# Unite! Unite! What's in it for me?

IX Unite! Dialogue

Think Beyond: Unite! for Collective and Sustainable Impact

Graz University of Technology | 27—29 February 2024





















**Horst Bischof** 

Rector TU Graz





### **Mario Fallast**

#### Moderator

Research & Technology House, TU Graz



IX Unite! Dialogue at TU Graz
Unite! Unite! What's in it for me?

FOR ALL

### Welcome to Unite!

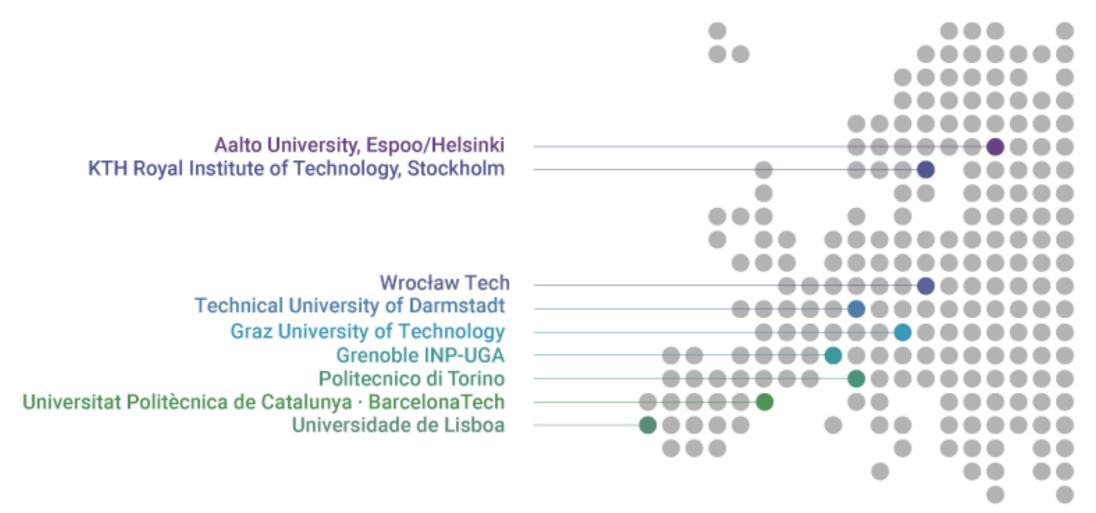
Anshika Suri

Unite! Deputy Secretary General





Unite!, a European University Alliance, a driving force for technology and innovation addressing the digital and green transition through transdisciplinary research and education

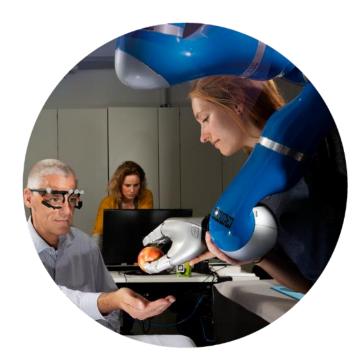


#### What does Unite! do?





- ✓ New formats of teaching
- √ Sharing resources & services



**Joint Research** 

- ✓ Exchange with colleagues
- ✓ Enables new consortia
- √ Focus topics: Sustainable Energy, Industry 4.0, AI & Entrepreneurship



unite!

**Student Activities** 

- ✓ A new way of studying
- ✓ European experience
- ✓ Interesting courses

#### **Unite!: New Projects**







- 9 Unite! universities + 4 partners from Portugal and Poland
- Strengthen R&I in Unite!



Unite.Energy (2024-27): Marie Skłodowska-Curie Action- MSCA EU project

- Doctoral network, 10 associated partners from the private sector
- Optimise the use of hydrogen for storing excess electrical energy



GreenChips-EDU (2024-26): Digital Europe Programme from EU

- 5 Unite! Partners
- Digitally-Supported Education Ecosystem for Next Generation Microelectronics Experts in Sustainable Chips
- Applications for a Green & Circular Economy



#### Unite! Seed Fund Initiative

#### Unite! Seed fund initiative aims:

- Provide financial support to innovative, co-creative & collaborative ideas across Unite! alliance
- Support the formation of new cooperations & further develop already active collaborations—across Unite! (at least 3 Unite! Partner universities)
- Activate bottom-up collaborations with an aim towards sustainable follow up activities
- 3 funding measures: Teaching & Learning, Research &PhD, Student Activities



#### unite!

#### Unite! invites you to join us!



www.unite-university.eu



unite@tu-darmstadt.de



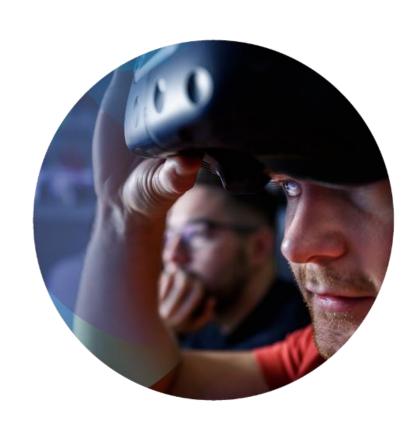
@uniteuniversity



@Unite\_tech\_univ



**Unite!** 



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### Welcome to Unite!

Anshika Suri

Unite! Deputy Secretary General



# Fit for Metacampus Unite!'s federated learning management system



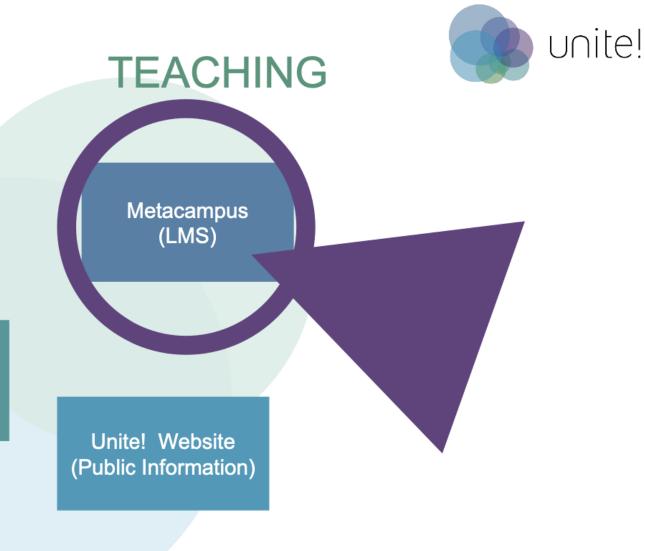
Martin Ebner, TU Graz

Community 2 – Digital Campus

### RESEARCH AND MANAGEMENT

Unite! Ushare (Shared Data Management)

Agora (Business Management System)



#### DIGITAL CAMPUS

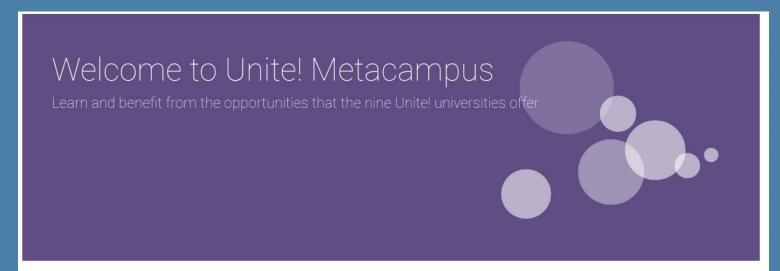
Central IT infrastructures (current version July 2023)

COMMUNICATION



Metacampus (federated learning management system)

### Metacampus

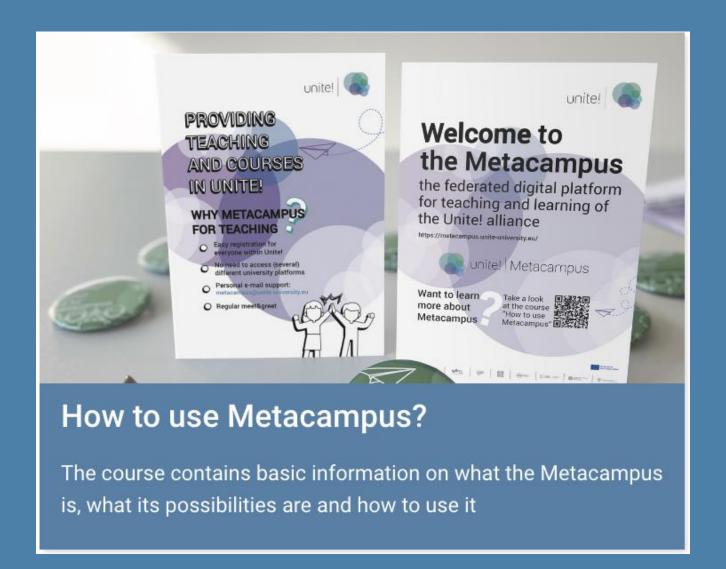








### How to use the Metacampus?



### Join "How to use the Metacampus?"!









SCAN ME

#### TAKE THE QUIZ

& GET THE
ONLINE BADGE
"FIT FOR
METACAMPUS"!



