

***HyLights – Preparation of
large-scale demonstration projects on
“hydrogen for transport in Europe”***

***Ulrich Büniger, HyLights co-ordinator
on behalf of the HyLights consortium***

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HyLights is funded
by the
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The European Commission is supporting the Coordination Action “HyLights” and the Integrated Project “Roads2HyCom” in the field of Hydrogen and Fuel Cells. The two projects support the Commission in the monitoring and coordination of ongoing activities of the HFP, and provide input to the HFP for the planning and preparation of future research and demonstration activities within an integrated EU strategy.

The two projects are complementary and are working in close coordination. HyLights focuses on the preparation of the large scale demonstration for transport applications, while Roads2Hycom focuses on identifying opportunities for research activities relative to the needs of industrial stakeholders and Hydrogen Communities that could contribute to the early adoption of hydrogen as a universal energy vector.

Further information on the projects and their partners is available on the project web-sites www.roads2hy.com and www.hylights.eu.

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Goal of the workshop

For regions' representatives:

... to understand industries motivations, commitment and plans

For industries' representatives:

... to understand regions' motivations, commitment and activities

For both groups:

... to jointly establish communication paths and prepare for future markets for hydrogen and fuel cell vehicles on realistic propositions



Agenda – morning session

Time	Topic	
9:30	<i>Registration</i>	
10:00	Welcome by the HyLights coordinator	Ulrich Bünger
10:10	HyLights 1st results regions assessment	Stefan Haendschke
10:20	Industry perspective: Development objectives	
	Next steps for hydrogen as transportation fuel in Europe	Philippe Mulard, Total Lars-Peter Thiesen, GM/ Opel
	Roadmap for hydrogen and fuel cell R&D – HFP Implementation Plan	Rittmar v. Helholt, GM Europe
	Portable equipment industry	Philippe Paulmier, Axane
11:05	<i>Discussion</i>	
11:30	Case study “Germany”: from TES to CEP to LHP	
	Transport Energy Strategy (TES) and Clean Energy Partnership (CEP)	Klaus Scheuerer, BMW AG
	German Regions	Holger Grubel, Vattenfall AG
	German National Innovation Programme	Nilgün Parker, Fed. Ministry of Transport Building and Urban Affairs (BMVBS)
12:15	<i>Discussion</i>	



Agenda – afternoon session

Time	Topic	
<i>12:40</i>	<i>Lunch</i>	
13:40	Regional perspective: Implementation activities	
	London Hydrogen Partnership (LHP)	tbc.
	HyNor & the Scandinavian Hydrogen Highway Partnership (SHHP)	Ulf Hafselid, Norsk Hydro
	Piemonte/Lombardia	tbc.
	Conclusions on legal forms & management issues	Ellas Papadopoulou, Kellen Europe
<i>14:40</i>	<i>Coffee Break</i>	
14:50	Discussion	
<i>15:30</i>	<i>End of workshop</i>	
15:40	Excursion: Visit of a CEP hydrogen filling station (transfer with hydrogen buses)	
<i>18:30</i>	<i>Arrival at venue (via Central Station)</i>	



Project facts

Project outline

- Coordination Action (CA), 6th Framework Programme, Jan 06 – Dec 08
- 21 partners (industry: 7 auto, 5 oil, 2 utility, 3 process; 4 institutes)
- Funding ~ 4 M€ and additional funds from industry

Objectives

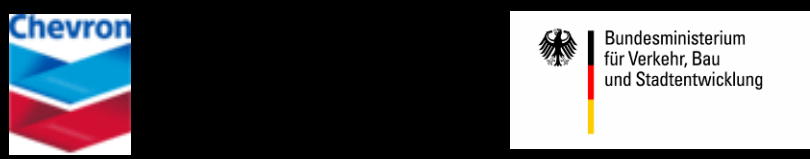
- Focus: Demonstration Activities on “Hydrogen for Transport”
- Assist the European Commission and European industry to plan the large-scale demonstration projects of the 7th Framework Programme (FP7) and Joint Technology Initiative (JTI)
- International dimension anchored in:
 - Executive Advisory Board (EAB),
 - Associate Partner Group and
 - Liaison partnership with IPHE



