

# FCH JU Programme Review Day 2011

22<sup>nd</sup> of November 2011, Charlemagne building, Brussels

### 08:00 - 08:30 Registration

## 08:30 – 09:00 Welcome, concept and objectives by Jean-Luc Delplancke, Head of Programme FCH JU Room Alcide de Gasperi – Floor 2

### 09:00 - 13:15 Parallel Sessions

	Room Alcide de Gasperi (GASP)- Floor 2	Room Jean Durieux (DURI)- Floor 1	Room Sicco Mansholt (MANS)- Floor 0	Room Lord Jenkins (JENK)- Floor 0
	Demonstration activities	Fuel Cells degradation	Sustainable Hydrogen	New materials and stacks
	in road transport	aspects	production	for FC applications
	Moderators: Carlos Navas, Joerg Wind	Moderators: Mirela Atanasiu, Lenaic Georgelin	Moderators: Eveline Weidner, Joaquin Martin Bermejo	Moderators: Jean-Luc Delplancke, Guillaume Leduc
09 :00	H2moves, H2 Moves Scandinavia Ulrich Buenger, LBST, Germany	<b>DECODE,</b> degradation mechanisms to improve components and design of PEFC <i>Andreas Friedrich, DLR, Germany</i>	NanoPEC, nanostructured photoelectrodes for energy conversion Michael Graetzel, EPFL, Switzerland	RAMSES, Robust Advanced Materials for Metal Supported SOFC Julie Mougin, CEA, France
09 :30	<b>CHIC</b> , Clean Hydrogen in European Cities <i>Monika Kentzler, Daimler,</i> <i>Germany</i>	MCFC-CONTEX, Molten Carbonate Fuel Cell catalyst and stack component degradation and lifetime: Fuel Gas contaminant effects and extraction strategies Angelo Moreno, ENEA, Italy	SOLHYDROMICS, nanodesigned electrochemical converter of solar energy into H2 hosting natural enzymes or their mimics <i>Guido Saracco, Polytechnics of Turin,</i> <i>Italy</i>	<b>PEMICAN,</b> PEM with Innovative low cost Core for Automotive application <i>Joel Pauchet, CEA, France</i>
10 :00	Autostack, automotive fuel cells stack cluster initiative for Europe Dr Ludwig Joerissen, ZSW, Baden- Wurttenberg, Germany	<b>ROBANODE,</b> Understanding and minimizing anode degradation in hydrogen and natural gas fuelled SOFCs. Dimitris Niakolas, FORTH, Greece	HYCYCLES, materials and components for hydrogen production by sulphur based thermochemical cycles Martin Roeb, DLR, Germany	<b>Maestro,</b> MembrAnEs for Stationary applications with RObust mechanical properties Deborah Jones, CNRS, France
