

unite!

University Network for Innovation,
Technology and Engineering

Unite!

An alliance of 9 European Universities

2 Unite! Blended Intensive Programmes :

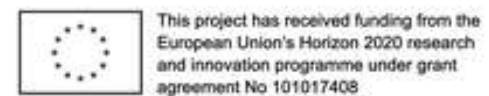
- The U!Train
- The Unite! Research School

Aalto University, Espoo/Helsinki
KTH Royal Institute of Technology, Stockholm

Wrocław Tech
Technical University of Darmstadt
Graz University of Technology
Grenoble INP-UGA
Politecnico di Torino
Universitat Politècnica de Catalunya · BarcelonaTech
Universidade de Lisboa



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U!TRAIN

2024 &
2025 EDITIONS



Blended Intensive Programme

What is the U!Train ? A flagship programme of Unite!

- Combines online preparatory courses, a train journey connecting at least 2 partner universities, and an onsite programme.
- An Interrail pass to promote green mobility
- Engages ~30 students annually from 9 universities in multicultural teamwork and focus themes
- Includes lectures, workshops, hands-on activities, cultural excursions.
- Facilitates practical learning via travel experience, networking, and joint academic credit (3 ECTS)
- Students, professors and organisers from all Unite! universities



2024 Edition - Sustainable Mobility



28 Students from 9 Unite! Universities and 15 nationalities



A total of around 70,000 km of railway covered in two weeks - An interrail card for each student, 8 hours between two cities.



Mapped over 200 issues in the European rail network - Published a Manifesto



Attended lectures and workshops on **sustainable mobility** and **multiculturalism** (online and physical). 30 hours of classes, 3 ECTS



Explored Barcelona and Grenoble with lessons in urban mobility and cultural diversity.



unite!

University Network for Innovation,
Technology and Engineering

UNITE! TRAIN

01 SEPT.
- 07 SEPT.

BARCELONA TO GRENOBLE '24

Blended Intensive Programme





U!TRAIN

DARMSTADT TO GRAZ '25

August 29 - September 5, 2025

Blended Intensive Programme:

Entrepreneurship with a Focus on
Sustainability and Multicultural
Collaboration



Apply on Metacampus
from March 7 to April 7!



2025 Edition - Entrepreneurship



30 Students from 9 Unite! Universities and 16 nationalities



A 10 hours train ride between cities, with on-board activities and interviews with passengers. An interrail card for each student, around 45 000 km covered.



Attended lectures and workshops on **entrepreneurship** and **multiculturalism**, with a final pitch of their start up. 30 hours of classe, 3 ECTS



Explored Darmstadt and Graz, with cultural visits, hikes, cooking classes.



Invited for field visits and networking opportunities in the start-up scene of both universities.



U!TRAIN

2024 &
2025 EDITIONS



Collaborations

2024 edition

- Participation of **Renfe**, Spain's national railway company
- Mapathon activity, mapped 200 key points in the European rail system
- **Manifesto** on European Green Mobility, publication on sustainable transport policy
- Field visit at the **Lautaret Garden**, a high altitude botanical garden of the Université Grenoble Alpes

2025 edition

- Sponsorship from **Futury**, a sustainability/start-up platform
- Collaboration with **StadtLabor** in Graz, an urban innovation lab (Smart Cities visit)
- Welcome event & manufacture visit at **Wingcopter**, a drone start-up
- Networking with Science Park Graz & **Ideentriebwerk**, an incubator & start-up network

U!TRAIN

2024 &
2025 EDITIONS



Metacampus

A shared Unite! LMS for the alliance to facilitate joint courses (Moodle-based and user-friendly)

- For students, teachers, and staff
- Information and online courses
- Assignments and grading
- Accessible via EduGain single sign-on

GLOBAL COMPETENCE & THE CHALLENGE OF DIVERSITY

LIVE SESSION Completion ▾

This course's introductory session will take place online via Zoom on August 19, 3:00 PM CET.

Duration: 120 minutes
Meeting ID: 981 3596 3652
Access Code: UTrain
Direct Zoom link: <https://grenoble-inp.zoom.us/j/98135963652>

Please take a moment to test your camera and audio beforehand to ensure everything runs smoothly.

