Small or medium-scale focused research project (STREP) proposal
ICT Call 5
FP7-ICT-2009-5

Provide Uniform Basic Literacy in Informational and Computing Sector

PUBLICS

Small or medium scale focused research project (STREP)
Date of preparation: 29.12.2017.

Work programme topic addressed
Open schooling and collaboration on science education

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Participant no. *	Participant organisation name	Part. short name	Country
1 (Coordinator)	UNA Corp	UNA	Serbia
2	Faculty of Mathematics, BU	MATF	Serbia
3	University of Belgrade	BU	Serbia
4	University of Novi Sad	UNS	Serbia
5	University of Nis	NI	Serbia
6	University of Kragujevac	KG	Serbia
7	Minstry of Education, Science and Technology	MEST	Serbia
8	Telenor Group	Telenor	Norway
9	ETH Zurich	ETH	Switzerland

Please use the same participant numbering as that used in Proposal submission forms A2

Proposal abstract
With this project we will provide open schooling for vast amount of people from different age, education and socio-economical backgrounds and also give an opportunity for professionals from various universities to collaborate in development and implementation of this project.

Section 1: Scientific and/or technical quality, relevant to the topics addressed by the call

1.1   Concept and objectives

With this project we will provide open schooling for vast amount of people from different age, education and socio-economical backgrounds and also give an opportunity for professionals from various universities to collaborate in development and implementation of this project. The main purpose of this project is to provide basic uniform computer literacy for as many people as possible on territory of Republic of Serbia by 2020, with emphasis on senior population.

We came up with the idea of resolving the enormous issue of generational gap between people born before and after year 1980, when we saw studies provided by Ministry of Education, Science and Technology of Republic of Serbia. Those studies show that people born before year 1980. are mostly uninterested in modern technology and are having difficulties in understanding it. In the world where each day computers make an enormous part of everyday life it is highly important to have a basic computer literacy and with this project we want to provide people with better future.

Although, we are focused on the eldery, we musn't forget young people and children who are living in difficulties and are not able to access the technology in a propper manner. For those sensitive population groups, we would provide small laptops and portable internet (with support of Telenor Group from Norway).

Here, in Serbia, computer literacy is on very low level and it is no wonder, since, even the general literacy is very low (there is about 14% of people without a day of school[1]). We want to change that and make online courses available in Serbian and English.

Main objectives of this proposal are the following:
- to provide computer education for people of all ages, education and socioeconomic backgrounds
- to expand general knowledge on informational and computing sector
- to provide uniformed tests and evaluation of ICT knowledge
- to help older people to get in track with modern technology in order to provide them better lives
- to get younger people interested in technology as early as possible
- to help people whose jobs are not in demand to get educated in Informational and Computing Sector in order to provide them highly demanded jobs
- to help young people, with no access to modern technology

In order to achieve our objectives we would organize various types of workshops and courses depending on people's age and level of knowledge. Those workshops and courses would be held online for younger people (except those without access to technology), and for those who are older, in each big city of Serbia such as : Belgrade, Novi Sad, Nis, Kragujevac, etc. The courses would be held in the University and school buildings by relevant personnel of academia. People attending online courses would be those who have some basic knowledge of computer usage (are able to use the computer and have the access to the internet).

In order to measure our achievements we will provide various types of tests depending on the subject and the progress we want to measure/achieve:
1. uniformed test for all ages on basics of computer literacy (example: turn on/off, using browser, folders, making basic presentations etc.)
2. specific test for people doing different jobs on the computers which require specific set of skills (example: working in Excel, Word, AutoCAD, etc.) - these test might be usefull as a referent model for employers
3. finals for courses we provide to people who want to get into IT sector
4. exams for children who finished our courses

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[1]Information provided by National Register for year 2012.

One of the important indicators of the success of our project is how many people have found a job that requires knowledge we provided them with through the programme. Another important indicator is having a significant amount of people from academia involved and collaborate on this project.

We would also consider the impact, the amount of people we had reached and got interested in IT and modern technology, as highly important factor for our reach and success.

