Accelerating Western Balkans University Modernisation by Introducing Virtual Technologies

Project Acronym: Vtech@WBUni
Project number: **610281-EPP-1-2019-1-AL-EPPKA2-CBHE-JP**

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Part I:
A Detailed Description of VTech@WBUni

Project start date: 15 Nov 2019
Project end date: 15 Nov 2022

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Aims and Objectives of Vtech@WBUni

General Objective

To introduce for the first time at WB universities the concept of virtual technologies as a tool for accelerating university modernisation, while contributing on developing knowledge-driven society.

- Increase the quality and level of efficiency in teaching and knowledge retention through interactive learning methods
- Contribute on skills enhancement and further building of digital society at WB countries.

Direct beneficiaries: universities, schools, teachers, students, regional industries and businesses.

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Aims and Objectives of Vtech@WBUni

Specific Objectives

- Capacity building of academic staff to incorporate Virtual Technologies in teaching;

- Develop teaching methodologies availing of technology and/or ICT tools;

- Equip students with competencies to use/access tools, software and platforms;

- Increase interaction between teachers and students;

- Increase the level of understanding and reduce the grasping time and the effort that students need to learn information by using 3D concepts instead of 2D ones.

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How planned activities will meet the needs of partner countries?

- The academic staff will be equipped with the necessary knowledge, skills and attitude to get use of Virtual Technologies for teaching; Develop teaching methodologies (i.e using interactive platforms) which will increase student interaction and motivation.

- To be able to retain knowledge through such methodologies, the students will also be equipped with competencies to be able to access those platforms and interactive learning.

- Establishment of a Virtual Technologies Hubs will increase ownership of teachers in using such methodology and serve as a focal point for other education institutions to scale up best practices.

- Introducing VTech hubs at public and private HEI in WB countries will connect students with innovative industry partners and equip them with transferable skills in innovative and critical thinking.

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Innovative character of the project

- Traditional teaching and learning methods have lost its effectiveness
- The need for modernization of study programs is becoming as important as the quality.
- Use ICT technologies in teaching like audio-visual and interactive materials and the most trend like animation 3D and AR/VR.
- Applying these contemporary technologies in teaching is a new vision in education because it can bring about a major change in education. Teaching methodologies through computer, internet, and multimedia devices will be a common thing in the future.
- Mostly in WB countries teaching methodologies are still traditional so the introduction of AR/VR will be an innovation in their education systems.
- The usage of a development/training hub is an essential component that allows students to get acquainted with the industrial equipment, which they will meet in the industry/business later.

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Project consortium: 11 partners

P1 • Aleksander Moisiu University (UAMD), Albania

P2 • Polis University (U_Polis), Albania

P3 • European University of Tirana (UET), Albania

P4 • Epoka University (EPOKAUNI), Albania

P5 • University of Prishtina (UP), Kosovo

P6 • University for Business and Technology (UBT), Kosovo

P7 • Mother Teresa University (MTU), Macedonia

P8 • South East European University (SEEU), Macedonia

P9 • University of Tartu (UT), Estonia

P10 • Lodz University of Technology (LUT), Poland

P11 • University of Ljubljana (UL), Slovenia

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UAMD
Role of the leading organization

- **LEADER for the 2nd time in Erasmus+ projects: DIMTV and Vtech@WBUni**

- **UAMD will be responsible for:** project management; quality control; developing innovative teaching instructions and course descriptions; coordinating the project activities; communicating with project partners and make sure that the project objectives are met within time and budget.

- **Planning and implementation of the infrastructure for deploying VR-based technologies**
- Establishment and well-functioning of Virtual Technologies Hub
- The ÀR/VR Technologies will be used to deliver at least 3 bachelor level and 2 master level courses
- Course materials prepared for workshops - presentations and conference materials
- The academic staff will be trained for incorporating Vtech at their teaching methodologies
- The students will be able to use AR/VR as part of their academic experience
- Surveys concerning AR exercises and their evaluation
- User guidelines for VR content creation; user experience evaluation

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U_POLIS/UET/EPOKA

- The AR/VR Technologies will be used to deliver at least 2 bachelor level and 1 master level courses

- The academic staff will be trained for incorporating virtual technologies at their teaching methodologies

- The students at the university will be able to use AR/VR as part of their academic experience

- Establishment and well-functioning of Virtual Technologies Hub

- User guidelines for VR content creation; user experience evaluation

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UP

- An important public higher education institution in Kosovo.

