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## **KTU - Knowledge Transfer Unit**

From Applied Research and Technology-Entrepreneurial Know-How Exchange to Development of  
Interdisciplinary Curricula Modules

544031-TEMPUS-1-2013-1-AT-TEMPUS-JPHES



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### ***OVERVIEW REPORT ON 1.3 EQUIPMENT Purchase***

**By Christian Friedl, FH JOANNEUM**

**February 2017**



## 1. General remarks

### **Type of equipment to be purchased, challenges and measures:**

According to the application, the KTU office shall be installed with rapid prototyping technology used for the development of 3D models (such as 3D printers) and basic office equipment such as laptops, fax machine, copy machine, projector etc.) in the course of the project.

The equipment purchasing process was a challenge in the KTU project as the “rule of origin” was not established at the time of writing the project application. In addition, the purchasing plan of KTU foresees highly specific and expensive equipment such as rapid prototyping machines (e.g. 3D printers) with a total value of EUR 40.800 for each KTU. Included in this budget are also office equipment (computers, printers etc.) and literature. Lastly, the equipment purchasing process was impacted by the politic and economic crises in the Ukraine, because of financial instability of vendors and banks (pre-financing).

The process already started in February 2014 by informing the PCUs about the new rules of purchase set out by the Tempus guidelines. As each KTU needs to implement a tailored strategy, business and activity plan as well as service portfolio, the equipment requirements differed between all KTUs. This was due to the fact that the installed equipment needs to be linked to the characteristic of the specific university (we have technical universities, business universities, public/private...), their different industry partner’s needs and each KTU’s strategic and operational alignment. As rapid prototyping is a fast developing field, there were many different variants in different price classes available. For all these reasons, a joint tendering procedure was not possible and advisable for all KTUs, as we searched for each KTU best-value-for-money and collected offers from vendors according to every specific equipment requirement.

Therefore – after strategy, plan and portfolio of each KTU has been drafted –, individual equipment requirement lists for each KTU were elaborated and technical specifications to the different items defined. Each equipment lists was reviewed in several feedback loops by the EU partners. One KTU (P8-UBDNBU) focused its KTU services on eye-tracking technology and therefore, the coordinator and the partner obtained approval by the Funding Agency to purchase such an item.

The partners started with an investigation of the market for eligible products (rule of origin) already in 2014. Based on jointly developed tendering documents (package for suppliers including general information, rule of origin, information on VAT, tender assessment criteria, format of response, purchasing contract), a minimum of 3 offers per KTU has been collected from different vendors in order to get a selection of eligible products. Main challenges were that many products did not meet the rule of origin and that a majority of Ukrainian vendors requested full payment in advance which were both no-go criteria for the eligibility of their offers. Full payment in advance would have meant a high risk due to the instable economic situation in Ukraine, which also affects banking institutions. We have been advised by the Ukrainian National Erasmus+ Office to check the vendor’s bank institute beforehand, in order to reduce the risk of losing the pre-payment. A second measure was that only a maximum of 50% will be acceptable a pre-payment amount (Ukrainian vendors do not and are not able to operate without pre-payment. A third measure was that we also searched for European companies which are able to deliver equipment to the Ukraine in cooperation with local companies who are experience to overcome the complicated import procedures.

This high-financial-risk also strongly supported the decision to avoid a joint tendering procedure for all partners (EUR 244.800) and therefore not rely on one vendor, one vendor’s bank etc. Therefore, we decided to split the tendering, informed our EACEA officer and divided the purchasing procedure into 6 parts (per university) to reduce the risk. It proved to be the right decision, as 5 out 6 deliveries worked



well, but one delivery was extremely delayed by the vendor for more than 14 months after receiving 50% of pre-payment – only with legal pressure and weekly correspondence the whole order was fully delivery by the end of the project (Feb. 2017).

