



## FCH JU Programme Review Days 2 – 3 December 2021 Virtual Event

### THURSDAY, 2 DECEMBER

#### 09:00 Welcome

Bart Biebuyck, Executive Director, Fuel Cells and Hydrogen Joint Undertaking (FCH JU)

#### 09:05 FCH JU Programme Status

Mirela Atanasiu, Head of Unit Operations & Communication, FCH JU

#### 09:25 FCH JU Projects Portfolio Analysis

Hydrogen Production

Nikolaos Lymperopoulos, Project Officer, FCH JU

Hydrogen Storage and Distribution

Dionisis Tsimis, Project Officer, FCH JU

Transport Applications

Lionel Boillot, Project Officer, FCH JU

Stationary Applications

Antonio Aguilo Rullan, Project Officer, FCH JU

Support for Market Uptake

Alberto Garcia Hombrados, Project Officer, FCH JU

#### 10:35 Joint Research Centre of the European Commission support to FCH JU activities

Pietro Moretto, Deputy Head of Unit Energy Storage, Joint Research Centre

#### 10:45 Break



European  
Commission

## 11:00 Parallel Sessions

**Electrolysers for Industrial Application (part I)**  
moderated by Nikolaos Lymperopoulos, Project Officer, FCH JU

[HyBalance](#) – *HyBalance*

Guillaume Gerin, Air Liquide

[Demo4Grid](#) - *Demonstration of 4MW Pressurized Alkaline Electrolyser for Grid Balancing Services*  
Ewald Perwög, MPREIS Warenvertriebs GmbH

[Haeolus](#) - *Hydrogen-Aeolic Energy with Optimised eElectrolysers Upstream of Substation*  
Elodie Pahon, University Technology Belfort Montbeliard (UTBM)

[Djewels](#) - *Delfzijl Joint Development of green Water Electrolysis at Large Scale*  
Joost Sandberg, Nobian

**Transport Applications and Refuelling Infrastructure**  
moderated by Lionel Boillot, Project Officer, FCH JU

[H2ME / H2ME 2](#) - *Hydrogen Mobility Europe*

[ZEFER](#) - *Zero Emission Fleet vehicles For European Roll-out*

Lisa Ruf, Element Energy & Victor Lejona, Cenex

[JIVE / JIVE 2 / MEHRLIN](#) – *Joint Initiative for hydrogen Vehicles across Europe*

Madeline Ojakovoh, Element Energy & - Dr. Stefan Eckert, Sphera

[Corridor H2 Occitanie](#) – *Green hydrogen for trucks, refrigeration units and coaches*

Raphael Schoentgen, Hydrogen Advisors

12:20 Break

## 13:00 Parallel Sessions

**Electrolysers for Industrial Application (part II)**  
moderated by Nikolaos Lymperopoulos, Project Officer, FCH JU

[MultiPLHY](#) - *Multimegawatt high-temperature electrolyser to generate green hydrogen for production of high-quality chemical products*  
Julie Mougín, CEA

[GrInHy2.0](#) - *Green Industrial Hydrogen via steam electrolysis*  
Simon Kroop, Salzgitter Mannesmann Forschung GmbH

[Testing Protocols for Electrolysers](#)  
Alberto Pilenga, JRC

[Scaling-up Electrolysers under Green Deal Call](#)  
Dana Dutianu, CINEA

**Heavy Duty Transport Applications**  
moderated by Lionel Boillot, Project Officer, FCH JU

[H2Haul](#) - *Hydrogen fuel cell trucks for heavy-duty, zero emission logistics*

Andrew Flagg, Element Energy & Giovanni Giannelli, H2Energy

[FLHYSAFE](#) - *Fuel Cell HYdrogen System for Aircraft Emergency operation*  
Guillaume Albouze, SPU

[ShipFC](#) - *Piloting Multi MW Ammonia Ship Fuel Cells*  
Tore Boge, MARITIME CLEANTECH

[H2SHIPS](#) - *System-Based Solutions for H2-Fuelled Water Transport in North-West Europe*  
Christian-Frédéric Berthon, EIFER