- The AR/VR Technologies will be used to deliver at least 3 bachelor level and 2 master level courses

- The academic staff will be trained for incorporating virtual technologies at their teaching methodologies

- Students at university will be able to use VR as part of their academic experience

- Establishment and well-functioning of Virtual Technologies Hub

- User guidelines for VR content creation; user experience evaluation

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UBT

- The AR/VR Technologies will be used to deliver at least 2 bachelor level and 1 master level courses
- The academic staff will be trained for incorporating virtual technologies at their teaching methodologies
- Students at university will be able to use VR as part of their academic experience
- Establishment and well-functioning of Virtual Technologies Hub
- User guidelines for VR content creation; user experience evaluation

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MTU

- Responsible for WP2.5

- Ensure the use of Virtual Technologies at Western Balkan Universities, the strong ties between universities with the industry and its applications. Several activities are planned to strengthen university-industry cooperation.

- Implement AR/VR in some courses and establish Vtech Hub

- Active in all other project activities.

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SEEU

- SEEU in line with the current trends in e-learning and to apply effective utilization of e-learning in education to enhance teaching and learning process.

- The role of SEEU is to lead and monitor the quality of the overall project management and realization (WP3). Significant part of the SEEU in the project will be in writing recommendations and policies for VTech teaching and learning.

- Implement AR/VR in some courses and establish Vtech Hub

- Active in all other project activities.

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UT

- The main role of UT is to transfer the knowledge of developing AR/VR environment for education to academic staff and students of the partner countries.

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- Development of new course materials for the courses which will be introduced in the partner countries.

- UT has been involved in previous Erasmus projects, so they can bring also guidance in execution of the project smoothly.

- UT will be leading WP2.1 which is mostly related to staff and student trainings, however, it will have an active contribution to the other WPs as well. UT will coordinate all the training contents in cooperation with TUL and UL and also project coordinator.

- UTs facilities and experts will be a valuable experience for the Albanian and Kosovo partners

- Workshops, guest lectures and trainings, to bring a great contribution to partner universities in this field

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LUT

- TUL will be a leader of WP2.4 (Networking of Vtech WB Universities with Vtech European Universities)

- Actively involved in all WP2.

- A wide experience in virtual, augmented and mixed reality.

- TUL is a leader of Erasmus+ Virtual Mechatronics Laboratory (ViMeLa), which will prove useful in both the requirements analysis as well as in establishing the Virtual Technology Hub.

- Actively support all the project partners in all the activities related also to project management, quality assurance.

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UL

- UL will lead WP2.6 (on end user experiences)
- Active in most of development phase activities:
  - Transfer of knowledge and experience to project partners, with a focus on good user experience in final solutions for VR based education.
  - Organize workshops and trainings for partner institutions' staff,
  - Consult on equipment purchase and the content creation specifics.
- UL will participate in other project activities such as project management, quality assurance and promotion/dissemination.

- Specifically, the main UL activities will be:
  - Capacity building: Training (lectures and workshop) from the field of user interfaces with a focus on VR aspects such as user experience and usability basics, user centred design, VR specifics in user interface design guidelines and interaction modalities, VR sickness and evaluations of user experience, including VR sickness.

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Project activities and Methodology

**10
WORK PACKAGES**

1. **Preparation**
2. **Development (6)**
3. **Quality plan**
4. **Dissemination/exploitation**
5. **Management**

Work package type and ref.nr.	PREPARATION	1
Title	**Needs assessment analysis to observe the level of efficiency of traditional teaching methods and level of use of ICT tools**	
Description	WP1 will focus on determining the current state and gather up to date data on the institutional level in the areas within the project scope by doing a gap analysis. The gap analysis will be carried out as questionnaires develop specifically to identify on institutional level specific need and gaps to improve and increase knowledge, skills, and competencies and more specifically to obtain data that will identify and analyse the level of efficiency of traditional teaching methods and level of use of ICT tools: - Preparation of questionnaires for bachelor, master students and alumni to measure level of use and knowledge - Preparation of questionnaires for academic and administrative staff to measure the level of use and knowledge The results from the gap analysis will be used for further investigation with the purpose of identifying individual current state, needs and gaps, as well as common needs and gaps across partners. Based on the analysis, a workshop is organised to address both institutional level and common partner approaches. Approaches which must be organized accordingly to WP2-WP5, as well as maintain and ensure the synergy with existing initiatives in Albania and Kosovo. WP1 will be the foundation to address the task in WP2-WP5.	
Estimated Start Date (dd-mm-yyyy)	**M1** / Estimated End Date (dd-mm-yyyy)	**End of M6**
Lead Organisation	**POLIS University, (U_POLIS)**	
Participating Organisation	All Partners (P1 – P11)	

