

MathE First Project Partners Meeting

Florence (IT)

29 - 30 October 2018





FIRST PARTNERS MEETING

Florence, 29 – 30 October 2018

Project Information

- 1. Agenda of meeting
- 2. Project Information
- 3. Project Summary
- 4. Project Presentation
- 5. Calendar of Activities
- 6. Calendar of Deadlines
- 7. Passwords for the Portal
- 8. Partners' List
- 9. Partners' Book

Templates and tools for carrying out the project activities

IO1 Student's Assessment Toolkit

IO1.A - Assessment Tools

Multiplier Events

- ME.1 Multiplier Event Description
- ME.2 Multiplier Event Programme
- ME.3 Multiplier Event List of Participants
- ME.4 Multiplier Event Minutes

Training Activity

- TA.1 Training Activity Register
- TA.2 Training Activity Programme
- TA.3 Training Activity Certificates
- TA.4 Contents for the Mobility Europass
- TA.5 Training Activity Participants Profiles
- TA.6 Training Activity Report

PM1 - Project Management

- PM1.A Student Information
- PM1.B Lecturer Information
- PM1.C Role of the Target Groups
- PM1.D In Progress Activities Reports (to be filled in online)
- PM1.E Financial Manual (external annex)
- PM1.G Template of Mobility Declaration





PM2 - Dissemination

- PM2.A Dissemination Event Description (to be filled in online)
- PM2.B How to Write the Best Practice Dissemination Report

PM3 - Exploitation

- PM3.A Associated Partner Letter
- PM3.B Associated Partner Information
- PM3.C Exploitation Links

PM4 Quality and Monitoring Plan

- PM4.A Quality Plan
- PM4.C Teachers' Evaluation Questionnaires for Intellectual Outputs
- PM4.D Tool for questionnaires analysis
- PM4.F Guidelines for the evaluation report on testing activity



FIRST PROJECT PARTNERS MEETING

Florence (IT), 29 – 30 October 2018

AGENDA OF THE MEETING

Timetable of 29 October 2018

9:30 Start of the Meeting

1	Welcome of Participants	IPB and Pixel
2	Adoption of the agenda	Pixel
3	Presentation of each partner of the project	All partners

11:00 - 11:15 Coffee Break

4		Introduction to the project context and background	IPB
5		Preparatory Activities:	IPB, Pixel
		\circ Presentation of the templates for carrying out the activities (PM1.A – B – C)	
6		Presentation of the 3 Intellectual Outputs	
	6.1	Intellectual output 1: Student's Assessment Toolkit	IPB, Pixel
		 Presentation of the templates for carrying out the activities (1.A) 	

13:00 - 14:00 Lunch Break

6.2	Intellectual output 2: Online Math Library of Video Lessons and Teaching Materials • Presentation of the planned activities and expected results	IPB, Pixel
6.3	Intellectual output 3: Community of Practice	IPB, Pixel
	 Presentation of the planned activities and expected results 	

16:00 - 16:15 Coffee Break

7		Presentation of the project's events	
	7.1	Multiplayer events (ME)	Pixel
		\circ Presentation of the templates for carrying out the activities (ME1 – 2 – 3 – 4)	
	7.2	Training Activity in Braganca (TA)	IPB, Pixel
		 Presentation of the planned activities and expected results 	

18:00 End of 1st Meeting Day





Timetable of 30 October 2018

9:30 Start of the Meeting

8		Presentation of the Project Management Activities (PM)	
	8.1	Presentation and analysis of PM1: Coordination of Activities O Presentation of the Form for the production of in progress activities reports available online on the project web site (PM1.D)	Pixel
	8.2	Presentation the financial reporting of the project o Presentation of the financial manual (PM1.E)	Pixel

11:00 - 11:15 Coffee Break

8.3	Presentation and analysis of PM2: Dissemination O Presentation of the form to report the dissemination events (PM2.A) O Presentation of the Guidelines for writing the Best Practice Dissemination Report (PM2.B)	Pixel
8.4	Presentation and analysis of PM3: Exploitation O Presentation and discussion of the Forms for the involvement of associated partners (PM3.A-B) O Presentation and discussion of the Forms for the collection of the exploitation links (PM3.C)	Pixel

13:00 - 14:00 Lunch Break

	8.5	Presentation and analysis of PM4: Evaluation o Presentation of the activities to be carried out o Presentation of the evaluation report on the testing activities	Pixel
9		Contractual Issues and definition of partners' role	IPB
10		Calendar of Activities and Reminder on Project Deadlines	Pixel and IPB
11		Schedule of Future Meetings	All partners
12		Any Other Business	All partners
13		Meeting Evaluation	All partners

16:00 End of the meeting



MathE Improve Math Skills in Higher Education

Funding Programme	Erasmus + Cooperation for innovation and the exchange of good practice
	KA2 - Strategic Partnerships for Higher Education
Project Number	2018-1-PT01-KA203-047361
Project Applicant	Istituto Politecnico De Braganca (PT)
Start Date	01/09/2018
End Date	28/02/2021
Total Budget	Total Budget: €368 361
Deadline for Financial	Progress: 30 April 2019
Reports	Progress: 15 October 2019
	Final: 15 March 2021



MathE Improve Math Skills in Higher Education

Erasmus+ Programme KA2 – Strategic Partnerships – Higher Education

Project Summary

Context

Students of scientific and economics subjects (more specifically engineering and Economics) at higher education level often lack the basic maths skills to effectively follow their lectures. It is therefore necessary to identify these gaps and to give Maths teachers the sources to provide their students with the necessary skills and competences that they lack.

Objective

The main goal of MathE - Improve Math skills in higher Education is to encourage training and exchange in order to enhance the quality of teaching and, in particular, to support the use of digital technologies and online delivery to improve pedagogies and assessment methods, as well setting up transnational teacher training courses and strengthening cooperation between teacher training universities.

The specific objectives are:

- To facilitate the identification of students' gaps in the knowledge of maths to effectively attend their higher education courses
- To provide Math teachers with the necessary teaching sources so that they can help their students to overcome existing gaps
- To enhance a transnational sharing of teaching sources, tools and strategies in the field of Mathematics teaching and learning at higher education level

Activities

The MathE project will make a significant contribution to innovation in maths teaching at higher education level by developing, implementing and testing:

- Assessment tools so as to identify the areas where the students' maths entry skills need to be
- An Online Math Library which will be available to students and teachers of higher education institutions to provide them with video based teaching and learning sources to reinforce specific mathematical topics.
- A Community of Practice allowing Maths teachers in higher education institutions to share and compare teaching sources, tools and strategies

IMPACT

From the student's perspective, MathE project will promote:

- An increase in students' engagement, motivation and sense of being challenged;
- Digital educational resources that can be used as a work tool, individually or as team work, to increase mathematical knowledge.

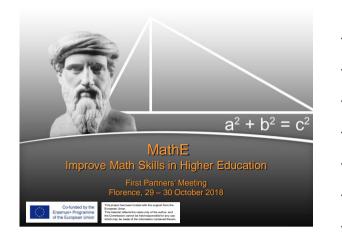
From the teacher's perspective, MathE project will promote:





2018-1-PT01-KA203-047361

- Motivation and the sense of challenge;
- Digital educational tools for the classroom;
- Resources for the evaluation of the progress of the students' knowledge, that can be used as assessment of the math course unit of some engineering/business course;
- Evaluation and assessment tools
- Possibilities of discussion among teachers and researchers about good practices in math teaching



Funding Programme



European Commission funded through the Portuguese National Agency the MathE project in the framework of the Erasmus+ Programme – Strategic Partnerships for Higher Education Action.

Project number: 2018-1-PT01-KA203-047361

The Context

Students of scientific and economics subjects at higher education level often lack the basic maths skills to effectively follow their lectures



Objective

Enhance the quality of teaching and improve pedagogies and assessment methods by:

- Facilitating the identification of students' gaps in Math
- Providing Math teachers with appropriate digital sources
- Enhancing transnational sharing of innovative teaching sources



The Target Group

- Math Lecturers
- Math Students at university level
- Policy Makers in the Field of Education



Expected Results

The main project tangible results are 3 intellectual outputs:

- Students' Assessment Toolkit
- Online Math Library of Video Lessons and Educational
 Material
- Teachers' and Students' Community of Practices



Project Activities The Project at a Glance October 2018 – December 2018 Student's Assessment Toolkit October 2018 - December 2019 March 2019 – September 2020 May 2020 – January 2021 November 2020 Training Actvity Multiplier Events January 2021 **Preparatory Activity** (part of the Project Management) **Target Groups Involvement**

PM1: Project Management 1/4

Actions to be Carried Out

- Involvement of target groups:
 - 25 lecturers
 - 100 students



PM1: Project Management 3/4

Templates and Tools

PM1.A – Lecturer Information

PM1.B –Student Information

PM1.C – Role of the Target Groups



PM1: Project Management 2/4

Expected Results

Each partner should select and upload on the project portal at least:

- 5 Lecturers
- 20 Students



PM1: Project Management 4/4 Deadlines

- 30 December 2018
 - All Partners
 - Upload on the project portal the target group information



Intellectual Output 1

Student's Assessment Toolkit



IO1: Student's Assessment Toolkit 1/6

Actions to be Carried Out

IO1.1) Creation of all templates needed for carrying out the activities	1 October 2018 15 October 2018
IO1.2) Development of the dedicated project portal section	1 October 2018 30 November 2018
IO1.3) Definition of the questions for the Assessment Tools	1 October 2018 30 June 2019
IO1.4) Review of the questions for the Assessment Tools	1 April 2019 31 December 2019



IO1: Student's Assessment Toolkit 2/6

Templates and Tools

- IO1.A Assessment Tools
- IO1.B Review Tool



IO1: Student's Assessment Toolkit 3/6

Expected Results

- Identification of 10 Math topics
- Distribution of 2 Math topics per partner
- Each HEI partner for each of the 2 Math topics should define:
- 40 questions/answer for the Student Need Assessment Tool
 20 questions/answer for the Student Assessment Tool
- EuroED will give technical support to TUIasi
- Each HEI partner should review questions/answers for at least 3 Math topics





IO1: Student's Assessment Toolkit 4/6

Possible Topics

- Manipulation of algebraic expressions
 Trigonometric functions
 Real Functions of a single variable
 Differentiation
 Integration
 Matrix and determinats
 Geometrical interpretation
 EligenValues and EligenVectores
 Linear systems
 Complex Numbers
 Tomping

- 11. Graphs12. Optimization13. Limits and sequences
- Statistics
 Real Functions of several variables
 Differential equations

Web Services

MathJax

https://www.mathjax.org/

Guppy https://guppy.js.org/site/



IO1: Student's Assessment Toolkit 5/6 Deadline • 30 November 2018 Pixel Development of the section of the portal • 31 March 2019 HEIS + EuroED Definition for each of the 2 Math topics: 2 Questions/answer for the Student Need Assessment Tool 10 questions/answer for the Student I Assessment Tool • 30 May 2019 Revision for 3 Math topics of the questions/answers produced

IO1: Student's Assessment Toolkit 6/6

Deadline

HEI+ EuroED

Definition for each of the 2 Math topics of further:

20 questions/answer for the Student Need Assessment Tool

10 questions/answer for the Student I Assessment Tool

- 31 December 2019

HEI Revision, for 3 Math topics, of the new questions/answers produced



Intellectual Output 2

Online Math Library of Video **Lessons and Teaching Materials**



IO2: Online Math Library of Video Lessons 1/5

Actions to be Carried Out

IO2.1) Creation of all templates needed for carrying out the activities $% \left(1\right) =\left(1\right) \left(1\right) \left($	1 April 2019 30 April 2019
IO2.2) Identification and review of existing videos	1 May 2019 31 August 2019
IO2.3) Production/adaptation of video lessons	1 September 2019 31 January 2020
IO2.4) Production/adaptation of teaching material	1 July 2017 30 July 2017
IO2.5) Review the proposed materials	1 February 2020 30 May 2020
IO2.6) Preparation of the guide for the online version	1 June 2020 30 September 2020

IO2: Online Math Library of Video Lessons 2/5 Templates and Tools

- IO2.A Existing Video Review
- IO2.B Video Lessons
- IO2.C Teaching Material
- IO2.D Teaching material review



IO2: Online Math Library of Video Lessons 3/5 Expected Results

- Identification and review, by HEIs, of 5 existing videos for each of the 2 assigned topics
- Production/adaptation, by HEIs*, of 5 video lessons for each of the
 2 assigned topics
- Production/adaptation, by each partner, of 10 Teaching material (podcast, pdf, ...) for each of the 2 assigned topics
- * EuroED will take care of the video editing of the Romanian video lessons



IO2: Online Math Library of Video Lessons 4/5 **Deadlines** • 30 April 2019 Pixel (IT), IPB (PT) Creation of the Templates • 31 August 2019 Identification and review of 10 existing videos (5 per assigned topic) HEIs and EuroED (RO) Production/adaptation of 10 video lessons (5 per assigned topic) IO2: Online Math Library of Video Lessons 5/5 **Deadlines** • 30 May 2020 HEIs Production/ adaptation of 10 Teaching material (podcast, pdf, ...) for each assigned topic • 30 September 2020 Review all material of 3 Math topics **Intellectual Output 3 Community of Practice**

IO3: Community of Practice ... 1/4

Actions to be Carried Out

IO3.1) Creation of all templates needed for carrying out the activities	1 May 2020 30 May 2020
IO3.2) Contribution to the community of practice from target groups	1 June 2020 30 August 2020
IO3.3) Contribution to the community of practice from target groups related to good practice	1 September 2020 30 October 2020
IO3.4) Production of the online guidebook of good practices	1 November 2020 31 December 2020
IO3.5) Review the online guidebook of good practices	1 January 2020 31 January 2020

IO3: Community of Practice ... 2/4

Templates and Tools

- IO3.A Structure of the Community
- IO3.B Contribution Form
- IO3.C Good Practice Form



IO3: Community of Practice ... 3/4

Expected Results

- Active Community of Practice
- Identification of good practices
- Online guidebook of good practices



IO3: Community of Practice ... 4/4 Deadlines 30 May 2020 Pixel (Tf), Eurose (Ro), IPB (PT) Creation of the Templates 30 August 2020 HEIS Contribution to the community of practice from target groups 30 October 2020 HEIS Contribution to the community of practice from target groups related to good practice 31 December 2020 EuroBO (Ro) Production of the online guidebook of good practices 31 January 2021 HEIS Review the online guidebook of good practices

Multiplier Events



Multiplier Events1/4

Actions to be Carried Out

- Organisation of a 5 dissemination events at national level on the:
 - Student's Assessment Toolkit
 - Online Math Library of Video Lessons and Teaching Materials
 - Community of Practice



Multiplier Events 3/4

Templates and Tools

ME.1 – Multiplier Event Description

ME.2 – Multiplier Event Programme

ME.3 – Multiplier Event List of Participants

ME.4 – Multiplier Event Minutes



Multiplier Events 2/4

Expected Results

- 4 dissemination events
- LIT (IE), UniGenova (IT), KTU (LT), TUlasi (RO)

 involvement of 20 lecturers/researchers/teachers/policy makers (only participants from organisations other than the beneficiaries)
- Project Final Conference:

IPB (PT)

involvement of 40 participants lecturers/researchers/teachers/policy makers (only participants from organisations other than the beneficiaries)



Multiplier Events 4/4

Deadlines

• 31 January 2021

Sending of documents related to the multiplier events



Training Activity



Training Activity 1/4 Actions to be Carried Out

- Organisation in Braganca of a training event:
 - Topics: efficient use of the IOs during the lesson and for self learning
 - Participants: 2 members of the staff per each HEIs
 - Period: November 2020
 - Duration: 7 days (including 2 travelling days)
 - Certification: ECTS credits according to the duration of the training



Training Activity 2/4

Template and Tools

TA.1 – Register TA.2 – Programme TA.3 – Certificate

TA.4 – Contents for the Mobility Europass

TA.5 – Participants Profile

TA.6 – Report



Training Activity 3/4

Deadlines 1/2

- 30 May 2020
 IPB (PT), Pixel (IT)
 Definition of the:
 Training Programme
 Certificate for the participants
 Contents for the Europass
- 30 September 2020
 HEIs

Identify 2 participants in the training activity
Contact the National Europass Centre (link) to activate the
Europass Mobility for each participant



Training Activity 4/4

Deadlines 2/2

November 2020 IPB (PT) Delivery of the training activity and sending to Pixel of the related material (register and report on the training activity)

15 December 2020
IPB (PT)
Sending to Pixel of supporting documents (Report on the training activity, Register of participants, Programme, Certificates)

• 15 December 2020

HEIS
Sending to Pixel of supporting documents: copies of the Europass certificates, description of the participants profiles and selection methodology



Project Management

PM1 - Coordination of activities



PM1 - Coordination of activities 1/4

Actions to be Carried Out

- Attendance to the partners meeting
 - 1st Meeting: Florence (IT), October 2018

 - 2nd Meeting: Limerick (IE), May 2019 3rd Meeting: Kaunas (LT), December 2019 4th Meeting: Braganca (PT), July 2020
 - 5th Meeting: Iasi (RO), February 2021
- Production of project reports



PM1 - Coordination of activities 3/4

Templates and Tools

PM1.D – In progress activities reports

PM1.E – Financial Manual (external annex)

PM1.F – Financial Forms

PM1.G - Template of Mobility Declaration



PM1 - Coordination of activities 2/4

Expected Results

Production of:

- Three months period online Activities Reports
- Yearly Financial Report



PM1 - Coordination of activities 4/4

Deadlines

All partners

- Every three months (30 November 2018-2019-2020, 28 February 2019-2020-2021, 30 May 2019-2020, 30 August 2019-2020)
 Production of Activities Report Forms
- 30 April 2019, 30 September 2019, 15 March 2021
 Financial Reports



Project Management

PM2 - Dissemination



PM2 - Dissemination 1/5

Actions to be Carried Out

- Development and translation of project brochures
- \bullet $\,\,$ Organization of at least 1 dissemination event on the project every month
- Creation of a Facebook page
- Production of the best practice dissemination report
- Production of transnational dissemination report



PM2 - Dissemination 3/4

Templates and Tools

- PM2.A In progress dissemination reports
- PM2.B How to write the Best Practice Dissemination Report



PM2 - Dissemination 3/5

Expected Results

Project Brochure in all partners languages Database of dissemination events on the portal Facebook Page National Best Practice Dissemination Report

Transnational Dissemination Report



PM2 - Dissemination 4/5

Deadline

Every three months (30 November 2018-2019-2020, 28 February 2019-2020-2021, 30 May 2019-2020, 30 August 2019-2020)

All partners

Upload of 1 dissemination events per month

Contribute to the Facebook page

30 October 2018 IPB (PT) Development of project brochure



PM2 - Dissemination 5/5 Deadline 30 November 2018 All partners Translation of project brochure 15 September 2019 All partners 28 February 2021 All partners Final Best Practice Dissemination Report **Project Management** PM3 - Exploitation PM3- Exploitation 1/4 Actions to be Carried Out Involvement in the project of associated partners Collection of exploitation links

PM3- Exploitation 2/4 **Templates and Tools** - PM3.A - Associated Partner Letter - PM3.B - Associated Partner Information - PM3.C - Exploitation links PM3 - Exploitation 3/4 **Expected Results** Involvement of 6 associated partners Collection of 6 exploitation links PM3: Exploitation 4/4 **Deadlines** 15 September 2019 All Partners Involvement of 3 associated partners Collection of 3 exploitation links 28 February 2021 All Partners Involvement of a total number of 6 associated partners Collection of a total number of 6 exploitation links

Project Management PM4 - Quality and **Monitoring Plan** PM4: Quality and Monitoring Plan 1/4 Actions to be Carried Out Collection of testimonials Production of testing evaluation report Production of transnational evaluation report PM4: Quality and Monitoring Plan 2/4 **Templates and Tools** • PM4.A – Quality Plan • PM4.B – Project Meeting Evaluation Questionnaire (partners) • PM4.C – Project Evaluation Questionnaire (partners) • PM4.D – Evaluation Questionnaires for Intellectual Outputs (end users) • PM4.E – Tool for questionnaires analysis • PM4.F – How to write the Evaluation Report on Intellectual Output

PM4: Quality and Monitoring Plan 3/4 **Expected Results** 3 issues of the Quality Plan 6 testimonials per country 20 evaluation questionnaires per country 1 Testing Evaluation Report per country TA4: Quality and Monitoring Plan 4/4 **Deadlines** 30 August 2018 All Partners Collection of 6 testimonials Collection of 20 evaluation questionnaires Sending of evaluation report on the IOs Thank you for Your Attention Questions?



