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D 5.1. TEACHING/LEARNING ENVIRONMENT

WP5 - DEVELOPMENT OF INFRASTRUCTURES



Co-funded by the
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of the European Union

Deliverable 5.1. Teaching/learning environment

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Approved on behalf of STEPS

Name

Partner

STEPS Management Team

Position

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EXECUTIVE SUMMARY

The equipment will be used to improve the quality of teaching and the level of knowledge delivered, but it will also increase the potential of the scientific staff so that they are able to prepare and publish research articles in international scientific journals and conferences. Laboratories in the partner countries will offer also the opportunity to organise joint programmes with industrial partners or small and medium private sector companies, and national bodies involved in decision-making and the development of policies. Considering the educational content of the STEPS programme in particular, each of the experiments and simulations and training material should include learning outcomes on an experiment/simulation level, a detailed description of the experiment/simulation, guidance and a description of the steps towards the successful implementation of the activity.

1 GUIDELINES

- Fill in the table below (Development of teaching/learning environment) for every piece of ICT equipment
- Equipment have to be new and registered at the HEI inventory,
- Explain the relationship between delivered equipment and MSc program Courses,
- Be sure to attach a photo of the purchased equipment,
- Please provide all documents related to the purchase, delivery, operation and maintenance of the related equipment (scanned PDF file) [GUIDE FOR SUBMISSION OF ALL DOCUMENTS](#)

Supporting documents for the purchase of equipment are:

- ✓ *Invoice(s) and bank statement(s) for all purchased equipment (please note that order forms, pro-forma invoices, quotations or estimates are not considered as proof of expenditure).*
- ✓ *When the threshold of EUR 25.000 is exceeded and below EUR 134.000, documentation on the tendering procedure and three quotations from different suppliers.*
- ✓ *When the threshold of EUR 134.000 is exceeded, documentation on the tendering procedure applied according to national legislation.*
- ✓ *Proof that the equipment is recorded in the inventory of the institution.*
- All the documents related to purchase, delivery, operation and maintenance of the related equipment have to be included in a report.
- VAT is not considered as an eligible project cost.
- All equipment purchased with the Erasmus+ CBHE funds must bear an Erasmus+ sticker to be printed or bought by the beneficiaries,
- The beneficiaries may not split the purchase of equipment into smaller contracts below the threshold.
- Declared costs must be identifiable and verifiable, in particular being recorded in the accounting system of the beneficiary. Furthermore, the equipment must be properly registered in the inventory of the institution concerned.
- The following costs are not considered eligible: equipment such as furniture, motor vehicles of any kind, equipment for research and development purposes, telephones, mobile phones, alarm systems and anti-theft systems.

Please refer the Guidelines for the Use of the Grant-for grants awarded in 2017 under Call EAC/A03/2016 p. 25, 3.2.6.1 Equipment: [Capacity Building in the Field of Higher Education 2017 \(europa.eu\)](#)

2 INTRODUCTION

2.1 *Aims and objectives of STEPS project*

The main objective of the project is the implementation of a modern MSc programme on “Sustainable food production systems”, compliant to the Bologna convention. Food cultures and sociology, agriculture and rural development, food engineering, quality and safety, environmental footprints, economics, management and governance will be combined in a flexible and modular educational programme, designed and developed in the light of the European initiative for the transition to circular economy.

Partner countries HEIs will be supported, in order to help them provide an education aligned to the needs of the labour market and society. Laboratories will be equipped with experimental devices, computers and software. Scientific staff of the HEIs involved in the consortium will have the opportunity to enreach their scientific background and be familiarized with modern educational methodologies and ICT tools, in order to practice student-based approaches, and teaching based on learning outcomes.

2.2 *Purpose of STEPS equipment*

The aim is to build the capacity of laboratories of partner countries HEIs, in terms of:

- ✓ **ICT-centres equipped with computers**, software and relevant infrastructures that will be used for the development/enhancement of teaching/learning environment
- ✓ **Advanced measurement instrumentation** related to food small-scale processing and most importantly, food quality and control
- ✓ **Licenses of advanced software** tools used for analysing processes and supply chain scenarios, in terms of supply chain management, energy consumption and environmental impact, and evaluate the feasibility of basic and alternative scenarios.

The equipment will be used for the improvement of the quality of teaching and the level of knowledge delivered but it will also improve the potentials of the scientific staff to prepare and publish research articles in international scientific journals and conferences. Capacity building of specific type of laboratories in the partner countries will offer also the opportunity to organise joint programme with industrial partners or small and medium private sector companies, national bodies involved in decision making and policies development. The two types of laboratories consist the most up-to-date instruments towards the sustainable development of food production systems in partners countries as well as abroad, offering also the opportunity of the involvement of HEIs in European and international research and development projects.

3 DEVELOPMENT OF TEACHING/LEARNING ENVIRONMENT

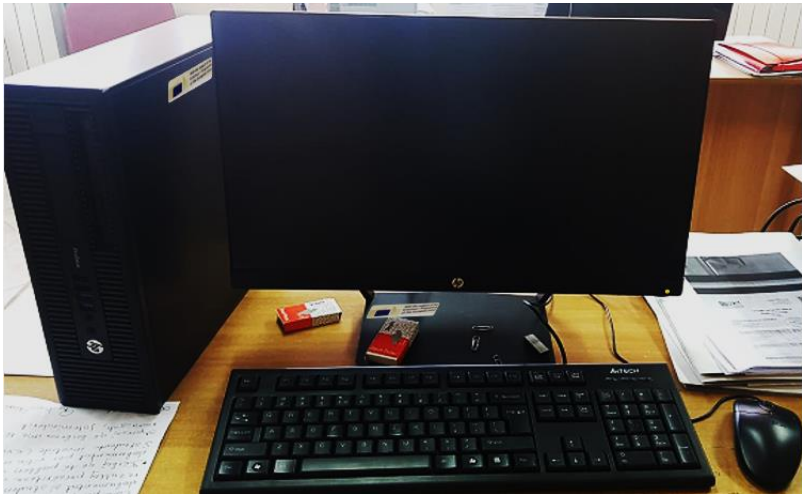
ICT centres will be developed in all partner countries HEIs, in order to develop and enhance the teaching/learning environment and the infrastructures in terms of computer, network devices and related infrastructures as well as educational software tools that will support the quality of teaching practices. Partner countries HEIs will validate the lists of equipment delivered to the Coordinator during the preparation of the proposal and will be responsible for purchasing and installing the equipment in their premises.

All the documents related to purchase, delivery, operation and maintenance of the related equipment will be available to EACEA. The whole set of devices purchased will be described in detail in a report. The report will also contain photos of the ICT centres developed and additional material, description etc. which will be also disseminated by newsletters, press releases, the web-site etc., in order to promote the healthy participation of attendees in the STEPS programme.

