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PRINTeL Project co-funded by the Erasmus+ Programme of the European Union

*“Change in Classroom: Promoting Innovative Teaching & Learning to
Enhance Student Learning Experience in Eastern Partnership Countries”*

Invitation to Tender for Equipment Procurement # YSU/06AM/2019

**Equipment Procurement for creating: 6 Technology-enhanced Active
Learning Classrooms (ALC); 3 Multimedia Lecture Recording (Capture)
Studios (MLRS); 1 Network Server (NS) for Teaching & Learning Portal**



Secretariat of the PRINTeL Project:

Yerevan State University (YSU)

Office of the Director of Quality Assurance Centre

Main Building, Floor 4, Room 401

Address: 1 Alex Manoogian Str., 0025 Yerevan, Republic of
Armenia

Tel: (+374 91) 720 178 / Fax: (+374 10) 554 641

Email: printel@ysu.am / Website: www.printel.am

Yerevan, 10 June 2019

Dear Sir / Madam,

We kindly invite you to submit your **tender for the supply of Equipment** for creating 6 Technology-enhanced Active Learning Classrooms (ALC), 3 Multimedia Lecture Recording (Capture) Studios (MLRS) and 1 Network Server (NS) for Teaching & Learning Portal. This equipment procurement is within the framework of PRINTeL Project “*Change in Classroom: Promoting Innovative Teaching & Learning to Enhance Student Learning Experience in Eastern Partnership Countries*”, co-funded by the **ERASMUS+ Programme of the European Union**.

When preparing your tender, please be guided by this invitation to tender.

Tenders should be submitted in English through **one** of the following means not later than **Friday, July 26, 2019 at 16:30** (Yerevan local time):

- a) **by email to printel@ysu.am** : If you are submitting your tender by email, kindly ensure that they are signed and stamped and in the **PDF** format. An acknowledgement of receipt will be sent to you accordingly.
- b) **delivered by hand in a sealed envelope**: A receipt shall be obtained as proof of submission, signed and dated by the receiving person at YSU - Office of the Director of Quality Assurance Centre. The Office is open from 9:30am to 4:30pm Monday to Friday excluding holidays.

In this case, the tenders need to be signed and stamped and sent to the following address:

Yerevan State University (YSU)
Office of the Director of Quality Assurance Centre
Main Building, Floor 4, Room 401
Address: 1 Alex Manoogian Str., 0025 Yerevan, Republic of Armenia
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In all cases, please add the below reference:

PRINTeL - #YSU/06AM/2019 “Invitation to Tender for Equipment Procurement”
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For any additional information, please do not hesitate to contact us by phone or by email.

Dr. Armen Budaghyan, PhD
YSU Director of Quality Assurance
PRINTeL Project Coordinator

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Part I - Project Description

1.1. About PRINTeL

The “*Change in Classroom: Promoting Innovative Teaching & Learning to Enhance Student Learning Experience in Eastern Partnership Countries*” - **PRINTeL** is a three-year duration multi-country joint project co-funded by the **Erasmus+** Capacity Building in the Field of Higher Education **Programme of the European Union** launched in 2018. The aim of the project is to enhance the quality of Teaching and Learning (T&L) through promoting innovation and integration of technologies in the project Partner Country (PC) universities in Armenia, Georgia and Belarus.

This goal will be achieved through fulfilment of the following specific objectives:

1. To strengthen Teaching Staff Development Centres (TSDC) in the PC universities by enhancing capacities of staff and trainers, modernizing infrastructure and introducing innovative teacher training programmes.
2. To build up capacities of the partner universities’ teaching staff by developing their innovative and technology-enhanced T&L skills.
3. To establish a Virtual Academy of Teaching and Learning (VATL) as an international community of teachers and students interested in using Open Educational Resources.

The following main results are expected to achieve:

- ✓ 30 staff and 100 trainers trained on innovative and technology-enhanced T&L instructional methods.
- ✓ 18 Technology-enhanced Active Learning Classrooms (ALC), 9 Multimedia Lecture Recording (Capture) Studios (MLRS) and 5 new teacher training courses.
- ✓ Over 1,600 trained university teachers on innovative and active learning methods.
- ✓ Virtual Academy of Teaching & Learning (VATL) - an interactive professional development, mutual learning platform of teachers and students.

For more information about the PRINTeL project please visit the project official Website: www.printel.am .

