SIXTH FRAMEWORK PROGRAMME

Call title: IST Call 6, Call identifier: FP6-2005-IST-6, Area: 2.6.5: International Cooperation
Instrument: Coordination Action (CA)

2.6.5.1. International cooperation for eGovernment and eParticipation
Target countries: Western Balkan

Contract for:

COORDINATION ACTION

We-Go
Enhancing Western Balkan
eGovernment Expertise

Work package 3 - Academies
Deliverable D.3.2.2. Country Implementation Plans

Project acronym: *"We-Go"*
Project full title: **Enhancing Western Balkan eGovernment Expertise**

Proposal/Contract no.: **Contract no 045472 / Contract no**
Start date of contract: **1st December 2006**

Version: 0.4, 08.07.2008

Table of content

1.   Introduction

This deliverable focuses on preparation of implementation plans for e-government related trainings in the participating West Balkan countries – Bosnia and Herzegovina, Croatia, Macedonia and Serbia.

The related work is carried out within framework of Task T.3.2.: Localization (Organisational Concept & Adaptation of curricula), whose objectives are:
   - To identify training institutions on a national level.
   - To build up organisational framework within these institutions.
   - To adapt and translate the curricula, prepared teaching material, and exams according to demands of a specific country. Owners of the finished localised curricula are the partnering institutions, who will decide on the execution of the future training.

The implementation plans were, therefore, developed and finalized with the above objectives in mind, and their goal was to enable and facilitate smooth implementation of future training and knowledge dissemination activities.

The work was carried out jointly by:

   - DUK, Austria [WP 3 Leader]
   - BKA, Austria
   - MITC, Bosnia and Herzegovina
   - ITI, Croatia
   - FOI, Croatia
   - MTM, Macedonia
   - Civil Servants Agency, Macedonia
   - PEXIM, Serbia

The result of the work are clear and context-rich implementation plans for each of the participating West Balkan countries, enabling the project to proceed to the next stage of full training implementation. The Plans are attached at the end of this document.

2.   Description of work undertaken and results achieved

The work undertaken comprised the following steps:

1. Under the guidance of Work Package Leader [DUK] a list of key information was prepared that the partners agreed were necessary for preparation of sustainable and achievable Course implementation plans:

    -   Who is responsible for the training of government employees [national level]?
    -   Who is responsible for the training of local administration employees [regions and counties]?
    -   Do counties and regions posses their own training institutes? If so, what kind of IT infrastructure do they have?
    -   If not, is the training centralised, or is it implemented through third parties / consultants / etc.? What is their IT infrastructure?
    -   What are e-Government Strategy and Action Plans for 2007 and 2008?
    -   Are there appropriate policies/guidelines in place for skills development of government/local administration employees?
    -   Who would be main target groups and what course programme/curricular would they need?
    -   What e-Government skills are needed and where do you see an education gap for executing your strategy, policy and action plan?
    -   What are your priorities, what your urgencies, what do you need for an effective support?
    -   Which counties and regions are able and willing to participate in We-Go WP3?
    -   Who is/are the responsible person/s with decision-making powers on a national level to get in touch with for this project?
    -   Who is/are the responsible person/s with decision-making powers on county and regional level to get in touch with for this project?
    -   Which institute/consultant is generally able and willing to implement the selected courses/curricula on the national/regional level?
    -   Who is/are responsible persons with decision-making powers in this institution to be contacted for this project?

2. Based on the above list, a Country Implementation Plan Template was prepared, adequately structuring the relevant information and ensuring consistency in reporting. The Plan template comprise the following sections:

    -   Responsibility for eGov Strategy in the country
    -   Responsibility for implementation of trainings and provision of trainers
    -   Skills Needs Analysis
    -   Organisational Deployment
    -   Selection of Curricula
    -   Number of trainings to be initiated and to be executed
    -   2nd year plan
    -   List of Projects linked with We-Go in the country

3. Partners also prepared a template for Letter of Intent, to be submitted to the relevant government/local administration institutions that have been identified as suitable local counterparts/stakeholders. By signing the Letter of Intent these institutions will vouchsafe their commitment to support implementation of trainings in the country, by providing participants for the Train-the-Trainers events and by accepting to further disseminate the acquired knowledge within their area of their activities beyond end of We-Go project.

4. After this preparation work was completed, the partners undertook to collecting and analysing information, identifying and meeting with the key stakeholders, organizing presentations of the project and its objectives, discussing the possibilities for collaboration, as well as obtaining verbal agreements concerning cooperation, to be followed with formal signing of Letters of Intent.

As a result of these activities, the project has now established a network of local partners as supporters of We-Go training activities:

BiH:
- Public Administration Reform Coordinator Office (PARCO);
- University of Sarajevo – Management and Information Technology Centre (MITC);
- Information Technology Group, Civil Service Agency of Bosnia and Herzegovina
- Association for Information Technology in BiH (BAIT);
- Ministry of Communication and Transportation;
- UNDP BiH

Croatia:
- Central State Administration Office for eCroatia;
- Internet Institute (ITI);
- University Zagreb – Faculty of Organization and Informatics Varazdin (FOI);
- Central State Office for Administration – Civil Service Training Centre (SDUU);
- Croatian Association of Local and Regional Administration Consultants (HUKON)
- Croatian National Association of IT Clusters (CRO.ict)

Macedonia:
- Minister in Charge of Information Society
- Metamorphosis (NGO)
- University of Skopje
- Civil Service Agency

Serbia:
- PEXIM Solutions;
- University of Belgrade;
- Ministry of Telecommunication and Information Society;
- Ministry of Public Administration and Local Self – Government;

5. As partners completed their Draft Country Implementation Plans, they forwarded them to the Work Package Leader. Partners and the WP Leader then jointly submitted each Plan to careful scrutiny and worked on it until they were satisfied with its quality, tenability and integrity.

    Finalized Country Implementation Plans are attached at the end of this document, and for quick overview purposes herewith a table illustrating the lecture notes and cases We-Go offers and courses that the countries plan to implement.

We-Go Lecture Notes	
Course number	**Provided by**
O1/L1 Introduction to eGovernment	BKA/DUK; eGa;
O2 Registers, Data Bases and WFM	BKA/DUK; eGa; FOI; SRC;
O3 Policies, E-Services, Websites	BKA/DUK; ITI; MTM
T1 IOP, CommArch	BKA/DUK; eGa; FOI; MITC; PEXIM
T2 Security, PKI, eSig, eID	BKA/DUK; eGa; FOI; PEXIM
M1 NPM	DUK
M2 Change Management	MTM
M3 Project Management	DUK/Project Management Austria
M4 Process Management	ITIL
T3 IT Service Management – ITIL	ITIL

Case No.	Topic	Course No.	Provided by
1	Electronic law making process in Austria - e-Law	O1/L1	BKA/DUK
2	National Strategy for Information Society Development in Macedonia	O1/L1/O2/O3/T1/T2	MTM
3	Human resource Management Information System in BiH	O1	MITC
4	e-Justice	O1/L1	MITC
5	Slovenian State Portal for Business Entities e-VEM	O1/O2/O3	SRC
6	e-Government Portal in Slovenia	O2/O3	SRC
7	e-Government Registries: document management in public administration in Slovenia	O1/O2/O3	SRC
8	e-Voting	L1/O1/O2/	eGa

		T1/T2	
10	Enabling citizens' initiative to e-participate	O1/L1/O2/ T1/T2	eGa
11	e-Pay	O1/O3/ T1/T2	PEXIM
12	e-Budget	O1/O2	PEXIM

Following the modular oriented approach described in the introduction the following table shows which of the lecture notes and topics where chosen by the WB countries. This lecture notes are seen as relevant for their training of public administration employees.