4 DEVELOPMENT OF TEACHING / LEARNING ENVIRONMENT IN ALBANIA

4.1 Development of teaching / learning environment at AUT

Partner No Name (University) Country	P1 Agricultural University of Tirana (AUT) Albania
Type of equipment: Laboratory / ICT	ICT
Equipment piece	Desktop PC HP i5-750 Ram 8GB HDD1TB
Specification	Intel Core i5-7500 ,H110,8GB DDR4 2400 MHz,1TB 7200rpm, sata 6.0Gb/s, Intel HD Graphics 630,DVD+/-RW,HDMI,Serial ATA III 6 Gb/s, port, USB 3 ports, USB 4 ports 3.0, Monitor LCD or LED >21 inch, Resolution 1920x1080@60Hz, Diagonal 27, contrast 1000:1, Speaker 2x2W, VGA, HDMIx2, tilt, Free Sync, ZeroFrame, VESA, Mouse & keyboard
Quantity	5
Cost	2.850,93 EUR (vithout VAT) (570.186 per unit)
Purpose linked to the Course to be delivered	To be used for lab equipment conection, softwares, LMS of STEPS to support research, teaching (development of simulations, exercises and preparation of student educational materials, development of thesis, increasing potential for scientific research in the field of food production, analysis and quality control of food (food products), analysis and quality control of agricultural products, raw material of plant origin, animal feed, quality control of animal feed,etc).
Tendering procedure (purchased/not purchased)	Finished
Inventory number	5976 Entrance sheet no. 23, dt. 03/07/2019, Sales tax invoice 439, dt. 03/07/2019

<p>Attach a photo for each Equipment piece if the equipment is purchased.</p>	
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Partner No Name (University) Country	P1 Agricultural University of Tirana (AUT) Albania
Type of equipment: Laboratory / ICT	ICT
Equipment piece	Multifunction Stand alone color copy machine A4 HP
Specification	Functions: Print, Copy, Scan, Fax. Technology: Laser B & W. Format: A4. Print speed: up to 30 pages per minute. Connectivity: USB, WiFi. Monthly cycle: up to >60.000 pages
Quantity	2
Cost	694,14 EUR (vithout VAT) (347.070 per unit)
Purpose linked to the Course to be delivered	To be used for printing, photocopying, scanning ect. to support research, and teaching process for students and teachers (educational materials, tests, thesis, presentations, projects, increasing potential for scientific research in the field of food production, etc).
Tendering procedure (purchased/not purchased)	Finished
Inventory number	5977 Entrance sheet no. 23, dt. 03/07/2019, Sales tax invoice 439, dt. 03/07/2019

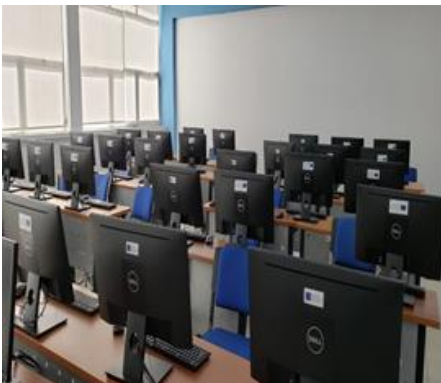

<p>Attach a photo for each Equipment piece if the equipment is purchased.</p>	
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Partner No Name (University) Country	P1 Agricultural University of Tirana (AUT) Albania
Type of equipment: Laboratory / ICT	ICT
Equipment piece	Projector Acer
Specification	DLP or LCD equivalent, 3000 ANSI Lumen XGA 1024x768 4000h standrd remote control yes, powr cord European,
Quantity	2
Cost	991,63 EUR (without VAT) (495.814 per unit)
Purpose linked to the Course to be delivered	To be used for presentations, to support research, and teaching process for students and teachers (educational materials, lectures, thesis, presentations of students projects, course works, works prepared individuali or in groups, animations, simulations, other activities increasing potential for scientific research in the field of food production, etc).
Tendering procedure (purchased/not purchased)	Finished
Inventory number	5978 Entrance sheet no. 23, dt. 03/07/2019, Sales tax invoice 439, dt. 03/07/2019

<p>Attach a photo for each Equipment piece if the equipment is purchased.</p>	
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4.2 Development of teaching / learning environment at EUT


Partner No Name (University) Country	P2 European University of Tirana (EUT) Albania
Type of equipment: Laboratory / ICT	ICT
Equipment piece	Desktop PC Dell Optiplex 5070 MT Dell 22 Monitor – E2216HV
Specification	Dell Optiplex 5070 MT/Core i5-9500/16GB/256GB SDD/Intel UHD 630/DVD RW/Kb/260W/W10Pro Dell 22 Monitor – E2216HV – 54.6 cm(21.5”) Black EUR
Quantity	25
Cost	19.125,00 EUR (without VAT) & 22.950,00 EUR (With VAT)
Purpose linked to the Course to be delivered	PCs are necessary for fully equipping ICT Centre and Laboratory for the purpose of Erasmus+ Steps. This will be utilised by lecturers and students for learning and teaching purposes for the new master in sustainable food production system. In addition, it can be utilised in cooperation with interested stakeholders in food production system in order to develop experiments and practical exercises. This ensures a practical and learning based approach and links to market. This is in line with the goal of the Steps project to offer a flexible and modular programme, but also in response to the market needs, which will be identified in WP1 - need assessment. We are now requesting for 25 PCs given that at least 25 students per HEI will attend the STEPS programme as in project plan.
Tendering procedure (purchased/not purchased)	Purchased

Inventory number	Sales tax invoice 53, dt. 10/02/2020 Entrance sheet no. 9338, dt. 11/02/2020,
Attach a photo for each Equipment piece if the equipment is purchased.	 


Partner No	P2
Name (University)	European University of Tirana (EUT)
Country	Albania
Type of equipment: Laboratory / ICT	ICT
Equipment piece	Firewall / security system
Specification	Cisco Firepower 2110 NGFW Appliance, 1U
Quantity	1
Cost	5.550,00 EUR (without VAT) & 6.660,00 EUR (With VAT)
Purpose linked to the Course to be delivered	In addition to core modules, there will be offered two Groups of modules for students to choose and create their own profiles of specialisation. This is in line with the modular and flexible approach of the new master. Based on UET expertise and our university strategy development 2018-2024, UET seeks to offer students courses in Group II - as stated in application - which are more linked with food production system management rather than engineering. Group II includes: Agri-food marketing; Industrial ecology and circular economy in agriculture; Planning and administration of rural communities development; Sustainable supply chain management; Innovation and entrepreneurship for sustainable food systems. Therefore, we intend to build a robust ICT Centre and Laboratory to assist students and lecturers from P01/AUT due P02/UET in the management aspect of food production system. This is why we are requesting PCs, supportive hardware for PCs, server and security system. The server will be utilised for Learning Management System - LMS, which is currently in use in UET, but will be upgraded to fit the purposes of the new master in sustainable food development and for open source software and others used at the university which are suitable for the new master.
Tendering procedure (purchased/not purchased)	Purchased
Inventory number	Sales tax invoice 53, dt. 10/02/2020 Entrance sheet no. 9338, dt. 11/02/2020,

