

PROGRAM – FINAL DRAFT

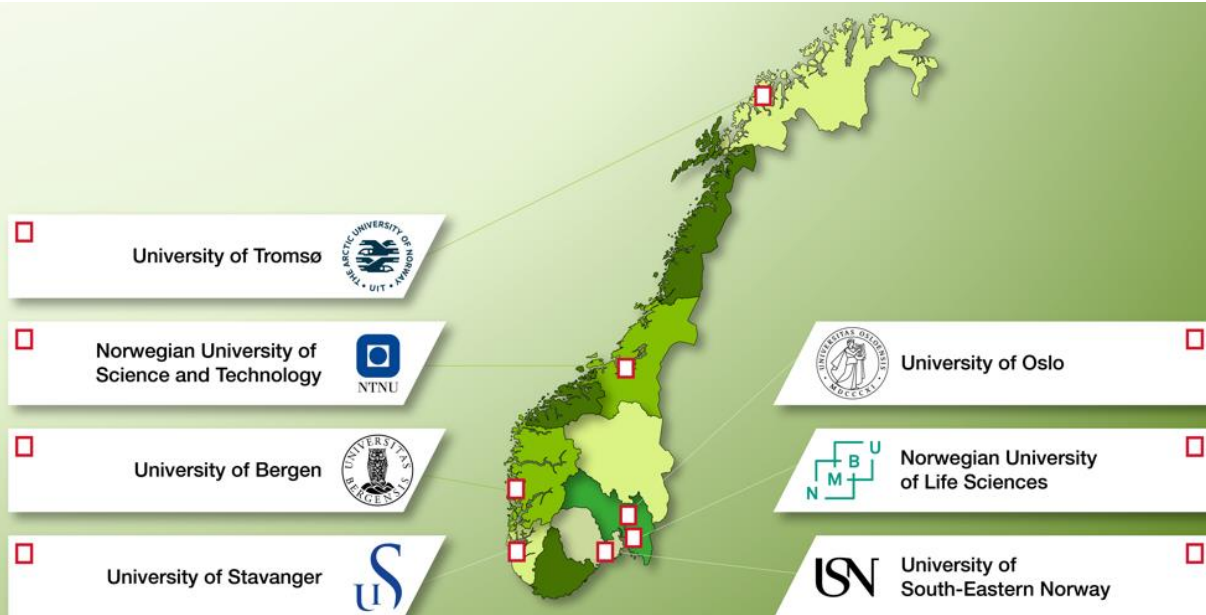
Updated: 27 February 2023 @ 18:00



HySchool Days 2023

8-9 March 2023

Venue: Hotel Scandic Ørnen, Lars Hilles gate 18, 5008 Bergen, Norway



Day 1: Wednesday 8 March 2023

08:30-09:00: Registration

09:00-10:00: **Opening session** – Chair: Trygve Skjold (UiB)

09:00-09:15: Welcome to HySchool. Gunn Mangerud, Trygve Skjold & Merry Ho (UiB)

09:15-09:45: Hydra, World's first LH2 fuelled ship. Ivan Østvik (Norled)

09:45-10:00: UNIDO activities on green hydrogen. Xiaoping Li (UNIDO)

10:00-10:30: Coffee & Refreshments

10:30-11:30: **Hydrogen as energy carrier in society – research activities in Norway** – Chair: Ove Njå (UiS)

- 10:30-11:30: Short presentations and round-table discussion moderated by Ove Njå (UiS) & Hilde Venvik (NTNU)
- An overlook at public funded hydrogen research, **Åse Slagtern** (Research Council of Norway)
 - FME HYDROGENi. **Stefania Gardarsdottir** (SINTEF)
 - FME HyValue. **Jonas Solbakken** (NORCE)
 - FME MoZEES. **Øystein Ulleberg** (IFE)

11:30-12:30: **Topical Area #1 – Society and environment** – Chair: Ove Njå (UiS)

11:30-12:00: How to regulate hydrogen in society? **Geir Sverre Braut** (Stavanger University Hospital)

