdf

THANK YOU FOR YOUR ATTENTION