



EuroTech Hydrogen Winter School

6th to 10th October 2025

Hydrogen Meets Carbon: Advanced Pathways for Clean Energy and
Carbon Valorization

About the EuroTech Universities Alliance

The EuroTech Universities Alliance is a strategic partnership of leading European universities of science and technology joining forces to build a strong, sustainable, sovereign, and resilient Europe. The partners bring their excellence in research and education, active engagement in vibrant eco-systems, and service to society. Together, they join forces to accelerate their research in high-tech focus areas and advocate for change through dedicated partners and a strong presence in Brussels.

Based on the EuroTech values, the partners aspire to a new level of cooperation by bringing together their inclusive, diverse, and sustainable campuses. The EuroTech Universities create a unique environment for international talents to lead a new generation of change agents in research, entrepreneurship, industry, and society.

Technical University of Munich

The Technical University of Munich (TUM) is one of Europe's top universities, recognized for its excellence in research, teaching, and innovation. Founded in 1868, TUM has built a strong reputation for combining academic knowledge with practical application. It offers various programs across engineering, natural sciences, life sciences, medicine, and management. With its main campuses in Munich, Garching, and Freising, as well as international locations in places like Singapore, TUM attracts a diverse and talented community of students and researchers from around the globe.

TUM is known for its strong focus on entrepreneurship and its close ties with leading companies and research institutions. It actively promotes interdisciplinary collaboration and sustainability in science and society. As part of Germany's prestigious "Excellence Initiative," TUM regularly ranks among the best universities in the world. Its innovative spirit, international outlook, and commitment to shaping the future make it a unique and inspiring place to study and conduct research.

Winter School 2025

This interdisciplinary Winter School, organized within the EuroTech Universities Alliance, brings together students and early-career researchers from across Europe to explore innovative solutions in clean energy and carbon valorization. The program features expert lectures from leading scientists and professionals, focusing on topics such as hydrogen production and storage, carbon capture and utilization, and integrated energy systems. In addition to academic input, participants will have the opportunity to visit key industrial sites in the region, gaining practical insights into how advanced technologies are applied in real-world contexts. The Winter School encourages cross-institutional exchange and interdisciplinary dialogue, fostering a deeper understanding of the technological, environmental, and economic aspects of the clean energy transition. It offers a valuable platform for building knowledge, expanding professional networks, and exploring collaborative research opportunities in a dynamic and forward-thinking environment.



Simon Meilinger

Doctoral Candidate, TUM
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Working on pyrolysis of plastic waste and other residues in a pilot-scale rotary kiln reactor for the production of base chemicals.



Jonas Brandstetter

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Working on plasma-assisted gasification of biomass and waste for the production of synthesis gas.



Sören Ohmstedt

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Working on the pressurized operation of solid-oxide cells for flexibilization through reversible operation.