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WP1_Needs assessment analysis to observe the level of efficiency of traditional teaching methods and level of use of ICT tools

ACTIVITIES	PARTNERS INVOLVED	START DATE	END DATE
1.1. Preparation of a questionnaire to gather inputs for a detailed gap analysis at institutional level; conduct questionnaire, process data.	P1-P11	M1 (15 Nov19)	M3 (15 Feb20)
1.2. Preparation of a Comparative analysis between two methods: review paper		M1	End of M7
1.3. Regional event in one Western Balkan country. Share results/ findings in one event with regional partners		M7	End of M8

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Work package type and ref.nr	DEVELOPMENT	2.1
Title	**Developing institutional capacities for Virtual Technologies supporting university processes**	
Description	The aim of this WP is to develop institutional capacities and modernize them by introducing Virtual Technologies in teaching and learning processes. Within this WP both academic and administrative staff and also students will be trained. This WP will be leaded by UT, however, all the other EU partners in the consortium will give their specific contribution. Two trainings from academic staff and students and one training for administrative staff and/or managers is planned to be organized. Two EU study visits will be organized in the labs of EU partners. Another important activity of WP2.1 is the development of teaching methodologies that will boost student logic and attract them to better understand knowledge in science. Finally, as virtual and augmented reality develop rapidly, there is a high potential to transform our relationship to technology and society. Its influence in teaching processes should be considered. New ethical challenges, from issues of access, privacy, consent, and harassment to future scenarios will be raised. Many of the issues raised by these developments are still the catalyst for debates in the educational community. A report will be prepared about ethics on the use of VTech in universities teaching and learning processes. This will be done jointly by the contribution of each WB partner.	
Estimated Start Date (dd-mm-yyyy)	M6	Estimated End Date (dd-mm-yyyy) · End of M32
Lead Organisation	**University of Tartu (UT)**	

WP2.1_Developing institutional capacities for Virtual Technologies supporting university processes

WP.2.1_UT			
ACTIVITIES	**PARTNERS INVOLVED**	**START DATE**	**END DATE**
2.1.1. Training academic staff to incorporate Vtech in teaching		M6	M20
2.1.2. Training administrative staff to support VTech academic processes in HEIs		M6	M22
2.1.3. Trainings/workshops to students for transforming to VTech teaching/learning environment		M6	M32
2.1.4. Development of teaching methodologies to boost student logic and attract them to understand better knowledge in science		M6	M15
2.1.5. Study visit to EU to learn best practices on HEI capacity building on integrating VTech		M6	M18
2.1.6. VTech in universities ethics		M6	M10

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Work package type and ref.nr	DEVELOPMENT		2.2
Title	Establishing the Virtual Technology Hub		
Description	This action aims to build and strengthen the capacities of lecturing staff in training, use of latest tech in VR that will carry on the knowledge to the new generations. The capacity building activities will focus on trainings, visits, staff exchanges between Balkans countries and EU expertise with the focus of increasing the quality of the teaching and capacities increase		
Estimated Start Date (dd-mm-yyyy)	M4	Estimated End Date (dd-mm-yyyy)	End of M13
Lead Organisation	University for Business and Technology (UBT)		
Participating Organisation	All Partner Country (P1-P6)		

WP2.2_Establishing the Virtual Technology Hub

ACTIVITIES	PARTNERS INVOLVED	START DATE	END DATE
Defining the regulation and the mission and vision of Virtual Technology Hub			M6
Establishment of Virtual Technology Hubs in partners countries			M13
Equipment purchase: Preparing equipment list and infrastructure, software and hardware			M6
Tendering procedure/Purchase			M13
Event on Virtual Technology Hub launching/inauguration			M15
VTech in universities ethics			M10

