# JULY **3rd** 2024





Co-funded by the European Union

### INTERNATIONAL PROJECTS

MASTERCLASS

8h30 - 12h CET ONLINE EVENT

(٢)

#### AGENDA

8h30-8h35 Welcome 8h35-8h45 Presentation of UNICATION Project by Natacha Moniz (Técnico Lisboa- UNICATION Project Coordinator) 8h45-9h00 Presentation of the Institutions and the Lecturers: Dr. Imre Felde (Óbuda University- ÓU) Dr.ª Dalenda Larifi and Dr.ª Blanca Martin (Université Côte d'Azur- UNICA) Dr.ª Ana Moura Santos (Técnico Lisboa- IST) 9h00-9h55- International Project by ÓU: "University-university research and development collaborations" 9h55-10h00- Pause 10h00-10h55- International Project by UNICA: "Developing international experience for students through virtual mobility" 10h55-11h00- Pause 11h00-11h55- International Project by IST: "FOSTWOM: an Erasmus+ project with impact in female STEM public" 11h55-12h00- Closing Remarks







#### Unify Communication by International Projects in Cambodia and the Philippines

#### UNICATION's Solution:

- Training Workshops: Comprehensive workshops focusing on communication and project management skills.
- Development of Practical Resources and Guidelines: Tailored materials to aid in effective project management and communication.
- Networking Opportunities: Platforms to connect with international partners, fostering collaboration and the exchange of best practices.
- Sharing Best Practices and Experiences: Facilitating a community of learning and improvement among HEIs and associated stakeholders.

#### Target Audience:

- Staff in International Offices of HEIs: Our primary target group, whose skills in managing international projects will be directly enhanced.
- PhD Students and Young Researchers: Individuals interested in engaging with international projects will find significant value in our offerings.
- Local Stakeholders: Including research institutions, other HEIs, social enterprises, and industry representatives involved in international collaborations.





#### Masterclass

(July 2024)

Open public presentation showcasing successful international projects by EU institutions.



#### Training

#### (July- November 2024)

"How to Build an Inclusive Project" by Técnico Lisboa

"New Approaches and Tools in International Project Management" by Óbuda University

"Communication Skills for Project Managers" by Côte d'Azur University



#### Piloting (June-July 2025)

Through mentoring training modules, trainees will develop future international projects and train targe groups within their higher education institutions.

#### Expected Outcomes

- Improved Communication Skills: Enhancing the ability of HEI staff to effectively manage international projects.
- Enhanced Project Management Capacity: Equipping staff with the necessary tools and skills for efficient project management.
- Strengthened Internationalization Strategies: Helping partner HEIs develop robust strategies for international engagement.
- Increased Collaboration and Networking: Promoting greater interaction and cooperation between institutions.
- Sustainable Impact: Creating a lasting positive effect on the internationalization landscape in Cambodia and the Philippines.





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#### Research Summary (WP2): Internationalization Processes in Higher Education Institutions in Cambodia and the Philippines

Table 1- W/P2 surveys conclusion

Research Period: •February to March 2024 Conducted By: •Obuda University research team Framework: •UNICATION Erasmus+ project Objective: •Map internationalization processes of universities in Cambodia and the Philippines to support future developments. Methodology: •Solf administered online questionnairs with both onen and sloced questions

 Self-administered online questionnaire with both open and closed questions.
 Questionnaire with 31 questions rated on a 4-point Likert scale.
 Covered areas: Institutional Information and Profile, Overall Status and Trends, Institutional Commitment and Policy, Teaching and Learning for International

Students, Faculty and Staff Support, Partnership, Internationalization of Research, Emerging Issues, and Future of Internationalization. •Voluntary and anonymous participation.

•Total of 81 respondents, though not all completed every question.