1.2. PRINTeL Partners – Project Consortium

The following institutions from Partner and European countries are involved in the project consortium:

1. Yerevan State University (YSU), Armenia - **Project Coordinator and contractor**
2. National Polytechnic University of Armenia (NPUA), Armenia
3. Vanadzor State University after H. Tumanyan (VSU), Armenia
4. Ilia State University (ISU), Georgia
5. Georgian Technical University (GTU), Georgia
6. Iakob Gogebashvili Telavi State University (TeSaU), Georgia

7. Belarusian State University (BSU), Belarus
8. Brest State Technical University (BrSTU), Belarus
9. Yanka Kupala State University of Grodno (YKSUG), Belarus
10. National Center for Strategic Research in Higher Education (NCSRHE), Armenia
11. Katholieke Universiteit Leuven (KU Leuven), Belgium
12. Universitat de Barcelona (UB), Spain
13. Universidade do Porto (U.PORTO), Portugal
14. Linköpings Universitet (LiU), Sweden
15. FH Joanneum Gesellschaft mbH (FHJ), Austria

1.3. Current Phase of the Project

After having implemented the needs assessment and analysis of the PC institutions the most required innovative T&L methods, new technologies, facilities and materials supporting the T&L have been identified. Based on these results, as well as the site visits of the EU partners technology enhanced T&L facilities and learning spaces the Project Consortium is currently planning for the procurement of equipment for creating **6 Technology-enhanced Active Learning Classrooms (ALC)**, **3 Multimedia Lecture Recording (Capture) Studios (MLRS)** and **1 Network Server (NS) for T&L Portal** in the following partner universities:

1. Yerevan State University (YSU), Armenia
2. National Polytechnic University of Armenia (NPUA), Armenia
3. Vanadzor State University after H. Tumanyan (VSU), Armenia

1.4. Disclaimer

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

Part II – Tender Specifications

2.1. Object of the Tender

Yerevan State University (YSU) in Armenia, Grant holder of the Erasmus+ CBHE Project #585760-EPP-1-2017-1-AM-EPPKA2-CBHE-JP “*Change in Classroom: Promoting Innovative Teaching & Learning to Enhance Student Learning Experience in Eastern Partnership Countries*” (PRINTeL) announces a tender for the procurement of the equipment **for project partner institutions from Armenia**, within the technical specifications provided in the Part-III of this document.

This document represents an invitation to tender for the supply of computer, multimedia, audio & video and other equipment as part of the PRINTeL Project co-funded by the ERASMUS+ Programme of the European Union.

This invitation to tender is in no way binding on the contracting authority. The contracting authority's contractual obligation commences only upon signature of the contract with the successful tenderer.

2.2. Special Conditions

According to the agreements between EU and the mentioned above **project partner countries**, all equipment purchased and any provision of services within the framework of Erasmus+ projects **is exempted from taxes (including VAT), duties and charges. An appropriate Certificate for the VAT exemption will be provided by YSU and other Georgian and Belarusian partners to be presented to Armenian, Georgia and Belarus fiscal authorities.**

In order to be eligible for exemption from the abovementioned taxes (including VAT), duties and charges the equipment procured within this tender should be directly and specifically imported in behalf of and delivered to the project consortium partners listed in the clause 2.9 of this tender specification and according to the Part-IV.

The offered equipment should be produced for the markets of Armenia. The provided warranties should be assured by the relevant brands' official Service Centers in the abovementioned countries.

2.3. Currency and Language of the Tender

The tenders shall be presented in EURO for both the unit prices and the overall amount of the commitment. The currency of payment will be also in EURO or in Armenian Drams (AMD) for the Armenian tenderers. The tenders shall be presented in English.

2.4. Submission of the Tenders: Means and Deadline

Tenders should be submitted in English through **one** of the following means not later than **Friday, July 26, 2019 at 16:30 (Yerevan local time).**

- a) **by email to printel@ysu.am** : If you are submitting your tender by email, kindly ensure that they are signed and stamped and in the PDF format. An acknowledgement of receipt will be sent to you accordingly.
- b) **delivered by hand in a sealed envelope**: A receipt shall be obtained as proof of submission, signed and dated by the receiving person at YSU - Office of the Director of Quality Assurance Centre. The Office is open from 9:30am to 4:30pm Monday to Friday excluding holidays.

In this case, the tenders need to be signed and stamped and sent to the following address:

Yerevan State University (YSU)

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In all cases, please add the below reference:

PRINTeL - #YSU/06AM/2019 “Invitation to Tender for Equipment Procurement”
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As mentioned above, the deadline for submission of tenders is 26 July 2019 at 16:30 (Yerevan local time). No offer may be submitted or modified after this date.

2.5. Documents to be Submitted by the Tenderer

The tenderer must complete and provide the following documents:

1. Tender duly signed, dated and sealed; including:
 - Profile of the company
 - Main contact’s name, phone number, email and address
 - Completed bill of quantities (see Part-III) for the selected section(s) with unit and total prices **excluding VAT**
 - Technical specifications of the offered equipment
 - Warranty conditions
 - Catalogs of the proposed equipment
2. A photocopy of the trade name registration papers
3. Signed letter for after-sales service and at least 12-month warranty letter

Additional documents such as instructions and operating manuals shall be required with the delivery of equipment.

