

Small or medium-scale focused research project (STREP) proposal
ICT Call 5
FP7-ICT-2009-5
[Proposal full title]

Special arrangements apply for the preparation of proposal Part B in the Objectives ICT-2009.9.2 and ICT-2009.9.5. See Annexes 7 and 8 of the Guide for applicants

[Proposal acronym]

Small or medium scale focused research project (STREP)

Date of preparation:

Version number (optional):

Work programme topic addressed

(if more than one, indicate their order of importance to the project. The main (first) objective must be one included in this call)

Note: You must use the special FET template when preparing STREP proposals in the Objectives 8.5 Self-Awareness in Autonomic Systems and 8.6 Towards Zero-Power ICT

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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	Ministry 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

(copied from Part A, if not in English include an English translation)

Table of contents

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

(Maximum length for the whole of Section 1 – twenty pages. This does not include the Gantt chart, Pert diagram or tables 1.3a-e)

1.1 Concept and objectives

Explain the concept of your project. What are the main ideas that led you to propose this work? Describe in detail the S&T objectives. Show how they relate to the topics addressed by the call, which you should explicitly identify. The objectives should be those achievable within the project, not through subsequent development. They should be stated in a measurable and verifiable form, including through the milestones that will be indicated under section 1.3 below.

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 those born before year 1980.

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 elderly, we musn't forget young people and children who are living in difficulties and are not able to access the technology in a proper 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 school¹). We want to change that and make online courses available in Serbian and English.

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.

Main objectives of this proposal are the following:

- to provide computer education for people of all ages, education and socio-economical 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).

¹Information provided by National Register for year 2012.

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

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 that 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.

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

1.2 Relation to the work programme

Indicate the work programme topic to which your proposal relates, and explain how your proposal addresses the specific challenge and the scope of that topic, as set out in the work programme.

1.3 Concept and methodology; quality of the measures

Describe and explain the overall concept underpinning the project. Describe the main ideas, models or assumptions involved.

- Describe any national or international research and innovation activities which will be linked with the project, especially where the outputs from these will feed into the project.
- Describe and explain the overall methodology.
- Where relevant, describe how the gender dimension i.e, sex and/or gender analysis is taken into account in the project's content.

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 and 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.

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.

Work package list

Work package No ³	Work package title	Type of activity ⁴	Lead partic no. ⁵	Lead partic. short name	Person-months ⁶	Start month ⁷	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	MGT	2, 3, 4, 5, 6, 7, 9	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

³ Workpackage number: WP 1 – WP n.

⁴ Please indicate one activity per work package:
Demonstration; MGT = Management of the consortium

RTD = Research and technological development; DEM =

⁵ Number of the participant leading the work in this work package.

⁶ The total number of person-months allocated to each work package.

⁷ Measured in months from the project start date (month 1).

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

Table 1.3b: Template - Deliverables List

List of Deliverables

Del. no. ⁸	Deliverable name	WP no.	Nature ⁹	Dissemi- -nation level ¹⁰	Delivery date ¹¹ (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	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 advertising (ex. Google, Facebook, Instagram)	WP4	D	PU	4

⁸ 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.

⁹ Please indicate the nature of the deliverable using one of the following codes: **R** = Report, **P** = Prototype, **D** = Demonstrator, **O** = Other

¹⁰ 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).

¹¹ Measured in months from the project start date (month 1).

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	
D8.1	Report on mid-term test results	WP8	R	RE	
D8.1	Report on final test results	WP8	R	RE	
D8.2	Report on progress of trainees between mid-term and final tests	WP8	R	RE	
D8.3	List of all trainees who successfully finished the program and are to receive the certificate	WP8	R	PU	
D9.0	Report on success of the program based on metrics	WP9	R	PU	

Table 1.3c Template - List of milestones

Milestones

Milestones are control points where decisions are needed with regard to the next stage of the project. For example, a milestone may occur when a major result has been achieved, if its successful attainment is a required for the next phase of work. Another example would be a point when the consortium must decide which of several technologies to adopt for further development.

Milestone number	Milestone name	Work package(s) involved	Expected date(in month)¹²	Means of verification¹³
0	Roles	WP0	1	roles given to every person involved, everyone knows their assignments
1	Initial research	WP1,WP2, WP5	1	contracts made and adequate courses creation arranged
2	Necessary software creation	WP3	4	software released and validated by a user group
3	Media campaign prepared and on-going	WP4	4	media campaign prepared for release
4	Call for application	WP6	4.5	opened calls for application for the programmes
5	Processing applications and candidates selection	WP6	9	calls are closed, all applications are processed and candidates are selected and informed of their status
6	Courses prepared	WP5	8	all courses are prepared and ready for release
7	Courses started	WP7	9	for all selected candidates courses are starting
8	Mid-course test	WP8	13/17/21	all 4 months long courses are having a mid-course test after 2 months
9	Final test	WP8	11/15/19/23	final test is being done at the end of the each course
10	Analyzing test results	WP8, WP9	11/13/15/17/19/23	progress on each course is analyzed as well as the overall progress of the