As a good measure of success, we also want to consider how many people passed through our programme. By the end of the project we want to have measurable results, and to have approximately 10% of population who went through the programme. Also, it is important to achieve this result for people of different ages so we have set some reference values that would at the end of the project be used to determine the success of the project. Expected number of people divided in several critical groups are (roughly 10%[2] of total population in that age group) :

- 110.000 of people between 10-24 years old
- 150.000 of people older than 65
- 50.000 people in active search of jobs who want to be trained in IT

Each candidate selected for the training/learning process at the end of the programme will have to pass uniformed test which will be provided by our organisation in collaboration with Ministry of Education, Science and Technology of Serbia.

Since we are limited by time of only 24 months, in first month we should do initial research needed for creating proper courses and making arrangements with people in academia. The next eight months we should work with those professionals from academia in development of 2-4 months long courses. During that time, there should be time for creating good media campaign. The media campaign should start no later than 4 months into the project, since, there should be time (approximately 4 months) left for an application process.

For media campaign we would need at least a month for initial preparation and making contracts with different media subjects. After that month, we would enter into very intensive media campaign to get people to being informed. Soon after the campaign starts (and not more than 15 days later) there would be open calls for people to apply for various programmes. The calls shouldn't be opened for more than 3.5 months, because in the last month there should be an extensive selection process by different criteria.By finishing any of those tests a person is provided with official certification by Ministry of Education, Science and Technology of Serbia, and that certificate is recognized also by other EU countries.

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[2]Data provided by Statistical Office of the Republic of Serbia.

1.2   Relation to the work programme

"At the moment, Europe faces a shortfall in science-knowledgeable people at all levels of society. This is a good time to expand opportunities for science learning, in formal, non-formal and informal settings. Evidence shows that European citizens, young and old, appreciate the importance of science and want to be more informed, and that citizens want more science education. Over 40% believe science and technological innovation can have a positive impact on the environment, health and medical care, and basic infrastructure in the future[2]. Therefore, collaboration between formal, non-formal and informal science education providers, enterprises and civil society should be enhanced to ensure relevant and meaningful engagement of all societal actors with science and increase the uptake of science studies, citizen science initiatives and science-based careers, employability and competitiveness."[3]

With our project we strive to achieve good communication between local academic communities and help them collaborate and become an agent of community well-being. The problem of shortfall in science-knowledgeable people at all levels of society is not happening only in EU countries but, also, in countries striving to become members. This project may help change this. We already know that people want a serious computer-related education and we want to give them exactly that. Hopefully, PUBLICS will help younger people choose scientific or technology-related careers.

This project fits into open schooling and collaboration on science education topic perfectly. With our project we want to provide open education for many people and that educational programme should be made with collaboration between biggest education names of our country.

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[3]Specific Challenge from the topic description:
http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-01-2018-2019.html

1.3   Concept and methodology; quality of the measures

The overall concept of the project is to provide education to sensitive population groups through series of courses and specializations held by staff from academia.

We would like for this project to have a major impact and expand to other developing countries an help them implement similar ideas in order to provide better lives for their people as well.

The main research that will take place during our project is research of the demands of the market, which will help us understand better how to organize courses and how to provide people with all the necessary skills.

The other researches, where the outputs of these will help us carry out the project, are the following:
- research of the population – national, the output will help us understand better population groups and recognize the sensitive categories,
- research of the market – national, part of this research will be provided by the government of the Republic of Serbia, another part will take place during the project, provided by volunteering companies filling the survey forms.

The overall methodology is to carry out this project in various cycles depending on the level of knowledge and goal of our trainees. There will be 2 and 4 months courses and also programmes for those who want to go through a stack of courses which will take up to 12 months.

Our organisation will not take into account gender of the candidates or trainees and it will have no effect on their final results nor will be used in any kind of research.

