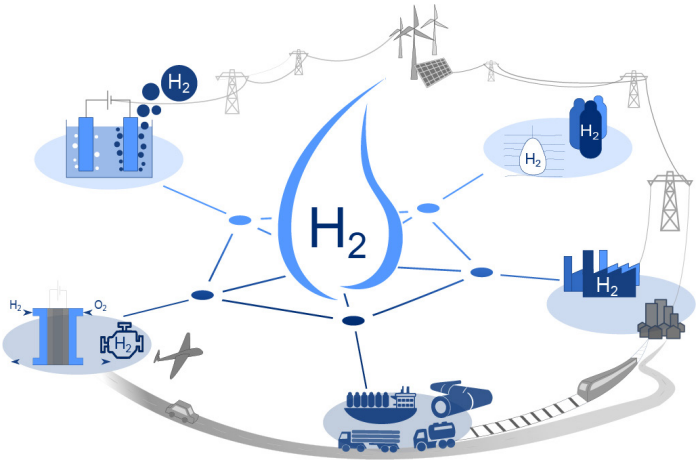
SupplHyInno Rhineland

Clusters4Future Hydrogen

Program

Aachen Hydrogen Colloquium

Novotel | Peterstraße 66 | 52062 Aachen
May 19 - 20, 2026



TUESDAY, MAY 19, 2026

Main Hall
Plenary Session

08:30	Welcome	Prof. Dr.-Ing. Matthias Wessling | Vice-Rector for Translation and Transfer | RWTH Aachen
08:40	Introduction	Prof. Dr.-Ing. Stefan Pischinger | Head of Institute | TME, RWTH Aachen
09:00	Keynote	Dr. Peter Geskes | VP RnD & Product Management Electrolysis | Siemens Energy
09:20	Keynote	Dr. Sabrina von Hebel | Senior Director Manufacturing | ThyssenKrupp Nucera
09:40	Keynote	Dr. Gerui Wang | Head of Schaeffler Global Hydrogen | Schaeffler
10:00	Panel Discussion	
10:30	BREAK	
11:00	Poster Pitch Session	
12:00	WALKING LUNCH & POSTER PARTY	

Main Hall

13:00 Session: Electrolysis 1

From Feasibility to Reality: Chiyoda and FEV's Joint Pathway to Sustainable Hydrogen Carriers
Kyra-Marie Thier and Hiroki Toba | FEV Consulting & Chiyoda Corporation

Advancement of Low-Iridium PEMWE MEA Technology and Ongoing Validation Toward Industrial Integration
Zhengyang Sun | Toshiba Europe GmbH

Influence of Carbon-Based Pore Formers on the Electrochemical Behavior of IrO_2 Anodes in PEM Water Electrolysis
Niklas Vollmert | AVT.CVT, RWTH Aachen

14:30 BREAK

15:00 Session: Fuel Cells 1

Successful Demonstration of Long-Term Durability Including Extensive Freeze Start Cycling
Fabian Mönch | EKPO

Test Methodology for High Accuracy Sensitivity Analysis of a PEM Fuel Cell System
Fabian Weller | Mahle

Fuel Cell Frost Damages: A Multiscale Problem
Marc Böttner | TME, RWTH Aachen

16:30 BREAK

17:00 Session: Combustion Engines

Challenges During Development of a Hydrogen Internal Combustion Engine
Georg Töpfer | Deutz AG

Hydrogen Engine: Emission and Transient Assessment in a System Approach
Dipl.-Ing. (FH) Holger Kauss | Bosch

Investigation of Performance, Efficiency and Combustion Characteristics of a Direct Injection Hydrogen ICE for Improved Model Development
Stefania Esposito | University of Bath

18:30 TRANSFER TO RATSKELLER | MARKT 40 | 52062 AACHEN

Second Hall

13:00 Session: Decentral Hydrogen

AquaPrimus: Foundation for Gigawatt-Scale Offshore Hydrogen
Christoph Tewis | Tewis Projektmanagement GmbH

Compact and Efficient Energy Storage Based on Ironoxide and Hydrogen (H_2) Including Purification
Uwe Pahl | AMBARtec AG

Boosting High Temperature EHP Efficiency by Better Sintering
Desheng Feng | University of Melbourne

15:00 Session: Ecosystems

Green Hydrogen in Africa: Viable, Sustainable, Legitimate
Katharina Thoms and Jacqueline Lorenz | TIM and Controlling, RWTH Aachen

High Hopes, Few Concerns - Investigating Public Perceptions and Local Acceptance of Decentralized Hydrogen Ecosystems
Eva Rößler | RISK, RWTH Aachen