MathE - Improve Math Skills in Higher Education

	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-
Intellectual Output 1: Student's Assessment Toolk	it																													
Creation of templates																													•	
Development of the dedicated project portal section																														
Definition of the questions for the Assessment Tools																														
Review of the questions for the Assessment Tools																														
Intellectual Output 2: Online Math Library of Vide	o Lesson	s and Te	aching	Material	ls																									
Creation of templates																													-	
Identification and validation of existing videos																														
Production of Video Lessons																														
Production of teaching materials																														
Review of teaching materials																														
Intellectual Output 3: Community of Practice																														
Creation of templates																													·	
Creation of the web space for the community of practice																														
Contribution to the community of practice from target groups																														
Contribution to the community on best practices																														
Production of the online guidebook of good practices																														
Review of the online guidebook of good practices																														
Project Management																														
Creation of templates																													•	
Partners Meetings																														
Involvement of target groups																														
Progress Report on activities																														
Financial Report																														
Events																														
Training event (TA)																														
Multiplier events (ME)																														



Co-funded by the The European Commission support for the Programme Commission Support for the Programme of the European Union Office Union U



CALENDAR OF ACTIVITIES

INTELLECTUAL OUTPUTS (IO)

IO1 – Student's Assessment Toolkit			
Activities	Partners Involved	Time schedule	
Activities IO1.1) Creation of all templates needed for carrying out the activities			
Expected results: Template: IO1.A – Assessment Tools Template IO1.B – Review Tool	Pixel (IT), IPB (PT)	Start Date: 1 September 2018 End Date: 15 October 2018	
Activities IO1.2) Development of the section of the portal by Pixel (IT) Expected results - Availability of the dedicated project portal section	Pixel (IT)	Start Date: 1 October 2018 End Date: 30 November 2018	
Activities IO1.3) Definition of: - 10 math topics – at least 2 topics for each HEI partner - 20 questions/answer, for each topic, for the Student Need Assessment Tool (Self evaluation) - 10 questions/answer, for each topic, for the Student Assessment Tool Expected results - Availability of the first part of both assessment tools Templates and Tools Template: IO1.A – Assessment Tools	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUlasi (RO)	Start Date: 1 November 2018 End Date: 31 March 2019	





Project Number: 2018-1-P101-KA203-047361		
Activities		
IO1.5) Review material (at least 3 topics for HEI partner):		
- Review 20 questions/answer, for each topic, for the Student Need Assessment Tool		
- Review 10 questions/answer, for each topic, for the Student Final Assessment Tool		
Expected results	LIT (IE), UniGenova (IT), KTU (LT),	Start Date: 1 April 2019
- Finalisation of both assessment tools:	IPB (PT), TUIasi (RO)	End Date: 30 May 2019
- 20 questions/answer, for each topic, for the Student Need Assessment Tool	ii b (i i j, i olasi (ito)	Ziid Bate. 30 May 2013
- 10 questions/answer, for each topic, for the Student I Assessment Tool		
Templates and Tools		
Template: IO1.B – Review Tool		
Activities		
101.4) Definition of further:		
 20 questions/answer, for each topic, for the Student Need Assessment Tool (Self evaluation) 10 questions/answer, for each topic, for the Student Final Assessment Tool 		
- 10 questions/answer, for each topic, for the student rinal Assessment roof		
Expected results	LIT (IE), UniGenova (IT), KTU (LT),	Start Date: 1 April 2019
- Availability of both assessment tools:	IPB (PT), TUIasi (RO)	End Date: 30 June 2019
- 40 questions/answer, for each topic, for the Student Need Assessment Tool		
- 20 questions/answer, for each topic, for the Student Assessment Tool		
Templates and Tools		
Template: IO1.A – Assessment Tools		
Activities		
IO1.5) Review of further material (at least 3 topics for HEI partner):		
- Review 20 questions/answer, for each topic, for the Student Need Assessment Tool		
- Review 10 questions/answer, for each topic, for the Student Final Assessment Tool		
Expected results	LIT (IE), UniGenova (IT), KTU (LT),	Start Date: 1 July 2019
- Finalisation of both assessment tools:	IPB (PT), TUIasi (RO)	End Date: 31 December 2019
- 20 questions/answer, for each topic, for the Student Need Assessment Tool	, ,,	
- 10 questions/answer, for each topic, for the Student I Assessment Tool		
Templates and Tools		



Template: IO1.B – Review Tool



IO2 – Online Math Library of Video Lessons and Teach	IING MATERIALS		
Activities Partners Involved		Time schedule	
Activities IO2.1) Creation of all the templates needed for carrying out the activities			
Expected results: Template: IO2.A – Existing Video Review Template: IO2.B – Video Lessons Template: IO2.C – Teaching Material Template: IO2.D – Teaching material review	Pixel (IT), IPB (PT)	Start Date: 1 April 2019 End Date: 30 April 2019	
Activities IO2.2) Identification and review, by each partner, of 5 existing videos for each assigned topics (at least 2 topics by HEI partner)			
Expected results - Database of existing videos (at least 10 per partner)	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUIasi (RO)	Start Date: 1 May 2019 End Date: 31 August 2019	
Templates and Tools IO2.A – Existing Video Review			
Activities IO2.3) Production/adaptation, by each partner, of: - 5 video lessons (for each assigned topic) Expected results - Database of video lessons Templates and Tools IO2.B – Video Lessons	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUIasi (RO) EuroEd (RO): Video editing of the Romanian video lessons;	Start Date: 1 September 2019 End Date: 31 January 2020	
Activities IO2.4) Production/ adaptation, by each partner and for each assigned topic, of: - 10 Teaching material (podcast, pdf,) Expected results - Database of Teaching material	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUlasi (RO)	Start Date: 1 February 2020 End Date: 30 May 2020	
Templates and Tools IO2.C – Teaching Material			





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IO2.5) Review the proposed materials:

Each HEI partner review all material of 3 math topics

Expected results

- Database of all material

Templates and Tools

IO2.D – Teaching material review

IO3 – COMMUNITY OF PRACTICE			
Activities	Partners Involved	Time schedule	
Activities			
IO3.1) Creation of all the templates needed for carrying out the activities			
Expected results:	Divisit (IT) France Ed(DO) IDD (DT)	Start Date: 1 May 2020	
Template: IO3.A – Structure of the Community	Pixel (IT), EuroEd(RO), IPB (PT)	End Date: 30 May 2020	
Template: IO3.B – Contribution Form			
Template: IO3.C – Good Practice Form			
Activities			
IO3.2) Contribution to the community of practice from target groups			
Expected results	LIT (IE), UniGenova (IT), KTU (LT),	Start Date: 1 June 2020	
- Community of Practice	IPB (PT), TUIasi (RO)	End Date: 30 August 2020	
Templates and Tools			
IO3.B – Contribution Form			
Activities			
IO3.3) Contribution to the community of practice from target groups related to good practice			
Expected results	LIT (IE), UniGenova (IT), KTU (LT),	Start Date: 1 September 202	
- Database of best practices	IPB (PT), TUlasi (RO)	End Date: 30 October 2020	
Templates and Tools			
IO3.C – Best Practice Form			

LIT (IE), UniGenova (IT), KTU (LT),

IPB (PT), TUIasi (RO)

Start Date: 1 June 2020

End Date: 30 September 2020





Project Number: 2016-1-P101-NA203-047301		
Activities		
IO3.4) Production of the online guidebook of good practices		
	EuroED (RO)	Start Date: 1 November 2020
Expected results		End Date: 31 December 2020
- Online Guidebook		
Activities		
IO3.5) Review the online guidebook of good practices		
	LIT (IE), UniGenova (IT), KTU (LT),	Start Date: 1 January 2020
Expected results	IPB (PT), TUIasi (RO)	End Date: 31 January 2021
- Reviewed Online Guidebook		

ME - MULTIPLIER EVENTS			
Activities	Partners Involved	Time schedule	
Activities ME1) Organisation of an event for 40 Portuguese lecturers/researchers/teachers/policy makers in order to present, discuss the project results and address their sustainability in the national system.			
ME2) Organisation of an event for 20 (Italian/Romanian/Lithuanian/Irish) lecturers/researchers/teachers/policy makers in order to present, discuss the project results and address their sustainability in the national system.			
Expected results Event with 20 participants (40 participants for Portugal).	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUIasi (RO)	End Date: 31 January 2021	
Templates and Tools Template: ME.1 – Multiplier Event Description Template: ME.2 – Multiplier Event Programme Template: ME.3 – Multiplier Event List of Participants Template: ME.4 – Multiplier Event Minutes			





TA - Training Activity			
Activities	Partners Involved	Time schedule	
Activities TA1) Production of templates for the organisation of a 5 days training event in Braganca to train Maths lecturers to the use of TEL (Technology Enhanced Learning) to assess their first year students' gap in Maths knowledge and to teach them the necessary Maths concepts. The training activity is scheduled for the November 2020 Expected Results Training Programme Certificate for the participants		Start Date: April 2020	
Definition of the contents for the Europass and of the ECTS credits Templates and Tools TA.1 – Training Activity Register TA.2 – Training Activity Programme TA.3 – Training Activity Certificate TA.4 – Contents for the Mobility Europass TA.5 – Training Activity Participants Profile TA.6 – Training Activity Report		End Date: May 2020	
Activities TA2) Each partner should: - Identify 2 participants in the training activity - Contact the National Europass Centre (link) in order to activate the Europass Mobility for each participant.	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUlasi (RO)	Start Date: 1 July 2020 End Date: 30 September 2020	
Expected Results - Involvement of 2 participants per partner			
Activities TA3) Delivery of the training activity	IPB (PT)	November 2020	





Activities		
TA4) Sending to Pixel of supporting documents (Report on the training activity, Register of participants, Programme, Certificates)		
Templates and Tools	100 (07)	45.0
TA.1 – Training Activity Register	IPB (PT)	15 December 2020
TA.2 – Training Activity Programme		
TA.3 – Training Activity Certificate		
TA.6 – Training Activity Report		
Activities		
TA5) Sending to Pixel of supporting documents: copies of the Europass certificates, description of the participants profiles and selection		
methodology	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUIasi (RO)	15 December 2020
Templates and Tools		
TA.5 – Training Activity Participants Profile		

PM - PROJECT MANAGEMENT

PM1 - Coordination of activities				
Activities	Partners Involved	Time schedule		
Activities				
PM1.1) Creation of all the templates for carrying out the activities				
Expected results:				
Template: PM1.A – Student Information				
Template: PM1.B – Lecturer Information	Pixel (IT)	Start Date: 1 November 2018		
Template: PM1.C – Role of the target groups		End Date: 15 November 2018		
Template: PM1.D – In progress activities reports				
Template: PM1.E – Financial Manual				
Template: PM1.F – Financial Forms				
Template: PM1.G - Template of Mobility Declaration				





Activities PM1.2) Participation in Partners Meetings 1 st Meeting: Florence (IT) 3 rd Meeting: Kaunas (LT)	2 nd Meeting: Limerick (IE) 4 th Meeting: Braganca (PT)	5 th meeting: lasi (RO)	All partners	1° meeting: October 2018 2° meeting: May 2019 3° meeting: December 2019 4° meeting: July 2020 5° meeting: February 2021
Activities PM1.3) Selection and involvement for testing - 20 students - 5 lecturers Upload on the project portal of the related inf Expected results - Online Database of Target Groups Templates and Tools PM1.A – Student Information PM1.B – Lecturer Information PM1.C – Role of the target groups			LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUlasi (RO)	Start Date: 1 October 2018 End Date: 31 December 2018
Activities PM1.3) In Progress reporting on activities Production and Uploading of Project Activities Expected results by each partner In progress Project Activities Report Templates and Tools PM1.D – In progress activities reports	s Report Forms		All partners	30 November 2018-2019-2020 28 February 2019-2020-2021, 30 May 2019-2020, 30 August 2019-2020
Activities PM1.5) Financial Report Production of Project Financial Report Expected results by each partner Project Financial Report Templates and Tools PM1.E – Financial Manual PM1.F – Financial Forms (external annex)			All partners	Progress: 30 April 2019 Progress: 15 October 2019 Final: 15 March 2021



8



PM2 - Dissemination				
Activities Partners Involved				
Activities PM2.1) Creation of all the templates needed for carrying out the activities				
Expected results: Template: PM2.A – In progress dissemination reports Template: PM2.B – How to write the Best Practice Dissemination Report	Pixel (IT)	Start Date: 1 September 2018 End Date: 30 September 2018		
Activities PM2.2) Development of project logo and brochure		Start Date: 1 September 2018		
Expected results Project brochure	IPB (PT)	End Date: 30 October 2018		
Activities PM2.3) Creation of a Facebook page				
Expected results Facebook page	Pixel (IT)	Start Date: 1 October 2018 End Date: 30 November 2018		
Activities PM2.4) Dissemination trough Facebook: - Partners must upload at least 1 post per month on the activities carried out at national level	All partners	Start Date: 1 December 2018 End Date: 28 February 2021		
Activities PM2.5) Translation of project brochure Expected results Project brochure in national language	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), EuroEd (RO)	Start Date: 1 November 2018 End Date: 30 November 2018		





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Activities PM2.6) Organization of 1 dissemination event on the project every month and uploading the dissemination events description on the project web site Expected results by each partner Filling in of the dissemination form on the project web site (every three months) Templates and Tools PM2.A – In progress dissemination reports	All partners	30 November 2018-2019-2020 28 February 2019-2020-2021, 30 May 2019-2020, 30 August 2019-2020
Activities PM2.7) Production of the best practice dissemination report Expected results by each partner One progress and one final Best Practice Dissemination Report Templates and Tools PM2.B – How to write the Best Practice Dissemination Report	All partners	End Date for Year 1: 15 October 2019 End Date for Year 2: 15 February 2021





PM3 - Exploitation		
Activities, Tools, Results	Partners Involved	Time schedule
Activities		
PM3.1) Creation of all the forms, guidelines and documents needed for carrying out the activities		
Expected results:	D: 1/17)	Start Date: 1 September 2018
Template: PM3.A - Associated Partner Letter	Pixel (IT)	End Date: 30 September 2018
Template: PM3.B - Associated Partner Information		
Template: PM3.C - Exploitation links		
Activities		
PM3.2) Involvement in the project of at least 6 organizations (3 per year) operating in the field of education, who will join the		
project as associated partner filling in the Associate partner form. They will be also inserted as Associate Partners on the project		
portal.		End Date for Year 1:
Expected results by each partner		15 October 2019
· 6 letters of participation in the project as associate partners (3 per year)	All partners	
6 Associate Partners template filled in (3 per year)		End Date for Year 2:
- 1. 1-1		15 February 2021
Templates and Tools PM3.A - Associated Partner Letter		
PM3.B - Associated Partner Letter		
- NSSOCIALEU FAITHEI IIIIOITIIALIOII		
Activities		
PM3.3) Publication of announcements on 6 portals (3 per year) or websites addressed to teachers		
		End Date for Year 1:
Expected results by each partner 6 exploitation links (3 per year)	All partners	15 October 2019
· o exploitation links (3 her links)	All partners	End Date for Year 2:
Femplates and Tools		15 February 2021
PM3.C - Exploitation links		15 . Coldally 2021





PM4 - Quality and Monitoring Plan				
Activities	Partners Involved	Time schedule		
Activities PM4.1) Creation of templates needed for carrying out the activities				
Expected results: PM4.A – Quality Plan Template: PM4.B – Project Meeting Evaluation Questionnaire Template: PM4.C – Teachers' Evaluation Questionnaires for Intellectual Outputs Template: PM4.D – Tool for questionnaires analysis Template: PM4.E – How to write the Evaluation Report on Intellectual Outputs	Pixel (IT)	Start Date: 1 September 2018 End Date: 30 September 2018		
Activities PM4.2) Production of the issues of the Quality Plan Expected results:	Pixel (IT)	1st issues: October 2018 2nd issue: September 2019 3rd issue: February 2021		
3 issues of the Quality Plan Activities		,		
PM4.3) Evaluation of the Intellectual outputs:	LIT (IE), UniGenova (IT), KTU	Start Date: 1 January 2021		
Expected results: National Evaluation Report	(LT), IPB (PT), TUlasi (RO)	End Date: 28 February 2021		
Templates and Tools PM4.C – Teachers' Evaluation Questionnaires for Intellectual Outputs PM4.D – Tool for questionnaires analysis PM4.E – How to write the Evaluation Report on Intellectual Outputs				