10 :30		<b>KEEPEMALIVE,</b> Enhance the Endurance of PEM fuel cells by accelerated lifetime verification <i>Steffen Moller-Holst, SINTEF,</i> <i>Norway</i>	HYDROSOL-3D, Scale up of thermochemical hydrogen production in a solar monolithic reactor: a 3 <sup>rd</sup> generation design study <i>Christos Agrifiotis, CERTH, Greece</i>	<b>SCOTAS-SOFC,</b> Sulphur, Carbon, and re-Oxidation Tolerant Anodes for Solid Oxide Fuel Cells <i>Peter Holtappels, Technical</i> <i>University Denmark</i>
11:00	– 11:15 <b>Coffee Break</b>			
	Early Market demo for	Fuel Cells degradation	Hydrogen production and	New materials for FC
	materials handling vehicles	aspects (cont)	storage activities	applications
	Moderators: Enrique Giron, Ralph-Uwe Dietrich	Moderators: Mirela Atanasiu, Angelo Moreno	Moderators: Carlos Saraiva Martins, Luis Correas	Moderators: Jean-Luc Delplancke, Lenaic Georgelin
11:15	SHEL, Sustainable Hydrogen Evaluation in Logistics Oscar Miguel, Cidetec, Spain	<b>DEMMEA</b> , degradation mechanisms of MEA for high temperature PEM <i>Stylianos Neophytides, FORTH,</i> <i>Greece</i>	NANOHY, novel nano-composites for hydrogen storage applications Maximilian Fichtner, KIT, Germany	SMALLINONE, smart membrane for hydrogen energy conversion: all fuel cell functionalities in one material Jessica Théry, CEA, France
11:45	<b>MobyPost,</b> MOBILITY WITH HYDROGEN FOR POSTAL DELIVERY Nathalie Oriol, Institute Pierre Vernier, France	PREMIUM ACT, Predictive modelling for Innovative Unit Management and accelerated Testing procedures of PEFC Sylvie Escribano, CEA, France	FLYHY, Fluorine substituted high capacity hybrids for hydrogen storage at low working temperatures Klaus Taube, GKSS, Germany	<b>EFFIPRO,</b> efficient and robust fuel cell with novel ceramic proton conducting electrolyte <i>Truls Norny, Unversity of Oslo,</i> <i>Chemistry department Norway</i>
12:15	HyLIFT-DEMO, European demonstration of hydrogen powered fuel cell forklifts Hubert Landinger, LBST, Germany	LOLIPEM, Long-life PEM-FCH &CHP systems at temperatures ≥100°C Giuseppe Barbieri, CNR, Italy	SSH2S, Fuel cell coupled solid state hydrogen storage tank Marcello Baricco, University of Turin, Italy	SOFC-LIFE, Solid Oxide Fuel Cells -Degradation Effects into Lifetime Prediction Models Robert Steinberger-Wilckens, FZJ, Germany
12:45		<b>STAYERS,</b> Stationary PEM fuel cells with lifetimes beyond five years <i>Martijn Mulder, Nedstack,</i> <i>Netherlands</i>	<b>RELHY</b> innovative solid oxide electrolyser stacks foe efficient and reliable hydrogen production <i>Florence Lefebvre-Joud, CEA, France</i>	