2.6. Deadline for Engagement

Tenderers shall remain bound by their tenders for a period of **thirty (30) days** from the closing date for submission (26 July 2019) at 16:30 PM.

2.7. Joint Tenders

Joint tenders should be provided together with the condition of submitting all the required documents by each tenderer. In all cases, joint tenders should comply with all the tender specifications.

2.8. Subcontracting

It is prohibited for the tenderers to subcontract parts of the tender to third parties. The tenderer will be the only responsible part who will contact the coordinating institution, YSU.

2.9. Goods Delivery Charges and Locations

Equipment will be delivered to universities in Armenia. **Delivery charges must be included in the offer.** The following 3 (three) universities are involved in this call for tender as the recipients of goods:

1. Yerevan State University (YSU), Yerevan, Armenia
2. National Polytechnic University of Armenia (NPUA), Yerevan, Armenia
3. Vanadzor State University after H. Tumanyan (VSU), Vanadzor, Armenia

The full addresses and contact details of the responsible persons in partner universities will be provided after the signature of the contract with the selected supplier.

2.10. Goods Delivery Time

The delivery period may not exceed **60 days** from the date of signature of the contract with the selected supplier.

2.11. Payment Terms

The payment shall be done according to the following terms:

- 30% upon signature of the contract
- 60% upon delivery of the equipment
- 10% after 30 days of delivery of equipment

2.12. Evaluation and Award of the Contract

The key principles that shall govern the process of evaluation of tenders are listed as follows:

- **Non-discrimination:** Any discrimination with regard to tenderers on the basis of nationality is forbidden.
- **Equal treatment:** All tenders submitted within the set deadline are to be treated equally. They will be evaluated on the basis of the same terms, conditions and requirements set in the tender documents.
- **Transparency:** Detailed written records are to be kept (normally in the form of reports and minutes of the meetings held) of all actions of the evaluation panel. All decisions taken will be sufficiently justified and documented. In this way, any discriminatory behaviour can be prevented and if not prevented, then monitored.
- **Confidentiality:** The process of evaluation of tenders are to be confidential. Information concerning the process of evaluation of tenders and the award recommendation is not to be disclosed to the tenderers or to any other person who is not officially concerned with the process, until information on the award of the contract is communicated to all tenderers.

Exclusion criteria: Tenderers are excluded from participation in procurement procedures if:

- they have submitted a tender that does not meet all the requirements provided in this document, including the ones in the clause 2.5.
- they are bankrupt or being wound up, are having their affairs administered by the courts, have entered into an arrangement with creditors, have suspended business activities, are the subject of proceedings concerning those matters, or are in any analogous situation arising from a similar procedure provided for in national legislation or regulations,
- they have been convicted of an offence concerning their professional conduct by a judgment which has the force of res judicata,
- they have been guilty of grave professional misconduct proven by any means which the contracting authority can justify,
- they have not fulfilled obligations relating to the payment of social security contributions or the payment of taxes in accordance with the national legal provisions,
- they have been the subject of a judgment which has the force of res judicata for fraud, corruption, involvement in a criminal organisation or any other illegal activity detrimental to the Communities' financial interests.

In the selection process only will be considered the suppliers who would provide delivery of the equipment to all of the above mentioned universities in Armenia.

Selection criteria: Tenderers will be selected based on the following criteria:

- having submitted the tender that complies with **all** of the specifications, requirements and offers the lowest price, as well as all other evaluation criteria indicated, shall be selected,
- having the necessary economic, financial, technical and professional capacity to perform the contract.

Award criteria: The awarded tenderer will be the one who offered the best quality and price tender out of those submitted by tenderers which are not excluded and which meet the selection criteria. The awarded tenderer should:

- be in full compliance of tender to the tender specifications, bill of quantities and technical specifications,
- have previous related projects and references including proofs of similar contracts completed in the past,
- Provided technical information for all the equipment to be supplied.

Apart from the abovementioned criteria, the tenderer's work experience in Armenia will be taken into account.

The contract will be awarded to the tenderer whose tender has been found to be in conformity with the invitation to tender. The award method will be the "**best value for money**" meaning that the winning tender is the one offering the best quality/price ratio., taking into account the criteria announced in the specifications.

At the time of award of Contract or Purchase Order, YSU reserves the right to **vary (increase or decrease)** the quantity of goods by 5-10% depending on the prices offered by tenderers.

2.13. Opening/Evaluation Committee

Tenders will be opened by the PRINTeL Project Tender Evaluation Committee comprising at least 5 (five) members appointed for the purpose.

2.14. Notification of Results

Tenderers will be notified of the results by email. Thus, it is important to provide the email of the main contact person.

2.15. Cancellation of the Contract

Cancellation of the Contract is due if the delivery/completion is delayed by **4 (four) weeks** from the delivery deadline stated herein in the clause 2.10, with the condition of **returning the down payment** to the coordinating institution, YSU.