Looking forward to seeing you online!
Björn Kjellgren and Sophie Bélanger

19 Aug: Global competence & The challenge of diversity Completion ▾

Compensatory assignment, only for those who could not participate in the 19 Aug webinar (deadline 31 Aug) 🔗
Opened: Monday, 25 August 2025, 12:00 AM **Due:** Sunday, 31 August 2025, 11:59 PM

29 Aug - 5 Sep: Cultural reflection journals Completion ▾

2 Sep: Trust & Conflict management Completion ▾

5 Sep: Story circle – listening for understanding Completion ▾

Your Challenge of diversity journal 🔗 Completion ▾
Opened: Sunday, 17 August 2025, 4:32 PM
Due: Sunday, 7 September 2025, 4:32 PM

Idea to Impact: Business Innovation for Unite! Students

IDEA TO IMPACT: BUSINESS INNOVATION

Prerequisites:
Students will gather ideas and inspiration during the Mapathon activity, and will continue working on those ideas in this module.

Idea to Impact

Darmstadt to Graz: U!Train Deutsch Express

DARMSTADT TO GRAZ: U!TRAIN DEUTSCH EXPRESS

HELLO THERE! WELCOME TO UITRAIN DEUTSCH EXPRESS
This is a preparation module that will help to ease you into the German language. To complete the module, just tackle the tasks one by one and have fun discovering and exploring the German language.

Unite! Research School

November 3rd -7th 2025 / Grenoble - French Alps

2nd edition

A one-week research bootcamp
for engineering pioneers

AI & Cybersecurity

Space & Tech

Engineering Biology

Apply here:



The Unite! Research School is
a Blended Intensive Programme
corresponding to 3 ECTS
or 30 training hours.

urs2025@grenoble-inp.fr

Unite! Research School

October 14th -18th 2024 / Grenoble-Autrans, France

Nuclear Engineering

Electrochemical Energy Conversion and Storage

Artificial Intelligence

Industry 4.0

Sustainable Electronics

Unite! Research School

A one-week research bootcamp for : engineering students, professors, researchers and industrial partners

Professors and researchers

- Pedagogical offerings
- Joint projects and programmes
- Community building

Master students

- Learning (3 ECTS) scientific and transversal skills
- Community building
- Research environnement (labs, industry, researchers, PhD)
- Motivational track for doctoral studies

Uniting the research ecosystem of the alliance

Industry leaders

- Innovation with researchers
- Discover talent pool
- Promote their activities

Doctoral students

- Learning (3 ECTS/30 training hours) scientific and transversal skills
- Community building
- Research environnement (labs, industry, researchers, PhD)

Unite! Research School

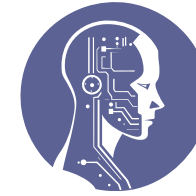
A formula to replicate in the alliance: Pedagogical offerings (scientific disciplinary courses & transferable skills workshops)

UGA ECS

	Monday 3/11	Tuesday 4/11	Wednesday 5/11	Thursday 6/11	Friday 7/11
Breakfast					
8h30		Space & Tech Scientific seminars	Transferable skills	Transferable skills	Check out Transfer to Grenoble
10h00					
Break					
10h30	Arrival in Grenoble	Space & Tech Scientific seminars	Work on Space and Tech challenge	Key notes with industry leaders	Lab and industry visits
12h00					
Lunch					
13h30	Welcome coffee Opening session	Product & Quality Assurance in Space activities	Work on Space and Tech challenge	Panel discussion with industry leaders	Challenge presentation Closing session
15h00	Work on challenge				
Break					
15h30	Transfer to Autrans Check-in at the venue	Unwind café	Transferable skills	Transferable skills	
17h00					
Break					
17h15		Work on challenge		Researchers pitch	
18h45	Ice breaking On-site information	PhD students ONLY: transferable skills (17h45 - 18h15)	Work on Space and Tech challenge		Departure from Grenoble
Dinner					
20h30	Welcome drink Dinner	PhD and researchers testimonies evening	Work on challenge Star gazing night	Dancing night	

Provisional Timeline for Space & Tech students

Disciplinary (pick one)



Artificial intelligence
& Cybersecurity



Vascularized
Organoids



Games for
Health



Space & Tech

Transferable skills (PhD & Master)



Confidence:
staying a
masterful
researcher in
the age of A.I.