Lukas Anthofer

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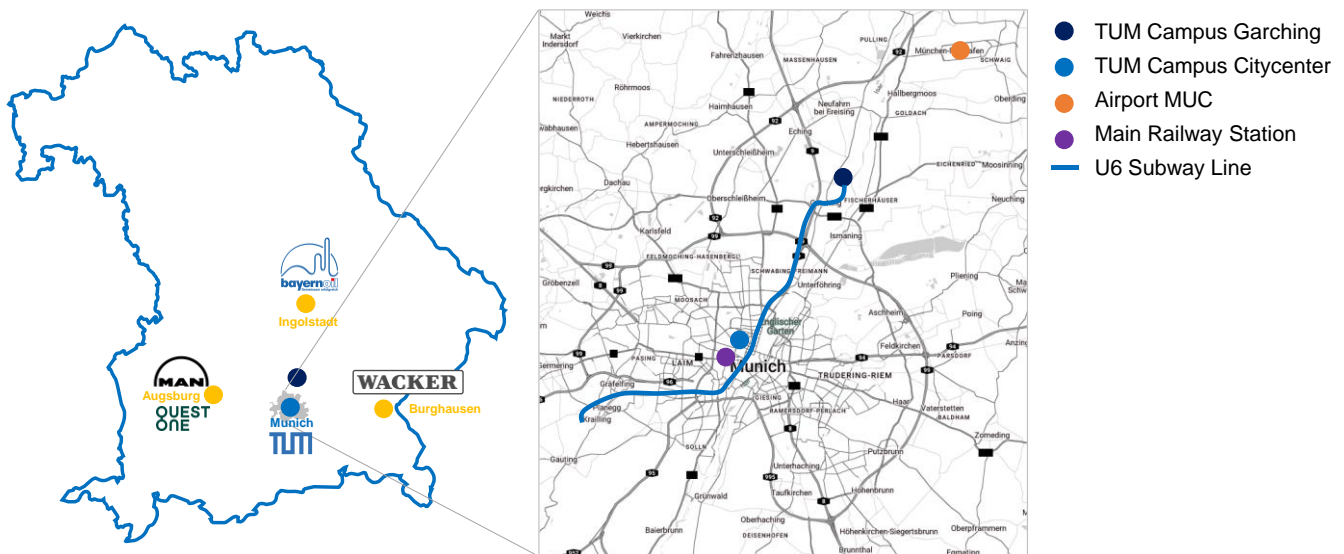
Working on synthesis of methanol via CO₂-hydrogenation with the focus on the process dynamics of a pilot plant.

Locations

We are planning an industrial excursion to a site near Munich as part of the program. One option is to visit well-established companies such as BayernOil or Wacker Chemie, which are actively implementing innovative processes to produce more sustainable products. Alternatively, we may visit a newer company like Quest1, which specializes in producing PEM electrolyzers.

The Winter School at TUM will primarily take place across two campuses. On Monday and Friday, when easy access to public transportation is particularly important, lectures will be held at the TUM City Campus in the heart of Munich. On Tuesday and Wednesday, sessions will occur at the TUM Campus in Garching.

Industrial site visits will also depart from the City Campus. Since public transport between the City Center and Garching (via the U6 subway line) is very convenient, and most social events and dinners will be organized near the city center, we strongly recommend finding accommodation in that area. A list of recommended hotels will be shared in the coming weeks.



Information for Preparation

Arrival & Transportation:

The journey to Munich has to be self-organized and can either be done via train, car or plane. Depending on where you are from one or the other option will suit you best. The main railway station is in the city center of Munich and will give you the best option to use the subway system to get to the locations of the campuses and hotels. The first day we will hold lectures in the city center campus, therefore an arrival by train is recommended. The airport is outside of Munich and provides the option to take city trains (S-Bahn, S1 & S8) to the city center.

In Munich, the transportation is easiest via the subway, trams, and buses. Depending on your self-organization, there are some ticket options to choose from:

- Group Ticket: München Card (5 people for 5 days) → 118,90 €
- Single Ticket: München Card (1 person for 5 days) → 74,90 €
- Deutschlandticket: 1 person for 1 month → 58,00 €

The best option would be to take a group ticket for two or more persons, but you must take all your journeys together. The "Deutschlandticket" is also a good option for a single person; however, booking is difficult as it is a subscription service, and you have to cancel it after the first month.

Stay/Hotels: Hotels have to be booked by yourself as well. A few good options are listed below. These hotels have been selected based on their proximity to the U6 subway line, ensuring easy access to the university campuses. We recommend a hotel fitting your arrival and plans around the EuroTech Hydrogen School.

[Mercure Munich City Schwabing](#)

Price: €1002.00 without breakfast for a double room (for 2 people)
Description: Walking distance to the "Münchner Freiheit" (U6) subway station: approx. 5 minutes. The most expensive hotel on the list.
Google Maps Link

[ibis Munich Parkstadt Schwabing](#)

Price: €754.98 without breakfast for a double room (for 2 people)
Description: Walking distance to the "Nordfriedhof" (U6) subway station: approx. 15 minutes. The cheapest hotel on the list.
Google Maps Link

[Hotel Occam](#)

Price: €920.00 with breakfast for a double room (for 2 people)
Description: Walking distance to the "Münchner Freiheit" (U6) subway station: approx. 5 minutes. Mid-range price.
Google Maps Link

[das HOTEL in Munich](#)

Price: €784.00 without breakfast for a double room (for 2 people)
Description: Walking distance to the "Giselastraße" (U6) subway station: approx. 7 minutes. Lower mid-range price.