Curricula requested	Course number	BiH	HR	MK	SR
Introduction to eGovernment					
▪ eGovernment Introduction	O1	✔	✔	✔	✔
▪ eGovernment Registries	O2	✔	✔	✔	✔
▪ eGovernment Websites	O3	✔		✔	✔
eGovernment Management					
▪ New Public Management	M1	✔	✔	✔	
▪ Change Management	M2	✔	✔	✔	
▪ Project Management	M3		✔	✔	
▪ Pocess Management	M4		✔	✔	
eGovernment Technology					
▪ Communications Architecture and Interoperability	T1	✔	✔	✔	✔
▪ Security and PKI Infrastructure	T2				✔
▪ IT Service Management	T3			✔	
eGovernment Legal Overview					
▪ eGovernment Law and IT policies	L1	✔		✔	✔

3.   Problems encountered and corrective actions taken

-   **Needs analyses**

Needs analyses backed by research were obtained by two of the countries - Croatia and Macedonia.

In Croatia the body responsible for civil servants' training – Central State Administration Office for Administration (CSAOA/SDUU) – is mandated by the law to carry out yearly training needs assessments. In preparation of Croatia Implementation Plan ITI used the results of 2007 survey (These results were also used by CSAOA to determine training needs for 2008 training programme. Results of 2008 survey should be available towards end of the year.)

In Macedonia the local partner – Metamorphosis Foundation – conducted the IT training needs assessment for civil servants in public administration in 2007 as implementing partner within framework of Foundation Open Society Institute Macedonia project "Evaluation of the potential for good governance in Macedonia".

Unfortunately, no such assessment was available either for Bosnia and Herzegovina or for Serbia.

In the absence of hard data, MITC used own experience and expertise, as well as interviews with relevant stakeholders, such as Agency for eEducation in lieu of survey results.

In Serbia, PEXIM used government project plans and strategies as a base for needs assessment.

-   **Training of local administration employees**

In Bosnia and Herzegovina training of local administration officials is neither assigned to a specific organisation, nor have the funds been set aside for this purpose at the national level. Given a very specific and complex administrative structure of Bosnia and Herzegovina which poses a particular difficulty in this respect, MITC decided to focus on trainings of national level employees, with assistance from Civil Service Agency.

In Croatia, the Education Centre of CSAOA is responsible for the training of government officials only. It is true that the government founded Academy for Local Democracy in 2006, to serve as key institution for training and education of local administration employees, but the Academy has since fallen in obscurity and has no activities worth mentioning. Likewise, all attempts to establish contact failed. Even though ITI will continue pinging the Academy, it was decided:
1. ITI will carry out trainings for local administrations in several key cities in Croatia during 2008 and first quarter of 2009.
2. HUKON was contacted and included as alternative local stakeholder in place of Academy for Local Democracy. HUKON – whose activities are focused on local administrations - proved to be very interested to participate in Train-the-Trainer events and to continue with trainings themselves beyond end of We-Go project.

- **Planning implementation in an environment of political uncertainty**

It was particularly difficult for the partner in Serbia to plan training implementation due to an environment of political uncertainty. Whilst previous government expressed support to We-Go project and started with significant and ambitious plans concerning training and education of civil servants (plans included full needs assessment survey, establishment of educational centre for civil servants, etc.), all of this was interrupted with the recent elections. Whilst it is currently still uncertain whether or not the new government will be willing to provide support to We-Go project, PEXIM decided to go with two possible scenarios for training implementation:

The best case scenario: new formed government supports We Go project.
Pexim in cooperation with Ministry for Telecommunications and Information Society coordinates implementation of e-government training. Additional cooperation with Ministry for public Administration and Local Self Government is expected also.

The worst case scenario: Government does not support We Go project.
Pexim will coordinate implementation of e-government training itself. We are also exploring a possibility to constitute an eGovernment Academy.

A.   Bosnia & Herzegovina Country Implementation plan

Lead:
 MITC Bosnia and Herzegovina

i.   Responsibility for the eGov Strategy in Bosnia & Herzegovina?

The agency responsible for eGov Strategy in Bosnia and Herzegovina is the **Civil Service Agency of B&H.**

ii.   Who will implement the training and provide the trainers?

We plan to have two main agencies for implementation of trainings and provision of trainers:

- **Civil Service Agency of B&H** is a state-owned human capital management agency responsible, among others, for training of civil servants.
- **PARCO** is the Public Administration Reform Coordinator's Office. Besides serving the best interest of the citizens on the basis of open and transparent procedures, reformed public administration is a trigger of constant and sustainable socio-economic development.
- **UNDP for B&H.** Draft of a MoU is in the process of beeinig signed between the Ministry of Communication and Transportation; UNDP BiH and the BKA which will support the implementation of We-Go training activities in BiH.

In addition, we will have a help of **Economics Faculty in Sarajevo.** They have strong links with local and regional administrations, particularly as regards implementation of various projects by local and regional administrations.

iii.   Skills Needs Analysis for Bosnia & Herzegovina

Skills need analysis was not organised, but we will have some approximate numbers of civil servants who could be interested in this kind of trainings made by Civil Service Agency (civil servants just on national level. For lower levels of government it is impossible to provide financial assistance).

 In **Agency for eEducation Ms. Samra Mujačić** maintain that Interoperability is one of the main issues of relevance as regards implementation of e-Government in B&H. The problem that our government faces is that there are numerous e-Government applications in various government bodies/organisations - each Ministry has developed various own application(s) – but these applications do not ''speak'' to each other, either internally – within the organisation – or externally – between organisations.

B&H has dissimilar problem because of the Governments organization. Particularly, we have a nation B&H, then entities FB&H and RS, then Cantons (FB&H has 10 Cantons and all of them has a Governments and Ministries), then Municipality etc.

As a main goal for us in this project is to make awareness for BH public administration top management and officials of eGovernment and Interoperability. We find to be interesting to organise the trainings from e-Government Introduction, eGovernment Registries, eGov websites, eGov Laws and Policies etc.

iv. Organisational Deployment

The trainings that We-Go project plans to deliver directly to the beneficiaries have to be free of charge.

We propose to secure the costs needed for organisation of events as follows:

Type of cost	To be borne by
Cost of We-Go personnel [preparation of event, travel to/from the site]	We-Go project
Guest speakers for TTT event [travel, accommodation, per diem]	We-Go project
Venue [conference room, projector, video/audio equipment]	Local training institution / local partner – **Economics Faculty**
Refreshments [coffee breaks, lunch]	Local training institution / local partner or sponsor
Training materials	We-Go project
Participants' travel and accommodation costs [if any, preferably none]	Participants / participants' organisations

Nomination of Lecturers and Trainers

After the train-the-trainers event will be completed, a number of lecturers and traininers will be nominated by the local institutions and partnetrs. For now we have agreement with Mr. Kemal Bajramović to be a trainer.

v. Selection of Curricula

Target Users and Groups

• The **top management's** awareness of the role that e-Government systems are to play, and how they are to provide support to government agency's decision-making, policy development, and administration and management, is crucial to successful e-Government development. Commitment to e-Government development must begin with the top management.
• In order to have professional **IT staff** capable of running and supporting e-Government projects it is necessary to provide additional training in needed skills like project management, IT security management, and some specific technical training.
• **Civil servants** need to have basic computer literacy to operate information systems in public administration.

The awareness for the e-Government is from the crucial importance.

In accordance with that, in second half of 2008 we are planning to organize trainings as follows:

(1) e-Government introduction

Target group for this course are civil servants from Bosnia and Herzegovina's institutions. The goal is to build capacities of civil servants to constructively participate in re-engineering business processes that are necessary to achieve goals of effectiveness, efficiency and citizen-centric electronic services.

MITC will organize one-day sessions of this training course in the groups of 25 participants in late autumn 2008 and winter 2009 in the premises of MIT Centre.