CALENDAR OF DEADLINES

IO1 – Student's Assessment Toolkit

Deadline	Results	Partner	Template and Tools
30 November 2018	Development of the section of the portal by Pixel	Pixel (IT)	
31 March 2019	Definition of: - 20 questions/answer, for each topic, for the Student Need Assessment Tool (Self evaluation) - 10 questions/answer, for each topic, for the Student Assessment Tool	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUlasi (RO)	IO1.A – Assessment Tools
30 May 2019	Review material (at least 3 topics for HEI partner): - Review 20 questions/answer, for each topic, for the Student Need Assessment Tool - Review 10 questions/answer, for each topic, for the Student Final Assessment Tool	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUlasi (RO)	IO1.B – Review Tool
30 June 2019	Definition of further: - 20 questions/answer, for each topic, for the Student Need Assessment Tool (Self evaluation) - 10 questions/answer, for each topic, for the Student Final Assessment Tool	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUIasi (RO)	IO1.A – Assessment Tools
31 December 2019	Review of further material (at least 3 topics for HEI partner): - Review 20 questions/answer, for each topic, for the Student Need Assessment Tool - Review 10 questions/answer, for each topic, for the Student Final Assessment Tool	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUlasi (RO)	IO1.B – Review Tool

IO2 – Online Math Library of Video Lessons and Teaching Materials

Deadline	Results	Partners Involved	Template and Tools
30 April 2019	Creation of all the templates needed for carrying out the activities	Pixel (IT), IPB (PT)	
31 August 2019	Identification and review, by each partner, of 5 existing videos for each assigned topics (at least 2 topics by HEI partner)	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUIasi (RO)	IO2.A – Existing Video Review
31 January 2020	Production/adaptation, by each partner, of 5 video lessons (for each assigned topic)	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUlasi (RO) EuroEd (RO): Video editing of the Romanian video lessons;	IO2.B – Video Lessons
30 May 2020	Production/ adaptation, by each partner and for each assigned topic, of 10 Teaching material (podcast, pdf,)	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUIasi (RO)	IO2.C – Teaching Material
30 September 2020	Review the proposed materials. Each HEI partner review all material of 3 math topics	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUIasi (RO)	IO2.D – Teaching material review



IO3 – Community of Practice

Deadline	Results	Partners Involved	Template and Tools
30 May 2020	Creation of all the templates needed for carrying out the activities	Pixel (IT), EuroEd(RO), IPB (PT)	
30 August 2020	Contribution to the community of practice from target groups	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUIasi (RO)	IO3.B – Contribution Form
30 October 2020	Contribution to the community of practice from target groups related to good practice	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUIasi (RO)	IO3.C – Best Practice Form
31 December 2020	Production of the online guidebook of good practices	EuroED (RO)	
31 January 2021	Review the online guidebook of good practices	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUlasi (RO)	

Multiplier Events

Deadline	Results	Partner	Template and Tools
31 January 2021	Organisation of an event for 40 Portuguese lecturers/researchers/teachers/policy makers in order to present, discuss the project results and address their sustainability in the national system	IPB (PT)	ME.1 - Multiplier Event Form ME.2 - Programme Template ME.3 - List of Participants Template ME.4 - Minutes form
31 January 2021	Organisation of an event for 20 (Italian/Romanian/Lithuanian/Irish) lecturers/researchers/teachers/policy makers in order to present, discuss the project results and address their sustainability in the national system.	LIT (IE), UniGenova (IT), KTU (LT), TUIasi (RO)	ME.1 - Multiplier Event Form ME.2 - Programme Template ME.3 - List of Participants Template ME.4 - Minutes form

Training Activity

Deadline	Results	Partner	Template and Tools
May 2020	Definition of the: - Training Programme - Certificate for the participants - Contents for the Europass	ІРВ (РТ)	
30 March 2019	 Each partner should: Identify 2 participants in the training activity Contact the National Europass Centre Contact the National Europass Centre (<u>link</u>) in order to activate the Europass Mobility for each participant. 	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUIasi (RO)	TA.4 – Contents for the Mobility Europass
15 October 2017	Delivery of the training activity	IPB (PT)	TA.1 – Course Register Template TA.2 – Programme Template TA.3 – Certificate Template



Project Management

PM1 - Coordination of Activities					
Deadline	Results	Partner	Template and Tools		
31 December 2018	Selection and involvement for testing activities, by each partner, of 20 students and 5 lecturers. Upload on the project portal of the related information	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), TUIasi (RO)	PM1.A – Student Information PM1.B – Lecturer Information PM1.C – Role of the target groups		
30 November 2018-2019-2020 28 February 2019-2020-2021, 30 May 2019-2020, 30 August 2019-2020	Production and Uploading of Project Activities Report	All partners	https://mathe.pixel- online.org/MNG-wip.php		
30 April 2019 15 October 2019 15 March 2021	Production of Financial Reports	All partners	PM1.E – Financial Manual PM1.F – Financial Forms		

PM2 - Dissemination					
Deadline	Deadline Results		Template and Tools		
30 October 2018	Development of project logo and brochure	IPB (PT)			
30 November 2018	Creation of a Facebook page	Pixel (IT)			
30 November 2018	Translation of project brochure	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), EuroEd (RO)			
30 November 2018-2019-2020 28 February 2019-2020-2021, 30 May 2019-2020, 30 August 2019-2020	Organization of 1 dissemination event on the project every month and uploading the dissemination events description on the project web site (every three months)	All partners			
15 October 2019 15 February 2021	Production of the progress Best Practice Dissemination Report	All partners	Template: PM2.B – How to write the Best Practice Dissemination Report		

PM3 - Exploitation				
Deadline	Results	Partner	Template and Tools	
15 October 2019 15 February 2021	Upload on the project portal of 6 associated partners	All partners	PM3.A - Associated Partner Letter PM3.B - Associated Partner Information	
15 October 2019 15 February 2021	Publication of announcements on 6 portals (3 per year) or websites addressed to teachers	All partners	PM3.C - Exploitation links	

PM4 - Quality and Monitoring Plan					
Deadline	Results	Partner	Template and Tools		
February 2021	 Collection of 2 testimonials Collection of 20 evaluation questionnaires Sending of evaluation report on the IOs 	LIT (IE), UniGenova (IT), KTU (LT), IPB (PT), EuroEd (RO)	PM4.C – Teachers' Evaluation Questionnaires for Intellectual Outputs PM4.D – How to write the Evaluation Report on Intellectual Outputs		



List of Partners

IRELAND

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ITALY

Pixel

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Università degli Studi di Genova, Dipartimento di Matematica

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Instituto Politécnico de Bragança (PT)

Name of the organisation:	Instituto Politécnico de Bragança		
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Tel:	(+351) 273 330 690	INSTITUTO POLITÉCNICO DE BRAGANCA	
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E-mail:	fflor @ipb.pt		
Type of examination.			
Type of organisation:			
SME ☐ Scho Training ☐ No F	- Andrew Control of the Control of t	Authority 🗆	
Other (Specify)			
Fields of action :			
SMEs □ Equal opportunities □	Youth ☐ Universities x Schools ☐ Unemployed ☐	Public Authorities □	

Description of the organisation

The Polytechnic Institute of Bragança (IPB) is a higher education public institution with a defined mission in creating, transmitting and diffusing technical-scientific and professional knowledge through the articulation of study, teaching, applied research and experimental development. IPB belongs to the European Network for Universities of Applied Sciences (UASNET), which main objectives include the transferability of professional skills and the integration of applied research in their professional and technological education mission.

Founded in 1983, IPB is presently composed by five schools, 400 teachers and more than 7000 students. Its activities embraces a wide area of knowledge and technology, namely, arts, communication and multimedia, business sciences and law, education and teachers training, agriculture sciences and natural resources, health, tourism, sports, technologies and engineering.

IPB has an internationalization programme with widely recognized success, including the annual mobility of more than 700 incoming and outgoing students and 200 teaching staff members, as the result of the collaboration with several European HEIs and with universities from the Community of Portuguese-Speaking Countries and all over the World. In the recent years, IPB has consolidated its international mobility under the Lifelong Learning Programme by renewing its European Charter for the period 2007/2013 and extending the programme of student mobility to placements. We have students from all over the country and the world and as such has a very strong emphasis on a multicultural environment, due to the 11% of international students.

In 2011, IPB awarded the ECTS Label by the European Commission, acknowledging the quality of the information provided in terms of the degree programmes offered (www.ipb.pt/ectsguide) and the management of student mobility within the European Higher Education Area (www.ipb.pt/iro). In 2013, the IPB was awarded the Diploma Supplement Label by the European Commission for the period 2013-2018. This label recognizes the quality of the diploma supplement, the transparency of procedures, and its importance in the facilitation of mobility and employability of the recent graduates, as well as the academic and professional recognition of the qualifications. Thus, the IPB is one of the few national and international institutions that have been distinguished by the European Commission with two quality labels.

IPB is a certified institution awarded with ISO 2001:2008 standards certificate, our Planning and Quality Management Office implements mechanisms of quality control in order to improve quality of seravices and follow financial implementation of projects.

Experience of the organization in previous European projects

Projects running in the last 5 years period:

- Erasmus+ Strategic Partnership "INNOCHEM: Improvement of Innovative Teaching Methods in the Fields of Technology and Chemical Engineering According to the Best Standards of the Bologna Process" (2014-2017).
- Erasmus+ Strategic Partnership "EXPEDUCOM: Experiential Education Competence" (2014-2017).
- Erasmus+ Strategic Partnership "BEST: Business Education for Sustainability Teaching Corporate Social Responsibility and Social Entrepreneurship for Sustainable Local and Regional Development" (2014-2017).
- LLP Programme Erasmus Intensive Programme "Management of agroforestry systems: ecological, social and economic approaches" (2013-2014).
- LLP Programme Erasmus Intensive Programme "Methods in Food Mycology and Mycotoxicology" (2013-2014).
- LLP Programme Erasmus Intensive Programme "Robotics systems education for European students Intensive programme electronics and automation" (2012-2014).
- LLP Programme Erasmus Intensive Programme "Entrepreneurship education for European students" (2011-2014).
- TEMPUS IV Programme Joint Project La MANCHE Leading and Managing Change in Higher Education (2012-2015) LLP Programme Comenius Subprogramme Multilateral Project: "INTACT Interactive Teaching Materials across Culture and Technology" (2012-2015).
- LLP Programme Comenius Subprogramme Multilateral Networks: "Chemistry Is All Around Network" (2011-2014).
- ERASMUS-MUNDUS External Cooperation Windows: "E2NHANCE: Educational Exchange Network for Higher Academia Gap Narrowing Between Central/South America and Europe" (2009-2013).
- LLP Programme Thematic Network: DIETS 2 Dieticians Improving the Education and Training Standards (2010-2013).

Experience and Expertise of the organization in the project's subject area

IPB was actively involved in several projects/initiatives concerning science education devoted to students of

different levels and general public. Some examples are the science communication in math was the project CV/PEC/268, "Games Laboratory", financed by Agência Ciência Viva (Lisbon, Portugal), developed during the period 2013-2015. This project initially involved IPB and two secondary schools but the outcome reached more than 2000 students and teachers. Other math project also financed by Agência Ciência Viva was the project CV/VI/ID355 "Eureka – Mathematical Games" developed during the period 2006-2008, that involved fifteen secondary schools of Portugal. Moreover, IPB has promoted the local implementation of several initiatives devoted to secondary school students such as "Open Science Day" (IPB, 2009-2018), "Hands on Particle Physics Masterclasses" (International Particle Physics Outreach Group, 2010-2018) and "Verão Ciência no IPB" (Agência Ciência Viva, 2009-2011).

More recently IPB was involved in the LLP projects CIAA Net - Chemistry is All Around Network (518300-LLP-2011-IT-COMENIUS-CNW), INTACT —Interactive teaching materials across culture and technology (527932-LLP-2012-DE-COMENIUS-CMP) and the Strategic Partnerships E-Learning from Nature with objective to promote science among secondary students (2015-2017) and INNOCHEM - Improvement of innovative teaching methods in the fields of Technology and Chemical Engineering according to the best standards of the Bologna Process (2014-1-PL01-KA203-003415) (this one in course).

Contributions that can be provided to the project

Considering the background knowledge and past experience IPB is able to support the programmed project activities and contribute to the main expected results all intellect output. IPB is also the scientific coordinator of the project MathE - Improve Math silks in higher Education.

Reasons of involvement in the project

Math E - Improve Math Skills in Higher Education project concentrates on the promotion of the acquisition of Math skills using ICT tools for students and lecturers and other target groups. The need to support and encourage lecturers in using learning technologies in an advanced way in their teaching and to increase digital media literacy is proven. The innovative idea of MathE is the offer, as output, of structured access to a variety of TEL-methods and TEL-resources in such a way that teachers can effectively find different TEL models, solutions, pedagogical theories and best practice in their classroom. The development of an e-resourcekit, where scientific concepts are integrated and validated by lecturers and researchers, will represent a considerable step in mathematics teaching / learning. IPB is strongly committed to the effective implementation and dissemination of educational tools to improve student's motivation in math and support teacher's training.

Contact Person's Experience and Expertise

Ana I. Pereira: Coordinator Professor at the Department of Mathematics, Polytechnic Institute of Bragança, and she is a member of the Research Centre in Digitalization and Intelligent Robotics (CeDRI) - Polytechnic Institute of Bragança - and Algorithm Research Centre – Minho University. She also is Direction Member of Braganza "Ciência Viva" Science Centre. She got her PhD at Minho University (2006) in 'Numerical Optimization' area. She is author or co-author of more than sixty journal papers, book chapters and conference proceedings. She participates in more than ten research projects in the areas of robotics, optimization and innovate tools in teaching. In particularly she was the IPB coordinator of the following projects: Strategic Partnerships "E-Learning from Nature" with objective to promote science among secondary students (2015-2017), "Games Laboratory", financed by Agência Ciência Viva (2013-2016) and "Eureka – Mathematical Games" also financed by Agência Ciência Viva (2006-2008).

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ResearcherID: www.researcherid.com/rid/F-3168-2010

Scopus ID: www.scopus.com/authid/detail.uri?authorld=8638283800;

ResearchGate: www.researchgate.net/prole/Ana_Pereira26

Florbela Fernandes: Associated Professor at Instituto Politécnico de Bragança and she is a member of the Research Centre in Digitalization and Intelligent Robotics (CeDRI). She obtained her PhD in Mathematics by University of Minho. Her major research is on Optimization area and in the science communication in the Mathematics area. In this way, she collaborated in some financed projects, for example: Eureka – Mathematical Games (www.eurekit.ipb.pt), Games Laboratory, Braganza@Science and E-learning from nature (enature.pixel-online.org).

Limerick Institute of Technology (IE)

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Type of organisation:	
	School University Public Authority No Profit NGO
Other (Specify)	
Fields of action :	
SMEs □ Equal opportunities □	Youth ☐ Universities ☐ Public Authorities ☐ Schools ☐ Unemployed ☐
Other (Specify)	

Description of the organisation

Limerick Institute of Technology (LIT) is an institution of higher education in Limerick, Ireland and is one of 14 member institutions of the Technological Higher Education Association (THEA). The Institute has campuses in Limerick city, one in both Thurles and Clonmel in County Tipperary and a regional learning centre in Ennis, County Clare. The main campus is located at Moylish Park adjacent to Thomond Park and houses the Faculty of Applied Science, Engineering and Technology and the School of Business and Humanities. The School of Art & Design is located at the Clare Street and Clonmel campuses.

LIT offers courses at Level 6 (certificate) through Level 10 (PhD) whilst also catering for craft apprentices and adult and continuing education. The Institute has twice been named as The Sunday Times Institute of Technology of the Year in The Sunday Times University Guide, firstly in 2008 and again in 2013.

LIT is to the forefront in ensuring that the region's economy continues to have the requisite array of leadingedge skills demanded by our knowledge-based industries. In 2017, LIT was granted permission to develop a new campus at Coonagh in Limerick, to be focused on teaching and research in engineering.

LIT has a distinctive approach to Teaching and Learning known as the Active Learning Philosophy. Whatever discipline area is offered the core methodology is active and practical; lab work, studio work, case studies, field visits, group assignments and more.

This approach to teaching and learning is embedded in assessment strategies and campus development so that the learning environment reflects the identity of LIT. It is also underpinned by staff developments, e.g. workshops and an online repository of active learning strategies.

Experience of the organization in previous European projects

LIT is also actively involved in research and enterprise development and is a regular participant in EU programmes both as project co-ordinator and project partner.

It has participated in Comenius, Erasmus and Leonardo as well as FP7 and IEE projects and its International Office promotes the Institute globally and welcomes students of many diverse nationalities.

Experience and Expertise of the organization in the project's subject area

Limerick Institute of Technology is a third level institution offering courses in a wide variety of disciplines, many of which require competency in mathematics. The organization has a cohort of lecturers who have contributed to curriculum development initiatives to enhance the learning experience of students and to improve their competencies in mathematics.

Contributions that can be provided to the project

Limerick Institute of Technology will draw on its own expertise as well as its links with local secondary school teachers and representative organisations for mathematics teaching and learning. It will undertake to promote the outputs of the project both locally and nationally.

LIT has experience in a variety of student interaction models. In addition to the standard classroom-based models, LIT also provides an interactive learning space for all learners. Moreover, the Problem Based Learning approach has been used on a number of programmes of study. LIT provides personal development and communication skills modules for many of its students. In addition, some staff in LIT have a particular interest in teaching and learning approaches and have carried out research and engage in networks and organisations which address these issues.

Reasons of involvement in the project

To work to enhance methods of teaching and learning in basic mathematics.

The networks with which LIT is an associate include EPI*STEM, the National Centre for Excellence in Science and Maths Teaching and Learning. Mathematics is an important component in the STEM programmes which make up the majority of the LIT courses in the proposed project. LIT lecturers have worked on initiatives to enhance the teaching and learning of mathematics, both at programme level and in

association with the dedicated Learning Support Unit which operates a number of strategies to aid students who have difficulties with core subjects like mathematics.

Contact Person's Experience and Expertise

Marie Walsh has been a lecturer in science in the Department of Applied Science in LIT since 1990. She has a particular interest in methods to promote the teaching and learning of STEM subjects. She is a Member of the Irish Science Teachers Association, a Member of the Royal Society of Chemistry Education Division Ireland committee, Mid-western regional representative on Council of Institute of Chemistry of Ireland, the LIT co-ordinator of SciFest, CanSAT, Space Week and Science Week, and a ChemEd-Ireland conference committee member. She is also an Associate member of EPI*STEM, the National Centre for Excellence in Maths & Science Teaching and Learning. She was the project manager for the Chemistry is all Around Us Network, funded in the framework of the Lifelong Learning Programme – Comenius sub programme – Networks Action which aimed at stimulating the interest of students in the study of Chemistry. She was also project manager of E-learning from Nature, an Erasmus+ KA2 project, which looked at the use of digital and other media to promote alternative methods of teaching and learning science.