Part III – Bill of Quantities and Technical Specifications

The following equipment is planned for procurement within this tender:

Section & number in the list	Equipment to be purchased	Quantity
	A. 18 Technology-enhanced Active Learning Classrooms (ALC)	
2.1	Interactive Flat Panel (Display) with accessories, Wi-Fi & software	6
1.1	Desktop computer with software	6
3.3	Portable Flexarm Document Camera (Visualizer)	6
3.2	Unified Communications Professional PTZ USB Video Camera	6
4.2	Digital Wireless Audio System for Presentations & Lectures	6
5.1	Interactive Classroom Response System Kit	6
	Sub Total	36
	B. 9 Multimedia Lecture Recording (Capture) Studios (MLRS)	
3.1	Auto-Tracking PTZ Video Camera	3
1.3	Ultra HD USB Web Camera for Video Conferencing, Recording & Streaming	3
3.4	Presentation HD recorder and streamer	3
1.2	Notebook (Laptop computer) with software	3
5.2	Lighting kit for Video & Photo Studios	3
4.1	Audio Studio Kit with Microphone, Audio Interface & Shock Mount	3
4.3	Over-Ear Professional Studio Monitor Headphone	3
5.3	Acoustic Panels Studio Soundproofing Foam Wedge Tiles	3
	Sub Total	24
	C. Network Server (NS) for Teaching & Learning Portal	
1.4	Network server	1
1.5	Server UPS	1
1.6, 1.7 & 1.8	Network equipment	1
	Sub Total	3
	TOTAL	63

Tenderers could apply for the following one or more section(s):

Section I. ITC Equipment: the estimate value of the contract for this section is 18,000 EUR.

Section II. Interactive Flat Panels: the estimate value of the contract for this section is 28,000 EUR.

Section III. Lecture Capture Systems: the estimate value of the contract for this section is 21,000 EUR.

Section IV. Audio Equipment: the estimate value of the contract for this section is 4,200 EUR.

Section V. Other Equipment: the estimate value of the contract for this section is 3,800 EUR.

The estimate value of this tender is **75,000 EUR**.

Section I. ITC Equipment					
Subject: Equipment for: (A) 6 Technology-enhanced Active Learning Classrooms (ALC); (B) 3 Multimedia Lecture Recording (Capture) Studios (MLRS); (C) 1 Network Server (NS) for Teaching & Learning Portal				Price Estimation	
Nº	Name and Specification	Unit	Quantity	Unit Price in EUR	Total Price in EUR
1.1	Desktop Computer with software CPU: Intel Core i7-8550U RAM: 8GB DDR4-2400MHz Storage: HDD SATA III 1.0TB 7200rpm, 3.5" Interfaces: VGA, HDMI, min 4x USB 2.0, 2x USB 3.0, RJ45 for LAN Monitor: 20-inch, resolution Full HD, viewing angle – min 175° , separate video card USB keyboard, mouse, Windows 10 1 year warranty	Unit	6		
1.2	Notebook (Laptop Computer) with software Intel Core i7-8550U, Display 17.3-inch Anti-Glare Full HD (1920x1200) LED Backlight, RAM 8GB DDR4, DVD Super multi (reader/writer), Storage HDD SATA III 1.0TB 7200rpm + 512GB SSD, Video Card - NVIDIA GEFORCE 930MX 2GB, integrated WLAN and Bluetooth V4.0, SD/SDHC/SDXC card reader, FHD-camera, 1xHDMI , 1xUSB 2.0, 2xUSB 3.0, 1xVGA, 1xRJ-45, 1xHeadphone/microphone combo jack, Windows 10 2 year warranty	Unit	3		
1.3	Full HD USB Web Camera for Video Conferencing, Recording & Streaming Full HD 1080p video calling (1920x1080); 720p HD video calling (1280x720) H.264 video compression; 90° field of view Zoom to 4X in 1080p Rightlight 2 technology for clarity in low-light environment Optional Camera Settings application for PTZ control; Glass lens; Autofocus External privacy shutter; 2 omni-directional microphones Hi-speed USB 2.0 (USB 3.0 ready) Tripod-ready universal clip fitting laptops, LCD, or CRT monitors System requirements: Windows 7 or higher; Mac OS X10.7 or higher; Chrome OS 2 GB RAM; Hard drive space for recorded videos One USB 2.0 port; All UVC apps H.264 for Skype for Business 3 year hardware warranty	Unit	3		
1.4	Network Server Chassis Configuration: Rack mount 2 CPU Processor: Intel® Xeon® Gold 5118 2.3G, 12C/24T, 10.4GT/s, 16M Cache, Turbo, HT (105W) DDR4-2400 Trusted Platform Module 2.0 Memory: 64GB (2x32GB 2Rx4 PC4-2666V-RRAID Configuration: RAID 0/1/10/5/50/6/60 support Hard Drive: min3X 1.2TB 10K RPM SAS Power Supply: Dual, Hot-plug, Redundant Power Supply min 2x750W	Unit	1		