<p>Attach a photo for each Equipment piece if the equipment is purchased.</p>	
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Partner No Name (University) Country	P2 European University of Tirana (EUT) Albania
Type of equipment: Laboratory / ICT	ICT
Equipment piece	Data Centre / Server for ICT Centres
Specification	Cisco UCS C240 M5 24 SFF 16GB DDR4 240GB 2.5 inch, Windows Server 2019
Quantity	1
Cost	8.050,00 EUR (without VAT) & 9.660,00 Eur (With VAT)
Purpose linked to the Course to be delivered	In addition to core modules, there will be offered two Groups of modules for students to choose and create their own profiles of specialisation. This is in line with the modular and flexible approach of the new master. Based on UET expertise and our university strategy development 2018-2024, UET seeks to offer students courses in Group II - as stated in application - which are more linked with food production system management rather than engineering. Group II includes: Agri-food marketing; Industrial ecology and circular economy in agriculture; Planning and administration of rural communities development; Sustainable supply chain management; Innovation and entrepreneurship for sustainable food systems. Therefore, we intend to build a robust ICT Centre and Laboratory to assist students and lecturers from P01/AUT due P02/UET in the management aspect of food production system. This is why we are requesting PCs, supportive hardware for PCs, server and security system. The server will be utilised for Learning Management System - LMS, which is currently in use in UET, but will be upgraded to fit the purposes of the new master in sustainable food development and for open source software and others used at the university which are suitable for the new master.
Tendering procedure (purchased/not purchased)	Purchased

Inventory number	Sales tax invoice 53, dt. 10/02/2020 Entrance sheet no. 9338, dt. 11/02/2020,
Attach a photo for each Equipment piece if the equipment is purchased.	


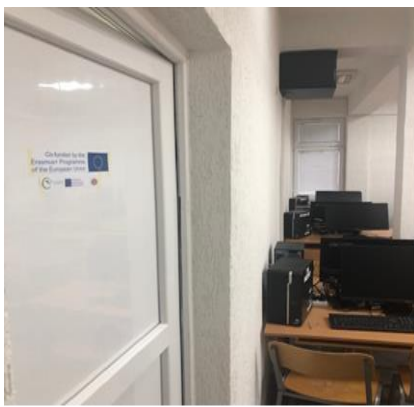


Partner No	P2
Name (University)	European University of Tirana (EUT)
Country	Albania
Type of equipment: Laboratory / ICT	ICT
Equipment piece	UPS for Server
Specification	SmartPro 230V 2.2kVA 1.92kW Line -Interactive Wave UPS
Quantity	1
Cost	535,00 EUR (without VAT) & 642.00 EUR (With VAT)
Purpose linked to the Course to be delivered	In addition to core modules, there will be offered two Groups of modules for students to choose and create their own profiles of specialisation. This is in line with the modular and flexible approach of the new master. Based on UET expertise and our university strategy development 2018-2024, UET seeks to offer students courses in Group II - as stated in application - which are more linked with food production system management rather than engineering. Group II includes: Agri-food marketing; Industrial ecology and circular economy in agriculture; Planning and administration of rural communities development; Sustainable supply chain management; Innovation and entrepreneurship for sustainable food systems. Therefore, we intend to build a robust ICT Centre and Laboratory to assist students and lecturers from P01/AUT due P02/UET in the management aspect of food production system. This is why we are requesting PCs, supportive hardware for PCs, server and security system. The server will be utilised for Learning Management System - LMS, which is currently in use in UET, but will be upgraded to fit the purposes of the new master in sustainable food development and for open source software and others used at the university which are suitable for the new master.
Tendering procedure (purchased/not purchased)	Purchased

Inventory number	Sales tax invoice 53, dt. 10/02/2020 Entrance sheet no. 9338, dt. 11/02/2020,
Attach a photo for each Equipment piece if the equipment is purchased.	

5 DEVELOPMENT OF TEACHING / LEARNING ENVIRONMENT IN KOSOVO

5.1 Development of teaching / learning environment at UHZ

Partner No Name (University) Country	P3 University of Haxhi Zeka (UHZ) Kosovo
Type of equipment: Laboratory / ICT	ICT equipment
Equipment piece	Desktop PC, Network Switch min 8 port, Gigabit, LAN Cable and others.
Specification	<p>PC desktop minimum 8th generation i7 – 8750H with minimum 2.10GHz-4.10Ghz six core, RAM: Minimum 16GB DDR 4, Graphic card: Minimum GTX105-Ti 4096 MB; Memory: minimum 1TB + 128 GB SSD; with integrated CD/DVD-RW-, Interface: SATA; Dual layer drive; compatible with Windows 10; with the possibility to use as: DVD+/-R, DVD+/-RW, DVD-ROM, CD-R, CD-RW, CD-ROM; with the possibility for permanent DATA deletion in the disc; minimum 1 x Display Port, 1 x Mini Display Port, 2 x HDMI, 1 x VGA ; 4 x 3USB 3.0, power cable according to country standards Mouse & keyboard.</p> <p>Monitor for PC computer minimum 27 inch, panel IPS, with minimal resolution 2560 x 1440, minimum: refresh rate 144Hz, and cables to be connected to the desktop accordingly.</p> <p>Accessories for network: Provides 8 10/100/1000Mbps Auto-Negotiation RJ45 ports. All ports support Auto MDI/MDIX function, eliminating the need for crossover cables or Uplink ports. This Switch provides you with a low-cost, easy-to-use, high-performance, seamless and standard upgrade to improve your old network to a 1000Mbps network. It will boost your network performance with up to 2000Mbps full duplex data transfer speed.</p> <p>Accessories for network: Cables and other material needed to establish network as well as setting up the network.</p>

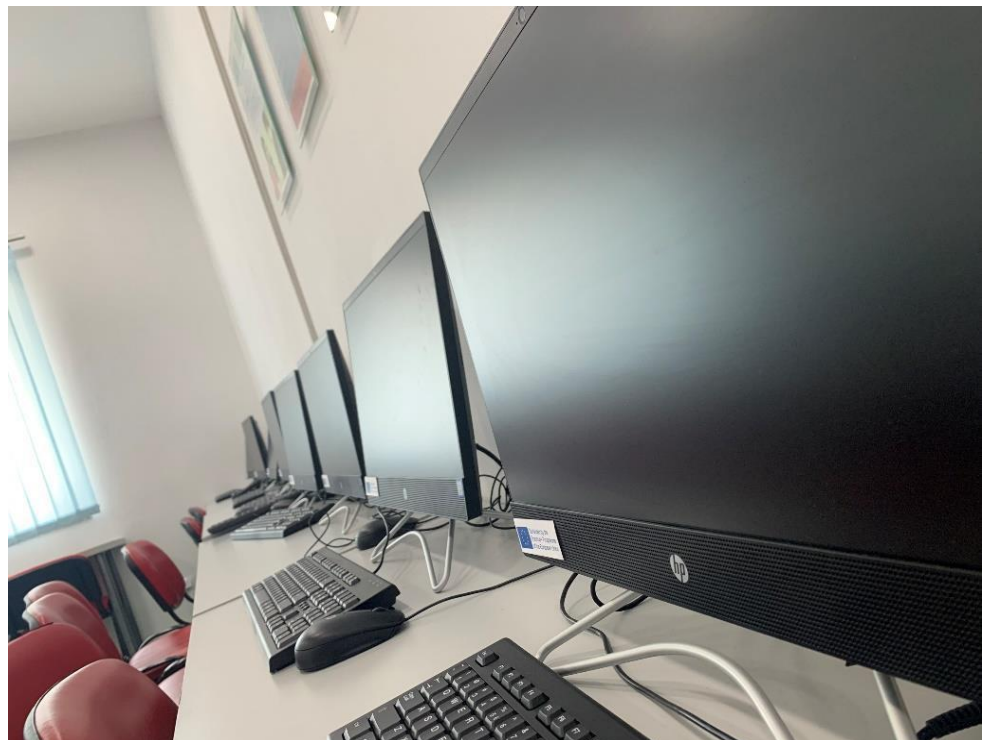
Quantity	10 + 1 + 1
Cost	6.500,00 + 450.00 + 250.00 = 7.200,00 EUR
Purpose linked to the Course to be delivered	Students teaching and learning. Students, teaching and learning, at the II cycle of studies (MSc in Sustainable Food Production Systems / STEPS), for every courses it will be used in the development of laboratory exercises and preparation of student training materials, development of experiments raising existing level of knowledge and improving knowledge quality, increasing potential for scientific research in the field of food production, analysis and quality control of food.
Tendering procedure (purchased/not purchased)	Purchased
Inventory number	20-shv01-001-116 nr. 95001892530, 95001891630, 95001893030, 95001893130, 95001891330, 95001891830, 91300910724, 91300911624, 91300907624, 91300909424, 91300909824, 91300911524, 91300909224, 91300911024, 91300911824, 91300909524, 95001892330, 95001891430, 95001892230.
Attach a photo for each Equipment piece if the equipment is purchased.	   