Project partners



No.	Participant name	MS
01	Ludwig-Bölkow-Systemtechnik	D
02	Air Liquide Advanced Technology Division	F
03	Air Products	UK
04	Bayerische Motoren Werke	D
05	BP	UK
06	Centro Ricerche Fiat	I
07	DaimlerChrysler	D
08	Deutsche Energie-Agentur	D
09	Energy Research Centre of the Netherlands	NL
10	Eni	I
11	Ford Forschungszentrum Aachen	D
12	GM/Opel	D
13	Kellen Europe	B
14	Linde	D
15	Norsk Hydro	N
16	PSA Peugeot Citroën Automobiles	F
17	Repsol YPF	E
18	Shell Hydrogen	NL
19	Total	F
20	Vattenfall Europe	D
21	Volkswagen	D



Associate Partners*


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* to grow over time



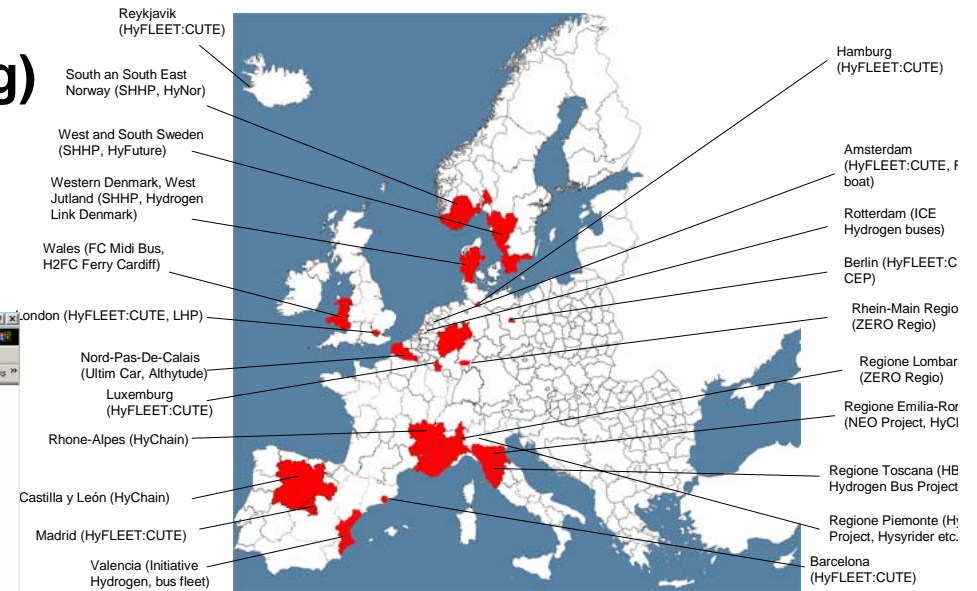
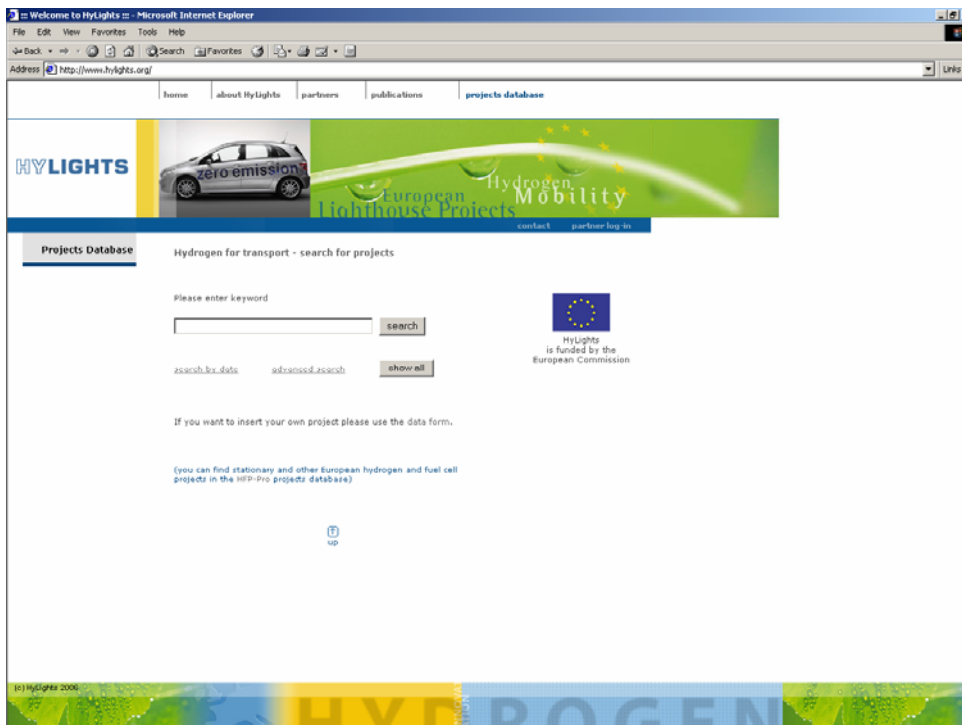
Major tasks „Hydrogen for Transport“

