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# INNOVATIVE TRAINING APPROACH IN THE TECHNOLOGY ASSISTED ENVIRONMENT FOR WATER (PARADOX) 2020-1-UK01-KA203-078871

# **Multiplier Events Report**

### https://paradoxproject.eu/

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### **Table of Contents**

1.		3	
	2.	MULTIPLIER EVENTS	4
	2.1 2.2	MULTIPLIER EVENTS AND ACTIVITIES	4 4
3.		ME EVENT-ACIF,PORTUGAL – MADEIRA	7
4.		ME EVENT-IHU, DRAMA-GREECE	0
5.		ME EVENT- EYEBB SYSTEMS, HIGH WYCOMBE, UK	11
6.		ME EVENT- UNIVERSIDAD POLITECNICA DE MADRID-SPAIN	21
7.		ME EVENT- UTB, ROMANIA	35
8.	N	ME EVENT- LINIPA ITALY – PALERMO	46

### 1. Introduction

Managing water is one of society's greatest challenges. What was once an abundant natural resource now requires careful management to ensure its availability and quality for future generations.

In a recent survey of over 830 EU professional engineers and employers, climate change mitigation was identified as having the biggest shortfall in skills in the water industry. The 2018 Water and Environment Skill Shortage research, produced by engineering recruitment firm Matchtech and the Chartered Institution for Water and Environmental Management

(CIWEM), found that engineers see flood risk engineering as experiencing the highest skills shortage in 5-10 years. Uncovering the impact of this skills shortage, the survey found that 81% of employers have seen increased employee turnover and 70% said that it has resulted in a reduced ability to finish projects.

It is clear from these results that engineers and employers in the water industry are fearful for the future of their sector. Extreme weather and rising sea levels, related to climate

change, are likely to increase the risk of flooding and it is vital that training address the current skills gap within the EU.

Training and collaboration with universities were cited by both engineers and employers as key solutions to help fill the skills gap. In addition, those surveyed suggested that skills from the energy, maritime and highways industries are transferrable to the water and environment sector.

Paradox will cover skill gaps for a successful and rewarding career optimising the use of water resources and mitigating climate change impact, in the relevant industry, government, consultancy, and charitable sector. While Europe is by large considered as having adequate water resources, water scarcity and drought are increasingly frequent and widespread phenomenon in the EU. What was once an abundant natural resource now requires careful management to ensure its availability and quality for future generations. It was estimated that by 2027, at least 17 % of Europe's population and 19 % of its territory will be affected by water scarcity, putting the cost of droughts in Europe over the past thirty years at EUR 100 billion. It is expected further deteriorate of the water situation in Europe if temperatures keep rising because of climate change. Water will be no longer a problem in a few regions but will concern all 512 million Europeans. Water scarcity will be followed by people displacement and is expected in the next 15 years that 800,000 people across the world to start migrating due to drinking water scarcity. Currently, in all partner countries, there is no training or other courses for sustainable water management that looks at mitigation of risk on water management as well as environmental aspects that determine incumbent risk.

PARADOX is intended to be attuned to current labour market needs in modern society and to provide opportunities for students to gain additional skills through study and training abroad by promoting internationalization. This will increase social mobility in Higher Education. All partners in the consortium are located in regions which are highly influenced by climate change and are exposed to migration due to socio-economic and environmental aspects. They are involved in research and innovation initiatives, which strengthen the links between education, research and business by promoting excellence and regional development. PARADOX objectives are to support the enhancement of tertiary water education capacities: promote and assist the development of interdisciplinary and multidisciplinary curricula linked to water-related programmes; develop interdisciplinary materials, connected with climate change education for water security, linked to

Report: Multiplier Events Report

the implementation of the International Hydrology Programme for 2020-2027.

Paradox will address those basic and transversal competencies needed in the water management sectors: Eco-innovation, business continuity, technical surveillance, industrial property, competencies in foreign languages and Information and Communication Technology (ICT) tools.

Paradox's approach aims to recognise and validate the competencies and skills acquired by making use of the ECTS instrument and National Qualification Frameworks of the participant countries supported by Blockchain certification validation.

These will equip future and current youth workers from these traditional sectors with all skills and competencies currently needed to deliver high-quality products and services to boost the competitiveness of the EU security sector with the main emphasis on the environment.

Paradox will trigger modernization and reinforce education aligned with the needs and opportunities offered by traditional industries, improving the use of Industry 4.0 applications.

### 2. Multiplier Events

### 2.1 Aim of the Multiplier Events

The aim of this dissemination event is to showcase the work performed under the framework of the PARADOX project: results, lessons learned and outcomes and findings beyond the participating organisations. This will enable a wider community to benefit from work that has received EU funding.

6 Multiplier Events has conducted.

PARADOX will trigger modernisation and reinforce education aligned with the needs and opportunities offered by traditional industries. It will provide, assess, and look for the recognition of basic skills needed in the environmental-related sectors. PARADOX will also address transversal skills, such as entrepreneurship, foreign languages and digital competences.

HE students and staff, and also everyone involved in the development of this initiative will have the chance of increasing their sense of initiative and entrepreneurship, their competences in foreign languages and, of course, increasing their skills and capabilities for employability in an industrial sector which is the main key driver in many European regions.

### 2.2 Multiplier events and activities

- -The multiplier events and activities planned will help to showcase the work done.
- A cooperation and exchange of experiences among entities from different fields (HEI, , Industry, Policy Makers, etc.) and among people with different profiles (HEI trainers, traditional sector workers, entrepreneurs, people from the public sector, etc.), and even different countries (UK, Spain, Portugal, Estonia, Romania, Italy and

Greece) (\*) for the support of synergies between education, research and innovation activities.

- Participants will get to know the situation in foreign nations and learn from their experiences.
- Change of perspective of involved policymakers in the area of labour and Higher Education, which will get to know the actual training needs of the students, the industry, entrepreneurs and companies.
- The profile of the partners will increase, since they will get exposure to a wider set of stakeholders and potential customers, even at international level.
- The reinforcement of the links between HEI training and the actual situation in the labour market and industries.
- The promotion of innovative practices in training, through the creation of an Open Educational Resource (OER) and Flexible Learning content that will offer an innovative method for people to learn on the learning pillars in relation with traditional sectors, as well as entrepreneurship within this field.
- The promotion of product creativity that integrates new technologies with traditional sector products, and business.
- An assessment tool to facilitate the transition of learners through different levels and types of nonformal education and recognition and validation of competences and qualifications.

