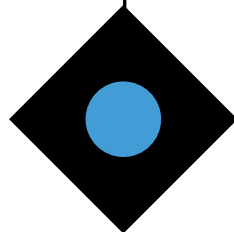


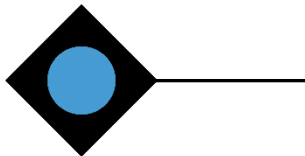
# THE ENHANCE ALLIANCE

TCA: Promoting Erasmus+ Mobilities in STEM in Higher Education - 05/16/2025



# Persona

- Philipp Hoehne, Master's student in biochemistry
- Erasmus+ in Vienna
- Co-founder of the local Erasmus Student Network association - ESN Berlin
- Currently Liaison Officer of ESN Germany
- ENHANCE Student
- Passionate about Erasmus+, mobility programs, internationalisation and education offers

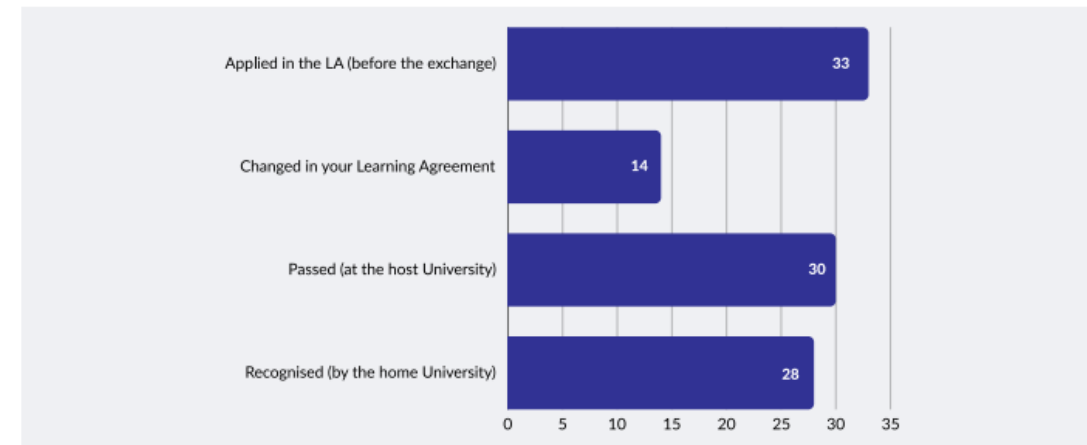


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# Status Quo from the ESNsurvey XV

- Low STEM participation in mobility ~ 28% of the participants (Engineering 18.56% & Natural Sciences 9.02%) from around 20,000 answers
- Academic course issues remain one key obstacle, with 33.97% of respondents reporting difficulties in this area
- Structural issues contributing to this problem:
  - Inflexibility in degree programs
  - Trust issues between partner universities
  - Recognition decisions influenced by individual professors
  - Lack of understanding of the ECTS system
  - Limited access to information about available courses

Recognition of learnings aboard, the credits taken compared with the credits recognised (N= 6,620).



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# European University Alliances and STEM

What is the added value of ENHANCE for internationalisation in STEM mobility?



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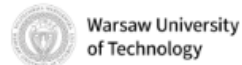
# The ENHANCE Alliance



**ETH** zürich



**RWTH**AACHEN  
UNIVERSITY



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# The ENHANCE Alliance

- Universities in Metropolitan areas
- Institutions at coastal/remote in-land locations
- Partners with a long industrial tradition
- Universities with a strong emphasis on agriculture



**ETH** zürich



# Education Offers in ENHANCE



## **Innovative Learning Campus (ILC)**

Advancing and sharing opportunities for physical and virtual short-term mobility.



## **ENHANCED Erasmus**

Enhancing physical mobility opportunities for students and staff.

## **Guided Education Paths**

Designing thematic learning pathways in targeted disciplines.



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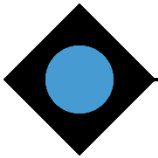


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# Innovative Learning Campus



Welcome to the ENHANCE Innovative Learning Campus Catalogue! Here, you'll find a comprehensive overview of all our innovative learning opportunities designed to enrich your experience as a student, teaching or administrative professional in higher education of life-long learner. We invite you to browse our current offerings and discover the diverse options available to you. If you're interested in long-term ENHANCE opportunities, such as the ENHANCED Erasmus initiative or the ENHANCE Guided Education Paths please visit the [ENHANCE website](#) for more detailed information. We're excited to support your learning journey!