	Network Card: min 2 Port 1Gb Eth 1 year warranty				
1.5	Server UPS Output power capacity: 1.4 KWatts / 2.0 kVA Nominal Output Voltage: 230V Nominal Input Voltage: 230V Output Voltage Distortion: Less than 3% Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz user adjustable +/- 0.1 Multi-function LCD status and control console Rack Height: 2U min 3-year warranty	Unit	1		
1.6	Network equipment-1 Layer 3 Smart Managed Gigabit Switch Number of Ports: 24 10/100/1000 Mbps, 4 10G SFP+ Performance: 128 Gbps MAC Address Table : 16,000 entries per device	Unit	1		
1.7	Network equipment-2 SFP module: 10 Gigabit Fiber SFP+ Optical Transceiver Module compatible with Network Server and Network equipment-1 above	Unit	3		
1.8	Network equipment-3 Fiber Optic Patch Cable: LC to LC Patch Cable 10m compatible with 1.6	Unit	2		
Total for Section I in EUR excluding VAT				EUR 00,000	
VAT 20%				EUR 00,000	
Grand Total for Section I in EUR including VAT				EUR 00,000	

Section II. Interactive Flat Panels					
Subject: Equipment for: (A) 6 Technology-enhanced Active Learning Classrooms (ALC)				Price Estimation	
Nº	Description	Unit	Quantity	Unit Price in EUR	Total Price in EUR
2.1	Interactive Flat Panel (Display) with accessories, Wi-Fi & software Diagonal 86"; Resolution: 4K/Ultra HD (3,840 x 2,160 pixels) Brightness: 350 cd/m2; Contrast Ratio: 1,200:1 Screen Type: LCD panel with D-LED backlight & Anti Glare Surface Response Time (Touch): < 8ms; Interactive system: 20 Simultaneous Touch Points Sensor Type: IR; Minimum Object Size: 6 mm Built-in Android computer: Remote Management (MDM), Instant updates (OTA), System Version: Android 7.0 Nougat; CPU: ARM Cortex A73 Dual Core CPU; Android Resolution: 1080p; GPU: Mali 450x5, RAM: 2G, ROM: 16GB; Wi-Fi Enabled; Apps & Android Features: Whiteboard App, Lynx, Snowflake, DisplayNote; Input terminals: 2xHDMI (2.0), 1xVGA, 1xPC-Audio (3.5 mm jack), 1xCVBS, 1xPC Module Slot Output terminals: 1xHDMI Communication terminals: 2xUSB (2.0), 2xUSB (3.0), 1xUSB (Touch), 1xLAN (RJ45), 1xRS232 Built-in 2x10W speakers Heavy-duty wall mount for 55"-86" displays 5m USB 2.0 cable, 5m HDMI M/M connection cable	Unit	6		

	5 year warranty Transportation & insurance costs are included				
Total for Section II in EUR excluding VAT				EUR 00,000	
VAT 20%				EUR 00,000	
Grand Total for Section II in EUR including VAT				EUR 00,000	

Section III. Lecture Capture (Recording) Systems					
Subject: Equipment for: (A) 6 Technology-enhanced Active Learning Classrooms (ALC); (B) 3 Multimedia Lecture Recording (Capture) Studios (MLRS)				Price Estimation	
Nº	Description	Unit	Quantity	Unit Price in EUR	Total Price in EUR
3.1	<p>Auto-Tracking PTZ Full HD Video Camera Motion sensitive & smooth tracking technology Auto-tracking range: up to 10m, Auto-zoom & Auto-focus functions 10x Optical zoom /270° Pan/60° Tilt Full HD (1,920x1,080 @60fps) resolution Viewing Angle Adjustment: ±130°, ±30° Minimum Illumination: 0.5 lux Field of view: 60°(wide)/6°(tele) White balance: Auto/Manual/One Push Image Enhancement: BLC/WDR/2D & 3D noise reduction Video Compression: H.264 Output terminals: 1xRJ-45 (100 Mbps), 1xHDMI, 1xUSB 3.0 Communications terminal: 1xRS-232 Control Protocols: VISCA/Pelco-D/Pelco-P Network Protocol: RTSP, RTMP, ONVIF Tracking effective distance: 2-12m Microphone effective range: up to 12m Buttons: Power/Tracking On-Off; Microphone pairing/mute Built-in rechargeable lithium battery Power Input: Micro-USB 1 year warranty</p>	Unit	3		
3.2	<p>Unified Communications Professional PTZ USB Video Camera Plug & Play design (USB 2.0), Full HD (1,920x1,080 @60fps) resolution Auto Focus PTZ Camera, 18x total zoom (12x Optical Zoom), ±130° Pan, +90°/-25° Tilt Field of view: 70°(wide)/ 6°(tele) Auto Iris; 10 Camera Presets (100 via VISCA) Min illumination: 1lux; 2D & 3D Denoise Backlight compensation, Flip & Mirror Min working distance: 1.5m Compliance & Tools: YUV, MJPEG, H.264 SVC, AVC (high & base profile) Multi-stream capable, USB 2.0, UVC (USB Video Class) 1.1 with H.264 extension, VISCA via RS232 Downloadable diagnostic and Field firmware upgrade tool, App for advanced features & settings Free download on Windows & Mac computers PTZApp (Compatible with Skype Plugin for answering/hanging up via remote control)</p>	Unit	6		

