



WHTC 2025

WORLD HYDROGEN TECHNOLOGIES CONVENTION

DUBLIN, IRELAND

THE CLAYTON HOTEL, BURLINGTON ROAD, DUBLIN

PRODUCED BY



Conference Day 1 Tuesday 21st October, 2025

10.00-11.00	Registration, Networking & Exhibition
11.00-11.45	Conference Opening Pembroke Herbert Room » Aidan Browne Conference MC » Garrett Monaghan Chair, Hydrogen Ireland » Dr Ayfer Veziroglu President, International Association for Hydrogen Energy Keynote Speaker - Political & Practical Context » Timmy Dooley TD Minister of State at the Department of Climate, Energy and the Environment
11.45-12.45	Regulation to Enable Hydrogen Infrastructure Projects Pembroke Herbert Room » Edwina Nyhan Gas Networks Ireland » Carmel Carey ENTSG » Abel Enríquez ENNOH » Csilla Bartok ACER
12:45-13:00	SMARTH₂: What is SMARTH₂ about the Mannok Hydrogen Valley Project? » Paul Monaghan Mannok
13.00-14.00	Lunch
14.00-14.15	SMARTH₂: Balancing the Energy Trilemma: Modelling a Pathway for the Energy Transition » Niamh Quinn ESB
14.15-15.30	Hydrogen – Early Actions for Long-Term Security of the Power System Pembroke Herbert Room » Brendan Tuohy EirGrid » Oonagh Buckley Secretary General, Department of Climate, Energy and the Environment » Jim Dollard ESB » Stephanie Mudd Clean Hydrogen Mission » H.E. David Gill Ambassador of Germany » Chris Manson-Whitton Progressive Energy
15.30-16.00	Break, Exhibition and Poster Presentations
16.00-16.30	The HYreland Project » Christoph Hank Fraunhofer
16.30-16.45	SMARTH₂: Crossing Borders, Building Ecosystems: A Blueprint for Giga-Scale Hydrogen Commercialization » Ben Queisser Apex Ventures
16.45-17.00	SMARTH₂ » Pau Farràs Project ANEMEL
18.00	Networking Supper House Dublin, Leeson Street



WHTC 2025
WORLD HYDROGEN
TECHNOLOGIES CONVENTION
21-23 OCTOBER 2025 | DUBLIN, IRELAND

PRODUCED BY
**Hydrogen
Ireland**

Conference Day 2

Wednesday 22nd October, 2025

INDUSTRY PROGRAMME

09.00-10.00	Hydrogen - The Diplomatic Perspective Pembroke Herbert Room » Garrett Monaghan Pinsent Masons » H.E. Dennis King Canadian Ambassador to Ireland » H.E. Céline Place French Ambassador to Ireland » H.E. Kara Owen UK Ambassador to Ireland
10.00-10.15	SMARTH₂: Hydrogen Valleys: Lessons Learnt from 6 Hydrogen Valley Projects » Ian Williamson Hyenergy Consultancy Limited
10.15-11.00	Industrial Use & Opportunities Pembroke Herbert Room » Prof. Rory Monaghan SH2AMROCK Hydrogen Valley » James Collins ITM Power » Alicia Eastman APC Investors
11.00-11.30	Break, Exhibition and Poster Presentations
11.30-12.30	Developing and Connecting Hydrogen Economies Pembroke Herbert Room » Brian Mullins Gas Networks Ireland » Danielle Stewart National Gas » Martyn Tulloch Net Zero Technology Centre » Robert Evers Gasunie » Tanja Verena Matheis GASCADE
12.30-12.45	SMARTH₂: Hydrogen on the Horizon In India » Dr. Alok Sharma IndianOil Corporation LTD
12.45-13.45	Lunch
13.45-14.00	SMARTH₂: Scaling-up hydrogen technologies – with EIC support from a scientific idea to innovation » Carina Faber European Innovation Council
14.00-15.15	Combining Efficiencies with Technologies to Secure Bankability Pembroke Herbert Room » KEYNOTE: Alicia Eastman Managing Director of APC Investors and Co-founder, Board Member of InterContinental Energy, Co-Founder & Board Member of ChipX Global » Chinmoy Baruah CHIPX Global » Audrey Ma REFIRE » Shubhda Kaushik Alternative Energy Company Limited » Willem Frens BA2C
15.15-15.30	Break, Exhibition and Poster Presentations
15.30-16.15	Energy Security Pembroke Herbert Room » Aidan Browne Conference MC » Meadhbh Connolly ESB » Nariaki Sakaba Japan Atomic Energy Agency » Bobby Gleeson Gas Networks Ireland
16.15-16.30	SMARTH₂: From Data to Disruption. Embedding AI in Hydrogen Systems: Planning, Design, Execution » Kerry-Ann Adamson Capgemini
16.30-17.15	Green Data Pembroke Herbert Room » Jorgo Chatzimarkakis Hydrogen Europe » Alistair Gemmell GeoPura » Stephanie Mudd Clean Hydrogen Mission » Sundeep Reddy Lagan Energy
18.00	Delegate Mixer Hotel B Bar