## Learning Opportunities

### Filters

☐ Only favourites

Application period [None](#) [All](#)

☒ Closed

☒ Open

University [None](#) [All](#)

☒ Chalmers University of Technology

☒ Delft University of Technology

☒ ETH Zurich

☒ Gdansk Tech

☒ Politecnico di Milano

☒ RWTH Aachen

☒ Technische Universität Berlin

☒ Universitat Politècnica de València

☒ Warsaw University of Technology

Category [None](#) [All](#)

☒ (Micro-credential) Programmes

☒ Instructor paced Courses

☒ MOOCs/Self-paced Courses

☒ Summer & Winter Schools

☒ Trainings

Offered to [None](#) [All](#)

☒ BSc Students

☒ General Public

☒ MSc Students

☒ PhD Candidates/Researchers

☒ Professionals

☒ University Administrative Staff

88 Search for course/programme

Sort



RWTH Aachen - Germany

Application OPEN

### Training of Facilitators: Anti-Bias Lunch Breaks

Trainings

OFFERED TO

University Teaching Staff, BSc Students, MSc Students, University Administrative Staff, General Public, Professionals, PhD Candidates/Researchers

LANGUAGE

TEACHING PERIOD

PARTICIPATION

APPLICATION PERIOD

English

Jun 24, 2025 -

Online

Mar 25, 2025 - Dec 31, 2025

PLACES AVAILABLE

unlimited

[Gender and Diversity](#)

[VIEW DETAILS](#)

Gdansk Tech - Poland

Application OPEN

### Hub of Methodological Consultations for academic teachers

Trainings

OFFERED TO

University Teaching Staff

LANGUAGE

English

TEACHING PERIOD

Mar 03, 2025 - Sep 30, 2026

PARTICIPATION

Online

APPLICATION PERIOD

Mar 03, 2025 - May 01, 2026

PLACES AVAILABLE

limited

[Others](#)

[VIEW DETAILS](#)

Gdansk Tech - Poland

Application OPEN

### Advanced Measurement Methods with Smart Sensing Using Machine Learning

Summer & Winter Schools

6 ECTS

OFFERED TO

University Teaching Staff, MSc Students, PhD Candidates/Researchers

LANGUAGE

English

TEACHING PERIOD

Jul 05, 2025 - Jul 14, 2025

PARTICIPATION

Blended

APPLICATION PERIOD

Mar 08, 2025 - May 31, 2025

PLACES AVAILABLE

limited

[Digitalisation and Artificial Intelligence](#)

[VIEW DETAILS](#)



RWTH Aachen - Germany

Application OPEN

### ENHANCE Lunchinars - Webinar Series about Diversity (Several dates)

MOOCs/Self-paced Courses

OFFERED TO

University Teaching Staff, BSc Students, MSc Students, University Administrative Staff, General Public, Professionals, PhD Candidates/Researchers

LANGUAGE

English

TEACHING PERIOD

Jan 01, 2025 - Dec 31, 2026

PARTICIPATION

Online

APPLICATION PERIOD

Jan 01, 2025 - Dec 31, 2026

PLACES AVAILABLE

unlimited



RWTH Aachen - Germany

Application OPEN

### Physics-Informed Machine Learning for Geotechnical Engineering (Erasmus+ Blended Intensive Program)

Summer & Winter Schools

3 ECTS

OFFERED TO

MSc Students

LANGUAGE

English

TEACHING PERIOD

Jul 07, 2025 - Jul 18, 2025

PARTICIPATION

Blended

APPLICATION PERIOD

Jan 20, 2025 - May 31, 2025

PLACES AVAILABLE

limited

ETH Zurich - Switzerland

Application OPEN

### Environmental DNA: Sensing the Diversity of Life and Assessing Ecosystem Health

MOOCs/Self-paced Courses

OFFERED TO

BSc Students, MSc Students, PhD Candidates/Researchers, General Public, Professionals

LANGUAGE

English

TEACHING PERIOD

Jan 10, 2025 - Aug 17, 2025

PARTICIPATION

Online

APPLICATION PERIOD

Mar 01, 2025 - Jun 29, 2025

PLACES AVAILABLE

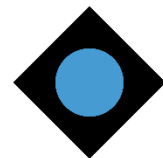
unlimited



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# Education Offers in ENHANCE

Name	Category	ECTS	Editions	Number of registrations:
Ethics & Epistemology of AI	Summer & Winter Schools	6	3	243
Transdisciplinarity Methods for Dealing with Sustainability and Land Use Conflicts	Summer & Winter Schools	6	1	63
Built Environment and Architecture Education for Children and Youth	MOOCs/Self-paced courses	6	2	3
Engineering for Impact - Responsible Innovations	Instructor-paced courses	6	1	8
Microphone Array Project	Summer & Winter Schools	6	1	28
Advances in Water Management and Climate Adaptation	Instructor-paced courses	3	2	8
Gender and Diversity in Science, Technology and Society	(Micro-credential) Programmes	9	4	275
Democratizing Sustainability	Instructor-paced courses	6	1	104
Critical Sustainability	Instructor-paced courses	6	1	108
Plotting Sustainability	Summer & Winter Schools	6	1	26
Introduction to Gender & Diversity in Science, Technology and Society	MOOCs/Self-paced courses	3	2	52