	<p>Firmware automatic/manual upgrade Diagnose operating status; View live video With table/wall/ceiling mount 3 year warranty for camera (1 year - for accessories)</p>				
3.3	<p>Portable Flexible Arm Document Camera (Vizualizer) Full HD (1,920 x1,080@60fps) resolution 200x total zoom (10x Optical zoom +1.25x AV zoom + 16x Digital zoom) Focus: Auto/Manual; Image Rotation: 0°/180° Handy Onboard Annotation Internal Storage: Built-in memory (Max: 240 images) External Storage: SDHC (32GB Max.) One touch Capture/Recording Image effects: Color/B&W/Negative /Mirror / Freeze Image adjustments (White Balance /Exposure): Auto/Manual Presentation tools: Spotlight & Visor Split Screen & Picture-in-Picture (PiP) mode Display Mode: Sharp/Graphic /Motion /Microscope /Macro/Infinity Capture Mode - Single/Continuous; Up to 3 User Profiles Timer & Flicker Filter Control Light Source - Embedded LED Lamp Input terminals: Video: 1xHDMI, 1xVGA; Audio: Mic Output terminals: 1xHDMI, 1xVGA; 1xAudio Communications terminals: 1xUSB 2.0; 1x mini USB 2.0; 1xRS-232 Gooseneck arm 3 year warranty for camera (1 year - for accessories)</p>	Unit	6		
3.4	<p>Presentation HD Recorder and Streamer 2 Full HD Video & Audio Sources Capturing, Mixing, Switching, Recording and Live Streaming 1 Mixed & 2 Individual Video Sources Recording Simultaneous Broadcasting of Mixed Video up to 2 Platforms Built-in Real-Time Assistant: web-based Online Director function to control Recording /Streaming Built-in Video Manager to remotely manage videos stored through web page Embedded Linux OS <u>Storage & Backup</u> Built-in Local Storage: 1TB 2.5" SATA III Locally Stored File Format: MP4 External Storage: via external USB drive Remote Storage: Automatic backup to an FTP or SFTP server after recording is done Third-Party Software Server Compatible with Opencast Media Server <u>Input Connections</u> Input terminals: Video: 2xHDMI; 2xVGA; 2xRJ-45 Audio: HDMI, Mic, Wireless Mic, Line in Video-In Mode: up to 1,920 x1,080/60fps Max. Audio-In channels: HDMI: 2 channels, Wireless Mic: 1 channel, 3.5mm Stereo: 2 channels <u>Video & Audio Processing</u> Compression: H.264 / AVC Bit Rate: 500Kbps~8Mbps Audio Compression: AAC-LC Audio Bit Rate: 80Kbps~320 Kbps</p>	Unit	3		

<p><u>Output Connections</u> Output terminals: Video: 1x HDMI, 1xVGA; Audio: 3.5mm Stereo Line out: 1 channel; HDMI: 1 channel; Video-out Mode: 1,920x1,080/60fps</p> <p><u>Streaming</u> Streaming Input/ Output Protocols: RTSP, RTP, RTMP, UDP/RTP, RTMP (RTMPS), RTSP</p> <p><u>Recording</u> Camera Control: VISCA/PELCO-D / PELCO-P Recording Modes: Mixed mode, 1 Mixed+2 individual original sources Recording Layouts: Multiple layouts for user-defined, incl. full screen/PiP/PbP Automatic/manual bookmark insertion Background/Overlay Images: Multiple user-defined Live Broadcast to CDN or Stream Server, support of RTMP protocol</p> <p><u>Video Information Editing</u> Post Video Info Editing through device's web page Video Info Adding on video file name automatically External Control: RS-232 & Control Buttons Other functions: Play video on any device like a phone, PC, etc. 1 year warranty</p>				
Total for Section III in EUR excluding VAT				EUR 00,000
VAT 20%				EUR 00,000
Grand Total for Section III in EUR including VAT				EUR 00,000