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

¹³ 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.

				project
10	Making certificates	WP8	24	certificates are being done for each person who successfully went through the programme
11	Final success	WP9	24	measuring final success of the project
12	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 type¹⁴	MGT		
Participant number	1		
Participant short name	UNA		
Person-months per participant	10		

Objectives

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

Deliverables (brief description) and month of delivery

Cooperation agreement (M1)
Records from every administrative meeting (M1, M3, M11, M12)
Project Handbook and Management Plan (M1)
Periodic reports (M1, M3, M5, M7, M9, M11, M12)
Final report at the end of the project (M12)
Final product (M12)

¹⁴ Please indicate one activity per work package:
Demonstration; MGT = Management of the consortium.

RTD = Research and technological development; DEM =

Table 1.3e Summary of effort

Summary of effort

A summary of the effort is useful for the evaluators. Please indicate in the table number of person months over the whole duration of the planned work, for each work package by each participant. Identify the work-package leader for each WP by showing the relevant person-month figure **in bold**.

Partic. no.	Partic. short name	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	WP9	Total person months
1	UNA	10			0	10		100			5	
2	MATF	0			4	0		0			0	
3	BU	0			0	0		0			0	
4	UNS	0			0	0		0			0	
5	NI	0			0	0		0			0	
6	KG	0			0	0		0			0	
7	MEST	0			0	0		0			0	
8	Telenor	0			0	0		0			0	
9	ETH	0			1	0		0			0	
Total	9											

Section 2. Implementation

(Maximum length for Section 2.1 - five pages)

2.1 Management structure and procedures

Describe the organisational structure and decision-making mechanisms of the project. Show how they are matched to the complexity and scale of the project.

2.2 Individual participants

(Maximum length for Section 2.2: one page per participant. However, where two or more departments within an organisation have quite distinct roles within the proposal, one page per department is acceptable.

The maximum length applying to a legal entity composed of several members, each of which is a separate legal entity (for example an EEIG), is one page per member, provided that the members have quite distinct roles within the proposal.)

For each participant in the proposed project, provide a brief description of the legal entity, the main tasks they have been attributed, and the previous experience relevant to those tasks. Provide also a short profile of the individuals who will be undertaking the work.

2.3 Consortium as a whole

(No maximum length for Section 2.3 – depends on the size and complexity of the consortium)

Describe how the participants collectively constitute a consortium capable of achieving the project objectives, and how they are suited and are committed to the tasks assigned to them. Show the complementarity between participants. Explain how the composition of the consortium is well-balanced in relation to the objectives of the project.

If appropriate describe the industrial/commercial involvement to ensure exploitation of the results.

i) Sub-contracting: If any part of the work is to be sub-contracted by the participant responsible for it, describe the work involved and explain why a sub-contract approach has been chosen for it.

ii) Other countries: If a one or more of the participants requesting EU funding is based outside of the EU Member states, Associated countries and the list of International Cooperation Partner Countries¹⁵, explain in terms of the project's objectives why such funding would be essential.

¹⁵ See CORDIS web-site, and annex 1 of the work programme.

2.4 Resources to be committed
(Maximum length for Section 2.4 – two pages)

Describe how the totality of the necessary resources will be mobilised, including any resources that will complement the EC contribution. Show how the resources will be integrated in a coherent way, and show how the overall financial plan for the project is adequate.

In addition to the costs indicated on form A3 of the proposal, and the effort shown in section 1.3 above, please identify any other major costs (e.g. equipment). Ensure that the figures stated in Part B are consistent with these.

Section 3. Impact

(Maximum length for the whole of Section 3 – ten pages)

3.1 Expected impacts listed in the work programme

Describe how your project will contribute towards the expected impacts listed in the work programme in relation to the topic or topics in question. Mention the steps that will be needed to bring about these impacts. Explain why this contribution requires a European (rather than a national or local) approach. Indicate how account is taken of other national or international research activities. Mention any assumptions and external factors that may determine whether the impacts will be achieved.

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 through 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 elderly 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.

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

Describe the measures you propose for the dissemination and/or exploitation of project results, and how these will increase the impact of the project. In designing these measures, you should take into account a variety of communication means and target groups as appropriate (e.g. policy-makers, interest groups, media and the public at large).

Describe also your plans for the management of knowledge (intellectual property) acquired in the course of the project.

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 its content will be publicly 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 is 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 struggling 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 committed 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 opportunities.
• 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 opportunities.
• 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	No	

application		
<ul style="list-style-type: none"> Research having the potential for terrorist abuse 	No	
ICT Implants		
<ul style="list-style-type: none"> Does the proposal involve clinical trials of ICT implants? 	No	
I CONFIRM THAT NONE OF THE ABOVE ISSUES APPLY TO MY PROPOSAL	/	