<p>Project coordination</p>	
<p>Demo project assessment</p> <p>Regions assessment</p> <p>Support for demo project planning</p> <ul style="list-style-type: none"> • Monitoring and assessment framework • Gaps analysis • Financing, policy & legal issues 	<ul style="list-style-type: none"> • Learn from past / ongoing activities • Learn from and support the European regions • Support and harmonise between EC / industry to plan large-scale demo projects in FP7 / JTI • Provide assessment tools
<p>HyLights dissemination</p> <p>H2moves.eu</p> 	<ul style="list-style-type: none"> • Information on demo projects • Create group identity • Facilitation for experts (workshops) • Support wider stakeholder group and regions

European demo projects „Hydrogen for Transport“

Hydrogen for transport – Search for projects (past and ongoing)

www.HyLights.eu












Hydrogen for transport – Regions activities

www.H2moves.eu



Projects assessed by HyLights (to be expanded)

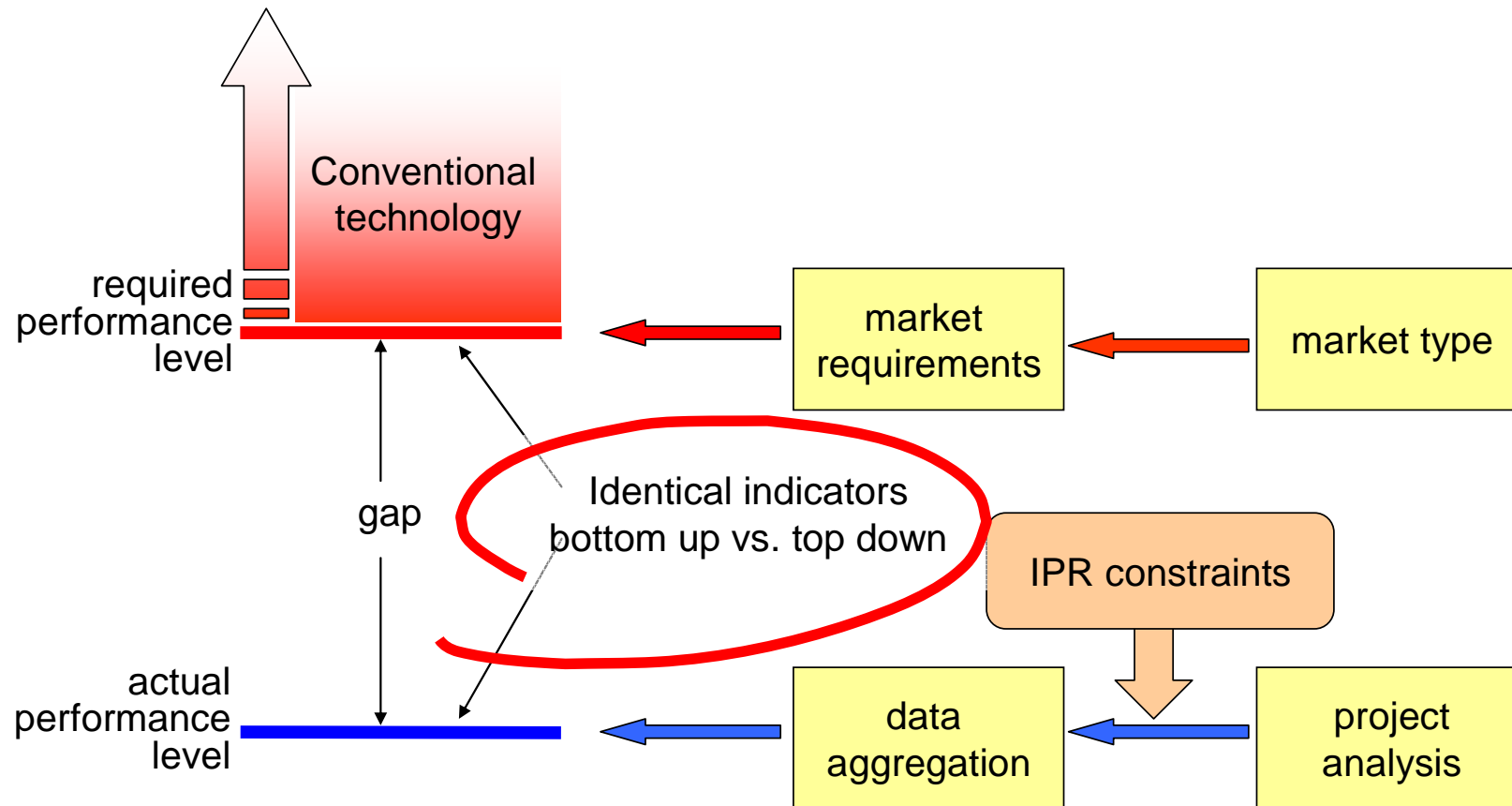
Project	Vehicles	Fuel stations	Hydrogen refuelled	
 H2argemuc	4 ICE buses, 1 FC bus 1 ICE pass. car, 1 fork lift	1	138,000 kg	} past
 ECTOS	3 FC buses	1	17,342 kg	
 CUTE	27 FC buses	9	> 192,000 kg	
 Zero Regio	8 FC cars	2	0*	} ongoing
 HyFLEET:CUTE	33 FC buses, 14 ICE buses	10	N.A.	
 CEP Clean Energy Partnership	16 FC cars, 2 ICE cars, 1 FC bus	2	N.A.	
 HYCHAIN hydrogenchallenge	34 wheelchairs, 40 cargobikes 30 scooters, 44 utility vehicles 10 midibuses	N.A.	0*	
 HyNor Hydrogenen i Norge	15 ICE cars, 1 FC car 7-8 H ₂ buses	2 (6)	0*	
 LONDON London Hydrogen Transport Programme	10-12 H ₂ buses, 60 H ₂ cars, vans, motor bikes and other vehicle types	tbd.	0*	