Tendering and purchasing procedure: Each university collected min. 3 offers to their specific equipment list. Criteria how to select the winner were set and agreed before the tendering. Each university evaluated the offers according to the criteria in an evaluation grid and informed the coordinator on the result, which double-checked. After that, EACEA was provided with the tendering documentation and the result and an official allowance for purchase was requested as each service contract was exceeding 10.000 Euro. After obtaining the allowance for purchase, the purchasing contract was set up and signed by all parties and the pre-payment done. After receiving the equipment including full documentation (such as delivery note, photos, inventory note, final invoice), the final payment was done.

4 universities (P6-P9) have been delivered by Ruvo12 e.k. as they provided best value for money in 4 tendering procedures, worked with 50% pre-payment and additional added security to the process as they were operating with a German bank account (for the above-mentioned financial risks in Ukraine).

The other 2 universities (P10 & P11) were delivered by LaPietra. The first delivery took place satisfyingly without delays, the second delivery to P11 had a huge delay after the pre-payment was done, because of financial problems of the vendor. Finally, the whole equipment has been delivered.

In addition, to the equipment which was paid with TEMPUS funds, the university purchased and installed additional office equipment such as servers, computers etc. for the KTU offices (as part of their co-financing).

#### **Who will benefit and future maintenance:**

The equipment was installed in the KTUs of the PCUs. Every KTU was permanently installed within the university structure. The KTU business plan and services are based on and tightly linked to the equipment features. In addition, the project partner developed financial sustainability plans to ensure future operation and maintenance of the KTUs and their equipment.

The equipment is used by the KTU staff and is part of the service portfolio offered to internal and external stakeholders. Some of our KTUs' business models include for example the value proposition & revenue stream of renting equipment services together with a trainer to internal or external partners and this is one approach to make the KTUs financially sustainable. The interdisciplinary curricula are also tightly connected to the purchased equipment (courses on 3D printing or eye-tracking) and further support a sustainable exploitation of the equipment.

#### **Documentation of equipment purchase (available for each partner > WP1/1.3 KTUs equipped/):**

- a. Invitation to tender
- b. Received offers and certificate of origin for item > EUR 5.000 (P7: 3D printer Leapfrog CreatrXL, P8: Tobii Eye Tracker, P10: 3D Smartprint UPrint, P11: 3Printer Envision Perfactory MicroEDU)
- c. Selection of winner based on criteria set in equipment purchase template
- d. Authorisation of EACEA to purchase the specific equipment from the chosen vendor
- e. Contract with vendor, invoice and payment receipt
- f. Delivery Note, inventory note, documents and photos of installed equipment with TEMPUS sticker



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## Overview of purchased equipment per KTU:

**P6-ISTU:** 12.01.2016 (invoice)



**RuVo12 e.K.**  
Karlingerstrasse 19  
D-80992 München

**Bill to**  
World University Service Austrian  
Committee (WUS Austria)  
Schmiedgasse 40/3  
**A-8010 Graz**  
UID-Nr.: ATU 42361001

Tel.: +49 (0)89 60032522  
Fax: +49 (0)89 60032523  
[info@ruvo12.de](mailto:info@ruvo12.de)

