



FCH JU Programme Review Days

23 - 24 November 2020

Online Event

MONDAY, 23 NOVEMBER

09:00 - 09:20 Welcome

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

Bertrand Piccard, Initiator and Chairman of the Solar Impulse Foundation

09:20 - 09:35 FCH JU Programme Status

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

09:35 - 10:35 FCH JU Projects Portfolio Analysis

Hydrogen Production, Distribution and Injection into the Gas Grid
Nikolaos Lymperopoulos, Project Officer, FCH JU

Transport Applications
Enrique Giron, 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 - 10:45 Joint Research Centre support to FCH JU activities

Eveline Weidner, Scientific Officer, Joint Research Centre of the European Commission

10:45 - 11:00 Break



European
Commission

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11:00 - 12:20 Parallel Sessions

Electrolysers for Industrial & Storage Application

moderated by Nikolaos Lymperopoulos, Project Officer, FCH JU

H2FUTURE - Hydrogen meeting future needs of low carbon manufacturing value chains

REFHYNE - Clean Refinery Hydrogen for Europe

GrinHy 2.0 - Green Industrial Hydrogen via steam electrolysis

STORE&GO - Innovative large-scale energy STORagE technologies AND Power-to-Gas concepts after Optimisation

Light Duty Vehicles and Refuelling infrastructure

moderated by Lionel Boillot, Project Officer, FCH JU

JIVE / JIVE 2 - Joint Initiative for hydrogen Vehicles across Europe

H2ME / H2ME 2 - Hydrogen Mobility Europe

ZEFER - Zero Emission Fleet Vehicles for European Roll-out

H2Bus Europe

12:20 - 12:30 Break

12:30 - 13:50 Parallel Sessions

Next Generation Electrolysers

moderated by Dionisis Tsimis, Project Officer, FCH JU

NEPTUNE - Next Generation PEM Electrolyser under New Extremes

QualyGridS - Standardized Qualifying tests of electrolysers for grid services

REFLEX - Reversible solid oxide Electrolyzer and Fuel cell for optimized Local Energy miX

PRETZEL - Novel modular stack design for high pressure PEM water electrolyzer technology with wide operation range and reduced cost

Heavy Duty Transport Applications

moderated by Pietro Caloprisco, Project Officer, FCH JU

MARANDA - Marine application of a new fuel cell powertrain validated in demanding arctic conditions

H2Haul - Hydrogen fuel cell trucks for heavy-duty, zero emission logistics

H2Ports - Implementing Fuel Cells and Hydrogen Technologies in Ports

Hydrogen-powered aviation, a study on hydrogen's potential for use in aviation



FCH JU Programme Review Days

13:50 - 14:00 Break

14:00 - 15:20 Parallel Sessions

Alternative Renewable Hydrogen Production
 moderated by Nikolaos Lymperopoulos,
 Project Officer, FCH JU

PECSYS - Technology demonstration of large-scale photo-electrochemical system for solar hydrogen production

BIOROBURplus - Advanced direct biogas fuel processor for robust and cost-effective decentralised hydrogen production

BIONICO - Biogas membrane reformer for decentralized hydrogen production

HYDROSOL-beyond - Thermochemical HYDROgen production in a SOLar structured reactor: facing the challenges and beyond

Fuel Cell Technology for Transport Application
 moderated by Claudiu Pavel, Project Officer, FCH JU

CRESCENDO - Critical raw material electrocatalysts replacement enabling designed post-2020 PEMFC

GAIA - Next Generation Automotive membrane electrode Assemblies

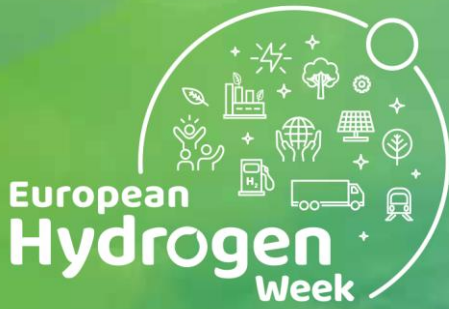
DOLPHIN - Disruptive PEMFC stack with novel materials, Processes, architecture and optimized Interfaces

PEGASUS - PEMFC based on platinum Group metal free Structured cathodes

Giantleap - Improving Automation of Non-polluting Transportation with Lifetime Extension of Automotive PEM fuel cells

15:20 - 15:30 Break

15:30 - 17:00 Fuel cells hydrogen trucks - heavy duty's high performance green solution
 Presentation of the main facts of the study assessing the market potential of heavy duty fuel cells and concrete case studies