Furthermore, activities that will be carried out under the management, implementation and dissemination of the project and the development of the project in general will anticipate the

### following intrinsic results:

- -Cross-Border cooperation among partners in the field of education and employment from different EU countries from different nature (HE, industry, social services providers), but with common goals related to traditional sectors the alignment of HE policies with local, regional and national economic development strategies.
- The Enhancement of the commitment of local and regional public authorities in the high quality HE offers, labour inclusion by work based training and the identification of key skills and capacities.
- The involvement of participants in this project will improve their capacities in the area of strategic development, organisational management, leadership, quality of learning provision, equity and inclusion and qualitative and targeted activities for the main target group.
- The encouragement of the assessment of skills and the promotion of entrepreneurial experiences.

### Report: Multiplier Events Report

- The enhancement of Industry 4.0/Blockchain uptake by mainstreaming the use of open and innovative education and producing and adopting OER in diverse EU languages.

- The support of the adjustment of EU funding to the needs of social inclusion of the unemployed at risk of social exclusion.

Report: Multiplier Events Report

3. ME event-ACIF, Portugal – Madeira



# Dissemination Seminar in Portugal – Madeira Island

**ACIF-CCIM** 

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Innovative Training Approach in the Technology Assisted Environment for Water Management

### Report:

# SUMMARIZE INFO PROJECT TITLE: Innovative Training Approach in the Technology Assisted Environment for Water Management-**PARADOX** WP REFERENCE: Dissemination TASK REFERENCE: E6 Paradox Dissemination Seminar in Portugal PARADOX CONTACTS: marco.vieira@acif-ccim.pt **AUTHORS AND AFFILIATION:** Marco Vieira, Jorge Sousa e Lizete Gonçalves - ACIF-CCIM DATE: **24 February 2023 DOCUMENT VERSION 7 STATUS:** V.1

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### 1. DISSEMINATION ACTIVITY

### 1.1 Introduction

The ACIF-CCIM team, Marco Vieira, Jorge Sousa and Lizete Gonçalves, prepared, promoted and presented the Paradox Project in Madeira in the 24<sup>th</sup> of February at the association's headquarters, Rua dos Aranhas, 24, Funchal, Madeira Island.

A oral presentation was divided in three points:

Presentation of the Paradox Project Objectives, by Marco Vieira;

Presentation of the Moodle Platform, where are the contents of the PARADOX program modules, by an invited guest, Eduardo Marques from the University of Madeira; Finally, the presentation of the Paradox project results, by Marco Vieira.



Figure 1. Image presented at the event to explain and promote the Fund Erasmus+



The event lasted an hour and was attended by 25 people in the room.

From several participants, we highlight the representatives of the Regional Secretary of Agriculture, the Secretary of Tourism and Culture among other participants from other entities and private persons, with special interest in water management.



Figure 2. Photo of the Paradox Project presentation - Marco Vieira



Figure 3. Photo of the Paradox Project presentation of Moodle Platform - Eduardo Marques





Figure 4. One of the slides presented, to explain the objectives of the Paradox Project





Figure 5. Attendee list of Paradox Project dissemination Event

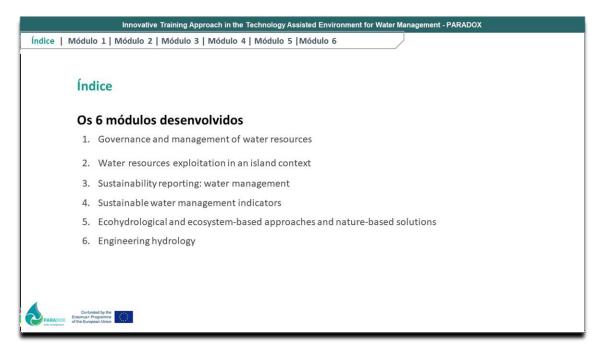


Figure 6. One of the slides presented, to explain the objectives of the Paradox Project

### 1.3 The event Promotion



The event was promoted in several ways, on the ACIF-CCIM web page, on the ACIF-CCIM Facebook account and through a newsletter. The newsletter was sent twice. Were sent about 1600 newsletters to companies and official entities of the Autonomous Region of Madeira.



Figure 7. Newsletter of Paradox Presentation

### 1.4 Paradox in Media

The Autonomous Region of Madeira has two News Diaries, and both published the presentation of the Paradox Project:

Date: 24-03-2023 – Diário de Notícias:

https://www.dnoticias.pt/2023/2/24/349792-paradoxcria-plataforma-de-aprendizagemsobre-a-gestaoeficiente-da-agua/

Date: 24-03-2023 – Jornal da Madeira:

https://www.jm-

madeira.pt/regiao/ver/199509/Apresentacao de resultados do

Projeto PARADOX



### 4. ME event-IHU, DRAMA-GREECE





IO: MULTIPLIER EVENT DRAMA-GREECE







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Innovative Training Approach in the Technology Assisted Environment for Water Management



### **SUMMERIZE INFO**

# PROJECT TITLE: Innovative Training Approach in the Technology Assisted Environment for Water Management-PARADOX WP REFERENCE: IO TASK REFERENCE: IO PARADOX CONTACTS: Viakovoglou@yahoo.com; zaimesg@for.ihu.gr AUTHORS AND AFFILIATION: Valasia Iakovoglou, George Zaimes DATE: December 2022 DOCUMENT VERSION 7 STATUS: V.1

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### SUMMARY - MULTIPLIER EVENT TESTER - GREECE

For the PARADOX project a "multiplier event" took place in order to assess the virtual learning platform. University forestry students were the audience from the GERi Lab of the School of Geotechnical Science of the International Hellenic University, Drama, Grece. The event was a great success since 21 participants attended the event (photo 1).



Photo 1. The students of the International Hellenic University that attended the multiplier event.

The students were explained on the projects goals and the importance of evaluating the platform in order to achieve the best outcome for the presented teaching modules at the website of the PARADOX project (photo 2).



Photo 2. Multiplier event with students as main audience.

As it can be seen in photo 3, the students were able to interact and navigate through the project's platform. The students have the opportunity to experiment,



ask questions and express their opinion on potential recommendations that might better assist to easier use the platform. Continuously, they filled the questioner in order to get their feedback on the platform and the teaching modules. The results of these surveys are shown in this report.



Photo 3. Multiplier event indicating the structured modules implemented by the students.

Location and Date: GERi Lab of the School of Geotechnical Science of the International Hellenic University, Drama, Grece 15/12/2022



### LIST OF PARTICIPANTS

A total of 21 students participated at the multiplier event. Detailed information is provided at photo 4. The result was outstanding.





### **PARADOX SURVEY - External Evaluation of Learning Course**

Summary of the responses from the surveys based on Greek University students that participated. The questioner was comprised by questions that are provided in Table 1. Three are the sections that are analysed; section A, section B and section C.