WHTC 2025
WORLD HYDROGEN
TECHNOLOGIES CONVENTION
21-23 OCTOBER 2025 | DUBLIN, IRELAND

PRODUCED BY
**Hydrogen
Ireland**

Conference Day 2

Wednesday 22nd October, 2025

ACADEMIC PROGRAMME

09.00-09.10	Welcome and Introduction Ulster Room	
	» Dr Ali Saberi Mehr WHTC 2025 Academic Co-Chair	
09.10-09.40	Keynote 1: Technological Focus Ulster Room	
	» Dr Ayfer Veziroglu President, the International Association for Hydrogen Energy	
	» Dr SA Sherif University of Florida	
09.40-11.00	Panel 1: Technological Innovation Ulster Room	
	» Prof. Frano Barbir University of Split	» Prof. Inci Eroglu Middle East Technical University
	» Prof. Giuseppe Spazzafumo University of Cassino	» Prof. Oliver Joubert Nantes University
11.00-11.30	Break, Exhibition and Poster Presentations	
11.30-12.45	Parallel Session: Technology Ulster Room Chair: Dr. Ali Saberi Mehr	Parallel Session: Environmental Impacts Munster Room Chair: Prof. Inci Eroglu
	Hydrogen Production Pathways & Novel Processes	Environmental Sustainability and Life Cycle Assessment of Hydrogen Technologies
	<i>Mitigating Intermittency: Practical Strategies for Solar-Powered Hydrogen and Ammonia Production in Off-Grid Environments</i> » Nigel Curson Penspen	<i>Life Cycle Assessment of a Hydrogen-Fuelled Electric Powertrain for Aviation</i> » Dr Vafa Feyzi IMDEA Energy Institute
	<i>Experimental Study of Hydrogen Production from Hydrogen Sulfide via DES-Assisted Sulfur-Iodine Thermochemical Cycle</i> » Andres Cardenas Alvarez King Abdullah University	<i>Cross-Border Trading Flows and Carbon Mitigation Potential of Offshore Green Hydrogen for Europe's Net Zero Transition from Ireland</i> » Dr Sheng Wang Newcastle University
	<i>Large-Scale and Stable Hydrogen Production Technology Using HTGR through Japan-UK Collaboration</i> » Dr Hirofumi Ohashi Japan Atomic Energy Agency	<i>Environmental Performance of Electrolysers from Raw Material Acquisition, Through Operation, to End of Life: A Preliminary Product Environmental Footprint Perspective</i> » Dr Khaoula Ben Hnich Imdea Energy
	<i>Development of a Three-Dimensional CFD Analysis Model of Helium Heat Exchanger Type Steam Reformer for Hydrogen Production by Nuclear Heat</i> » Dr Katsunori Ishii Japan Atomic Energy Agency	<i>Cleaner Hydrogen from Ammonia Borane (AB): Environmental Assessment and System Integration for Low-Carbon Power</i> » Dr Navid Kousheshi University College Dublin