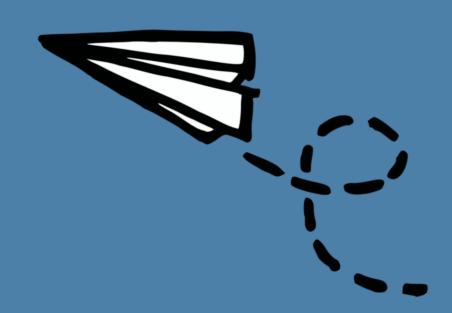
## GET THE REAL WORLD VERSION AS WELL





SCAN ME

# AT THE METACAMPUS STAND





SCAN ME

### **BUT WHY?**





LEARN ABOUT THE METACAMPUS



SCAN ME



# 2. SHOW YOUR EXPERTISE



SCAN ME









## metacampus @unite-university.eu



#### Welcome to the Metacampus

the federated digital platform for teaching and learning of



Take a look at the course "How to use







# Fit for Metacampus Unite!'s federated learning management system



Martin Ebner, TU Graz

Community 2 – Digital Campus

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FOR ALL

# Unite! Agora for All Empowering Collaboration

Jesus Alcober, UPC

Community 2 – Digital Campus

### Unite! Agora for All

unite!

University Network for Innovation, Technology and Engineering

#### **Empowering Collaboration**

Unite! Agora platform is where all Unite! members can work together.

You can find **help**, **share** what you know, and get **support** for Unite!'s main **goals**.

Agora, the Website, Metacampus, and Ushare form the Unite! Digital Campus.

- Home credentials authentication
- R&I Collaboration
- Research Infrastructures
- Enquiries about Digital Campus and other forms
- Faculty and Staff
- Welcome, Inclusion, Well-being
- Internships
- Events
- Reading Club
- SURE
- Space Tech Unite!
- Online Toolkit

#### Powered by the aUPaEU project



This project has received funding from the Horizon
Europe Framework Programme under Grant Agreement
No 101095314



















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# Unite! Agora for All Empowering Collaboration

Jesus Alcober, UPC

Community 2 – Digital Campus



# U! Train Blended Intensive Programme

Elisa Hausherr, Grenoble INP-UGA

Community 5 – Flexible Educational Offerings

#### **Blended Intensive Programme**

UNITE: 01 SEPT. -07 SEPT.

**BARCELONA TO GRENOBLE '24** 























What is the U!Train? An exciting Unite! course on green travel, set to depart on September 1st, 2024, until September 7th.

Thirty students will embark on a unique multicultural experience, traveling by train from UPC Barcelona to Grenoble INP-UGA, engaging in diverse non-academic activities, team-building exercises, and academic work.

The **Blended Intensive Program**, including virtual studies before or after the train, is worth **3 credits (ECTS)**. The themes of course are **Green Mobility** (daily mobility challenges, rail-based logistics, public transport economics...) and **Intercultural Competencies**...

#### **HOW TO PARTICIPATE**

Applications will be open from March 7th to April 7th, 2024, on the Unite! website.

#### **Requirements:**

- Enrollment in a Unite! university undergraduate or graduate programme.
- General interest in sustainable travel and interdisciplinary training.
- Proficiency in English and an interest in multicultural experiences.



# U! Train Blended Intensive Programme

Elisa Hausherr, Grenoble INP-UGA

Community 5 – Flexible Educational Offerings



## Unite! Competencies for Collaborative Teaching in Joint Programmes (Blended Intensive Programme)

Arnold Pears, KTH

Community 4 – Innovative Teaching & Learning



## Join the educational revolution through a Blended Intensive Programme at KTH Stockholm!

Be inspired

Be the future of education!





#### Join us in Stockholm 26-30 August 2024

#### Register here!



Or Contact: Elizabeth Keller ekeller@kth.se



# Unite! Competencies for Collaborative Teaching in Joint Programmes (Blended Intensive Programme)

Arnold Pears, KTH

Community 4 – Innovative Teaching & Learning



# Faculty & Staff Showcase

One place to find everything Unite! has in store for you!

Barbara Guyomarch, Grenoble INP-UGA

Community 6 – Professional Development & Training

# One place to find everything Unite! offers to Faculty & Staff

= an online plateform set up by Cm.6 (professional development & training)

TRAININGS	GO ABROAD / MOBILITY	MEET YOUR PEERS	SUPPORT CORNER	WELL-BEING AT WORK
Training catalogue	Staff weeks	Join the Social Clubs	Young researchers' guide	Definition
	Visiting professorship			
	Mobility testimonials			
	Feedback form			

Main entry point: https://www.unite-university.eu/unite-staff



















# Check out, get inspired, participate, share & spread the word!









Staff week: Smart University -Al and Human perspective

15th-19th April 2024

Wroclaw Tech



Staff week CLUSTER Universities: how to organise **Blended Intensive Programmes** 

4th March online + 15-19th April 2024 on-site

Leuven (Belgium)

Organised by Leuven, UPC & KTH



**Beyond Borders: Staff Week &** Job Shadowing Experience in Graz

22th - 24th May 2024

TU Graz

### Participative

#### management, involvement

- Collaborative work
  - Respectful leadership
  - · Team work

#### Work-life balance

- Remote office flexibility and guidelines
  - Right to disconnect
  - Working hours flexibility

**Unite!** 

wellbeing

at work

#### Social life at work

- Sense of community / Sense of belonging
- Face-to-face meetings / not remote contact only

#### Skills, career path, recognition

 Feedback and recognition Individual and collective/team recognition

 Chosen professional development

#### **Professional** equity, inclusion

- Gender equality
- Disability inclusion

#### Work content

- Meaningful job
- Job satisfaction
- Need to focus and prioritise / Avoid excessive
  - solicitation
  - Manageable workload

#### Health at work

Physical & psychological safety Comfortable physical working environment

 Primary needs satisfaction (access to food, water, etc.)

Stress limitation





















# Your Cm. produces material for Faculty & Staff? Get in touch & publish on the showcase. Together, let's Unite!

Well-being

Mental stark durch den Tag / Mentally strong throughout the day (online, German) March 2024 Pedagogy

Beyond words: exploring the use of non-verbal communication when teaching - April 2024

Staff weeks / Mobility

STAFF WEEK: Beyond Borders: Staff Week & Job Shadowing Experience in Graz - May 2024

Professional growth

Design a Meaningful Career, MOOC

Multiculturalism, EU & Languages

Faculty & Staff training catalogue

Finland Works, MOOC

### **Unite! Young researchers' career corner**

If you landed here, you likely are a (young) researcher or your work involves supporting researchers' professional development. Whatever the case, we would like to welcome you to our page, where you will be able to navigate through the professional training that the UNITE! Partners annually offer to their researchers and where you will find a UNITE! Career Guide for Young Researchers

Young Researchers Training Programme and Tools

**Contact: Barbara Guyomarch** Cm.6 Project Manager barbara.guyomarch@grenoble-inp.fr

Young researchers career guide

















Learn more





# Faculty & Staff Showcase

One place to find everything Unite! has in store for you!

Barbara Guyomarch, Grenoble INP-UGA

Community 6 – Professional Development & Training

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# Wellbeing Buddies

Didac Ferrer, UPC

Community 3 – Inclusion, Diversity & Well-being

## To be unite, we need to feel well!

#### Why Wellbeing buddies?

Improve wellbeing through mutual help within the Unite!
Community

**Expand good practices** on wellbeing by experiencing them.

#### How does it work?



**Find offers from Unite! Colleagues who are experts in Wellbeing.** They can offer you ideas, activities and support.



**Users of this service are 'Uniters':** You can ask support for improving wellbeing before, during or after the Unite! Activities.