	-
Category	Details
Hypotheses	- Noticeable development in internationalization, primarily in terms of international projects.
	- Significant development needed in research internationalization.
Internationalization Focus	- Preparing for global challenges.
	- Expanding international relations.
	- Internationalizing educational programs.
	- Need for further development in international research and educational strategies.
Survey and Data Collection	<ul> <li>Report submitted to platform, with recommendations shared with Asian HEIs partners and Ministries of Education.</li> </ul>
Respondent Priorities	- Focus on internationalization of curricula beyond the 2023-2024 academic year.
	- Expectation of increased internationalization over the next five years.
Critical Competencies for	- Soft skills, cultural intelligence, negotiation, adaptability, international relations experience, language proficiency,
International Office Staff	communication skills, and understanding of internationalization strategies.
Strategies for Enhancing International Cooperation	- Mutual respect and trust.
	- Effective communication.
	- Person-to-person connections.
	- Collaborative projects.
	- Cultural exchanges.
	<ul> <li>Utilization of both virtual and physical exchanges.</li> </ul>
Impact Assessment Indicators	- Student and faculty feedback.
	- Mobility statistics.
	- Collaboration agreements.
	- Policy influence.
Challenges	- Lack of clear directives.
	- Findicial initiations.
	- communication parties.
Optimism and Potential	- Potential to enhance curriculum quality, promote cultural exchange, and strengthen institutional frameworks.
	<ul> <li>Recognition of active contributions from students and faculty through exchange programs, conferences, cultural exchange opportunities, and collaborative research projects.</li> </ul>



European Strategic Partnerships project "FOSTWOM: an Erasmus+ project with impact in female STEM public"

LISBOA

ÕE ÓBUDAI EGYETEM ÓBUDA UNIVERSIT UNIVERSITÉ







# University-University R&D collaboration

Imre Felde Óbudai University





- The Óbuda University's research strategy
- Why networking?
- Collaboration benefits
- Success Factors in Teams and partnerships
- Finding collaborators
- Case Studies



# Locations

**Campuses:** Budapest Cegléd Kaposvár Salgótarján Székesfehérvár

#### **Innovation Parks:**

Kaposvár Székesfehérvár Zsámbék



.









**female** in our Bprof, BSc, MSc Programmes

from **79** countries

23%





8,977 BSc (Bachelor of Science)

1,152

(Master of Science / Master of Arts)

**Bprof** (Bachelor of Profession)

Education - in figures 2023





- Promote international research excellence
- Increase the proportion of staff contributing internationally
- Develop step-change activities, support core excellence, promote emerging areas
- Extend the influence, application and dissemination of OU research
- Promote research collaboration and strategic alliances
- Improve the overall financial return from research awards



# Why networking?

- More knowledge and ideas
  Knowledge if Sau different fields, skills, cultures
  More human and financial resources
- Learn from others
- Possibilities for better products, service
- ings the arvielded as alle With network larger possibilities to busines internationally
- Positive human contacts also for the present/future



## Collaboration – benefits for you

- Expands your scientific horizons; offers experiences in new field areas (Access specialized knowledge or skills)
- Provides access to facilities, instrumentation (Access specialized equipment, software)
- Involves your students in other lab groups, networking for them and you (Access to academic offerings by students in distant locations)
- Lights a fire under you it's harder to put things off when you are accountable to your colleagues
- IT'S FUN!!!



# Collaboration alternatives

#### **Research Institutes and Universities**

- Exchange of research information
- Joint research projects
- Mobility of researchers within a collaboration project

## Industry

- Joint project
- Subcontracting
- Technology transfer
- Collaboration for marketing and distributing the project results



## Win-Win Partnership

- Create a win win partnership
  - Find partners (like university or another company), who have more than what you have
  - Use the best skills from both or all parties
  - Make firm agreements
  - The goal is that everybody wins





## Success Factors in Teams and partnerships

- The researchers have excellent knowledge in their fields and they are qualified and experienced
- Cooperation with other universities and companies
- Strong commitment and ethics
- Teamwork is natural, experiences welcome
- Application of modern research facilities and information channels
- Positive and active attitude to inventions and their development in the management of the university
- Good working conditions and terms for the team
- Good strategies, high quality and financial strength



# Challenges for the R&D teams

- Define goals and fields for the applied research
- Evaluate advantages of collaboration with different organizations, fields and areas
- Which research results can be commercialized and by whom?
- Use intellectual property to strengthen possibilities
- Consider advantages of local resources, skills possibilities, companies and markets
- Be aware of possible conflicts between science and business
- Remember that the world changes rapidly



