



Co-funded by the Erasmus+ Programme of the European Union

# **Internal Report No. 2**

Zoran Kalinic, University of Kragujevac, Serbia, zkalinic@kg.ac.rs Vladimir Rankovic, University of Kragujevac, Serbia, vladimir.rankovich@gmail.com Mirko Savic, University of Novi Sad, Serbia, mirkosavic69@gmail.com Laslo Seres, University of Novi Sad, Serbia, laslo.seres@ef.uns.ac.rs Vladan Devedzic, University of Belgrade, Serbia, devedzic@gmail.com Zorica Stanimirovic, University of Belgrade, Serbia, zoricast@matf.bg.ac.rs Vesna Jankovic-Milic, University of Nis, Serbia, vesna.jankovic-milic@eknfak.ni.ac.rs Jelena Stankovic, University of Nis, Serbia, jelena.stankovic@eknfak.ni.ac.rs Ronald Hochreiter, WU, Vienna, Austria, Ronald.Hochreiter@wu.ac.at Laura Vana, WU, Vienna, Austria, laura.vana@wu.ac.at Contacts: Rachid Chelouah, EISTI, Cergy, France, rc@eisti.eu Maria Malek, EISTI, Cergy, France, maria.malek@eisti.fr Gianluca Cubadda, University of Rome Tor Vergata, Italy, gianluca.cubadda@uniroma2.it Luca Gnan, University of Rome Tor Vergata, Italy, luca.gnan@uniroma2.it Federica Corrente, University of Rome Tor Vergata, Italy, federica.corrente@uniroma2.it Josep Maria Salanova Grau, CERTH, Thessaloniki, Greece, jose@certh.gr Jason Papathanasiou, CERTH, Thessaloniki, Greece, jason.papathanasiou@gmail.com Jelena Bulatović, SAM, Serbia, jelena.bulatovic@sam.org.rs Danijela Rakić, SAM, Serbia, danijela.rakic@sam.org.rs

Project acronym:	ADA
Project full title:	Advanced Data Analytics in Business
Project No:	598829-EPP-1-2018-1-RS-EPPKA2-CBHE-JP
Funding scheme:	ERASMUS+
Project start date:	November 15, 2018
Project duration:	36 months

Abstract	This report represents integral Internal Report No. 2, i.e. the report of quality control and monitoring of the ADA project, for the period from 15 March 2020 until 15 July 2020 and it is a result of the activity 5.3 Internal Project Control and Monitoring. It consists of the internal quality reports of each project partner as well as an overview of quality
	assessment of study visits realized during reporting period.

Title of document:	Internal Report No. 2
Work package:	WP5: Quality Control and Monitoring
Activity:	5.3 Internal Project Control and Monitoring
Last version date:	15/07/2020
File name:	Internal Report No. 2.pdf
Number of pages:	24
Dissemination level:	Consortium

### VERSIONING AND CONTRIBUTION HISTORY

Version	Date	Revision description	Partner responsible
1.0	15/07/2020	Creation of document	UNIKG

### DISCLAIMER

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



### Contents

Internal Report No. 2 - Summary	1
ANNEXES	3
University of Novi Sad (UNS)	4
University of Belgrade (UB)	7
University of Nis (UNI)	
University of Kragujevac (UNIKG)	
Vienna University of Economics and Business Administration (WU)	
Graduate School in Computer Science and Mathematics Engineering (EISTI)	
University of Rome Tor Vergata (UNITOV)	
Centre for Research and Technology Hellas (CERTH)	21
Serbian Association of Managers (SAM)	23



### **Internal Report No. 2 - Summary**

The Internal Report No. 2 represents a regular report (scheduled by WorkPlan from the Project Application) of quality control and monitoring of ADA project, for the period from 15 March 2020 until 15 July 2020 and it is a result of the activity 5.3 Internal Project Control and Monitoring. Each project partner prepared its own internal report, which are in the Annexes section, so more details about the activities, experienced problems and measures taken by each partner may be found there and here they will not be elaborated in details.