Table I. The related questions that were included at the questioner

able I.	The related questions that were included at the questioner.				
A/A	Questions				
	Section A				
1	Type of organisation				
	<ol> <li>Student, 2) International organisation, 3) Government organisation/ Unesco, 4)</li> <li>Free lancer, 5)VET centre, 6) University, 7)Entrepreneur, 8) Charitable sector,</li> <li>NGO, 10) Government organisation, 11) Public, 12) Companyadministration,</li> <li>SME</li> </ol>				
2	Your expertise				
	Other				
	Environment				
	Training and research				
2.4	Industry				
	Section B				
3	Should this subject be at an advanced level or a basic level? (Basic, Advanced)				
3.1	Surface and Ground Water Hydrology: Processes, Measurement and Modelling				
3.2	Ecological Status				
3.3	Water in Cities and Catchments				
3.4	Climate Change Assessment				
3.5	Water management Legislation				
3.6	Social impact of climate change				
3.7	Workplace, leadership & personal effectiveness competences				
	Section C				
4	What is your view on any of the following being included in a Master Degree for the water management sector? (Yes, No, Maybe)				
11	Quality Assurance and Blockchain algorithms				
	Soft skills				
W. C. C.	Fundamentals of standards – regulatory and technical				
	Fundamentals of standards – regulatory and teermical  Fundamentals of health/safety/environment laws/risk management				
	Fundamentals of enabling technology applications				
	Fundamentals of setting up a business - Entrepreneurship				
5	Do you want to receive more information and updates about our project?  (Yes, No)				



### Greek university students Section A

Following are the results based on university Greek students. From those, 88% responded that they were expertised in "other" skills, 6% at the "environment" and another 6% at "training and research" skills (Figure 1). This indicates that most likely the students along with their studies they have a tendency to seek additional skills based on their interests.

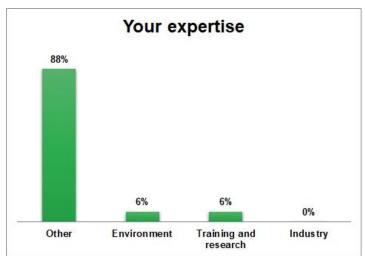


Figure 1. The experience of the participants.

### Section B

Further, at section B the students were asked whether specific courses should be offered as "Basic" or "Advanced". The results indicated that for the course of "Surface and Ground Water Hydrology: Processes, Measurement and Modelling", all students (100%) thought that it should be considered as "Advanced" (Figure 2). For the course of "Ecological Status" 94% also consider that it should be characterized as "Advanced" and only a 6 % as "Basic" (Figure 3). For the course of "Water in cities and catchments" 82% consider that it should be characterised as "Advanced" and only 18% as "Basic" (Figure 4). For the course "Climate Change Assessment" and the course "Water management Legislation" the students strongly believed that they should be considered as "Advanced" (100% response) (Figure 5 and Figure 6, respectively). Finally, both the "Social impact of Climate Change" (Figure 7) and the "Workplace, leadership and personal effectiveness competences" (Figure 8) courses were characterized as "Advanced" with an 88% and 94%, respectively.



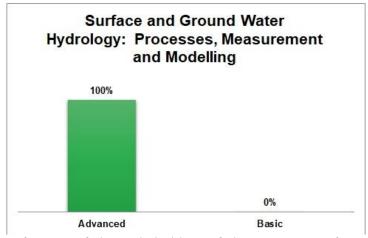


Figure 2. The preference of the stakeholders of the course "Surface and Ground Water Hydrology: Processes, Measurement and Modelling" as "Basic" or "Advanced" level.

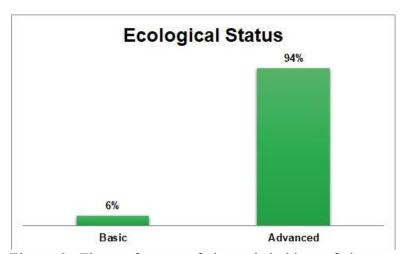


Figure 3. The preference of the stakeholders of the course "Ecological Status" as "Basic" or "Advanced" course.

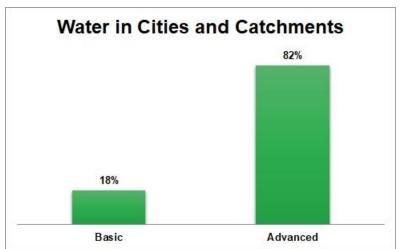


Figure 4. The preference of the stakeholders of the course "Water in cities and catchments" as "Basic" or "Advanced" course.



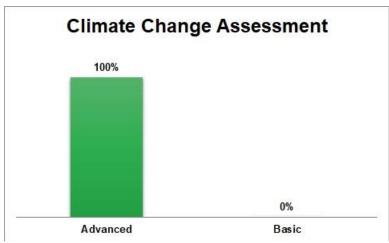


Figure 5. The preference of the stakeholders for the course "Climate Change Assessment" as "Basic" or "Advanced" course.

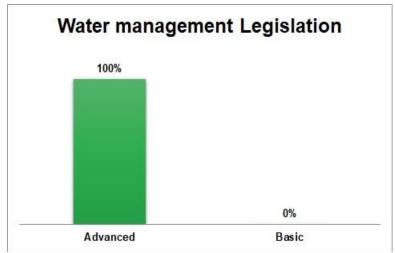


Figure 6. The preference of the stakeholders for the course "Water management Legislation" as "Basic" or "Advanced" course.

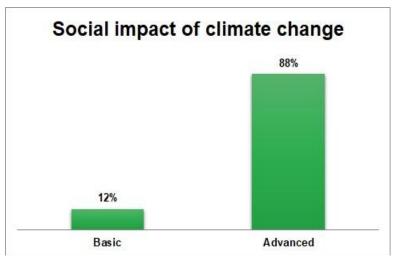


Figure 7. The preference of the stakeholders for the course "Social impact of Climate Change" as "Basic" or "Advanced" course.





Figure 8. The preference of the stakeholders for the course "Workplace, leadership and personal effectiveness competences" as "Basic" or "Advanced" course.