(2) e-Government registries

Target group for this course are managerial civil servants from Bosnia and Herzegovina's institutions.

MITC will organize one-day sessions of this training course in the group of 25 participants in late autumn 2008 and winter 2009 in the premises of MIT Centre.

(3) Customer oriented e-Government websites

Target group for this course are elected officials and managerial civil servants from Bosnia and Herzegovina's institutions.

MITC will organize one-day sessions of this training course in the group of 25 participants in late autumn 2008 and winter 2009 in the premises of MIT Centre.

(4) e-Government e-Law and IT Policies

The tremendous importance of computer applications and information systems in government has made the relevant laws and regulations issues more and more crucial in Bosnia and Herzegovina. Some issues require immediate attention while some will be faced in the near future.

Early attention to laws and regulations will benefit the creation of an environment for the development of e-Government. Issues that are of immediate and pressing importance include electronic documents, data security, privacy, statistical disclosure, protection of intellectual property, vulnerability, computer crime and fraud, and trans-border data flow, and so forth.

Target group for this course are elected officials and managerial civil servants from Bosnia and Herzegovina's institutions.

MITC will organize one-day sessions of this training course in the group of 25 participants in late autumn 2008 and winter 2009 in the premises of MIT Centre.

(5) "New Public Management" and "Change Management"

Target group for this course are elected officials and managerial civil servants from Bosnia and Herzegovina's institutions.

MITC will organize three-day sessions of this training course in the group of 25 participants in late autumn 2008 and winter 2009 in the premises of MIT Centre.

(6) Interoperability in e-Government

Target group for this course are managerial civil servants and IT managers from Bosnia and Herzegovina's institutions.

MITC will organize three-day sessions of this training course in the group of 25 participants in late autumn 2008 and winter 2009 in the premises of MIT Centre.

vi.   **Number of trainings to be initiated and to be executed**

MITC will organize three-day sessions of this training course in the group of 25 participants in late autumn 2008 and winter 2009 in the premises of MIT Centre.

Above mentioned 6 courses, repeated as much times as possible (in accordance with interest among civil servants).

vii. 2nd year plan

All courses will be in group of 25 participants and organised in late autumn 2008 and precise dates will be set after completition of the train-the-trainers event.

	BiH training activities 2008	Date	PA Hi Level	PA Mid Level	Private NGO Academia	Total No. Participants	Student Days	Total Person Days
	Event							
1	**Workshop MITC Sarajevo**	**Nov/Dec 2008**	5	15	5	25	2	50
2	**Workshop MITC Sarajevo**	**Nov/Dec 2008**	5	15	5	25	2	50
3	**Workshop MITC Sarajevo**	**Nov/Dec 2008**	5	15	5	25	3	75
4	**Workshop MITC Sarajevo**	**1st Q. 2009**	5	15	5	25	3	75
	Overall Sum		**20**	**60**	**20**	**100**	**10**	**250**
			20%	**60%**	**20%**			

viii. List of Projects linked We-Go in Bosnia & Herzegovina

a. eGovernment Project of EXIT Centre Banja Luka

This project has been supported by the European Union.

b. 2. UNDP eGov Projects

B.   Croatia Country Implementation plan

Lead/support:
ITI/FOI - Croatia

i.   Responsibility for the eGov Strategy in Croatia?

The agency responsible for eGov Strategy in Croatia is the Central State Administrative Office for eCroatia.

ii.   Who will implement the training and provide the trainers?

The primary stakeholder for implementation of training and provision of trainers as concerns state employees/officials is the **Central State Administrative Office for Administration (CSAOA)/ Centre for professional development and training of civil servants**. Centre was established in 2004. Equipping was finished by May 2005; financed through CARDS 2001 project Public Administration. The Centre officially opened in June 2005 and by end of 2006 it started providing own training programs for state employees/officials.

Activities of the Centre are financed through the State Budget, but are also financially supported by the CARDS 2003 project Support to Implementation of the Public Administration Reform Program, and by the Governments of the United Kingdom and Denmark through bilateral programs of pre-accession assistance.

Centre's facilities include one large conference room (100 seats), one small conference room (50 seats), two IT equipped classrooms (12 and 8 students), two classrooms for 16 students, two classrooms for 8 students, lecturers' and trainers' room, library and 10 offices. Centre currently employs 14 persons.

In addition, we will partner with **HUKON – Croatian Association of Local and Regional Administration Consultants**. They have strong links with local and regional administrations, particularly as regards implementation of various projects by local and regional administrations (including e-gov projects). Members of HUKON will implement trainings through their events. Moreover, we believe that it would be important to provide HUKON with e-government relevant skills, which they can then use in implementation of local and regional e-government projects.

ICT.cro – National ICT Cluster will be used as a focal point towards industry experts.

iii.   Skills Needs Analysis for Croatia

Central State Administrative Office for Administration [CSAOA] acts as a coordinator and a body responsible for comprehensive assessment of government employees' and officials' educational needs. As such, CSAOA is mandated by the Law on Government Employees and Officials [Official Gazette 92/05, 142/06 and 77/07] and by the Regulation on the modalities, methods and conditions of government officials' education [Official Gazette 10/07] to collect relevant data from all state administration bodies [SAB] by May of current year, and based on this data prepare a proposal for the Government employees' and officials' education plan for the next calendar year. Yearly Curriculum for government employees' and officials' training and education is then determined by the Government of the Republic of Croatia, based on this Plan adjusted in accordance with the draft state budget for the next year. In general, the Government is supposed to secure the amount equal to 3% of the overall expenditure for government employees' and officials' salaries for education funding.

CSAOA carried out the first comprehensive government employees and officials training needs assessment in May 2007. The assessment was prepared based on a pilot project carried out by CSAOA in collaboration with CARDS 2003 project "Support for public administration and civil service reforms" in 2006. This pilot project developed a questionnaire and carried out wide discussions within state administration in order to determine the best method for future assessments.

The developed questionnaire that was used in 2007 assessment consisted of six parts:
-      Introductory part contained personal information on government employee/official taking part in the survey.
-      The first part contained information on previously taken training/educational programs. The government employee/official had to list the title of the program, educational method (workshop, seminar, e-learning…), level (basic, intermediate, advanced, specialist), name of the lecturer, program duration and usefulness/applicability in current job (applicable, not applicable, cannot estimate). This part was used to assess the current state of the art.
-      In the second part, the employee/official was requested to list five main tasks/duties within his/her current position, in order to establish a link between the job description and the selected training programs.
-      The third part contained a list of 84 training programs that are either currently available or are planned within the CSAOA Centre for training and education of government employees/officials, divided into following five categories:
1. Specialized programs intended for specific government employees/officials groups,
2. Programs for personal development/improvement,
3. Development programs intended for promotion to a higher level (Promotion programs – career advancement programs)
4. Programs for education of management level government employees/officials,
5. Other programs.

Each government employee/official taking part in the survey had to mark five training programs that he/she would wish to attend due to requirements of the job, and five that he/she would like to attend for personal development/improvement. Also, a separate space has been left where participants could list some additional programs that they would like to take, outside of the training programs listed.

-       In the fourth part participants in the survey marked three out of previously selected five training programs that they considered as priorities, and next to each priority program they had to stipulate the reason for its being a priority.

-       In the last part, each participant's supervisor had to approve training programs selected by the participant, or could propose some other programs that he/she considered more important/appropriate. Additionally, the supervisor had to mark each selected training program either as mandatory, voluntary or a training of employee's own choice for personal reasons.

The number of finally selected programs per employee/official had to be limited to three, because it was certain that in 2008 Centre would not have sufficient capacities to carry out all training programs necessary for employees/officials education.

The data collected from the last part of the questionnaire were directly used in preparation of the Education plan for 2008.