FCH JU Programme Review Days

TUESDAY, 24 NOVEMBER

09:30 - 10:50 Parallel Sessions

Hydrogen for Sectoral Integration
 moderated by Enrique Giron, Project Officer, FCH JU

BIG HIT - Building Innovative Green Hydrogen systems in an Isolated Territory: a pilot for Europe

HEAVENN - Hydrogen Energy Applications for Valley Environments in Northern Netherlands

Zero Emission Valley

LAST MILE

Gas to Power Solutions
 moderated by Antonio Aguilo Rullan, Project Officer, FCH JU

PACE - Pathway to a Competitive European FC mCHP market

EVERYWH2ERE - Making hydrogen affordable to sustainably operate Everywhere in European cities

INNO-SOFC - Development of innovative 50 kW SOFC system and related value chain

10:50 - 11:00 Break

11:00 - 12:20 Parallel Sessions

Education and Training
 moderated by Alberto Garcia Hombrados, Project Officer, FCH JU

FCHgo - Fuel Cells HydroGen educational model for schools

NET-Tools - Novel Education and Training Tools based on digital applications related to Hydrogen and Fuel Cell Technology

TEACHy - Teaching Fuel Cell and Hydrogen Science and Engineering Across Europe within Horizon 2020

Fuel Cells and Hydrogen Observatory

Next Generation Fuel Cell Technology
 moderated by Dionisis Tsimis, Project Officer, FCH JU

Cell3Ditor - Cost-effective and flexible 3D printed SOFC stacks for commercial applications

qSOFC - Automated mass-manufacturing and quality assurance of Solid Oxide Fuel Cell stacks

LOWCOST-IC - Low Cost Interconnects with highly improved Contact Strength for SOC Applications

GRASSHOPPER - Grid assisting modular hydrogen PEM power plant

12:20 - 14:00 Break

14:00 - 15:20 Parallel Sessions

Hydrogen in the future

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

Opportunities for Hydrogen Energy
Technologies Considering the National
Energy & Climate Plans

Waste2Grids - Converting WASTE to offer
flexible GRID balancing Services with
highly-integrated, efficient solid-oxide
plants

Guarantees of Origin for Hydrogen

Project Development Assistance for
Regions

Hydrogen Distribution & Carriers

moderated by Enrique Giron, Project
Officer, FCH JU

HyCARE - An innovative approach for
renewable energy storage by a
combination of hydrogen carriers and heat
storage

HyGrid - Flexible Hybrid separation system
for H₂ recovery from NG Grids

PRESLHY - Pre-normative research for safe
use of liquid hydrogen

HySTOC - Hydrogen supply and
transportation using liquid organic
hydrogen carriers

15:20 - 15:30 Break

15:30 - 16:00 Clean Hydrogen Partnership: R&I priorities until 2030 and synergies

Closing Panel Discussion

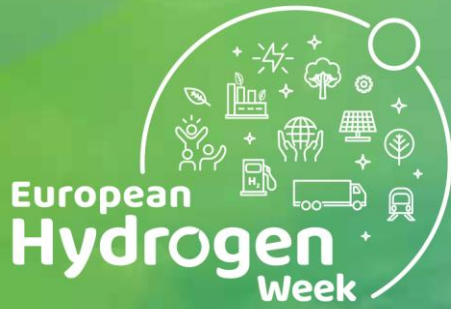
Introduced and moderated by Bart Biebuyck, Executive Director, Fuel Cells and
Hydrogen Joint Undertaking (FCH JU)

Panellists:

Nicolas Brahy, Director, Hydrogen Europe

Dirk Beckers, Director, Innovation and Networks Executive Agency (INEA), European
Commission

Christian Sattler, Head of Department Solar Chemical Engineering, German Aerospace
Center (DLR)



FCH JU Programme Review Days

16:00 - 17:00 FCH JU Awards

Introduced and moderated by Mirela Atanasiu, Head of Unit Operations & Communication, Fuel Cells and Hydrogen Joint Undertaking (FCH JU)

Best Success Story

handed-over by Valerie Bouillon-Delporte, President of Hydrogen Europe, Chair of the FCH JU Governing Board

Best Innovation

handed-over by H el ene Chraye, Head of Unit Clean Energy Transition, DG RTD, European Commission

Best Outreach

handed-over by Bart Biebuyck, Executive Director, Fuel Cells and Hydrogen Joint Undertaking (FCH JU)

Hydrogen Europe Research Young Scientist Award

introduced and handed-over by Laurent Antoni, President of Hydrogen Europe Research