Table 1.3a: Template - Work package list

Work package list

Work package No[4]	Work package title	Type of activity[5]	Lead partic. no.[6]	Lead partic. short name	Person-months[7]	Start month[8]	End month
WP0	Project management	MGT	1	UNA	10	1	24
WP1	Research of the market	RTD	2,3,4,5, 6, 9	MATF, BU, UNS, NI, KG, ETH	6	1	1
WP2	Making contracts	MGT	1, 2, 3, 4, 5, 6, 7, 8, 9	UNA, MATF, BU, UNS, NI, KG, MEST, Telenor, ETH	9	1	1
WP3	Software creation	RTD	2, 9	MATF, ETH	5	1	4
WP4	Media campaign	DEM	1	UNA	10	1	24
WP5	Courses creation and division	RTD	1, 2, 3, 4, 5, 6, 7, 9	UNA, MATF, BU, UNS, NI, KG, MEST, ETH	50	1	8
WP6	Applications and selection process	MGT	1	UNA	100	4.5	9
WP7	Courses	DEM	2, 3, 4, 5, 6, 7, 8	MATF, BU, UNS, NI, KG, MEST, Telenor	200	9	23

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[4]   Workpackage number: WP 1 – WP n.
[5]   Please indicate <u>one</u> activity per work package: RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium

[6]   Number of the participant leading the work in this work package.
[7]   The total number of person-months allocated to each work package.
[8]   Measured in months from the project start date (month 1).

WP8	Tests and certificates	DEM	1, 2, 3, 4, 5, 6, 7	UNA, MATF, BU, UNS, NI, KG, MEST	70	9	24
WP9	Analyzing results	RTD	1	UNA	5	13	24
	TOTAL						

Table 1.3b: Template - Deliverables List

List of Deliverables

Del. no. [9]	Deliverable name	WP no.	Nature[10]	Dissemi -nation level [11]	Delivery date[12] (proj. month)
D0.0	Project management plan	WP0	R	RE	1
D1.0	Research report on which jobs require more human resources	WP1	R	PU	1
D1.1	Research report on what are the necessary skills for these jobs	WP1	R	PU	1
D1.2	Research report on company preferences in their candidates	WP1	R	PU	1
D2.0	Contract with UNA Corp	WP2	R	PU	1
D2.1	Cooperation agreement signed by all parties involved in the project	WP2	R	PU	1
D3.0	Software documentation	WP3	P	RE	4
D3.1	Platform development	WP3	P	RE	4
D4.0	Media campaign – statement for the press	WP4	D	PU	4
D4.1	Media campaign – TV commercial	WP4	D	PU	4
D4.2	Media campaign – newspaper, buildboards and other types of printed advertising	WP4	D	PU	4
D4.3	Media campaign – internet	WP4	D	PU	4

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[9]   Deliverable numbers in order of delivery dates. Please use the numbering convention <WP number>.<number of deliverable within that WP>. For example, deliverable 4.2 would be the second deliverable from work package 4.

[10]   Please indicate the nature of the deliverable using one of the following codes: **R** = Report, **P** = Prototype, **D** = Demonstrator, **O** = Other

[11]   Please indicate the dissemination level using one of the following codes: **PU** = Public   **PP**   = Restricted to other programme participants (including the Commission Services).   **RE** = Restricted to a group specified by the consortium (including the Commission Services).   **CO** = Confidential, only for members of the consortium (including the Commission Services).

[12]   Measured in months from the project start date (month 1).

	advertising (ex. Google, Facebook, Instagram)				
D4.4	Media campaign – press presence during the opening and closing ceremonies	WP4	D	PU	9/11/15/19/ 23/24
D5.0	Research on technologies and how similar courses are implemented in the developed countries	WP5	R	PU	1
D5.1	Courses developed for basic knowledge	WP5	P	RE	8
D5.2	Courses developed for intermediate level of knowledge	WP5	P	RE	8
D5.3	Courses developed for advanced level of knowledge	WP5	P	RE	8
D5.4	Specialization courses developed	WP5	P	RE	8
D5.5	List of how the courses are divided by cities/schools(if applicable)/professors/age of people attending them	WP5	R	RE	8
D6.0	Report on applicants	WP6	R	RE	9
D6.1	Report on selection criteria	WP6	R	RE	9
D6.2	List of selected candidates	WP6	R	RE	9
D6.3	Final list of future trainees	WP6	R	RE	9
D7.0	List of course attendees	WP7	R	RE	9/11/13/15/ 17/19/21
D7.1	List of people from sensitive groups who received necessary equipment	WP7	R	RE	9/11/13/15/ 17/19/21
D8.0	Report on types of test created and criteria that will be used on evaluating	WP8	R	RE	9/11/13/15/ 17/19/21
D8.1	Report on mid-term test results	WP8	R	RE	11/15/19
D8.1	Report on final test results	WP8	R	RE	11/13/15/1 7/19/21/23
D8.2	Report on progress of trainees between mid-term and final tests	WP8	R	RE	13/17/23
D8.3	List of all trainees who successfully finished the program and are to receive the certificate	WP8	R	PU	11/13/15/1 7/19/21/23
D9.0	Report on success of the program based on metrics	WP9	R	PU	24