### **Section C**

For this part of the questioner, the students were asked whether specific courses should be included in a Master Degree for the water management. sector based on "yes", "no" or "maybe" options. Specifically for the topic "Quality Assurance and Blockchain algorithm" the results revealed an 82% "yes" and an 18% "maybe" (Figure 9). For the topic "Soft skills" a 94% of the students replied "yes" and only 6% "maybe" (Figure 10), while for the topic "Fundamental of standards-regulatory and technical" 94% replied "yes" and only 6% "no" (Figure 11). For both the topics "Fundamental of health/safety/environment/laws/risk management" (Figure "Fundamentals of enabling technology applications" (Figure 13), 94% of the participants wanted those topics and only a 6% was not sure. Finally, for the topic "Fundamentals of setting up a business-Entrepreneurship" all of the students replied "yes" (Figure 14). While the students did not have any additional comments to add, they all showed a great interest (100%) that they want to receive and be informed regarding the progress and the updates of the project (Figure 15).



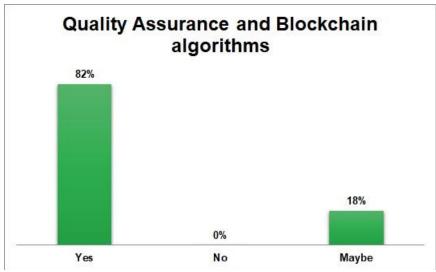


Figure 9. The preference of the participants for the topic "Quality Assurance and Blockchain algorithms" to be included at a water management sector Master Degree.

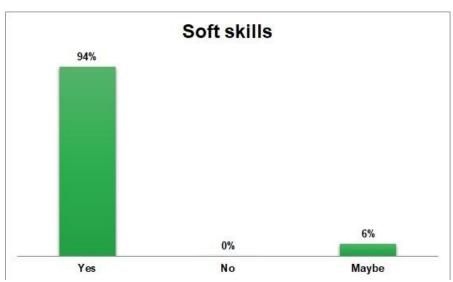


Figure 10. The preference of the participants for the topic "Soft skills" to be included at a water management sector Master Degree.

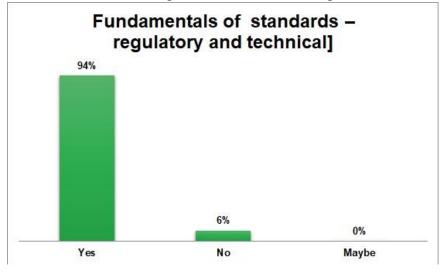




Figure 11. The preference of the participants for the topic "Fundamental of standards-regulatory and technical" to be included at a water management sector Master Degree.

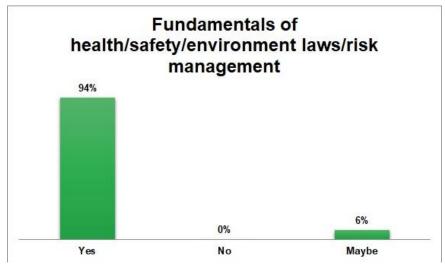


Figure 12. The preference of the participants for the topic "Fundamental of health/safety/environment/laws/risk management" to be included at a water management sector Master Degree.

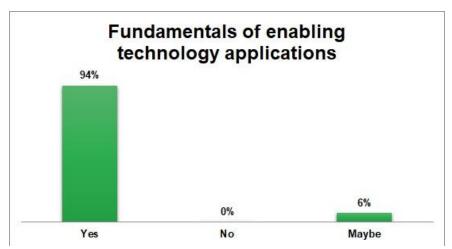


Figure 13. The preference of the participants for the topic "Fundamentals of enabling technology applications" to be included at a water management sector Master Degree.



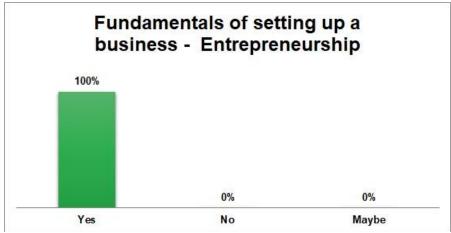


Figure 14. The preference of the participants for the topic "Fundamentals of setting up a business-Entrepreneurship" to be included at a water management sector Master Degree.

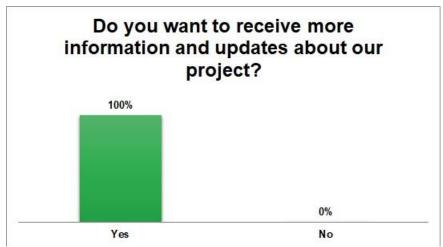


Figure 15. Results based whether the participants want to receive any more information or updates related to the project.



### 5. ME event- EYEBB Systems, High Wycombe, UK





# Output

MULTIPLIER EVENT EYEBB SYSTEMS-UK

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WWW.PARADOX.EU Innovative Training Approach in the Technology Assisted Environment for Water Management



# **SUMMERIZE INFO**

# PROJECT TITLE: Innovative Training Approach in the Technology Assisted Environment for Water Management-**PARADOX** WP REFERENCE: ME TASK REFERENCE: ME PARADOX CONTACTS: i.bandara@eyebb.co.uk, info@eyebb.co.uk **AUTHORS AND AFFILIATION:** Indra Bandara, EYEBB Systems DATE: December 22 **DOCUMENT VERSION STATUS:** V.1

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### **SUMMARY - MULTIPLIER EVENT (ME) - UK**

The PARADOX project held a "multiplier event" to evaluate the virtual learning environment. The audience consisted of some university students and external stakeholders. Due to the attendance of 22, the event was a huge success.

### Introduction

Water management is becoming increasingly important as the global population grows, and the demand for water increases. An effective approach to water management is crucial to ensure the sustainable use of water resources and to protect ecosystems that depend on them. This event presents a training approach for the PARADOX project on environmental water management that aims to equip professionals with the necessary skills and knowledge to manage water resources sustainably.

### ME workshop objectives:

The objective of the ME approach is to enable professionals to:

- 1. Understand the principles of sustainable water management
- 2. Develop skills to identify threats to water resources and determine appropriate mitigation measures
- 3. Understand the regulatory framework for water management and how to adhere to it
- 4. Introduce the PARADOX training pack (Handbook for university professors & assistants, Workbook, Manual for Industry 4.0 learning platform) and the website will be presented during the workshop.

### Workshop programme:

The ME programme comprises a range of learning approaches that aim to inspire and empower professionals to become effective water stewards. The programme includes:

Classroom-based introductions: The programme will cover topics such as water scarcity, water quality, ecosystem health, climate change and water regulations. The learning process will be interactive, providing opportunities for participants to engage in discussions, case studies, and group work.

the opportunity to observe how water facilities operate in practice and interact with professionals in the sector.

Expert talks: The programme includes talks by experts in the field of water management who share their knowledge and experience in managing water resources in different situations.

### **Evaluation:**

The workshop programme will be evaluated using a range of methods, including participant feedback, assessments of the learning outcomes, and monitoring of the implementation of the acquired knowledge and skills in practice. The evaluations will help identify improvement areas in the training approach and provide feedback to the trainers and participants.





