5th Swerim Hydrogen Gas Seminar 2026

– Process and Materials

PROGRAMME 17th of March 2026

Clarion Hotel Sense, Luleå

10:30–11.00	**REGISTRATION AND COFFEE**
11:00-12:10	**Welcome to the Seminar** *Pontus Sjöberg, Swerim*
	Roadmaps for Fossil Free Competitiveness *David Lundberg, Fossil Free Sweden*
	Challenges and Opportunities for the Swedish Hydrogen Sector, with a Global Outlook *Björn Aronsson, Hydrogen Sweden*
	Strengthening the Swedish Hydrogen Innovation System *Cecilia Wallmark, Luleå University of Technology, CH2ESS & Hydrogen SIC!*
12:10-13:10	**LUNCH**
13:10-14:10	**Hydrogen – Considerations for Transforming of the Steel Industry** *Rizwan Janjua, World Steel Association*
	Hydrogen in Industrial Practice for Steelmaking in Boden *Camila Varela, Stegra*
	FINAST: Green Steel Research Collaboration between LTU-Swerim–SSAB *Hans Åhlin, LTU*
14:10-14:30	**COFFEE BREAK**
14:30-15:50	**Hydrogen – From a Supplier's Perspective** *Aditi Bhasin, Lhyfe*
	Hydrogen as a Fuel *Tomas Walander, Manntek*
	Scania Fuel Cell Electric Vehicle Pilots in the Present Day and in the Future *Simon Reifarth, Traton*
	Cost-Effective PEMWE through Lower-than-expected Potentials at the Anode Side *Sebastian Proch, Alleima*
15:50-16:10	**COFFEE BREAK**
16:10-17:10	**Renewable Energy Carrier for the Hard-to-Electrify Sectors: How E-methanol Complements the Value Chain** *Ulrica Johansson, Liquid Wind*
	The Impact of High Efficient Technologies in the Development of Biogas and Green H_2 *Carlos Bernuy-Lopez, Ramboll*
	Hydrogen Research at Swerim *Gustav Häggström, Nuria Fuertes, Swerim*
18:00	**Bus transfer to Cape Wild**
	Guided visit at the moose and reindeer park **Dinner at Cape Wild**
~21:30	**Bus transfer back to Clarion Hotel Sense**

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08.30–10:10	**TECHNICAL SESSION – Materials**
	Insights from Hydrogen Embrittlement Testing of Stainless Steels *Johan Pilhagen, Outokumpu Stainless*
	Electrochemical vs. Gas Charging for Hydrogen Embrittlement Evaluation *Birhan Sefer, Swerim*
	Recent Lessons Learned from Mechanical Testing in Hydrogen Environment at GKN *Patrik Wadenbrant and Viktor Sandell, GKN Aerospace*
	Mechanical Performance of Superalloy Inconel 718 in Pressurized Hydrogen Gas *Robert Sundström, Swerim*
	Hydrogen Embrittlement of Stainless Steel 321 and Hastelloy X, from a Gas Turbine Perspective *Vishnu Anilkumar, Siemens Energy*
10:10-10:40	**COFFEE BREAK**
10:40-12:20	**TECHNICAL SESSION – Materials**
	Mitigating Hydrogen Embrittlement and Permeation: Advances in Barrier Technologies *Anna Carlsson, Terrabarrier*
	Performance of Stainless Steel Welds in Hydrogen Environment *Klara Trydell, Swerim*
	Hydrogen Resistance Evaluation of High Strength Carbon Steels Using the Hollow Specimen Method *Eduard Navalles Martinez, Swerim*
	Prevention of Hydrogen Embrittlement in Ultra-High-Strength Steel *Steve Ooi, Ovako*
	The Interaction Between Hydrogen and Localized Plasticity *Haiyang Yu, Uppsala Universitet*
	Towards Large Scale Infrastructures Characterization of Hydrogen Embrittlement *Gabriel Spartacus, Swerim*
12:20-13:20	**LUNCH**
13:30	**Bus transfer to Swerim**
14:00-14:30	**Inauguration ceremony of the unique H_2 autoclave mechanical test facility**
14:30-16:30	**Guided tour at Swerim**
16:45	**Bus transfer from Swerim to the airport and Clarion Hotel Sense**

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08.30–10:10	**TECHNICAL SESSION – Process**
	Oxidation & Descaling of Reheated Steel Using Propane and Hydrogen Mixtures in a Pilot Scale Batch Furnace *Gustav Häggström, Swerim*
	Oxide Scale Formation under Conventional and Hydrogen Combustion *Andrea Olivas, Swerim*
	Pilot Scale Hydrogen Combustion in a Continuous Reheating Furnace *Gustav Häggström, Swerim*
	Combining Hydrogen and Direct Electric Heating in a Continuous Pilot Reheating Furnace *Gustav Häggström, Swerim*
	Flame Characterization and NOx Assessment of Hydrogen-Based Coal Substitution in Rotary Kiln for Iron Ore Induration *Samuel Colin, LKAB*
10:10-10:40	**COFFEE BREAK**
10:40-12:20	**TECHNICAL SESSION – Process**
	Hydrogen Use in Copper Extraction *Shareq Mohd Nazir, KTH*
	Material Challenges in Ammonia Cracking *Jebin James, Duiker*
	The Emphatical Project: Efficient Methanol from Pumped Heat and Calcium Looping *Malin Blomqvist, Swerim*
	Hydrogen Pathways to Value-Added Chemicals in Decarbonization Heavy Industry *Joey Dobree, Next Chem*
	Towards Acceleration and Demonstration of E-Methanol *Alex de Jong, Bright Renewables*
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