Pixel (IT)

Name of the organisation :	Pixel	
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Type	of orga	nisation			
SME Trainin	-	School No Profit	University NGO	Public Authority	
Other ((Specify)):			

Fields of action					
SMEs	\checkmark	Youth ☑	Universities	abla	Public Authorities ✓
Equal opportunities		Schools ☑	Unemployed	\checkmark	
Other (Specify)			15 7000		

Description of the Organisation

Pixel is an education and training institution based in Florence (Italy).

Pixel was founded in 1999. Pixel's mission is to promote an innovative approach to education, training and culture, this is done mostly by trying to exploit the best potential of ICT for education and training.

Pixel carries out the following activities:

- European Project Planning and Management in the field of education, training, culture
- Support and advice for planning and management of transnational projects
- Delivery of in-service training for public authorities, universities, schools, research centres and private companies
- Research and development services to support education and training

- Organization of International Conferences in the fields of education, training and culture Pixel activities focus on the following areas:
- European Cooperation in the fields of education, training and culture
- Innovative Teaching in secondary schools
- E-learning
- Language Learning
- Marketing and Management
- Tourism
- Equal Opportunities
- Health
- Justice

Pixel has a permanent staff of 15 people and a network of about 100 external professionals and trainers that cooperate with them on specific activities.

Pixel has significant experience in planning and delivering in Service Training in the following areas:

Training for Public Administration.

Pixel delivers training initiatives addressed to staff of public authorities in 30 different European countries in the following fields: European Cooperation, Project Planning, Project management.

In Service Teachers Training

Pixel organizes training events addressed to university and secondary school teachers of 30 different European countries in the following fields: ELearning; New Technologies for Teaching, Foreign Languages, Arts, Sciences, History, European Cooperation, Project Planning, Project Management.

In Company Training

Pixel delivers training programs for managers and entrepreneurs in the areas of: Quality, Management, New Technologies, Information Technology, Foreign Languages, Tourism.

Pixel has developed strong co-operation agreements and partnerships, all over Europe, with training organisations, educational establishments, research and development centres, public authorities etc.

Pixel has significant experience in the field of European cooperation and transnational collaboration. Pixel has been / is currently involved in about 90 projects financed by the European Commission in the framework of the following programmes: Socrates ODL; Socrates Minerva; Socrates Grundtvig; Socrates Lingua; Socrates Comenius; Leonardo da Vinci; eLearning; Lifelong Learning.

Pixel is/was the **promoter and / or coordinator** of the following European projects:

- MultimediArt (Socrates Minerva)
- Art-Net (Elearning);
- Edurobot (Socrates Minerva)
- European Languages For Secretaries (Leonardo da Vinci)
- Language eTeachers Tools (Leonardo da Vinci)
- Multimedia History Memorial (Socrates Comenius 2.1)
- The Learning Game (Socrates Comenius 2.1)
- School Inclusion (Life Long Learning Sub-Programme Comenius)
- Michelangelo (Life Long Learning Sub-Programme Comenius)
- History Online (Life Long Learning Sub-Programme Erasmus)
- Els@Work (Life Long Learning Sub-Programme Leonardo da Vinci)
- On Air (Life Long Learning Sub-Programme Comenius)
- Routes (Life Long Learning Sub-Programme Comenius)
- LeTS Go (Life Long Learning Sub-Programme Leonardo da Vinci)
- Chemistry is All Around Us (Life Long Learning Subprogramme KA 1)
- Chemistry Is All Around Network (Life Long Learning Subprogramme Comenius)
- EET (Life Long Learning Subprogramme Erasmus)
- Heppy (Life Long Learning Subprogramme Leonardo Da Vinci DOI)
- Stay@School (Life Long Learning Subprogramme Leonardo Da Vinci TOI)
- Play The Learning Game (Life Long Learning Subprogramme Leonardo Da Vinci TOI)
- NELLIP (Life Long Learning Subprogramme KA2)
- School Safety Net (Life Long Learning Subprogramme KA4)
- Chemistry Is All Around Nework (Life Long Learning Subprogramme Comenius)
- Goerudio (Life Long Learning Subprogramme KA4)
- School&Work (Erasmus+ Strategic Partnerships Action)
- Not Only Fair Play (Erasmus+ Sport Action)
- E-learning from Nature (Erasmus + KA2 Strategic Partnership)
- YEES (Erasmus + KA2 Strategic Partnership)
- I Have Rights (Erasmus + KA2 Strategic Partnership)
- SoftisPed (Erasmus + KA2 Strategic Partnership)
- IWBLabs (Erasmus + KA2 Strategic Partnership)
- Learning for Life (Erasmus + KA2 Strategic Partnership)

- Pathway through Religions (Erasmus + KA2 Strategic Partnership)
- OFF Book (Erasmus + KA2 Strategic Partnership)
- Do Well Science (Erasmus + KA2 Strategic Partnership)
- SWOT (Erasmus + KA2 Strategic Partnership)
- TIK (Erasmus + KA2 Strategic Partnership)
- V4T (Erasmus + KA2 Strategic Partnership)

Pixel has coordinated / is coordinating over 50 training projects at regional level, funded by the European Social Fund. Of those projects: 22 were developed in the field of in-company training; 10 were developed in the field of training for youth to support their entrance in the labour market; 8 were developed on the field of equal opportunities.

Pixel quality system was certified compliance with the standard UNI EN ISO 9001:2000.

Pixel is accredited by the Italian Ministry of Education with legislative act of 25/7/2006.

Pixel is accredited by the Tuscan Regional County with legislative act number 1722 of 25/3/2003.

Pixel is accredited by the Ministry of Health and in this role provides officially recognised qualifications for those working in the medical sector.

More information about Pixel's expertise can be found on Pixel web site at http://www.pixel-online.net.

Experience in previous projects

PIXEL's current and past projects are focused on the following topics:

European Projects in the field of Art

European Socrates Open and Distance Learning Programme: project "Arte", funded by the European Commission (DG Education and Culture). The project aims to promote the use of distance learning to promote knowledge about contemporary European art. Website: http://www.socrates-arte.net

European Socrates Minerva Programme: project "MultimediArt", funded by the European Commission (DG Education and Culture). The project aims to promote the use of multimedia and new technologies in the art creation process. Around 40 art schools from 9 European countries are involved. Website: www.multimediart.net

European eLearning Programme: project "Art-Net", funded by the European Commission (DG Education and Culture). The project aims to develop a multimedia platform for the exchange of didactic material for the teaching and learning of artistic subjects. There are 11 project partners from 8 European countries. Website: http://www.elearning-art.net/

European Life Long Learning Programme Comenius Sub Programme: project "Michelangelo", funded by the European Commission (DG Education and Culture). The project aims to develop a better knowledge of the European Artistic Heritage involving the schools in a research activity. Website: http://michelangelo.pixel-online.org/index.php

OFF Book (Erasmus + - KA2 - Strategic Partnership)

European Projects in the field of History

European Socrates Comenius Programme: project "Mankind Memorial", funded by the European Commission (DG Education and Culture). The project aims to promote the knowledge of contemporary history and in particular the Second World War, by means of cooperative analysis of war documents by the schools involved. Website: www.mdm-project.net

European Socrates Comenius Programme: project "Multimedia History Memorial", funded by the European Commission (DG Education and Culture). The project, promoted by Pixel, aims to spread the knowledge of contemporary history through a comparative analysis of the different national media sources. Website: http://mhm.pixel-online.org

European Life Long Learning Programme Comenius project "Regards Croisée", funded by the European Commission (DG Education and Culture). The project carried out a comparative study of the events of the first world war. Website: http://www.europe14-18.eu/

European European Life Long Learning Programme Erasmus Sub-Programme: project "History On Line", funded by the European Commission (DG Education and Culture). The project aims to apply modern technologies to the teaching of history. Website: http://www.history-on-line.eu/

European Life Long Learning Programme Comenius Sub-Programme: project "Routes", funded by the European Commission (DG Education and Culture). The project involves European Secondary schools studying the Social history of migrations and integration of immigrants into European countries. Website: http://routes.pixel-online.org/info/index.php

European Life Long Learning Programme Erasmus Sub-Programme: project "EE-T: Economics e-Translations into and from European Languages: An Online Platform", funded by the European Commission (DG Education and Culture). The project involves European Universities and Higher Education institutions creating a dynamic triangle of knowledge between research, postgraduate education and innovation by promoting the joint application of both ICT tools and the innovative trends of research in the History of Economic Thought (HET) and the study of European Languages for Special Purposes (LSP). Website: https://eet.pixel-online.org/index.php.

European Projects in the field of Science

European Socrates Minerva Programme: project "EUR-EAU Action", funded by the European Commission (DG Education and Culture). The project, promoted by IN.FOR.EF (Belgium) aims to experiment the use of technology in distance learning in the learning sectors of chemistry and biology at secondary school level. Website: http://www.ulg.ac.be/cifen/inforef/eureau

European Socrates Minerva Programme: project "Edu Robot", funded by the European Commission (DG Education and Culture). The project aims to train students from technical schools on an efficient use of the methodologies used for transnational collaboration in the research sector, focusing in particular, on the sector of robotics. There are 10 project partners from 7 European countries. Website: http://edurobot.edulife.com

European Socrates Minerva Programme: project "ClimaTIC" funded by the European Commission (DG Education and Culture). The project aims to promote transnational cooperation between schools in the field of science teaching. Website: http://www.ulq.ac.be/cifen/inforef/projets/climatic/

European Life Long Learning Programme KA3 Suprogramme: project "EnergeTIC" funded by the European Commission (DG Education and Culture). The project aims to promote transnational cooperation between schools in the field of energy savings. Website: http://labo-energetic.eu/fr/projet1.html

European Life Long Learning Programme KA 1 Subprogramme: project "Chemistry is All Around Us" funded by the European Commission (DG Education and Culture). The main aim of the project is to identify of the best strategies to implement Life long Learning of scientific subjects, with a focus on Chemistry identified as an exemplary case study Website: http://www.chemistry-is.eu/

European Life Long Learning Programme Comenius Subprogramme: project "Chemistry is All Around Network" funded by the European Commission (DG Education and Culture). The main aim of the project is to disseminate and exploit the best strategies to implement Life long Learning of scientific subjects, with a focus on Chemistry identified as an exemplary case study. https://chemistrynetwork.pixel-online.org

European Life Long Learning Programme KA4 Subprogramme: project "Goerudio" funded by the European Commission (DG Education and Culture). The main aim of the project is provide science teachers and students with innovative teaching and learning methodologies for scientific subjects http://goerudio.pixel-online.org/.

Erasmus+ Programme, Strategic Partnership action: Learning for Life project funded by the Spanish National Agency. The main aim of the project is to promote new education methodology, such as Problem Based Learning (PBL) and Multiple Intelligences (MI) and to develop skills required in the present and future society. Website: http://learningforlife.pixel-online.org/

Erasmus+ Programme, Strategic Partnership action: Do Well Science funded by the Italian National Agency. The main aim of the project is (Erasmus + - KA2 - Strategic Partnership) to increase secondary students learning results in STEM subjects (maths, physics and natural sciences). http://www.dowellscience.eu/project/

Erasmus+ Programme, Strategic Partnership action: GoScience. The project was funded by the European Commission in the framework of the Erasmus+ Programme, KA2 - Strategic Partnership in the field of School Education. The aim of the GoScience European project is to promote students' creativity with the aim of making scientific knowledge better understandable and increase their functional literacy in STEM subjects. Website: http://www.goscience.eu/

Erasmus+ Programme, Strategic Partnership action: G. A. STEM. funded by the Finnish National Agency. The project aims at improving motivation in scientific study through the use of "Art-works" as supporter in student creativity development and more awareness of their applications in everyday life.

European Projects for Schools

European Socrates Comenius Programme "Learning Game", funded by the European Commission (DG Education and Culture). The aim of the project is to implement e-learning solutions and methods in a teaching and learning context that make full use of the interactive and multimedia solutions, therefore including videogames. Website: http://learninggame.pixel-online.org/

European Life Long Learning Programme Comenius Sub-Programme: "School Inclusion", funded by the European Commission (DG Education and Culture). The main aim of the project is to identify common strategies to combat the phenomenon of school drop out. http://schoolinclusion.pixel-online.org/

European "Safer Internet" Programme: project "POESIA", funded by the European Commission (DG Education and Culture). The project aims to promote the safe use of the Internet in schools creating a software which filters unsuitable contents for young students.

European Socrates Minerva Programme: project "Citizen E", funded by the European Commission (DG Education and Culture). The aim of this project is to promote cooperation in the field of ODL and ICT in post primary education, promoting an understanding among teachers and students of the technical and pedagogical implications of ICT. Website: http://www.citizen-e.net

European Life Long Learning Programme Comenius Sub-Programme "On-Air", funded by the European Commission (DG Education and Culture). The project purpose is to motivate teachers to exploit the potential of New Media (TV, Internet, etc.) as a teaching tool for literacy and necessary critical skills, to reach a younger generation that naturally adapts fast to these technological advances. Website: http://www.onair.medmediaeducation.it/

European Leonardo da Vinci Programme "Tech Teacher", funded by the European Commission (DG Education and Culture). The objective of Tech Teacher is to raise the availability and quality of European training courses for adults by offering them online and bridging the gap of learning between teachers working with young students and adults. Website: http://www.tcteacher.eu/

European Life Long Learning Programme Comenius Sub Programme: project "School Inclusion", funded by the European Commission (DG Education and Culture). The project aims to develop a training course for school teachers to enhance their skills for the identification and tackling of School Drop Out. Website: http://schoolinclusion.pixel-online.org/

European Life Long Learning Programme KA1 Sub Programme: project "I Am Not Scared", funded by the European Commission (DG Education and Culture). The project aims to develop a European strategy aiming at tackling the phenomenon of school bullying. Website: http://projects.pixel-online.org/iamnotscared/index.php

European LLP Leonardo da Vinci T.O.I Programme: project "Stay@School", funded by the Italian National Agency. The project aims to deliver and transfer a training course for school teachers to enhance their skills for the identification and tackling of School Drop Out.Website: http://schoolinclusion.pixel-online.org/

European LLP Leonardo da Vinci T.O.I Programme: "Play The Learning Game" project, funded by the Spanish National Agency. The aim of the project is to transfer e-learning solutions and methods in a teaching and learning context that make full use of the interactive and multimedia solutions, therefore including videogames. Website: http://learninggame.pixel-online.org/

European Life Long Learning Programme KA4 Subprogramme: project "School Safety Net" funded by the European Commission (DG Education and Culture). The main aim of the project is to prevent and tackle the early school leaving phenomenon. Website: http://schoolsafetynet.pixel-online.org/

Erasmus+ Programme, Strategic Partnership action: School&Work project funded by the Italian National Agency. The main aim of the project is to create synergies between the world of work and the school in order to prevent the early school leaving phenomenon. Website: http://schoolandwork.pixel-online.org/

Erasmus+ Programme, Strategic Partnership action: Non4Lesl project funded by the German National Agency. The main aim of the project is to prevent early school leaving through the recognition of non-formal learning and the production of a tool for the validation of the skills acquired through informal educational paths. Website: https://www.non4lesl.eu/

Erasmus+ Programme, Sport Action: Not Only Fair Play project funded by the European Commission. The main aim of the project is to promote the physical activities at school as a mean to foster social inclusion and prevent early school leaving. Website: http://notonlyfairplay.pixel-online.org/

Erasmus+ Programme, Strategic Partnership action: E-learning from Nature project funded by the Italian National Agency. The main aim of the project is to promote a proactive students' approach to scientific subjects learning. Website: http://enature.pixel-online.org/

Erasmus+ Programme, Strategic Partnership action: YEES project funded by the Spanish National Agency. The main aim of the project is to promote the inclusion of youngsters in the labour market in an effective way using social media and crowdsourcing based tools. Website: http://yees.pixel-online.org/

Erasmus+ Programme, Strategic Partnership action: Pathway through Religions funded by the Italian National Agency. The main aim of the project is to promote awareness of religions and foster a sense of mutual tolerance. Website: http://pathwaythroughreligions.pixel-online.org/

Erasmus+ Programme, Strategic Partnership action: WWW – We Welcome Work funded by the Romanian National Agency. The main aim of the project is to offer non-formal learning opportunities for young people so as to support their employability and entrepreneurship, also providing innovative career orientation strategies. Website: http://wewelcomework.eu/

Erasmus+ Programme, Strategic Partnership action: SWOT funded by the Romanian National Agency. The project aims at improving their cooperation in order to develop Work Based Learning approaches and market oriented training offer for the Tourism Sector. Website: https://swot.pixel-online.org/

Erasmus+ Programme, Strategic Partnership action: TIK funded by the Spanish National Agency. project is aims at providing future teachers with a comprehensive reflection on the innovation of didactic methods through the use of videogames and ludic apps for mobiles. Website: https://tik.pixel-online.org/

Erasmus+ Programme, Strategic Partnership action: V4T funded by the Spanish National Agency. The main aim of the project is to promote the inclusion of youngsters in the labour market in an effective way using social media and crowdsourcing based tools. Website: https://v4t.pixel-online.org/

Erasmus+ Programme, Strategic Partnership action: ELDORA. The project aims at strengthening the key competences and skills of young people at their final year at schools (VET institutions and universities), unemployed young people and leaders in rural areas to help them start a social enterprise in order to better utilize local natural and human resources, to increase economic development of rural areas and to prevent brain drain. Website: http://www.arr.sk

Erasmus+ Programme, Strategic Partnership action: VET_GPS. The project was funded by the European Commission in the framework of the Erasmus+ Programme, KA2 - Strategic Partnership for vocational education and training. The VET_GPS European project aims at including the soft skills in regular VET offer and preventing early VET leaving and increasing the possibility of employment of trainees. Website: https://www.vetgps.eu/

Erasmus+ Programme, Strategic Partnership action: DELTA. The project was funded by the Erasmus+ Programme, KA2 - Strategic Partnership for vocational education and training. The aim of the DELTA European project is to support young people access to the labour market. The objectives of the DELTA European project are to develop skills to assess learning in the workplace, provide resources for internship tutors and bring VET centres and companies together. Website: http://deltaproject.eu/

Erasmus+ Programme, Strategic Partnership action: E-Classes. The project was funded by the Erasmus+ Programme, KA2 - Strategic Partnership for vocational education and training. It wants to help the VET teachers to revising and strengthening the professional profile and improving the attainment of young people, particularly those at risk of early school leaving and with low basic skills, developing a methodology especially focusing on the use of ICT. Website: http://e-classes.eu/

European Projects in the field of Language Learning

European Socrates Minerva Programme: project "Je parle donc J'écris", funded by the European Commission (DG Education and Culture). The project is addressed to students with learning disabilities and aims to experiment with a methodology for learning French using Alfonic. Website: http://www.ulg.ac.be/cifen/inforef/projets/jeparledoncjecris/

European Leonardo Programme: project "CATT: Computer Aided Teachers Training", funded by the European Commission (DG Education and Culture). In the framework of the project a CD-ROM aimed at trainers and language teachers was created in order to train them to use new technologies in language teaching. Website: http://www.fi.enaip.it/catt