During the process of methodology definition CSAOA established a network of contact persons that functioned as focal points during assessment process in all Ministries (13), Central State Administrative Offices (4), State Administration bodies (9), and offices of State Administration in the Counties (20).

They carried out needs assessments within their organisations and delivered the data for all employees/officials within that organisation to CSAOA, for the general training programs and for specialist training programs.

Needs assessment scope

During 2007 needs assessment 12 Ministries, all State Administrative Offices, all State Administration bodies and all offices of State Administration in the Counties delivered their data to CSAOA. In addition, 10 other state authority bodies also delivered their data (administrative and technical services of the Government, HIDRA, etc.).

All organisations participating in the survey delivered their needs assessment forms for general training programs, and 4 Ministries, 5 State Administration bodies, 7 offices of State Administration in the Counties and 3 other Government bodies delivered also the needs assessments for specialist training programs.

The assessment methodology did not provide the evidence on the proportion of participation of state employees/officials within individual organisations, because individual state organisations were required only to deliver the summary data i.e. the total number of future students from their organisations in the general training programs of CSAOA, as well as the foreseen programs and education funds for specialist training programs.

Nevertheless, considering that every participant had to mark three training programs to participate in during 2008, and the total number of selected training programs participations was 46.323, it means that the total number of participating state employees/officials is slightly more than 15.000, i.e. around 30% of the total number of state employees/officials in RoC.

Needs assessment results

Majority of future participants in 2008 training programs – 60% or 27.884 - selected personal development programs as their priority, comprising development of communication skills, development of IT skills and foreign language courses.

Out of the remaining 40% of future participants, 33% (15,227) selected specialized programs for specific state officials groups, 2% (857) selected career advancement programs, 2% (763) selected state administration management programs, and 3% (1,592) selected other programs, such as train-the-trainer programs and other programs individually listed.

When comparing training priorities between different groups of state administration bodies, it is noted that whilst intermediate English language and basic IT skills requirements are present within all SAB, the results for Ministries show particular emphasis on improved communication and negotiation skills, and team work.

Personal development programs

English language courses are at the top of priority list. CSAOA does not offer basic level English courses, but only intermediate, advanced and specialist courses. Intermediate English was selected by 3,275 participants (7%), and when data on all offered language courses are combined (intermediate, advanced and specialist English, as well as German and French) the need for foreign languages skills development expressed the total of 4,919 participants, i.e. 10.6%.

Within development of IT skills participants expressed the need for a wide scope of courses, but the basic MS Excel and MS Word have been requested by the majority (5,624 participants or 12.15%). ECDL courses received large interest as well – both basic and advanced – 3,487 participants or 7.53%. The interest for ECDL courses and exams is understandable and in line with the "Strategy for broadband internet access in RoC by 2008" that encourages IT education of all state employees/officials. It is to expect that this interest for ECDL courses shall be increased, in particular if ECDL diploma becomes a condition for civil service jobs.

Quite a number of participants expressed interest for courses on Internet Explorer, Power Point and Outlook – 3,309 in total or 7.15%. Specific informatics courses - such as database or web page creation, graphical presentation programs and desktop publishing, accounting tables – received less interest (1,450 participants or 3.13%), but that was to be expected as only small number of state employees/officials have the need for such specialist knowledge.

In total 9,095 (19.63%) participants decided to take up various training programs for development of communication skills. Customer communication skills and interactive communication skills were chosen as priority by 3,478 participants (7.51%). There was some interest for the programs of civil service ethics (917 or 1.98%), and for organizing and managing teams (797 or 1.72%). Negotiation – basic and advanced course – has been recognized as a needed skill by the total of 1.305 or 2.82% participants, whilst 741 (1.6%) participants expressed the need to improve their presentation skills.

Specialized programs for specific state employees/officials groups
Large number of participants expressed the wish to attend the courses on administrative procedures (basic and advanced) – 4,119 or 8.9%. Basic level administration is second most wanted course selected by 1,323 attendees or 2.86%. Such interest in education on administrative procedures and business is understandable taking into account the number of employees that need such skills in their every day work.

On the other hand, the fact that the other specialized programs have been selected by smaller number of employees reflects that fact that such skills and knowledge are relevant for very specific groups of state employees:

-       Courses on human resources potential – 2,263 or 4.88%
-       Courses related to European Union – 1,151 or 2.47%
-       European administration and new public management – 727 – and
        Public management and public administration – 505 – jointly 2.66%
-       Corruption prevention and control – 663 participants or 1.43%
-       Preparation of legal regulations for non-lawyers – 611 participants or 1.23%
-       Public access to information – 548 participants or 1.18%

Career advancement programs and programs for managers in civil service
It is difficult to estimate the level of interest for the career advancement programs or programs for managers, as numbers of relevant employees/officials in individual state organisations and their different levels have not been provided. Nevertheless, CSAOA estimates that the number of 857 participants (1.85%) interested in career advancement programs, and 763 participants (1.65%) that wish to attend programs for managers in civil service is extremely challenging for the Centre, taking into consideration Centre's current capacities. Given that these programs are more demanding – in terms of content and in terms of duration – than the other training programs currently available at the Centre, it has been decided that the Centre starts with pilot implementation of these programs end of 2007 through Danish Government assistance program, and use 2008 as a testing year as concerns the conditions, the content and the method of implementation for these training programs.

Train-the-Trainer programs
223 participants (0.5%) expressed their wish to attend the TTT program, and out of this number 156 took is as a mandatory training program. This is taken as a sign of positive attitude towards active participation in the process of training.

Conclusions

Needs assessment survey showed that Centre's curriculum plan and program to a large part corresponds well to the needs of state employees and officials.

However, the assessment also revealed that Centre's current capacity cannot satisfy existing training needs, which surpass it several times over. **The report, therefore, recommends considering a possibility to carry out some of the training programs through external assistance**.

Additionally, it is recommended to consider a possibility to strengthen Centre's capacities – logistically and in terms of human resources.

It is particularly advised to use Train-the-Trainers program to increase the number of trainers that would continue with training within their home organisations on the central state and on the regional level.

iv.   Organisational Deployment

The trainings that We-Go project plans to deliver directly to the beneficiaries [whether TTT events, or other forms of educative events] have to be free of charge.

We could, of course, charge "real" fees [i.e. fees that would actually cover all the expenses incurred in organisation of events] but in our experience government employees [whether central or local/regional] have difficulties obtaining travel approvals, particularly for travel of more than a day duration and/or especially for travel that involves accommodation/per diem in addition to travel costs. Education plans of government organisations are prepared much in advance, which makes it very difficult to cover expenses that were not originally planned.

Therefore, it would be important to organize as many events as possible in situ. This would alleviate participation costs for the participants, making it easier for them to participate and securing the highest possible turn-out.

We propose to secure the costs needed for organisation of events as follows:

Type of cost	To be borne by
Cost of We-Go personnel [preparation of event, travel to/from the site]	We-Go project
Guest speakers for TTT event [travel, accommodation, per diem]	We-Go project
Venue [conference room, projector, video/audio equipment]	Local training institution / local partner
Refreshments [coffee breaks, lunch]	Local training institution / local partner or sponsor
Training materials	We-Go project
Participants' travel and accommodation costs [if any, preferably none]	Participants / participants' organisations

Nomination of Lecturers and Trainers

This will be fully completed once the TTT events are finalized. At this moment we can confirm that ITI, FOI and HUKON have confirmed their participation as lecturers and trainers.

v.   **Selection of Curricula**

The target groups that we are addressing are:

1. **Central government [Ministries, central government agencies and bodies, etc.]**
2. **Local/regional government [counties, cities, etc.]**
3. **Industry [consultants to local/regional government, ICT SMEs]**

Within each of these we may distinguish three categories:

a. **Management level**, comprised of several sub-levels, each attributed with a certain level of decision-making:
   - High-level management (for example, Ministers, Deputy Ministers, Mayors or Managing directors)
   - Middle managers (for example, Department Heads)
   - Project managers.

b. **Operative level**, such as government officials, members of local administration, consultants, developers, programmers, system administrators, etc.