12:00-12:15: Climate change impacts of e-fuels for aviation in Europe under present day conditions and future policy scenarios. **Vedant Ballal** (NTNU)

12:15-12:30: Climate impacts hydrogen-based biofuels. **Marcos Djun Barbosa Watanabe** (NTNU)

12:30-13:30: Lunch

13:30-15:30: **Topical Area #2 – Production** – Chair: Hilde Johnsen Venvik (NTNU)

13:30-13:45: Hydrogen value chains in Equinor. **Sylvi Høiland** (Equinor)

13:45-14:15: Comparing optimal operational strategies for alkaline electrolysis systems under consideration of a probabilistic wind power distribution. **Lucas Cammann** (NTNU)

14:15-14:45: Permascand - Supplier of key electrochemical components for green hydrogen. **Fredrik Herlitz** (Permascand)

14:45-15:15: Exploring the synergy of DFT and volcano plot analysis for the discovery of innovative catalysts in CO₂ hydrogenation. **Mohamed Safy** (UiO)

15:15-15:30: The process-chain biomass-hydrogen-methanol BM-H₂-MeOH. **Fritz Richarts** (BPR Büro Prof. Richarts)

15:30-16:00: Coffee & Refreshments

16:00-18:00: **Topical Area #3 – Storage and distribution** – Chair: Sabrina Sartori (UiO)

16:00-16:45: Hydrogen storage in metal hydrides: challenges and possibilities. **Stefano Deledda** (IFE)

16:45-17:15: Hydrogen subsurface storage. **Silvan Hoth** (Equinor)

17:15-17:45: Hydrogen storage in metal hydrides: A perspective on lab vs scale up. **Emil Høj Jensen** (UiO)

17:45-18:00: Understanding structure and dynamics of H₂ storage in hydrogen-rich alloys. **Abhishek Banerjee** (UiS)

18:00-19:30: Mingling / poster session / free time

19:30-23:00: Dinner @ Scandic Ørnen, Lars Hillesgate 18, 5008 Bergen

Day 2: Thursday 9 March 2023

08:00-08:30: Registration
08:30-10:00: Topical Area #4 – Applications – Chair: Knut Vågsæther (USN) 08:30-09:00: <i>Hydrogen for net zero steel production</i> . Alaa Faid (Equinor) 09:00-09:30: <i>Introduction to Korean hydrogen industry</i> . Jihye Park (Hyundai Motor Group) – via Teams 09:30-09:45: <i>Accelerating the transition to a net-zero ocean space using fuel-flexible fuel cells</i> . Sarmad Saeed (Alma Clean Power) 09:45-10:00: <i>TECO 2030 development and manufacturing of PEM fuel cells</i> . Fredrik Aarskog (TECO 2030)
10:00-10:30: Coffee & Refreshments
10:30-12:30: Topical Area #5 – Safety – Chair: Nicola Paltrinieri (NTNU) <u>10:30-11:00</u> : <i>The vapour cloud explosion of hydrogen and hydrogen-methane mixtures</i> . Ernesto Salzano (University of Bologna) <u>11:00-11:15</u> : <i>Challenges and solutions regarding safety of hydrogen production, storage and transportation</i> . Kees van Wingerden (Vysus Group) <u>11:15-11:30</u> : <i>Simulation of hydrogen explosions</i> . Melodia Lucas (UiB & Gexcon) <u>11:30-11:45</u> : <i>Risk perception towards hydrogen fuelling stations: The role of accident awareness</i> . Toshiyuki Yamamoto (Nagoya University) <u>11:45-12:00</u> : <i>Performance of hydrogen storage components exposed to fire</i> . Alice Schiaroli (NTNU) <u>12:00-12:30</u> : <i>Factors driving cost-efficient safety design of hydrogen facilities</i> . Ingar Fossan (Safetec Nordic)
12:30-13:30: Lunch
<p style="text-align: center;"><u>13:30</u> – End of HySchool Days 2023</p>
13:45-15:00: HySchool board meeting (Board members ONLY)



Day 0: Tuesday 7 March

NOTE: This day is reserved for internal meetings in the consortium, including a workshop for the planning a new PhD course ('HySchool900') and individual follow-up of admitted PhD students, as well as closed meetings for admitted student and supervisors/lecturers.