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Work package type and ref.nr ☐	DEVELOPMENT		2.3
Title	**Integrating Virtual Technologies in teaching and learning to foster modernization of WB universities**		
Description	The objective of activities planned in this work package is integration of Virtual Technologies in teaching and learning as a mean to foster HEIs modernization. Introducing Augmented reality, Virtual reality and mixed reality will create compelling learning experiences across the offered curriculum. Therefore, the first step will be to identify content examples, emerging practices, and strategies that can be used to kick-start virtual technologies projects in individual courses, curriculums, and institutions. Selection of pilot courses will be followed with hands-on workshop to learn from best EU practices on how to develop virtual supported content and how to teach at such courses. To conclude teaching and learning process the Student performance assessment in virtual technologies courses will be explored and at the end the student's feedback will be gathered. The results derived from student's feedback will be used for further improvement on offering VTech courses in the future.		
Estimated Start Date (dd-mm-yyyy)	**M4**	Estimated End Date (dd-mm-yyyy)	**End of M26**
Lead Organisation	**University of Prishtina (UP)**		
Participating Organisation	All partners (P1-P11)		

WP2.3_Integrating Virtual Technologies in teaching and learning to foster modernization of WB universities

WP2.3_UP			
ACTIVITIES	PARTNERS INVOLVED	START DATE	END DATE
Selection of pilot courses at each HEI that will use Vtech	P1-P8		M5
Developing and delivering Vtech supported courses	P1-P8		M18
Student performance assessment in virtual technologies courses	P1-P8		M26
Gathering student's feedback for Vtech courses	P1-P8		M26

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Work package type and ref.nr.	DEVELOPMENT		2.4
Title	**Networking of VTech Western Balkan Universities with VTech European Universities**		
Description	The goal of WP 2.4 is to increasing awareness of opportunities presented by modern technologies (e.g. VR, AR) in context of education among students and educators. A full description of each task is presented below.		
Estimated Start Date (dd-mm-yyyy)	M24	Estimated End Date (dd-mm-yyyy)	End of M34
Lead Organisation	**University of Lodz (TUL)**		
Participating Organisation	All partners		

WP2.4_Networking of VTech Western Balkan Universities with VTech European Universities

WP2.4_LUT			
ACTIVITIES	PARTNERS INVOLVED	START DATE	END DATE
2.4.1. EU study visit of academic staff and management	P1-P11		M25
2.4.2. Vtech@WBUni Summer School for WB students	P1-P11		M21
2.4.3. Invited EU lecturer/talks in each WB university	P1-P11		M34
2.4.4. Establish VTech@U Network for Western Balkans	P1-P11		M34

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Work package type and ref.nr	DEVELOPMENT	2.5
Title	**VTech University concept for boosting cooperation with industry**	
Related assumptions and risks	All partner Universities and from Industry will participate and help in the events. Risks involve small number of students interested to participate in the events and select their Master thesis with the Industry partner on particular VTech topic.	
Description	In order to properly use the Virtual Technologies at Western Balkan Universities, the strong ties between universities with the industry and its applications should be developed. Several activities are planned to strengthen university-industry cooperation.	
Tasks	- Organising of 2 (two - once in a year), Hackathon Contest in VR programming inviting students from universities and experts from Industry in VTech fields for benefit of Education - Round table with industry on fostering collaboration University-Industry in VTech fields for benefit of society - Developing Vtech apps that will be presented to industry on 2 VTech Open Days - Industry - University on joint student mentoring on making VTech environments	
Estimated Start Date (dd-mm-yyyy)	M15	Estimated End Date (dd-mm-yyyy)	End of M34
Lead Organisation	**Mother Teresa University (MTU)**	
Participating Organisation	All partners and industry representatives	

WP2.5_VTech University concept for boosting cooperation with industry

	WP2-5: MTU		
ACTIVITIES	**PARTNERS INVOLVED**	**START DATE**	**END DATE**
Organising Hackaton Contest in VR programming	P1-P11		M15
Round table with industry on fostering collaboration University - Industry in VTech fields for the benefit of society/b2b	P1-P11		M34
Developing VTech apps that will be presented to industry on VTech Open Days	P1-P11		M34
Industry - University on joint student mentoring on making VTech environments	P1-P11		M34