14:20 Break

**14:30 Parallel Sessions**

**Next Generation Electrolysers**

moderated by Dionisis Tsimis, Project Officer, FCH JU

[ANIONE](#) - Anion Exchange Membrane Electrolysis for Renewable Hydrogen Production on a Wide-Scale  
Antonino Salvatore Arico, CNR-ITAE

[CHANNEL](#) - Development of the most Cost-efficient Hydrogen production unit based on AnioN exchange membrane Electrolysis

Luis Colmenares-Rausseo, SINTEF

[NEWELY](#) - Next Generation Alkaline Membrane Water Electrolysers with Improved Components and Materials

Aldo Gago, DLR

[SWITCH](#) - Smart Ways for In-situ Totally integrated and Continuous multisource generation of Hydrogen  
Luigi Crema, FBK

**Building Blocks for Heavy Duty Transportation (Tanks/Compressors/FC)**

moderated by Pietro Caloprisco, Project Officer, FCH JU

[COSMHYC / COSMHYC XL](#) - COmbined hybrid Solution of Metal HYdride and mechanical Compressors for eXtra Large scale hydrogen refuelling stations  
David Colomar, EIFER

[TAHYA](#) - TAnk Hydrogen Automotive  
Axel Seifert, OPTIMUM

[INN-BALANCE](#) - INNovative Cost Improvements for BALANCE of Plant Components of Automotive PEMFC Systems

José M. García Campos, FUNDACION AYESA

[DIGIMAN](#) - DIGItal MAterials CharacterisatioN proof-of-process auto assembly

Joël Pauchet, CEA & Tony Wilson, Intelligent Energy

**15:50 Break**

## 16:00 Parallel Sessions

### H2 Distribution and Storage/Carriers

moderated by Dionisis Tsimis, Project Officer, FCH JU

[HyCARE](#) - *An innovative approach for renewable energy storage by a combination of hydrogen carriers and heat storage*

Marcello Baricco, UNITO

[HySTOC](#) - *Hydrogen supply and transportation using liquid organic hydrogen carriers*

Ralf Ott, HYDROGENIOUS

[HIGGS](#) - *Hydrogen In Gas GridS: a systematic validation approach at various admixture levels into high-pressure grids*

Vanesa Gil, FHA

[HyGrid](#) - *Flexible Hybrid separation system for H2 recovery from NG Grids*

Fausto Gallucci, TU/e

### (European) H2 Valleys

moderated by Pedro Guedes de Campos, Financial Engineering Officer, FCH JU

[BIG HIT](#) - *Building Innovative Green Hydrogen systems in an Isolated Territory: a pilot for Europe*

Jesus Simon, FHA

[HEAVENN](#) - *Hydrogen Energy Applications for Valley Environments in Northern Netherlands*

Patrick Cnubben & Janke Kappenburg, STICHTING NEW ENERGY COALITION

[GREEN HYSLAND](#) - *Deployment of a H2 Ecosystem on the Island of Mallorca*

María Jaén Caparrós, ENAGAS

[MULTICIT'HY](#) – *Production and distribution stations of decarbonated hydrogen*

Louis Desnus, Hynamics/EDF Group

FRIDAY, 3 DECEMBER

09:30 Parallel Sessions

**PNR for Standards and safety**

moderated by Alberto Garcia Hombrados, Project Officer, FCH JU

[European Hydrogen Safety Panel \(EHSP\)](#)

Iñaki Azkarate, EHSP

[HyTunnel-CS](#) - PNR for safety of hydrogen driven vehicles and transport through tunnels and similar confined spaces

Vladimir Molkov, ULster

[PRESLHY](#) - Pre-normative research for safe use of liquid hydrogen

Thomas Jordan, KIT

[THyGA](#) - Testing Hydrogen admixture for Gas Applications

Patrick Milin, ENGIE

**Stationary Applications: Gas to Power and Heat**

moderated by Antonio Aguilo Rullan, Project Officer, FCH JU

[PACE](#) - Pathway to a Competitive European FC mCHP market

Gunter Grosch, SenerTec, Kraft-Wärme-Energiesysteme GmbH (part of BDR Thermea Group)

[RoRePower](#) - Robust and Remote Power Supply

Jari Kiviaho, VTT

[CH2P](#) - Cogeneration of Hydrogen and Power using solid oxide based system fed by methane rich gas

Ilaria Mirabelli, HyGEAR B.V.