European Socrates Minerva Programme: project "Kid-Net"; funded by the European Commission (DG Education and Culture). The project aims to create a network between the nurseries of three European nations (Italy, Belgium and Spain) in order to experiment and test an on-line course for language learning. Website: http://www.pixel-online.net/kid-net

European Socrates Lingua Programme: project "eLancenet" funded by the European Commission (DG Education and Culture). The project aims to create a database of language learning products available on the European market, with particular attention to lesser widely spoken languages. Website: www.elancenet.org/admin/index.php

European Learning and Linguistic Diversity Programme: project "Euro Inclusion", funded by the European Commission (DG Education and Culture). The project's objective is to create a transeuropean network for cooperation and exchange between individuals in the foreign language teaching sector. Website: http://eeuroinclusion.org

European Leonardo da Vinci Programme: project "ELS", funded by the European Commission (DG Education and Culture). The aim of the project is to create a language training portal for the learning of 4 foreign languages. It is specifically addressed to secretaries and administrative assistants working in businesses and Public and Private bodies. There are 13 project partners from 9 European countries. Website: http://els.pixel-online.org/ Portal: http://els.pixel-online.org/ Portal:

European LLP Leonardo da Vinci T.O.I Programme: project "E.L.S. at Work", funded by the European Commission (DG Education and Culture). The aim of the project is to transfer the results of the ELS project that was originally addressed mainly to SMEs also to the education systems. Website: http://www.eurobusinesslanguageskills.net/

European Leonardo da Vinci Programme: project "ELSTI", funded by the European Commission (DG Education and Culture). The aim of the project is to create a language training portal for the learning of foreign languages. Website: http://www.elsti.eu/

European Leonardo da Vinci Programme: project: "LeTS" funded by the European Commission (DG Education and Culture). The aim of the project is to create a training package addressed to trainers to give them the tools for the development of e-learning based language teaching tools. Website: http://lets.pixel-online.org/ Portal: http://www.leonardo-lets.net

European LLP Leonardo da Vinci T.O.I Programme: project LeTS Go funded by the European Commission (DG Education and Culture). The project Lets Go intends to transfer the products available onto the LeTS portal, aiming to make efficient use of new technologies for language teaching and training, to two additional target groups: school teachers and professional trainers. Website: http://www.leonardo-lets.net/

European Socrates Socrates Grundtvig programme: "COLTT" funded by the European Commission (DG Education and Culture). The aim of this project is to help teachers overcome their difficulties in the use of ICT for cross-national collaborative communication. Website: http://www.statvoks.no/coltt/

European Transversal programme: "Active ELP" funded by the European Commission (DG Education and Culture). The aim of this project is to help teachers overcome their difficulties in the use of ICT for cross-national collaborative communication. Website: http://www.activelp.net/

European Life Long Learning Programme KA2 Sub Programme: project "NELLIP", funded by the European Commission (DG Education and Culture). The project aims to build a Network and promote dissemination and sustainability of projects and initiatives that received the European Language Label. Website: https://nellip.pixel-online.org/

Erasmus+ Programme, Strategic Partnership action: DC4LT - DC4LT - Digital Competences for Language Teachers funded by the Norwegian National Agency. The project aims at empowering EU Language Teachers with Digital Competences in order to strengthen them with open and innovative tools and methodologies, and be able to teach online and mobile to a worldwide audience.

Erasmus+ Programme, Strategic Partnership action: OPENLang Network funded by the Greek National Agency. The project aims at developing 'The OPENLang Network', which envisages to connect all the Erasmus+ KA1 Mobility Participants (HE students and staff, VET (at least 1 month mobility), Adult and School education staff, Youth learners, Youth Workers, Youth Entrepreneurs) in an OPEN informal and highly interactive online environment which could support more efficiently their effort to develop their language skills of the target mobility EU languages.

European Projects in the field of Educational Research

European Socrates Distance Learning Programme: project "ODL networking in Europe", funded by the European Commission (DG Education and Culture). The project carries out an investigation on the application of Distance Training in professional teaching and training systems in five European countries with the aim of identifying the efficiency of Distance Training compared to more traditional training systems. Website: http://194.82.4.3 8/ODLnet.htm

European Projects in the field of Youth

European Leonardo da Vinci Programme: project: "Yo-Pro" funded by the European Commission (DG Education and Culture). The aim of this project is to develop a model for the vocational training of youth workers and leaders. http://yo-pro.pixel-online.org

European Leonardo da Vinci Programme: project: "Yo-Train" funded by the European Commission (DG Education and Culture). The The project's objective is to create a consistent training programme for the training of youth workers, based on the demands of employers and a rapidly changing society

European Leonardo da Vinci Programme: project: "Requal" funded by the European Commission (DG Education and Culture). The project aims to define the professional profiles, that are increasingly requested by companies at European level in the sector of new technologies. http://www.crea.es/innovacion/createl/

European Projects in the field of Entrepreneurship

European Leonardo Programme: project "Orientacion Hacias los Nuevos Empleos", funded by the European Commission (DG Education and Culture). The project, promoted by the Centro Regional Empresarios de Aragon (Spain), aims to define the professional profiles, that are increasingly requested by companies at European level in the sector of new technologies.

Website: http://www.crea.es/yacimientos.nsf

European eLearning Programme: project "Createl", funded by the European Commission (DG Education and Culture). The project aims to create a thematic portal for small businesses, based on the themes linked to knowledge management.

Website: http://www.crea.es/innovacion/createl/

European Leonardo da Vinci Programme: project "EINET", funded by the European Commission (DG Education and Culture). The project aims to promote strategies for sustaining entrepreneurship, by promoting new approaches.

Website: www.einet.org/en/

European Leonardo da Vinci Programme: project "FORESTUR, funded by the European Commission (DG Education and Culture). The project aims to provide continous online training to individuals operating in the rural tourism sector. Website: http://www.forestur.net

European Grundtvig: project "FORESTUR, funded by the European Commission (DG Education and Culture). The project's aim is to help workers 55 and older to raise their employability by teaching new relevant skills, updating their competencies, and educating employers to be tolerant and more aware of their abilities. http://www.forestur.net

European LLP Leonardo Da Vinci TOI Programme funded by the European Commission (DG Education and Culture). The project's aim is to provide an attractive training path for workers and entrepreneurs working in the tourist sector. The project will evaluate and identify best practices in the field of SME management in three different tourist regions of Europe in order to transfer them to weaker Areas. http://www.benchtour.eu/

European Projects in the field of Adult Education

European Socrates Grundtvig Programme: project "EMMA", funded by the European Commission (DG Education and Culture). The EMMA Network aims at creating a sustainable network of researchers, practitioners and policy makers in the field of general adult numeracy. Website: http://www.statvoks.no/emma/

Erasmus+ Programme, Strategic Partnership action: UpSkillead - Upskilling Adult Educators Digital Lead funded by the Slovenian National Agency. The project aims to create an interactive platform which will provide adult learners with the skills in e-learning, e-connectivity and e-communication. Website: http://upskillead.eu/

Erasmus+ Programme, Strategic Partnership action: 2IMINED - Improving the initial education of adult immigrants funded by the Lithuanian National Agency. The project is aimed at improving competencies of educators working with immigrants as far as formal and non-formal education provision is concerned. Website: http://migis.eu/

European Projects in the field of Justice

Criminal Justice Programme: programme JCN Justice Cooperation Network, funded by the German National Agency. The projec aims at developing a European network for best practice of transition management of prisoners leaving custody with a focus on high risk offenders. Website: https://jcn.pixel-online.org/index.php

European Projects in the field of Equal Opportunities

European Socrates Grundtvig Programme: project "Employing Women Potential", funded by the European Commission (DG Education and Culture). This project foresees the training of women who are successfully returning or (entering) the work market in order to equip them with the skills to enable them to become mentors for other women. Website: www.stockport.ac.uk/Departments/EWP/

Erasmus+ Programme, Strategic Partnership action: GEEA funded by the Romanian National Agency. The project has the aim to raise awareness of equal opportunities, especially in VET education, and to promote entrepreneurship education as a solution to gender gap. Website: http://www.geea-project.eu/index.php/en/

European Projects in the Health Sector

European Socrates Grundtvig Programme: project "Health Tutor", funded by the European Commission (DG Education and Culture). This project aims to train trainers on the most effective methodologies for guaranteeing healthy learning. http://www.healthtutor.eu/

European Leonardo da Vinci Development of Innovation Programme: project "Hippocrates", funded by the European Commission (DG Education and Culture). The project aims to train those working in the health sector so as to foster the acquisition of new skills.

http://www.hippocrates.fadgradenigo.it

European Leonardo da Vinci Development of Innovation Programme: project "Heppy", funded by the European Commission (DG Education and Culture). The project aims to train Health sector professionals to develop an holistic and patient centred approach to Homecare assistance.

Erasmus+ Programme, Strategic Partnership action: Med&Lang Palliative Care funded by the Romanian National Agency. The project focuses on communication skills in a foreign language for supporting the teaching processes of the medical lecturers at higher education level, with a specific focus on palliative cares. Website: http://www.medlang.eu/

Erasmus+ Programme, Strategic Partnership action: HealthEdu funded by the Lithuanian National Agency. The project aims at improving the healthy nutrition habits of children and families also promoting healthy lifestyle principles in the community. Website: http://healthedu.emundus.eu/

European Projects in the field of Veterinary

Erasmus+ Programme, Strategic Partnership action: ZOE - Zoonoses Online Education funded by the Lithuanian National Agency. The project aims to create teaching resources in the field of veterinary medicine focusing in particular on the identification, monitoring and control of malaria. Website: http://zoeproject.eu/

European Projects in the field of Disability

European Leonardo da Vinci Programme: project "Inclusive Practices for Learning Disabilities", funded by the European Commission (DG Education and Culture). The aim of the project is to carry out research and comparative analysis at European level of the services and available for disabled individuals and the effectiveness of these services.

Website: http://www.ipld.cku.sopot.pl/index.html

European Leonardo da Vinci Programme: project "EUCare" ", funded by the European Commission (DG Education and Culture). The aim of the project is to create a training package addressed to those who take care of the elderly. Website: http://www.eu.care-project.koszalin.pl

Experience and Expertise of the organization in the project's subject area

Pixel has a number of relevant experiences developed in the framework of previous European projects involving secondary schools and focusing on innovative teaching and learning methodologies.

In particular the Goerudio project (http://goerudio.pixel-online.org/), aiming at promoting scientific knowledge at all level

of education by implementing innovative strategies; the Chemistry Is All Around Us project (http://chemistry.pixel-online.org/index.php), aiming at identifying barriers and success factors to the implementation of lifelong learning strategies in scientific subjects and in particular in chemistry; the eLearning from Nature (http://enature.pixel-online.org/) project engaging students in the production of science lessons which can be shared with other students abroad..

Pixel is also working with CIPAT (Network of Tuscan Secondary Vocational Schools) http://www.cipat.it/. C.I.P.A.T. is a consortium made up of 40 vocational schools and is very sensitive to the issue of early school leaving. C.I.P.A.T. has been working with Pixel in several projects on early school leaving and contributed to the development of guidelines for early school leaving prevention addressing policy makers, school directors, teachers, students and parents.

Contributions that can be provided to the project

Pixel will be in charge of supporting the project management, of the organization and assessment of quality and evaluation issues as well as of dissemination and exploitation. These activities will be carried out on the basis of the 15 years experience in the field of Pixel and of the 20 years' experience in the field of its president, Elisabetta Delle Donne.

Contact Person's Experience and Expertise

Elisabetta Delle Donne is the president of Pixel.

She graduated in Political Sciences – International Affairs from the University of Florence in 1993. Since then she has constantly been working in the field of European cooperation.

Elisabetta Delle Donne is an expert in the planning and management of European projects focusing in particular on the areas of education, training and culture.

So far Elisabetta Delle Donne has been involved as project planner and manager in more than 100 projects funded by the European Commission. She has developed and coordinated partnerships with more than 400 bodies throughout Europe, including universities, public authorities, training organizations, schools, research centres etc.

Elisabetta Delle Donne is often invited as a speaker or expert at International Conferences to present her European cooperation experiences and the European projects in which she is involved. She is also the main trainer in the international seminar "European Project Planning and Management".

She is also involved as external expert in quality management and external evaluator in European projects mostly funded by the Lifelong Learning Programme.

Lorenzo Martellini, started working at Pixel as European Project Manager after his university degree in Economics – Business Management, in 1999. At Pixel he has managed over 20 projects funded by the European Commission in the field of education and training. The main subject areas of these projects are: early school leaving prevention, entrepreneurship, health, language learning; tourism management.

Lorenzo Martellini has also been the coordinator of over 15 projects funded by the European Social Fund in the following areas: in company training in SMEs, entrepreneurship, tourism training for unemployed youth.

Lorenzo Martellini is also in service teachers and adult trainer in the following subject areas: new technologies for education, information technologies for business management, e-learning for language teaching, Italian language for foreigners.

Università degli Studi di Genova, Dipartimento di Matematica (IT)

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Type of organisation:			
		I laivanite	Dublic Authority
SME □ Training □	School No Profit	University x NGO □	Public Authority
Other (Specify)			
Fields of action :			
SMEs	Youth x	Universities	x Public Authorities □
Equal opportunities	Schools x	Unemployed	
Other (Specify)			

Description of the organisation

The University of Genova (UNIGE) is one of the most ancient of the European large universities; with about 280 educational paths distributed in the headquarters in Genova and the learning centres of Imperia, Savona and La Spezia, it comes up to the community as a well-established reality throughout the region. More than 1.300 faculty members are distributed over 5 Schools (Math, Physics and Natural Sciences, Medical Sciences, Polytechnic, Social Sciences, Humanities). With its 126 Degrees, more than 55 Postgraduate Schools, and 26 Masters, UNIGE provides a truly multi-disciplinary teaching offer to more than 30.000 students, and nearly 2.800 international students. UNIGE counts 22 Departments, 27 PhD courses, 55 Specialisation Schools, an Integrated Library System, 11 Research Centres, and 2 Centres of Excellence. UNIGE took part to more than seventy FP7/H2020 projects as either participant or coordinator. The existing international cooperation concerns the fields of research and didactics, with many scientific bilateral and multilateral agreements and European Union projects.

Specifically, the Department of Mathematics (DIMA) is a dynamic Department and a driving force for the entire University. DIMA is very active in both education and research activities. DIMA offers bachelor courses (3 years) and master courses (2 years) along with PhD programs.

DIMA offers two graduate programmes leading to the Ph.D. degree, that combines study and research opportunities.

DIMA is very active in both education and research activities. DIMA has a fundamental rule in the harmonization of the theoretical and practical application of teaching Mathematics at School (subject pedagogy and practical training), and in the realization of students' pedagogical activities with differentiation. DIMA also participates to several national, international and EU projects.

For more information see: http://www.dima.unige.it.

Experience of the organization in previous European projects

UNIGE has a strong participation in the most important EU and international research and cooperation Programs. Discoveries, inventions, advances achieved by research activities are successfully commercialized.

UNIGE is currently involved in over 68 projects funded under FESR-Interreg, LIFE (25 projects since 1999) and other international funding instruments and has over 116 projects in FP7 and 39 active projects under H2020 (7 of which are Marie Curie Actions - 2 Rise, 2 ITN and 1 Night).

More information is available at the following link: https://unige.it/ricerca/prog_euint/index.shtml.

DIMA provides a good starting point for young scholars in the field to build and nurture individual international networks. The Department participates to several regional, national (n. 10 PRIN - projects of national interest; 1 FIRB Future in Reasearch), and international and European research programmes (1 FP2-ESPRIT; 1 FP5-IST; 1 FP7- SPACE, 2 FP7-PEOPLE, 1 Marie Skłodowska-Curie-IF action) and thematic networks (INDAM research programmes).

DIMA is currently involved in several European projects such as H2020-FETOPEN-2015-CSA (SC-square - Satisfiability Checking and Symbolic Computation: uniting two communities to solve real problems); H2020-PROTEC-2014 (Flare Likelihood and Region Eruption Forecasting); programme of international mobility: H2020-MSCA-COFUND-2015 Proposal: 713485 -INdAM-DP-COFUND-2015.

For more information, see: http://www.dima.unige.it.

Experience and Expertise of the organization in the project's subject area

In 2004 the Italian Ministry for Instruction, University and Research (MIUR) founded the national Project "Lauree Scientifiche" ("Scientific degrees") (PLS in the following), whose aim was fostering the enrolment in university courses with scientific orientation, stimulating young people's interest in studying sciences and providing a better education in the base sciences. The project had several strands, going from special interventions for "high-achieving students" to pre-university orientation programs. Among them, the so-called PLS Laboratories, that is to say special lessons, performed in the school environment through a collaborative work between university researchers and school teachers.

UNIGE has also a long experience of distance learning activities. UNIGE is a partner of eduopen.org, a platform created by 14 Italian public universities to offer everyone free of charge the opportunity to follow high-quality training online courses. EduOpen is an innovative educational opportunity accessible to everyone, from young people to retirees, from professionals to teachers. All UNIGE distance education instructors have a long experience in higher education teaching and research in their field of expertise. Moreover, they were trained in using synchronous and asynchronous distance education tools, preparing and organizing distance education material, activities and communication.

Contributions that can be provided to the project

UNIGE will carry out all tasks that were initially assigned to the previous partner USR Liguria, in particular:

- The assessment of the results for the first intellectual output "STEM teaching package"
- The testing activities related to the first intellectual output "STEM teaching package"
- Contribution to the development of the contents for the second intellectual output "Manual for Innovative Pedagogy in STEM Contents"

The Math's Department will also contribute to all transversal activities such as dissemination, exploitation, quality and monitoring.

Reasons of involvement in the project

UNIGE team has historically strongly prioritized third level education, also improving the support for research training, with the aim at always pursuing the highest standards.

Due to changes in political and social characteristics in Europe, the topic of quality of education has received special attention in UNIGE. The year 2001 marked the beginning of a new system of accreditation for university degree programs.

Anna Siri has a strong experience in evaluation of educational process and systems and she has been responsible at a senior level in their institution for educational policy and processes. Emanuela De Negri and Francesca Morselli are high level experts in math's area and in school teacher training. They have experience with the development and implementation of study programs.

All are involved in national and international research and teaching projects aimed to enhance high quality in science degree programs.

UNIGE staff ensure also "complementary practical skills", comprised for example communication techniques, awareness of cultural differences, interview techniques, knowledge about how to write reports evidence based, analytical skills and competences to accurately analyse strengths and weaknesses of the study programs under review.