External stakeholders and University students that attended the multiplier event.

On the PARADOX project website, the goals of the project and the significance of evaluating the platform to produce the best results for the modules of instruction offered to the students were explained.



Multiplier event main audience.







### **Conclusion:**

The training approach for environmental water management is designed to provid professionals with the necessary skills and knowledge to manage water resources sustainably. The programme is unique in integrating classroom-based learning, practical training, field visits, expert talks and group projects. With this approach, professionals can acquire the skills and knowledge needed to become effective water stewards, promoting the sustainable use of water resources and protecting ecosystems that depend on them.



### LIST OF PARTICIPANTS

A total of 24 participants including 14 students participated in the multiplier event. Detailed information is provided in photos 3 and 5. The result was outstanding.







### MULTIPLIER EVENT EYEBB SYSTEMS-UK

### PARTICIPANTS LIST

1	AKAN	ISHRAQ HOSSAIN	Thurse.
2	AMATO	FRANCESCO	Total derin
3	BADALAMENTI	ALESSANDRO	0.404
4	BALDASSANO	ROBERTA	
5	BARBARA	GIORGIO	Right Sale
6	BASTONE	CLAUDIO	Clark R
7	BATTAGLIA	ALESSIO	Alesono Batalan
8	BRUCCULERI	MARIKA	Breica Que Tari Ku
9	BUSALACCHI	GIUSEPPE	BULLACGE CHAMPE
10	BUSCEMI	MARCO	Lacco Luran
11	CALAFIORE	DANIELE	alga Darde
12	CALAMUSA	PIETRO	Tietra Columna
13	CALVARUSO	RICCARDO	Echinas Ricando
14	CARAMAZZA	SALVATORE	Stelle / warris
15	CARLOZZO	ALESSANDRO	Bux Colys
16	CARNOVALE	GIOVANNI	form Coned
17	CARONITI	ANNA	Ama land.
18	CARUSO	NOEMI	Noom Care
19	CASTRO	ROBERTO	Rato lasa
20	CATALANO	MIRYAM	20.0.00
21	CATANIA	BIANCA SOFIA	Brence Lafte Cetamie
22	CAVATAIO	GIORGIA	Caron Curla-o
23	CERNA LOMA	MICHELE ANTONIO	1
24	CIULLA	ALESSIA	Piulla Alessia
25	COCCHIARA	MARCO	
26	COPPOLA	PIETRO	Petro Courle
27	CRACCHIOLO	SAMUELE	lead of homeals
28	CRAPA	MANFREDI	WARCES
29	CUCINA	CLAUDIO	Cucha Romal



### **PARADOX SURVEY - External Evaluation of Learning Course**



### PARADOX - External Evaluation of Learning Course

This questionnaire aims to assess the structure, content, quality, and suitability of the learning materials developed for an upcoming online course in the European Project PARADOX (Water Management) framework. All information, answers, and learning materials you access are confidential and subject to copyright laws under the PARADOX project and European Union (EACEA). Each question requires you to indicate your agreement or disagreement with the statement using the provided scale and provide additional comments as needed.

Questions 1-8 are general information.

- 9. Overall, I am satisfied with the quality of the modules
- 10. The module's outlines clearly defined what I was expected to do
- 11. The module structure and syllabus is clear and well organized
- 12. Are clear objectives set for the training and have they all been covered in the learning material?
- 13. If you need it, please make your comments about questions 9-10-11-12 here (max. 300 words):
- 14. The contents of the modules adjust to the specific learning outcomes in this particular field

- 15. Does the modules include an appropriate mix of theory (lectures/reading and paradox practice (in class exercises/homework)
- 16. The depth of content is the adequate to the quantity of ECTS proposed
- 17. If you need it, please make your comments about questions 14-15-16 here (max. 300 words):
- 19. If you need it, please make your comments here (max. 300 words): Long-answer text
- 20. The provided learning material is helpful and appropriate
- 21. Is the material technically correct, have only credible sources been used?
- 22. Does the material reflect the right level of prior knowledge?
- 23. Can the material be adapted to the local context?
- 24. Has the target audience been identified and clearly defined?
- 25. Has the training material been developed with the target audience in mind?
- 26. Do you think these modules can promote student progression and a suitable level of challenge?
- 27. The assessment method of the modules is suitable in relation to the aims and intended learning content and outcomes
- 28. The modules enable to develop skills that will help to the employability or career development
- 29. Have different content styles been used to make the learning material engaging i.e. mix of text, webinars, videos, case studies, online exercises?
- 30. Have references and additional sources been provided, where students can deepen their knowledge?
- 31. Do you considerer that there are subjects missing in this learning programme?
- 32. If you have any comments on the modules in general, please comment here

Thank you very much for your time and we invite you to visit our webpage and join the network: <a href="https://paradoxproject.eu/">https://paradoxproject.eu/</a>

Join the Network if you want to stay informed about news, events and all related to PARADOX project activities through our newsletter, and also be supplied regular basis.







6. ME event- UNIVERSIDAD POLITECNICA DE MADRID-SPAIN





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### **SUMMERIZE INFO**

#### PROJECT TITLE:

Innovative Training Approach in the Technology Assisted Environment for Water Management-PARADOX

WP REFERENCE:

IO

TASK REFERENCE:

IO

PARADOX CONTACTS:

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**AUTHORS AND AFFILIATION:** 

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December 2022

**DOCUMENT VERSION 7 STATUS:** 

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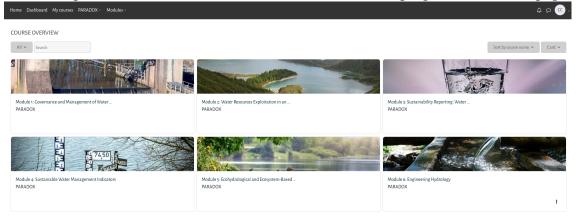
#### 1. SUMMARY – TESTER WORKSHOP - SPAIN

One of the tester workshops within PARADOX project was held in Madrid, in a pilot experience with students. These students, together with other university staff, participated in an event where the project goals were explained, and the platform and webpage were shown.

Students could navigate through the project platform, and after that, they filled in quality surveys in which they could express their opinion and possible improvements. The results of these surveys are shown in this report.

Location and Date: School of Forestry at Universidad Politécnica de Madrid (UPM)// 13/12/2022

Within the platform, students could find all the modules of the program on the main page.