5.2 Development of teaching / learning environment at UC


Partner No Name (University) Country	P4 Universum College Kosovo
Type of equipment: Laboratory / ICT	ICT
Equipment piece	All in one
Specification	<p>Operating system: Windows 10 Pro 64bit - Licensed</p> <p>Office: Microsoft Office 2016 - Licensed</p> <p>Processor: Intel® Core™ i5-8250U with Intel® UHD Graphics 620 (1.6 GHz base frequency, up to 3.4 GHz with Intel® Turbo Boost Technology, 6 MB cache, 4 cores)</p> <p>Form: All-in-one</p> <p>RAM Memory: 8 GB DDR4-2133 SDRAM</p> <p>HDD: 1 TB 7200 rpm SATA</p> <p>SSD: M.2 SATA 120 GB</p> <p>Optical Drive: SATA DVD-Writer</p> <p>Monitor: 54.61 cm (21.5") diagonal FHD widescreen LCD anti-glare WLED-backlit (1920 x 1080), Webcam: 1 MP, up to 30 fps, HD webcam with integrated dual array digital microphone, maximum resolution of 1280 x 720</p> <p>Ports: x1 HDMI -out, x1 headphone/microphone combo, x1 power connector x1 RJ-45, x2 USB 2.0, x2 USB 3.1 Gen 1 Bottom: 1 3 -in -1 SD card reader</p> <p>Expansion slots: 1 M.2 2230 1 SATA storage connector 1 M.2 2230/2280 (1 M.2 slot for WLAN and 1 M.2 2230/2280 slot for storage.)</p> <p>Mouse Keyboard: Yes, same brand as PC</p> <p>Warranty: 2 Years</p>
Quantity	50
Cost	24.600,00 EUR
Purpose linked to the Course to be delivered	<p>These devices will be used to facilitate learning and increase the effectiveness of the learning process under the Master in Sustainable Food Production Systems program. All in one computers will be placed in classrooms and will be available to students throughout the classes within the study program. They will enable the development of an engaging learning process for students where the lessons offered will be planned in such a way as to require continuous input from students, such as calculations, short presentations, review of other students' work, responds to professors' quick quizzes, and other activities that require digital interaction.</p>
Tendering procedure (purchased/not purchased)	Purchased
Inventory number	(1-50)/1– dt.17/09/2019




Attach a photo for each Equipment piece if the equipment is purchased.



Partner No Name (University) Country	P4 Universum College Kosovo
Type of equipment: Laboratory / ICT	ICT
Equipment piece	Desktop Pc
Specification	Processor: INTEL CORE I5 -9400 2.9G 6C Memory: 8GB DDR4 2666 UDIMM HDDs: 1Tb 7200 Rpm 3.5" + SSD 240 Gb Ports: 8 x USB (min 6 x 3.0) / VGA+HDMI / RJ -45 Gig abit / Lexus card for 7 types Graphic card: 4 GB GDDR5, PCI -E, HDMI, DVI or Display Port Optical: DVD Keyboard and mouse: Mouse and keyboard same brand as PC Warranty: 2 Years
Quantity	18
Cost	7740,00 EUR
Purpose linked to the Course to be delivered	Desktop PCs are destined to be put at the service of professors and supporting staff of the program in college facilities. They will be used for the purpose of preparing classes, managing the program and all developments within its framework, as well as for conducting scientific research work of professors.
Tendering procedure (purchased/not purchased)	Purchased
Inventory number	(1-18)/2– dt.17/09/2019
Attach a photo for each Equipment piece if the equipment is purchased.	


Partner No	P4
Name (University)	Universum College
Country	Kosovo
Type of equipment: Laboratory / ICT	ICT
Equipment piece	Monitor
Specification	Min 21.5" HDMI, VGA 1920x1080 same brand as Desktop PC
Quantity	18
Cost	1800,00 EUR
Purpose linked to the Course to be delivered	Monitors are purchased as complementary devices to Desktop PCs that are destined to be put at the service of professors and supporting staff of the program in college facilities. They will be used for the purpose of preparing classes, managing the program and all developments within its framework, as well as for conducting scientific research work of professors.
Tendering procedure (purchased/not purchased)	Purchased
Inventory number	(1-18)/3– dt.17/09/2019
Attach a photo for each Equipment piece if the equipment is purchased.	


Partner No	P4
Name (University)	Universum College
Country	Kosovo
Type of equipment: Laboratory / ICT	ICT
Equipment piece	Laptop
Specification	Processor: Intel Core I5-8250U (up to 3.4GHz, 6MB) Memory: 4GB Ram DDR4 2133 HDDs: 128G 2.5IN SSD Monitor: 15.6" FHD 1920x1080 LED Optical: DVD Rw Warranty: 2 years
Quantity	6
Cost	2538,00 EUR
Purpose linked to the Course to be delivered	These laptops are intended for use by students in their field work related to research, quality assessments, study visits, etc. They will be used in rotation between different groups of students. Possession and use of these laptops will have a major impact on providing flexibility in combining practical and theoretical learning for students within the program.
Tendering procedure (purchased/not purchased)	Purchased
Inventory number	(1-6)/4– dt.17/09/2019
Attach a photo for each Equipment piece if the equipment is purchased.	