* hardware in preparation



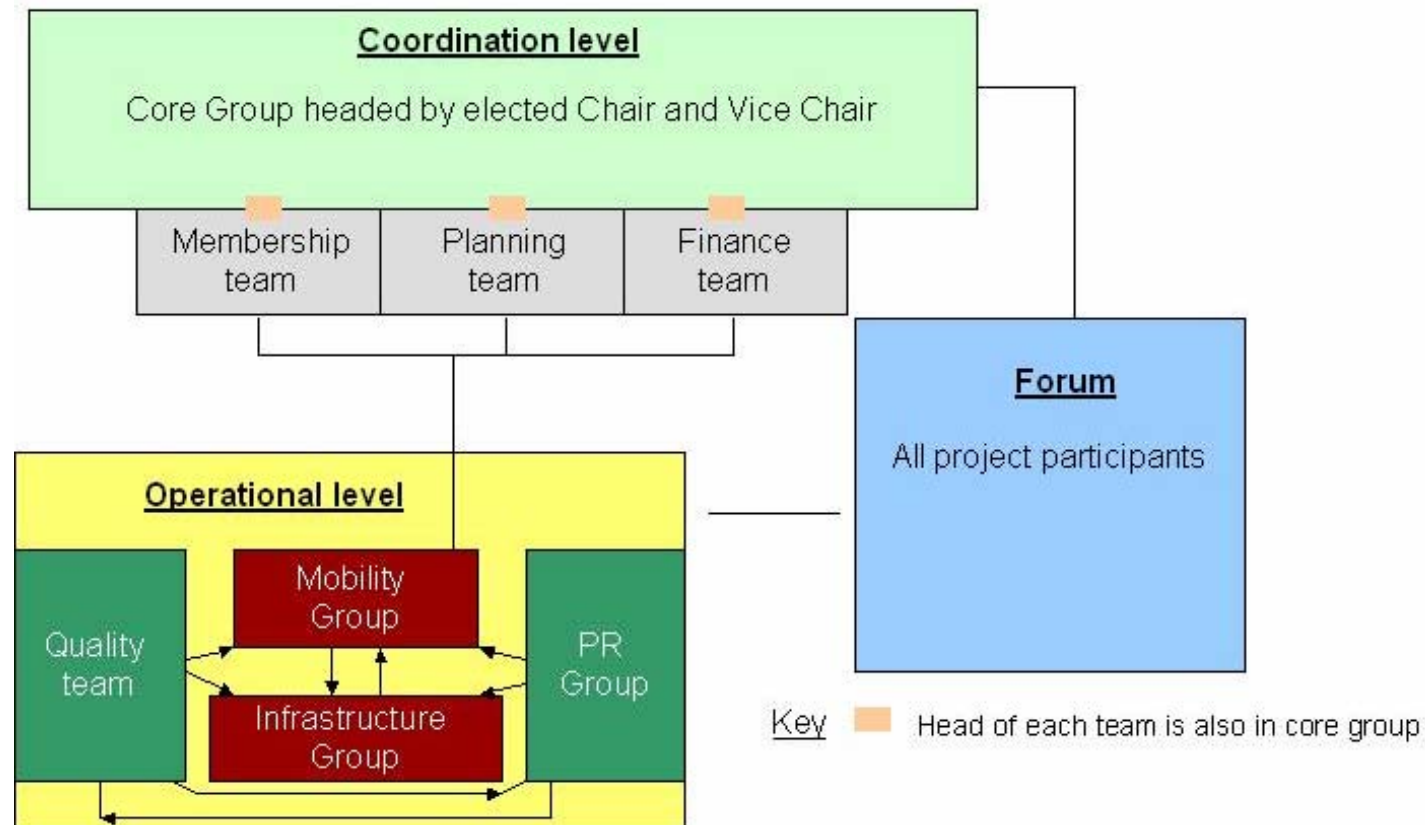
Gaps analysis for demo projects

Identification of vehicle performance needs of demo project operators



Legal issues for demo projects

Exemplary management structure for large-scale demo projects


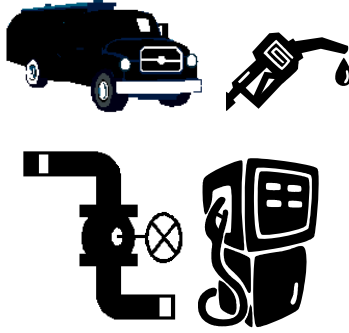
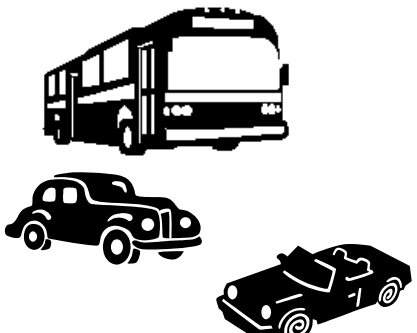


Financing/policy support issues for demo projects

Current EC policy support structures not favourable for hydrogen

Renewable policy support schemes not transferable

Need for complex policy support covering all elements of supply chain

H ₂ system	Production		Distribution and storage	End-use	
					
Financing mechanism	Investment subsidy	Production subsidy	Investment subsidy	Investment subsidy	Tax exemption

Activities for European project family „H2moves.eu“

The screenshot shows the H2moves.eu website interface. At the top, there's a navigation bar with 'WELCOME', 'PROJECT LOCATIONS', 'PUBLICATIONS', and 'LINKS'. Below this, a map of Europe is displayed with yellow squares indicating project locations. To the left of the map, there's a 'Demo-Projects' sidebar with links like 'show all', 'show HyFLEET:CUTE', 'show ZeroRegio', 'show HyChain', and 'list of projects'. To the right of the map, there's a section for 'EC funded projects' featuring logos for HyFLEET:CUTE, HyCHAIN, and ZeroRegio. The website also includes a 'contact' and 'log-in' link in the top right corner.

Communication

Provide information for current and future demo project stakeholders

Facilitation

Organise and moderate content related info exchange on relevant demo project issues for project family

- Dissemination
- RCS
- MAF

Support

Provide guidance on best practice and tools for future demonstration project teams



H2moves.eu – Presence at hydrogen events

HYLIGHTS



HFP Event Brussels

www.Hylights.eu



– Presence at hydrogen events



NHA Annual Conference & Exhibition, Texas

www.HyLights.eu



Acknowledgement

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Thank you!

For further information:



www.HyLights.eu



www.H2moves.eu



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