**Ship to:**  
«International Scientific-Technical University named after Academician Yuri Bugay»

### Quotation №.: R20163001 from 12.01.2016

#	Product name	Price EUR	Q-ty	VAT	Total amount EUR
1	<b>EQUIPMENT SET(ISTU SET) "Knowledge Transfer Unit"</b> Composed of:		1		
1.1	PC Everest (I5-4690 / H81M-R / 8 Gb / 1 Tb / 400W / keyboard Logitech K120 USB OEM Ru/ Mouse Logitech B100 USB Black)	1.015,00	15	-	15.225,00
1.2	Monitor LED LCD Samsung 23.6" S24D300H FHD 2ms, D-Sub, HDMI, TN, Black, 170/160	200,00	15	-	3.000,00
1.3	OfficeStd 2013 RUS OLP NL Acadmic	115,00	15	-	1.725,00
1.4	Headset Plantronics Audio 345	80,00	15	-	1.200,00
1.5	Laptop (Intel E-4005U 4/500 )	800,00	2	-	1.600,00
1.6	Mouse Logitech M185 WL Grey	15,00	2	-	30,00
1.7	MFA A4 HP LI Pro M125nw c WI-Fi	260,00	1	-	260,00
1.8	Acoustic system SVEN Stream R Cherry	90,00	1	-	90,00
1.9	Switch TP-LINK TL-SG1024DE	128,00	1	-	128,00
1.10	AP ASUS EA-AC87 802.11ac, 1800Mbps, 5x1Gb LAN	150,00	1	-	150,00
1.11	Network Filter Belkin Conserve 2.0w	40,00	2	-	80,00
1.12	DVR Lanser II mobile DM- 7204 HVI-S	175,00	1	-	175,00
1.13	Videcam ActiveCam AC-A254HS	69,00	2	-	138,00
1.14	HDD WD 2.5 SATA 3.0 1TB 5400rpm 8Mb Cache Blue	115,00	2	-	230,00
1.15	3D Printer Ultimaker 2 Extended	4.400,00	1	-	4.400,00
1.16	Plastic PLA	75,00	15	-	1125,00
1.17	Plastic ABS	75,00	15	-	1125,00
<b>TOTAL FOR EQUIPMENT SET</b>					<b>30.681,00</b>
<b>PAYMENT CONDITIONS: 50% prepayment. Another 50% during 5 days after receipt of the equipment</b>					
<b>DEIVERY TEMS: 40 days after receiving advance payment</b>					

Director  I.Voryk

**RuVo12 e. K.**  
Sitz der Firma: München  
Inhaber: Igor Voryk  
HRA95595-Amtsgericht München  
EORI-Nr.: DE7808275  
Steuer-Nr.: 148/175/10354  
Ust-ID: DE258635566

**Bankverbindung EUR**  
Commerzbank AG  
IBAN: DE37 7004 0048 07909724 00  
BIC: COBADEFFXXX  
Münchner Bank eG  
IBAN: DE57 7019 0000 0001 9964 52  
BIC: GENODEF1M01

**Bankverbindung USD**  
Commerzbank AG  
IBAN: DE10 7004 0048 07909724 01  
BIC: COBADEFFXXX  
Münchner Bank eG  
IBAN: DE85 7019 0000 8001 9964 52  
BIC: GENODEF1M01



P7-KhAI: 18.11.2015 (invoice)

#	Найменування товару	Вартість, EUR	Кіл-ть	ПДВ	Разом, EUR
1	<b>КОМПЛЕКТ ОБЛАДНАННЯ(Комплект ХАІ) ""Модуль трансферу знань"" в складі:</b>		<b>1</b>		
1.1	ПК Everest (Intel Core i7-4790,8 GB DDR3, 1 TB HDD, GeForce GT730 2 Gb, 460W, MB Socket 1150 H97M-E	909,00	3	--	2.727,00
1.2	Монітор LED LCD Samsung 23.6" S24D391HL FHD 5ms, D-Sub, HDMI, PLS, Headphone, White, 178/178	200,00	4	--	800,00
1.3	Миша Genius XScroll USB Black	7,00	5	--	35,00
1.4	Клавіатура Genius KB-M200 USB	11,00	5	--	55,00
1.5	БФП А4 HP LJ Pro M225dn	373,00	1	--	373,00
1.6	Моторизований екран Acer E100-W01MW	217,00	1	--	217,00
1.7	Проектор Viewsonic PR08520HD	2.050,00	2	--	4.100,00
1.8	Миша Logitech M280 WL Black	34,00	4	--	136,00
1.9	Ноутбук Asus 17.3HD+/Intel i3-5010U/6/1000/DVD/NVD940-2/DOS	950,00	2	--	1.900,00
1.10	Ноутбук Dell 17.3" FHD Touch Intel i5-5200U/8/1000/DVD/NVD845-2/WiFi/BT/W8.1	1408,00	2	--	2.816,00
1.11	Планшет Samsung Galaxy Tab S2 T815 Super AMOLED 9.7" 3Gb/SSD32Gb/BT/WiFi/LTE/Black	796,00	1	--	796,00
1.12	Серверний блок Supermicro SYS-5018D-MTF	1.350,00	1	--	1.350,00
1.13	Магнітна дошка 1500X1000	117,00	1	--	117,00
1.14	Монітор LCD Asus 21.5" VS228DE D-Sub	141,00	1	--	141,00
1.15	Polysom Real Presence Group 300 - 720p (Eagle Eye Acoustic cam)	3.800,00	1	--	3.800,00
1.16	Принтер А3 Epson L1800 Фабрика печати	885,00	1	--	885,00
1.17	3D Printer Leapfrog CreatrXL ( made in Netherlands)	6.400,00	1	--	6.400,00
1.18	3D SCANNER DAVID SLS-2 (made in Germany)	3.752,00	1	--	3.752,00
1.19	Materials for 3D printer (ABS)	38,00	4	--	152,00
1.20	Materials for 3D printer (PLA)	38,00	4	--	152,00
<b>TOTAL FOR EQUIPMENT SET</b>				--	<b>30.704,00</b>