	<i>Demonstration of High-Efficiency Technologies for Thermochemical Water-Splitting Hydrogen Production IS Process</i> » Yu Kamiji Japan Atomic Energy Agency	<i>Comparative LCA of Different Vacuum Insulation Panel (VIP) Core Materials for Cryogenic Storage Tanks – Glass Bubbles Compared to Conventional Core Materials</i> » Dr Hannah Sauer Institute of Maritime Energy System
12.45-13.40	Lunch	
13.40-14.10	Keynote 2: Environmental Focus Ulster Room	
	» Prof Javier Dufour Universidad Rey Juan Carlos	
14.10-15.00	Panel 2: Environmental Sustainability Ulster Room	
	» Dr Pau Farràs National University Galway	» Prof. John Sheffield Purdue University
	» Prof. David McCloskey Trinity College Dublin	
15.00-15.40	Break, Exhibition and Poster Presentations	
15.40-17.00	Parallel Session: Technology Ulster Room Chair: Dr. Junhan Cheng	Parallel Session: Economics Munster Room Chair: Prof. Inci Eroglu
	Electrolysis Technologies & System Optimization	Hydrogen generation, infrastructure, and regional development with renewable integration
	<i>Effect of High Pressure on the Electrochemical Performance and Gas Cross-Leakage of a 50 kW PEM Water Electrolyser Stack</i> » Yuki Tsuda AIST	<i>SH2AMROCK and HYDEA – Building Momentum for Ireland's First Hydrogen Valley</i> » Prof. Rory Monaghan SH2AMROCK
	<i>Highly Efficient Control of SOEC Systems Based on Diffusion Coefficient</i> » Takahiro Ishihara Hitachi	<i>Geospatial and Techno-Economic Mapping of Renewable Hydrogen Corridors in Ireland for Hydrogen Valley Development</i> » Dr Maham Hussain University College Dublin
	<i>Concept of a Solid Oxide Electrolysis–Molten Carbonate Fuel Cell Hybrid System to Support a Power-to-Gas Installation</i> » Jaroslav Milewski Warsaw University of Technology	<i>Development and Optimization of Regional Hydrogen Hubs: Integrating Renewable Energy and Sector Coupling Using the Example of Fraunhofer Hydrogen Lab Görlitz</i> » Maciej Satora Fraunhofer IWU
	<i>Dynamic Load Modeling and Transient Stability Analysis of Utility-Scale Grid-Integrated Hydrogen Electrolyzers</i> » Jie Zhu Newcastle University	<i>A Techno-Economic Analysis of Hydrogen Energy Carrier Value Chains for Long-Distance Transport to Europe</i> » Ville Olkkonen Institute for Energy Technology
	<i>MOS₂-Based Electrocatalysts for H₂ Evolution in PEM Water Electrolysis</i> » Stefania Siracusano CNR ITAE	<i>Cost Structure Analysis of Local Hydrogen Production from Photovoltaic Power in High Efficiency DC-Grids and the Influence of Power Electronics</i> » Jonas Ott Deggendorf Institute Of Technology
18.00	Delegate Mixer Hotel B Bar	



