



Invitation to LTU CH₂ESS Research Day

Date: August 29, 2024 from 9.30-18.00

Location: Vetenskapens Hus, Storgatan 53, Luleå city center

Audience: LTU researchers and external partners with a keen interest in hydrogen

Registration: [Click here to register](#)

Moderator: Dr. Cecilia Wallmark, Director for CH₂ESS,
cecilia.wallmark@ltu.se

Join us for an exciting day of exploration, collaboration, and knowledge sharing! Discover the latest advancements in hydrogen research and connect with fellow experts in the field. Let's propel the future of sustainable energy together!

See you there!



**Centre for
Hydrogen
Energy Systems
Sweden**

AT LULEÅ UNIVERSITY OF TECHNOLOGY



9.30-10.00	Registration and coffee	
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Concluding discussions with stakeholders on each topic

10.00	Welcome and introduction to CH2ESS Director Cecilia Wallmark, Fredrik Granberg, CEO LTU Green Fuels	Erik Carlsson, Gällivare
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Keynote Speech

10.00-11.00 Research opportunities and challenges for hydrogen on a global level
Prof. Dr. Bruno G. Pollet, Director of the Hydrogen Research Institute and the Green Hydrogen Lab

11.00	Mingle	
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Energy systems and hydrogen production

11.10-11.35 Hydrogen in the energy system
Annelie Karlsson, Region Västerbotten

11.35-12.00	Hydrogen from biomass, Prof. Joakim Lundgren	Ann-Christine Schmidt
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12.00-13.30 **Mingle lunch & poster session**
Around 30 CH2ESS research projects presented by PhD students and researchers
[Research projects on Centre for Hydrogen Energy Systems Sweden | Luleå tekniska universitet \(ltu.se\)](#)

Safety and material science

13.30	Hydrogen safety: jet flames and explosions, PhD student Andrea Correa and PhD student Lucas Andersson	Håkan Nordin, Boden
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14.00 Hydrogen embrittlement in rolling element bearings, PhD student Lisa-Marie Weniger
SKF

14:30	Coffee	
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Storage and industry applications

15-15.30 Oxygen in iron oxide process
Prof Charlotte Andersson LKAB

15.30 Underground hydrogen storage (UHS)
in Sweden: History, future plan and
challenges Tobias Rehnholm,
Prof Ping Zhang Vattenfall

16.00 **Mingle**

Distribution and fluid dynamics

16.15 Hydrogen pipeline fluid mechanics,
Associate Prof Sofia Larsson and
PostDoc Aashna Raj Erik Fiedler-Blackhammar,
Nordion Energi

Final session

16:45 Interactivity and competition on the topic
social acceptance.
Prof Simon Matti

17.30 Panel with reflections from the day
Prof Bruno Pollet, Marita Nilsson, H2
Green Steel and Prof Joakim Lundgren
– On the research needs for the hydro-
gen implementation

17:50-18.00 Concluding remarks and presentation of
the competition results

The research within CH2ESS covers the entire value chain for hydrogen, i.e. the power system, production, distribution, storage and use of hydrogen. We are accelerating hydrogen, with cutting-edge technical expertise in combination with multidisciplinary research, collaborations and applied research.

<https://www.ltu.se/en/research/centres-of-excellence-and-collaborations/centre-for-hydrogen-energy-systems-sweden>



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Dr. Cecilia Wallmark, Director of CH2ESS, with 25 years of experience in the hydrogen area will moderate the full day



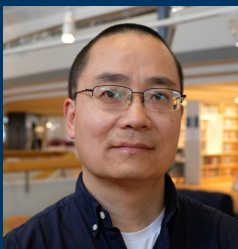
Our invited guest and keynote speaker Prof. Dr. Bruno G. Pollet, Director of the Hydrogen Research Institute and the Green Hydrogen Lab, Canada



Joakim Lundgren, Prof in Energy Engineering and deputy Director of CH2ESS, will present recent work on hydrogen production from biomass.



Lisa-Marie Weniger, PhD Student and head of the CH2ESS Network for Young Scientists will present the results from three years of research on hydrogen embrittlement in rolling element bearings



Ping Zhang, Prof in Rock Mechanics, will present Underground hydrogen storage in Sweden: History, future plan and challenges