6 DEVELOPMENT OF TEACHING / LEARNING ENVIRONMENT IN BOSNIA AND HERZEGOVINA


6.1 Development of teaching / learning environment at UNBI


Partner No Name (University) Country	P5 University of Bihać (UNBI) Bosnia and Herzegovina
Type of equipment: Laboratory / ICT	ICT equipment
Equipment piece	Computer Configuration, DELL OptiPlex 3070SFF; i3-9100, 8GB, 1TB HDD, MS Windows 10 Pro, Dell keyboard usb, Dell mouse usb
Specification	<p>Installed OS: Windows 10 Pro 64 and MS Office 365, Computer case: Small Form Factor, max. 180W power supply, Processor: Intel Core i3-8100 Processor (6M Cache, 3.6GHz), Memory: 8GB DDR4 2400MHz UDIMM, Installed HDD: 1TB / 7200 rpm, Optical Device: Slim DVD Recordable, Graphics Card: Integrated Graphic Card, Ethernet: Integrated Ethernet, Speaker: Integral Internal Speaker Card Reader: 7 in 1 Card Reader, Interface (mandatory): minimum 6 x USB 3.1 Gen1 full size ports, 4 of which are available directly from the front, minimum 2x USB 2.0 ports, 1 x serial, Option of additional serial and 1 parallel port from the manufacturer, 1 RJ-45, VGA, 2x Display Port, 2x PS / 2 ports, 3.5mm in front for headphone and microphone, on the back of the line-in (3.5mm), line-in (3.5mm) out (3.5mm), microphone (3.5mm).</p> <p>Possibility of simultaneous connection and operation of 3 independent monitors. Connection: USB Keyboard of the same manufacturer as PC Mouse: USB Optical Same Manufacturer as PC Documentation: - BiH / English. Security: Access / Boot Access / Boot Access Control (CD, FDD access / boot control) Individual control of all USB ports via BIOS. The ability to record data on media via the USB port - "Smart USB Disable" Kensington security cable slot, preparation for mechanical lock.</p> <p>Guarantee: guarantee period min. of 3 years provided directly by the manufacturer to submit a statement of the manufacturer and authorized service in Bosnia and Herzegovina with a stock of spare parts in Bosnia and Herzegovina</p>
Quantity	10
Cost	5879,86 EUR
Purpose linked to the Course to be delivered	<p>Purchased ICT equipment will be used for the development of the Food Production Systems Management Lab (ICT-center), which will provide the conditions for scientific staff to develop materials and simulations for student training in the field of sustainable food production systems, and to raise the existing level of knowledge and improvement quality learning environment.</p> <p>Through the provision of all necessary hardware and software for the launch of SimaPro software (SimaPro Faculty), develop and release the "Food Production Systems Management Lab (ICT-center)" at the Biotechnical Faculty of the University of Bihać, which will serve as a student training. ICT-center it will offer an opportunity for the students to design and analyse processes and supply chains and to evaluate the performance of production systems, in terms of energy consumption, and environmental impact.</p> <p>Linked to the Course:</p>


	<ul style="list-style-type: none"> • <i>Fundamentals of sustainable agri food systems</i> • <i>Sustainable Animal Production</i> • <i>Sustainable Plant production</i> • <i>Low input agriculture</i> • <i>Sustainable land management</i>
Tendering procedure (purchased/not purchased)	purchased
Inventory number	30001711; 30001712; 30001713; 30001714; 30001715; 30001716; 30001717; 30001718; 30001719; 30001720
<p>Attach a photo for each Equipment piece if the equipment is purchased.</p>	


Partner No	P5
Name (University)	University of Bihać (UNBI)
Country	Bosnia and Herzegovina
Type of equipment: Laboratory / ICT	ICT equipment
Equipment piece	Monitor DELL Monitor E2418HN
Specification	"21.5" Monitor, same manufacturer as computer (items 1 and 2), IPS, 1920x1080, 250 cd / m2, Contrast 1000: 1, 7ms response time, 4ms (extreme mode), VGA, Display Port, tilt 22 ° back, -5 ° forward, guarantee period min. of 3 years provided directly by the manufacturer.
Quantity	10
Cost	1789,52 EUR
Purpose linked to the Course to be delivered	Purchased ICT equipment will be used for the development of the Food Production Systems Management Lab (ICT-center), which will provide the conditions for scientific staff to develop materials and simulations for student training in the field of sustainable food production systems, and to raise the existing level of knowledge and improvement quality learning environment. Linked to the Course: <i>Fundamentals of sustainable agri food systems, Sustainable Animal Production, Sustainable Plant production, Low input agriculture, Sustainable land management</i>
Tendering procedure (purchased/not purchased)	purchased
Inventory number	30001711; 30001712; 30001713; 30001714; 30001715; 30001716; 30001717; 30001718; 30001719; 30001720
Attach a photo for each Equipment piece if the equipment is purchased.	

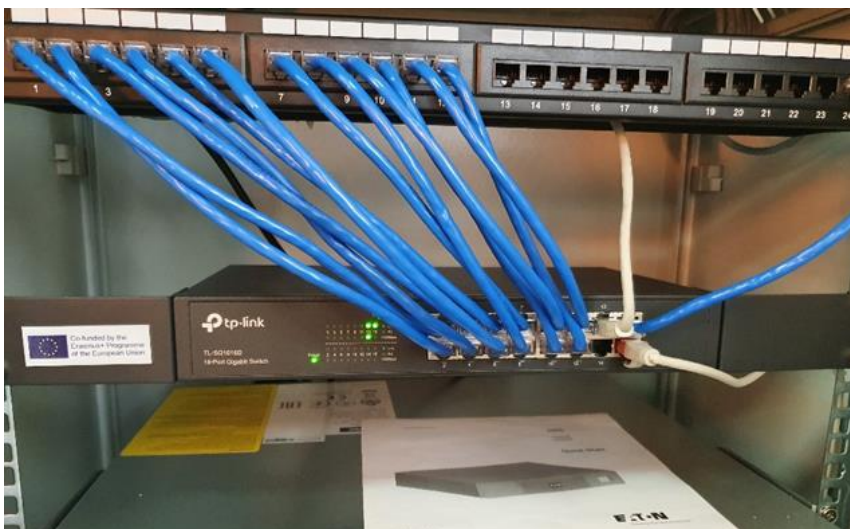
Partner No Name (University) Country	P5 University of Bihać (UNBI) Bosnia and Herzegovina
Type of equipment: Laboratory / ICT	ICT equipment
Equipment piece	SERVER Rack version 1U DELL Server PowerEdge, ram 16GB,2x500GB SSD, Windows server standard 2016
Specification	<p>Device Type 1U rack Server</p> <p>CPU: min. installed 1 x Xeon 4C E3-1240 v6 3.7GHz / 2400MHz / 8MB, expandable to 2 processors</p> <p>RAM: Minimum 16GB, DDR4 Memory PC4 CL15 19200MHz</p> <p>Hot-swap support Hard drives: Up to 8 (2.5 ") hot-swap SAS / SATA or SSD drives, Slim bay for DVD,</p> <p>Installed Hard Drives: Minimum 2 x 300GB 10K 2.5 " SAS 12GBPS G3HS HDD</p> <p>Integrated RAID Controller: RAID-M5210 Server</p> <p>Expansion Slots (I / O): 2 slots on the board: 1 x PCI Express 3.0 x8 (LP), 1 x PCI. The riser slot riser card supports: 1 x PCI Express 3.0 x16 or PCIe 3.0 x8 (FH / FL), 1 x PCI Express 3.0 x8 (FH / FL), 1 x PCI Express 3.0 x8 or ML2 (FH / HL)</p> <p>LAN communication: 2 x 1 GbE (standard panel),</p> <p>Systems Management: Integrated Service Processor, Diagnostics via LEDs (Appropriate Light Signalization on External Front Panel with Independent Power Supply), Automatic Server Restart.</p> <p>System Fault Detection: System Fault Detection: Processors, Memory, VRM, Disks, Power Units and Blowers.</p> <p>Connections: minimum 1xVideo forward, 1xVideo back, 4xRJ-45, 2xUSB forward, 2xUSB back, 1 USB3.0 internal, SD Media Adapter with 2 blank SD Media</p> <p>Hot-swap components: Power units, fans for cooling system, hard drives.</p> <p>Power: Dual and Redundant.</p> <p>Computer case 1U rack, with all the necessary options for installation in a rack cabinet.</p> <p>Guarantee deadline: min. of 36 months, to provide the authorization of the equipment manufacturer and authorized service provider in Bosnia and Herzegovina who has or administers the warehouse of spare parts of the equipment manufacturer.</p>
Quantity	1
Cost	2326,38 EUR
Purpose linked to the Course to be delivered	Purchased ICT equipment will be used for the development of the Food Production Systems Management Lab (ICT-center), which will provide the conditions for scientific staff to develop materials and simulations for student training in the field of sustainable food production systems, and to raise the existing level of knowledge and improvement quality learning environment.