Our aim is:
(1) To use Train-the-Trainer program within CSAOA Centre for professional development and training of civil servants, to strengthen the Centre's capacities and ensure continuing dissemination through their educational efforts [to be evidenced by signing the Letter of Intent];
(2) To use activities of HUKON to ensure continuous dissemination of knowledge targeting local and regional administrations,

(3) To organize additional training events targeting industry and local/regional administration – for whom there currently does not exist any formal organisation handling e-government related trainings. These additional events will also address members of the first two groups, to complement the efforts of SDUU and ALD.

(4) To promote and assist in establishing e-Government related formal education as post-graduate study at FOI.

The courses of particular interest for Croatia are:

O1 eGovernment Introduction
O2 eGovernment Registries
M1 New Public Management
M2 Change Management
M3 Project Management
M4 Applied Process Management for eGovernment projects
T1 Communication Architecture for eGovernment and Interoperability in eGovernment

Duration of each is listed in the Curriculum and it will be respected in organisation of trainings.

vi.   **Number of trainings to be initiated and to be executed**

Croatia training activities 2008	Date	PA Hi Level	PA Mid Level	Private NGO Academia	Total No. Participants	Student Days	Total Person Days
Event							
1 Workshop at CECIIS, FOI	24 -26 Sep 08	5	10	20	35	3	105
2 Workshops plan in outlines	Nov/Dec 08		35	20	55	2	105
3 Workshops plan in outlines	1st Q. 09		10	10	20	2	20
Overall Sum		**5**	**55**	**50**	**110**	**7**	**230**
		5%	**50%**	**45%**			

vii. 2<u>nd</u> <u>year plan</u>

1. Training workshop at CECIIS in Varazdin, 24-26 September 2008
2. Training workshops in November/December
3. Training workshop in 1st quarter of 2009

viii. <u>List of Projects linked to We-Go in Croatia</u>

(1) Tempus eGovCRO

The two projects complement each other, as the audience that took the courses within the Tempus project already expressed their interest to continue education with more focused trainings. SDUU, who is a partner in eGovCRO, is actively involved in We-Go as primary stakeholder and will secure this continuance. On the other hand, FOI, a partner in both projects, will ensure that the courses & topics do not overlap, but that the topics of most interest are further developed within We-Go to a deeper level.

eGovCRO continues until mid 2009, and their second education round will be used as impetus for We-Go follow-up trainings, which could then be organized without any additional cost.

(2) Proposal for the new Tempus IV project for a regional (Central European and Western Balkan countries) postgraduate study on e-Government

As a results of both projects, eCroGov and WeGo, we identified an idea for the proposal of a Tempus IV project, where we will organize and enable of dissemination of best practice and knowledge from leading e-Government EU countries to the European candidate and non-yet-members countries. The project will be proposed till end of 2008.

C.   Macedonia Country Implementation plan

Lead/support:
Metamorphosis Foundation/Civil Servants Agency – FYR of Macedonia

i.   Responsibility for the eGov Strategy in Macedonia?

The foremost government official responsible for eGov Strategy in Macedonia is the Minister Without Portfolio who heads the Secretariat for Information Society of the Government of Republic of Macedonia (www.sio.gov.mk).

ii.   Who will implement the training and provide the trainers?

Metamorphosis Foundation in cooperation with the **Civil Servants Agency** (CSA, www.ads.gov.mk) will coordinate the implementation of e-government training. Additional cooperation will be established with relevant institutions in Macedonia, including the Minister without portfolio in charge of Information society and the Committee for IT of the Government of RM (www.kit.gov.mk).

Metamorphosis Foundation (www.metamorphosis.org.mk) has been providing ICT and information society trainings since 1999 and has dedicated resources suited for these purposes, including highly qualified staff and a fully equipped classroom. In its capacity as think tank it continually reinforces its capacities by performing research and knowledge exchange both on the ground and in communication with local and international experts and organizations.

CSA, according to the Civil Servants Law is the responsible institution for coordinating training activities for all civil servants in Macedonia. The Agency is a state body founded in 2000 and in charge of centralized, standardized organization of the employment and professional development of civil servants.

It provides four categories of services:

(1) independent care for regulations dealing with public service;
(2) framework for human resources management and development;
(3) mechanism for selection and employment of civil servants;
(4) two-degree system for protection of the rights of the state servants.

CSA continuously provides various kinds of capacity building--esp. professional trainings— for the civil servants based on funding from the state budget and through projects financed by foreign donors, such as the EU, individual EU countries, and USAID. It possesses adequate ICT facilities used for trainings and testing of civil servants and candidates for civil servant positions, located in Skopje and Bitola.

Metamorphosis and CSA will combine their efforts and join their capacities to reach all the major stakeholders in Macedonia. Target groups will include civil servants from managerial level (state advisors, head of sectors, and head of units from institutions) and experts employed in the public administration (advisors, associates etc). Moreover, it will cover representatives from institutions within central and local government.

The **Association of Units of Local Self-Government** (ZELS, www.zels.org.mk) will be included in the project as a facilitating partner in order to provide coverage of the employees from the 85 units of local self-government in Macedonia (84 municipalities and the local government unit City of Skopje).

All involved institutions, Metamorphosis, CSA and ZELS will provide candidates to be trained as trainers, and in future as lecturers.

iii.   Skills Needs Analysis for Macedonia

In order to identify the topics of interest for the respective target groups, a skills need analysis was done (We-Go Project, WP3 deliverable 3.2.2), enabling to precisely identify the needs and the topics of interest of state administration in Macedonia.[1]

In 2007, the project "Evaluation of the potential for good governance in Macedonia" implemented by the Foundation Open Society Institute Macedonia in cooperation with the General Secretariat of the Government of the Republic of Macedonia conducted an IT training needs assessment for the civil servants in the public administration. The assessment was coordinated by Metamorphosis Foundation as implementing partner, and the findings were used in synergy with the We-Go Project activities to develop the plan for training of the civil servants in cooperation with decision makers from the CSA and other governmental institutions to establish the main priorities for IT training, plan the appropriate budgets and at the same time providing crucial assistance in the design of modules for the future training of the civil servants.

The working group determined the following key findings, developing the recommendations for realization of the future activities in the area of IT training for the state administration. For in depth-information in particular areas please refer to the integral text of the needs assessment, available within the framework of We-Go Project.

- In addition to planning and provision of funds for these trainings, the trainings also need to be conducted according to an internationally acknowledged curriculum, enabling certification of all the civil servants relevant to those used on European level.
- The survey established that significant number of civil servants needs training in basic computer skills, especially those over 41 and 51 years of age.
- Civil servants with managerial and expert vocations require training for acquiring IT computer skills in the area of e-government. Civil servants of the executive branch of

---

[1] Needs analysis is available online at URL:
http://www.metamorphosis.org.mk/component/option,com_docman/task,doc_details/gid,40/Itemid,16/lang,en/

the government also need trainings the area of e-democracy and IT computer skills for specific applications, such as e-gov portals.

- Regular update of the data for conducted IT trainings for the civil servants in the register of civil servants owned by the Civil Servants Agency is recommended.
- It is recommended that the research for the needs assessment for IT training of the civil servants in the executive authority is performed every 2 years and the percent of need for immediate training should be monitored.

The assessment took place between February and May 2007, covering civil servants employed in 25 state institutions (ministries and organs within the ministries, departments of the Government of the Republic of Macedonia, administrative organizations and agencies and other legal entities) in 31 municipalities throughout the country.