Although ADA project still flows well, COVID-19 pandemia outbreak caused delays and postponements in many activities. The selected professors at all ADA project partners worked on preparation of teaching materials for the study programs and courses developed under ADA project. All international mobilities, scheduled for the reporting period, were cancelled, because of health security reasons and travel restrictions proclaimed by many countries, but ADA project team members communicated and worked online.

First phase of equipment purchase, delayed by COVID-19 crisis, was finished by third Serbian HEI partner-University of Kragujevac (first two already finished purchase in the previous period), leaving only University of Belgrade to finish this activity in the next period. Nevertheless, second phase of equipment procurement (with the money remained after first phase) started in June 2020, and it is expected to be finished in the next reporting period.



Another important issue is the accreditation of new master study programs in advanced data analytics at three Serbian HEI partners, developed under ADA project. Due to the problems caused by COVID-19 crisis, but also some administrative obstacles and long accreditation process in Serbia, none of these institutions finished its accreditation (details and particular reasons may be found in the reports in Annexes section). Forth Serbian HEI partner, University of Kragujevac, is in the final phase of approval of accreditation of its study program (which includes new courses developed under ADA project), and it is expected that the students will be enrolled to these courses during forthcoming school year i.e. in October 2020.



### ANNEXES

### Internal report No. 2

- University of Novi Sad, Serbia
- University of Belgrade, Serbia
- University of Niš, Serbia
- University of Kragujevac, Serbia
- Vienna University of Economics and Business, Austria
- Graduate School in Computer Science and Mathematics Engineering, Cergy, France
- University of Rome Tor Vergata, Italy
- Centre for Research and Technology Hellas, Greece
- Serbian Association of Managers, Serbia







Droject pertner	Liniversity of Nevi Cod (LINC)
Project partner	University of Novi Sad (UNS)
Reporting period	15.03.2020 – 15.07.2020
Description of all activities realised by project partner during reporting period and achieved results:	Distance learning courses were organized in cooperation with UNITOV. Separate report was submitted about this activity.
	UNS has submitted study program for accreditation to National Accreditation Body on June 18 <sup>th</sup> 2020. Before that study program was accepted by University Council. Second public purchase was initiated in order to spend the rest of funds for equipment.
Have you experienced any problems or deviations from the plan and schedule (and which)? (explanations for tasks not fully implemented, critical objectives not fully achieved and/or not being on schedule. Explanation of the impact on other tasks, available resources and the overall planning)	After consultations with Tempus office, stakeholders and EACEA, UNS has changed the structure of the program. The reason is that we want to enable foreign students to be enrolled more easily, because most of them will come to us with 180 ECTS. We have expanded the program and make the master with total of 120 ECTS, lasting two years, instead of previous proposal of 90 ECTS. We have introduced additional courses and increased the number of hours and ECTS for already existing courses. The transformation has been implemented at UNS, while UB and UNI have decided to continue with 90 ECTS program, as planned originally in the project proposal.









Measures undertaken to overcome problems and shortcomings:	-					
Suggestions for other partners and for future period (if any):	_					
Activities planned for the following reporting period:	Waiting for the possibility to organize the rest of study visits after COVID-19 crisis is over. Waiting for the outcome of accreditation procedure.			5		
Estimated degree of realisation of the WP	WP1 Development of a new program in Advance Data Analytics in Business					
activities (from LFM matrix of project proposal) for	Activity	0%- 20%	20%- 40%	40%- 60%	60%- 80%	80%- 100%
which project partner is responsible for (to be filled only by project	1.1 Analysis of best practice and comparative analysis					х
partners leading work package):	1.2 Learning outcomes and competencies					х
	1.3 Program, modules, syllabi of all courses and ECTS					х
	WP6 Management of t			· • • • •		
	Activity	0%- 20%	20%- 40%	40%- 60%	60%- 80%	80%- 100%

