Empowering
futuristic minds
for responsible
innovations



Open science :
putting policy
into practice

Transferable skills (PhD)



Resilient Minds, Sustainable
Careers: Cultivating Mental
Wellbeing in Research Life



Unite! Doctoral students Peer
Mentoring

Tools for research



Chat GPT for
research



Electronic Lab
notebook

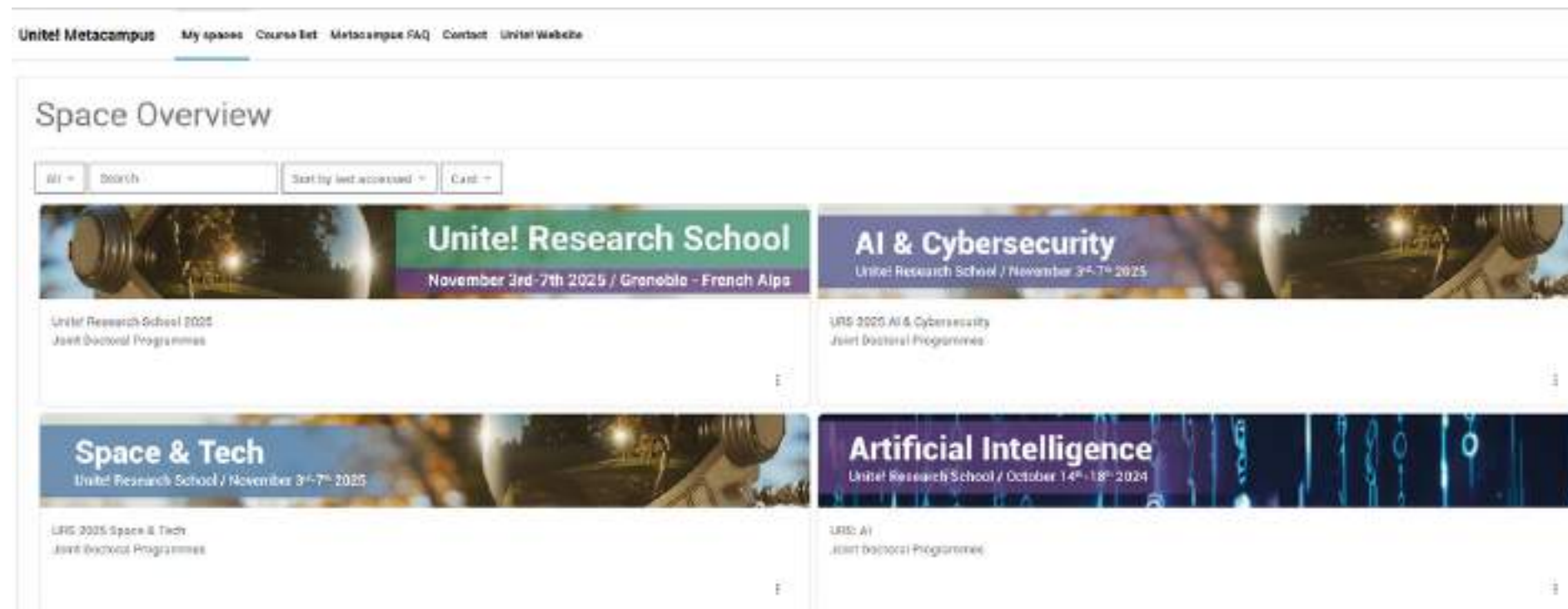


Chatbot – a modern
researcher's tool

2 months online, 1 week in person

Unite! Research School

A formula to replicate in the alliance: metacampus



Metacampus : an alliance LMS (moodle based) with many assets:

Student applications (forms, CV, ToR)

Pedagogical material such as videos, articles, quizzes, assignments, notifications

Downloadable grades and plug-in for different courses



Unite! Research School

A formula to replicate in the alliance: PhD and researchers testimonies, poster night, researchers meetings



*PhD and
researchers
testimonies
(experience)*



Marie Charlotte Neumann
Surface Science Laboratory, Prof. Jan Philipp Hofmann
Technical University of Darmstadt
Contact: mneumann@surface.tu-darmstadt.de



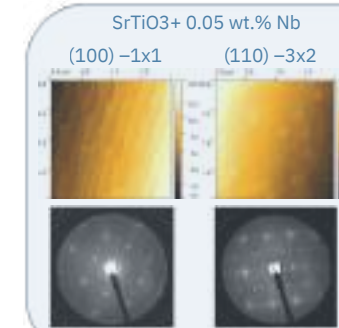
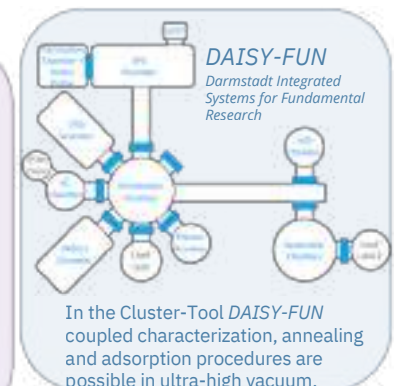
**Water adsorption on single crystal perovskites
towards Fermi Level Engineering for the OER**

What is Fermi Level Engineering?