**All information in the Agora platform.** These offers will evolve, and we hope that the number of buddies will increase in the future. Maybe you can also become a buddy?

CM3 Inclusion, diversity and wellbeing T3.7 Organizing Well-being Specific Support Programs



Body & mind connection



Recovering Breaks



Mental clarity & emotional peace



Panic attack



Stress management & Mindfulness practices



Collaboration

## I need help I want to be a buddy



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# Wellbeing Buddies

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Community 3 – Inclusion, Diversity & Well-being



# Unite! Guest Professorship Programme @TUDa

Jana Freihöfer Key Liaison Officer TUDa

# Unite! Guest Professors @TUDa



### Aims & Objectives

- Networking & exchange
- New teaching & research collaborations

#### General conditions

- Guest professors offer supplementary (elective) courses at TUDa - ideally with new topics!
- Open to all subjects represented at TUDa
- Up to 13 visiting professorships

### Requirements & target group

- Experienced post-doctoral researchers or other advanced career phase (senior lecturers, researchers, professors...)
- Affiliated to Unite! partner universities

### Financing

- The costs fully covered by **TUDa** (for WS 2024/25 50% centrally, 50% from the faculties)
- For longer periods costs fully covered from faculties
- The monthly gross income for visiting professors is € 6.630 plus approx. 20% employer's social security contributions.



# Unite! Guest Professors @TUDa



### Application procedure

- Candidates reaching out to relevant Departments
   @TUDa:
  - Short expression of interest incl. information about the added value of teaching at TUDa and for Unite!
  - Academic CV
  - Doctoral certificate
  - Postdoc qualification to teach at professorial level (if any)
- Interested Departments @TUDa submitting the application:
  - Received application material
  - A proposal in form of a recommendation letter
     (max. 1 1 ½ pages) at <u>unite@tu-darmstadt.de</u>

### Timeline

- WS 2024/2025 (from mid-Oct. to mid-Feb)
- The term is variable, up to a max. 2 years
- Application deadline March 31<sup>st</sup>, 2024
- The selection by May 31<sup>st</sup>, 2024

#### Further information

- Unite! website
- Unite! Key Liaison Officers @your home universities
- By email:
  - Dr. Nebojsa Camprag, TUDa, nebojsa.camprag@tu-darmstadt.de



# Unite! Guest Professorship Programme @TUDa

Jana Freihöfer Key Liaison Officer TUDa

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# Language & Culture for Global Minds

Isabel Landsiedler, TU Graz

Community 4 – Innovative Teaching & Learning



# Language and Culture for Global Minds











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# Language & Culture for Global Minds

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# Connect and Search — Collaborate and Engage!

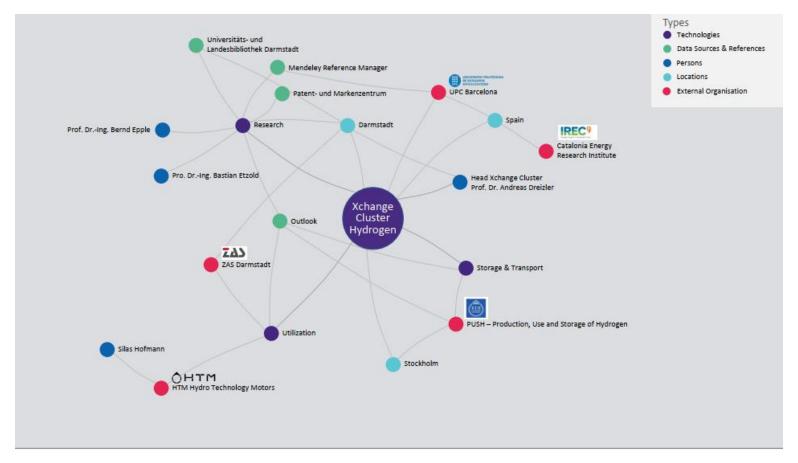
Jessica Retzlaff, TUDa

Unite! Seed Fund, Funding Line: Research & PhD



# Connect and Search – Collaborate and Engage!

Narrowing the business-academia gap with a knowledge graph



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# Connect and Search — Collaborate and Engage!

Jessica Retzlaff, TUDa

Unite! Seed Fund, Funding Line: Research & PhD



# Freshmen Math Anxiety Evaluation

Gerhard Dorn & Michael Fuchs

Unite! Seed Fund, Funding Line: Teaching & Learning



## Who?

- Graz University of Technology (Philipp, Gerhard, Michael)
- Universidade de Lisboa (Rogerio)
- Wrocław University of Science and Technology (Elżbieta, Adam)
- •TBA ∠⇒ this could be you



## How? STEP 1

# Survey for Unite! students to assess their level of math anxiety Distinguishing between

- learning math anxiety (LMA) and
- math evaluation anxiety (MEA)

GOAL: create a math anxiety map and investigate teaching actions to reduce math anxiety



## How? STEP 2

What are the math skills when entering university? Project idea for Tunite!Seed developing project

GOAL: Let's measure freshmen math skills within Unite! network



## How? STEP 3

### How do we teach math in Europe?

Project idea for Project Unite!Seed developing project

**GOAL:** Let's unite our math lecturers and share the best ways to teach math in 21st century



### Call to action:

Try out the demo survey and give us feedback



https://unite.limesurvey.net/874639

**Help us** to roll out the survey in your course / at your university



# Freshmen Math Anxiety Evaluation

Gerhard Dorn & Michael Fuchs

Unite! Seed Fund, Funding Line: Teaching & Learning



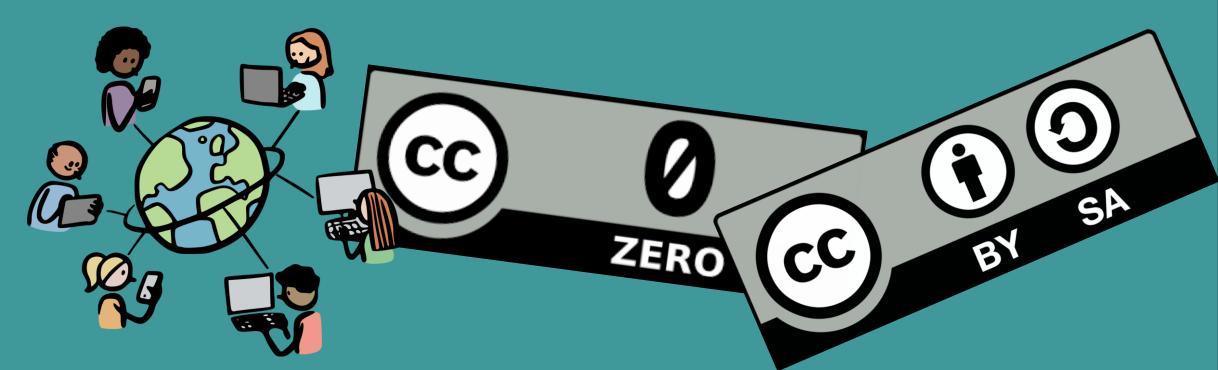
# Unite! OER Courses

An open education initiative to develop open science competencies within Unite! (10/2023-09/2024)

Martin Ebner, TU Graz

Unite! Seed Fund, Funding Line: Teaching & Learning

# WE AIM TO DEVELOP OPEN EDUCATIONAL RESOURCE (OER) COMPETENCE IN UNITE!



WE OFFER
A LECTURE
ABOUT OER
IN ENGLISH
AT METACAMPUS





# & A MULTILINGUAL ONLINE COURSE FOR ALL AT IMOOX.AT



# THIS IS THE TRAILER



Watch on Youtube: <a href="https://www.youtube.com/watch?v=KpEWw5zz--c&t=1s">https://www.youtube.com/watch?v=KpEWw5zz--c&t=1s</a>

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# Want to learn more about Open Educational Resources (OER)?