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Work package type and ref.nr.	DEVELOPMENT	2.6
Title	User experience in VR environment	
Description	WP2.6 includes the following activities: With the goal of providing best user experience in educational content consumption, with an emphasis on VR environments, guidelines will be created for creation of such content. These will include obtained knowledge and expertise from state-of-the-art approaches and project partners own expertise. Furthermore, training of academic staff members from Albanian/Kosovo institutions will be realised, with topics covering user experience design and VR aspects of it (sickness). This training will be followed by staff training related to evaluations of user experience with an emphasis on VR specifics, which will complete the most important aspects of content design and usage. The foreseen trainings will include around 24 teachers from partner institutions and will take place both in EU partner countries and in-home countries, based on the availability of equipment. Finally, in the scope of this work package the user experience of developed content and solutions will be evaluated and feedback for improvement will be given to developers.	
Estimated Start Date (dd-mm-yyyy)	M3	Estimated End Date (dd-mm-yyyy)	End of M34
Lead Organisation	University of Ljubljana (UL)	
Participating Organisation	All partner countries (P1 – P6) and P7-P8	

WP2.6_User experience in VR environment

ACTIVITIES	PARTNERS INVOLVED	START DATE	END DATE
WP2-6_UL			
Design of user experience guidelines for VR content	P1-P8		M9
Teacher training regarding user interface design, user experience and VR sickness evaluation	P1-P8		M20
Evaluation of user experience and VR sickness of developed content	P1-P8		M34

Work package type and ref.nr .	QUALITY PLAN	3
Title	**Quality Plan**	
Description	South East European University (SEEU) will be in charge to lead and manage the activities under this WP. The Project Quality Committee (PQC) will be established by the project start in order to ensure the timely coordination and start of the activities between partners. The PQC will ensure the overall quality management of the project in terms of coordination and strategic leadership to the project implementation partners. SEEU will develop a Quality Monitoring Plan for the whole duration of the project. The monitoring plan will be endorsed by the PQC and will be notified to all partners in order to catch up with this plan. The monitoring plan will include (i) the revised/contextualised logical framework matrix with a table of Indicators; Data Source; Data collection methodology; and the Responsible Partner(s); (ii) an Indicator Tracking Table (ITT) which will track the progress of achievement based on the indicator measurement Target Vs. Achieved. The process of the end of project evaluation will be outsourced to an external evaluator to be able to measure the results of the project by the end-term of the project, with the prospects of the impact at the mid and long term. The methodology of the evaluation will follow the Results Oriented Methodology (ROM) based on the five criteria of the OECD. The perspectives of the project stakeholders and the external actors will be duly considered. The internal monitoring process will be conducted quarterly under the supervision of the SEEU. The evaluation report will provide useful insights to impact. Quality Assurance (QA) Policies will be developed for the VTech teaching and learning and endorsed by the PQC to ensure ownership.	
Estimated Start Date (dd-mm-yyyy)	M1	Estimated End Date (dd-mm-yyyy)	End of M36
Lead Organisation	**South East European University (SEEU)**	
Participating Organisation	All partners (P1 – P11)	

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WP3_Quality Plan

ACTIVITIES	WP3: SEEU		
	PARTNERS INVOLVED	START DATE	END DATE
Establish a Project quality committee	P1-P11		M2
Develop a quality monitoring plan	P1-P11		M4
Subcontract an external quality expert	P1-P11		M30
Mid-term monitoring reports and recommendations	P1-P11		M36
Developing QA policies for VTech teaching and learning	P1-P11		M12

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Work package type and ref.nr ☐	DISSEMINATION & EXPLOITATION	4
Title	**Dissemination and exploitation of results**	
Description	The WP aims to gather key stakeholders around VTech@WBUni agenda and ensure that all project outputs and results are transferred outside the partnership, disseminated and used in the most effective way. In order to achieve such objectives, transparent instruments of communication will be used, as well as adequate and timely inclusion of targeted audience for the project. All will be integrated in the Dissemination Plan, ensuring a smooth roll out of key messages, while synchronizing targeted outreach with project implementation milestones. A variety of communication tools will be used for measuring communication and awareness raising effectiveness. In order to ensure cohesive delivery of project outputs and results, internal communication activities will be performed concurrent to the external ones.	
Estimated Start Date (dd-mm-yyyy)	M1	Estimated End Date (dd-mm-yyyy)	End of M36
Lead Organisation	**European University of Tirana (UET)**	
Participating Organisation	All partners (P1-P11)	

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WP4_Dissemination and exploitation of results