[REMOTE](#) - Remote area Energy supply with Multiple Options for integrated hydrogen-based Technologies

Massimo Santarelli, POLITO

10:50 Break

**11:00 Parallel Sessions**

**Education and Training**

moderated by Alberto Garcia Hombrados, Project Officer, FCH JU

[FCHgo](#) - Fuel Cells HydroGen educatiOnal model for schools

Tiziana Altiero, UNIMORE

[HyResponder](#) - European Hydrogen Train the Trainer Programme for Responders

Sile Brennan, ULster

[NET-Tools](#) - Novel Education and Training Tools based on digital applications related to Hydrogen and Fuel Cell Technology

Peter Holtappels, DTU

[TEACHy](#) - Teaching Fuel Cell and Hydrogen Science and Engineering Across Europe within Horizon 2020

Robert Steinberger-Wilckens, UoB

**Fuel Cell Technology for Stationary Applications**

moderated by Antonio Aguilo Rullan, Project Officer, FCH JU

[NewSOC](#) - Next Generation solid oxide fuel cell and electrolysis technology

Anke Hagen, DTU

[EMPOWER](#) - European methanol powered fuel cell CHP

Johan Tallgren, VTT

[MAMA-MEA](#) - Mass manufacture of MEAs using high speed deposition processes

Silvain Buche, Johnson Matthey Fuel Cells

[OxiGEN](#) - Next-generation Solid Oxide Fuel Cell stack and hot box solution for small stationary applications

John D. Pietras, SG SEPR

**12:20 Break**

## 14:00 Parallel Sessions

### Tools for market development

moderated by Kostis Sakellaris, Knowledge Management Officer, FCH JU

#### [Project Development Assistance \(PDA\)](#)

Nadine Hoelzinger, Spilett

#### [Fuel Cells and Hydrogen Observatory \(FCHO\)](#)

John Kilmartin & Guy Bates, e4tech

#### [Mission Innovation Hydrogen Valley Platform](#)

Markus Kaufmann, Roland Berger

[CertifHy](#) - *Developing a European Framework for the generation of guarantees of origin for green hydrogen*

Wouter Vanhoudt, HINICIO

### Early Research on alternative routes for Hydrogen production

moderated by Claudiu Pavel, Project Officer, FCH JU

[BIOROBURplus](#) - *Advanced direct biogas fuel processor for robust and cost-effective decentralised hydrogen production*

Massimiliano Antonini, HYSYTECH

[PECSYS](#) - *Technology demonstration of large-scale photo-electrochemical system for solar hydrogen production*

Sonya Calnan, HZB

[HYDROSOL-beyond](#) - *Thermochemical HYDROgen production in a SOLar structured reactor: facing the challenges and beyond*

Souzana Lorentzou, CERTH

[112CO2](#) - *Low temperature catalytic methane decomposition for CO<sub>x</sub>-free hydrogen production*

Adélio Mendes, FEUP

## 15:20 Break

### 15:30 Hydrogen applications in the defence sector: research and project opportunities

Panagiotis Kikiras, Head of Unit Technology and Innovation at European Defence Agency

### 15:40 Future funding for research on H2 Closing Panel Discussion

Introduced and moderated by Bart Biebuyck, Executive Director, Fuel Cells and Hydrogen Joint Undertaking (FCH JU)

Panellists:

Christian Holzleitner - Head of Unit for Land Use and Finance for Innovation, DG CLIMA, European Commission

Olivier Silla - Head of Unit Transport Investments, DG MOVE, European Commission

Hélène Chraye - Head of Unit at European Commission - DG R&I

Stephen Jackson - Chief Funding and Intelligence Officer at Hydrogen Europe