Table 1.3c Template - List of milestones

Milestones

Milestone number	Milestone name	Work package(s) involved	Expected date(in month) [13]	Means of verification[14]
M0	Roles	WP0	1	roles given to every person involved, everyone knows their assingments
M1	Initial research	WP1,WP2, WP5	1	contracts made and adequate courses creation arranged
M2	Necesary software creation	WP3	4	software released and validated by a user group
M3	Media campaign prepared and on-going	WP4	4	media campaign prepared for release
M4	Call for application	WP6	4.5	opened calls for application for the programmes
M5	Processing applications and candidates selection	WP6	9	calls are closed, all applications are processed and candidates are selected and informed of their status
M6	Courses prepared	WP5	8	all courses are prepared and ready for release
M7	Courses started	WP7	9	for all selected candidates courses are starting
M8	Mid-course test	WP8	11/15/19	all 4 months long courses are having a mid-course test after 2 months
M9	Final test	WP8	11/13/15/17/19/21/23	final test is being done at the end of the each course
M10	Analyzing test results	WP8, WP9	11/13/15/17/19/21/23	progress on each course is analyzed as well as the overall progress of the project
M11	Making certificates	WP8	24	certificates are being done for each person who successfully went through the programme

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[13] Measured in months from the project start date (month 1).

[14] Show how you will confirm that the milestone has been attained. Refer to indicators if appropriate. For example: a laboratory prototype completed and running flawlessly; software released and validated by a user group; field survey complete and data quality validated.

| M12 | Final success | WP9 | 24 | measuring final success of the project |
| M13 | Course final ceremony | WP10 | 11/15/19/23 | final ceremony held and certificates given |

Table 1.3d: Template - Work package description

Work package description

Work package number	0		Start date or starting event:		1 month		
Work package title	Project management						
Activity type[15]	MGT						
Participant number	1						
Participant short name	UNA						
Person-months per participant	10						

Objectives

To provide the necessary technical coordination of the project and resources management.

To provide cooperation and coordination between institutions involved.

Description of work

Management of human and other resources.

Deliverables

Project management plan (1)

Work package number	1		**Start date or starting event:**		1 month		
Work package title	Research of the market						
Activity type[16]	RTD						
Participant number	2	3	4	5	6	9	
Participant short name	MATF	BU	UNS	NI	KG	ETH	
Person-months per participant	1	1	1	1	1	1	

Objectives

To provide with necessary information which will be used later on course creation.

Description of work

We want to do research of the demand of human resources and skills necessary to obtain the job in the IT industry and use that information later on creation of specialized courses.

Each partner will be provided with an online questionare which they are supposed to expand via their web sites, e-mail contacts and industry partners so that we can get the big picture.

Deliverables

Research report on which jobs require more human resources (1)

Research report on what are the necessary skills for these jobs (1)

Research report on company preferences in their candidates (1)

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[16]   Please indicate <u>one</u> activity per work package: RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Work package number	2			Start date or starting event:			1 month		
Work package title	Making contracts								
Activity type[17]	MGT								
Participant number	1	2	3	4	5	6	7	8	9
Participant short name	UNA	MATF	BU	UNS	NI	KG	MEST	Telenor	ETH
Person-months per participant	1	1	1	1	1	1	1	1	1

Objectives

To provide every partner participant involved with a contract.

Description of work

We want for each party involved to have an adequate contract based on their role in the project as well as the cooperation contract between all involved parties.

Deliverables

Individual contracts signed between UNA Corp and all other parties involved (1)

Cooperation agreement signed by all parties involved in the project (1)

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[17] Please indicate <u>one</u> activity per work package: RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Work package number	3		Start date or starting event:		1 month		
Work package title	Software development						
Activity type[18]	RTD						
Participant number	2	9					
Participant short name	MATF	ETH					
Person-months per participant	4	1					

Objectives

To provide the necessary software for online and offline courses, tests and storage for data collected during the project.