Contact Person's Experience and Expertise

Anna Siri

Sociologist, PhD in Evaluation of Educational Processes and Systems. In July 2017, she held the habilitation as Associate Professor in Sociology according to the Italian National Scientific Habilitation Procedure (ASN 2016-2018). Her main fields of work are international comparative studies in education. Her research areas of interest include the measurement and determinants of instruction, how educational innovations impact instruction, and how instruction affects student learning. She has published many articles and reports related to assessment and evaluation, quality assurance and institutional effectiveness, and she has actively participated in paper presentations and symposiums at major research association meetings.

She has many years of experience as a project manager and scientific writer.

For more information see: http://cattedraunesco.unige.it

Emanuela De Negri

Associate Professor in Commutative Algebra at University of Genoa, Department of mathematics. She has more than 20 years' experience of teaching and in supervising school and university teachers. Since 2001 she is member of the Orientation Commission of the Degree in Mathematics. Since 2004 she is involved in "Piano Lauree Scientifiche", a project supported by Italian Government to improve the teaching of Mathematics in the school.

Francesca Morselli

Francesca Morselli graduated in Mathematics at the University of Genoa (2002) and obtained her Ph.D. in Mathematics at the University of Turin (2007). Since 2015 she is associate professor of Mathematics Education at the Department of Mathematics of the University of Genova (Italy), where she works in preservice and in-service teacher education programs. Her research focuses on: argumentation and proof in mathematics; formative assessment in mathematics classroom; the interaction between affective and cognitive factors in the teaching and learning of mathematics.

Kaunas University of Technology (LT)

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SME	•	Authority
Other (Specify)		
Fields of action :		
SMEs □ Equal opportunities □	Youth ☐ Universities ☑ Schools ☐ Unemployed ☐	Public Authorities □

Description of the organisation

Kaunas University of Technology (KTU) – the largest technical university in Lithuania, known for its linkages with business, leadership in scientific research, flexible interdisciplinary study programs. KTU is situated in Kaunas, the second largest city of Lithuania, which is a significant centre of industry, transport, science and culture.

KTU Mission is to provide a research-based studies of international level, to create and to transfer knowledge and innovative technologies for sustainable development and innovative growth of the country, to provide an open creative environment that inspires leaders and talented individuals.

There are 9 faculties in KTU, including the Faculty of Informatics. Faculty of Informatics in KTU (KTU IF) has all possibilities to develop studies processes and their quality and accessibility, e-Learning and strong, well developed infrastructure for studies.

The University successfully implements European education programmes and closely collaborates with Lithuanian and foreign industry. University scientists carry out 70 per cent of country's higher education researches for business. Strategic priorities of KTU activities: talented and motivated students, teachers and researchers, a critical mass of world-class teachers, researchers and foreign students, unity of studies and science, close contact with business and industry, interdisciplinary and trans-domain research and studies, international recognition in advanced knowledge and future technologies development and transfer, participation in global knowledge networks, quality of activities and efficient management, inspiring and friendly environment, dissemination of knowledge and values among the society.

Experience of the organization in previous European projects

Our scientists actively participate in different national and international programs, projects, researches, conferences while producing different outputs and presenting publications. We develop more then 15 projects per year in the Faculty of Informatics which involves different departments.

Some of KTU strategic priorities, which meet the project aims are: a considerable number of world-class

teachers, researchers and international students; unity of studies and science; interdisciplinary and transdomain research and studies; international recognition in advanced knowledge and future technologies development and transfer; inspiring and friendly environment; dissemination of knowledge and values in the society and others.

The members of the team, who takes care of project activities participated in previous Erasmus+ KA2 project E-learning From nature: The E-Learning From Nature project proposed innovative teaching methodologies to science teachers, enhancing a proactive approach from the students towards the learning of scientific subjects. The students were invited to learn science through nature, relying on a collection of material (information sheets, photos, videos and drawings available in digital format, and also e-lessons) about the flora, the fauna, the natural elements and any other human intervention of scientific interest of a specific environmental area. The connection between the natural elements with school scientific curricular activities and the related basic skills to be acquired was a concern at every step.

Experience and Expertise of the organization in the project's subject area

One of main research areas in the Faculty of Informatics is e. learning technology creation and efficient applications development, studies improvement processes. Also personnel participates in Studies programs quality evaluation, administration and management. Researchers and academic personnel does research in gamification for teaching process, develops videogames for teaching, works in 3D, augmented reality projects.

One of aims in the University, as well in the faculty is to involve students and teachers from different educational institutions into projects development, analysis stage, as well as in dissemination, valorisation and exploitation processes.

Our scientists actively participate in different national and international programs, projects, researches, conferences while producing different outputs and presenting publications. We develop more than 10 different projects per year in the Faculty of Informatics which involves different departments. Some of KTU strategic priorities, which meet the project aims are: a considerable number of world-class teachers, researchers and international students; unity of studies and science; interdisciplinary and domain research and studies; international recognition in advanced knowledge and future technologies development and transfer; inspiring and friendly environment; dissemination of knowledge and values in the society and others.

One of main research areas in the Faculty of Informatics is e. learning technology creation and efficient applications development, studies improvement processes. Also personnel participates in Studies programs quality evaluation, administration and management. Researchers and academic personnel does research in gamification for teaching process, develops videogames for teaching, works in 3D, augmented reality projects.

Employees which collaborate in MathE project are from 2 faculties (Faculty of Informatics, Faculty of Mathematics and Natural Sciences) including 3 departments in IF: Dean's office (for management), Software Engineering Department, Department of Applied Informatics. Researchers develop streamline scientific research and implementation activities in the area of information and communication technologies, videogames, assessment of studies modules, e-testing platforms, researches, improvements of study processes and blending them with business challenges. One of aims in the University, as well in the faculties, which takes part in MathE project, is to involve students and teachers from different educational institutions into projects development, analysis stage, as well as in dissemination, valorisation and exploitation processes.

Contributions that can be provided to the project

- Local administration of the project activities and finances ensuring correct management, as well fluent collaboration with project coordinating and managing institutions.
- Involvement of associated partners/beneficiaries and other needed institutions of the project and ensuring collaboration with them.
- Participating in research in project area
- Producing needed reports
- Participating in project dissemination, evaluation, quality ensuring activities
- Developing project results

Reasons of involvement in the project

We seek for lecturer's/teachers' information technology skills and knowledge improvement programs. Various European Union funding programs are employed to upgrade teaching facilities and equipment, one of this we expect is MathE project.

We also seek to share our practise and experience with other European institutions.

During the project development years we seek to contribute to Lithuanian national educational priorities, such as:

Lithuania's priorities in the field of education: long-term objectives, direction of changes in the content of curricula and financing priorities are set out in the State Education Strategy 2013–2022:

- Establishment of educational community, where professional teachers and lecturers are reflective, constantly developing and work in a highly effectively manner;
- To develop an educational culture driven by data analysis and selfevaluation, that in turn will ensure effective interaction among stakeholders in education;
- To ensure that learners (pupils, students and young people in general) have the best opportunities to
 realise their individual potential in full. By ensuring accessibility and long duration of education and equal
 possibilities to all learners, by providing the effective pedagogical and psychological aid to pupils who
 experience learning difficulties;
- To establish a system of incentives and equal conditions of lifelong learning opportunities. A system that gives effective aid in choosing a career path or to combine one's choice with the labour market needs.

As well we seek the innovation, proposed by MathE- - Improve Math Skills in Higher Education project as MathE project concentrates on the promotion of the acquisition of Math skills using ICT tools for students and lecturers and other target groups. The need to support and encourage lecturers in using learning technologies in an advanced way in their teaching and to increase digital media literacy is proven. The innovative idea of MathE is the offer, as output, of structured access to a variety of TEL-methods and TEL-resources in such a way that teachers can effectively find different TEL models, solutions, pedagogical theories and best practice in their classroom. The development of an e-resource kit, where scientific concepts are integrated and validated by lecturers and researchers, will represent a considerable step in mathematics teaching / learning.

These innovative resources will be suitable and freely available for partner institutions and also for other universities and educational organizations.

After the creation of the final results based on international collaboration, best practices and expertise institutions in Lithuania will have possibility to use in our educational workspace. Lessons will be more attractive and improved.

As well for specialists, researchers, students benefit will feel on rising qualification (to teach and train students on these modernized courses), students will be qualified and trained at the European level standard for technicians, they will have more possibilities to find better job, will have better skills.

Contact Person's Experience and Expertise

Vida Dr sut is projects manager in KTU IF Dean's office and is experienced in formal and non-formal education improvement and development analysis of educational possibilities, quality, adaptation of different methodologies in various education levels, development of critical thinking, e-learning and tools for e-learning encouragement in educational institutions, organization of courses, collaboration with different educational institutions. She is a board member of Lithuanian Distance and eLearning Association and evaluator of e. learning programs provided by different institutions. She has long lasting experience in projects coordination while she has managed and coordinated more than 30 projects in different areas on national and international levels. Her main duties are management, research and analysis work. She is also responsible for projects' and events' dissemination and public relations.

Neringa Kelpšait is academic assistant and is experienced in European and national projects administration and cooperation with educational and business institutions (organizer of some European projects in Youth area), providing courses for youths in cultural development, creativity-based topics, testing of e. learning platforms, organizing different courses, competitions, moderating events, seminars, conferences; is responsible for collaboration and communication with different organizations, projects' and events' dissemination, public relations. As well she worked as researcher in international projects, in the fields such as learning improvement, e-learning, work based learning.

Fundatia EuroEd (RO)

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Type of org	janisation:										
SME Training		School No Profit		□ Univer □ NGO		ity □ Public A ✓		thority			
Other (Specify)											
	_										
Fields of ac	ction :										
SMEs ✓ Equal opportunities ✓		Youth ✓ Schools ✓		Universities ✓ I Unemployed ✓		Public Authorities					

Education in general and social responsibility

Other (Specify)

Description of the organisation

EuroEd Foundation came into being as an organisation in 1992, with the support of the Soros Foundation and the British Council Romania. EuroEd Foundation is a non-profit organisation located in lasi, Romania. EuroEd it delivers educational services to all age categories and developed a series of programmes, including language courses and international training courses for language teachers and professional trainings in field of tourism, IT, mentoring, communication, etc.

EuroEd's relevant experience lies with co-ordinating and participating in over 100 EU funded projects, as well as in strategies and methodologies of co-operation at local, regional, national and trans-national level. Projects implemented are in the field of: learning languages for specific purposes, online resources, educational materials, games and drama techniques, networks, employability, development of competences for job profiles, social inclusion, medicine, motivation and support, promoting quality in developing European projects, sports, social responsibility and volunteering, etc.

With passion, professionalism and consistency, we have gained the statute of being the most important non-governmental educational institution in north-eastern Romania. We are a founder member of QUEST (The Romanian Association for Quality Language Services), which is an associate member of EAQUALS (the European Association for Quality Language Services). Our projects have been awarded European distinctions of the highest level: 10 international awards in the last years for the quality of its projects: 9 European Label Awards and a Worldaware distinction. Two of the projects led by EuroEd were selected by the EU Commission as examples of best practices in its collection called LINGO.

Mission Statement - EuroEd Foundation aims at supporting the reform processes of civic society by promoting high-quality standards in accordance with European Community requirements in the field of education, civil society, public policies, youth, law, culture, mass media, and regional development. Through its initiatives, EuroEd Foundation intend to act as a regional catalyst for debating and developing regional and international projects which should facilitate exchange of ideas and experience in the field of democracy and European Integration.

Experience of the organization in previous European projects

In 1998, also as a result of constantly growing services and addressability, we founded Centre for European Integration, through which until now, EuroEd Foundation co-ordinated and implemented over 100 national and international educational projects. Projects implemented are in the field of: learning languages for specific purposes, online resources, educational materials, games and drama techniques, networks, employability, development of competences for job profiles, social inclusion, medicine, motivation and support, promoting quality in developing European projects, sports, social responsibility and volunteering, etc.

Centre for European Integration promotes activities oriented towards educational, public, social, business, juridical and cultural policies aiming at improving the provision of educational services and products, of economic policies, supporting the social categories at risk, defending human rights and strengthening regional cooperation. The projects coordinated and implemented by the Centre for European Integration serve the needs of the community and are circumscribed or complement the range of specialized services provided by the other departments of EuroEd Foundation.

Experience and Expertise of the organization in the project's subject area

For the efficient implementation of the project EuroEd will bring he following competences:

- experience in European projects
- experience in developing non-formal learning methodologies, instruments and activities
- experience in researching processes
- experience in creating videos based on real life situations, testimonials, interviews
- experience in creating interactive lessons and educational materials, including in video format
- experience in developing trainings through innovative and interactive methods
- experience developing new methodology and educational materials for teaching foreign languages through Drama & Theatre
- experiences in language teaching and language experts
- establishment of strong partnerships with schools, teachers, students, youth clubs, universities and adult education centers, companies and enterprises
- experience in promoting the use of the ICT in educational process and development of ICT skills of

teachers

- experience in delivering courses and qualification in tourism and business, medical competences and linguistic skills
- experiences in facilitating the promotion of the project and methodology at national and international level
- experience in activities and programmes to support the cooperation between education level and business/world of work
- experience in activities to promote anti-racism, equality, anti-sectarianism and human rights and to develop leadership and entrepreneurial skills to young people.

Contributions that can be provided to the project

One of EuroEd's goals, when engaging in a project, is to develop project deliverables which benefit the clients and beneficiaries of the organization. Thus, the deliverables of projects developed are piloted, streamlined and adapted as necessary to the use of the beneficiaries of the departments of the institution. By doing this, EuroEd aims to have a strategy of development which always relies on innovation and consolidation of EuroEd Foundation as a carrier of innovative good practices for the services it delivers.

Reasons of involvement in the project

The main reason is related to the importance of the project topic for the Romanian education. There are various studies aimed to identify the existing innovations and changes in education in Romania having impact (direct and/or indirect) on the increase of the quality of academic curricula. Still, a more detailed research is needed, focused on various educational institutions, modern forms of teaching and learning, modern learning means used, evaluation methods, new forms of relationships between participants in the educational process and the use of electronic means in education.

The current project should give a good opportunity of internationalization and the access to materials in the digitalized library the present project proposes would be a very important achievement.

The project should have a consistent impact on students from technical universities and for the academic staff.

The interchange of learning experiences between our academic staff and other similar groups of colleagues from abroad will increase the degree of mobility and cooperation of teachers of different institutions and backgrounds.

Contact Person's Experience and Expertise

Anca Colibaba, executive president, has over 30 years of experience in language education, especially English. She is the President of EuroEd, having a wide experience in managing and co-ordinating transnational projects in the field of linguistic education and training, adult education and LLL. She was / is project coordinator of over 50 (EU) projects implemented locally, nationally or trans-nationally by EuroEd Foundation.

Andreea lonel is project manager at EuroEd Foundation. She holds a bachelor and an MA degree in social work. She is presently an international project coordinator having managed several projects implemented by EuroEd Foundation (Grundtvig, Lingua, Leonardo da Vinci, Phare, Erasmus+ and other tenders). She has an extensive experience in writing, managing and implementing EU projects in various fields and a wide experience in preparing and delivering public presentations and trainings at national and international level.

Elza Gheorghiu, trainer and teacher of English and Romanian as a foreign language at EuroEd Foundation, British Council and Vasile Alecsandri High School Iasi, Romania. She coordinates international educational projects. Her field of interest covers work with innovative educational web 2.0 methodologies in training/teaching and non-formal education. Target group for her teaching/training: young learners and adults. A special area of intervention is training special needs children and their teachers for foreign language communication.

"Gheorghe Asachi"Technical University of Iasi (RO)

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E-mail:	rstrugariu@tuiasi.ro; rstrugariu@gmail.com
Type of organisation:	
	nool □ University ☑ Public Authority □ Profit □ NGO □
Other (Specify)	

Fields of action	on :			
SMEs Equal opportur	□ nities □	Youth ☑ Schools ☑	Universities Unemployed	Public Authorities □
Other (Specify)			

Description of the organisation

"Gheorghe Asachi" Technical University of Iasi (*TUIASI*) is an university of advanced research and education, classified in the first 12 top Romanian universities, and committed to academic excellence in teaching and research.

Education. TUIASI has 11 faculties providing undergraduate programmes (60), master programmes (84) and doctoral programmes (19) to 16.214 students. The programmes develop with the support of 810 people of academic staff. TUIASI is also fully committed to Bologna Process and its follow-up dimension.

Internationalisation. TUIASI gives high priority to the internationalisation of studies, with significant accent on exchange of both students and academic staff. Each year, an important number of students and academic staff go abroad to partner universities within 112 institutional agreements and 330 Erasmus Inter Institutional Agreements.

Research Activity. TUIASI has an important research dimension, having 23 accredited research centres with specific laboratories for scientific research. During the last 5 years, our university took part in more than 350 national and international projects and research contracts with a total value of over 9 million Euros. The Department of Mathematics and Informatics of TUIASI is one of the top departments concerning scientific research, a fact certified by an important number of research projects earned in national and international competitions, and, moreover, by several research papers published in the top rated international journals. Furthermore, the quality of research in Mathematics developed by the academic staff of the Department of Mathematics and Informatics of TUIASI led to the classification of TUIASI, in 2017, in top 500 Shanghai universities in the world (first among the technical universities in Romania) in the Applied Mathematics domain.

Experience of the organization in previous European projects

As TUIASI is running technical higher education (HE), for the time being, e-learning is a too-far target, but mixed-learning between the classical style and some more modern manner, involving digital technologies and online delivery, has been already taken into consideration. Thus, IT infrastructure is developing at both central and departmental level. The academic staff is currently trained in using ITC tools for the teaching – learning process. This training is provided via the European structural funds projects: DidaTec, ISCED 2 – 3 POSDRU/87/1.3/S/64227-eProf.ro; TR1-LEO04-242173-EDU-SHOE; PT1-LEO05-08590-TIED; BROWNTRANS KNOW HOW; LLP-1-2012-1-UK-Erasmus-ENW-SALEIE; LLP-2012-RO-AJM-MO-JEAN MONNET. For the time being, a Moodle Platform is currently used by a limited number of educational programmes. TUIASI is in the process of developing its own platform for mixed-learning education. Due to the recent changes at European HE system level, TUIASI has been actively involved in improving the university management skills for the academic staff involved in university/faculty/department administration.

Experience and Expertise of the organization in the project's subject area

Some of the members of Department of Mathematics and Informatics were involved in the period 2012-2016 in a POSDRU project developed by the Ministry of Education of Romania, with 12 Romanian university partners (POSDRU/56/1.2/S/32768), named *The formation of academic staff and of students for using modern instruments of teaching-learning-evaluation for mathematical disciplines, to the aim of creating performant and practical skills for the labour market.* Within this project, some written library was developed (in Romanian), including 12 books, as examples of good practices for teaching the mathematical disciplines to engineers, and also some well-acknowledged books of training of students for mathematical international competitions at academic level.