ACTIVITIES	PARTNERS INVOLVED	START DATE	END DATE
WP4: UET			
Preparing project dissemination plan	P1-P11		M3
Building visual identity of the project and creation of the website and social network pages for promotion	P1-P11		M36
Preparing marketing materials and publications	P1-P11		M36
Dissemination through events such as roundtables, workshops, trainings	P1-P11		M36
Dissemination to various stakeholders	P1-P11		M36
Final conference/event	P1-P11		M34

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Work package type and ref.nr.	MANAGEMENT		5
Title	**Project Management**		
Tasks	Kick off meeting Organizing Steering committee/Management Board Meetings Preparing Project Management Plan Financial management of the project Progress and Final Report Writing Coordination of all other project activities		
Estimated Start Date (dd-mm-yyyy)	M1	Estimated End Date (dd-mm-yyyy)	End of M36
Lead Organisation	**Aleksandër Moisiu University of Durrës (UAMD)**		
Participating Organisation	All Partners (P1 – P11)		

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WIDER OBJECTIVE	INDICATOR PROGRESS	HOW WILL IT BE MEASURED?
Accelerating Western Balkans university modernization by introducing virtual technologies	Increase by at least 20% academic staff performance within three years of project start within WB HEIs using Vtech	Baseline data; Project reports; Final external evaluation report measuring progress of academic performance toward baseline data.
	Increase by at least 20% student performance within three years of project start within WB HEIs using Vtech	Baseline data; Project reports; Final external evaluation report measuring progress of student performance toward baseline data
	Increase the number of research, mobility and collaboration within WB HEIs and EU partners compared to the baseline value	Baseline data; Project reports; Final evaluation report measuring # of researches between WB HEIs and EU countries progress toward baseline data.
	EC Annual Western Balkans' Progress Reports	EC progress Reports on WB countries showing progress on Education
	WB countries Ministries' progress reports	WB countries Ministries' progress reports
	WB HEIs internal reports	WB HEIs internal reports
	Increase in WB HEIs internationalisation dimension and visibility as the first WB countries using VTech	Increase in number of networks within WB HEIs and EU countries (# of Joint research activities; Workshops, conferences, publications and potential for future projects).

LFM

SPECIFIC OBJECTIVES	INDICATOR PROGRESS	HOW WILL IT BE MEASURED?	RISKS AND ASSUMPTIONS
1.1 Increasing institutional capacities by introducing AR/VR concepts to WB universities' teaching and learning methodologies	1.1.1 Increased by at least 20% capacities of academic staff of the WB HEIs on AR/VR concepts 1.1.2 Increased by at least 20% capacities of students of the WB HEIs on AR/VR concepts	1.1.1. # of academic staff participating in capacity building events/participant list 1.1.1.1.Training/Workshop report; Evaluation forms by the end of the Training/Workshop for academic staff; Project progress reports 1.1.2 # of Students participating in capacity building events/participant list 1.1.1.2 Training/Workshop report; Evaluation forms by the end of the Training/Workshop for students; Project progress reports	**Assumptions:** WB HEIs continue to prioritize and embrace new technologies in teaching and learning; Continues support and commitment from all project partner HEIs; Good cooperation is established and maintained with AR/VR companies throughout the project period of implementation as well as prospects with future sustainability; Respective Ministries in the WB HEIs countries continue to support reforms in introducing technology to ensure qualitative education Maintain high level of motivation of teachers toward initial challenges that might face in introducing new technologies.
1.2 Development of VR courses to be implemented in each partner country curriculum	1.2.1 Methodology of the VR courses is in place in each WB HEIs 1.2.2 # of study visits to EU HEIs on VTech	1.2.1 Preparation of course materials in each partner country HEI 1.2.2Reports on lessons learned and best practices on EU HEIs	