# Potential Challenges of Collaboration

- Institutional differences in mission, vision, values
- Differences in institutional governance, systems and culture
- Structural differences in teaching loads, compensation
- Rivalry between institutions
- Loss of institutional identity and autonomy
- Increased complexity of communication
- Unanticipated costs in technology infrastructure and personnel
- Differing tuition and fees
- Accreditation issues
- Logistics: travel, space and time



## Practical collaboration principles

- Common objective, shared resources and tasks
  - Institution level
  - Department level
  - Pesonal leveé
- Each party covers their own costs as agreed
  - Establishing a common fund
- Utilisation of the results agreed among the participants
  - Preliminary agreement is welcome

# Inventions and networking from university

- New ideas, patents and other IP invented by researchers at the university
- Start-up companies based on the university research
- Co-operation projects between the university and industry
- Development projects at the university ordered and paid by a company ( contractual research )
- Subcontracts from large companies to small university related companies



## Why failures in R&D?

- The inventions or research results do not meet commercial need or markets
- Wish to make further research and never get results
- Problems in patenting or other IP
- Shortage of funding or capital problems
- Marketing or licensing efforts do not succeed
- Missing cooperation, team or management, human problems
- Too high expectations
- Small countries do not reach strong internationalization



- Clarify purpose and goals of collaboration in advance
- Clearly discuss motivations and expectations
- Clarify roles, responsibilities for participants
- For research, establish data management agreements
- Create a communication plan and process
- Define the expected outcomes and measures
- Identify and recruit the best participants



## Developing a good collaboration

- Avoid misunderstandings establish project roles, expectations, intellectual property, authorship order, etc. by agreement at the start, and have it in writing
- Allow plenty of time to write
  - proposals,
  - abstracts,
  - papers,
  - annual reports everything takes more time working in a group
- Acknowledge and factor in institutional differences and needs



- Don't fall into the trap of a flurry of research activities on a group of projects without a personal research agenda
- If you collaborate on several projects, be lead on one
- Make sure that someone can "see" your own research agenda in the work that you do both on your own and as a collaborator



# Finding collaborators

- People you already know (e.g., your post-doc group or grad school group)
  - Advantages: you know how to work with them, what people's good and bad points are; may provide project continuity
  - Disadvantages: no new perspectives, you may feel locked into a role
  - Advice: don't assume or let others assume be explicit about roles and expectations



## Finding collaborators

- New collaborators
  - Advantages: fresh ideas, broader network, may be easier to come in as an equal
  - **Disadvantages**: its more work to find people, and you don't know what they will be like to work with
  - Do your homework and ask around what is so-and-so like to work with? What do you like best? What do you like least?
  - Don't assume anything clarify roles and expectations in writing.



## Survey Responses-Obstacles to Collaboration

#### What are the biggest obstacles to collaboration?





## "Must Haves" for Successful Collaboration

- Top-level administrative support
- Realistic expectations
- Sufficient financial resources
- Professional respect
- Communication, Communication, Communication



# Details...before you begin

- Create a reward structure: monetary and P&T
- Establish clear descriptions of respective financial, human & resource contributions from participants
- Assure appropriate technology is in place
- Create process for negotiating differences



# Case Study (UANL-OU)

- The aim of the project is to develop production technology for functionally graded vehicle Components
  - 3D additive technology provides the opportunity to establish gradient structures within the components
  - Tasks:
    - Development of gradient technology,
    - Investigation and analyzis of secondary-production techniques
    - Development of simulation tool
- Institutional Scientific-Technological Bilateral Research Project
  - 24 month
  - Partners:
    - Universidad Autónoma de Nuevo Leon (Monterrey, Mexico)
    - Óbuda University (Budapest, Hungary)



Ceramic Ceramic matrixTransition regionMetal matrixMetallicphasewith metalwith ceramicphaseinclusioninclusioninclusion