09.00-09.10	Welcome and Introduction Pembroke Herbert Room	
	» Dr Junhan Cheng WHTC 2025 Academic Co-Chair	
09.10-09.40	Keynote 3: Economic Focus Pembroke Herbert Room	
	» Dr James Carton Dublin City University	» Dr. Geetha Srinivasan Petronas
09.40-11.00	Panel 3: Hydrogen Economics & Market Pembroke Herbert Room	
	» Dr. Bodo Gross Hydrogen Agency of the Federal State Saarland (Saarländische Wasserstoffagentur GmbH)	» Prof. Bruno Pollet Hydrogen Research Institute
	» Prof. Rory Monaghan SH2AMROCK	» Dr Prashant Kumar Indian Oil Corporation Limited
11.00-11.30	Break, Exhibition and Poster Presentations	
11.30-12.45	Parallel Session: Technology Pembroke Herbert Room Chair: Dr. Ali Saberi Mehr	Parallel Session: Economic Munster Room Chair: Prof. Bruno Pollet
	Storage, Infrastructure & Measurement	Hydrogen utilization for energy, transport, e-fuels, and carbon-neutral applications
	<i>Single and Multiple Tank Configurations for Metal Hydride-Based Hydrogen Storage for PEM Fuel Cell Powered Underwater Applications</i> » Berna Sezgin Middle East Technical University	<i>Strategic CCUS and Green Hydrogen Value Chain Design for Sustainable Synthetic Fuels Production: An Irish Case Study</i> » Haresankar Jayasankar University of Galway
	<i>Development of a Cryogenic Integrated Monitoring System for Reliable Level Measurement in Liquid Hydrogen Tanks</i> » Sehoon Kim Korea Advanced Institute of Science and Technology	<i>The Journey to Implementing an e-Fuel Pilot in Ireland</i> » Keith Byrne Galetech E-fuels
	<i>The Role and Potential of "Electrochemical Hydrogen Compression and Purification" (EHCP) Technology for Hydrogen Infrastructure and Economy</i> » Dr Ramiz Gultekin AKAY Kocaeli University	<i>Techno-Economic Assessment of Decarbonisation Strategies for Data Centres: Case Study for Ireland</i> » Thuso Booth Mogorosi University of Galway
	<i>Where Are We With Physisorptive Hydrogen Storage?</i> » Prof. Raffaele Giuseppe Agostino Università della Calabria	<i>Future Demand Scenarios for Hydrogen Derived Fuels in the Maritime Sector in European Ports by Techno-Economic Assessment of the Fleet</i> » Shaghayegh Kazemi Esfeh DLR Institute of Maritime Energy Systems
	<i>Hydrogen Fuel Quality – Progress Towards Robust and Affordable Measurement Infrastructure Through EU Projects HyQuality Europe, 22NRM03 MethyTruck and 24GRD11 MetroHyVe 3</i> » Dr Thomas Bacquart National Physical Laboratory	<i>Feasibility of Green Hydrogen for Public Transport: Economic, Carbon and Spatial Assessment</i> » Dr Beatrice Smyth Queen's University Belfast
12.45-13.45	Lunch	
13.45-14.00	Awards Presentation Pembroke Herbert Room	
14.00-14.30	Keynote 4: Legislative Focus Pembroke Herbert Room	
	» Terence McGovern KPMG	» Hager Bassyouni Hezelburcht
14.30-15.20	Panel 4: Policy, Regulation & Hydrogen Pembroke Herbert Room	
	» Prof. David Rooney Queen's University Belfast	» Dr Michael Reinstaedtler Bosch
	» Carmen Font Font Corporation	
15.20-16.20	Parallel Session: Technology Pembroke Herbert Room Chair: Prof. Giuseppe Spazzafumo	Parallel Session: Legislation and Opportunity Munster Room Chair: Dr. Ayfer Veziroglu
	Techno-Economic, Policy & System Integration	Policies, Strategies, and Industrial Pathways for Hydrogen Deployment
	<i>Estimation of H2 Demand and HTGR Deployment Potential in the Industrial Complex in Japan</i> » Dr Hiroki Noguchi Japan Atomic Energy Agency	<i>Assessing the Impact of Hydrogen-to-Power and Hydrogen-to-Ammonia Applications on the Long-Term Deployment of Hydrogen Technologies</i> » Kamran Khammadoov University College Dublin
	<i>Techno-Economic Assessment of Electrolytic Hydrogen Production and Consumption in Ireland</i> » Dr Charlene Vance University College Dublin	<i>A Global Review of Green Hydrogen Certification Schemes and a Strategic Roadmap for Ireland's National Framework</i> » Dr Maham Hussain UCD Dublin Ireland
	<i>Scaling Green Hydrogen in India: Policy Levers for Cost Reduction and Technology Adoption</i> » Akhil Chauhan Indian Institute Of Technology	<i>Market perspectives for green and low-carbon hydrogen technologies</i> » Dr Alberto Giaconia ENEA
	<i>Incorporating 'Green' Hydrogen and Circular Economy Pathways in the Water Sector: Designing the System and Quantifying the Flows for Hydrogen, Oxygen and Other By-Products</i> » Michelle McMullan Queen's University Belfast	<i>Hydrogen-Based Steelmaking on the Rise: A Global Update on Technologies, Policies, and Industrial Strategies</i> » Dr Natalia Realpe Energy Systems Catapult
	<i>Comparative Design Optimization of Low-Temperature Fuel Cell Systems Powered by Pure Hydrogen and Hydrogen Carriers for Marine Applications</i> » Davide Pivetta University of Trieste	
16.20-16.30	Closing Remarks	
	» Paul McCormack CEO, Hydrogen Ireland	
	» Dr Ayfer Veziroglu President, International Association for Hydrogen Energy	
16.30	Conference Close	