Martin Ebner, TU Graz

Unite! Seed Fund, Funding Line: Teaching & Learning



# Safety of Underground Transport Infrastructure

Patrick Noone, TUDa

Unite! Seed Fund, Funding Line: Teaching & Learning



Summer School – Safety of Underground Transport Infrastructure

### WHAT'S IN IT FOR ME?

### What are we offering?

- New propulsion technologies further safety
   requirements for vehicles and infrastructure
- Combination of virtual lectures, teamwork physically in Darmstadt & on-sight visit in Wroclaw
- Organized by TU Darmstadt, TU Graz, PoliTo & WUST





### Who can participate?

- Students from all Unite!-Partners
- Students who are enthusiastic about sustainable mobility
- Students who are interested in safety aspects of propulsion technologies and infrastructure
- Students want to participate in a Europe-wide program



unite



## WHAT'S IN IT FOR ME?

### Why should you participate?

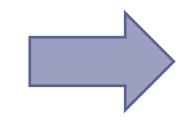
- To gain insights into modern drive technologies and their safety aspects
- To work in an international team on an exciting, realworld project
- To collect ECTS and become an expert in this field





### Where can you register?

- Registration via email (Letter of Motivation & CV)
- Mail to the respective contact persons
- Registration starts now
- For more information:



Visit the Metacampus!



# Safety of Underground Transport Infrastructure

Patrick Noone, TUDa

Unite! Seed Fund, Funding Line: Teaching & Learning



# Circular Architectural Engineering

Oliver Tessmann, TUDa

Unite! Seed Fund, Funding Line: Teaching & Learning

Prof. Oliver Tessmann TU Darmstadt Graz, 28.02.2024











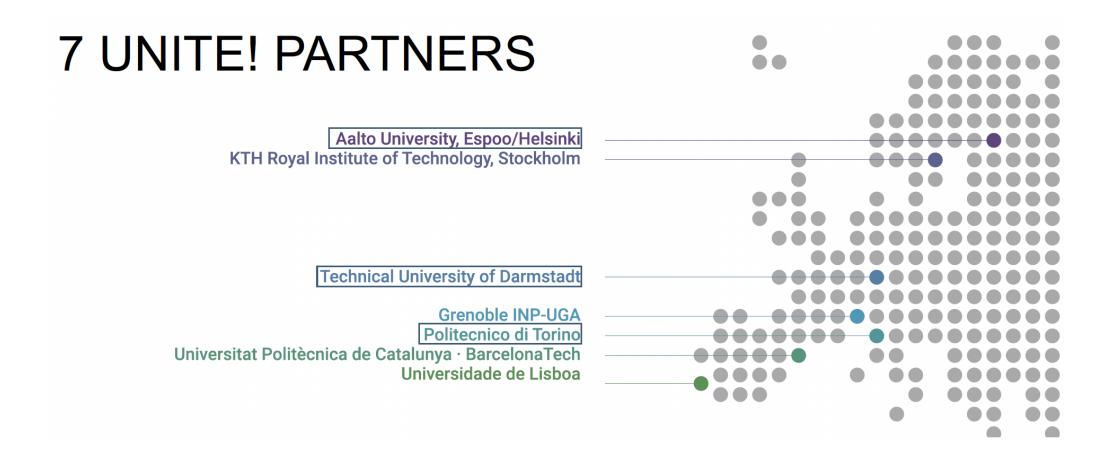












Prof. Dr. Toni Kotnik (Aalto)

Prof. Dr. Marco Perino (Turin)

Prof. Dr. Vincenzo Corrado (Turin)

Prof. Dr Anna Osello (Turin)

Prof. Dr. Ing. Ulrich Knaack (ISM+D)

Prof. Dr. Ing. Jens Schneider (ISM+D)

Prof. Dr. Ing. Oliver Tessmann (DDU)



