- Teams:
  - UANL:
    - 1 Professor
    - 3 Phd students
    - 2 MSc students
  - OU:
    - 2 Professor
    - 2 Phd students
    - 1 MSc students

#### • Travels:

- UANL:
  - 4 travel
- OU:
  - 4 travel

# Case Study (UANL-OU)

- Results/Outcome:
  - Conference
    - 8 oral presentations
  - Papers:
    - 2 Q1 paper
    - 3 Q2 paper
  - Thesis/Diploma work:
    - 2 MSc Diploma work
    - 1 Phd Thesis
  - Projects:
    - Bilateral joint project
    - Industrial projects
    - Erasmus+



# Case Study (IST-OU)

- Development of simulation methods to support vehicle industry
  - Quantitative characterization of distortion phenomena using a prediction method with high computational power
  - Tasks:
    - Development of mathematical methods and simulation codes
    - Investigation and analyzis of software developed on physical experiements
    - Validation and POC
- Institutional Scientific-Technological Bilateral Research Project
  - 24 month
  - Partners:
    - Instituto Superio Technico U Lisboa (Lisbon, Portugal)
    - Óbuda University (Budapest, Hungary)

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- Teams:
  - IST:
    - 1 Professor
    - 1 Phd students
    - 2 MSc students
  - OU:
    - 2 Professor
    - 1 Phd students
    - 1 MSc students

#### • Travels:

- IST:
  - 3 travel
- OU:
  - 3 travel

# Case Study (IST-OU)

- Results/Outcome:
  - Conference
    - 4 oral presentations
  - Papers:
    - 1 Q1 paper
    - 4 Q2 paper
  - Thesis/Diploma work:
    - 1 MSc Diploma work
    - 1 Phd Thesis
  - Projects:
    - Industrial joint project
    - Erasmus+



# Thank you...any questions?



Co-funded by the Erasmus+ Programme of the European Union





#### **MOVIDIS PROJECT**

#### Developing International Experience for Students through Virtual Mobility

#### Blanca Martin Ayala, Université Côte d'Azur Dalenda Larifi, Université Nice Côte d'Azur

Master Class July 3<sup>rd</sup>, 2024 Organizer: Université Côte d'Azur, Nice

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Fachhochschule des














#### Developing International Experience for students through virtual mobility









275	Co-funded by the Erasmus+ Programme
	of the European Union



Developing International Experience for students through virtual mobility

- Dates of the project : 1<sup>st</sup> September 2019 31<sup>st</sup>August 2022
- 3 Years Duration
- Consortium : 6 universities from 4 EU countries
- Global budget : 332 744,00€









#### **MOVIDIS PROJECT IN KEY CONCEPTS**

From a Student point of view

From a Teacher point of view

From a HEI point of view

International experience of Students with difficulties

Multilateral recognition of ECTS **& Double Degree Graduation** 

Improvement of Hybridation of courses

Increase of english courses and skills

**Digital Transition of HEIs** 

Pedagogical innovation and adaptation of HEIs

















## The reasons of sharing good practices in International Virtual Mobility of students

Improve Student preparedness for a global era

**Become more attractive to prospective students at home and overseas - 13%** 

Bi or Multilateral international student exchanges  $\rightarrow$  Importance increased of 71%

Only 17% of the institutions offer Online and Distance learning courses









### INTERNATIONAL PROJECTS MASTERCLASS

- 1. Context of the MOVIDIS project and key figures
- 2. How it works
- 3. MOVIDIS online pedagogical environment
- 4. MOVIDIS support structures
- 5. MOVIDIS students and tutors
- 6. Official video of MOVIDIS project
- 7. Questions and discussion









## **CONTEXT OF THE PROJECT**

Originally, the Movidis project and virtual mobility was intended to be an <u>inclusive program which aims to</u> <u>reach new student profiles</u>.

→ Our objective: give the opportunity to students who cannot physically move for various reasons, to live an international experience.

#### $\rightarrow$ Our target :

- students with disabilities or illnesses
- □ students with economic constraints
- □ students with professional and/or family constraints
- students who are afraid of traveling and who fear physical mobility. Virtual mobility can be a first step to consider physical mobility later
- other reasons

#### **COVID19 pandemic and Movidis**

The global health crisis has boosted virtual mobility. With borders closed and travel limited, students assumed their "international" needs by joining the Movidis program.