	6.1 Project		
	coordination	Х	
	meetings		
	6.2 Efficient overall	X	
	project management	^	
	6.3 Efficient local	Х	
	project management	^	
	6.4 Interim Report		
	(IR) and Final Report	Х	
	(FR)		
Prepared by:	Mirko Savić		
Date of reporting:	15/07/2020		







Project partner	University of Belgrade (UB)		
Reporting period	15.03.2020 – 15.07.2020		
Description of all activities realised by project partner during reporting period and achieved results:	<ul> <li>WP2.5 Preparation of the courses and teaching material</li> <li>UB has continued to prepare for the new master study program, in terms of modifying some of the intended topics to cover in specific courses. The reason is that some of the topics related to data analysis have become more popular since the conception of the program. UB wants to keep up with the developments in the field and to have them reflected in the related courses.</li> <li>WP2.7 Preparations for accreditation of the new study programs</li> <li>See the next section.</li> </ul>		
Have you experienced any problems or deviations from the plan and schedule (and which)? (explanations for tasks not fully implemented, critical objectives not fully achieved and/or not being on schedule. Explanation of the impact on other tasks, available resources and the overall planning)	Yes. WP2.7 Preparations for accreditation of the new study programs ALL activities that have been planned for this period have been stalled due to the COVID-19 pandemic. The university administration has been largely ineffective. The administrative activities that have been blocking the accreditation of the new study program throughout the last academic year could not be completed. It is only at the end of June 2020 that the university administration has got back to work. WP2.1 Purchase of equipment In addition, the equipment purchase process has been stalled as well. The provider has informed the university that all import of the computer equipment has been		
Image: Wight with the second secon			



















	postponed until the situation with the pandemic is relaxed. This, in turn, has caused a new round of the related administrative procedure. The latest news is that UB will get the equipment from the provider by the end of the Summer 2020.					
Measures undertaken to overcome problems and shortcomings:	Working from home has proved only partially effective. The administration has done part of its job from home, but could not do all of it that way. The UB management has done its best to speed things up, but has not been able to do everything that could have been done had the situation been regular.					
Suggestions for other partners and for future period (if any):	To ask the funding agency for a 1-year extension of the project lifetime, without extra funding, in order to complete the accreditation process.					
Activities planned for the following reporting period:	<ul><li>There is no point in strict planning. At the time of writing this report, the situation with the pandemic in Serbia is getting worse, and all plans are likely to end up as wishful thinking.</li><li>Having said that, the plans are to try to complete the administrative procedures and submit the program for accreditation, as well as to get and install the equipment.</li></ul>			he hor		
Estimated degree of realisation of the WP	WP2 Preparations for implementation of new master program				ter	
activities (from LFM matrix of project proposal) for which project partner is responsible for	Activity	0%- 20%	20%- 40%	40%- 60%	60%- 80%	80%- 100%
	WP2.1 Purchase of equipment				X	
(to be filled only by project partners leading work package):	WP2.2 Organization of workshop in Serbia on teaching methodology in advanced data analytics				x	

















	WP2.3 Preparation				
	of the Guide in	Х			
	methodology				
	WP2.4 Study visits				
	of staff from Serbia		Х		
	to EU				
	WP2.5 Preparation				
	of the courses and				X
	teaching material				
	WP2.6 Preparation	Х			
	of the LLL program	~			
	WP2.7				
	Preparations for				
	accreditation of the			X	
	new study				
	programs				
	WP2.8				
	Development of				x
	the ADA project				
	booklet				
Prepared by:	Vladan Devedžić				
Date of reporting:	15.07.2020				







Project partner	University of Nis (UNI)
Reporting period	15.03.2020 - 15.07.2020
Description of all activities realised by project partner during reporting period and achieved results:	<ul> <li>All necessary equipment for realization of master program was purchased and put to use.</li> <li>Lecturers are working on preparation of teaching material for new master courses, according to syllabi.</li> </ul>
Have you experienced any problems or deviations from the plan and schedule (and which)? (explanations for tasks not fully implemented, critical objectives not fully achieved and/or not being on schedule. Explanation of the impact on other tasks, available resources and the overall planning)	Accreditation procedure has been put on hold at universities. Study programs were approved by the Council of Teachers at faculties and were referred to universities to get approval from the appropriate bodies (Quality Committee, Expert Council and Senate of the university). Afterwards study program can be submitted to the National Accreditation Body (NAT). According to the plan, activity 3.1. Accreditation of the master study program was meant to be realized in the period between October 2019 and the end of March 2020, but due to Covid-19 pandemic and transitions to a new mode of operation at universities, all activities have been postponed.