### LIST OF PARTICIPANTS

OF FAKTICE	OF PARTICIPANTS						
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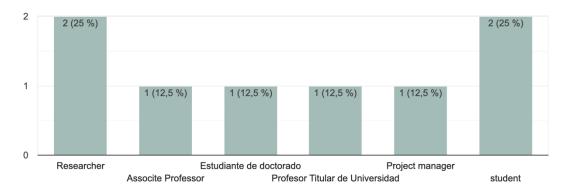


### **PARADOX SURVEY - External Evaluation of Learning Course**

Summary of the responses from the surveys (using the graphic results from the Google form)

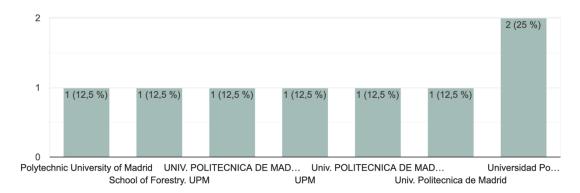
#### 3. Position:

8 respuestas



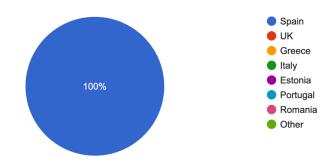
#### 4. Place of work

8 respuestas



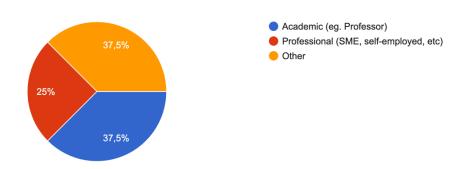
#### 5. Country

8 respuestas

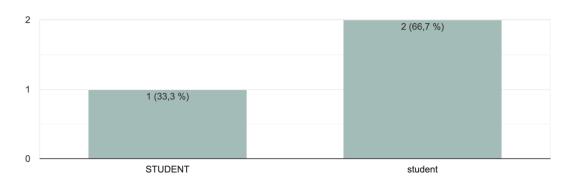




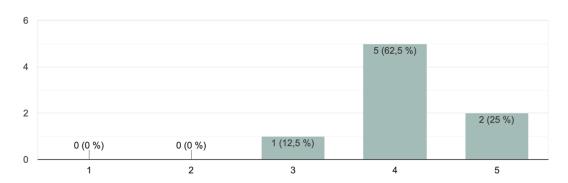
### 7. Are you 8 respuestas



## 8. If you choose "other", please indicate it below 3 respuestas

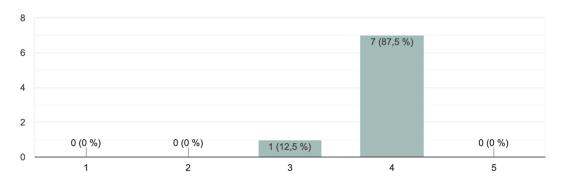


## 9. Overall, I am satisfied with the quality of the modules $\ensuremath{\text{8}}\xspace$ respuestas

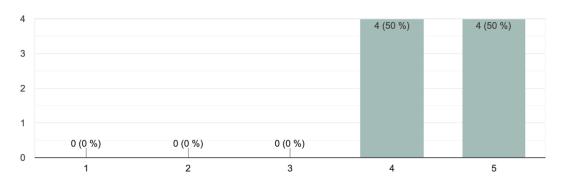




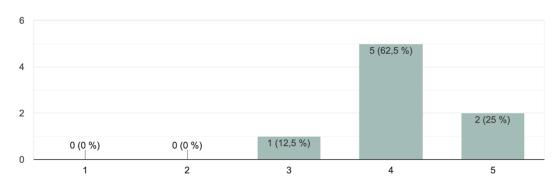
### 10. The module's outlines clearly defined what I was expected to do 8 respuestas



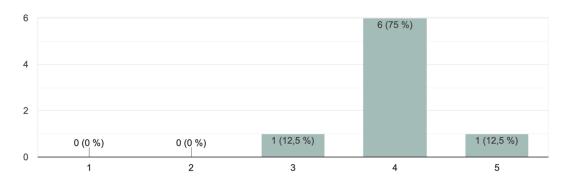
### 11. The module structure and syllabus is clear and well organized 8 respuestas



### 12. Are clear objectives set for the training and have they all been covered in the learning material? 8 respuestas



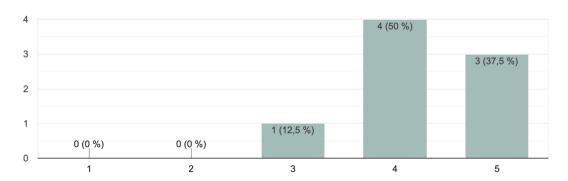
## 14. The contents of the modules adjust to the specific learning outcomes in this particular field 8 respuestas



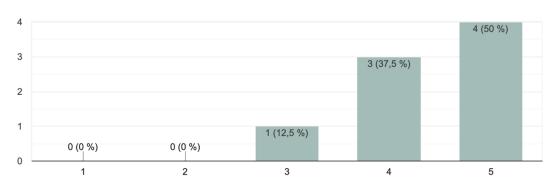
PARADOX

## 15. Does the modules include an appropriate mix of theory (lectures/reading) and practice (in class exercises/homework)

8 respuestas

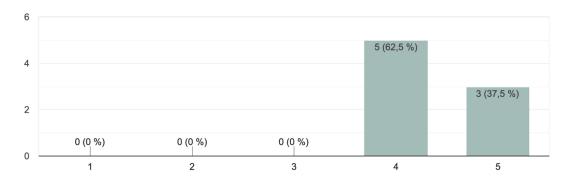


### 16. The depth of content is the adequate to the quantity of ECTS proposed 8 respuestas

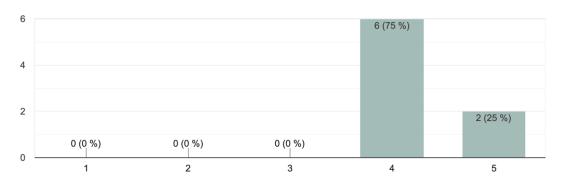




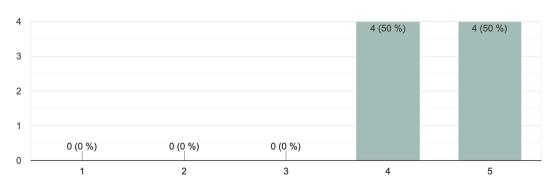
### 18. In your opinion, how relevant is the staff expertise? 8 respuestas