The research covered 39% of the civil servants employed in the executive branch of the central government whose vocations are managerial, expert or expert-administrative, with total of 3.042 respondents. The sample also reflected the composition of the overall civil servant population based on gender, age, educational level and years of working experience, providing high validity to the research results.

Preferences for training methodologies and languages of instruction have been covered by the survey also, and taken into account during the training design.

The training needs were categorized based on criteria including both the lack of particular skills by the civil servants and the actual requirement to use those skills within the job description, to avoid redundancies or unnecessary trainings. The research identified the needs for immediate training on separate IT skills in four content areas:

- Basic computer skills – 8.229 trainings needed, in seven subcategories of courses (basic IT terms, using an OS, text processing, spreadsheets, databases, presentations, and internet). It must be noted that the Government offers free IT courses to the general population in this area and that this particular range of needs can be covered through that initiative, leaving the We-Go partners opportunity for differentiation in the subsequent categories.
- e-Government – 4.247 trainings needed, in nine subcategories of courses (legal framework, policymaking, strategic planning, PCM, budgeting, etc.)
- e-Democracy – 1.484 trainings needed, in two subcategories (basic principles and e-services)

ICT skills for specific applications – 1.407 trainings needed, mainly for the portal uslugi.gov.mk and the e-procurement systems

iv.   **Organisational Deployment**

Training will be delivered in Metamorphosis and CSA premises in Skopje (for central government employees) and the CSA premises in Bitola (for local government employees). These training locations are positioned in the north and the south of the country, respectively, providing adequate geographical coverage. However, selection criteria for the participants will enable enough flexibility to utilize maximum use of available resources and to generate minimum travel and accommodation costs, depending on the actual location of the workplaces of the involved trainees and their individual training needs.

Training will be delivered continuously and be part of the regular training programs of Metamorphosis Foundation and CSA. They will work together through sharing of facilities and human resources capacities to develop a schedule providing the optimal use of available resources.

The initial trainings will be conducted with the available We-Go funds. The commitment of the central government for funding of the whole range of identified needs for training has been pending, even though top decision makers have received the results of the assessments within the activities of the We-Go Project and have expressed verbal support for them. Metamorphosis Foundation is also working on obtaining other sources of funding for the trainings within the framework of e-government initiatives on local and national levels, funded by international donors.

After the planned Training of Trainers, Metamorphosis Foundations, the CSA and ZELS will have sufficiently strengthened capacities to provide independent trainings for both the primary stakeholders and other target groups. In case of lack of funds from We-Go, other projects, from the state or municipal budgets, Metamorphosis will offer these services as fee-based trainings, both to civil servants, the business community, to the civil sector, and the general public.

Nomination of Lecturers and Trainers

This will be completed once TTT evens are finalized.

v.   **Selection of Curricula**

The trainings will proceed according to the identified needs for immediate trainings, covered extensively in WP3 deliverable 3.2.2. In short, the most pressing needs for the civil servants, per target group are:

1. For senior management (state counsellors, division chiefs and assistant division chiefs) – spread sheets, databases, ICT legal framework, policymaking and interoperability between different registers. This target group in general mostly requires primarily skills related to e-government and e-democracy.
2. For middle management (department chiefs, counsellors, senior associates) – basic skills in spreadsheets, databases and internet usage, and high proportion of needs for e-democracy expertise.
3. The rest of the civil servants mainly need basic computer skills, and skills related to using specific e-government solutions. The level of need for e-democracy concepts for the lower levels of civil administration is limited to the introductory courses, as their job description does not require them to become specialists in most of the offered thematic areas.

The politicians (both elected and appointed high-ranking officials) will benefit from high profile trainings in the basic notions of e-government and e-democracy, taking form of exclusive seminars for decision makers.

Moreover, anecdotal evidence suggests that many of the members of this target group also lack basic computer skills, but so far it has been impossible to get them to admit they need this kind of training, especially in an open and transparent manner. An effort to provide trainings for the MPs in 2005 proved unsuccessful, without any consequences or soul-searching for the politicians to counter their evident technophobia. [2]

vi.   **Number of trainings to be initiated and to be executed**

The political leaders and decision makers relevant to scheduling the trainings of the civil administration in Macedonia have been unavailable to provide input on preferred dates and scope due to their extensive focus on the early elections.

The elections of June 2008 and the previous political turmoil related to Bucharest NATO summit basically blocked the negotiation and planning process, which can only produce meaningful results after the establishment of the new government, scheduled for late July. Alongside the elected leaders, this also affected decision making on the high level public officials, due to the influence of the political parties on the human resources process within the state institutions.

However, as means of facing the risk of low involvement and lack of cooperation by the state institutions, Metamorphosis has prepared contingency plans based on starting with number of introductory trainings for the civil servants from the local governments. The primary target group in this case would be people from municipalities covered by other e-government projects in which Metamorphosis takes part, providing synergy with activities funded by its own sources or by other donors. In case no such synergies can be established, the trainings will be conducted on bases on fees collected from the employers or the individual participants.

vii.   **2nd year plan**

The detailed plan for the 2nd quarter of the project will depend on the explicit commitment by the national level decision makers and concrete agreements for activities. As explained in the answer to the previous question, obtaining concrete input has been impossible at this point due to early elections.

The courses of particular interest for Macedonia (FYRoM) are:

          O1 eGovernment Introduction
          O2 eGovernment Registries
          M1 New Public Management

---

[2] (25.04.2005). Jordanovski is going to buy 120 laptops for the MPs. *Vest* daily. URL of English translation of newspaper article: http://www.metamorphosis.org.mk/content/view/372/4/lang,en/, original in Macedonian available at http://www.vest.com.mk/default.asp?idg=5&%20idb=1448
(14.05.2005). Untalented and Lazy MPs. *Vecher* daily. URL (in English): http://www.metamorphosis.org.mk/content/view/389/4/lang,en/, original in Macedonian available at http://star.vecer.com.mk/tekst.asp?tid=10421
(10.01.2008). New mobile phones too complicated for the MPs. *Utrinski vesnik* daily. URL (Macedonian) http://www.utrinski.com.mk/?ItemID=D50553CBA6F0AD49B470B3528704198F

M2 Change Management
M3 Project Management
M4 Applied Process Management for eGovernment projects
T1 Communication Architecture for eGovernment and Interoperability in eGovernment
T3 IT Service Management

Overview of training planned in 2008

	FYRoM training activities 2008	Date	PA Hi Level	PA Mid Level	Private NGO Academia	Total No. Participants	Student Days	Total Person Days
	Event							
1	**Workshop MTM Skopje plan in outlines**	**Nov/Dec 2008**	5	15	5	25	2	50
2	**Workshop MTM Skopje plan in outlines**	**Nov/Dec 2008**	5	15	5	25	2	50
3	**Workshop MTM Skopje plan in outlines**	**1st Q. 2009**	5	15	5	25	3	75
	Overall Sum		**20**	**60**	**20**	**100**	**10**	**250**
			20%	**60%**	**20%**			

viii.   List of Projects linked We-Go in Macedonia

(1) Assessment of Good Governance Potential in Macedonia Project (www.gg.org.mk)

The general aim of this cross-cutting initiative of FOSIM (www.soros.org.mk) and the General Secretariat of the Government of RM is to promote the concept of good governance as a public interest in Macedonia by intensive monitoring of the public institutions' operation, raising public awareness for the need of good governance, as well as encouraging the application of good governance principles by public institutions in compliance with the EU accession process.

The ICT component of the project, implemented by Metamorphosis, pays special attention to the respect of internationally accepted standards in the application and development of information technology. An analysis of the five most used e-services on the governmental portal *uslugi.gov.mk* was made, as well as an IT training needs assessment for the public administration, which already showed synergy with We-Go. Recommendations for ICT standards in the civil service have also been prepared. In addition, the project provides support for the IT Sector within the GS with human resources.

