

### **STAKEHOLDER FORUM**

BRUSSELS, 16 NOVEMBER 2018

### PROGRAMME REVIEW DAYS

BRUSSELS, 14, 15 NOVEMBER 2018

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### **PROGRAMME REVIEW DAYS 2018** FUEL CELLS AND HYDROGEN JOINT UNDERTAKING 14 - 15 NOVEMBER, BRUSSELS

### WEDNESDAY, 14 NOVEMBER 2018

08:15 - 08:45	<b>Registration and coffee</b>
08:45 - 09:00	Opening remarks by
	ATANASIU MIRELA, Head of Unit Operati

	SESSION TRIALS AND DEPLOYN Moderators: BOILLOT LIONEL,
09:00 - 09:20	Portfolio overview by BOI
09:20 - 09:40	H2ME / H2ME2, Hydrogen
09:40 - 10:00	SWARM, Demonstration of and Municipal transport
10:00 - 10:20	JIVE, Joint Initiative for h
10:20 - 10:40	HyLIFT-EUROPE, Large sc
10:40 - 11:00	Metering protocol for Hyd

11:00 - 11:30

11:30 - 11:50

11:50 - 12:10

12:10 - 12:30

12:30 - 12:50

12:50 - 13:10

13:10 - 13:30

Coffee break

### SESSION

TRIALS AND DEPLOYMENT OF FUEL Moderators: AGUILO RULLAN ANTONIO, ARISTIDE
Portfolio overview by AGUILO RULLAN AN
PACE, Pathway to a Competitive European
AutoRE, Automotive derivative Energy sys
CH2P, Cogeneration of Hydrogen and Powe
DEMCOPEM-2MW, Demonstration of a co and integration into an existing chlorine
CLEARGEN DEMO, The Integration and de

Distributed Generation



ions & Communication FCH JU

#### **FRIALS AND DEPLOYMENT OF FUEL CELL APPLICATIONS -TRANSPORT**

Inderators: BOILLOT LIONEL. ROBERT STEINBERGER-WILCKENS Portfolio overview by BOILLOT LIONEL, FCH JU H2ME / H2ME2, Hydrogen Mobility Europe SWARM, Demonstration of Small 4-Wheel fuel cell passenger vehicle Applications in Regional JIVE, Joint Initiative for hydrogen Vehicles across Europe

HyLIFT-EUROPE, Large scale demonstration of fuel cell powered material handling vehicles

Metering protocol for Hydrogen Refuelling Stations

#### **CELL APPLICATIONS - ENERGY**

MASSARDO

NTONIO, FCH JU

an FC mCHP market

/stem

er using solid oxide based system fed by methane rich gas

ombined heat and power 2 MWe PEM fuel cell generator production plant

emonstration of Large Stationary Fuel Cell Systems for

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#### 13:30 - 14:30 Lunch break

	SESSION SUPPORT FOR MARKET UPTAKE Moderators: GARCIA HOMBRADOS ALBERTO, HUBERT A. GASTEIGER
14:30 - 14:50	Portfolio overview by GARCIA HOMBRADOS ALBERTO, FCH JU
14:50 - 15:10	Overview of FCH JU Initiative with Regions and Cities
15:10 - 15:30	HyLAW, Identification of legal rules and administrative processes applicable to Fuel Cell and Hydrogen technologies' deployment, identification of legal barriers and advocacy towards their removal.
15:30 - 15:50	Study on value chain and manufacturing competitiveness analysis for hydrogen and fuel cells technologies
15:50 - 16:10	HySEA, Improving Hydrogen Safety for Energy Applications (HySEA) through pre-normative research on vented deflagrations
16:10 - 16:30	NET-TOOLS, Novel Education and Training Tools based on digital applications related to Hydrogen and Fuel Cell
16:30 - 16:50	Guarantees of Origin, Developing a European Framework for the generation of guarantees of origin for green hydrogen
16:50 - 17:30	Pitching Event, Moderator: FRANCESCA NATALI
17:30-18:30	Poster Session (Cocktails and appetizers)

#### THURSDAY, 15 NOVEMBER 2018

08:30 - 09:00

**Registration and coffee** 

#### SESSION **NEXT GENERATION OF PRODUCTS - TRANSPORT** Moderators: CALOPRISCO PIETRO, DARIA E. VLADIKOVA

Portfolio overview by CALOPRISCO PIETRO, FCH JU MARANDA, Marine application of a new fuel cell powertrain validated in demanding arctic conditions HYCARUS, Hydrogen Cells For Airborne Usage COSMHYC, Combined hybrid Solution of Multiple Hydrogen Compressors for decentralised energy storage and refuelling stations VOLUMETRIQ, Volume Manufacturing of PEM FC Stacks for Transportation and In-line Quality Assurance DIGIMAN, Digital Materials Characterisation proof-of-process auto assembly