### 20. The provided learning material is helpful and appropriate 8 respuestas

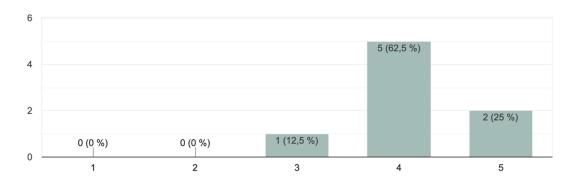


### 21. Is the material technically correct, have only credible sources been used? 8 respuestas



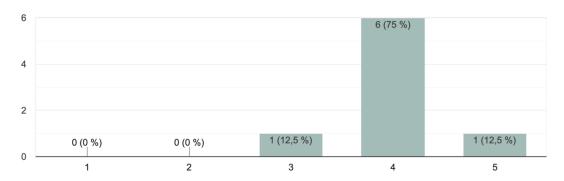


### 22. Does the material reflect the right level of prior knowledge? 8 respuestas

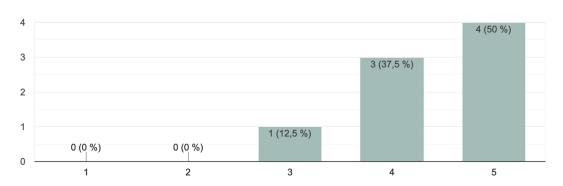


### 23. Can the material be adapted to the local context?

8 respuestas

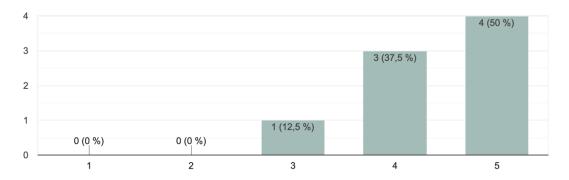


### 24. Has the target audience been identified and clearly defined? 8 respuestas

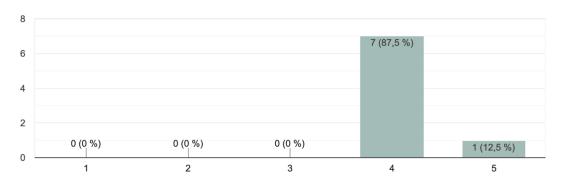




## 25. Has the training material been developed with the target audience in mind? ${\bf 8}\,{\bf respuestas}$

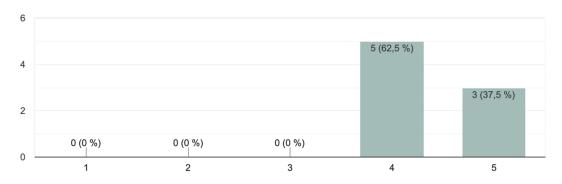


### 26. Do you think these modules can promote student progression and a suitable level of challenge? 8 respuestas



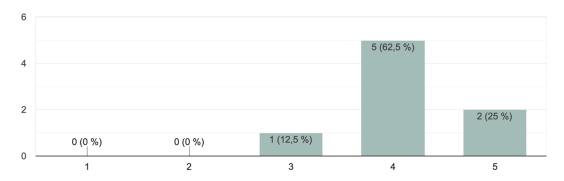
## $\,$ 27. The assessment method of the modules is suitable in relation to the aims and intended learning content and outcomes

8 respuestas



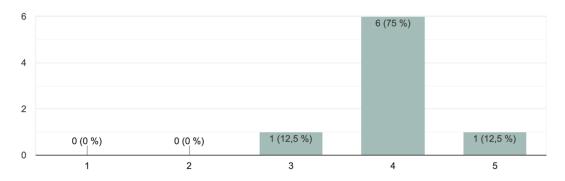


28. The modules enable to develop skills that will help to the employability or career development 8 respuestas



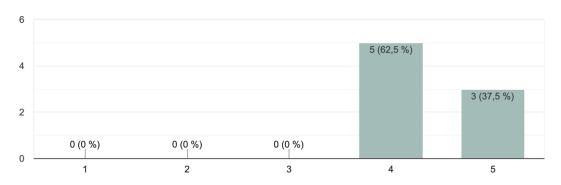
29. Have different content styles been used to make the learning material engaging - i.e. mix of text, webinars, videos, case studies, online exercises?

8 respuestas



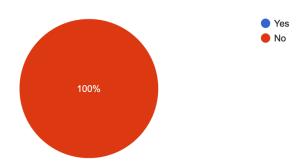
30. Have references and additional sources been provided, where students can deepen their knowledge?

8 respuestas





31. Do you considerer that there are subjects missing in this learning programme? 8 respuestas





### 7. ME event- UTB, Romania





MULTIPLIER EVENT UNITBV, ROMANIA





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



IN PARTNERSHIP WITH



WWW.PARADOX.EU Innovative Training Approach in the Technology Assisted Environment for Water Management

### **SUMMERIZE INFO**

#### PROJECT TITLE:

Innovative Training Approach in the Technology Assisted Environment for Water Management-PARADOX

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ME

TASK REFERENCE:

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**PARADOX CONTACTS:** 

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**AUTHORS AND AFFILIATION:** 

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**DOCUMENT VERSION STATUS:** 

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#### 1. SUMMARY – MULTIPLIER EVENT UNITBV

Recently, the PARADOX project organized a "multiplier event" to assess the effectiveness of its virtual learning environment. The attendees were a mix of university staff, students, and external stakeholders. Despite a relatively small turnout of 28 people, the event was considered a great success.

#### 2. Introduction

As the world's population grows and the demand for water increases, the importance of water management is becoming more significant. Effective water management is crucial to ensure the sustainable use of water resources and to protect the ecosystems that depend on them. The PARADOX project is presenting a training approach on environmental water management. This training aims to equip professionals with the necessary skills and knowledge to manage water resources sustainably.

#### ME workshop objectives:

The objective of the ME approach is to enable professionals to:

- 1. Understand the principles of sustainable water management
- 2. Develop skills to identify threats to water resources and determine appropriate mitigation measures
- 3. Understand the regulatory framework for water management and how to adhere to it
- 4. Introduce the PARADOX training pack (Handbook for university professors & assistants, Workbook, Manual for Industry 4.0 learning platform) and the website will be presented during the workshop.

#### 2.1 Workshop programme:

The ME programme is designed to help professionals become effective water stewards through various learning approaches. The programme covers topics such as water scarcity, quality, ecosystem health, climate change, and regulations. Participants will engage in interactive learning through discussions, case studies, and group work. They will also have the chance to observe water facilities and interact with professionals in the sector. Moreover, the programme includes expert talks by water management specialists who share their experience and knowledge in managing water resources in different situations.

#### 2.2 Evaluation:

We will evaluate the workshop program in various ways, such as collecting feedback from participants, assessing their learning outcomes, and monitoring how they apply their newly acquired skills and knowledge. Through these evaluations, we can identify areas for improvement in our training approach and provide feedback to both trainers and participants.