(2) 2. Cooperation between Region of Lower Normandy (France) and Macedonia

The ICT component of this project, implemented by Metamorphosis in cooperation with the French NGO CTN aims at raising the capacities of the Macedonian municipalities and the local civic sector, and is part of a wider range of efforts covering several societal areas, including media and culture. Activities will include transfer of knowledge, direct cooperation between municipalities, local NGOs and other institutions on all levels, with a special focus on eInclusion – providing access to ICT to all citizens, including using user public internet access points (e-points, telecenters, digital clubhouses), development of e-learning infrastructure needed for capacity building, and increase of useful e-content in local languages.

(3) Western Balkans Network for Inclusive eGovernment and the International Conference e-Society.Mk (www.e-society.org.mk)

This revolving project implemented by Metamorphosis Foundation has wider regional impact and focuses on research and policymaking towards achieving high levels of sophistication of e-government services and increasing their availability to all the citizens, including those belonging to any of the marginalized groups as defined by the EU. The annual International Conference e-Society.Mk has already (November 2007) been used to provide synergy with We-Go, providing both visibility and opportunities for networking and transfer of best practices.

(4) **USAID's e-Gov Project (www.egov.org.mk)**

This multiyear project also strives to increase the capacity of the Macedonian public administration for successful implementation of eGovernment and has cooperated with Metamorphosis Foundation on numerous occasions. Negotiations are underway as to develop means for synergy with We-Go activities.

(5) **Government's projects announced in the election platform**

VMRO-DPMNE, the political party which won most of seats in the Parliament in the June early elections mentioned several ICT related projects which can provide synergy with We-Go efforts in their electoral program for 2008-2012 "Rebirth in 100 Steps: Upgraded and Revised".[3] The most relevant announced projects include:

- Founding of specialised **University for Informational Technologies** in Skopje within few years – which opens possibilities for mainstreaming of e-government trainings as part of the curriculum and use of developed expert capacities within this and other institutions which are part of the public education system.
- Continuations of the project for **free IT-courses** until 2010, providing basic computer literacy to the general population – some of the funds used for this can be diverted to providing education in the specialized areas of e-government for the civil servants. As explained above, this project can also be used on fulfilling the needs for basic ICT skills identified as necessary for the civil servants, who can apply for training as individual citizens.
- Development of e-government solutions on local level, as well as e-Cadastre, e-Taxation, e-Social Contribution, e-Procurements, e-Judiciary, including announced efforts for mainstreaming of e-commerce as means for paying for state services (some of them in cooperation with USAID) also opens opportunities for synergy, and stresses the needs for e-government training of the numerous civil servants who will be involved in the implementation of these applications.

---

[3] http://www.vmro-dpmne.org.mk/dizajn/baneri/programa_eng.jpg

- **Introduction of IT-standards** in the public institutions "for impeccable communication and interoperability" with a deadline in 2010.

Further development of **institutional framework** for information society through creation of a Fund for development of information society by 2009, a National Council for IS in 2008, establishment of a Ministry for e-Society in 2008 (depending on the structure of the Parliament), and several policymaking efforts: Action plan for implementation of National strategy for development of e-communications and IT in 2008 and Strategy on e-inclusion in 2009. All these will be able to benefit from the expertise and capacities developed within the We-Go Project or its follow-ups.

(6) TEMPUS project: "We Go On"

This TEMPUS project was submitted in spring 2008 as a follow up project for We-Go. The consortium consists of partners that are already participating in We-Go (DUK/Austria, MITC/Macedonia, UoB/Serbia).

D.   Serbia Country Implementation plan

Lead/support:
PEXIM

i.   Responsibility for the eGov Strategy and execution of trainings in Serbia?

Ministry for Telecommunications and Information Society

ii.   Who will implement the training and provide the trainers?

According to the National Strategy in Serbia:

The goal of the education and improvement of the employees in the first phase of the Public Administration Reform is to span the differences between the temporary and desirable level of professional qualified employees. The education of the employees should be a continuous process with the goal to achieve continual level improvement of the Public Administration and provide a continuous reform. This training should not be just a guideline for a successful career - the aim is that work should be done better.

Another question that needs to be answered is if it is better to organize the education and training in every department of the Public Administration or to form a unique training center for all employees. Both proposals have their benefits and weaknesses. A unique training center is economically more affordable and proffers a qualitative better education level. However, education in special domains (like customs, charge of public revenues, social security…) should be organized within particular services, because of the previously mentioned reasons.

It is important to include all levels of Public Administration, but with low level qualified employees of public municipality, it is very important to include employees in all other departments too, so that the Training center, if exist, should be divided into 2 sections.

Founding a training center is difficult. The first precondition is to provide support for all relevant subjects of the society, where this support should be based on the conscience of the need for existence of such an institution. Crucial questions that need to be answered when founding are:

- *Organizational structure of the institution, how is her founder and who will supervise their work*
- *How will be the institution financed*
- *What type of education will be held*
- *Who are the main groups that should use the services of the institution*
- *How to organize the leading of the institution and who are their employees*
- *Who are the trainers and how should they be pay*
- *Who prepares the training curricula*
- *Should certificates (diplomas) be edited when finishing the training*

Although forming of the training center for civil servants was planned it was never realized.

This year, Serbia is faced with parliamentary selections, and after that, the government crisis goes ahead because the distribution of seats in the Serbian Parliament shows the difficulty of forming.
All of this has caused absence of government institutions that could support We Go initiative.

We are preparing two possible scenarious for training implementation:

The best case scenario – new formed government supports We Go project.
Pexim in cooperation with Ministry for Telecommunications and Information Society will coordinate the implementation of e-government training. Additional cooperation with Ministry for public Administration and Local Self Government is expected also.

The worst case scenario – government does not support We Go project.
Pexim will coordinate the implementation of e-government training. We are also exploring a possibility to constitute an eGovernment Academy.

iii.   Skills Needs Analysis for Serbia

Skills need analysis was not organised, but according to government project plans for the next two years we think that most of the planned trainings in We-Go should be organized and implemented.

iv.   Organisational Deployment

The initial trainings will be conducted with the available We-Go funds. Since at the moment central government is not constituted funding of the whole range of identified needs for training has been pending. Pexim is also working on obtaining other sources of funding for the trainings within the framework of e-government initiatives on local and national levels, funded by international donors.

Nomination of Lecturers and Trainers

Participants in the We-Go will be providing the training of the trainers

v.   Selection of Curricula

Pexim will organize different courses for different target groups

Top managers:
  - What is the role of e-Government systems
  - How they are to provide support,
  - Policy development, administration and management.

Project managers, IT security management,

▪ Specific technical training.

Civil servants:
▪ Basic computer literacy to operate information systems in public administration.

The courses of particular interest for Serbia are:

O1 eGovernment Introduction and e-law
O2 eGovernment Registries
O3 Customer oriented e-Government websites and IT policies
T1 Communication Architecture for eGovernment and Interoperability in eGovernment
T3 IT Service Management

vi.   **Number of trainings to be initiated and to be executed**

Overview of training planned in 2008

	Serbian training activities 2008	Date	PA Hi Level	PA Mid Level	Private NGO Academia	Total No. Participants	Student Days	Total Person Days
	Event							
1	**Workshop PEXIM Belgrade plan in outlines**	**Nov/Dec 2008**	5	15	5	25	2	50
2	**Workshop PEXIM Belgrade plan in outlines**	**Nov/Dec 2008**	5	15	5	25	2	50
3	**Workshop PEXIM Belgrade plan in outlines**	**1st Q. 2009**	5	15	5	25	3	75
	Overall Sum		**20**	**60**	**20**	**100**	**10**	**250**
			20%	**60%**	**20%**			

vii.   **2nd year plan**

The detailed plan for the 2nd quarter of the project will depend on the explicit commitment by the national level decision makers and concrete agreements for activities. As explained in the answer to the previous question, obtaining concreate input has been impossible at this point due to elections.

viii.   **List of Projects linked We-Go in Serbia**

• UNDP projects - http://www.undp.org.yu/

- Fund for open society Serbia - http://www.fosserbia.org/?change_lang=en
- TEMPUS project: "We Go On"
  This TEMPUS project was submitted in spring 2008 as a follow up project for We-Go.
  The consortium consists of partners that are already participating in We-Go
  (DUK/Austria, MITC/Macedonia, UoB/Serbia).