	<p>Through the provision of all necessary hardware and software for the launch of SimaPro software (SimaPro Faculty), develop and release the "Food Production Systems Management Lab (ICT-center)" at the Biotechnical Faculty of the University of Bihac, which will serve as a student training. ICT-center it will offer an opportunity for the students to design and analyse processes and supply chains and to evaluate the performance of production systems, in terms of energy consumption, and environmental impact.</p> <p>Linked to the Course:</p> <ul style="list-style-type: none"> • <i>Fundamentals of sustainable agri food systems</i> • <i>Sustainable Animal Production</i> • <i>Sustainable Plant production</i> • <i>Low input agriculture</i> • <i>Sustainable land management</i>
Tendering procedure (purchased/not purchased)	purchased
Inventory number	30001721
<p>Attach a photo for each Equipment piece if the equipment is purchased.</p>	

Partner No	P5
Name (University)	University of Bihać (UNBI)
Country	Bosnia and Herzegovina
Type of equipment: Laboratory / ICT	ICT equipment
Equipment piece	Laser printer A4 Lexmark
Specification	Device Type: Laser Printer, Technology: Monochromatic Laser Technology (not Electro-photographic LED Technology), Print speed (A4, mono): minimum 33 pages per minute, First page print time: at least 6.5 seconds, Processor: 800 MHz minimum, Installed memory: minimum 128MB, Input paper capacity: minimum 250 sheets, Standard ports: Centronics IEEE 1284 bidirectional parallel interface, Hi-Speed Certified USB 2.0 Specification (Type B), Ethernet 10 / 100BaseTX (RJ-45), with support for 1000Base-T, Printer languages: Emulation of PCL 5e, PCL 6 emulation, Personal data printer stream (PPDS), PostScript 3 Emulation, Direct Image, Microsoft XPS (XML Specification Paper), Other: Energy Star Certified, CD / DVD Driver Included. Warranty Period: 1 year with upgrade option, provided by the manufacturer work equipment and parts, submit the appropriate manufacturer 's own distributor and service that has a spare parts store in Bosnia and Herzegovina
Quantity	1
Cost	112,48 EUR
Purpose linked to the Course to be delivered	Purchased ICT equipment will be used for the development of the Food Production Systems Management Lab (ICT-center), which will provide the conditions for scientific staff to develop materials and simulations for student training in the field of sustainable food production systems, and to raise the existing level of knowledge and improvement quality learning environment. Linked to the Course: <i>Fundamentals of sustainable agri food systems, Sustainable Animal Production, Sustainable Plant production, Low input agriculture, Sustainable land management</i>
Tendering procedure (purchased/not purchased)	purchased
Inventory number	30001722
Attach a photo for each Equipment piece if the equipment is purchased.	


Partner No	P5
Name (University)	University of Bihać (UNBI)
Country	Bosnia and Herzegovina
Type of equipment: Laboratory / ICT	ICT equipment
Equipment piece	Rack UPS 1500VA
Specification	2U Rack or Tower, 1500VA 200-240V AC, In: IEC320 C20 (16A), Out: 8x IEC320 C13 (10A), Valve Regulated Lead Acid (VRLA), 9Ah Batteries, 10/100 Mbps Ethernet Port RJ-45 (on the NMC), Intelligent 5-button graphical LCD, USB, RS-232.
Quantity	1
Cost	664,68 EUR
Purpose linked to the Course to be delivered	Purchased ICT equipment will be used for the development of the Food Production Systems Management Lab (ICT-center), which will provide the conditions for scientific staff to develop materials and simulations for student training in the field of sustainable food production systems, and to raise the existing level of knowledge and improvement quality learning environment. Linked to the Course: <i>Fundamentals of sustainable agri food systems, Sustainable Animal Production, Sustainable Plant production, Low input agriculture, Sustainable land management.</i>
Tendering procedure (purchased/not purchased)	purchased
Inventory number	30001723
Attach a photo for each Equipment piece if the equipment is purchased.	

Partner No	P5
Name (University)	University of Bihać (UNBI)
Country	Bosnia and Herzegovina
Type of equipment: Laboratory / ICT	ICT equipment
Equipment piece	Rack ormar 19" whit patch panel 24 port
Specification	Light gray color (RAL 7035), The sides are detachable and locked, Ventilation holes for passive ventilation, Protection class IP 40, Safety glass door frame, 180 ° opening angle, Rear door with locking capability, Flexible hinges allow easy installation of doors or doors, Load capacity up to 500 kg, Adjustable profile 19 "" profile for depth, front and rear, Large cable entry with rubber circular mechanism on the floor, as a protection against, Cable glands with brushes, Fully earthed, Leveling feet adjustable to the level to level the uneven floors, Roof ventilation module, Incl. Set of 28 × 19 "" mounting screws, Cable routing panel.
Quantity	1
Cost	184,07 EUR
Purpose linked to the Course to be delivered	Purchased ICT equipment will be used for the development of the Food Production Systems Management Lab (ICT-center), which will provide the conditions for scientific staff to develop materials and simulations for student training in the field of sustainable food production systems, and to raise the existing level of knowledge and improvement quality learning environment. Linked to the Course: <i>Fundamentals of sustainable agri food systems, Sustainable Animal Production, Sustainable Plant production, Low input agriculture, Sustainable land management.</i>
Tendering procedure (purchased/not purchased)	purchased
Inventory number	30001724
Attach a photo for each Equipment piece if the equipment is purchased.	



Partner No	P5
Name (University)	University of Bihać (UNBI)
Country	Bosnia and Herzegovina
Type of equipment: Laboratory / ICT	ICT equipment
Equipment piece	Switch TL-SG1016D 16-port 10/100/1000
Specification	SWITCH 16 Ports 16x 10/100/1000 Mbit, Fixed configuration, Desktop, 1U, Internal power supply
Quantity	1
Cost	143,16 EUR
Purpose linked to the Course to be delivered	Purchased ICT equipment will be used for the development of the Food Production Systems Management Lab (ICT-center), which will provide the conditions for scientific staff to develop materials and simulations for student training in the field of sustainable food production systems, and to raise the existing level of knowledge and improvement quality learning environment. Linked to the Course: <i>Fundamentals of sustainable agri food systems, Sustainable Animal Production, Sustainable Plant production, Low input agriculture, Sustainable land management.</i>
Tendering procedure (purchased/not purchased)	purchased
Inventory number	30001725
Attach a photo for each Equipment piece if the equipment is purchased.	