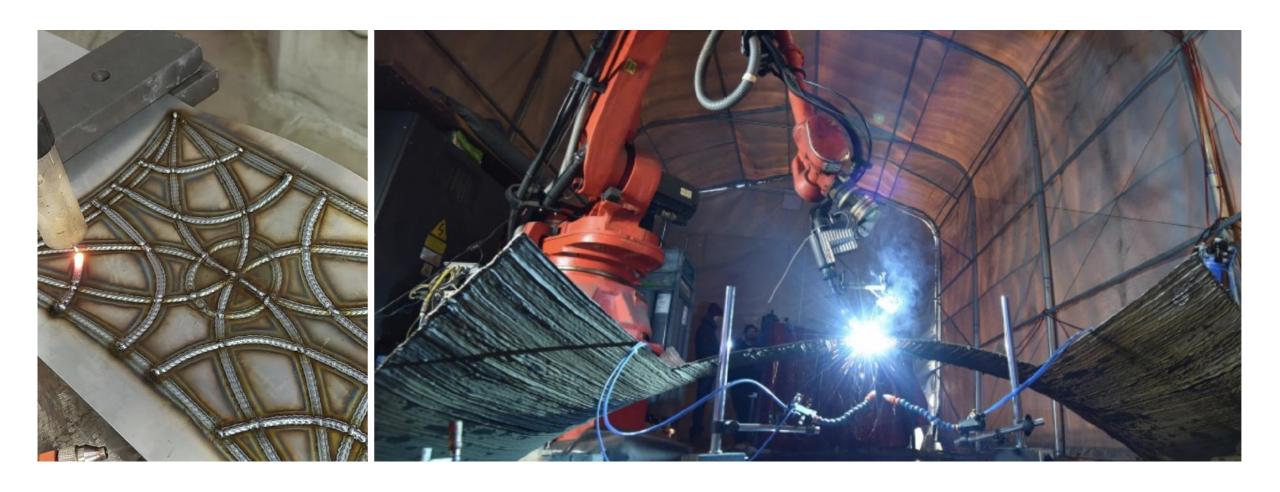










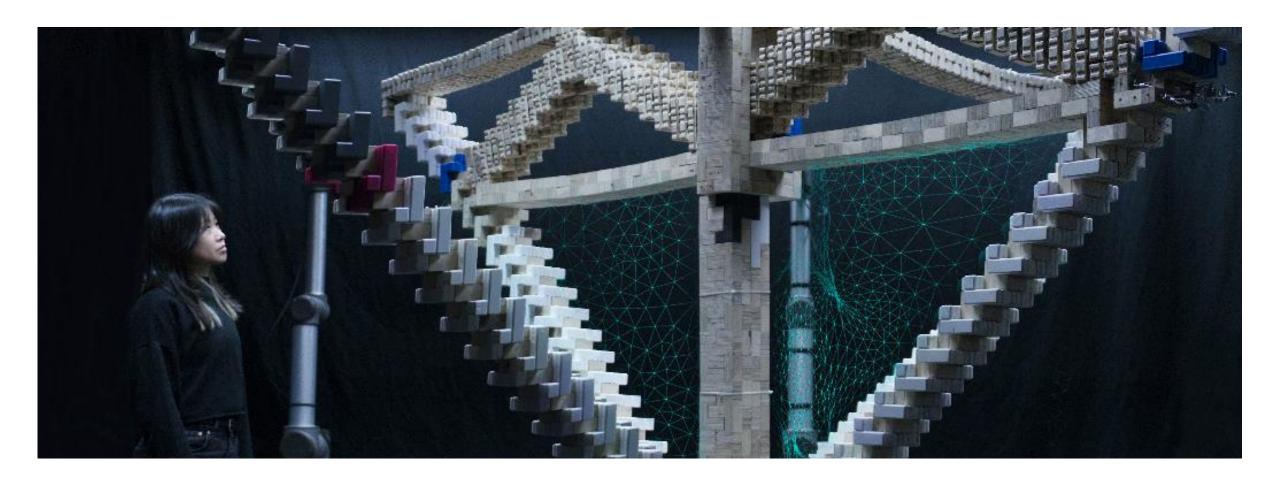




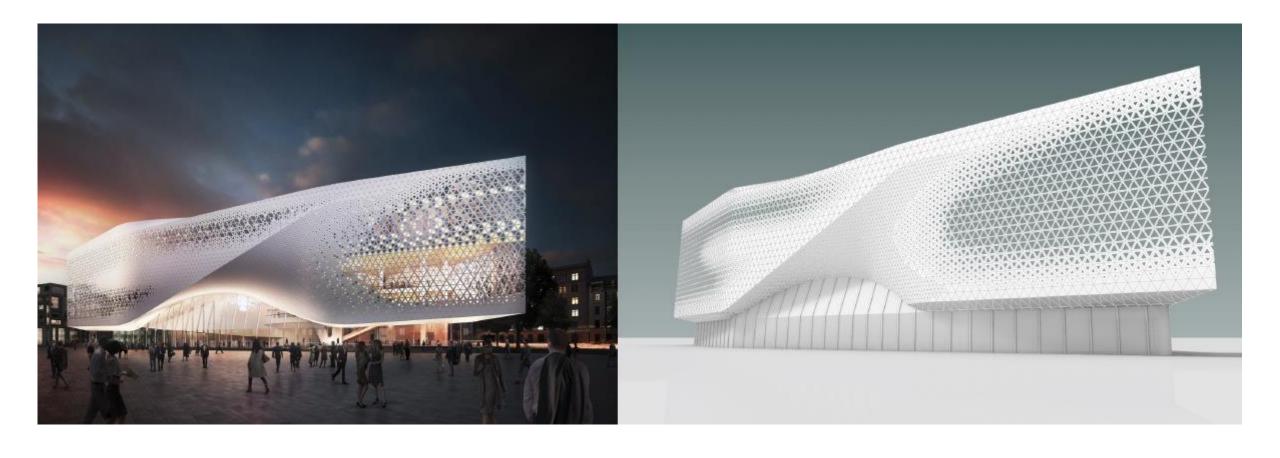






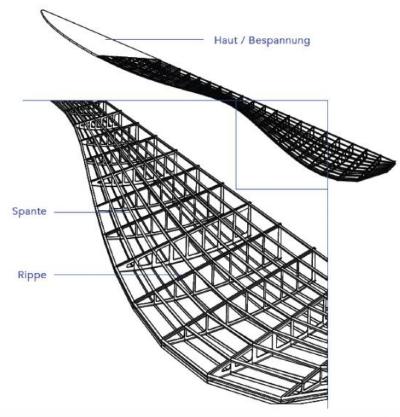








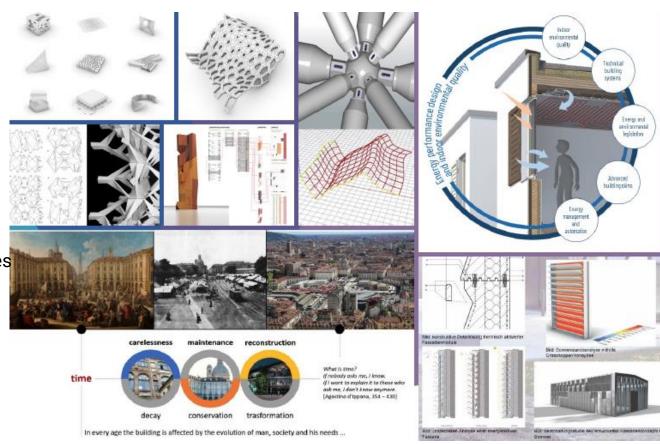






#### Course List:

- Computational Design Basics
- Parametric Design and Construction
- Spatial Structures
- Façade Technologies 1
- Parametric Design
- Algorithmic Design
- Knowledge of the built heritage in the era of the climate changes
- Energy performance design and indoor environmental quality



Prof. Toni Kotnik (Aalto)

Prof. Marco Perino (Turin)

Prof. Vincenzo Corrado (Turin)

Prof. Anna Osello (Turin)

Prof. Ing. Ulrich Knaack (ISM+D)

Prof. Jens Schneider (ISM+D)

Prof. Oliver Tessmann (DDU)

Prof. Kjartan Gudmundsson (KTH Stockholm)

Prof. Jerzy Łątka (Wroclaw Tech)





















Module Building Technology	Module Number AF2401	Credits 7.5 ECTS	Effort 200 Hrs	Self Study 140 Hrs
The overarching aim is to make buildings that contribute to a sustainable development by energy efficiency, moisture safety and a healthy indoor climate. The course contains assignments with problem-based application of technical solutions in building envelopes in different climates. This includes the design of a building with certain focus on the climatic envelope.	() (2 (3) (4)			-® -® -® -® -® -®
Lecturer	Prof. Folke Björk Kjartan Gudmunds	son (Ass. Prof	)	



<b>Module</b> Smart Buildings	Module Number AF2513	Credits 7.5 ECTS	Effort 200 Hrs	Self Study 140 Hrs
Smart Buildings deals with smart digital tools and systems in the built environment that are rapidly enhancing our ability to monitor, analyze and control complex aspects of building performance, allowing us to pursue and achieve key sustainability goals in a more wholesome perspective.		© 8		
Lecturer	Prof. Ivo Martinac Arianna Fonsati (Po Gudmundsson (Ass		d Dervishaj (MS	Sc), Kjartan

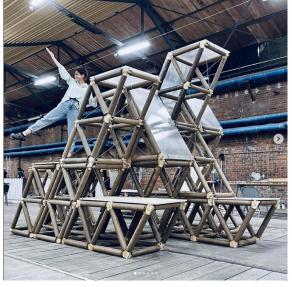


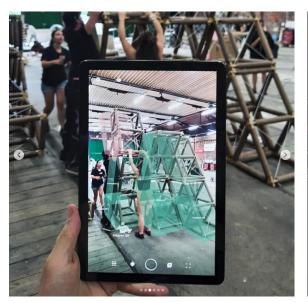
<b>Module</b> Sustainable <u>Buildins</u>	Module Number AF2507	Credits 7.5 ECTS	Effort 200 Hrs	Self Study 141 Hrs
This course deals in detail with the concepts, methodologies/tools and processes required for designing, building and operating sustainable buildings, and evaluating their resource-efficiency, as well as environmental and socio-economic performance in various stages of their operation and overall lifecycle. The sustainable performance of buildings is addressed in a holistic triple-bottom-line approach, based on environmental, economic and social/behavioural criteria.				A. A
Lecturer	Prof. Ivo Martinac Arlind Dervishaj (N (Msc), Tove Malmo	Asc), Genku K		Ahmad Al-Najja



### Summerschool 2023 - Wroclaw Tech









# UNITE! Circular Architectural Engineering

Prof. Oliver Tessmann TU Darmstadt Graz, 28.02.2024





















# Circular Architectural Engineering



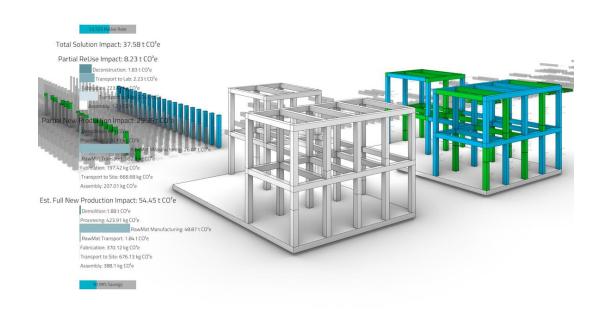






# Circular Architectural Engineering







# Circular Architectural Engineering

Oliver Tessmann, TUDa

Unite! Seed Fund, Funding Line: Teaching & Learning



# Speech Language and Al The Unite! *Graduate School* in Speech, Language, and Al Technologies

Gernot Kubin, TU Graz

Unite! Seed Fund, Funding Line: Teaching & Learning

# Overview of Speech Language and Al

- Vision to create unique educational framework
- Pipeline Master and PhD education
- Master Level Programs
   over 100 specialized courses
   develop Joint Degree program
- Dual Level Programs

- PhD Level Programs
   120 active PhD students
- Industrial Affiliates Program
- Seed Fund Projects
  - Teaching
  - Research
- Who we are8 partner universities





IX Unite! Dialogue at TU Graz Unite! Unite! What's in it for me?