We mention that in the Department of Mathematics and Informatics activates a *Center for Performance in Mathematics*. Mainly, this center hosts training sessions in order to prepare the students of the "Gheorghe Asachi" Technical University for national and international Math competitions. In addition to exceptional results nationwide, our university team participated at the International Olympiads in Bulgaria, Cyprus, Greece, Hungary, Israel, Macedonia and Romania, where our students won gold medals, silver medals and bronze medals. Also, at the center are organized courses of initiation in mathematical software (Matlab, Mathematica, Maple, LaTeX) for doctoral students and professors from our university.

Contributions that can be provided to the project

We will try to congregate at multiple points in the process of improvement of the quality of Mathematics teaching, finding innovative and attractive methods for learning Math. We are looking for collaboration with all members of the project in order to find common solutions which can be shared in the future by all of us. Our experience in teaching and training of the Math olympiad team can be shared in MathE project. Also, our Center for Performance in Mathematics could be consider as a good practice example for our new project.

Reasons of involvement in the project

Taking into account that Mathematics is becoming less popular among today's young people, the engagement in this project could be a possible key for us to stimulate the interest of study Mathematics and its applications. Our expectations are related to finding new methods of teaching in accordance with modern needs.

Contact Person's Experience and Expertise

Marcel Roman is the Head of Department of Mathematics and Informatics at "Gheorghe Asachi" Technical University of Ia i. He graduated Mathematics at "Al.I.Cuza" University of Ia i (1994), obtained his Ph.D. degree in differential geometry (2001) and had a postdoctoral fellowship in Japan (2003).

He leads the Center of Performance in Mathematics from Technical University of Ia i, obtaining very good results at national and international olympiads for students. He was the chair of the editions 2014 and 2018 of the South-Eastern European Mathematical Olympiad for University Students (SEEMOUS). Also, he is involved in preparing of high school pupils for international contests (gold medal at ITYM2018 – Paris).

The teaching activity includes the following courses: Linear Algebra, Analytic and Differential Geometry I-II, Advanced Mathematics for Civil Engineering, Special Mathematics I-II.

His research is focused on Differential Geometry (Finsler and Lagrange spaces) and Operator Theory.

Radu Strugariu is professor at Department of Mathematics and Informatics, "Gheorghe Asachi" Technical University of Ia i. He obtained the Ph.D. in Mathematics at University "Al. I. Cuza" Ia i, Romania (2009). As member of the the Center of Performance in Mathematics and trainer of the university Math Olympiad Team, he obtained many achievements at national and international contests in the last 10 years. Courses taught: Numerical Analysis with MATLAB, Statistics and Data Manipulation, Mathematical Analysis, Special Mathematics.

His research interests are oriented to regularity of set-valued maps, variational analysis, multiobjective optimization, nonlinear analysis.



IO1.A – ASSESSMENT TOOLS

Each partner should produce for each of the 2 assigned Math topics:

- 40 questions/answer for the Student Need Assessment Tool
- 20 questions/answer for the Student Assessment Tool

When producing the questions, please consider that:

- Each question must be related to one of the 2 topics assigned per partner
- For each question there are 4 answers: 1 answer is correct, 3 answers are wrong

Please use the following table to create each question.

Description	Please provide a short description of the text		
Topic	Manipulation of algebraic expressions	Linear systems	
	Trigonometric functions	Complex Numbers	
	Real Functions of a single variable	Graphs	
	Differentiation	Optimization	
	Integration	Limits and sequences	
	Matrix and determinats	Statistics	
	Geometrical interpretation	Real Functions of several variables	
	EigenValues and EigenVectores	Differential equations	

Question n. 1	
Text of the question	
Answer n. 1	True
Answer n. 2	False
Answer n. 3	False
Answer n. 4	False

For more explanation see:
Link to some material on the Online MathE Library
It will be possible to upload links only once the MathE Library will be available.

Please copy and paste these tables for the other questions.



TEMPLATE: ME.1 – MULTIPLIER EVENT DESCRIPTION

Each partner has to organise an event involving lecturers/researchers/teachers/policy makers in order to present, discuss the project results and address their sustainability in the national system.

At the end of the event, each partner, should collect from the participant the Evaluation questionnaires (PM4.C – Teachers' Evaluation Questionnaires for Intellectual Outputs).

For the focus group, please provide the following information:

Title		
Date		
Place	City, Country	
Description	Please indicate:	
	- The number and typology of participants	
	- The profile of teachers involved	
	- The contents of the focus group	
	- The conclusion achieved	
	You can take this information from the "ME.4 - Minutes Template".	
List of participants	Please attach the list of participants in PDF format	
	Use the "ME.3 – List of Participants Template"	
Programme	Please attach the Programme in PDF format	
	Use the "ME.2 – Programme Template"	
Pictures	Please attach the picture of the dissemination event	



TEMPLATE: ME.2 – MULTIPLIER EVENT PROGRAMME

PLEASE DELETE THIS BOX

Title of the Dissemination Event City, Country **Date**

Programme

hh:mm	Title of the speech
	Name of the speaker, Affiliation
hh:mm	Title of the speech
	Name of the speaker, Affiliation
hh:mm	Title of the speech
	Name of the speaker, Affiliation
hh:mm	Title of the speech
	Name of the speaker, Affiliation

Coffee break

hh:mm	Title of the speech
	Name of the speaker, Affiliation
hh:mm	Title of the speech
	Name of the speaker, Affiliation
hh:mm	Title of the speech
	Name of the speaker, Affiliation
hh:mm	Title of the speech
	Name of the speaker, Affiliation



TEMPLATE: ME.3 – MULTIPLIER EVENT LIST OF PARTICIPANTS PLEASE DELETE THIS BOX

Title of the Multiplier Event City, Country Date

Signature of participant

Name and Surname	E-mail address	Sending Organisation	Address of the sending organisation	Signature



TEMPLATE: ME.4 – MULTIPLIER EVENT MINUTES

PLEASE DELETE THIS BOX

Title of the Dissemination Event City, Country Date

Minutes

Participants

Please write here the name of all the participants and the name of the institution they belong to.

Minutes

Please describe:

- The number and typology of participants
- The profile of participants involved
- The contents of the multiplier event
- The conclusion achieved

Please make sure the length of the minutes is between 3 000 and 5 000 characters.

Annexes

The following annexes are compulsory:

- Programme
- Signature
- Materials distributed (only if available)
- Pictures



TEMPATE: TA.1 – TRAINING ACTIVITY REGISTER

PLEASE DELETE THIS BOX

Title of the course

Course Register

Training Course Dates: First Day – Last Day Year Braganca, Portugal

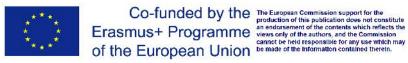


Date of Day 1

	Date of Day 1				
N.	Name	Surname	Sending Organisation	Signature	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

Content of the lesson:	Please specify the specific contents		
Name and surname of the trainer		Trainer Signature	

Please duplicate the above 2 tables for each training day.





TEMPLATE: TA.2 – TRAINING ACTIVITY PROGRAMME PLEASE DELETE THIS BOX

Title of the training course

Course Programme

Training Course Dates: First Day – Last Day Year

Date	Please specify	
Title of the module	Please specify	
Contents of the	- Presentation of the participants	
module	- Training session focusing on the contents of Assessment tools	
	- Common reflection on the identification of students needs in Math	
Name of the trainer	Please specify	

Date	Please specify	
Title of the module	Please specify	
Contents of the	- Training session focusing on the contents of the Video lessons	
module	- Presentation and discussion of the contents of the media teaching materials	
Name of the trainer	Please specify	

Date	Please specify	
Title of the module	Please specify	
Contents of the	- Presentation and discussion of the contents of the Video Gallery	
module	- Evaluation of the contents of the Best Practices	
Name of the trainer	Please specify	

Date	Please specify	
Title of the module	Please specify	
Contents of the	- Training session focusing on the contents of the Community of Practice	
module	- Sharing of documents and experiences	
Name of the trainer	Please specify	

Date	Please specify	
Title of the module	Please specify	
Contents of the	- Practical session for the development of a lesson making use of the Portal contents	
module	- Conclusions	
	- Assessment and certification of competences.	
Name of the trainer	Please specify	



TEMPLATE: TA.3 - TRAINING ACTIVITY CERTIFICATE PLEASE DELETE THIS BOX

This is to certify that

NAME OF THE PARTICIPANT

born on gg month yyyy has attended the

TRAINING ACTIVITY ON TITLE

The training activity was held in Braganca (Portugal), from first day to last day. The total duration of the training activity was of XXX hours.

The main contents of the course focused on the following learning units:

Module	Contents	ECTS Points

Name and Surname
Training Activity Coordinator



TA.4 - Contents for the Mobility Europass

Description of the Mobility Experience

21. OBJECTIVE OF THE MOBILITY EXPERIENCE

Please specify

22. INITIATIVE IN THE COURSE OF WHICH THE MOBILITY EXPERIENCE WAS COMPLETED

Please specify

23. QUALIFICATION

Please specify

24. COMMUNITY OR MOBILITY PROGRAMME INVOLVED

MathE project (Project Number: 2018-1-PT01-KA203-047361)

ERASMUS+ KA2

25. DURATION OF THE MOBILITY EXPERIENCE

Please specify

Skills Acquired During the Mobility Experience

27A. ACTIVITIES/TASKS CARRIED OUT

- Please specify

28A.JOB-RELATED SKILLS

At the end of placement, the trainee was able to: [Competences for qualification 1-2]

- Please specify
-

29A. LANGUAGE SKILLS

- Please specify
-

30A. COMPUTER SKILLS

- Please specify

31A. ORGANISATIONAL / MANAGERIAL SKILLS

- Please specify





32A. COMMUNICATION SKILLS

- Please specify

33A. OTHER SKILLS

- Please specify



TA.5 – Participants Profiles

Please describe the background and profile of the participants involved in the learning, teaching or training activities and how the participants were selected. Please make sure the length of the text is between 1 000 and 1 250 characters (spaces included)		



TA.6 – Report

Please describe the long-term learning, teaching or training activities included in your project and explain how they have contributed to reaching the project's objectives. In case there is a difference between what was planned and what was implemented, please explain why. Please make sure the length of the text is no more than 5 000 characters (spaces included).		



TEMPLATE: PM1.A - STUDENT INFORMATION

STUDENT INVOLVED

Name and surname	
Web site	
E-mail	
Profile	Please briefly describe the educational experience
Picture of the student	Please enclose a jpg picture of the student

UNIVERSITY

ONIVERSITI		
Name of the university		
Faculty / Department		
Number of Students		
Country		
City		
Address		
Tel		
E-mail		
Web site		
Picture of the university	Please enclose a jpg image of the university	



TEMPLATE: PM1.B - LECTURER INFORMATION

LECTURER INVOLVED

Name and Surname	
E-mail	
Web site	
Field of research	
Subject taught	
Years of experience	
Profile	Please briefly describe the academic experience
Picture of the lecturer	Please enclose a jpg picture of the lecturer

I INIIVED SITV

ONIVERSITI	
Name of the university	
Faculty / Department	
Number of Students	
Country	
City	
Address	
Tel	
E-mail	
Web site	
Picture of the university	Please enclose a jpg image of the university



TEMPLATE: PM1.C - ROLE OF THE TARGET GROUPS

1) Lecturers

The lecturers will:

- Participate in the creation of the questions for the assessment tools
- Test the assessment tools
- Contribute to the creation of the contents of the MathE library:
 - o Review of video lessons
 - Creation of video lessons
 - o Production f didactical material
- Test with students the contents of the MathE library
- Participate in the Community of Practice

2) Students

The students will have the possibility to:

- Test the Need Assessment Tool
- Be assessed trough the Student Assessment Tool
- Make use of the contents of the MathE library:
 - o Review of video lessons
 - Creation of video lessons
 - o Production f didactical material
- Participate in the Community of Practice



DECLARATION

THIS IS TO CONFIRM THAT

NAME SURNAME

from official name of institution

has participated in the

"Erasmus+" Programme's Strategic Partnerships project's

"MathE" No. 2018-1-PT01-KA203-047361

Partners Meeting

In City, Country On Dates

Name and surname of the manager of organizing institution

Signature Stamp



TEMPLATE: PM2.B – How to write the Best Practice Dissemination Report

Please identify at least 1 'best' dissemination event you carried out and which you feel are innovative or could provide a good example for other partners and projects.

Please be aware that you should identify and describe a specific dissemination event you carried out and not just describe e typology of dissemination event which you consider relevant.

For the dissemination event, please specify:

- The place and date where and when it took place
- The target groups and the number of participants involved in the event
- The outcomes of the event
- Feedback received by the participant
- Follow up of the event
- The reasons why the event can be considered examples of best practice

Please do not answer the element above one by one, but make a description of the dissemination events taking into consideration all of them.

Please produce the description of the event in the third person.

E.g.: The best dissemination event carried out in Italy is the organisation of conference on the thematic area of the project. The conference took place in Florence in 2018. The participants in the event were



Put here the logo of the associated partner and delete this box

TEMPLATE: PM3.A - ASSOCIATED PARTNER LETTER

Please put the logo of the associated partner in the upper left corner and delete all the text in red

The undersigned (Name and Surname) as (Role in the organisation) of (Name of the organisation) hereby declares the willingness of this organisation to fully support and actively co-operate in the "MathE" Project promoted by Istituto Politecnico de Braganca (PT), within the framework of the Erasmus+ Programme.

(Name of the organisation) wishes to be an associated partner in the project because we fully support the aims and objectives of the project and recognise the strategic importance of the project outcomes to improve the current situation at European level in the field of action.

The undersigned also states to be fully aware that as associated partner no funds coming from the European project grant will be assigned to our institution.

The role this organisation expects to play in the project includes:

- Exchange of experience and expertise during and after the project
- Participation in the Dissemination of the project information
- Promotion of the information about the project to our network of contacts
- Contribution to exploitation and sustainability of the project results

The contact person for the organisation will be (Name and Surname)

The undersigned (name and surname) authorise the project promoter and Pixel to publish the associated partner data provided in the Form enclosed, entirely or extracts, on the project related documents both on paper and on-line (e.g. project web site, etc.).

Date

Name and Surname

Role

Official Stamp







TEMPLATE: PM3.B - ASSOCIATED PARTNER INFORMATION

Please fill in the list below with the information on the Associated Partner:

Name of the organisation	
Type of Institution	
City	
Address	
Country	
Web-Site	
Name of contact person	
Email of Contact Person	
Please provide a brief description of	the organization
Diagon describe how the comprise tie	
project results	n will contribute to the dissemination and exploitation of the



TEMPLATE: PM3.C - EXPLOITATION LINKS

The aim of this activity is to put links to the MathE portal on external web sites. For each link please provide, using the following table, the following information:

SCREENSHOT OF THE WEBSITE SHOWING THE LINK	Source Title & web link	DESCRIPTION
01_MathE_Pixel.jpg	<u>Pixel</u>	Pixel is partner in the MathE project. Pixel website provides information about the project together with a direct link to the
Please save the screen shoot in .jpg and save it in a separate file with the name of the source	https://www.pixel- online.net/PRJ_projects_form.ph p?id_prj=144&id_area=&id_ben=	Portal. There are many users of Pixel's website that may now learn about and benefit from the MathE project.

1. Screen shoot of the web site

On the screen shoot please highlight the reference to the MathE project. See example below.





Quality Plan

for the MathE Project

N° Project Number: 2018-1-PT01-KA203-047361

Produced by Pixel

Issue: 01

Date: 15/9/2018



IO1 - Student Assessment Toolkit

Objective	 The aim is to create: A toolkit to allow students to carry out a self-evaluation of their knowledge on 10 selected Math topics. A toolkit to provide teachers with the possibility to organize for their students an online test on 10 selected Math topics. 						
Start Date	September 2018						
Deadline	December 2019						
Expected	Student Self-Assessment Toolkit						
Deliverables	2. Student Final Assessment Toolkit						

Deliverable 1) Student Need Assessment Toolkit

Templates to be used	IO1.A – Assessment Tools IO1.B – Review Tool							
	Indicators	Results Achieved	Evaluation					
Quantitative Indicators	10 math topics40 questions/answer, for each topic							
Qualitative indicators	 Usability General organization of structure Easiness of navigation Innovativeness Didactical Appropriateness Usefulness and Transferability Consistency with teachers' expectation 							

Deliverable 2) Student Final Assessment Toolkit

Templates to be used	IO1.A – Assessment Tools IO1.B – Review Tool								
	Indicators	Results Achieved	Evaluation						
Quantitative Indicators	10 math topics20 questions/answer, for each topic								
Qualitative indicators	 Usability General organization of structure Easiness of navigation Innovativeness Didactical Appropriateness Usefulness and Transferability Consistency with teachers' expectation 								



IO2 – Math Library

Objective	This phase is dedicated to the creation of a section to offer students and teachers of higher education institutions video based teaching and learning sources to reinforce specific mathematical topics.
Start Date	April 2019
Deadline	September 2020
Expected	3. Video Collection
Deliverables	4. Video Lessons
	5. Teaching Material

Deliverable 3-4-5) Math Library

Templates to be used	IO2.A – Existing Video Review IO2.B – Video Lessons IO2.C – Teaching Material IO2.D – Teaching material review								
	Indicators	Results Achieved	Evaluation						
Quantitative	50 review of existing videos								
Indicators	50 new video lessons								
	100 teaching material								
Qualitative	 Usability 								
indicators	 General organization of structure 								
	 Easiness of navigation 								
	 Innovativeness 								
	 Didactical Appropriateness 								
	 Usefulness and Transferability 								
	 Consistency with teachers' 								
	expectation								



IO3 – Community of Practice

Objective	This phase is dedicated to the creation of a community of practice allowing Math teachers in higher education institutions to share and compare teaching sources, tools and strategies
Start Date	May 2019
Deadline	January 2021
Expected	6. Community of Practice
Deliverables	

Deliverable 6) Community of Practice

Templates to be used	IO3.A – Structure of the Community IO3.B – Contribution Form IO3.C – Good Practice Form							
	Indicators	Results Achieved	Evaluation					
Quantitative Indicators	50 posts per partner3 good practice per partner							
Qualitative indicators	 Usability General organization of structure Easiness of navigation Innovativeness Didactical Appropriateness Usefulness and Transferability Consistency with teachers' expectation 							