LFM

SPECIFIC OBJECTIVES	INDICATOR PROGRESS	HOW WILL IT BE MEASURED?	RISKS AND ASSUMPTIONS
1.3. Building Virtual Technology HUBs as creative spaces to be used for AR/VR practices within WB HEIs and for services offered to third parties	1.3.1 Virtual Technology HUB is established and well functional 1.3.2 Statistics on influence of new AR/VR courses in student performance 1.3.3 Increased experience in the Virtual Technology HUB on practical knowledge by the student 1.3.4 # of students selecting VR courses	1.3.1 Lab/High quality equipment purchased and in place 1.3.2 Evaluation reports/ Self-assessment reports; Project progress reports 1.3.3 # of students access in the Virtual Technology HUB; project progress reports 1.3.4 Database of students accessing courses; Project Progress reports	Risks: Slight delays in the initial stage of project start Different timing in the partner's procurement procedures might cause delays Virtual Technology HUB equipment's maintenance/defects from the companies might results in slight delays Damages of the Virtual Technology HUBs equipment's
1.4 Establishment of a VTech network between WB and EU counties	1.4.1 # of networks established within WB HEIs 1.4.2 # of networks established within WB HEIs and EU HEIs 1.4.3 # of joint research publications and conferences, workshops organised within WB HEIs and EU HEIs	1.4.1 Project progress report related evidence documents/ MoU in place 1.4.2 Project progress report related evidence documents/ MoU in place 1.4.3 Project progress reports; project list of participation, evidencing publications and dissemination	

Short term impact

Short term impact	Target groups/potential beneficiaries	Quantitative indicators (in numbers please)	Qualitative indicators
Modernization of teaching methodologies	Partners, Staff, Industry, Students	Number of modernized courses	Course level compatibility with new knowledge and technology
Introducin AR/VR technology into existent courses	Partners, Staff, Industry, Students	Number of VTech courses	Course level compatibility with new knowledge and technology
Trained academic staff on AR/VR technology	Partners	Number of academic trained staffs	Staff is up to date with the new topics on the fields
Trained Students and administrative staff on AR/VR technology	Partners	Number of trained students and administrative staff	Students are up to date with the new topics on the fields. Administrative staff will support academic staff in VTech development
Increased number of experts in AR/VR technologies	Partners, Industry, Students	Number of employed students in this field	Graduated master students will be ready to fulfil market demand for VTech experts

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Long term impact

Long term impact	Target groups/potential beneficiaries	Quantitative indicators (in numbers please)	Qualitative indicators
Increased number of VTech researchers	Partners, Education Institutions, industry, Students	Number of VTech researchers	Researchers are up to date with the new topics on the VTech research field
Increased number of VTech research publications	Partners, Education Institutions, industry, Students	Number of publications in scientific journals	Researchers are up to date with the new topics on the VTech research field
Organizing international conferences, workshops and symposiums in VTech	Partners, Education Institutions, industry, Students	Number of activities; Number of participants	Innovative research paper in VTech
Fostering collaboration between higher education institutions and industry	Partners, Education Institutions, industry, Students	Number of open lectures held by representative of industry; Number of businesses that collaborate with higher education institutions	Graduated master students will be ready to fulfil market demand for VTech experts
Forming WB VTech Network	Partners, Education Institutions, industry, Students	Number of participants in the network; Number of activities organised by them	Better collaboration between education institutions, businesses and industry

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Budget Summary…
Before and after evaluation of experts

Category	Before evaluation
Staff Costs	346.499,00
Travel Costs	65.010,00
Cost of Stay	154.315,00
Equipment	238.800,00
Subcontracting costs	62.500,00
TOTAL (EUR)	867.124,00

Category	After Evaluation
Staff Costs	✓Same
Travel Costs	✓Same
Cost of Stay	✓ Same
Equipment	✓ Same
Subcontracting costs	✓ Same
TOTAL (EUR)	867.124,00

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Budget Summary:
Distribution among beneficiaries

Budger per partner	TOTAL
Aleksander Moisiu University	153.582,00
Polis University	81.218,00
European University of Tirana	80.662,00
Epoka University	79.412,00
University of Prishtina	99.885,00
University for Business and Technology	83.597,00
Mother Teresa University	45.715,00
South East European University	45.545,00
University of Tartu	66.811,00
Lodz University of Technology	62.508,00
University of Ljubljana	68.189,00

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Dissemination and exploitation strategy

Target Group	Means of Communication to Reach These Target Groups	When	Indicators to measure the effectiveness of the means of communication
Project Team	Email	M1-M3	- level of responsiveness - delivered feedback
Staff, students, project team	Website, facebook, linkedin, youtube, Instagram, twitter	M5 (updates until M36)	- number of clicks - number of page likes/follows - post engagements (shares, post likes, comments, page mentions) - outreach
Staff, students, project team	Email, leaflets, newsletters	M10	- feedback of readers - number of clicks
Staff, students, project team	Email, website, social media, newsletter	M20	- Number of participants - Event duration - quality of discussion (information level about the project aim)
Staff, students, project team	Email, website, social media, newsletter	M33	- Number of participants - Event duration - quality of discussion (information level about the project aim)
Staff, students, project team	Email, website, social media, newsletter	M33	- Number of participants - Event duration - quality of discussion (information level about the project aim)