11:00 - 11:30

11:30 - 11:50

11:50 - 12:10

12:10 - 12:30

12:30 - 12:50

12:50 - 13:10

13:10 - 13:30

#### **Coffee break**

SESSION NEXT GENERATION OF PRODUCTS - E
Moderators: TSIMIS DIONISIS, JULIE MOUGIN
Portfolio overview by TSIMIS DIONISIS, FCI
HEALTH-CODE, Real operation per fuel cell dc-dc Converter embedded.
HEATSTACK, Production Ready Heat Exchan
CELL3DITOR, Cost-effective and flexible 3
qSOFC, Automated mass-manufacturing a



#### ENERGY

CH JU lls HEALTH-state monitoring and diagnosis based on

angers and Fuel Cell Stacks for Fuel Cell mCHP BD printed SOFC stacks for commercial applications and quality assurance of Solid Oxide Fuel Cell stacks INNO -SOFC, Development of innovative 50 kW SOFC system and related value chain



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## FCH JU STAKEHOLDER FORUM **16 NOVEMBER 2018**

	08:30 - 09:00	Registration & welcome coffee
	09:00 - 09:30	OPENING ADDRESS
Lunch break		© DOMINIQUE RISTORI, Director-General for Energy, Eu © VALERIE BOUILLON-DELPORTE, Chair of the FCH JU
SESSION HYDROGEN FOR SECTORIAL INTEGRATION Moderators: LYMPEROPOULOS NIKOLAOS, MARCELLO BARICCO		<ul> <li>LAURENT ANTONI, President of Hydrogen Europe Res</li> <li>BART BIEBUYCK, Executive director FCH JU</li> </ul>
Portfolio overview by LYMPEROPOULOS NIKOLAOS, FCH JU	09:30 - 11.00	SESSION I - BUILDING THE ROAD TO CONSUMER
HPEM2GAS, High Performance PEM Electrolyser for Cost-effective Grid Balancing Applications		The strategic development of the hydrogen infrastru
INSIDE, In-situ Diagnostics in Water Electrolysers GrinHy, Green Industrial Hydrogen via Reversible High-Temperature Electrolysis		♂ MAJA BAKRAN, Deputy Director-General, Directorate European Commission
MEGASTACK / REFHYNE, Stack design for a Megawatt scale PEM electrolyser.		○ KLAUS DIETER BORCHARDT, Director - Internal Ener European Commission
H2Future, Hydrogen Meeting Future Needs Of Low Carbon Manufacturing Value Chains		o JON ANDRÉ LØKKE, Chief Executive Officer NEL Hyd
BIG HIT, Building Innovative Green Hydrogen systems in an Isolated Territory: a pilot for Europe		o THIERRY TROUVÉ, Chief Executive Officer, GRTgaz
		$\sigma$ NIKOLAS IWAN, Managing Director, H2 Mobility Deu
		<ul> <li>JAN INGWERSEN, General Manager, ENTSOG (Europe Operators for Gas)</li> </ul>
	11.00 - 11.30	Coffee break
	11.30 - 11.45	Keynote Speech - MAROŠ ŠEFČOVIČ, Vice-President of
	11.45 - 13.00	SESSION II - WORKING TOGETHER: TOWARDS S
		Towards sectoral integration through collaboration
		<ul> <li>TUDOR CONSTANTINESCU, Principal Adviser to the D European Commission</li> </ul>
		$ {\ensuremath{{\rm G}}}$ DR. RUDOLF ZAUNER, Head of Hydrogen Center, VER
		$\odot$ RENE SCHUTTE, Hydrogen coordinator, Gasunie
		$\odot$ PASCAL MAUBERGER, Chief Executive Officer McPhy
		$_{\rm C}$ STIJN VAN ELS, Special Advisor, Shell Germany
		$\sigma$ HENRIETTE UNDRUM, Vice President New Energy So