Description of work

Firstly, programmers team from MATF should consult with their colleagues from ETH who had an opportunity to work on similar projects in order to get the necessary information about technologies and other relevant information, help, etc. Then they should proceed with the work and create the software in no more than 4 months.

Deliverables

Software documentation (4)

Platform development (4)

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[18] Please indicate <u>one</u> activity per work package: RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Work package number	4		Start date or starting event:		1 month		
Work package title	Media campaign						
Activity type[19]	DEM						
Participant number	1						
Participant short name	UNA						
Person-months per participant	10						

Objectives

To create adequate media campaign and provide press staff with acreditation so they can attend opening and closing ceremonies.

Description of work

UNA will organize the whole campaign with their media team.

Tasks:

- To create a logo
- To create a press statement
- To create at least 3 different TV commercials
- To design and print ads for printed media
- To provide good internet advertising
- To create profiles on Facebook, Instagram and Twitter

Deliverables

Press statement (4)

TV commercial (4)

All the types of printed advertising: newspaper, buildboards, pamphlets and other (4)

Internet advertising (ex. Google, Facebook, Instagram) (4)

Press pass cards for opening and closing ceremonies (9)

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[19] Please indicate <u>one</u> activity per work package: RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Work package number	5		Start date or starting event:			1 month			
Work package title	Courses creation and division								
Activity type[20]	RTD								
Participant number	1	2	3	4	5	6	7	9	
Participant short name	UNA	MATF	BU	UNS	NI	KG	MEST	ETH	
Person-months per participant	1	5	5	5	5	5	23	1	

Objectives

The main objective of this work package is to have various types of courses ready for lecturing.

The other important objective is to give all created courses to corresponding lecturer and group of attendees.

Description of work

Course creation will be based on reasearch information obtained during this WP and those obtained in WP1 and help of corresponding personnel of ETH.

There will be three types of courses created based on level of knowledge of participants:

- basic
- intermediate
- advanced

Those will be further divided by topics, technologies and more.

After all the courses are ready they should be divided onto different cities, schools, professors and others who will be holding it.

Deliverables

Research on technologies and how similar courses are implemented in the developed countries (1)

Courses developed for basic knowledge (8)

Courses developed for intermediate level of knowledge (8)

Courses developed for advanced level of knowledge (8)

Specialization courses developed (8)

List of how the courses are divided by cities/schools(if applicable)/professors/age of people attending them

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[20]   Please indicate <u>one</u> activity per work package: RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Work package number	6		**Start date or starting event:**		4.5 month		
Work package title	Applications and selection process						
Activity type[21]	MGT						
Participant number	1						
Participant short name	UNA						
Person-months per participant	100						

Objectives

To gather applications for courses.

To carry out selection process.

To inform candidates on their status.

Description of work

The information about applicants should be collected, sorted and divided into categories.

After the application process is over, the gathered information should be processed and selection process is to be done.

Later on, candidates who passed the application process successfully should be informed about starting dates for their courses, location and other relevant information, while the others, should be informed that they have not passed the application process.

Deliverables

Report on applicants (9)

Report on selection criteria (9)

List of selected candidates (9)

Final list of future trainees (9)

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[21]   Please indicate <u>one</u> activity per work package: RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

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Work package number	7			Start date or starting event:			9 month		
Work package title	Courses								
Activity type[22]	DEM								
Participant number	2	3	4	5	6	7	8		
Participant short name	MATF	BU	UNS	NI	KG	MEST	Telenor		
Person-months per participant	20	30	30	20	20	75	5		

Objectives

Main objective is to successfully hold courses for the trainees.

To provide trainees with necessary equipment.

Description of work

Each participant should hold the course they were chosen to trainees from the list they are provided. Telenor will provide equipment for those who are on special lists for that kind of help.

Deliverables (brief description) and month of delivery

List of course attendees (9/11/13/15/17/19/21)

List of people from sensitive groups who received necessary equipment (9/11/13/15/17/19/21)

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[22]   Please indicate one activity per work package: RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Work package number	8		Start date or starting event:			9 month		
Work package title	Tests and certificates							
Activity type[23]	DEM							
Participant number	1	2	3	4	5	6	7		
Participant short name	UNA	MATF	BU	UNS	NI	KG	MEST		
Person-months per participant	1	9	10	10	5	5	30		

Objectives

To make good criteria for the evaluation process.