Measures undertaken to overcome problems and shortcomings:	Any measures to overcome current problems related to accreditation procedure are out of the UNI control due to the uncertainty of the COVID-19 situation. All universities in Serbia, who are project partners, operate by strict government guidelines.						
Suggestions for other partners and for future period (if any):							
Activities planned for the following reporting period:	The materials will Accreditation Body, rig UNI. Having in mind the it is expected that the e in Business master co 2021.	he rece enrolme	er the a nt deve ent of fir	pprova lopmer st gene	l of Ser nt of situ eration a	uation, at ADA	
Estimated degree of realisation of the WP	WP3 Implementation	of the p	orogram	1			
activities (from LFM matrix	Activity	0%- 20%	20%- 40%	40%- 60%	60%- 80%	80%- 100%	
of project proposal) for which project partner is responsible for (to be filled only by project partners leading work package):	3.1 Accreditation of master study program			х			
	3.2 New master program implemented	х					
	3.3 New LLL program implemented	Х					
	3.4 Report on feedback and final analysis	x					
Prepared by:	Vesna Janković-Milić						
Date of reporting:	15.07.2020.						







Project partner	University of Kragujevac (UNIKG)
Reporting period	15.03.2020 – 15.07.2020
Description of all activities realised by project partner during reporting period and achieved results:	Due to COVID-19 crisis, all planned mobilities were postponed until the end of the crisis. In the reporting period, UNIKG team members worked on preparation of teaching materials for new courses developed under ADA project. The accreditation of new master study programs which include new courses developed under ADA project is in the final phase, and we expect that UNIKG i.e. its Faculty of Economics will enroll students to these courses in October 2020. UNIKG also finalized first phase of equipment purchase, which was late, due to COVID-19 crisis. The ordered equipment was delivered and paid for in June 2020, and during the summer it will be installed in the new computer classroom, dedicated primarily to the new data analytics courses. UNIKG representatives also took part in the ongoing second phase of equipment purchase. Finally, as a Leader of WP4 and WP5, UNIKG worked on coordination of work in these two work packages. In the reporting period, UNIKG representatives maintained project website, and also coordinated preparation of Internal Report No. 2.









Have you experienced any problems or deviations from the plan and schedule (and which)? (explanations for tasks not fully implemented, critical objectives not fully achieved and/or not being on schedule. Explanation of the impact on other tasks, available resources and the overall planning)	COVID-19 pandemic caused some problems related to mobility within the project, but UNIKG successfully finished some previously delayed activities, such as equipment purchase and study program accreditation.
Measures undertaken to overcome problems and shortcomings:	-
Suggestions for other partners and for future period (if any):	No
Activities planned for the following reporting period:	Due to COVID-19 problems, it is hard to predict how and what will be possible to do in the next period. UNIKG will use online communication with all project partners. UNIKG will continue to participate in activities related to the second equipment purchasing procedure (remaining money for the Equipment). Finally, UNIKG will continue to coordinate the activities within WP4 and WP5, which it leads, and to maintain project website and LinkedIn profile.