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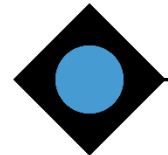


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# Education Offers in ENHANCE



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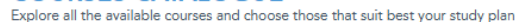
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# ENHANCE Guided Education Paths

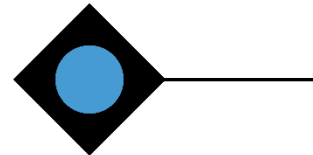
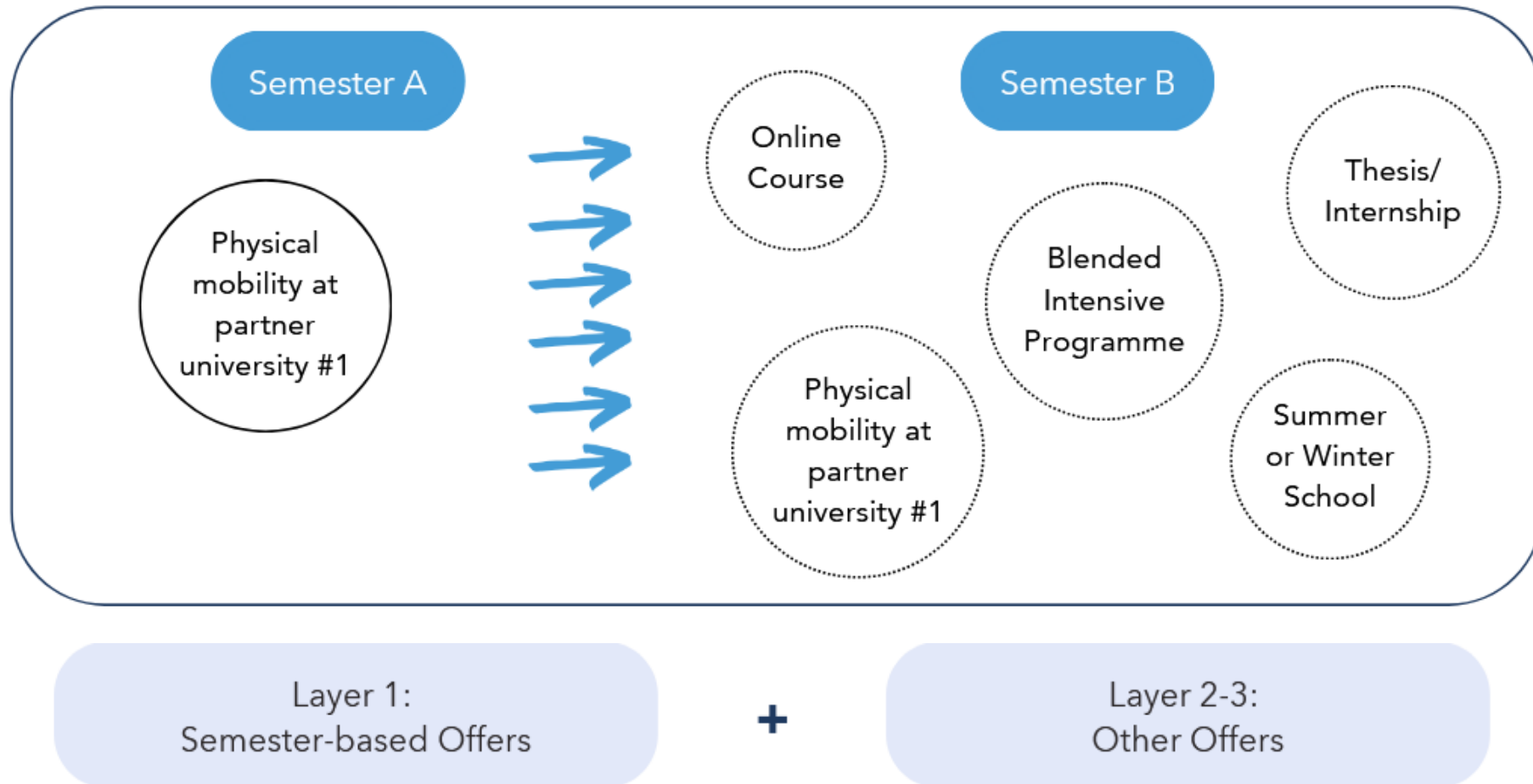
- Five pathways implemented so far:
  - B.Sc. & M.Sc. Mechanical Engineering
  - M.Sc. Computer Science
  - M.Sc. Energy Engineering
  - M.Sc. Urban Planning
- Pre-recognized courses for home programs → **Guaranteed ECTS Recognition!**
- Up to two mobilities in a row
- Combination of physical, virtual, and short-term mobility → **Adaptable Mobility**
- ENHANCE Education Dashboard with >1.000 courses
- First exchanges in summer 22/23
  - Since then: ~72 participants from TU Berlin including the upcoming semester
- Long-term vision: **ENHANCE Degree Label** based on the European Degree Label