To collect reports on results

To track progress of trainees

To make a list of successfully finished trainees.

Description of work

Every party involved should track success of their trainees and send that information to UNA so it can be analyzed.

Deliverables

Report on types of test created and criteria that will be used on evaluating (9)

Report on mid-term test results (11/15/19)

Report on final test results (11/13/15/17/19/21/23)

Report on progress of trainees between mid-term and final tests (11/13/15/17/19/21/23)

List of all trainees who had successfully finished the program and are to receive the certificate (11/13/15/17/19/21/23)

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[23]   Please indicate one activity per work package: RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Work package number	9	**Start date or starting event:**	24 month			
Work package title	Analyzing results					
Activity type[24]	RTD					
Participant number	1					
Participant short name	UNA					
Person-months per participant	5					

Objectives

To compare results.

To measure success of the project.

To analyze data.

Description of work (possibly broken down into tasks) and role of partners

The work consists of comparing the results and measuring success of the project based on different criteria.

Deliverables (brief description) and month of delivery

Report on success of the program based on metrics (24)

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[24] Please indicate <u>one</u> activity per work package: RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Table 1.3e   Summary of effort

Summary of effort

Partic. no.	Partic. short name	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	WP9	Total person months
1	UNA	10	0	1	0	10	1	100	0	1	5	128
2	MATF	0	1	1	4	0	5	0	20	9	0	40
3	BU	0	1	1	0	0	5	0	30	10	0	47
4	UNS	0	1	1	0	0	5	0	30	10	0	47
5	NI	0	1	1	0	0	5	0	20	5	0	32
6	KG	0	1	1	0	0	5	0	20	5	0	32
7	MEST	0	0	1	0	0	23	0	75	30	0	129
8	Telenor	0	0	1	0	0	0	0	5	0	0	6
9	ETH	0	1	1	1	0	1	0	0	0	0	4
Total	9	10	6	9	5	10	50	100	200	70	5	465

Section 2.   Implementation

2.1   Management structure and procedures

 The structure of the organisation should be a hierarchy where at the top will be a main board consisting of one responsible person from each participant. Decision-making is done by board voting.

All the tasks between the parties involved are to be divided by UNA, since, they are coordinating the programme. The individual tasks can be disscused between the board members.

2.2   Individual participants

UNA Corp

UNA Corp is company from Belgrade, Serbia founded in 2013. by graduates from School of Mathematics, School of Organisational Sciences and School of Electrical Engeering. The main field of their activity is organization and management of different types of events, teams and making specialized computer programs. They have successfully organized the events such as Noc Istrazivaca, Festival Nauke, IT Fair, for 4 years in a row, made programs for different types of institutions such as Belgrade University, Institution for Public Health, etc..

The main role of this company is to lead the project and all the participants from the beginning until the final stages.

The main role of all universities is to do the research, create, lecture and evaluate courses.

University of Belgrade

The mission of the University of Belgrade is to provide superior education and exceptional knowledge to its students, not only in terms of their intellectual growth and development, but also in terms of growth and development of their human qualities and ethical values, and inspiring their wish and inclination to be leaders; moving the boundaries of knowledge and higher education, promoting intellectual surroundings which cherishes and honors true values, respect and accepting people's differences and devotion to knowledge, development and human values. Devoted to studying, education, progress and prosperity, the University of Belgrade strives to set the strongest standards in higher education, to cherish and encourage intellectual and personal growth and to stimulate meaningful work and effort which serve to the well-being of the entire society.

University of Novi Sad

The University of Novi Sad, with more than 50,000 students and 5,000 employees, is one of the largest educational and research centers in Central Europe. It belongs to the group of comprehensive universities, which are characterized by providing nearly all fields of science and higher education.
The University of Novi Sad offers around 400 accredited study programs at the level of Bachelor, Master, Specialist and Doctoral studies, carried out at its Faculties and within its Centers for Interdisciplinary and Multidisciplinary Studies. The study programs are modern and up-to-date with the latest developments in science and research. Along with the Faculties and Centers, two Scientific Institutes have a significant role in creating a solid scientific base for the process of continuous modernization of the educational offer.