## UNITE!



#### Speech Language and Al

The Unite! Graduate School in Speech, Language, and Al Technologies

#### Overview

- · Vision to create unique educational framework
- · Combine Master and PhD education
  - Master Level Programs
  - Dual Level Programs
  - PhD Level Programs

#### **Master Level Programs**

- Current Degree Programs
  - Nearly 20 already established Master Programs
- Master Courses
  - Comprehensive subject coverage
- · Joint Master Degree
  - Currently in development
  - Distinctive Master's program in speech, language and Al technologies

#### **Dual Level Programs**

- · Bring Master and PhD students together
- · Seasonal Schools
  - Planned summer school at KTH in August 2024

#### PhD Level Programs

- Currently over 120 PhD students
  - Current and completed PhD Theses
  - Open PhD positions

#### **Industrial Affiliates Programs**

- Scholarships
- Internships
- · Collaboration Projects
- Sponsoring

#### Seed Fund Projects

- · Crossroads of Speech and Language
  - Teaching
  - Research
- · Convergence of three vibrant fields:
  - Speech
  - Language technologies
  - Artificial Intelligence
- Four major European language families
  - Romance, Germanic, Slavic and Finno-Ugrian

#### Who we are (Coordinators)

- · Tom Bäckström (Aalto University)
- Laurent Girin (Grenoble INP-UGA)
- Francois Portet (Grenoble INP-UGA)
- Olov Engwall (KTH Stockholm)
- Luca Cagliero (Politecnico di Torino)
- Alberto Abad (Universidade de Lisboa)
- Henning Puder (TU Darmstadt)
- Piotr Szymański (Wrocław University)
- Gernot Kubin (TU Graz)
- Roman Kern (TU Graz)



























# Speech Language and Al The Unite! *Graduate School*in Speech, Language, and Al Technologies Gernot Kubin, TU Gra

Unite! Seed Fund, Funding Line: Teaching & Learning

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STUDENTS

# Unite! Doctoral School (UDS)

Marco Trisciuoglio, PoliTO

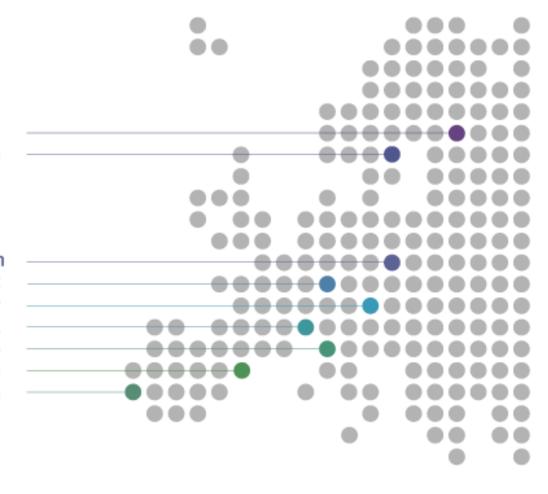
Community 7 – Doctoral Education for Research & Innovation and Society

## The Unite! Doctoral School (UDS) partners unite!



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





















### Unite! Doctoral School overall aim



Unite! Community 7 "Doctoral Education for Research & Innovation and Society" overall aim is the creation of the Unite! Doctoral School (UDS).

The UDS builds on a strategic alliance of the 9 Partner Universities based on shared values, with a common vision.

The Unite! Doctoral School (UDS) brings together the expertise of the 9 Partner Universities in:

- **Training** > common training offer & joint supervision
- **Research** > collaboration among scientists and thematic communities building a trans-European Campus with the involvement of local stakeholders such as innovation ecosystem, enterprises and civil society.
- **Infrastructures** > sharing research infrastructures and resources
- **Selection of PhD candidates** under common funding initiatives: Fundação para a Ciência e Tecnologia (FCT) and Ulisboa HORIZON-MSCA-2022- Doctoral Network Unite. Energy HORIZON-WIDERA-2023 Unite.WIDENING

**UDS PhD students** 

## **UDS Course Catalogue I**



Community 7 has defined the Unite! Doctoral School (UDS) teaching programme for the first PhD intake.

The UDS programmes will benefit from a catalogue of **doctoral courses** selected among PhD courses offered locally by each Unite! partner.

A course catalogue has been defined, focusing on hard skills in Unite!'s areas of expertise, namely **Energy**, **AI**, **and Industry 4.0**, as well as including soft skills courses fulfilling the following criteria:

- √ available for the academic year of 2023-2024 (Spring or Autumn semester);
- √ English-taught;
- √ fully online;
- √ either hard skills or soft skills, but connected to the Unite! focus areas (Artificial Intelligence, Industry 4.0, Energy) and Entrepreneurship.

The catalogue will be progressively updated for the next academic year 2024/2025.

# **UDS Course Catalogue II**



Partner institution	Title	Unite! focus area	Soft skills / Hard skills
Wroclaw Tech	Computational intelligence and its applications	Artificial Intelligence	Hard skills
Wroclaw Tech	Introduction to artificial intelligence	Artificial Intelligence	Hard skills
Wroclaw Tech	Transition to a sustainable energy future	Energy	Hard skills
Wroclaw Tech	Introduction to statistics and forecasting	Energy	Hard skills
Wroclaw Tech	Statistical methods of data analysis in industrial applications	Industry 4.0	Hard skills
ULisboa	Innovation and Entrepreneurship	Entrepreneurship	Soft skills
KTH	Energy Storage	Energy	Hard skills
KTH	Polygeneration introduction	Energy	Hard skills
KTH	Thermal management in battery energy storage systems	Energy	Hard skills
TU Da	Research, inventions, going to market, founding a startup – an interactive introduction	Entrepreneurship	Soft skills
TU Da	Electrochemistry for Energy Applications I	Energy	Hard skills
TU Da	Electrochemistry for Energy Applications II	Energy	Hard skills
PoliTO	Optimized execution of neural networks at the edge	Artificial Intelligence	Hard skills
PoliTO	Data mining concepts and algorithms	Artificial Intelligence	Hard skills
UPC	Statistics in PhD	All	Hard skills
UPC	Integrity in Research	All	Soft skills
UPC	Sustainability	All	Soft skills
UPC	Scientific publishing	All	Soft skills

# **UDS Course Catalogue III**



Partner institution	Title	Unite! focus area	Soft skills / Hard skills
PoliTO	Modeling complex systems in engineering and management	Industry 4.0	Hard skills
PoliTO	Digital Societies & Law - Al	Industry 4.0	Hard skills
PoliTO	Entrepreneurship and start-up creation	Entrepreneurship	Soft skills
PoliTO	The new internet society: entering the black-box of digital innovations	Industry 4.0	Soft skills
PoliTO	Global energy trends and outlook	Energy	Hard skills
PoliTO	Experimental heat and mass transfer	Energy	Hard skills
PoliTO	Energy for future factories	Energy	Hard skills
PoliTO	Advanced solar energy technologies	Energy	Hard skills
PoliTO	Modeling complex systems in engineering and management	Industry 4.0	Hard skills
PoliTO	Digital Societies & Law - Al	Industry 4.0	Hard skills

#### **Other Unite! Courses**



#### List of common trainings to be offered to the entire Unite! community (open to all)

#### **WUST:**

- How to build your Linkedin profile (online, in English)
- Public speakers club (online, in English)

#### **POLITO:**

- Entrepreneurial finance for PhD (online, in English)
- How to build a competitive CV (online, in English)

#### **AALTO:**

- Finland work (online, in English)
- Future work (online, in English)

#### **TU GRAZ:**

- Mental loading (online, in German / English maybe possible)
- Sleep well (online, in German)

#### **TUDA:**

- Trainings for young researchers and PhD (late Feb. 24)
- Intercomprehension course for Germanic languages (online, in German, free)

#### INP - UGA:

- Using and adapting serious games for pedagogical purpose (on site, in English) – Feb./March 24
- 2tons (online in English 12 people max) spring 24

#### KTH:

- Intercultural & global competences (online, in English)

## How to become a UDS PhD student? unite!



1) ULISBOA 2024 Call funded by the Fundação para a Ciência e a Tecnologia and the University of Lisbon (FCT), under the FCT-UNITE Protocol together with **Unite! will grant 15 scholarships** (coord. ULisboa).

1<sup>st</sup> Call opening in 2024: March 4<sup>th</sup> - May 3<sup>rd</sup>, 2024

2<sup>nd</sup> Call opening in 2024: November 1<sup>st</sup> - December 31<sup>st</sup>, 2024

The research work underlying the grants will be carried out at the University of Lisbon and at another Unite! partner university, promoting institutional cooperation.

#### PROCEDURE (ref. ULisboa)

Students submit a free project and propose a supervisor

The ULisboa call will be advertised through Unite! and partner Universities communication channels, when published







## How to become a UDS PhD student? unite!



2) Unite.Energy: Unite! Doctoral Network in Energy Storage (funded by HORIZON-MSCA-2022- Doctoral Network)

Project duration 2024 – 2028 (coord. UPC)

**12 PhD scholarships** will be made available in 2024 and published on Euraxess as well as through Unite! and partner Universities communication channels

3) **Unite.WIDENING** (funded by HORIZON-WIDERA-2023) Project duration 2024 – 2028 (coord. ULisboa)

**14 PhD scholarships** will be made available by (in 2025 and 2026 TBC):

**ULISBOA** (Coordinator)

7 Industry embedded PhD Scholarships with joint supervision

#### **Wroclaw Tech**

7 Industry embedded PhD Scholarships with joint supervision

IX Unite! Dialogue at TU Graz
Unite! Unite! What's in it for me?