The OER introduces large overpotentials in water electrolysis because of its sluggish kinetics due to the four-electron transfer process. By heterovalent substitution in oxide electroceramics (doping), different compensation mechanisms (electronic, ionic, valence changes...) can be enabled. They influence the OER. The collaborative research center FLAIR is working on predicting and applying these different compensation mechanisms.

We propose that the Fermi Level can be used as a universal descriptor for these compensation mechanisms and will be integral for creating efficient and stable perovskite OER catalysts

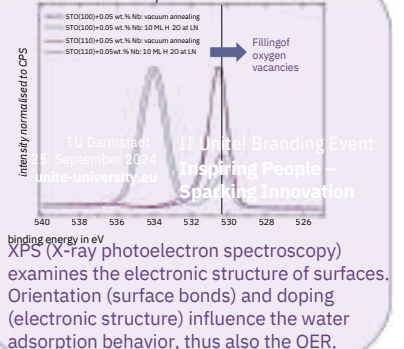
in the future on the principles of Fermi Level engineering.



Why single crystals?
Clean and ordered surfaces can be prepared by etching and annealing.

By AFM (Atomic force microscopy) and LEED (Low energy electron diffraction) defined adsorption sites are identified.

Water adsorption on SrTiO₃

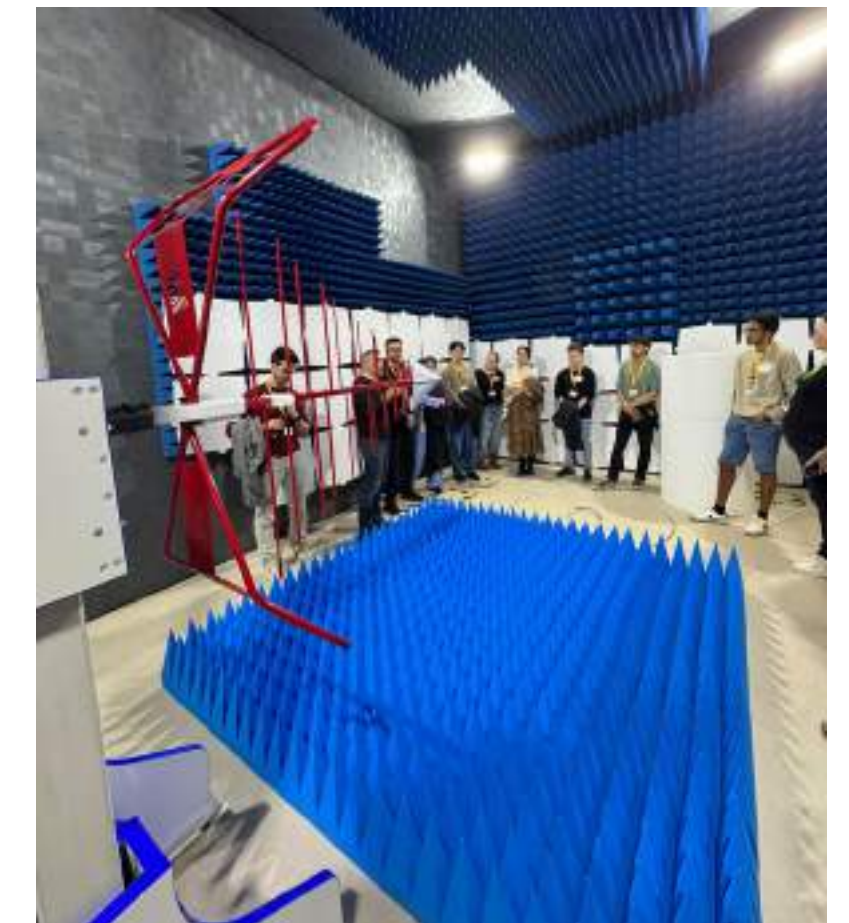
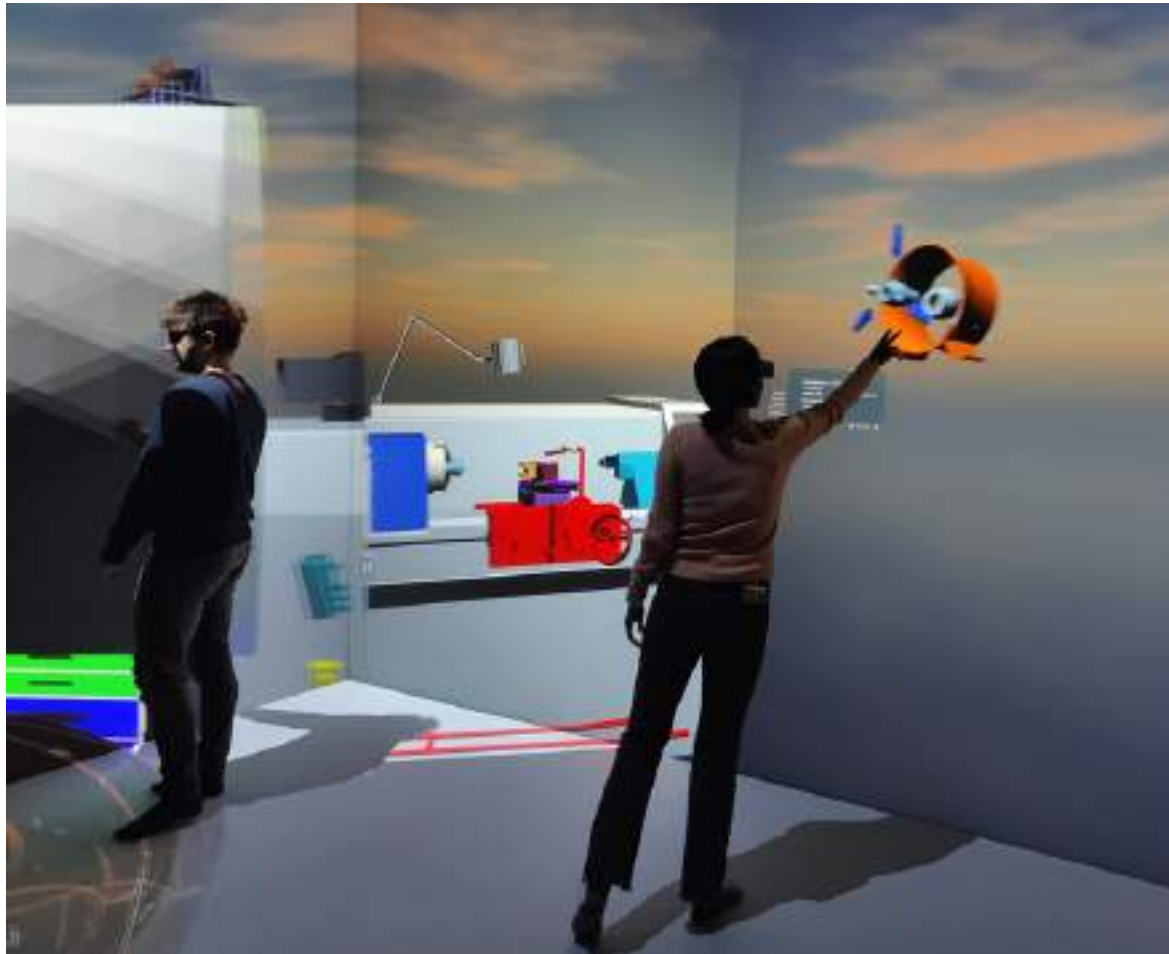


Research poster

Researchers meetings (joint projects, programmes and supervision)

Unite! Research School

A formula to replicate in the alliance: Industry keynotes, panel discussions, lab/industry visits, recrutements



Unite! Research School

A formula to replicate in the alliance



2024 edition :

193 participants

127 Mcs + PhDs

66 Researchers and staff

35 nationalities

9 universities

8 industry & labs involved



2025 edition :

+ 200 participants

9 universities

18 industry & labs involved



2026 edition :

In Torino

Sustainable
cities and water

AI

and more...

unite!





unite!

University Network for Innovation,
Technology and Engineering



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