## Internationalisation at home concept

Virtual Mobility is the new way of experiencing an Erasmus+ exchange while staying at home.

Students enrolled Movidis enjoy an immersive international experience from home.

Instead of moving physically to only one university they have the chance and the opportunity to select and study in at least 2 or 3 different universities!

Even if students are at home, they are considered as an 'normal' Erasmus student with all its **benefits** and **more** :

to study in one or more of our 6 European and recognized Universities specialized in Economics

COMPLUTENSE

- to learn a new European language or to improve their skills in one of them
- Monitoring and support from the IRO (or other office in charge)
- Support and help from teachers, regular individual interview with teachers

UNIVERSITÀ DEGLI STUDI

DI TORINO

- Individual support from the tutors
- **Recognition and transfer of ECTS**
- Issue of an open badge

UNIVERSITÉ CÔTE D'AZUR

- Live a multicultural experience
- . . . . .











## **PARTNERS UNIVERSITIES**







- Complutense University of Madrid : **Faculty of Economics and Business**
- University of Seville: **Faculty of Economics and Business Administration**



















UNIVERSITÀ DEGLI STUDI DI TORINO

UNIVERSIDAD COMPLUTENSE





### **HOW IT WORKS**

#### Language level :

- B2 English for Economic courses
- A2 for Language courses

#### **Pedagogical ways :**

- Moodle plateform
- □ Videoconference (Zoom, teams, google meet...)

#### Inclusivity :

- Uvebinar + meetings
- E-tutoring
- Coaching











## **HOW IT WORKS**

#### **Target group :**

- **3**<sup>rd</sup> year bachelor students in the field of Economics, enrolled in universities members of the consortium
- Particular attention to students with disability and/or with a low income

#### **Mobility period : 1 semester only**

- □ 1st cohort of VM from September 2020 to June 2021
- **Q**<sup>nd</sup> cohort of VM from **September 2021 to January 2022**
- Given the second state of VM from January to June 2022

#### **Courses and number of ECTS : (online catalogue)**

- □ 1,2 or 3 courses of Economics + 1 course of Foreign Language
- □ Number of ECTS required, per semester: minimum 9 ECTS maximum 18 ECTS







> VIRTUAL CAMPUS - Online catalog courses, multi-site virtual classrooms - Online teaching coaching session provided by teachers - Regular online meeting and webinar





TRANSVERSAL SKILLS RECOGNITION
- Open Badge for students
- Open Badge for tutors



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MADRID







## Key figures





#### **Number of courses offered : 23 Economics + 4 Foreign Languages**

Number of teachers involved : 26

Number of student for the project : **120** 







## **MOVIDIS ON LINE LEARNING ENVIRONMENT**

- PEDAGOGICAL ENVIRONMENT
- SUPPORT STRUCTURES : Movidis Office and IROs









## **PEDAGOGICAL ENVIRONMENT:**

## Moodle platform: Choice of all the MOVIDIS partners universities as the

- ✓ most economical solution.
- ✓ most known and used LMS platform.

#### Advantages of Moodle:

- 1. Open source.
- 2. Accessible for all.
- 3. Security & privacy.
- 4. Flexible learning.
- 5. Mobile learning.
- 6. Easy integration.











## **PEDAGOGICAL ENVIRONMENT:**

Training and resources provided to MOVIDIS teachers at the beginning of the project:

- 4 virtual sessions "Moodle basics and collaborative activities" and several coaching sessions.
- ✓ Lesson activity in Moodle
- ✓ Online assignments and quiz on Moodle
- ✓ Creating video content
- ✓ International students: Best practices
- Guide for teachers on using Moodle for VM courses:
- ✓ Tutorials and resources for the Moodle use
- Guide for students on using Moodle for VM courses:
- ✓ Instructions for accessing the Moodle platform of each university.



Guide for teachers on using Moodle for Virtual Mobility courses



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## **PEDAGOGICAL ENVIRONMENT:**

Each teacher choose the learning methodology for the courses.

