

22–23 January | Luleå University of Technology

### 21 January

#### Site visits

On 21 January, the Nordic Hydrogen Valleys Conference is organising three site visits, to Hybrit, Swerim, and Luleå University of Technology laboratories.

- **Hybrit**, at 13.00–14.30 and 15.30–17.00
- Swerim, at 15.30–17.30
- Luleå University of Technology laboratories, at 10.00–12.00

#### Networking reception

On 21 January at 17:30–19:00, Women in Green Hydrogen Sweden and Nordic Energy Research are organising a side event on energy equality in Bistron, Norra Hamn, Norra Strandgatan 3. Conference participants are welcome to this informal gathering, which offers a unique opportunity to discuss hydrogen-related topics with peers and explore ways to address gender-related barriers in the energy sector.

### 22 January

09:00-09:30 | Registration

09:30-10:30 | Auditorium B192

### Nordic decisionmakers on building hydrogen value chains

This keynote session will focus on the Nordic strategies and priorities, and the milestones within research and development that create progress on the Nordic priorities for Hydrogen Valleys.

- Carina Sammeli, Mayor, Luleå Municipality
- Klaus Skytte, CEO, Nordic Energy Research
- Charlotte Wiberg, Deputy Vice-Chancellor, Luleå University of Technology
- Mogens Lykketoft, Chairman of the Board, Energinet
- Jón Björn Skúlason, Executive Director, Icelandic New Energy
- Cecilia Wallmark, Director, CH2ESS
- Moderator: Lise Nielson, Nordic Energy Research





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### 22 January

10:30–11:00 | Coffee break

### 11:00-12:15 | Auditorium B192

# Mapping Nordic hydrogen valleys: Highlighting Nordic strongholds

What has been developed in the Nordics, what is the implementation status for active hydrogen valley projects and where are the driving forces? This session will present the status on Nordic Hydrogen Value chains and present strongholds in the Nordics. In the end, there will be a panel discussion.

#### Speakers:

- Nordic Hydrogen Valleys Value Chain Mapping Across the Region Johan Malinen, Departmental Secretary, Government Offices of Sweden
- The BalticSeaH2 project: Updates on Europe's first large-scale interregional hydrogen valley

Kirsikka Kiviranta, Research Scientist, VTT

• Next Wave: Nordic Collaboration is Decarbonising Heavy-Duty Transportation

Lin April Løstegård, Project Manager, Norwegian Hydrogen Forum

• **Moderator:** Torsten Schmidt, Nordic Energy Research

#### Panellists:

- Johan Malinen, Departmental Secretary, Government Offices of Sweden
- Mogens Lykketoft, Chairman of the Board, Energinet
- Jón Björn Skúlason, Executive Director, Icelandic New Energy
- Anders Lundell, Strategist, Regional Development, Region Gävleborg
- Lin April Løstegård, Project Manager, Norwegian Hydrogen Forum
- Moderator: Torsten Schmidt, Nordic Energy Research

12:30-14:00 | Networking lunch





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### 22 January

### 14:00-16:30 | Auditorium B192

# Lessons from hydrogen researchers: Insights and answers

The research and development projects have some messages for you – and some very good questions. Prepare for dialogue. The session will end with a panel discussion.

- Nordic Hydrogen Hubs Roadmaps towards 2030 and 2040 (NordicH2ubs) Sigrid Lædre, SINTEF
- Hydrogen, Ammonia and Methanol in hydrogen hubs in the Nordic region (H2AMN)

Joakim Lundgren, Luleå University of Technology

- Material and structural integrity assessment for safe Nordic hydrogen transportation infrastructure (MatHias)
  Vigdis Olden, SINTEF
- Hydrogen Safety and Improved Permit Processes (H2SIPP) Cecilia Wallmark, Luleå University of Technology
- Rally to the Valley: Establishing Hydrogen Value Chains for the Nordics (NORD\_H2ub)

Johannes Felipe Giehl, Copenhagen Business School

- Unlocking the Full Potential of Green Hydrogen: Towards Cost-Effective, Durable, Efficient, and Flexible Electrolysis (MoreH2) Jan Froitzheim, Chalmers University of Technology
- Moderator: Klaus Skytte, Nordic Energy Research

16:30-17:00 | Break





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### 22 January

### 17:00–18:00 | Auditorium B192

# Indigenous perspectives and democratic engagement in the green transition

The green transition, including the development of hydrogen value chains, is a source of conflict between industrial interests and the majority population on one side, and indigenous peoples on the other. This highlights the importance of recognising indigenous peoples' rights and perspectives. In this session, we explore how indigenous peoples' democratic participation is essential for ensuring the legitimacy of the green transition, with a specific focus on the roll-out of hydrogen in the Nordics. The session will end with a panel discussion.