13:30 - 14:30 Lunch break

14:30 - 14:50

European Commission JU Governing Board Research

ERS tructure in Europe rate-General for Mobility and Transport,

nergy Market, Directorate-General for Energy ,

ydrogen eutschland opean Network of Transmission System

of the European Commission for Energy Union

#### **SECTORAL INTEGRATION**

on with other players e Director General for Energy,

**ERBUND** Phy Solutions, Equinor

# FCH JU STAKEHOLDER FORUM 16 NOVEMBER 2018

# **POSTERS**

13.00 - 14.30	Lunch break	TRIALS AND DEPLOYMENT OF FUEL CELL APPLICATION - TRANSPORT	NEXT GENERATION OF PRODUCTS - TRANSPORT	TRIALS AND DEPLOYMENT OF FUEL CELL APPLICATION - ENERGY
14.30 - 14.35	Video message from VICTORIEN EURSSARD, Captain of Energy Observer	H2ME	AUTO-STACK CORE	ALKAMMONIA
14.35 - 16.00	SESSION III - EUROPEAN HYDROGEN ECONOMY IN A WORLDWIDE CONTEXT O JOSÉ COTTA, Head of Unit, Directorate-General for Research and Innovation, European Commission	HAWL COBRA HYFIVE COSMHYC HYLIFT-EUROPE DIGIMAN HYTRANSIT Fit-4-AMandA JIVE H2REF CWARDM UNCADUC	AUTORE CH2P CLEARGEN DEMO D2SERVICE DEMCOPEM-2MW	
	O PIOTR SZYMANSKI, Director - Energy, Transport and Climate, Petten Institute JRC	SWARM H2ME 2	HYCARUS INLINE	DEMOSOFC ENE.FIELD
	O DR. FLORENCE LAMBERT, Director, CEA Liten		INN-BALANCE INSPIRE	ONSITE PACE
	<ul> <li>UWE REMME, Directorate of Sustainability, Technology and Energy, IEA (International Energy Agency)</li> </ul>		MARANDA Nano-cat	PEMBEYOND POWER-UP
	<ul> <li>RALUCA MARIAN, Senior Adviser – Passenger Transport, IRU (International Road Transport Union)</li> </ul>		SMARTCAT Volumetriq Compass	STAGE-SOFC
	O PETE HARRISON, Transport Programme Director, European Climate Foundation		Giantleap	
	<ul> <li>UMBERTO GUIDA, Director of Research and Innovation, UITP (International Association of Public Transport)</li> </ul>			
16.00 - 16.30	CLOSING STATEMENTS			
	<ul> <li>BART TOMMELEIN, Deputy Minister-President, Minister of Budget, Finance and Energy of the Flanders region</li> </ul>			

Moderator: KATRINA SICHEL Charlemagne Building, Brussels, Belgium

 $\odot$  SIGNE RATSO, Deputy Director-General of DG Research and Innovation, European Commission

◦ MAURO PETRICCIONE, Director General for Climate Action, European Commission



# NEXT Generation Of Products -Energy

Cell3Ditor DIAMOND ENDURANCE FLUIDCELL HEALTH-CODE HEATSTACK INSIGHT MATISSE NELLHI PROSOFC QSOFC SCORED 2:0 SECOND ACT SOSLEM INNO-SOFC

## HYDROGEN FOR Sectorial Integration

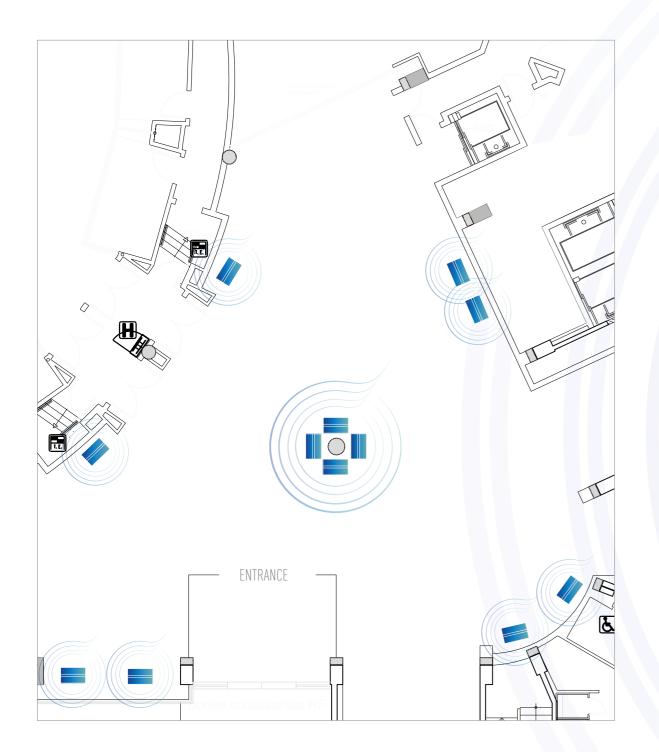
BIOROBURplus Demo4Grid DON QUICHOTE DON QUICHOTE Eco ELECTRA ELY40FF ELYntegration GrInHy H2Future HELMETH HPEM2GAS HyBalance HYDROSOL-PLANT HyGrid INSIDE MEGASTACK PECDEM0 PECDEMO PECSYS QualyGridS SElySOs SOPHIA **BIG HIT** MEMPHYS

## SUPPORT For Market Uptake

HYACINTH HYCORA HyLAW HYPACTOR HySEA HYTECHCYCLING KNOWHY NET-Tools SOCTESQA









Touch screen displaying all posters