Main options:

- **Synchronous lessons:** in real time.
- Asynchronous lessons: deferred.
- **Hybrid:** Synchronous + Asynchronous.







## **SUPPORT STRUCTURES : MOVIDIS OFFICE**



Université Côte d'Azur – International Development Directorate-

- Central link for all the MOVIDIS administrative.
- Helpdesk for students, teachers, tutors and IRO.
- Animation of students and tutors.







## **SUPPORT STRUCTURES : MOVIDIS OFFICE**

**Central link for all the administrative information of International Relations Offices:** Learning Agreements, Information's Sheets, After Learning Agreements.









## **SUPPORT STRUCTURES: MOVIDIS OFFICE**

Helpdesk and animation: Students, tutors.







#### WHO WE ARE? Project Managers from Université Côte d'Azur and coordinator of the Movidis project MOVIDIS OFFICE





Sara Sidaoui











#### INTERNATIONAL RELATIONS OFFICE OF EUR ELMI – GRADUATE SCHOOL OF ECONOMICS AND MANAGEMENT – UNIVERSITÉ CÔTE D'AZUR

Activities focused on international student mobility, but also on other activities such as:

- Management of agreements and partnerships
- o Mobility and excellence grants
- Applications from Free Mover students
- Double Degree Program with several partners
- Management of a University Diploma dedicated to international students
- Participation in Université Côte d'Azur projects
- Organization of faculty and IRO events (Annual International Seminar, Graduation Ceremony, Open Days, ....).

















Before mobility:		During mobility:		After mobility:	
1. 2. 3. 4.	Interinstitutional agreement preparation: requirements for students and protocols to follow. Model documents drafting: Learning Agreements, After Learning Agreements, Information sheets. Call for applications planification: forms and deadlines. Guides and tutorials for students, teachers and tutors.	1. 2.	Helpdesk for students, teachers, tutors and IRO. Follow up and animation of students and tutors: online periodical meetings. VIRTUAL CAMPUS	1. 2. 3.	Coordination of the final documents signature: After learning agreements and TOR Soft skills assessment and open badges awarding. Surveys and evaluation of results.
5. 6. 7. 8.	List of available courses for each semester. Preparation of the semester calendars. Student list coordination. Coordination of the initial documents signature.				







MADRID







#### INTERNATIONAL RELATIONS OFFICE OF EUR ELMI – GRADUATE SCHOOL OF ECONOMICS AND MANAGEMENT – UNIVERSITÉ CÔTE D'AZUR

Our IRO is located on the Faculty of Economics and Management of Université Côte d'Azur. We are a team with 4 people:

- > 2 officers in charge of International Mobility (Incoming and Outgoing)
- > 1 responsible of IRO
- > 1 International Affairs Advisor



Carolina, in charge of Outgoing mobility



Jules, in charge of Incoming mobility



Imène, responsible of IRO



Guilhem, International Affairs Advisor (Vice Dean of International Relations)







MADRID





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→ Creation of a favorable environment for virtual students by offering coaching

Missions of the tutor: guide, help, assist and introduce them to the system of the University

 $\rightarrow$  = Key contact between the teachers, the university and the virtual student.













#### **Tutoring : how to give students an immersive experience ?**

#### 3 functional specifications:

- Tutoring the courses of Economics (= pedagogical):
   Helping with the courses, Being able to monitor students from different countries, culture and background.
- Mentoring the Virtual Mobility ( = social):

Helping with the virtual mobility in general: one to one discussion, guiding the student through the specific system of the university: moodle platform, registering, understanding the grading system...

Reporting to the teachers + office in charge:

After each tutoring session, the tutor complete a survey and a feedback to note every progress, difficulties or things to report on the evolution and work of the student.