External stakeholders and University staff that attended the multiplier event.

The PARADOX project website explains the project's goals and the importance of evaluating the platform to ensure the best results for staff instruction.





Multiplier event main audience.









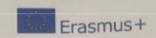
#### 3. Conclusion:

The environmental water management training program is designed to prepare professionals with the necessary skills and knowledge to manage water resources in a sustainable manner. What sets this program apart is its comprehensive approach, which includes classroom instruction, A LEARNING PLATFORM, field visits, AND expert lectures. By combining these elements, the program equips professionals to become effective water stewards who can promote the sustainable use of water resources and protect the ecosystems that depend on them. Through this well-rounded approach, graduates of the program will be equipped to address the complex challenges associated with managing water resources in a rapidly changing world.

#### LIST OF PARTICIPANTS

There were 28 participants, including University staff, students, and stakeholders. The result was outstanding.





#### List of participants

#### Dissemination Event, 27 January 2023, Brasov, Romania

Innovative training approach in the technology-assisted environment for water management

No.	Name	Organisation	Signature
1	Daniela Pojar	UTM, R. of Moldova	DL
2	Maria Cheorghita	MTM R. S. Moldova	Ste
3	Victor Caten	UTKy Lu. Maldova	V. Cella
4	Ana Chirite	UTM/ATIC R. Mololon	clt
5	Vegreslav SUTCHEUSCI	UTM/ GIZ Moldova	+ Harris
6	Violel Boston	GIM R. of Molder	6. Forten
7	Dinu Turcom	LITH, R. of Holdone	2
8	Nom Radu Jean	JN, C.D.S Brogger	Ed
9	Bulgaria Elorin Selation	INCAS. Foegai.	200
10	Paraite Marinica	THE DS Bragou	Payorff
11	ENE IULIA	APH BRASOV'	35 ti
12	CRETU IONUT-VERDUT	Stewlent / APL PIATRACA	
13	MICUDA MICOLAE MARIUS	STUDGHT TO REL PLATEACEA	
14	Blej Georgota - Catalina	Stadenta	Blue.
15	STANCIULESCU GEORGE-TULIAN	Student -	Stauche -
16	Arselgan Malisa - Cristina	STUDENTA	About
17	Hitilian Souly-Angelico	STUBENTA	US PROSE
18	Borar Floris - Horas don	Hides of	100
19	Hicu Gristian Jones	STUDENT	August
20	PINIEA ANCUTA	STUDENTA JOSE OLTUZ.	7
21	STAN GABRECA- FLENA	OSP DITUT	7407
22	GAUROIU FLORILI	STUDENT	1
23	TALPA NICOLAE	UNITBV	77
24	TAPOS ANDREEA	STUDENTH	1
25	Grigoresey Tring Koula	STUDENT 105 BICET	Au
26	RASU BOGLAN -ANTON	STUDENT / ANCIAINT ME	en Ro
.7	ENESCU RALUCA	inchs BV	Res
8	VESA BENIAMIN	OS SAVIRSIN	1



### **PARADOX SURVEY - External Evaluation of Learning Course**











8. ME event- UNIPA, Italy - Palermo





MULTIPLIER EVENT – 27 FEBRUARY 2023 – UNIVERSITY OF PALERMO

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Innovative Training Approach in the Technology Assisted Environment for Water



# SUMMERIZE INFO PROJECT TITLE: Innovative Training Approach in the Technology Assisted Environment for Water Management-PARADOX WP REFERENCE: Multiplier Event - Dissemination TASK REFERENCE: Multiplier Event E2 PAREADOX CONTACTS: manfredi.bruccoleri@unipa.it **AUTHORS AND AFFILIATION:** Manfredi Bruccoleri, University of Palermo DATE: 27 Ferbruary 2023 **DOCUMENT VERSION 7 STATUS:** V.1

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.





#### 1. DISSEMINATION WORKSHOP

#### 2. Introduction

On the 27th of February 2023, the PARADOX project was presented to a number of students of the School of Engineering, of PhD students and professors and researchers of the University of Palermo.

We invited the students of the BSc, MSc and PhD programs in Management Engineering of the University of Palermo. The event lasted about 45 minutes and took place at the end of the classes, from 12:00 to 12:45.

The event had 33 participants in presence.

The seminar speaker was Prof. Manfredi Bruccoleri, the responsible of the PARADOX project for the University of Palermo, but in the classroom were also present Prof. Paolo Roma who also participate to the project. Manfredi Bruccoleri presented to the participants the PARADOX project, its aim, its partners, its intellectual outputs, the website and, mainly, the e-learning platform which was developed. Most of the questions from the students were about the contents of Modules and how to get the credit (ECTS) acknowledged by the Master of Science Degree in Management Engineering. Questions about researchers and professors were about the main challenges and opportunities to make sustainable water management.



FIGURE 1. PARADOX - DISSEMINATION PRESENTATION IN PALERMO



### Some photos from the PARADOX Multiplier EVENT in Palermo (ITALY)

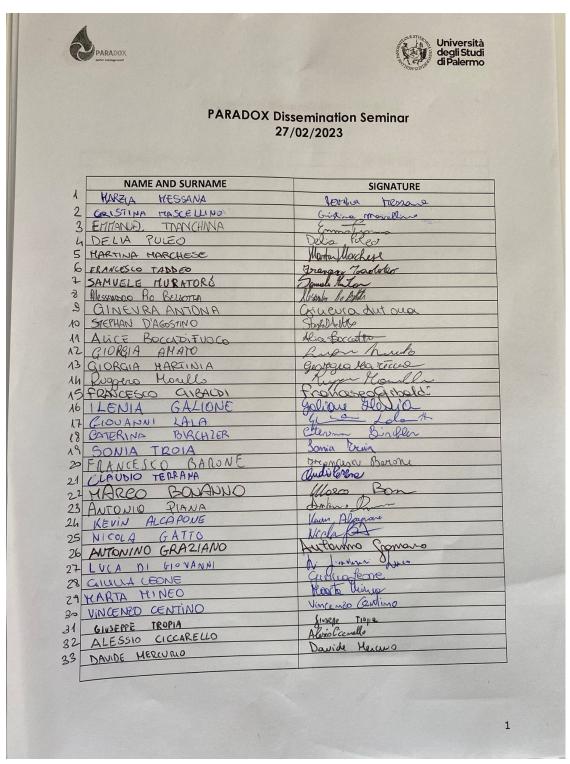












List of Participants at the PARADOX Multiplier EVENT in Palermo (ITALY).