

## Venue

Historisches Kaufhaus  
Münsterplatz 24  
79098 Freiburg | Germany



# 3rd International Workshop Perspectives on Power to Liquids and Power to Chemicals 2022

## Scientific Organisation



**Prof. Dr. Christopher Hebling**  
Director Division Hydrogen Technologies  
Fraunhofer Institute for Solar Energy Systems ISE  
[christopher.hebling@ise.fraunhofer.de](mailto:christopher.hebling@ise.fraunhofer.de)  
Phone: +49 761 4588 5195



**Dr. Achim Schaadt**  
Head of Department Thermochemical Processes  
Fraunhofer Institute for Solar Energy Systems ISE  
[achim.schaadt@ise.fraunhofer.de](mailto:achim.schaadt@ise.fraunhofer.de)  
Phone: +49 761 4588 5428



**Robert Szolak**  
Head of Department Thermochemical Processes  
Fraunhofer Institute for Solar Energy Systems ISE  
[robert.szolak@ise.fraunhofer.de](mailto:robert.szolak@ise.fraunhofer.de)  
Phone: +49 761 4588 5319



## Registration, Workshop Fee and Accommodation

Registration is organised by Conexio-PSE GmbH online at [www.conexio-pse.de/ptl-workshop-2022](http://www.conexio-pse.de/ptl-workshop-2022). Number of participants is limited.

A special contingent for guests of Fraunhofer ISE was set up through the Freiburg Convention Bureau [www.conexio-pse.de/ptl-workshop-2022](http://www.conexio-pse.de/ptl-workshop-2022)

For registration assistance, please contact Kerstin Schultheis, [groups@fwtm.de](mailto:groups@fwtm.de).

## Hygienic Concept

To ensure a safe event, each participant is expected to perform a self-test on both days of the event. In the event of a positive Corona test or if you are feeling typical symptoms, participation in the event will not be permitted. FFP2 masks and hand sanitizer will be provided for the convenience of the participants.

May 10<sup>th</sup>-11<sup>th</sup>, 2022  
Freiburg | Germany

## Introduction

As a follow-up to the *Perspectives on Power to Liquids (PtL) and Power to Chemicals* workshops in 2016 and 2018, this year's edition will bring together internationally renowned stakeholders from politics, academia and industry to discuss, advance and highlight synergies between the growing renewable power generation, H<sub>2</sub> production and CO<sub>2</sub> utilisation targeting at the production and utilisation of sustainable energy carriers, fuels and chemicals. The transformation of the global energy system towards renewable energy both, as electricity and molecules is the key priority of our generation. A strong focus will be put on the development and application of technologies leading to products with different sectoral/industrial relevance (e.g., methanol, DME, OME, ammonia and jet fuels, etc.). The latest insights on these closely intertwined topics with perspectives on scientific progress and successful market introduction will be discussed. A special focus will be put on the scale-up of the PtX processes. We are looking forward to welcoming you in Freiburg.

## Programme | May 10<sup>th</sup>, 2022

- 8:45 **Registration Historisches Kaufhaus and Breakfast Snack**  
Münsterplatz 24 | 79098 Freiburg | Germany
- 9:45 **Welcome Address and Introduction**  
**Assessment of the Import of Hydrogen-Based Liquid Energy Carriers**  
Prof. Dr. Christopher Hebling | Director Division Hydrogen Technologies, Fraunhofer ISE | Germany  
Prof. Dr. Robert Schlögl | Director, Fritz Haber Institute of the Max Planck Society and Max Planck Institute for Chemical Energy Conversion | Germany
- 10:30 **The Future of Synthetic Fuels**  
Prof. Dr.-Ing. Klaus Bonhoff | Director General Federal Ministry for Digital and Transport, BMDV | Germany
- 10:45 **Power to Fuels and Chemicals from the Point of View of German Industry**  
Holger Lösch | Deputy Chief Executive Officer, The Federation of the German Industries BDI | Germany
- 11:00 **Power to Fuels and Chemicals – The Japanese Perspective**  
Dr. Haruhiko Obara | Executive Officer of AIST and Director General of the Department of Energy and Environment | Japan
- 11:15 **Perspective on Synthetic Fuels in USA**  
Dr. Martin Keller | Director, National Renewable Energy Lab (NREL) | USA
- 11:30 **Power to X – Perspective for Mena Region**  
Cornelius Matthes | CEO Dii Desert Energy | Dubai
- 11:50 **South Africa's Path towards Sustainable Fuels and Chemicals**  
Prof. Dr. Jack Fletcher | Director  
Institute for Catalysis, University of Cape Town | South Africa
- 12:10 **Lunchtime Break**
- 13:30 **Poster & Exhibition**

- 14:00 **Recent Developments in the Regulatory Framework for Green Hydrogen – an EU Legal Perspective**  
Dr. Maximilian Boemke & Dr. Christian Bauer | Partners; Watson, Farley & Williams LLP | Germany
- 14:20 **Gigawatt-Scale International Green Hydrogen Projects by ENERTRAG**  
Ulrich Heindl | Head of New Energy Systems, Enertrag SE | Germany
- 14:40 **efuels - From Vision to Reality**  
Karl Dums | Director Power Train Strategy, Porsche | Germany
- 15:05 **Coffee Break**
- 15:35 **(Net) Zero Carbon Energy Sources for Shipping**  
Dr. Dirk Bergmann | Senior Vice President, Head of Global Product Group Medium- and Low-Speed & Rail, ABB Switzerland Ltd. Turbocharging | Switzerland
- 15:55 **Power-to-X and the Potential to Make Transportation Sustainable with Synthetic Fuels like eFuels in Scale**  
Dietmar Huber | Vice President, Innovation Business Platform Power-to-X, Neste Germany GmbH | Germany
- 18:30 **Networking event and dinner | Ganter Brauerei Freiburg**
- Programme | May 11<sup>th</sup>, 2022**
- 9:00 **Methanol as Platform Molecule for Sustainable Fuels and Chemicals**  
Dr. Achim Schaadt | Head of Department, Fraunhofer ISE | Germany
- 9:20 **First European OME Production in Industrially Relevant Environment**  
Tandem lecture Erik Bastiaensen | CEO ChemCom Industries B.V. & Hendrik Stein | Head of Miniplant and Testing Fuel Department ASG Analytik-Service AG | The Netherlands & Germany
- 9:40 **Oxymethylene Ethers: Application in Naturally-Aspirated, Off-Road Diesel Engines for Ultra-Low Emissions**  
Richard Stegmann | Head of Thermodynamics, Motorenfabrik Hatz GmbH & Co. KG | Germany
- 10:00 **Methanol-based Fuels in Land-Based Applications**  
Dr. Benedikt Heuser | FEV Europe GmbH | Germany
- 10:20 **Coffee Break**
- 10:50 **Ramping up a Sustainable Hydrogen Market - A Perspective of the Development Cooperation**  
Valentina Kiefer | Junior Project Manager, Business Alliance on Energy, GIZ | Germany
- 11:10 **Direct Air Capture (DAC) and its Opportunities to Meet Climate and Emissions Reduction Targets**  
Prof. Hans Kistenmacher | Senior Advisor to the Board of Global Thermostat | USA / Germany
- 11:35 **Sustainable Fuels for Zero Emission Logistics**  
Dr. Henrik von Storch | Corporate Development – Innovation & Strategy Deutsche Post DHL Group | Germany
- 11:55 **Final Remarks**
- 12:00 **End of PtL Workshop | Lunchtime**
- 13:00 **Bus Transfer to ISE – Tour of Fraunhofer ISE Facilities to 17:00**