

# PROGRAM – Updated 22 March 2024



# 23-24 April 2024 (main event)

Monday 22 April & Thursday 25 April (internal meetings and workshops for the consortium)

Venues: Quality Hotel Prinsen (Kongens gate 30, Trondheim) & Rockheim museum (Brattørkaia 14, Trondheim)













# Registration and final program

This event is fully booked, and registration is now closed.

Please contact <a href="https://example.no">hyschool@uib.no</a> if you need to change your registration, or if you want to sign up for the waiting list in case some participants might cancel their registration.

Updated versions of the program will be published on the web page for the event: https://www.uib.no/en/hyschool/161183/hyschool-days-2024

**NOTE**: All speakers are encouraged to:

- 1. Prepare the presentations with a <u>wide audience</u> in mind (i.e. avoid too much technical details and try to include elements of popular science communication in the presentations); and
- 2. Ensure compliance with the designated number of minutes, as the remaining time in each session will be dedicated to Q&As.

# Day 0: Monday 22 April 2024

There will only be internal meetings and workshops for the admitted students and the consortium this day.

Venue: Quality Hotel Prinsen (Kongens gate 30)		
11:00 Registration		
11:30 Lunch		
12:30 Student forum	12:30 Supervisor forum	
14:00 Coffee break		
14:30 Presentation of project results from HySET		
19:00 Dinner		



# Day 1: Tuesday 23 April 2024

Venue: Rockheim museum (Brattørkaia 14)

# 08:30 Registration

### 09:00 Opening remarks

- Nicola Paltrinieri (NTNU), Trygve Skjold (UiB), Merry Ho (UiB) Welcome to HySchool Days, 5'
- Asgeir Tomasgard, leader of NTNU Energy and NTNU Energy Transition Initiative Opening speech, 15'

### 09:20 Topical Area #1 - Society and environment

- Tadahiro Shibutani (YNU) Integration of hydrogen facilities in the Japanese social fabric, 40'
- Claudia Siew Wan Cheng (UiT) Can Norway save the European Union's hydrogen ambition for 2030? Modelling the Norwegian energy system concerning costs and social acceptance, 10'
- Kyrre Sundseth (SINTEF) An update of the Norwegian H<sub>2</sub> landscape, 15'

#### 10:30 Coffee break

#### 11:00 Topical Area #2 - Production

- Børre Børresen (Equinor) Considerations on Operation of Water Electrolysis plants on Fluctuation Power, 15'
- Sylfest Myklatun (Equinor) Dynamic production of green methanol, 15'
- Massimo Santarelli (PoliTO) Electrochemical and Thermo-chemical pathways for the production of sustainable chemicals, 40'

#### 12:30 Lunch

# 13:30 Topical Area #3 – Storage and distribution

- Gianluca Valenti (PoliMI) Trends in liquid hydrogen production and storage systems, 15'
- Raymond Mushabe (UiB) Predicting Ultimate Hydrogen Production and Residual Volume During Cyclic Underground Hydrogen Storage in Porous Media Using Machine Learning, 10'

### 14:00 Topical Area #4 - Applications

- Yash Raka (SINTEF) PEMWE system modelling, 15'
- Muhammad Baqir Hashmi (UiS) Effect of hot gas path component corrosion on the performance of hydrogen fueled micro gas turbines, 10'

### 14:30 Coffee break

# 14:50 Topical Area #5 - Safety

- Sile Brennan (Ulster University) Safety considerations for the introduction of hydrogen in the gas network, 40'
- Anders Ødegård (SINTEF) Safety at the 10 MW REFHYNE electrolyser, 15'

### 15:50-18:00 Introduction and Visit to Rockheim Museum

### Venue: Quality Hotel Prinsen (Kongens gate 30)

## 18:30 Energy Transition Podcast & aperitif

- Rob Stevens, Topsoe, Norway – Live interview during Energy Transition Podcast with Julius Paul Wesche, NTNU

### 19:30 Dinner



# Day 2: Wednesday 24 April 2024

Venue: Quality Hotel Prinsen (Kongens gate 30)

# 08:30 Registration

### 09:00 Updates from National Hydrogen Research Centres

- Velaug Myrseth Oltedal (HVL) HyValue, Hydrogen Value Chain Research centre, 15'
- Nils Røkke (SINTEF) HYDROGENi hydrogen for net zero 2050, 15'

### 09:35 Topical Area #5 - Safety

- Geir Thorson Solvi (Yara) 24MW electrolysis Pilot plant in Porsgrunn: safety aspects, 15'
- Ranveig Niemi (Safetec) The SAFEN project Probabilistic models for low carbon technologies, 15'
- Anne Marie Lande (USN) Modelling monodispersed water droplets in hydrogen deflagration, 10'

### 10:20 Coffee break

### 10:50 Topical Area #4 – Applications

- Bielenis Villanueva Triana (Soren Hydrogen): Case Study Simulation of Green Hydrogen projects at pre-FEED, 40'
- Marta Bucelli (SINTEF) H2GLASS: Decarbonising the glass industry with hydrogen technologies, 15'
- Shubham Tiwari (IIASA) DAC and Hydrogen based Sustainable Aviation Fuels, 15'

#### 12:05 Topical Area #3 - Storage and distribution

- Vilde Gahr Sturtzel Lunde (IFE/UiO) Magnetocaloric materials for liquefaction of hydrogen, 10'
- Alessandro Campari (NTNU) A Data-driven Approach to Assess the Hydrogen Compatibility of Structural Materials for H2 Transport Pipelines, 10'

### 12:30 Lunch

#### 13:30 Research impact on business

- Lodve Berre (NTNU Technology Transfer) – How research can make a difference in terms of future business opportunities, 15'

### 13:45 Topical Area #2 - Production

- Øyvind Lindgård (NTNU) Degradation and performance of catalytic layers for water electrolysis, 10'
- Sabuj Bhattacharya (Hydrogen Solutions) RAMS & Digitalization of Hydrogen production plant, 15'
- Lucas Cammann (NTNU) Control for flexible operation of alkaline water electrolysis, 10'

# 14:15 Coffee break

# 14:45 Topical Area #2 - Production

- Torbjørn Egeland-Eriksen (NORCE/UiO) Green hydrogen production from offshore wind power, 10'
- Megan Heath (NTNU) Ruthenate pyrochlores as anodic electrocatalysts in PEM water electrolysers, 10'
- Tomasz Adam Skrzydlo (UiS) Catalytic cracking of methane, 10'

### 15:20 Topical Area #1 - Society and environment

- Claudia Siew Wan Cheng (UiT) Green shipping corridor in Arctic Norway, 10'
- Federico Ustolin (NTNU) Hydrogen Energy Technologies: a PhD course developed in HySchool, 15'

### 15:50 Closing remarks

### 18:30 Mingling & aperitif (for internal participants only)

## 19:30 Dinner (for internal participants only)



# Day 3: Thursday 25 April 2024

There will only be internal meetings and workshops for the admitted students and the consortium this day.

Venue: Quality Hotel Prinsen (Kongens gate 30)		
09:00 Cecilie Nordbotten (UiB) – How to build your CV (Part 1)	09:00 Joint meeting for PMT & Board	
10:00 Coffee break		
10:30 Cecilie Nordbotten (UiB) –  How to build your CV (Part 2)	10:30 HySchool board meeting	
12:00: Lunch		
13:00 Anne-Grete Kaldahl (UiB) – Introduction to rhetoric		
15:00 Closing with coffee and refreshments		
15:30 End of HySchool Days		