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Sustainability

Sustainable Outcomes	Strategy to ensure their sustainability	Resources necessary to achieve this	Where will these resources be obtained?
Increased institutional capacities in VTech	To ensure the capacities are in place within the HEIs there motivation will be provided to the academic staff as they will be the first as pioneers to introduce this technology in the HEIs. Moreover, new academic staff will join the trained one in order to transfer the knowledge on the job doing.	Human resources (staff and students) and expertise	Resources are provided within the frame of the project, meaning the financial resources for the trainings and the expertise.
Development of VR courses to be implemented in each partner country curriculum	A designed methodology will be delivered for the AR/VR courses to help robust teachers' capacities in using the VTech;	Financial and human resources for the methodology delivery	The financial resources will be obtained by the project, whereas the expertise to develop the methodology will be by the experts.
Building a Virtual Technology HUB as a creative space to be used for AR/VR practices within WB HEIs and for services offered to third parties	The functioning of the HUB will be ensured by the terms of the contract between the HEIs and the company in regard to the maintenance after the project ends.	The establishment and functioning of the HUB will be ensured by the project financial support in regard to the equipment purchase. Academic staff will be trained to use the equipment and supplies.	Once the HUB is established the academic staff and students will be able to use it, so there will be enough human resources in place to access it. The maintenance of the HUB will be regulated in the term of the contract by the company.
Establishment of a VTech network between WB and EU counties	The relation and the network will continue after the project. The joint activities between WB HEIs will occur in the frame of the publications and research; VTech use as well as in the novelty of being the first HEIs in the WB	The network establishment in itself needs mainly human resources capacity meaning that academic staff in the WB HEIs along with the expertise of the EU country HEIs will be able to jointly conduct activities with the overall aim of strengthening the relationships and keep updated with the most recent development in the VTech.	The WB HEIs and the EU countries will provide their human resources in order to vitalise and maintain the network beyond the lifespan of the project. WB countries already avail of good relations and exchange of expertise. It is expected that this continues in the form of networks.

Expected Impact of Vtech@WBUni

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#	Project results	Who will they impact at national, regional level?	How?
1	Increasing institutional capacities by introducing AR/VR concepts to WB universities'teaching and learning methodologies	At national level: HEIs will benefit from the professional development of teachers through new innovative ways of teaching and learning. At regional level the interaction and networking of the WB HEIs brings a good opportunity to create networks and to collaborate	The project develops capacity needed for teacher professional development on using new technologies assuring the quality success of teaching and learning process and contributing to the strategic objectives of each WB HEIs. The project creates new methodologies and regulations in place to be able to implement the new teaching and learning by using the VR/AR tools.
2	Development of VR courses to be implemented in each partner country curriculum	The development of the courses will be based on the development of the methodology which will remain in place for the use by the HEIs after the project ends. Such development will further contribute to the priorities of the ministries in the WB countries to increase modernisation of HEIs and introducing new technologies	The HEIs in the WB countries are directly affected by VR courses, which will be available for the students at the national level, to ensure teaching quality and enhance students' performance. Moreover, the courses will be included in the curriculum which will ensure impact within the HEIs internally.
3	Building a Virtual Technology HUB as a creative space to be used for AR/VR practices within WB HEIs and for services offered to third parties	Hub will be introduced for the first time at the universities: increase teaching and learning efficiency and enhance the visibility of the investment by EU at the WB level. The Hub accessed by students may widen the use also by the schools as indirect target making HEIs more visible and attractive.	The project will create facilities for the teaching and learning process. The HUB will serve not only for HEIs purposes of increasing teaching and learning quality but will also serve to the schools as a centre where pupils can come and show interest on the new methodologies of the HEIs and make it more attractive for the future students.
4	Establishment of a VTech network between WB and EU counties	The project creates strong opportunities of staying linked during the implementation and after the end due to the shared long terms objectives of the involved HEIs.	The process can continue after the end of the project based on the success of the activities of academic staff, students, the quality of training programs developed, collaboration the partners and the dissemination of the results through conferences and meetings involving teachers, students and businesses.

Discussion and Questions???

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Thank you for your attention…