Section IV. Audio Equipment					
Subject: Equipment for: (A) 6 Technology-enhanced Active Learning Classrooms (ALC); (B) 3 Multimedia Lecture Recording (Capture) Studios (MLRS)				Price Estimation	
Nº	Description	Unit	Quantity	Unit Price in EUR	Total Price in EUR
4.1	<p>Audio Studio Kit with Microphone, Audio Interface and Shock Mount Kit includes.</p> <p>1) Cardioid Condenser Microphone: Diaphragm 1.0", Polar pattern, Internal capsule shock mounting, Acoustic Principle -Pressure Gradient, Active Electronics- JFET impedance converter with bipolar output buffer, Frequency Range 20Hz-20kHz, Output Impedance- 100Ω, Maximum SPL 137dB SPL, Maximum Output Level 14mV, Sensitivity 30dB re 1 Volt/Pascal, Self-noise level 5dB-A, Power Options - P24 & P48, Dimensions 190Hx50Wx50D (mm), XLR Output.</p> <p>2) Desktop USB Computer Connectivity Audio Interface: Simultaneous Inp/Out 1x2, Number of Preamps 1, Phantom Power, 24-bit, Sample Rates 45-95 kHz, Analog Inputs – 1 x Neutrik XLR-1/4" combo, Analog Outputs - 2 x 1/4" (impedance balanced) & 1 x 1/4" (headphones), Direct Monitor, 1 x USB Type C, Bus Powered, OS Requirements – Windows, USB bus-powered.</p> <p>3) Shock mount for large diaphragm condenser microphones: Double-Lyre suspension system for maximum isolation, Removable & washable all metal</p>	Unit	3		

	pop filter, clamping system for increased friction & weight handling, built in cable management clip. 4) A collapsible Mini Tripod Stand: for light weight microphone supporting 1/4" mounting, 360 degree rotation & wide angle of vertical adjustment, dimensions - 200H x 180W x 180D (mm). 5) Pop Shield and XLR Cable. min 2-year warranty				
4.2	Digital Wireless Audio System for Presentations & Lectures The kit includes: High quality handheld condenser microphone, Desktop receiver, Lithium-Ion rechargeable battery. Transmission type - Series II 2.4 GHz encrypted digital transmission sent on 2 channels simultaneously, 128-bit encrypted signal, Low handling noise, System dynamic range 118dB, Range up to 50m, Frequency range 35Hz-20kHz, Max output level +18dBu, Max input signal level 140dB SPL, Up to 8 Kits can operate simultaneously, Power via included LB-1 Rechargeable Battery or 2xAA Batteries, Micro USB cable. Desk Receiver: Power source DC Power Pack 15v 1A, External Diversity Antenna, Output connection - Balanced XLR/Unbalanced 1/4" Jack. Microphone Transmitter: One-touch pairing with the receiver, Power source Batteries or USB, Diversity Antenna, Mute switch. min 2-year warranty	Unit	6		
4.3	Over-Ear Professional Studio Monitor Headphone Application: Mixing, tracking, DJ, Personal listening. Closed-back dynamic, Driver Size 40-45mm, Frequency Response 15-28,000Hz, Max Input Power 1,600mW, Sensitivity 98dB, Impedance 38ohms, Ear-cup Swivel: 90° Both Directions, Collapsible. Interchangeable cables: detachable 1.2-3.0m coiled cable, detachable 3.0m straight cable min 1-year warranty	Unit	3		
Total for Section IV in EUR excluding VAT				EUR 00,000	
VAT 20%				EUR 00,000	
Grand Total for Section IV in EUR including VAT				EUR 00,000	

Section V. Other Equipment					
Subject: Equipment for: (A) 6 Technology-enhanced Active Learning Classrooms (ALC); (B) 3 Multimedia Lecture Recording (Capture) Studios (MLRS)				Price Estimation	
Nº	Description	Unit	Quantity	Unit Price in EUR	Total in EUR
5.1	Interactive Classroom Response System Kit The kit includes: 1 teacher remote control keypad, 20 student clickers, 1 wireless receiver, 1 charging case, 1 student response software. Remote Control Keypad. Key Functions: Control the pace of slideshow, Start/Stop voting, Show/Hide Correct Answer. Key Performance: 2.4G RF Technology, 30-50M Reliable Distance, 40Hour Working Time, English character display, 50 Channels.	Unit	6		