Evaluating Socio-Cultural Factors Influencing Hydrogen Energy Acceptance in Oman
Fatema Mohammed Al Hajri | GUtech and Oman Hydrogen Center

17:00 Session: Electrolysis 2

Designing Lifetime-Optimal Service Strategies for Electrolyzer Operation and Stack Replacement
Jens Schäfer | P3 Energy

Electricity Procurement Options for Grid Connected Electrolysis and Implications on RFNBO conformity
Richard Grzemba | Andritz AG

Development of Titanium-Based Alloy Coatings for Corrosion Protection Inside PEM Electrolyzers
Tim Sievert | IMD-2, Forschungszentrum Jülich

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WEDNESDAY, MAY 20, 2026

Main Hall
Session: Electrolysis 3

Challenges of Developing and Scaling up of Electrolysers in an Industrial Setting
John Ralphs | Sunfire

From Hardware-Centric to Software-Defined: Rethinking Electrolyzer Systems
Dr. Vivek Srivastava | FEV Europe GmbH

Electrochemical Activation of Ni-Fe Anodes for Alkaline Water Electrolysis: The Effect of Base Concentration and Temperature
Janis Schmitt | AVT.ERT, RWTH Aachen

BREAK 10:00

Second Hall
Session: Power Generation 08:30

Hydrogen Road of Kawasaki Heavy Industries
Nurettin Tekin | Kawasaki Gas Turbine Europe GmbH

RWE H_2 Lingen
Gregor Herklotz | RWE

Gas Turbines Fired with Hydrogen: Impacts on Combustion, Turbomachinery and Plant Operation
Johannes Mohs | IKDG, RWTH Aachen

Session: Future Fuels Combustion

Ammonia-Fueled Large-Bore Engines Enable Highly Efficient and Low-Carbon Energy Conversion
Valentin Scharl | Everllence

A Roadmap for Demonstrating H2 Use in Industrial Gas Burners in Steel Production
Fabian Krause | SMS group GmbH

Optical Diagnostics-Led Development of Hydrogen SI Engine and Dual-Fuel Diesel Engine
Shawn Kook | University of New South Wales

LUNCH BREAK 12:00

Session: Fuel Cells 2 10:30

Towards Efficient Anode Recirculation: A Holistic Simulation Framework
Dr. Maximilian Wick | Pierburg GmbH

Predictive Maintenance of Fuel Cell-Battery Hybrids Through Real-Time Data Analysis in Forklift Fleets
Niklas Ruf | Globe Fuel Cell Systems

Flexible Test Bench / Validation Concept for rSOC Stacks
Klaus Lucka | Tec4Fuels

Main Hall
Plenary Session

Keynote	Dr. Isabel Kundler | Senior Advisor Electrochemistry | Dechema	13:00
Keynote	Dr. Nils Liesebach | Head of Innovation | OGE	13:20
Keynote	Shena Britzen | Head of Hydrogen Program | Rheinmetall	13:40

Panel Discussion 14:00

Awards and Closing Remarks 14:30

End 14:45

POSTERS

Hydrogen Generation

Mechanistic CFD Framework for Bubble Removal in an Electrochemical CO_2 Desorption Chamber
Rafael Bellot | Greenlyte

HyInnoAEM - Application-Oriented Development of a Novel AEM Stack With Integrated Electrodes and Innovative Stack Design
Niklas Thissen | AVT.ERT, RWTH Aachen

Evaluating 3M Material Platforms for H_2
Simon Brand | 3M GmbH

Challenges and Opportunities of Elevated-Temperature Anion Exchange Membrane Water Electrolysis
John Tan Nguyen | University of Melbourne

Rotational and Magnetic Field-Induced Transport Effects in Water Electrolysis
Mostafa Delpisheh
Mostafa Delpisheh | School of Engineering, Newcastle University

Dynamics of Electrogenerated H_2 and O_2 Bubbles at Elevated Pressure
Luca Mayolle | AIA, RWTH

Impact of Surface Chemistry on Bubble Behavior
Jonathan Franz | RSM, TU Darmstadt

From Precious to Practical: Ni–Fe Based Benchmark Electrodes for Alkaline Water Electrolysis
Johanna Güttler | IET-4, Forschungszentrum Jülich

Ceramic Diaphragms Enabling High-Temperature Alkaline Electrolysis Under Industrially Relevant Conditions
Sonja Frerich | IET-4, Forschungszentrum Jülich

