UNDER THE PATRONAGE OF

وزارة الطاقة والمعادن
Ministry of Energy and Minerals

رؤية عمان 2040

STRATEGIC PARTNER

hydrom
Hydrogen Oman

GREEN HYDROGEN SUMMIT OMAN

قمة عمان للهيدروجين الأخضر

MASTERCLASS WORKSHOPS **AGENDA**

DEC 3, 2025 | OCEC MUSCAT

ghs-oman.com

ORGANIZED BY: birba

Agenda

WEDNESDAY- **Dec 3** (Day 3)

08:30 – 09:00	Registration

MASTERCLASS WORKSHOPS

09:00 – 10:30

Room 10

Understanding EU rules for RFNBO certification and how to deal with them as exporting country

This masterclass provides a clear and formal understanding of the European Union's regulatory system for hydrogen exports. The program specifically addresses the EU rules for Renewable Fuels of Non Biological Origin (RFNBOs), drawing from the RED II and RED III Directives. The course ensures you acquire the necessary knowledge to navigate complex certification requirements and understand international efforts toward harmonized hydrogen standards. Secure your strategic advantage in the global hydrogen economy.

David H.C. Bolsman
Senior Advisor Policy Support Hydrogen, Netherlands Enterprise Agency

Netherlands Enterprise Agency

09:00 – 10:30

Room 11

Scaling-up Liquid Hydrogen Supply Chain to power the Clean Energy Transition, Technology Insight and Safety Excellence

This session is designed to build a deep understanding of Liquid Hydrogen liquefaction and its crucial role in the clean energy transition, focusing specifically on Oman's strategic vision. Participants will explore the technical and commercial drivers necessary for LH2 scale up, including evaluation of viable business models for the Gulf region. A key focus will be gaining comprehensive insight into safety frameworks and operational excellence within the LH2 supply chain. Furthermore, attendees will identify partnership opportunities with leading technology providers, Sinoscience Clean Energy Technology and IET.

Faiez Sallie
Chief Consultant. Integrated Engineering & Technology (IET)

IET

Wan Ruifan
Chief Representative in MENA
Sinoscience Clean Energy Technology. Co.,Ltd

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09:00 – 10:30

Room 8 & 9

Greening Maritime Transport

International maritime shipping contributes around 3 % to global greenhouse gas emissions. In view of this significance, an ambitious transformation of ship propulsion systems towards climate neutral fuels is urgently required. While measures such as slower operation, more energy-efficient ships or harbour connections to the electricity grid are important, they alone can only achieve limited reductions in emissions. Green fuels, such as ammonia and e-methanol, which make it possible to open up completely fossil-free propulsion paths in deep-sea shipping, will have a much greater impact. For true decarbonisation to succeed, a global network of green shipping corridors is needed, with ports that provide climate-neutral fuels. The decisive factor here is that these fuels should be produced where renewable energy is available at particularly favourable prices and made suitable for bunkering along important international shipping routes. Oman has the best prerequisites for this: excellent potential for renewable energies, a geographically favourable location, existing port and logistics infrastructure and proven experience in setting up large-scale projects. In addition, studies show concrete interest from the government and industry, for example for the supply of e□methanol or ammonia in harbours such as the Port of Salalah or Port of Duqm.
In this masterclass, we want to work together with experts from politics, industry and science to develop concrete areas of action for the green transformation of shipping - with a focus on production, infrastructure and international cooperation (especially with Europe)

Frank Mischler
Director (Policy) of the International PtX Hub Gesellschaft für Internationale Zusammenarbeit (GIZ)

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Essam AL Sheibany
Vice President of Sustainability
Asyad Group

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10:30 – 11:00	Coffee Break and Networking

*THIS PROGRAM IS SUBJECT TO CHANGE

11:00 – 12:30

Room 10

Evaluating hydrogen solutions for net zero factories and the green steel sector: Insights and Case studies from the Hydrogen Campus Salzgitter

This session showcases the feasibility and challenges of integrating green hydrogen into major industrial sectors. Drawing on insights from the Hydrogen Campus Salzgitter, the first part will explore how to decarbonize production sites using the Fraunhofer IST energy system model. Participants will gain practical knowledge on designing a resilient net-zero factory through detailed case study. The second section focuses on the progress of green steelmaking in Europe, discussing the future design of international supply chains. Learn about the key factors and cost efficiency driving the transition to green iron and steel