	<p>Student Clicker.</p> <p>Key Functions: Choices/Priority Rank/Judge/ Rush Answer, single question/multi-questions answered (10 questions)/Random Call.</p> <p>Key Performance: 2.4G RF Technology, 30-50M Reliabel Distance, > 150Hour Working Hour, 50 Channels.</p> <p>Receiver: 2.4 GHz RF wireless technology, range 30-50 meters, supports up to 50 keypads, can be charged using USB cable or power adapter, compatible with 2.4 GHz keypads.</p> <p>Charging Case: capacity 30 keypads, charging time 3 hours, for keypads with lithium battery.</p> <p>Student Response System Software: Use Word/PPT/Excel/Handwriting input to edit issues, support multiple choice, ranking, voting, rating, supports PPT issue editing, compatible with Win/Mac/iOS/Android, supports Wechat and Multi-language.</p> <p>min 1-year warranty</p>				
5.2	<p>Lighting Kit with Background Support System, Photo Umbrellas & Soft boxes for Professional/Home Video & Photo Studios</p> <p>The kit (set) includes.</p> <p>1) Backgrounds (x3): material 100% Non-woven cotton backdrops, size-1.8mx3.0m, colors-black, white & green.</p> <p>2) Photo Studio Stands for Background (x2): durable & lightweight aluminum cons-truction, 3 sections, centre column and height adjustment, adjustable height: 0.8M-2.5, adjustable width: 1.5m-3.0m, quick release levers for height adjustments.</p> <p>3) Photo Lighting Umbrellas (x2): diameter-83cm, umbrella head 180° adjustable, color-black & white, eliminates glare & spots, Backdrop Support Stand (x2), adjustable height: 0.8-2.0m, consist of 4 cross-bars 3.0m.</p> <p>4) Digital Full Spectrum CFL Light Bulb (x4): Energy saving light bulbs, color temperature- 5500K, 85W- Equals to 400W regular output, Stand screw base E27, about 10000 hours long life, professional light bulb for photography.</p> <p>5) E27 Double Light Holder (x2): 2M cable length, 220V screw in socket for flash or bulb, On/Off switch for the adapter, rotatable bracket with E27 socket.</p> <p>6) Softbox Reflector with Light Holder(x2): size-50x70 cm softboxes for continuous lighting with stands, color-black/silver (out/in), style – spiral, diffuses the light & removes shadow, material-high quality nylon.</p> <p>7) Digital Full Spectrum CFL Light Bulb (x2): Style-spiral, Color Temperature: 5500K day light white, 85W- Equals to 150W regular incandescent light bulb output, 220V, E27 bulb holder.</p> <p>8) Studio Light Stand for Softboxes (x2): Height adjustable: 0.7-2.0 m, solid safety, 3 legs stages, Industrial standard mounting stud.</p> <p>9) Reflector (x1): size 60 cm, sliver/gold.</p> <p>10) Clamps (x3).</p>	Unit	3		

	min 1-year warranty				
5.3	Acoustic Panels Studio Soundproofing Foam Wedge Tiles Used to absorb mid to high range frequencies & diminish echoes, overall noise reduction. Package includes 48 packs Size 30 x 30 x 2.5 cm Color: 24 Black + 24 other color min 1-year warranty	Unit	3		
Total for Section V in EUR excluding VAT				EUR 00,000	
VAT 20%				EUR 00,000	
Grand Total for Section V in EUR including VAT				EUR 00,000	
Grand Total for Sections I-V in EUR including VAT				EUR 000,000	

Part IV – Distribution and Delivery of Goods to Consortium Partners

The equipment purchased within this tender is intended for and to be delivered to the project consortium partner countries and institutions according to the table provided below.

Country	University	(A) Technology-enhanced Active Learning Classrooms (ALC)	(B) Multimedia Lecture Recording (Capture) Studios (MLRS)	(C) Network Server (NS) for Teaching & Learning Portal
Armenia	YSU	3	1	1
	NPUA	2	1	
	VSU	1	1	
Total		6	3	1

Partner Institution	YSU	NPUA	VSU
A. 6 Technology-enhanced Active Learning Classrooms (ALC)			
Interactive Flat Panel (Display) with accessories, Wi-Fi & software	3	2	1
Desktop computer with software	3	2	1
Portable Flexarm Document Camera (Visualizer)	3	2	1
Unified Communications Professional PTZ USB Video Camera	3	2	1
Digital Wireless Audio System for Presentations & Lectures	3	2	1
Interactive Classroom Response System Kit	3	2	1
B. 3 Multimedia Lecture Recording (Capture) Studios (MLRS)			

Auto-Tracking PTZ Video Camera	1	1	1
Ultra HD USB Web Camera for Video Conferencing, Recording & Streaming	1	1	1
Presentation HD recorder and streamer	1	1	1
Notebook (Laptop computer) with software	1	1	1
Lighting kit for Video & Photo Studios	1	1	1
Audio Studio Kit with Microphone, Audio Interface & Shock Mount	1	1	1
Over-Ear Professional Studio Monitor Headphone	1	1	1
Acoustic Panels Studio Soundproofing Foam Wedge Tiles	1	1	1
C. Network Server (NS) for Teaching & Learning Portal			
Network server	1	0	0
Server UPS	1	0	0
Network equipment	1	0	0