#### **MOVIDIS students and tutors**

Sara Chioccia, student from Università degli Studi di Torino

https://youtube.com/shorts/AZy4CNV Vrs?si=KCn7VJn ea8v83d3









#### **MOVIDIS students and tutors**

Raji Lamiae, student from Université Côte d'Azur

https://youtu.be/Ea6fNNCuYhI?si=pHoPY4IBj5k7avBh











#### Video presentation of the MOVIDIS project



https://youtu.be/6ZiESDuTAds?si=XOpWjRNI\_WH-d5JZ







## For more information: <u>www.movidis.eu</u> Erasmus + Platform results: MOVIDIS

## blanca.martin@univ-cotedazur.fr









# Fostering Women to STEM **MOOCs** Ana Moura Santos (IST, University of Lisbon) \$ **UNICATION Masterclass** International Projects July 3, 2024



# Agenda

- 1. FOSTWOM project
- 2. Can MOOCs lower the gender unbalance in STEM?
- 3. FOSTWOM actions (Toolkit+MOOCs)
- 4. Using the FOSTWOM Toolkit



## Erasmus + 2019-1-ES01-KA203-065924 (2019-2022)

# FOSTWOM Project





# Partnership

# 5

**Higher Education Institutions** 

- IST Universidade de Lisboa (Portugal)
- Politecnico de Milano (Italy)
- KTH (Sweden)
- Conservatoire National des Arts et Metiers (France)
- Universitat Politecnica de Valencia (Spain)

L High Schools

- Colégio de Amor de Deus (Portugal)
- IIS Benedetto Castelli (Italy)



# How may MOOCs help to lower the gender unbalance in STEM subjects?

 Using MOOCs to propose STEM subjects free of stereotyping assumptions on gender abilities;



# How may MOOCs help to lower the gender unbalance in STEM subjects?

- Using MOOCs to propose STEM subjects free of stereotyping assumptions on gender abilities;
- Attracting girls and young women to science and technology, through accessible online content, role model's interviews, relevant real-world situations;



# How may MOOCs help to lower the gender unbalance in STEM subjects?

- Using MOOCs to propose STEM subjects free of stereotyping assumptions on gender abilities;
- Attracting girls and young women to science and technology, through accessible online content, role model's interviews, relevant real-world situations;
- Applying good practices in videos and online courses' design that can give that sense of belonging that female students seek when enter STEM areas.


### FOSTWOM priority actions

Diagnosis of gender balance in MOOCs and STEM TOOLKIT for designing producing and validating STEM MOOCs under a gender balance perspective

Create one MOOC about the TOOLKIT

Create two STEM MOOCs using the TOOLKIT

Training sessions with teachers and technical staffs.



### How to use the TOOLKIT?

• **TOOLKIT for whom?** Any person or institution that wants to develop MOOC content with a gender balance narrative;



### How to use the TOOLKIT?

- **TOOLKIT for whom?** Any person or institution that wants to develop MOOC content with a gender balance narrative or check if the offered MOOCs respect gender balance;
- Which format? It is an open checklist for content experts, visual designers, instructional designers.



#### CHECKLIST TOOLKIT

#### GENERAL

#### CONTENT EXPERTS

Do you reflect on yourself and your professional role in a gender-conscious way? Are female content experts part of the teaching staff of this MOOC?

Do you reflect on how gender influences teaching and learning in your specific subject? Do you actively seek ways to be inclusive to both women and men in your approach to the design of this MOOC?



CONTENT

#### CHECKLIST TOOLKIT

FOST WOM

#### VISUAL DESIGNERS

Is the storyboard written taking into account a good balance between the need of using a non sexist language (i.e. "s/he", "she or he", etc) and the need of avoiding repetitions so that the speech maintains a natural feel? Did you check if the text in the images is gender-balanced? Did you check if the text in the videos is gender-balanced?



### FOST VOM

### MOOC on Machine Learning







### Applying the TOOLKIT to a STEM MOOC

• **Tutors presenting.** Pedro who presents the machine learning parts and Ana who talks abouts the mathematics and the ethical issues;



### Applying the TOOLKIT to a STEM MOOC

- **Tutors presenting.** Pedro who presents the machine learning parts and Ana who talks abouts the mathematics and the ethical issues;
- Which pedagogical choices? Carefully chosen datasets, the examples are from real-life situations, female experts' interviews, etc.