Simulation-Based Assessment of System-Induced Operating Point Shifts in SOEC Co-Electrolysis
Marvin Schmidt | TME, RWTH Aachen

PEM - From Electrolysis to Fuel Cells

Data Mining for Enhanced PEM Electrolysis
Stephan Zimmer | AVT.CVT, RWTH Aachen

CCM Production for PEM Water Electrolysis: From Laboratory to Pilot Plant Scale … and Back!
Lukas Rein | IET-4, Forschungszentrum Jülich

Noble Metal-Free Corrosion Protection Coatings for PEM Electrolyzer PTLs
Noah Leuschen | IMD 2, Forschungszentrum Jülich

MAXCarbon - Potential of Hybrid MAX-Phase Carbon Fibers for Electrochemical Components
Fabian Jung | TERNAfil

Successful Demonstration of Long-Term Durability Including Extensive Freeze Start Cycling
Nadja Sommer | EKPO

Development of an Ageing-Adaptive Energy Management System for Scalable PEM Fuel Cell Systems
Alexandre Ennen | TME, RWTH Aachen

Cycle Dependent Evolution of Through-Plane Thermal Resistance in PEM Fuel Cell Gas Diffusion Layer Assemblies under Compression
Simon Winter | WSA, RWTH Aachen

Impact of Cell Design on Electrode Testing for the Alkaline Oxygen Evolution Reaction
Christian Marcks | AVT.ERT, RWTH Aachen

Hydrogen Applications

Understanding Air Condensation During Liquid Hydrogen Leaks
Joel Mortimer | University of Melbourne

3D Flow Simulation of Hydrogen Through the Original Tesla Valve
Christoph Hollenbeck | Boll & Kirch Filterbau GmbH

Numerical Investigation of H2 Addition in an Additively Manufactured Gas Burner in EAF Operation
Christian Goßrau | IKDG, RWTH Aachen

Numerical Prediction of Thermoacoustic Instability Onset in a Hydrogen-Enriched Dry Low-Emission Combustor
Jeremias Fleger | University of Melbourne

RANS and Reduced-order Modeling of Thermodiffusive Instabilities in Hydrogen Combustion
Dominik Golc | ITV, RWTH Aachen

A Combustion Model Validation Framework With Three Different Turbulent Premixed Hydrogen/Air Flames (16th TNF Workshop)
Svenja Nerzak | ITV, RWTH Aachen

Hydrogen Society

Life Cycle Assessment Comparison of Electrochemical and Conventional Regeneration in KOH-Based Direct Air Capture
Georgianna Prokopou | AVT.SVT, RWTH Aachen

Ontology-Based Agentic Framework for Constructing Knowledge Graphs in Hydrogen Technology Research
Marjan Kohandani | RWTH Aachen

Optimized Hydrogen Import Portfolios for Germany and Japan: Trade-Offs Between Cost and Carbon Footprint
Fabian Welker | LTT, RWTH Aachen

Optimal Distinctiveness in Emerging Technology Fields: Pre-Market Discourse and Valuation
Jan-Marco Nepute | TIM, RWTH Aachen

A Mapping of Sustainable Development Goal Interlinkages Centered Around Green Hydrogen
Rega Sota and Ali Ebadi Torkayesh | EoS, RWTH Aachen

COORDINATION
RWTH AACHEN UNIVERSITY

PARTNER
JÜLICH Forschungszentrum

TICKET

PARTICIPANTS

FULL PARTICIPATION	**380,- €**
Online Participation	129,- €

MEMBERS

FULL PARTICIPATION	**266,- €**
Online Participation	90,- €

UNIVERSITY/RESEARCH

FULL PARTICIPATION	**190,- €**
Online Participation	64,- €

CONFERENCE APP

- Agenda and program overview
- Livestream for both rooms
- Rating of presentations and posters
- Exchange with other participants

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ABOUT US

Hydrogen as an energy carrier offers the possibility of establishing a global and local CO2-neutral energy economy. **SupplHylnno Rhineland, the Hydrogen Clusters4Future initiative,** bundles already existing expertise in the field of hydrogen technologies in and around Aachen with actors from Industry, Science and Society. All while considering the entire hydrogen life cycle – from production to storage and distribution to use.

CONTACT

Lina-Louise Kaulbach
Marketing

Dr.-Ing. Stefan Sterlepper
Program Management

Prof. Dr.-Ing. Stefan Pischinger
Speaker of SupplHylnno Rhineland - the Hydrogen Clusters4Future

Web: https://h2-cluster.de
Mail: colloquium@h2-cluster.de

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CLUSTERS 4 FUTURE
Next generation innovation networks

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