**P8-University of Banking; 15.09.2015**

#	Product name	Price EUR	Q-ty	VAT	Total amount EUR
1	Tobii Eyetracker system	21.734,00	1	--	21.734,00
	Official co-finance from Tobii Company	-5.434,00		--	
2	3D Printer Ultimaker 2 PiEdition	3.600,00	1	--	3.600,00
3	Materials for 3d printer (ABS), kg	45,00	10	--	450,00
4	Materials for 3d printer (PLA), kg	40,00	10	--	400,00
5	Notebook HP ProBook 470 17.3HD+ AG/Intel 13-3120 /4/500/DVD/HD8750-I/BT/WiFi/Lin	615,00	2	--	1.230,00
6	Bags for laptops	30,00	1	--	30,00
7	PC DELL OptiPlex 9020 MiniTower	1.250,00	5	--	6.250,00
8	Mouse and Keyboard	0,00	5	--	In PC incl.
9	Monitor LED LCD Samsung 23.6" S24D590PL FHD 5ms, D-Sub, 2xHDMI, PLS, Headphone, Black, 178/178	275,00	5	--	1.375,00
10	Tablet ASUS TF103C-1B026A 10" IPS Intel i1.83GHz (QC) / 1GB / 16GB / WiFi / BT / 2xCam / Keyb / Android 4.4 / White	300,00	1	--	300,00
11	Tablet ASUS T300FA-FE002H 12.5" Touch Intel 5Y10/4/1000+64SSD/NOODD	1.350,00	1	--	1.350,00
<b>TOTAL</b>				--	<b>31.285,00</b>

**P9-KhNU: 21.03.2016**

#	Product name	Price EUR	Q-ty	VAT	Total amount EUR
1	<b>EQUIPMENT SET (KHNU SET) "Knowledge Transfer Unit"</b> Composed of:		1		
1.1	System Unit Everest (Core i7, 8GB, 1Tb, Win10 Pro, Office Standard, Antivirus, Keyboard, Mouse)	1.050,00	12	--	12.600,00
1.2	Monitor LED LCD Samsung 23.6 FHD 5ms, D-Sub, HDMI, PLS, White	197,00	12	--	2.364,00
1.3	Laptop ASUS Zenbook 13.3 QHD+ AG/Intel i5-5200U/8/256SSD/Intel HD/W10P/Office Standard/Antivirus	1.669,00	5	--	8.345,00
1.4	MFP A4 HP Color LJ Pro M177fw c Wi-Fi	437,00	1	--	437,00
1.5	Set of ink cartridges	297,00	2	--	594,00
1.6	Projector Epson EB-X31 (XGA, 3200 ANSI Lm)	596,00	1	--	596,00
1.7	Lamp Epson ELPLP88	150,00	1	--	150,00
1.8	UPS Back-UPS 500VA, Schuko	90,00	12	--	1.080,00
1.9	Switch HP 1420-24G-2SFP Unmanaged Switch, 24xGE, 2xGE SFP ports L2, LT Warranty	313,00	2	--	626,00
1.10	AP D-Link DAP-2360	123,00	2	--	246,00
1.11	SmartBoard FBM 680V with short-throw projector	3.000,00	1	--	3.000,00
1.12	Bindstream Agent B-25-2 (1020316)	403,00	1	--	403,00
1.13	Laminator PL 1310 Royal Sovereign	242,00	1	--	242,00
1.14	TV-set LED 3D LG 42" with smart and Wi-Fi	807,00	1	--	807,00
1.15	Whiteboard ALU23, 120x180cm.	230,00	3	--	690,00