Partner No	P5
Name (University)	University of Bihać (UNBI)
Country	Bosnia and Herzegovina
Type of equipment: Laboratory / ICT	ICT equipment
Equipment piece	White writing board and presentation
Specification	Writing board for offices and conference rooms. Ideal for writing ideas and presentations. The writing board combines functionality, elegant design and quality. It comes with a 30-year warranty. The durable surface allows the text to be clearly visible, that there are no scratches, it is simply clean and long lasting. The writing surface is magnetized, allows the use of magnets to consolidate the presentation or paper sheets directly on the board. Product specification: Height: 1200 mm, Width: 3000 mm, Material: Aluminum, Function: With magnetic function, Weight: 45 kg, Approval: Recycled material
Quantity	1
Cost	143,16 EUR
Purpose linked to the Course to be delivered	Purchased ICT equipment will be used for the development of the Food Production Systems Management Lab (ICT-center), which will provide the conditions for scientific staff to develop materials and simulations for student training in the field of sustainable food production systems, and to raise the existing level of knowledge and improvement quality learning environment. Linked to the Course: <i>Fundamentals of sustainable agri food systems, Sustainable Animal Production, Sustainable Plant production, Low input agriculture, Sustainable land management.</i>
Tendering procedure (purchased/not purchased)	purchased
Inventory number	30001726
Attach a photo for each Equipment piece if the equipment is purchased.	


6.2 Development of teaching / learning environment at UNSA

Partner No Name (University) Country	P6 University of Sarajevo Bosnia and Herzegovina
Type of equipment: Laboratory / ICT	ICT
Equipment piece	MULTIFUNCTION PRINTER (Canon MF 426dw)
Specification	Functions: Print, Copy, Scan, Fax. Technology: Laser. Format: A4. Print speed: up to 38 pages per minute. Connectivity: USB, WiFi. Monthly cycle: up to 80.000 pages
Quantity	1
Cost	426 EUR (833.50 BAM) (without VAT)
Purpose linked to the Course to be delivered	To equipment will be used for printing, photocopying, scanning ect. to support research, and teaching process for students and teachers (educational materials, tests, thesis, presentations, projects, increasing potential for scientific research in the field of food production, etc).
Tendering procedure (purchased/not purchased)	Finished (purchased)
Inventory number	Inventory number: 3658 The bill from 13/03/2020; Contract No: 0101-10264-3/19
Attach a photo for each Equipment piece if the equipment is purchased.	

Partner No	P6
Name (University)	University of Sarajevo
Country	Bosnia and Herzegovina
Type of equipment: Laboratory / ICT	ICT
Equipment piece	Desktop PC with monitor, (PC -Lenovo ThinkcentreM720t, monitor - Lenovo Thinkvision T2224d)
Specification	<p>PC: Min. Intel Core i5-7400 (3.00-3.50GHz Turbo/6MB), B250, Chipset Intel B250 Chipset or equivalent Memory: 8GB inst./32GB max, DDR4-2400, two DIMM sockets Storage: min. 256GB SSD M.2 PCIe, Optical: DVD Burner (DVD±RW), Graphics: Intel HD Graphics 630 Integrated, supports three independent displays or equivalent Audio Integrated, Front ports: Min. 4xUSB 3.1 Gen1, microphone (3.5mm), headphone (3.5mm), 7-in-1 Card Reader, Rear ports: Min. 2xUSB 3.1 Gen1, 2xUSB 2.0, serial (9-pin), Ethernet (RJ-45), VGA, Display Port, HDMI, Rear audio ports: Line-in (3.5mm), line-out (3.5mm), microphone (3.5mm) Connection: Gigabit Ethernet, USB Keyboard & Mouse, of the same manufacturer as a PC SFF or Tower format with 2 x Slots PCIe: 3.0 x16; PCIe 3.0 x1 and 2 x M.2 card slots Power supply: max. 180 watts, autosensing, 85% PSU Kensington safety cable slot. Access control / bootable media (CD, access / boot control) Individual control of all USB ports via bios Boot without keyboard and mouse, Boot control sequences, The ability to block data on media over the usb port, Greenguard certificate, Energy Star 6.1, Windows 10 PRO 64-bit. Warranty: 3-year, manufacturer support in BiH, statement. Monitor: Minimum 21.5" 16:9 FHD LED IPS Backlight (1920x1080), Pixel response time maximum 7ms (4ms extreme), Contrast ratio minimum 1000:1, Viewing angle at 10:1 minimum 178°/178°, Brightness minimum 250cd/m2, Interface min. VGA, DisplayPort, Stand Tilt, Energy Star 7.0, TCO 7.0 TCO Edge 2.0, EPEAT Gold, ULE Gold. must be the same manufacturer as a PC Warranty: 3-year, manufacturer support in BiH, statement.</p>
Quantity	3
Cost	2.643 EUR (5.169 BAM) (without VAT)
Purpose linked to the Course to be delivered	PC will be used for lab equipment connection, softwares, LMS of STEPS to support research, teaching (development of simulations, exercises and preparation of student educational materials, development of thesis, increasing potential for scientific research in the field of food production, analysis and quality control of food (food products), analysis and quality control of agricultural products, raw material of plant origin, animal feed, quality control of animal feed, etc).
Tendering procedure (purchased/not purchased)	Finished (purchased)
Inventory number	Inventory number: PC: 3662, 3663, 3664, Monitors: 3665, 3666, 3667 The bill from 13/03/2020; Contract No: 0101-10264-3/19
Attach a photo for each Equipment piece if the equipment is purchased.	

Partner No Name (University) Country	P6 University of Sarajevo Bosnia and Herzegovina
Type of equipment: Laboratory / ICT	ICT
Equipment piece	Lap top computers - Notebook (Lenovo Legion Y540-15IRH-PGO)
Specification	Min. Intel Core i7-8550U (1.80-4.00GHz Turbo/8MB), SoC, Intel SoC (System on Chip) platform or equivalent Memory 16GB install. / 20GB max / 2400MHz DDR4, dual-channel capable Min. Storage: 1st HDD: 256GB SSD M.2, 2nd HDD: 1TB/5.400 rpm, Display Min. 15.6" FHD (1920x1080), anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, integr. 720p HD WebCamera, Optical. Internal DVD-RW DL, Graphics: min. AMD R17M-M1-70 2GB GDDR5, Ports and connections: Min. Gigabit Ethernet, Wi-Fi 1x1 Ac+Bluetooth 4.1, 2x USB 3.0, 1x USB 3.1 Type-C, HDMI, VGA, RJ-45, Security: Power-on password, hard disk password, supervisor password, security keyhole, optional Active Protection System (APS) Security chip: Min. Firmware TPM 2.0, integrated in chipset Internal battery: min. 2-Cell Battery (30Whr), Optional UltraBay battery Min. 45W AC Adapter EU (3-pin), Windows 10 PRO 64-bit. Warranty: 2-year/1 yr battery, manufacturer support in BiH, statement.
Quantity	3
Cost	3.404 EUR (6.658,50 BAM) (without VAT)
Purpose linked to the Course to be delivered	Lap top computers will be used for lab equipment connection, softwares, LMS of STEPS to support research, teaching (development of simulations, exercises and preparation of student educational materials, development of thesis, increasing potential for scientific research in the field of food production, analysis and quality control of food (food products), analysis and quality control of agricultural products, raw material of plant origin, quality control of animal feed, etc).
Tendering procedure (purchased/not purchased)	Finished (purchased)
Inventory number	Inventory number: 3659, 3660, 3661 The bill from 13/03/2020; Contract No: 0101-10264-3/19
Attach a photo for each Equipment piece if the equipment is purchased.	 