STUDENTS

# Unite! Doctoral School (UDS)

Marco Trisciuoglio, PoliTO

Community 7 – Doctoral Education for Research & Innovation and Society



# Unite! Engineering Biology

Robert Kourist, TU Graz & Heribert Warzecha, TUDa

Unite! Seed Fund, Funding Line: Research & PhD



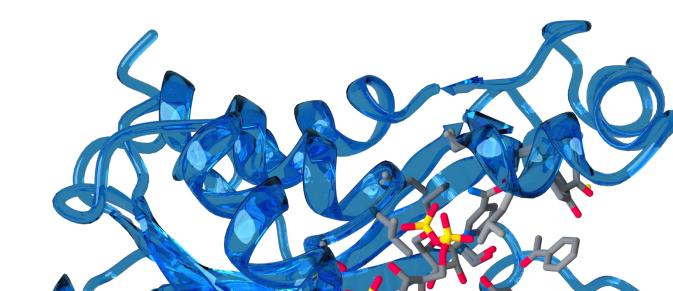
### Unite! Engineering Biology - outline



Engineering biology has great potential to become a transformative technology at the intersection of life sciences and engineering.

We have identified many activities within unite! partner institutions which will benefit from a **unite! focus topic** in this area

A Unite! topic to join research in the area of bioengieering





### Unite! Young Researchers Workshop in Graz





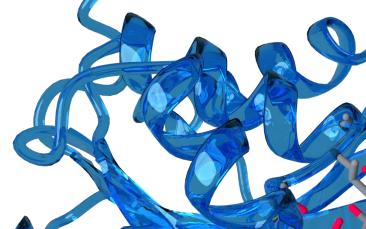






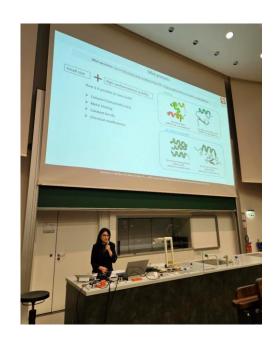


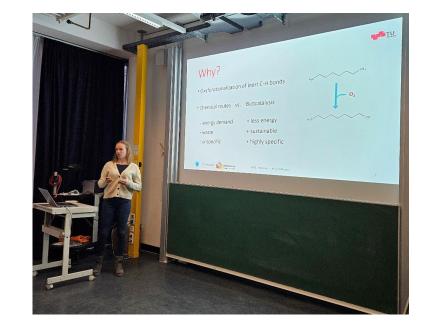
25 young researchers from 4 Unite! partners came in February 2024 to Gaz





### A platform for young researchers

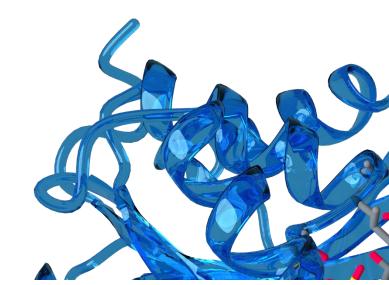




Unite! PhD students joined the DocDay of the local PhD School

Participation of master students: motivational tracks towards PhD







#### Unite! Engineering Biology - activities



- February 2024 1st Unite Engineering Biology Workshop in Graz
  - 25 participants from Graz, Stockholm, Darmstadt, Wroclaw, 11 PhD students
  - attached to the DocDay of the PhD School Molecular Biosciences and Biotechnology
- June 2024 Unite! Engineering Biology online matchmaking event
  - Open for all interested researchers of the Unite! partners
- June 2025 2nd Unite! Engineering Biology Workshop in Stockholm



## Unite! Engineering Biology

Robert Kourist, TU Graz & Heribert Warzecha, TUDa

Unite! Seed Fund, Funding Line: Research & PhD



## BatFire

# Consequences from large Battery fires in underground transport infrastructure

Daniel Fruhwirt, TU Graz

Unite! Seed Fund, Funding Line: Research & PhD



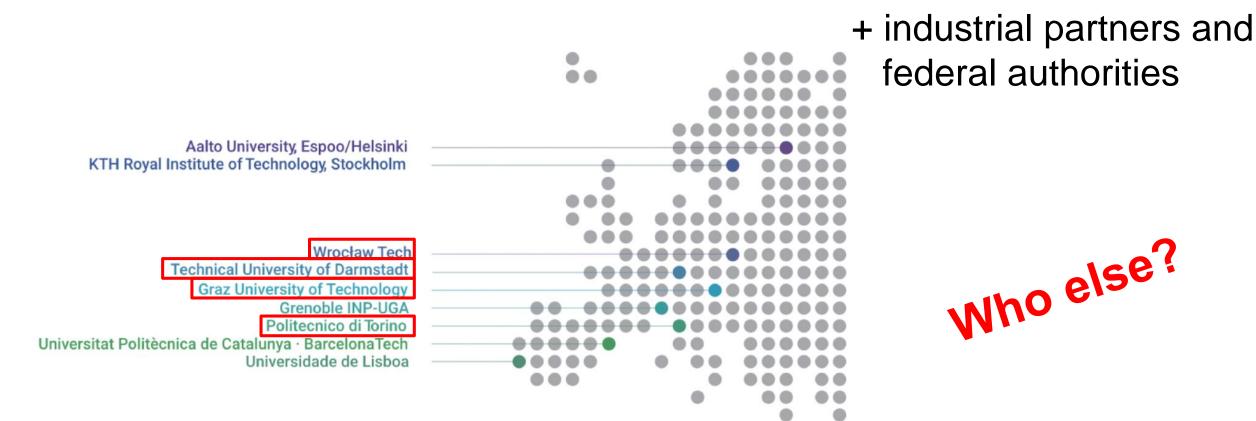
### Project tasks



- Pre-tests on cell size
- Identification of indutrial partners
- Preparation of a competitive HORIZON proposal



#### Current consortium





## BatFire

# Consequences from large Battery fires in underground transport infrastructure

Daniel Fruhwirt, TU Graz

Unite! Seed Fund, Funding Line: Research & PhD





## Let's Unite! for Green Mobility!

Fostering Innovation Ecosystems for Green Mobility Transitions

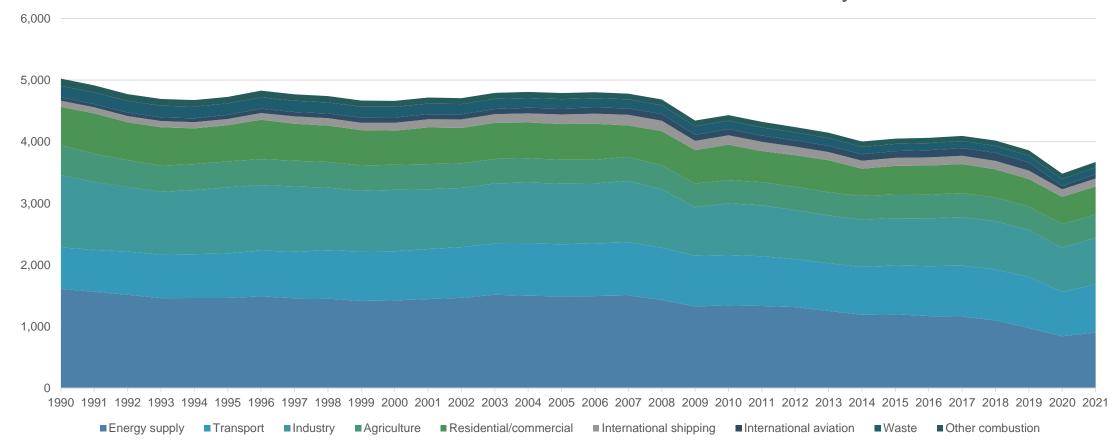
Thomas Draschbacher, TU Graz

Unite! Seed Fund, Funding Line: Research & PhD



### Only in transportation GHG emissions increased

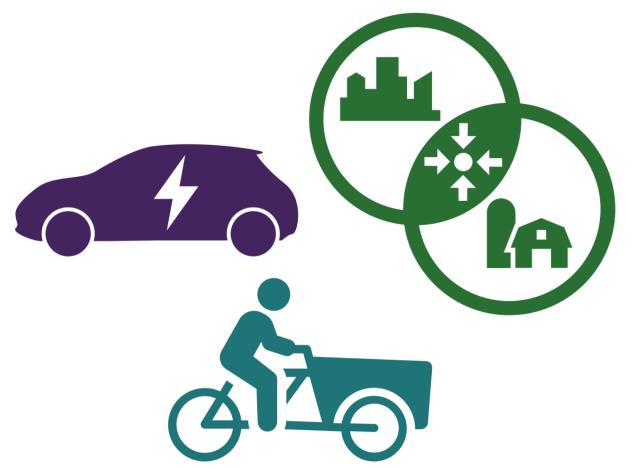
Annual GHG emissions in the EU from 1990 to 2021 by sector