<u>10:00-12:30:</u> Registration	<u>10:30-12:30:</u> Coffee & mingling (for early arrivals)	<u>11:00-12:30:</u> PMT meeting (PMT members ONLY)
	<u>12:30-13:30:</u> LUNCH	
<u>13:30-15:30:</u> Internal workshop New PhD course ('HySchool900'), Individual follow-up of students, etc.		
<u>15:30-16:00:</u> Coffee & refreshments		
<u>16:00-18:00:</u> Student forum (Admitted PhD students & Coordinator ONLY)	<u>16:00-18:00:</u> Supervisor forum (Supervisors & Lecturers ONLY)	
<u>18:00-19:30:</u> Mingling / posters / free time		
<u>19:30-23:00:</u> Dinner @ Bien Centro Nordahl Bruns gate 9, 5014 Bergen		

List of participants

The table below lists the information registered for each participant¹. Please contact HySchool if you notice something that should be corrected in the table: hyschool@uib.no

PARTICIPANTS <i>Name / Affiliation</i>	Tuesday (internal meetings)				Wednesday			Thursday	
	PMT	Lunch	Dinner	Accom.	Lunch	Dinner	Accom.	Lunch	Board
Abhishek Banerjee / UiS	0	1	1	1	1	1	1	1	0
Abhishek Subedi / NTNU	0	0	0	0	1	1	0	1	0
Agnieszka Lach / USN	0	0	0	0	1	1	0	1	0
Alessandro Campari / NTNU	0	1	1	1	1	1	1	1	1
Alice Schiaroli / NTNU	0	1	1	1	1	1	1	1	1
Alaa Faid / Equinor	0	0	0	0	1	1	0	1	0
Amalie Norland / UiB	0	0	0	0	1	0	0	1	0
André Vagner Gaathaug / USN	0	1	1	1	1	1	1	1	1
Andrine Hildershavn / UiB	0	0	0	0	1	0	0	1	0
Ann Louise Egelandstal / HVL&UiB	0	0	0	0	1	0	0	1	
Anna Pykhtina / USN	0	1	1	1	1	1	1	1	0
Bjørn Arntzen / UiB	0	0	0	0	1	1	0	1	0
Brynhild Stavland / UiS	0	1	1	1	1	1	1	1	0
Claudia Cheng / UIT	0	1	1	1	1	1	1	1	0
Dimitrios Tzioutzios / NTNU	0	1	1	0	1	1	0	1	0
Efthymia Derempouka / UiB	0	1	1	0	1	1	0	1	0
Emil Høj Jensen / UiO	0	1	1	1	1	1	1	1	0
Ernesto Salzano / University of Bologna	0	0	0	0	0	1	0	1	0
Farhana Yasmine Tuhi / NTNU	0	1	1	1	1	1	1	1	0
Federica Tamburini / NTNU	0	1	1	1	1	1	1	1	0
Federico Ustolin / NTNU	0			1	1	0	0	0	0
Francesco Cherubini / NTNU	0	0	1	1	1	1	1	1	0
Fredrik Herlitz / Permascand	0	0	0	0	1	1	0	0	0
Fredrik Aarskog / TECO 2030	0	0	0	0	1	1	0	1	0
Fritz Richarts / BPR Büro Prof. Richarts	0	0	0	0	1	0	0	1	0
Geir Sverre Braut / Stavanger University Hospital	0	0	0	0	1	0	0	0	0
Giulia Collina / NTNU	0	1	1	1	1	1	1	1	0
Gunn Mangerud / UiB	0	0	0	0	0	0	0	0	0
Haohui Yin / Nagoya University	0	0	0	0	0	0	0	1	0
Hilde Venvik / NTNU	1	1	1	1	1	1	1	1	0
Hitomi Sato / Nagoya University	0	0	0	0	0	0	0	1	0
Håvard Heldal / HVL & UiB	0	0	0	0	1	0	0	1	0
Ingar Fossan / Safetec Nordic	0	0	0	0	1	1	1	1	0