- Sámi democratic engagement in the governance of land and waters Rasmus Kløcker Larsen, Senior Research Fellow, Stockholm Environment Institute
- Michael Ross, Industrial Research Chair, Northern Energy Innovation, Yukon University
- Stefan Mikaelsson, representative to Sámedikke, the Sámi Parliament of Sweden
- **Moderator:** Kajsa Paludan, International and Nordic Coordinator at the Swedish Energy Agency

### 18:00-18:15 | Shuttle bus to conference dinner

### 18:30–21:30 | Vetenskapens hus, Storgatan 53

#### **Conference dinner**

The conference dinner will be organised as a mingling arena. Here, there will be a festive atmosphere, in addition to dinner and entertainment provided. The entertainment will be a musical performance from the Swedish artist Olivia Ahltorp. Ahltorp will perform songs from her concept Aevy Lore. This concept explores humans' relationship with nature.

Participation requires individual registration.





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### 23 January

### 08:30-09:30 | Auditorium B192

#### The hydrogen economy: Regulations and best practices

Regulatory practices and policies have the potential to make or break a hydrogen valley. Best practices recommendations hold a promise for transparency and speed in energy hub planning. The session will end with a panel discussion.

- Bridging the gap: Policy needs to realise an energy hub in Iceland Brynhildur Davíðsdóttir, Professor of Environment and Natural Resources, University of Iceland
- Fuelling the future Insights into locations for green fuel production on the example of green methanol Johannes Felipe Giehl, Postdoctoral Researcher, Copenhagen Business School and Frederik Fristed, PhD Student, Danish Technical University
- Lessons from Hydrogen Valley Mid-Sweden Maria Grahn, Associate Professor, Chalmers University of Technology
- The EU clean hydrogen strategy as framework for Nordic developments Per Ove Eikeland, Senior Researcher, Fridtjof Nansen Institute
- Engineering a Sustainable Future: Research, Collaboration, and Trust in the Journey towards a Hydrogen Economy Tobias Holt Nørby, Stack Manufacturing Expert, Topsoe
- Moderator: Anders Lundell, Chairman of the Board, Hydrogen Sweden

### 09:30 | Coffee





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### 23 January

### 10:00–11:00 | Auditorium B192

#### Hydrogen safety in a new energy landscape

Safety in a hydrogen value chain has many facets. Local public support, longterm political stability for decisions and planning, a calm business investment forecast, materials safety aspects – all of these are vital for hydrogen to be a part of the Nordic energy mix.

- Fire and Explosion Modeling at Hydrogen Refueling Stations: Strategic Insights for Contingency and Safety Management Mads Ragnvald Nielsen, Project Leader, DBI
- **Progress in safety distance determination for hydrogen installations** Marcus Runefors, Lecturer, Lund University and Michael Försth, Professor, Luleå Technical University
- Actors' views on regulations and permitting: Results from a survey Oskar Johansson, Doctoral Student, Luleå University of Technology
- Are we safe? Or just compliant Jesper Sjørvad, Operations Manager, DBI
- Moderator: Kevin Johnsen, Nordic Energy Research

### 11:00 | Coffee

### 11:30–12:30 | Auditorium B192

### Hydrogen materials for a Nordic geography

Materials science determines the safety and economy of the hydrogen valleys roll-out. This session investigates the progress of research and engineering of materials solutions for hydrogen applications in the Nordic climates.

- **Properties of pipeline steel for hydrogen transport in the Nordic countries** Vigdis Olden, Senior Research Scientist, SINTEF Industry
- Pushing boundaries in hydrogen technology with joining of materials and inspection of material condition as innovation tools Pedro Vilaça, Professor, Aalto University
- Hydrogen gas induced degradation of mechanical properties in new applications – HYMECH II project
  Ida Heintz, Group Manager, Swerim
- **Moderator:** Jan Froitzheim, Chalmers University of Technology





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### 23 January

### 12:30-13:50 | Networking lunch

### 14:00–15:00 | Auditorium B192

### An inclusive hydrogen society

Social acceptance is key to a succesful green transition, and inclusion of citizens is expected to hold the answers for the most critical steps – where to build pipelines and other infrastructure, how to build a skilled workforce and how to create succesful implementation of the hydrogen economy. So how do we ensure social engagement and an inclusive political decision process when creating a hydrogen society?

#### Port of Gothenburg as a hydrogen hub – from a stakeholder and barrier perspective

Julia Hansson, Researcher and Consultant, and Karl Jivén, Researcher and Project Manager, IVL Swedish Environmental Research Institute

- Illuminating the blind spots of hydrogen project development JustH2Transit and Hydrogen Impact Forums
  Minna Näsman, Chief Development Officer, Akordi
- The new jobs of the hydrogen economy and what it tells us about shape and directionality & New projects within the hydrogen economy and what it tells us collaborative networks

Viktor Jonsson Rosenberg and Jakob Westerback, Chalmers University of Technology

• Moderator: Michael Ross, Industrial Research Chair, Yukon University

### 15:30–16:45 | Auditorium B192 and Centrumrestaurangen

### Workshop

The workshop will start with an introduction to the setup in Auditorium B192, followed by discussions in Centrumrestaurangen. Divided into thematic groups of maximum eight people per table, the workshop will address topics such as research needs, broader system planning, social acceptance, the global market, and energy supply and safety. What should hydrogen initiatives do regarding these themes, how can they collaborate on each theme, and who would need the results from their work?

• Facilitator: Minna Näsman, Chief Development Officer, Akordi