Source: Statista, 2024



#### Make green innovations more attractive for stakeholders



#### Focusing on:

- New business models
- Adapted technology regulations
- Visionary organizational setups



### Participate in our project



#### **Project data:**

- UNITE! Seed Fund in "Exploring" category
- Funding period: 01.09.2023 31.12.2024

#### **Current status:**

- Submitted 3 papers to conferences
- Submitted pre-proposal for research project (Budget: € 1,5 Mio.)
- Research grant received (€ 5.000)

#### **Next steps:**

- Applying for Seed Fund category "Developing"
- Finding new partners from 4th UNITE! university:
  - Early career researchers
    - Assistant Professors
    - PostDocs
    - PhD students
  - You are interested in our topic? <u>Join us!</u>



#### **CONTACT** us now!

Thomas Draschbacher thomas.draschbacher@tugraz.at

Adam Uhrdin adam.uhrdin@indek.kth.se

**Esko Hakanen** esko.hakanen@aalto.fi



















IX Unite! Dialogue at TU Graz
Unite! Unite! What's in it for me?

RESEARCH



## Let's Unite! for Green Mobility!

Fostering Innovation Ecosystems for Green Mobility Transitions

Thomas Draschbacher, TU Graz

Unite! Seed Fund, Funding Line: Research & PhD



# Unite! Science Workshop on Energy, Green Transition & Climate

Katarzyna Chojnacka, Wroclaw Tech

Unite! Seed Fund, Funding Line: Research & PhD



16-18 **SEPTEMBER** 2023 KARPACZ-WROCŁAW

**POLAND** 

**EXPLORING:** 

**Meet Unite!** researchers networking





**HORIZON** proposals matchmaking **WORKSHOP** 

## **ENERGY** GREEN

CLIMATE TRANSITION

**Unite! SCIENCE** 





Let's Unite!

and talk about science

in Polish Carpathian

mountains!



**PANEL** discussions



**TRANSFER** 

Bus shuttle from Wrocław Airport



**INTERNSHIPS** 



Scientific trekking ŚNIEŻKA mountain Sandra SPA Karpacz





JNIVERSITÄT























#### **Participants**

Aalto University – 2

Graz University of Technology – 4

Grenoble INP-UGA – 1

KTH Royal Institute of Technology – 4

Politecnico di Torino – 8

Technical University of Darmstadt – 4

Universidade de Lisboa – 4

Universitat Politecnica de Catalunya – 7

Wrocław University of Science and Technology - 40

74 people from 9 universities are taking part in the **Unite!** workshop

























#### **Unite! Committee**

# Prof. Katarzyna Chojnacka

Prof. Federico Bosia

Prof. Juan Jesús Pérez



























#### **Local Committee**



Katarzyna Chojnacka



Dawid Skrzypczak



Grzegorz Izydorczyk



Katarzyna Mikula



Małgorzata Mironiuk



Krzysztof Trzaska



Derya Çalış



Filip Gil



Yash Chawla





















### **Opening Remarks**





Katarzyna Chojnacka Piotr Młynarz Roberto Zanino

























#### **Pitch Presentations**





**Moderators:** 

Riccardo Vesipa Yash Chwala

















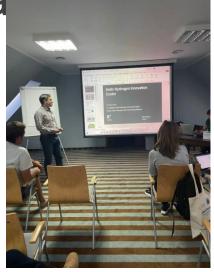




#### Scientific







#### Parallel session I

#### Moderators: Rafał Weron Juan Jesús Pérez

Parallel session II

#### **Moderators:**

Barbara Widera Anna Kowalska-Pyzalska



























## Trekking Workshop to Śnieżka

























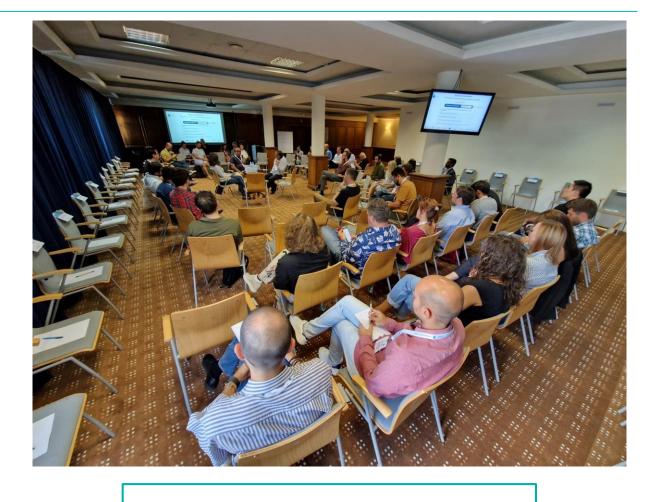






#### Fishbowl discussion





Moderators: Roberto Zanino, Juan Jesús Pérez, Katarzyna Chojnacka





















#### **World Café Tables**

#### **ENER**

Moderators:

Roberto Zanino Rafał Weron



#### **CLIMA**

Moderators:

Riccardo Vesipa Barbara Widera



#### **GREE**

N

**Moderators:** 

Juan Jesús Pérez Katarzyna Chojnacka























#### **Horizon Europe Proposals Matchmaking**

In the initial form, they showed interest in 18 calls from cluster 5 and 41 calls from cluster 6.





Participants had a choice of **70 calls** from **cluster 5** and **75 calls** from **cluster 6**.























#### **Exploring the newly formed Unite! Horizon**

Consortia









#### **Moderators:**

Konrad Löbcke Katarzyna Weron





















## INFO-DAYS in Brussels and Online

event facilitating the search for international partners, September 26, Brussels.

Cluster 6
Horizon
Europe
Information
Days September 27
and 28,
Brussels.

Information
Days for
Cluster 5,
October 17,
Brussels.





















#### **Closing Remarks, Thank You!**







This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101017408



















Zapraszamy na 47.
Seminarium NaukowoTechniczne Chemistry for
Agriculture!





# Unite! Science Workshop on Energy, Green Transition & Climate

Katarzyna Chojnacka, Wroclaw Tech

Unite! Seed Fund, Funding Line: Research & PhD



# Unite! Connect Share your Unite! Experience!

Marco Soares, ULisboa

Community 9 – Strategic Outreach, Impact and Dissemination



Unite! - University
Network for Innovation,
Technology and Engineering



@uniteuniversity



@Unite\_tech\_univ



















unite!

Did you know that there's a place where you can **SHARE your Unite!** experiences and offers with other Uniters?

Want to **CONNECT** and find a partner for your project?

Want to **EXPAND** your professional network?

Looking for a platform to **EXCHANGE** ideas?

Ready to **TAKE** your involvement in Unite! to the next level?

Interested in **ENGAGING** with like-minded professionals?

SEEKING inspiration and fresh perspectives?

> Excited to **CONTRIBUTE** to Unite! discussions?

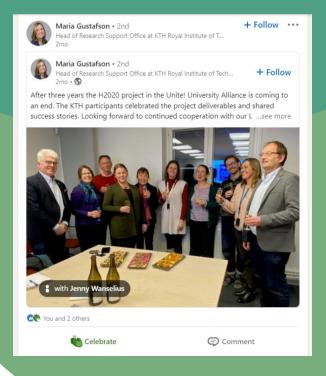
think

want TO ASK questions to find out what other Uniters

#### The Unite! LinkedIn Group

#### unite!

University Network for Innovation, Technology and Engineering



























## What's in it for you?

Join and find out!
... and invite your colleagues!



linkedin.com/groups/9103490/





















# Unite! Connect Share your Unite! Experience!

Marco Soares, ULisboa

Community 9 – Strategic Outreach, Impact and Dissemination

# Unite! Unite! What's in it for me?

IX Unite! Dialogue

Think Beyond: Unite! for Collective and Sustainable Impact

Graz University of Technology | 27—29 February 2024

