¹ **NOTE:** The columns for accommodation (Accom.) in the table indicate whether HySchool (UiB) will book rooms and cover the associated costs for the respective participants. This is only relevant for PHD students admitted to the research school and a handful of others (by invitation only; these participants should not book accommodation separately). *All other participants must organise their own accommodation, and all participants must cover their own travel expenses.*

PARTICIPANTS <i>Name / Affiliation</i>	Tuesday (internal meetings)				Wednesday			Thursday	
	PMT	Lunch	Dinner	Accom.	Lunch	Dinner	Accom.	Lunch	Board
Moritz Langhorst / NTNU	0	0	0	0	1	1	0	1	0
Murat Gokcek / Nigde Omer Halisdemir University	0	0	0	0	1	1	0	1	0
Nelly Sandstå / UiB	0	0	0	0	1	0	0	1	0
Nicola Paltrinieri / NTNU	1	1	1	0	1	1	0	1	0
Ning Huan / Nagoya University	0	0	0	0	0	0	0	1	0
Olena Zavorotynska / UiS	0	1	1	1	1	1	1	1	1
Ove Njå / UiS	1	1	1	1	1	1	1	1	0
Oznur Begum Gokcek / Nigde Omer Halisdemir University	0	0	0	0	1	1	0	1	0
Petar Bosnic / USN	0	1	1	1	1	1	1	1	0
Reyhaneh Banihabib / UiS	0	1	1	1	1	1	1	1	0
Roser Sala / CIEMAT	0	0	0	0	1	0	0	1	0
Roy Johnsen / NTNU	0	1	1	1	1	1	1	1	1
Sabrina Sartori / UiO	1	1	1	0	1	1	0	1	0
Safiya Adejoh / UiB	0	0	0	0	1	1	0	1	0
Samrat KC / NTNU	0	0	0	0	1	1	0	1	0
Sarmad Saeed / Alma Clean Power	0	0	0	0	1	0	0	1	0
Silvan Hoth / Equinor	0	0	0	0	1	1	0	1	0
Simen Mildal / Norwegian Maritime Authority (NMA)	0	0	0	0	0	1	0	1	0
Stefania Gardarsdottir / SINTEF	0	0	0	0	1	0	0	0	0
Stefano Deledda / IFE	0	0	1	1	1	1	1	1	0
Svein Ove Strandos / Forsvarsmateriell	0	0	0	0	1	0	0	1	0
Sylvi Høiland / Equinor	0	0	0	0	1	0	0	1	0
Teymur Gogiyev / NTNU	0	1	1	1	1	1	1	1	0
Thais Mothe-Diniz / NTNU	0	1	1	1	1	0	0	0	0
Therese Sussmann-Nygaard / Helse Bergen	0	0	0	0	1	1	0	1	0
Toshiyuki Yamamoto / Nagoya University	0	0	0	0	0	1	0	1	0
Trygve Skjold / UiB	1	1	1	0	1	1	1	1	1
Vedant Ballal / NTNU	0	0	0	1	1	1	1	1	0
Velaug Myrseth Oltedal / HVL	0	0	0	0	1	1	0	1	0
Vidar R. Jensen / UiB	0	0	0	0	1	0	0	1	0
Wendpanga Minougou / UiS	0	1	1	1	1	1	1	1	1
Wojciech Kosman / Silesian University of Technology	0	0	0	0	1	1	0	1	0
Xiaoping Li / UNIDO	0	0	0	0	1	1	0	1	0
Yiliu Liu / NTNU	0	0	0	0	0	1	1	1	0
Øystein Ulleberg / IFE	0	0	0	0	1	0	0	0	0
Øyvind Frette / UiB	0	0	0	0	0	0	0	1	1
Åse Slagtern / Research Council of Norway (RCN)	0	0	0	0	1	1	0	0	0