

HYGCEL final seminar & visiting presentations 1.10.24



Morning session

location: LUT-University Mikkula building (address: Mikkulankatu 19), room: Auditorium 2

- **9:00 - 9:30 Coffee and a small snack & registration**
- 9:30 – 9:35 Welcome – Mari Tuomaala, LUT
- 9:35 – 10:45 Finnish Hydrogen projects
 - 9:35 – 9:45 HYGCEL project overview – Mari Tuomaala, LUT
 - 9:45 – 10:00 LUT's main hydrogen projects, an overview – Mari Tuomaala, LUT
 - 10:00 – 10:15 [JustH2Transit](#) – Marko Huttula, OU
 - 10:15 – 10:30 [REPower](#) – Johanna Routa, Luke
 - 10:30 – 10:40 [Hyper](#) – Cyril Bajamundi, VTT
 - 10:40 – 10:50 [HUG](#) - Economic prospects of hydrogen storing Peter Ylén, VTT
 - 10:50 – 11:00 Time for discussion.
- **11:00 – 11:15 BREAK (coffee available)**
- 11:15 – 11:25 Overview of Finnish power-to-X economy research 2017-2023 – Teemu Tuomisalo, LUT
- 11:25 – 11.35 Hydrogen SRA for Finland by Hydrogen Research Forum Finland – Eeva Lähdesmäki, LUT
- 11:35 – 11:45 Introducing novel ideas: CO₂ electrolysis in solid carbon production – HYGCEL, WP5, Emma Laasonen, LUT
- 11:45 – 12:00 comments from the audience & discussion

Lunch (own cost) 12:00 - 12:50 Lunch.

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Afternoon sessions

location: LUT-University Niemi building (address: Niemenkatu 73)

Afternoon parallel session 1, room B103 (first floor)

This session is built on presentations of HYGCEL results complemented with guest presentations. Some of the HYGCEL results were presented at the Hydrogen Cluster joint event in Oodi, Helsinki, on May 22.

- 13:15 – 14:00 Part 1: – Hydrogen production routes and potentials
 - 20 min HYGCEL WP2 T2.1 - wind, solar, and CO₂ - Hannu Karjunen & Jukka Lassila, LUT
 - 15 min HYGCEL WP3T3.3 - PtX potential of biomethane, Marika Kokko, TAU
 - 10 min Novel biobased H₂ production routes – Saija Rasi, Luke
- **14:00 – 14:20 Coffee**
- 14:20 – 15:00 Part 2: – Transportation needs and feasibilities - electricity, H₂, CO₂ and end products
 - 15 min HYGCEL WP2 T2.3 Energy balances and transportation needs in Finland, Sami Repo/ Yrjö Majanne, TAU
 - 15 min HYGCEL WP2T2.2 Results from transportation feasibility studies, Christian Breyer, LUT
 - 10 min HYGCEL WP3T3.3 Future use of Finland's infra, Satu Lipiäinen, LUT
- 15:00-15:20 comments / panel & discussion
- 15:20 – 15:30 Q&A and seminar closing

Afternoon parallel session 2, room B209+B210 (second floor)

This session contains selected HYGCEL results from topics not presented earlier, for example in the HYGCEL– Hydrogen Cluster joint event in Oodi, Helsinki, on May 22. In addition, the session includes guest presentations on close topics.

- 13:15 – 14:00 Part 1: Hydrogen infrastructures
 - 15 min Material aspects in H₂ -infrastructures - HYGCEL WP3T3.2 - Kalle Lipiäinen - 15 min
 - 15 min Prospects of H₂ pipeline projects in Austria - Masoud Moshtaghi - 15 min
 - 15 min Results from JustH₂ transit material studies– Elina Huttunen-Saarivirta, VTT
- **14:00 – 14:20 Coffee**
- 14:20 – 15:10 Part 2: Cyber security and infrastructural resiliency
 - 15 min HYGCEL WP4&6 Hydrogen and cyber security – Rami Alfasfos & Mehar Ullah, LUT
 - 20 min HYGCEL T1.2 Geopolitics and energy security – Sarah Kilpeläinen, TAU
 - 15 min Presenting [2IMATCH](#) on resilience of hydrogen energy infrastructure – Pami Aalto, TAU
- 15:10-15:30 Q&A and seminar closing.