University of Nis

UNIVERSITY OF NIS MISSION: integration into the European higher education area in accordance with the highest quality standards of education, research and professional work.

UNIVERSITY OF NIS VISION: a modern and recognizable Serbian and European university that is comparable to foreign higher education institutions of the highest rank in terms of quality of study programs, teaching activities, research and professional work.

University of Kragujevac

The University of Kragujevac in 2020 is a generator and driver of innovations in the field of education and research which through the internationalization encourages the synergy of all University members, giving the strong contribution to the strengthening and improvement of University's reputation in the country and abroad.0 is a partner recognized by international higher education and research institutions, with highest academic standards which provides students, teachers and researchers with the opportunity to acquire general, scientific and artistic knowledge and skills in compliance with the academic standards which provides students, teachers and researchers with the opportunity to acquire general, scientific and artistic knowledge and skills in compliance with the needs of the society and planned regional and national development that through scientific and creative process provides the advancement of society at large.

Ministry of Education, Science and Technological Development

The Ministry of Education, Science and Technological Development of the Republic of Serbia is the ministry in the Government of Serbia which is in the charge of person in charge of education, science and technological development.needs of the society and planned regional and national development that through scientific and creative process provides the advancement of society at large.

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Ministry of Education, Science and Technological Development

The Ministry of Education, Science and Technological Development of the Republic of Serbia is the ministry in the Government of Serbia which is in the charge of person in charge of education, science and technological development.

Telenor

Telenor Group is a Norwegian mostly government-owned multinational telecommunications company headquartered at Fornebu in Bærum, close to Oslo. It is one of the world's largest mobile telecommunications companies with operations in Scandinavia, Eastern Europeand Asia. It has extensive broadband and TV distribution operations in four Nordic countries, and a 10-year-old research and business line for Machine-to-Machine technology. Telenor owns networks in 13 countries, and has operations in 29 countries (including their 14.6% ownership of Veon).

ETH

Freedom and individual responsibility, entrepreneurial spirit and open-mindedness: ETH Zurich stands on a bedrock of true Swiss values. Our university for science and technology dates back to the year 1855, when the founders of modern-day Switzerland created it as a centre of innovation and knowledge.

At ETH Zurich, students discover an ideal environment for independent thinking, researchers a climate which inspires top performance. Situated in the heart of Europe, yet forging connections all over the world, ETH Zurich is pioneering effective solutions to the global challenges of today and tomorrow.

All the description were taken from official websites.

2.3   Consortium as a whole

Consortium consists of universities and companies that are renown for the best staff in their fields. Each and every one of the members are highly qualified and have all the necessary knowledge and skills needed for successful realization of this project. They have achieved numerous prizes and done vast amount of projects during their career and have the experience which is critical for comprehension of the potential problems and provision of solutions to them. They are all extremely opened for collaboration which gives the good chance for success of the project.

2.4   Resources to be committed

Major points for spending:

- Marketing campaign

- Materials for courses

- Compensation for the participants

- Travel and alocation costs

- Compensation for best trainees

- Office equipment

Section 3.   Impact

3.1   Expected impacts listed in the work programme

The expected impact of the project is to have approximately 10% of population of certain groups to undergo the programme. Now, we will present some expected numbers of people, divided in several age groups:
- 110.000 of people between 10-24 years old
- 150.000 of people older than 65
- 50.000 people in active search of jobs that want to be trained in IT

In order to achieve this impact each trainee will have to pass through the whole project and do the final test. What is necessary is for us and each and every one of our trainees to sign a contract where they are stating that they are going to go through whole programme and do the final test. That contract is what provides us and the trainee with certainty: that we are going to respect their time and provide them with quality education, and that they are going to respect our efforts and pass through whole project and final tests.

Our main impact is on the lives of those people who pass though our programme, as well as the industry which is in high demand of IT savvys. This programme will help young people get interested into technology, and, hopefully, choose IT for their future careers. It will help the eldery understand technology and use it better. Furthermore, it will help people in demand of jobs get to know with some technologies and help them find out if they could fit into the industry by further learning. At last, it will help the academia and researchers get into interesting project and collaborate with other colleagues.