What to prepare: For the Hydrogen School, you should bring a short presentation of your current and upcoming research in the form of max. 2 PowerPoint slides and a 3-minute oral presentation. Keep it short and use it to give the other participants a general idea of what you do. Also, bring a **DIN A0 poster** providing information about your research for the informal knowledge exchange during the poster sessions.

General Overview of the week:

Monday	Tuesday	Wednesday	Thursday	Friday
City Center	Garching	Garching	External	City Centre
Arrival	Lectures	Lectures	Excursion I	Lectures
	Coffee Break	Coffee Break		Goodbye Brunch
Greeting	Lectures	Lectures		
Lunch	Lunch	Lunch	Lunch	
Lectures	Lectures	Lab Tour TUM	Excursion II	Departure
Poster Session I	Poster Session II			
Hotel Check-In	Dinner	Free evening	Dinner	
Dinner	Social Event			

MONDAY

11:00 – 12:00

Greeting

TUM Presentation
Dr. Sebastian Fendt

LUNCH

13:15 – 16:00

SESSION 1: Hydrogen for Future Energy Systems

13:15 Lecture 1 (Legislation)

14:00 Lecture 2 (System Studies)

14:45 Lecture 3 (System Studies 2)

COFFEE BREAK

16:00 **Poster Pitch Session (3 min each)**
Speaker: PhD Students

17:00 – 18:00

Poster Session with Pretzels and Drinks

18:00 – 19:00

Hotel Check In

19:00 – 20:30

Dinner

TUESDAY

8:30 – 12:00

Hydrogen Production

08:30 PEM-related topic

09:15 AEL/AEM-related topic

COFFEE BREAK

10:30 SOEL-related topic

Chair: Dr. Florian Kerscher

11:15 Panel Discussion: Role of different Electrolysis Technologies in Hydrogen Production
Speaker 1: (PEM), Speaker 2: (AEM), Speaker 3: (SOEL)

LUNCH BREAK

13:30 – 15:10

Variable Session

13:30 Variable Topic (Storage, Usage, Distribution...)

14:15 Variable Topic (Storage, Usage, Distribution...)

15:00 Variable Topic (Storage, Usage, Distribution...)

COFFEE BREAK

16:00 Poster Pitch Session (3 min each)
Speaker: PhD Students

17:00 – 18:00

Poster Session with Pretzels and Drinks

19:00 – 22:30

Dinner and Social Event

WEDNSDAY

8:30 – 12:00

Carbon-Hydrogen-Connection

08:30 Gasification of Biomass and Waste

09:15 Waste-to-X

COFFEE BREAK

10:00 Power-to-X

Chair: Dr. Sebastian Fendt

11:15 Panel Discussion: Power & Waste to X: Opportunities and Innovations
Speaker 1: (Gasification), Speaker 2: (Waste-to-X) Speaker 3: (Power-to-X)

LUNCH BREAK

13:30 – 17:00

LAB TOUR TUM

13:30 Chair of Energy Systems

14:15 Chair of Technical Electrochemistry

15:00 Computer Center Munich

16:00 ASDEX (Max-Planck-Institute)

THURSDAY

8:00 – 12:00

EXCURSION PART 1

08:00 Departure in Munich

09:30 Industrial Visit 1

12:00 – 13:30

LUNCH BREAK

13:30 – 18:00

EXCURSION PART 2

13:30 Departure Industrial Site 1

14:00 Industrial Visit 2

16:30 Departure Industrial Site 2

18:00 Arrival in Munich
Munich City Campus

18:30 – 20:30

DINNER

FRIDAY

8:30 – 12:00

H2-Application and Entrepreneurship

08:30	H2-Application
09:15	Entrepreneurship
10:00	Open Topic

10:45 – 12:00

BAVARIAN BRUNCH