WOM

#### CHECKLIST TOOLKIT

VISUAL DESIGNERS

## Football

Baby

betyeen the need of using a nor





Did you check if the text in the videos is gender-balanced?



https://fostwom.eu



https://fostwom.eu



Co-funded by the Erasmus+ Programme of the European Union

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# https://fostwom.eu

Thank you!

#### **Closing Remarks**





ÓBUDAI EGYETEM ÓBUDA UNIVERSITY

Prof. Ana Moura Santos from IST, we reflect on the crucial role of MOOCs in empowering women in STEAM (Science, Technology, Engineering, Arts, and Mathematics) fields.

The FOWSTOM project underscores the importance of providing accessible, flexible, and high-quality education through MOOCs. These online courses break down barriers to education, making it possible for women around the world to engage in STEAM disciplines regardless of their geographical location or personal circumstances.

By offering specialized STEAM courses, MOOCs help to:

- Promote Gender Equality: Encouraging more women to participate in STEAM fields, which have traditionally been maledominated.
- Enhance Skills and Knowledge: Providing women with the tools and expertise needed to excel in their careers.
- Foster Innovation: Bringing diverse perspectives into STEAM, which is essential for driving creativity and innovation.
- Build Confidence: Empowering women to pursue and succeed in STEAM careers through accessible and supportive learning environments.

The impact of these courses extends beyond individual advancement. By enabling women to thrive in STEAM, we contribute to building more inclusive, innovative, and resilient societies.

We encourage all institutions to continue supporting and expanding MOCS in STEAM, ensuring that more women can benefit from these opportunities. Together, we can make a significant difference in promoting gender diversity and excellence in STEAM fields. Prof. Imre Felde from OU has eloquently presented the importance of building networks to foster new projects and enhance research connections between universities.

As highlighted, OU is committed to promoting staff contribution in international projects, increasing international research collaboration, forging strategic alliances, and supporting core excellence. Prof. Felde emphasized that to achieve these goals, it is crucial to cultivate more ideas and positive human interactions. Mobility of students, active participation in conferences, and meeting new people with diverse mindsets are key factors in this endeavor.

Researchers are encouraged to explore opportunities abroad, as these experiences are invaluable for establishing win-win partnerships. While navigating international collaborations, it is important to be mindful of potential challenges related to intellectual property and the intersection of science and business. Strengthening the relationship between academia and industry is also vital.

In Hungary, as in other contexts, it is important to celebrate achievements, align expectations and motivations, and share both experiences and challenges. Building personal relationships is mandatory for the success of international projects. Engaging students in these projects can be highly beneficial.

Ultimately, for these projects to thrive, they must yield tangible results, be supported by financial resources, and be underpinned by strong communication skills and the ability to negotiate differences. About the presentation on the MOVIDIS project, led by Université Côte d'Azur, focusing on Internationalization at Home. This remarkable initiative, co-financed by the EU, has made significant strides in the realm of distance teaching and learning, catering to students who are unable to be physically present.

The MOVIDIS project offered a diverse array of economic and language courses, which included Spanish, Italian, and French language courses, alongside 23 economic courses. Through this initiative, a total of 26 dedicated teachers and 120 enthusiastic students from six partner institutions participated, creating a vibrant and dynamic learning environment.

A key highlight of the MOVIDIS project is the emphasis on virtual mobility. This concept is crucial as it allows students to gain international exposure and intercultural experiences without the need to travel physically. Virtual mobility breaks down geographical barriers, making high-quality education and diverse cultural exchanges accessible to a wider audience. This flexibility is particularly beneficial for students who may face financial, logistical, or personal constraints that prevent them from participating in traditional study abroad programs.

Through virtual mobility, students not only enhance their academic knowledge but also develop crucial informal skills such as cross-cultural communication, adaptability, and digital proficiency. These skills are increasingly valuable in today's globalized world and prepare students for the international workforce.

Université Côte d'Azur is pleased to share a comprehensive guide on utilizing the Moodle platform, which was integral to the success of this project. This guide will be available for all participants on the UNICATION website, serving as a valuable resource for future endeavors in distance education.

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