Estimated degree of realisation of the WP activities (from LFM matrix of project proposal) for which project partner is responsible for	WP4 Dissemination a	nd expl	oitation	of proj	ect res	ults
	Activity	0%- 20%	20%- 40%	40%- 60%	60%- 80%	80%- 100%
	4.1 Set-up Dissemination and exploitation plan					Х
(to be filled only by project partners leading work package):	4.2 Design of project visual identity					х
	4.3 Design and setup of project web site					Х
	4.4 Raising awareness for ADA			Х		
	4.5 Final Conference	х				
	WP5 Quality control and monitoring					
	Activity	0%- 20%	20%- 40%	40%- 60%	60%- 80%	80%- 100%
	5.1 Defining plan for project quality control					Х
	5.2 Defining metrics for ADA					х
	5.3 Internal project control and monitoring			х		
	5.4 External evaluation	x				
Prepared by:	Zoran Kalinić					
Date of reporting:	15.07.2020					







Project partner	Vienna University of Economics and Business Administration (WU)
Reporting period	15.03.2020 – 15.07.2020
· · · · ·	15.05.2020 - 15.07.2020
Description of all activities realised by project partner during reporting period and achieved results:	Professors of WU during the reporting period were mainly engaged in preparation of teaching materials for the classes that they should give at courses developed and accredited under ADA project, to students at Serbian partner universities.
Have you experienced any problems or deviations from the plan and schedule (and which)? (explanations for tasks not fully implemented, critical objectives not fully achieved and/or not being on schedule. Explanation of the impact on other tasks, available resources and the overall planning)	COVID19 pandemia caused delay and postponement of many project activities, particularly mobilities.





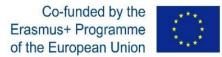




Measures undertaken to overcome problems and shortcomings:	WU representatives worked as much as it was possible under given circumstances, mainly online.							
Suggestions for other partners and for future period (if any):	No							
Activities planned for the following reporting period:	In the next period, WU work on learning mate in Serbia. They will be communication with of Unfortunately, all furth the developments on 0 and EACEA decisions hard to make any strict	rials for focuse ther AD er activ Corona and re	the lec d on or A proje ities str virus o comme	ctures the nline wo ct merr ongly c utbreak ndatior	hey will ork and obers. lepend c and na os, and	give on ational it is		
Estimated degree of realisation of the WP	WP							
activities (from LFM matrix	Activity	0%- 20%	20%- 40%	40%- 60%	60%- 80%	80%- 100%		
of project proposal) for which project partner is								
responsible for (to be filled only by project								
partners leading work								
package):								
Prepared by:	Laura Vana							
Date of reporting:	15/07/2020							







Project partner	Graduate School in Computer Science and Mathematics
	Engineering (EISTI)
Reporting period	15.03.2020 – 15.07.2020
Description of all activities realised by project partner during reporting period and achieved results:	Because of Corona virus outbreak, there were no management meetings and study visits organized in Erasmus+ ADA project. Professors of EISTI in this period worked on preparation of lectures which they should teach at Serbian universities, after new study programs accreditation and enrollment.
Have you experienced any problems or deviations from the plan and schedule (and which)? (explanations for tasks not fully implemented, critical objectives not fully achieved and/or not being on schedule. Explanation of the impact on other tasks, available resources and the overall planning)	Corona virus outbreak caused postponement of study visit of ADA consortium to EISTI, planned for this period. We hope that this visit will be realized after the situation improves.









Measures undertaken to overcome problems and shortcomings:	There was not much to do, as the Corona virus outbreak is global, and many countries closed their borders, so all mobilites are cancelled.						
Suggestions for other partners and for future period (if any):	N/A						
Activities planned for the following reporting period:	For the following peri- continue to work on p students within ADA Corona virus pandem organize postponed v	oreparati project. nia finish	ion of le Also, w ies, we	ectures e hope will be	for Serl that if		
Estimated degree of	WP						
realisation of the WP activities (from LFM matrix of project proposal) for	Activity	0%- 20%	20%- 40%	40%- 60%	60%- 80%	80%- 100%	
which project partner is							
responsible for							
(to be filled only by project partners leading work							
package):							
Prepared by:	Maria Malek						
Date of reporting:	15/07/2020						