Dr. Guido Hora
Senior Advisor Policy Support Hydrogen
Fraunhofer

Florian Scheffler
Research Associate
Fraunhofer

11:00 – 12:30

Room 8 & 9

Hydrogen and Renewable Energy Carriers: Integration Strategies for Hard to Abate Sectors

This advanced session provides the technical foundation and system context for integrating hydrogen and new energy carriers into hard to abate sectors. It examines critical carriers, including ammonia, methanol, metal fuels, and LOHCs, essential for global decarbonization efforts. With a focus on Oman's hydrogen export ambitions, the course covers the properties, conversion routes, and typical use-cases for each carrier in heavy industry, transport, and chemicals. Learn about multi carrier integration strategies, infrastructure options (e.g., shipping, pipelines), and key system tradeoffs like energy density and efficiency. This is vital knowledge for deploying effective, large scale clean energy solutions.

Dr. Saleh Mohammadi
Professor of Renewable Energy Carriers
Avans University of Applied Sciences

Dr. Jesse Hameete
Senior Researcher in Renewable Energy Carriers,
Avans University of Applied Sciences

Sam Liebregts
Team Manager of Team SOLID,
Eindhoven University of Technology

11:00 – 12:30

Room 11

PEM Water Electrolysers from a materials criticality perspective

This session addresses the crucial issue of materials criticality for the future strategy and procurement of PEM Water Electrolysers. Participants will gain essential insight into the materials used in these systems and the direct consequences of supply risks on technology deployment. The masterclass will introduce a systematic evaluation method to prioritize materials based on specific criticality criteria. We will compare these findings with current industry statements and provide concrete recommendations for a secure path forward in H2 production.

Peter Wilde
Independent traineer and counsultant
GUtech

12:30 – 14:00 | Lunch Break and Networking

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14:00 – 16:00

Room 8 & 9

Belgian Hydrogen Council: Leading gateway for green molecules into Northwestern Europe

This masterclass examines Belgium's strategic role as a primary entry point for green molecules into Northwestern Europe, leveraging the Port of Antwerp-Bruges. We detail the crucial infrastructure development, including the national hydrogen backbone and new terminals designed to receive and crack ammonia. The session provides a clear analysis of current and projected hydrogen demand across Belgian industry and transport, guided by EU policy targets. Learn where bottlenecks may emerge and how to overcome them for successful market integration. This offers global producers' direct insights into a secure and reliable route into Europe's clean energy future.

Isabel François
Project Manager, WaterstofNet/ Belgian Hydrogen Council Program office

Kirsten Raeymaekers
Manager MENA/Hydrogen, Port of Antwerp-Bruges International

Anton Geers
Climate Transition Developer Port of Antwerp-Bruges

14:00 – 16:00

Room 10

Maximize Safety & Optimize Economics for Export or Import Terminals for COLD GAS cargo Ammonia, LNG or CO_2

This masterclass explores how to maximize safety and optimize economics in cold gas terminals handling ammonia, LNG, and CO_2. Led by Philippe Lavagna of SBM Offshore, this session presents a real-world framework for designing and operating safe, efficient export and import terminals. Participants will learn practical tools for concept selection, system integration, and performance evaluation, gaining insights into how collaboration across stakeholders can drive smarter, safer infrastructure for the energy transition.

Philippe Lavagna
Product Account Manager Imodco

14:00 – 16:00

Room 11

How to develop and grow a small scale Industrial Green Hydrogen Hub

This session offers a detailed case study of GROHW, a pioneering Dutch collaboration establishing the world's first open, local green hydrogen supply chain in the Deventer industrial zone. Learn how partners, including Essent, Firan, and Nefit Bosch, are integrating hydrogen as a core long-term strategy, enabling unprecedented project speed. The class will detail the phased rollout, from the initial supply of hydrogen via a receiving station (completed by March 2025) to the construction of an open distribution network served by a new 2.5 MW electrolyzes (operational by late 2026). Discover the complete concept and the roadmap for scaling up to 50 MW to serve growing industrial demand.

Raphaël van der Velde
Business Unit Manager Energy Systems, Witteveen+Bos

16:00	End of Masterclasses

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