1.16	Cable DIGITUS 6 UTP, 305m, AWG 23/1, PVC, серый	81,00	1	--	81,00
1.17	Film for laminating lamiMARK A3 100mkn	23,00	3	--	69,00
1.18	Plastic binding combs 21 rings (100 piece)	10,00	20	--	200,00
1.19	3D Printer ZORTRAX M200	2.070,00	1	--	2.070,00
1.20	3D Printer FLASHFORGE CREATOR PRO	2.050,00	1	--	2.050,00
1.21	Plastic PLA	45,00	15	--	675,00
1.22	Plastic ABS	45,00	15	--	675,00

**TOTAL FOR EQUIPMENT SET**      **38.000,00**

**PAYMENT CONDITIONS: 50% prepayment. Another 50% during 5 days after receipt of the equipment**

**DEIVERY TEMS: 40 days after receiving advance payment**



**P10-KSMA:** 20.10.2015

№	Item / Description/ Опис обладнання	Кількість Q-ty	Вартість Price (EUR)
1	3d printer Ultimaker-2 Initial set of materials 5kg ABS + 5 kg PLA	1	3.000,00
2	3d Printer Smartprint UPrint SE 3D Print Pack Startup supply of materials and bases Initial set of materials 5kg ABS Plus +5 kg Support (soluble)	1	25.900,00
3	3d scanner David Laserscanner SLS-2	1	2.700,00
4	Notebook ASUS N551JX (N551JX-CN197T)	3 (1.400 per unit)	4.200,00
5	Projector Vivitek Qumi Q5-Yellow DLP	1	620,00
6	Screen Epson ELPSC21 (V12H002S21)	1	210,00
7	HP LaserJet M127 fw c Wi-Fi, A4, (Printer /Copier /Scanner /Fax)	1	270,00
8	HP Color LaserJet CP1025nw, A4	1	280,00
9	Magnetic board marker	1	100,00
10	Cartridge HP LJ 90A M4555 MFP Black (CE390A)	1	190,00
	Installation service	1	1.000,00
<b>Total/ Сума (EUR)</b>			<b>38.470,00</b>

**P11-DSTU:** 20.10.2015 (invoice):

#	Product name	Price, EUR	Qty	VAT	Total, EUR
1	3d printer EnvisionTEC Perfactory Micro EDU	17500,00	1	-	17500,00
2	3d scanner David Laserscanner SLS-2	2700,00	1	-	2700,00
3	Notebook ASUS N550JK (N550JK-CN008H)	1488,00	5	-	7440,00
4	Projector ASUS P1 (90LJ0010-B0004-AS)	590,00	2	-	1180,00
5	Screen Epson ELPSC21 (V12H002S21)	210,00	2	-	420,00
6	Laser printer HP LaserJet M601dn, A4	1130,00	1	-	1130,00
7	Scanner HP Scan Jet N6350 Network Fltbd	1190,00	1	-	1190,00
8	Notebook ASUS Zenbook UX302LG	1115,00	2	-	2230,00
9	Router Wi-Fi ASUS RT-N18U 3G/4G	90,00	2	-	180,00
10	System ASUS VIVOPC-VM60-G003M	460,00	3	-	1380,00
11	USB-drive 64GB TRANSCEND JetFlash 780 USB3.0	50,00	7	-	350,00
12	Cartridge HP LJ 90A M4555 MFP Black (CE390A)	190,00	2	-	380,00
13	Notebook HP Pavilion 17-f005sr (G7Y05EA)	570,00	8	-	4560,00
<b>TOTAL</b>				-	<b>40640,00</b>