## 14:30 – 18:15 Parallel Sessions (cont)

	Room Alcide de Gasperi (GASP)- Floor 2	Room Jean Durieux (DURI)- Floor 1	Room Sicco Mansholt (MANS)- Floor 0	Room Lord Jenkins (JENK)- Floor 0		
	Portable and back-up power applications	New electrolysers for Hydrogen production	Stationary applications proof- of-concepts and System components development	New materials and stacks for FC applications		
'	Moderators: Enrique Giron, Mikael Sloth	Moderators: Eveline Weidner, Luis Correas	Moderators: Mirela Atanasiu, Helge Holm-Larsen	Moderators: Carlos Saraiva Martins, Lenaic Georgelin		
14:30	ISH2SUP, In situ H2 supply technology for micro fuel cells Aarne Halme, Aalto University, Finalnd	WELTEMP, water electrolysis at elevated temperatures Erik Christensen, Technical University, Denmark	<b>LOTUS,</b> Low temperature Solid Oxide Fuel Cells for micro-CHP applications <i>Ellart de Wit, Hygear, Netherlands</i>	IDEAL- Cell, innovative dual membrane fuel cell Alain Thorel, Armines, France		
15:00	<b>IRAFC</b> , Development of an Internal Reforming Alcohol High Temperature PEM Fuel Cell Stack <i>Ioannis Kallitsis, University of</i> <i>Patras, Greece</i>	<b>PrimoLyzer,</b> Pressurised PEM Electrolyzer stack <i>Laila Grahl-Maden, IRD, Denmark</i>	ASTERIX3, assessment of SOFC CHP systems build on the technology of htceRamIX 3 Per Baslev, Dantherm, Denmark	<b>ZEOCELL</b> , nanostructured electrolyte membranes based on polymer-ionic liquids zeolite composites for high temperature PEM fuel cell <i>Pilar Pina, University of</i> <i>Zaragoza, Spain</i>		
15:30	<b>FITUP,</b> Fuel cell field test demonstration of economic and environmental viability for	<b>NEXPEL,</b> Next-Generation PEM Electrolyser for Sustainable Hydrogen Production <i>Magnus Thomassen, Sintef, Norway</i>	ASSENT, Anode Sub-System Development & Optimisation for SOFC systems	METSOFC , development of next generation metal based SOFC stack technology		
	portable generators, backup and UPS power system applications Illaria Rosso, ElectroPS, Italy		Jari Kiviaho, VTT, Finland	Niels Christiansen, Topsoe Fuel Cell, Denmark		
16:00	NH34PWR, ammonia based fuel cells power for off-grid cell phone towers Amanda Willox, Diverse Energy, United Kingdom	ADEL, Advanced ELectrolyser for Hydrogen Production with Renewable Energy Sources Olivier Bucheli, HT Ceramix, Switzerland	<b>CATION,</b> Cathode Subsystem Development and Optimisation Jari Kiviaho, VTT, Finland	QUASIDRY, quasi-anhydrous and dry membranes for next generation fuel cell Deborah Jones, CNRS, France		
16:30 – 16:45 <b>Coffee Break</b>						
	Training and regulatory aspects	Socio-economic and benchmarking activities	Operation diagnostics tools for stationary applications	Pre-normative research & Life cycle assessment activities		
I	Moderators: Guillaume Leduc, Steffen Moller-Holst	Moderators: Enrique Giron, Joerg Wind	Moderators: Helge Holm-Larsen, Angelo Moreno	Moderators: Carlos Navas, Joaquin Martin Bermejo		
16:45	TrainHy-Prof, Building Training Programmes for Young Professionals in the Hydrogen and Fuel Cell Field Robert Steinberger-Wilckens, FZJ, Germany	<b>Prepar-H2,</b> Preparing socio and economic evaluations of future H2 lighthouse projects Jón Skulason, New Energy, Iceland	<b>GENIUS</b> , generic diagnosis Instrument for SOFC Systems <i>Philippe Mocoteguy, European</i> <i>Institute for Energy Research,</i> <i>Germany</i>	<b>HyQ</b> , Hydrogen fuel Quality for transportation and other energy applications <i>Pierre-André Jacques, CEA,</i> <i>France</i>		
17 :15	HYPROFESSIONALS, Development of educational programs and training related to hydrogen technologies and fuel cells in Europe <i>Luis Correas, Hydrogen Aragon,</i> <i>Spain</i>	<b>NextHyLights,</b> Supporting action to prepare large-scale hydrogen vehicle demonstration in Europe <i>Hubert Landinger, LBST, Germany</i>	<b>D-CODE,</b> DC/DC Converter-based Diagnostics for PEM systems <i>Cesare Pianese, University of Salerno,</i> <i>Italy</i>	HyCOMP, Enhanced Design Requirements and Testing Procedures for Composite Cylinders intended for the Safe Storage of Hydrogen Clemence Devilliers, Air Liquide, France		
17:45	<b>HyFacts</b> , Identification and Dissemination of Hydrogen Safety facts to regulators and public safety officials <i>Frédéric Barth, Air Liquide</i>	FC-EUROGRID, Evaluating the Performance of Fuel Cells in European Energy Supply Grids Robert Steinberger-Wilckens, FZJ, Germany	DESIGN, Degradation Signatures identification for stack operation diagnostics Florence Lefebvre-Joud, CEA Grenoble, France	FC_ Hy Guide, guidance document for performing LCA's on hydrogen and fuel cell technologies Oliver Schuller, PE international		
	Hydrogen Energy, France			AG and Angelo Moreno, ENEA, Italy		

18:30 - 19:00 Closing Session by Knut Harg, Chair of the Scientific Committee of the FCH JU
- Room Alcide de Gasperi - Floor 2
19:00 Official Dinner