Partner No Name (University) Country	P6 University of Sarajevo Bosnia and Herzegovina
Type of equipment: Laboratory / ICT	ICT
Equipment piece	ArcGIS DESKTOP BASIC PACKAGE with 3x1 Year Term License
Specification	<p>ArcGIS Desktop Basic package: visualizes, analyzes, and manages data, combines 3D, CAD, imagery, and other data on a single map, and connects data with ArcGIS Online and ArcGIS Living Atlas of the World. ArcGIS Desktop Basic includes:</p> <ul style="list-style-type: none"> • ArcGIS Pro Basic • ArcMap and ArcCatalog Basic • ArcGIS Online Creator User Type • Essential Apps Bundle <ul style="list-style-type: none"> ◦ ArcGIS Dashboards, ArcGIS Story Maps, ArcGIS Web AppBuilder, Scene Viewer, ArcGIS Configurable Apps • Field Apps Bundle <ul style="list-style-type: none"> ◦ ArcGIS Workforce, ArcGIS Collector, ArcGIS Survey123 • Office Apps Bundle <ul style="list-style-type: none"> ◦ ArcGIS Maps for Office, ArcGIS Maps for SharePoint • Compatible with add-on apps such as the following: <ul style="list-style-type: none"> ◦ ArcGIS Navigator, ArcGIS Business Analyst, ArcGIS Insights, ArcGIS Drone2Map, and ArcGIS Maps for Adobe Creative Cloud • 100 Service Credits <p>ArcGIS Academic Departmental Agreement – Small package license (5 licensees) – 3 x 1-Year Term License includes: ArcGIS Desktop Advanced with extensions – 5 licenses; ArcGIS Enterprise Advanced with extensions – 5 licenses; ArcGIS Online User Type Creator – 5 named user licenses</p>
Quantity	1
Cost	5.880 EUR (11.500 BAM - tender data) (without VAT)
Purpose linked to the Course to be delivered	<p>ArcGIS Desktop (featuring ArcGIS Pro) is the foundational piece of the ArcGIS platform.</p> <p>GIS professionals can create, analyze, manage, and share geographic information so decision-makers can make intelligent, informed decisions. It allows you to create maps, perform spatial analysis, and manage data.</p> <p>You can import multiple data formats and use powerful analytical tools and workflows to identify spatial patterns, trends, and nonobvious relationships.</p> <p>ArcGIS Desktop Basic provides the tools and environment for map creation and interactive visualization.</p>

	<p>Linked to the courses:</p> <ul style="list-style-type: none"> • <i>Sustainable Land Management</i> • <i>Agriculture and Food Industry Waste Management</i> • <i>Waste and Recycling Technologies in Agriculture</i> • <i>Low Input Agriculture</i> • <i>Sustainable Technology of Dairy Products</i> • <i>Sustainable Technology of Fruit and Vegetable Products</i> • <i>Sustainable Technology of Meat Products</i> • <i>Sustainable Technology of Wine production</i> • <i>Sustainable Technology of Cereal Food</i>
Tendering procedure (purchased/not purchased)	Finished (purchased)
Inventory number	<p>Inventory number: NO</p> <p>The bill No 27-12/20 from: 22/12/2020</p> <p>Contract No: 0101-9944-8/20 from 09/12/2020</p>
Attach a photo for each Equipment piece if the equipment is purchased.	

7 DOCUMENTS RELATED TO THE TENDERS, PURCHASE, DELIVERY, OPERATION AND MAINTENANCE OF THE RELATED EQUIPMENT IN ALL PARTNER COUNTRIES HEIs

1. All the documents related to the tenders, purchase, delivery, operation and maintenance of the related equipment installed at the **AUT** can be found on the *following link*:
<https://drive.google.com/drive/folders/1dZlpeUzw1jaKUqDUhHjxQPsla9MUCd0>
2. All the documents related to the tenders, purchase, delivery, operation and maintenance of the related equipment installed at the **EUT** can be found on the *following link*:
https://drive.google.com/drive/folders/1toxutQehy93BrZ3U7kQicu_42usJfK0V
3. All the documents related to the tenders, purchase, delivery, operation and maintenance of the related equipment installed at the **UNBI** can be found on the *following link*:
<https://drive.google.com/drive/folders/1dV4OsejuaDcErdEaQjqKwyO94haHRqJV>
4. All the documents related to the tenders, purchase, delivery, operation and maintenance of the related equipment installed at the **UNSA** can be found on the *following link*:
<https://drive.google.com/drive/folders/1o8DwvU1U0IngBs0v-ZC-6-Xj7jwtxYS>
5. All the documents related to the tenders, purchase, delivery, operation and maintenance of the related equipment installed at the **UHZ** can be found on the *following link*:
<https://drive.google.com/drive/folders/13He6lOaBoCGC1uGcYFemnmEvgA7WQnyO>
6. All the documents related to the tenders, purchase, delivery, operation and maintenance of the related equipment installed at the **UC** can be found on the *following link*:
<https://drive.google.com/drive/folders/17CEgURZ8mr5dU5oYzm098gZrCDPYyVGT>

8 CONCLUSIONS AND RECOMMENDATIONS

In order to develop teaching/learning environment, in terms of computer, network devices, and modern educational software tools, as well as in terms of capacity building of research laboratories, all institutions (partner countries HEIs) proceeded with the preparation of tendering documentation/ specification lists for initiation for procurement procedure after verification of the submitted list in line with the project application. In addition to this, all partners have previously prepared infrastructure and physical capacities for placement and installation of purchased equipment. With a noticeable delay, partly due to the repeated tendering procedure in some partner higher education institutions, and partly due to the global pandemic caused by COVID-19, all partner universities have successfully completed their tendering procedures for equipment procurement and installation. Completion of activities in task 5.1 Development of teaching/learning environment provided conditions for the development of two types of laboratories ("Food Quality Control Lab" and "Food Production Systems Management Lab"), and for continuing work on the activities 5.2 and 5.3 within WP5. The equipment will be used for the improvement of the quality of teaching and the level of knowledge delivered also improving the potentials of the scientific staff to prepare and publish research articles in international scientific journals and conferences.

Capacity building of specific type of laboratories in the partner countries will also offer the opportunity to organize a joint program with industrial partners or small and medium private sector companies, national bodies involved in decision making and policy development.

After installation of the equipment, it is recommended to proceed with activities in terms of organizing training and small-scale demonstrations by suppliers, so that scientific and technical staff gets acquainted with the functioning of the devices and gain the skills for conducting experiments/simulations and developing training materials (*activity 5.3*)

9 REFERENCES

1. *Guidelines for the Use of the Grant-for grants awarded in 2017 under Call EAC/A03/2016 p. 25, 3.2.6.1 Equipment. available at:*

https://wayback.archive-it.org/12090/20210124190139/https://eacea.ec.europa.eu/sites/eacea-site/files/01guidelines_for_the_special_mobility_strand_version_december_20173rd_call.pdf