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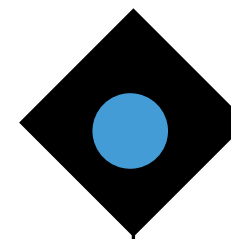


# ENHANCE Guided Education Paths



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# ENHANCE Guided Education Paths in action



## Example Scenarios:

### Water Energy Path for a PoliMi student in Energy Engineering



*Semester mobility (incl. set of semester-based courses) at **Warsaw University of Technology***

+

*Thesis abroad at **Chalmers University of Technology***

### Water Energy Path for a Chalmers student in Energy Engineering



*Semester mobility (incl. set of semester-based courses) at **TU Berlin***

+

*Summer School at **Gdańsk Tech***

+

*MOOC at **UPV***



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# Impact on mobility in STEM

1. Systemic Impact
  - ENHANCE addresses **mobility barriers** on institutional and regulatory level
  - Example: efforts to adapt general study regulations
2. Improved participation from low-mobility STEM fields
3. Guaranteed ECTS Recognition
4. Stronger promotion of different types of mobility for different situations



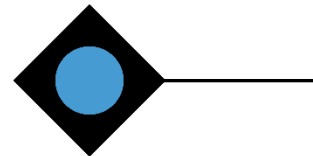
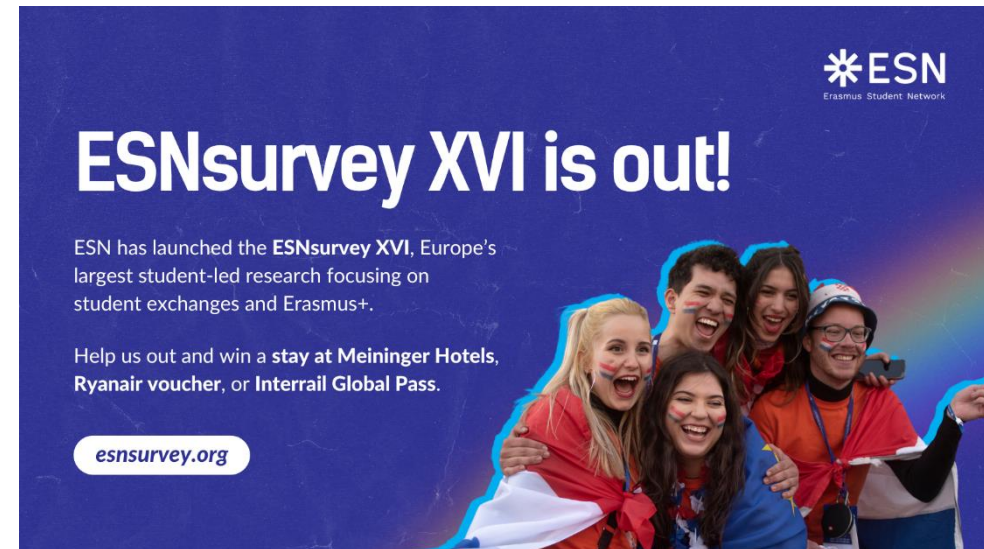
# Challenges and Lessons Learned

1. Guaranteed ECTS recognition has its cost
  - Diverse credit recognition practices
  - Still low participation numbers
2. Resistance from some professors remain ("my lecture is irreplaceable")
3. STEM-specific issue are unsolved
  - Long module structures (e.g. spanning two semesters, lab-courses)
4. Gradual mindset change through continuous dialogue with faculty needed
5. More communication about the options needed
6. Pre-recognized courses must become standard



# ESNsurvey XVI is out!

- Open until 31 July 2025
- Target Groups
  1. Exchange students (mobility since Aug 2023)
  2. Full-degree international students (studying abroad since Aug 2021)
  3. Non-mobile students (currently enrolled in higher education)
- Enhanced Content on:
  - Alumni who went abroad before Aug 2023
  - European University Alliances
- Take a look → <https://esnsurvey.org/>



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# Thank you for your attention!



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