This project requires European approach since we are one still very young developing country with few experts in the field. Even more, some of our European colleagues helped implement similar projects in their countries and we could use their experience in course creation.

We also want our project to help other countries to implement similar solutions for their problems using our research and ideas. It will be achieved by providing our project plan, research and all the relevant/requested information to anyone who would want to implement such programme in their country. This project is a part of Pilot on Open Research Data in Horizon 2020.

There should be no obstacles/barriers concerning the potential legal issues, standards or regulations. The potential problems that we can stumble upon are those concerning that there is no sufficient staff members, that there might be not enough/too many applicants fullfilling the criteria.

3.2   Dissemination and/or exploitation of project results, and management of intellectual property

This project is a part of Pilot on Open Research Data in Horizon 2020. In order to make our data findable, accessible, interoperable and reusable (FAIR) this project and all it's content will be publicaly available through our web site. The free registration will be required for access to key knowledge (such as research data). We will provide 'gold' open access (open access publishing) which means that an article in immediately provided in open access mode by the scientific publisher. The costs of this type of access are fully eligible as part of the grant.

We will provide with our project and ideas various organizations for open education, Ministry of Education of all European countries and every developing and strugling country.

Section 4.   Ethical Issues
(No maximum length for Section 4 – depends on the number and complexity of the ethical issues involved)

Describe any ethical issues that may arise in their proposal. In particular, you should explain the benefit and burden of their experiments and the effects it may have on the research subject. The following special issues should be taken into account:

Some of the ethical issues that may arise are working with children and sensitive social groups of people. Any person involved and participating in our project will do such by their own will, and all the children are going to need a special permission by their parents.

In order to make selection of the candidates we will need some basic information on people applying for the programme such as:
- name and surname – for diploma, lists of candidates,
- age – in order to place our candidates into groups
- income – necessary for ranking of the candidates of sensitive groups
- educational background – in order to place our candidates into groups and know their level of knowledge so we can measure their progress
- personal number – necessary in case there are two people with the same name, also convenient for database key (we assume that there are no two or more same personal numbers)
- city and adress – in order to place our candidates into groups
- phone number – we need a way to contact our candidates and trainees

We are commited to protection of personal data, and we respect the law of protection of personal data in full. We will not provide any personal data to any third party. In the research we will only use age, income, city and educational background as relevant data. No names, surnames, personal number, addresses or phone numbers will be used.

ETHICAL ISSUES TABLE

	YES/NO	Explanation
Informed Consent		
• Does the proposal involve children?	Yes	The children will be provided with learning opportunites.
• Does the proposal involve patients or persons not able to give consent?	No	
• Does the proposal involve adult healthy volunteers?	Yes	The adult healthy volunteers will be provided with learning opportunites.
• Does the proposal involve Human Genetic Material?	No	
• Does the proposal involve Human biological samples?	No	
• Does the proposal involve Human data collection?	Yes	We will collect some data of our trainees such as: age, educational background, social status, etc.
Research on Human embryo/foetus		
• Does the proposal involve Human Embryos?	No	
• Does the proposal involve Human Foetal Tissue / Cells?	No	
• Does the proposal involve Human Embryonic Stem Cells?	No	
Privacy		
• Does the proposal involve processing of genetic information or personal data (eg. health, sexual lifestyle, ethnicity, political opinion, religious or philosophical conviction)	No	
• Does the proposal involve tracking the location or observation of people?	No	
Research on Animals		
• Does the proposal involve research on animals?	No	
• Are those animals transgenic small laboratory animals?	/	
• Are those animals transgenic farm animals?	/	
• Are those animals cloned farm animals?	/	
• Are those animals non-human primates?	/	
Research Involving Developing Countries		
• Use of local resources (genetic, animal, plant etc)	**No**	
• Impact on local community	**Yes**	Local community will have an opportunity to make significant progress and changes in their lives in a positive manner.
Dual Use		
• Research having direct military application	No	

• Research having the potential for terrorist abuse	No	
ICT Implants		
• Does the proposal involve clinical trials of ICT implants?	No	
I CONFIRM THAT NONE OF THE ABOVE ISSUES APPLY TO MY PROPOSAL	/	