Project partner	University of Rome Tor Vergata (UNITOV)
Reporting period	15.03.2020 – 15.07.2020
Description of all activities	13.00.2020 13.01.2020
realised by project partner during reporting period and achieved results:	Selected professors worked setting up syllabi and lectures to prospective students enrolling in new master study programs in Serbia.
	We also gave the opportunity to some Serbian partners to attend classes of the third module of the master in Big Data in Business to have insights on contents and how classes are taught at the University of Rome Tor Vergata.
Have you experienced any problems or deviations from the plan and schedule (and which)? (explanations for tasks not fully implemented, critical objectives not fully achieved and/or not being on schedule. Explanation of the impact on other tasks, available resources and the overall planning)	Because of the health emergency due to the Covid-19 pandemic, we couldn't do much in the reporting period together.





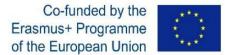




Measures undertaken to overcome problems and shortcomings:	-					
Suggestions for other partners and for future period (if any):	-					
Activities planned for the following reporting period:	Hopefully in the next n to meet again. In the li teaching activities with University of Rome To materials to work on.	ght of t visiting	he pros g profes	pective ssors fr	e upcon om the	ning
Estimated degree of realisation of the WP	WP	-			-	
activities (from LFM matrix of project proposal) for which project partner is	Activity	0%- 20%	20%- 40%	40%- 60%	60%- 80%	80%- 100%
responsible for						
(to be filled only by project partners leading work						
package):						
Prepared by:	Federica Corrente					
Date of reporting:	15/07/2020					







Project partner	Centre for Research and Technology Hellas (CERTH)
Reporting period	15.03.2020 – 15.07.2020
Description of all activities	
realised by project partner during reporting period and achieved results:	Preparation of the teaching material and planning the teaching lessons to be executed by the CERTH participants.
Have you experienced any problems or deviations from the plan and schedule (and which)? (explanations for tasks not fully implemented, critical objectives not fully achieved and/or not being on schedule. Explanation of the impact on other tasks, available resources and the overall planning)	COVID-19 crisis caused postponement of some project activities, particularly mobility i.e. study visits and coordination meetings.



















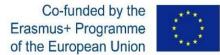




Measures undertaken to overcome problems and shortcomings:	N/A					
Suggestions for other partners and for future period (if any):	N/A					
Activities planned for the following reporting period:	Continue with the p and planning the te CERTH participants	aching les			-	
Estimated degree of	WP					
realisation of the WP activities (from LFM matrix of project proposal) for	Activity	0%- 20%	20%- 40%	40%- 60%	60%- 80%	80%- 100%
which project partner is						
responsible for (to be filled only by project						
partners leading work						
package):						
Prepared by:	Josep Maria Saland	ova Grau	1	1		
Date of reporting:	15/07/2020					







Project partner	Serbian Association of Managers (SAM)
Reporting period	15/03/2020-15/07/2020
Description of all activities	
realised by project partner	Limited Public promotion of the project during pandemic
during reporting period	times.
and achieved results:	
Have you experienced any	Due to pendemia and emorgeney state in Serbia
problems or deviations from the plan and	Due to pandemic and emergency state in Serbia, dissemination of the information of the project among
schedule (and which)?	business audience was limited, due to the public focus
(explanations for tasks not	on health and economic issues.
fully implemented, critical	
objectives not fully	
achieved and/or not being	
on schedule. Explanation	
of the impact on other	
tasks, available resources	
and the overall planning)	
Measures undertaken to	N/A
overcome problems and shortcomings:	
shortcomings.	









Suggestions for other partners and for future period (if any):	None						
Activities planned for the following reporting period:	Additional promotion of the project in coordination with other partners, adjusted to the general state of the country due to pandemic of COVID 19.						
Estimated degree of realisation of the WP activities (from LFM matrix of project proposal) for which project partner is responsible for (to be filled only by project partners leading work package):	WP						
	Activity	0%- 20%	20%- 40%	40%- 60%	60%- 80%	80%- 100%	
Prepared by:	Jelena Bulatovic, SAM						
Date of reporting:	July 15 <sup>th</sup> , 2020						