PROJECT MEETING EVALUATION QUESTIONNAIRE

KICK OFF PARTNERS MEETING, Florence (IT), 29 – 30 October 2018

Compiler's data (option	onal)											
Name												
Institution												
Country												
The transnational	coordination and th	ie s	ecro	etai	riat	fun	ctic	one	d:			
	Inefficiently	1	2	3	4	(5)	6	7	8	9	10	Efficiently
2. The information yo	ou received before t	he i	me	etin	ıg v	vas						
·	Incomplete	1	2	3	4	(5)	6	7	8	9	10	Exhaustive
3. The organization of	f the facilities used	for	the	me	etii	ng v	was	:				
· ·	Not suitable				4	_			8	9	10	Suitable
4. How was the techn	nical equipment ava	ilab	le c	duri	ng t	the	me	etir	ng?			
	Not Suitable	1	2	3	4	(5)	6	7	8	9	10	Very Suitable
5. The agenda of the	meeting was:											
	Unclear	1	2	3	4	(5)	6	7	8	9	10	Clear
6. The material distri	buted during the m	eet	ing	wa	s:							
	Not useful	1	2	3	4	(5)	6	7	8	9	10	Useful
7. The way you were	received at the mee	etin	g ha	as b	eer	ո։						
	Poor	1	2	3	4	(5)	6	7	8	9	10	Good
8. At the start of the	Meeting, the theme	es, 1	the	tim	ie a	vail	abl	e ar	nd t	he	proc	edures of the meeting were:
	Not clear	1	2	3	4	(5)	6	7	8	9	10	Clear
9. The working condi	tions at the meeting	g w	ere	:								
	Unsatisfactory	1	2	3	4	(5)	6	7	8	9	10	Satisfactory
11. The working atm	osphere at the mee	ting	g wa	as:								
	Unsatisfactory	1	2	3	4	(5)	6	7	8	9	10	Satisfactory
12. The general man	agement of the mee	etin	g w	as:								
	Unsatisfactory	1	2	3	4	(5)	6	7	8	9	10	Satisfactory



13.	Did your question	ns receive satisfacto	ory a	ınsw	ers'	?						
		Never	1	2 (3 (4 (5)	6	7	8	9	10	Always
14.	The amount of ti	me available for the	e me	etin	g w	as:						
		Insufficient	1	2 (3 (Ð (S)	6	7	8	9	10	Appropriate
15.	The time manage	ement of the meeti	ng w	as:								
		Inadequate	1	2 (3 (3 5	6	7	8	9	10	Adequate
16.	The results reach	ed at the end of the	e me	eetin	ng w	ere:						
		Unsatisfactory	1	2 (3 (4 5	6	7	8	9	10	Satisfactory
17.	The level of corre	espondence of the r	esul	ts of	f the	e me	etin	g w	ith	the	est	ablished objectives was:
		Inadequate	1	2 (3 (4 5	6	7	8	9	10	Adequate
18.	The level of partic	cipation of the diffe	rent	con	npo	nents	s of	the	pa	rtne	ers'	group was:
		Unsatisfactory	1	2 (3 (4 5	6	7	8	9	10	Satisfactory
19.	How would you e	evaluate the social a	activ	ities	org	ganize	ed ii	n th	ie m	nee ⁻	ting	days?
		Very poor	1	2 (3 (Ð (5)	6	7	8	9	10	Very good
20.	What did you like	the most about th	e m	eetir	ng?							
21	What did you like	the least about the	o ma	actin	na.5							
~ 1.	what are you like	the least about the	C 1110		'δ·							
		Inadequate ① ② ③ ④ ⑤ ⑦ ⑧ ⑨ ⑩ Adequate results reached at the end of the meeting were: Unsatisfactory ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ Satisfactory level of correspondence of the results of the meeting with the established objectives was: Inadequate ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ Adequate evel of participation of the different components of the partners' group was: Unsatisfactory ① ② ③ ④ ⑤ ⑦ ⑧ ⑨ ⑩ Satisfactory would you evaluate the social activities organized in the meeting days?										



PROJECT EVALUATION QUESTIONNAIRE

SECOND PARTNERS MEETING, Limerick (IE), XX XXXXXXXXX 2019

Compiler's data (optional)										
Name										
Institution										
Country										
SECTION 1: THE PROJECT PLANNING										
	Pleas	se tic	k 1 j	for p	oor	and	10 j	or e	xcell	ent
Compatibility of the project idea with the context Consistency with existing needs	① ① ①	② ② ②	3	444		6	⑦ ⑦ ⑦		9 9 9	(1) (1) (1)
Compatibility with the project partners competences Clarity of project objectives Effectiveness of planned resources	①	② ②	③ ③	44	(5) (5)	6	⑦ ⑦	88	9 9	10
Compatibility between objectives and results produced Comments:	①	(2)	(3)	4)	(S)	0	\bigcirc	8	9	W
										_
Section 2: The Project Management										
A. Coordination										
	Pleas	e tic	k 1 j	for p	oor	and	10 j	or e	xcell	ent
Overall project management Effectiveness of project coordination arrangements	① ①							88		(1) (1)
Time management and respect of deadlines Quality of project meetings organization and management Effectiveness of online management tools	① ① ①	② ② ②	3 3		(S) (S) (S)	6	7	888	9	(I) (I) (I)
Effectiveness of problem solving strategy	1	_						8		
Comments:										
										_
										_



R	Comm	unica	ation
D.	Commi	unica	HUUII

D. Communication										
	Pleas	e tic	k 1 j	for p	oor	and	10 f	or ex	xcell	ent
Appropriateness of communication means	1	2	3	4	(5)	6	7	8	9	10
Appropriateness of circulation of information	1	2	3	4	(5)	6	7	8	9	10
Project information accessibility	1	2	3	4	(5)	6	7	8	9	10
,										
Comments:										
										_
									-	_
C. Partnership										
	Pleas	e tic	k 1 j	for p	oor	and	10 f	or ex	xcell	ent
Appropriateness of the partnership agreement	1	2	3			6			9	10
Clarity and transparency of partners' role and responsibilities	1	2	3			6			9	_
Effectiveness of partners' cooperation	1					6			9	
Level of cooperation among project partners	①	2				6			9	_
Quality of project meetings organization and management	1	2				6			9	
Integration within the project's team	(1)	2				6		8	9	_
Level of involvement in the project activities by the project partners	①					6		8	9	_
Level of respect of the deadlines by the project partners	(1)	(2)	(3)	4)	(5)	6	(7)	(8)	9	(10)
Comments:										
										_
D. Financial Management										_
	Pleas		-	•			-			
Management of financial resources by the project coordinator						6				
Appropriateness of financial resources distribution	1	2				6				
Consistency of financial resources with the project's tasks	1	2	3			6			9	
Clarity and transparency of administrative rules	1	2				6				
Usefulness of administrative information provided	1	2	3	4	(5)	6	7	8	9	10)
Comments:										
										_
										_



SECTION 3. THE PROJECT ACTIVITIES

	Pleas	e tic	k 1 j	for p	oor	and	10 j	or ex	kcell	ent
Consistency between implemented activities and original workplan	(<u>1</u>)	(2)	(3)	(4)	(5)	6	(7)	8	9	(10)
Appropriateness of the organization of project activities	(1)	2		4		6			9	(10)
	(1)	2		4		6			9	(10)
Adequacy of the calendar of the activities	(1)	2			(5)	6			9	(10)
Punctuality in the revision of project deadlines	_									_
Respect of project deadlines	1	2		4		6	7		9	10
Compatibility of activities carried out with the planned results	(1)	2		4		6			9	10
Appropriateness of the work carried out by the project team	1	(2)	(3)	4)	(5)	6	7	8	9)	10
Comments:										
										_
SECTION 4. THE PROJECT RESULTS										_
General	Pleas	e tic	k 1	for p	oor	and	10 1	or ex	xcell	ent
Availability at current project stage of the results originally planned	1	2		4					9	10
Consistency between results and original aims and objectives	1	2	3	4	(5)	6	7	8	9	10
Quality of project deliverables produced	(1)	2			(5)	6	7		9	(10)
Quality of the tools produced for project management	(1)	2		4			7		9	(10)
Quality of the project Website	(1)	2		4		6	7		9	(10)
Level of satisfaction of end users' needs and expectations	1	_						8	_	10
Comments:										
										_
			-							_
IO1 – Student's Assessment Toolkit	Dlogo	o tio		forn		and	10.	for 01	vool	lant
	Pleas		-				-		_	_
Consistency in terms of quantity and quality	1			4					9	10
Innovative potential	1	2		4	(3)	6			9	10
Transferability potential				4			7		9	10
Level of effectiveness	1	2	3	4	(5)	6	7	8	9	10
Comments:										
										_
										_



IO2 – Online Math Librar	v of Video Lesso	ons and Teaching	g Materials
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IO2 – Online Math Library of Video Lessons and Teaching Materials Please tick 1 for poor and 10 for excell													
Consistency in towns of avantity and availty.		2								(10)			
Consistency in terms of quantity and quality Innovative potential		2								10			
Transferability potential						6				10			
Level of effectiveness		2								_			
Level of effectiveness	J			Ū				Ŭ	Ū				
Comments:										_			
										_			
IO1 – Community of Practice	D.			r			40.	•		, ,			
	Pleas												
Consistency in terms of quantity and quality	(1)					6				10			
Innovative potential		2								10			
Transferability potential		2								10			
Level of effectiveness	(I)	2	(3)	4)	(3)	0	0	(8)	9)	(10)			
Comments:										_			
Section 5. Dissemination										_			
	Pleas	e ticl	k 1 f	for p	oor	and	10 f	or e.	xcel	lent			
Quality and usefulness of the Project web site		2								10			
Clarity and organization of the Project web site	①			4			7		9	10			
User friendliness and usability of the Project web site	1					6				10			
Effectiveness of the overall project dissemination	1	2	3	4	(5)	6	7	8	9	10			
Quality of the dissemination activities	1	2	3	4	(5)	6	7	8	9	10			
Quality of the dissemination results	1	2	3	4	(5)	6	7	8	9	10			
Comments:													
										_			



SECTION 6. FINAL REMARKS

Strong Points:			
Weak Points:			
Recommendations:			



TEMPLATE: PM4.D - END USERS' EVALUATION QUESTIONNAIRES FOR **INTELLECTUAL OUTPUTS**

MathE Project

Project Evaluation by end users

This questionnaire is addressed to the three main target users of the project:

- Lecturers
- Students
- Policy Makers

SECTION A: PERSONAL and PROFESSIONAL DETAILS

Name: (optional)		
Country:		
B.1 Are you a?		
☐ Lecturers	☐ Students	☐ Policy Maker
☐ Other, please specify		

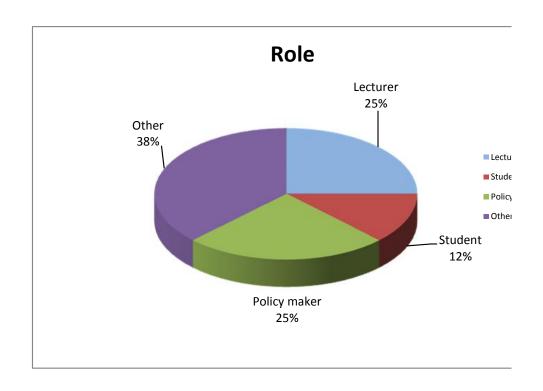


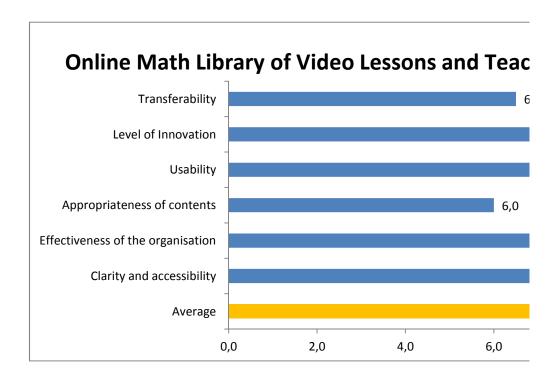
Section B: Evaluation of the Do Well Science intellectual Output

B.1 Student's Assessment Toolkit Please tick one of the numbers below where 1 = Poor and 10 = Excellent 0 2 3 4 5 6 7 8 9 10 Clarity and accessibility 0 2 3 4 5 6 7 8 9 10 Effectiveness of the organisation Appropriateness of contents 0 2 3 4 5 6 7 8 9 10 Usability 0 2 3 4 5 6 7 8 9 10 Level of Innovation 0 2 3 4 5 6 7 8 9 10 Transferability 0 2 3 4 5 6 7 8 9 10 **B.2 Online Math Library of Video Lessons and Teaching Materials** Please tick one of the numbers below where 1 = Poor and 10 = Excellent 0 2 3 4 5 6 7 8 9 10 Clarity and accessibility Effectiveness of the organisation 0 2 3 4 5 6 7 8 9 10 Appropriateness of contents (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) 0 2 3 4 5 6 7 8 9 10 Usability Level of Innovation 0 2 3 4 5 6 7 8 9 10 Transferability 0 2 3 4 5 6 7 8 9 10 **B.3 Community of Practice** Please tick one of the numbers below where 1 = Poor and 10 = Excellent 0 2 3 4 5 6 7 8 9 10 Clarity and accessibility 0 2 3 4 5 6 7 8 9 10 Effectiveness of the organisation (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) Appropriateness of contents Usability 0 2 3 4 5 6 7 8 9 10 0 2 3 4 5 6 7 8 9 10 Level of Innovation 0 2 3 4 5 6 7 8 9 10 Transferability **B.4 Testimonial** Which of the above mentioned sources is/are the most useful for you? Why? **Further Comments**

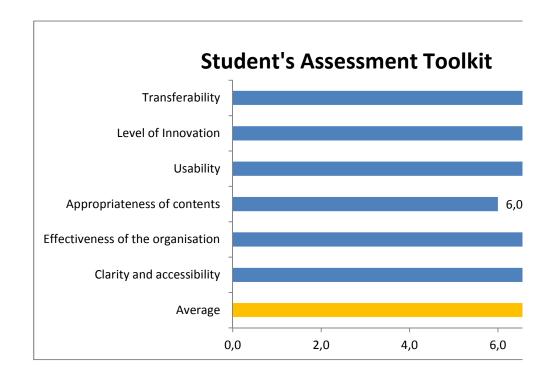
TA4.E - Tool for Questionnaires' Analysis

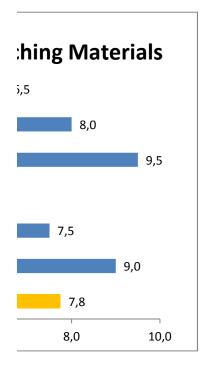
Society Societ	Personal and Professional Details	interviewee 1	interviewee 2	interviewee 3	interviewee 4	interviewee 5	interviewee 6	interviewee 7	interviewee 8	interviewee 9	interviewee 10	interviewee 11	interviewee 12	interviewee 13	interviewee 14	interviewee 15	interviewee 16	interviewee 17	interviewee 18	interviewee 19	interviewee 20	interviewee 21	interviewee 22	interviewee 23	interviewee 24	interviewee 25	interviewee 26	interviewee 27	interviewee 28	interviewee 29	interviewee 30	
Student				_		Ē	-	-	_			Ë	-	-	-	_	<u>-</u>	_	· -	_	-	-	-	-	-	-	-	-	-	-		
Student's Assessment Toolkit		Х		Y																												
Student's Assessment Toolkit Average	Policy maker							Х	Х																							
Average	Other				Х	Х	Х																									
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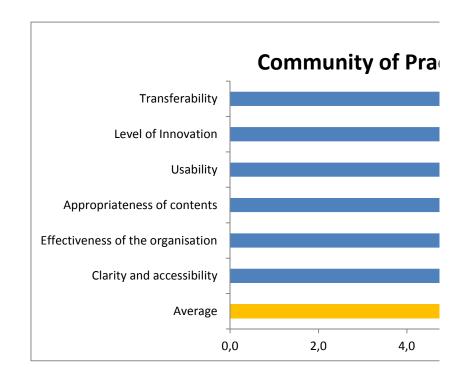


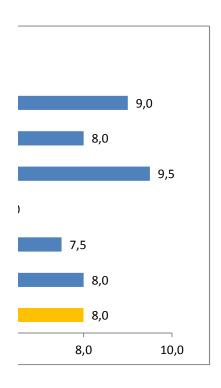


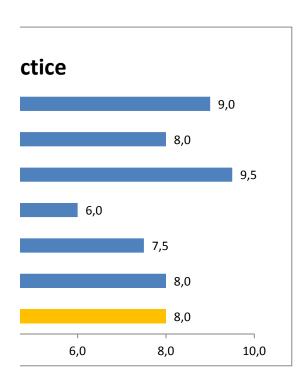














PM4.E – GUIDELINES FOR THE EVALUATION REPORT ON TESTING ACTIVITY

EDITING INFORMATION

TITLE OF THE REPORT [ARIAL 14 POINT, BOLD, CENTRED]

AUTHOR NAME(S) [ARIAL, 12 POINT, BOLD, CENTRED]

NAME OF INSTITUTION [10 POINT, NORMAL, CENTRED] CITY, COUNTRY [10 POINT, NORMAL, CENTRED] E-MAIL [10 POINT, ITALIC, CENTRED]

ABSTRACT [ARIAL 12-POINT, BOLD, CENTRED]

The text of the abstract should be written in italicized text, using Arial 10-point. Text is fully justified. Leave two blank lines after the abstract, and then begin the main text.

The main body of the text should be written using the Arial font and single spacing with 10-point interlining spacing. Be sure your text is fully justified—that is, flush left and flush right. Please do not place any additional blank lines between paragraphs.

All margins should be set at 2.5 cm

The citation number of a bibliographical reference in text must be enclosed in square brackets, for example [1]. A list of the references should be given at the end of the paper.

Figures, tables and graphics should be centred, numbered and accompanied by a legend. (Fig.1. Legend, Table 1. Legend). Where possible Arial 10-point should be used for all figures, tables and graphics.

Please, avoid using page numbers, headers and footnotes.

1. FIRST-ORDER HEADINGS

For example, "1. Introduction", should be Arial 12-point boldface, initially capitalized

1.2 SECOND-ORDER HEADINGS

As in this heading, they should be Arial 11-point boldface, initially capitalized

REFERENCES [ARIAL, 12-POINT, BOLD, CENTRED AND CAPITALIZE THE FIRST LETTER]

[1]

[2] [3]

[Arial, 10-point, normal, alignment justify, upper and lower case]





CONTENTS

Introduction

Please provide the following information:

- the target group you addressed
- the recruiting strategy
- evaluation of the recruiting strategy
- Results of the recruiting
 - Number and typologies of involved universities
 - Number and typologies of involved lecturers
 - Number of involved students

Activities with teachers and students

Please explain how you involved the target groups in the production and/or testing of the intellectual outputs.

Evaluation

Results of the questionnaire submitted to the teachers

- Please use all the graphs provided by the xls file you should have filled in with the target groups' questionnaires results
- Please comment all the graphs one by one

Conclusion

Please provide your conclusion about the impact of the project on the target groups.