Foundation for sustainable ICT solutions

IT Training of the Macedonian State Administration: Needs Assessment

We-Go
Enhancing Western Balkan
eGovernment Expertise

eGov Clustering Event
Skopje, Macedonia, September 2007

Table of Contents

1. Intro

In order to identify the needs for IT training of the civil servants of the public administration in the Republic of Macedonia, the project "Evaluation of the potential for good governance in Macedonia" implemented by the Foundation Open Society Institute Macedonia in cooperation with the General Secretariat of the Government of the Republic of Macedonia conducted an IT training needs assessment for the civil servants in the public administration.

The research identified the needs for immediate training on separate IT skills which the civil servants often need to apply at their jobs in four content areas:
- Basic computer skills
- e-Government
- e-Democracy
- ICT skills for specific applications

The data will be used by decision makers in the General Secretariat and the Civil Servants Agency to establish the main priorities for IT training, plan the appropriate budgets and at the same time providing crucial assistance in the design of modules for the future training of the civil servants.

2. Key Draft Findings

The working group determined the following key findings, developing the recommendations for realization of the future activities in the area of IT training for the state administration. In depth-representation of some of the key findings is presented at the end of this document, using both graphical and numeric means (Appendix 1 and 2).

In addition to planning and provision of funds for these trainings, the trainings also need to be conducted according to an internationally acknowledged curriculum, enabling certification of all the civil servants relevant to those used on European level.

The survey established that significant number of civil servants needs training in basic computer skills, especially those over 41 and 51 years of age.

Civil servants with managerial and expert vocations require training for acquiring IT computer skills in the area of e-government. Civil servants of the executive branch of the government also need trainings the area of e-democracy and IT computer skills for specific applications.

Regular update of the data for conducted IT trainings for the civil servants in the register of civil servants owned by the Civil Servants Agency is recommended.

It is recommended that the research for the needs assessment for IT training of the civil servants in the executive authority is performed every 2 years and the percent of need for immediate training should be monitored.

3. Validity and Research Design

The assessment took place between February and May 2007, covering civil servants employed in 25 state institutions (ministries and organs within the ministries, departments of the Government of the Republic of Macedonia, administrative organizations and agencies and other legal entities) in 31 municipalities throughout the country.

The research covered 39% of the civil servants employed in the executive branch of the central government whose vocations are managerial, expert or expert-administrative.

Out of a total of 7.729 civil servants employed in the executive branch of the government, 3.042 respondents filled out the survey questionnaires, equally represented by male and female respondents, with proportional representation according to age, degree of education and years of working experience – comparable as the present structure of the civil servants in the executive authority according to the data owned by the Civil Servants Agency.

The percent of responses by the male and female civil servants was almost identical. More than half of the completed surveys come from civil servants employed in three institutions (Public Revenue Office, Ministry of Internal Affairs, State Authority for Geodetic Works), whereas two thirds of all the surveyed civil servants have more than 41 years of age. Half of the respondents have a vocation as chief of division, advisor or department manager.

In addition, during the design of the questionnaire, the working group invested a lot of effort in providing sensitivity to the issues of interoperability through use of brand-neutral and vendor-neutral terminology. In cases where explicit examples of applications were required, the team paid particular attention to providing balanced approach in regard to mentioning products by particular vendors and/or types of software, for instance proprietary and free/open source.

4. Necessary and Immediate Training Needs

During the work on this project, the experts paid particular attention to the relevance of the need for a specific IT skill to the position held by the civil servants in order to avoid clouding the results with requests for irrelevant trainings not actually needed or used as excuse to skip work. On the other end of the spectrum, by providing total anonymity, the survey ensured complete honesty by civil servants who need trainings for certain skills but keep quiet about it within their institutions for fear of being fired due to incompetence.

One of the goals of this research included identifying the civil servants who need immediate training in an appropriate IT skill, in order to point out at the bottlenecks in the state administration hindering its efficiency and effectiveness. In order to achieve this, the survey questionnaire sought correlations between the following parameters:
- Necessity for particular skill during a certain period (daily, weekly, monthly…)
- Current self-perceived skill level (familiar with a certain skill, capable of applying with assistance, unfamiliar, etc.)

Thus, the analysis introduced a "percent of need for immediate training" in order to assess the need for immediate training. Civil servants with a "need for immediate training" include those who have a need for a certain IT skill (have regular need for that IT skill at their job), and also need training for it (have no knowledge or apply the appropriate IT skill with someone's help).

For the purpose of this analysis, the "Percent of need for immediate training" has been defined in 5 different levels:

Level	Percentage
Very small percent of need for immediate training	0.0 - 4.9 %
Small percent of need for immediate training	5.0 – 9.9 %
Medium percent of need for immediate training	10.0-14.9 %
High percent of need for immediate training	15.0-19.9 %
Very high percent of need for immediate training	20+ %

The separate values of the "Percent of need for immediate training" for every IT skill - subject of this research are singly presented according to various demographic parameters

(gender, age, education, work experience) of the civil servants and by institutions are

5. Kinds of Training

provided at the end of this report.
According to the answers of the civil servants regarding the type of IT training that should be conducted for all the people that need immediate training for each of the appropriate IT skills from the four above mentioned content groups, it is obvious that most of the civil servants (86.1%) prefer a training which will be designed based on the principle "short presentation accompanied by many practical exercises."
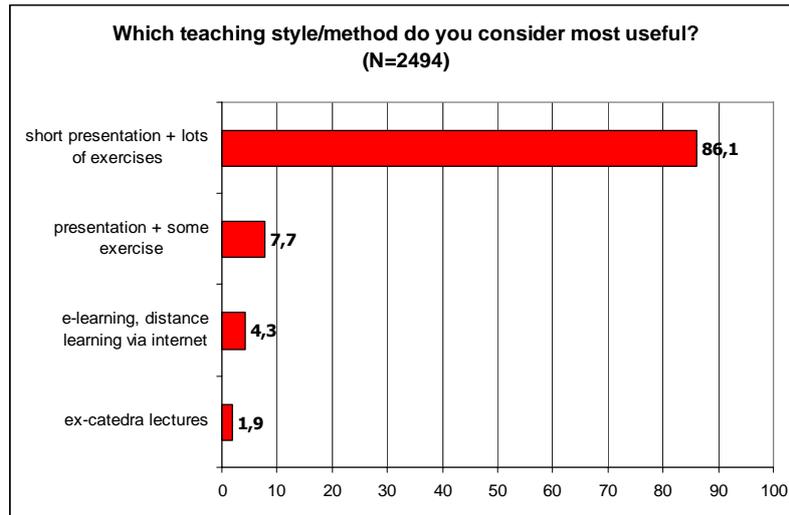
Graph 1: Teaching method preference

Based on the draft results, the working groups recommended that the trainings should be designed in a manner that they would comprise short presentations, and most of the time should be dedicated to performing practical exercises of what is subject to the training.

The civil servants also state that they would like to attend specific IT training for acquiring an appropriate IT skill in some of the following languages: Macedonian, Albanian, English, Serbian, thus a great number of them say that they could successfully attend the training in two of the previously mentioned languages.
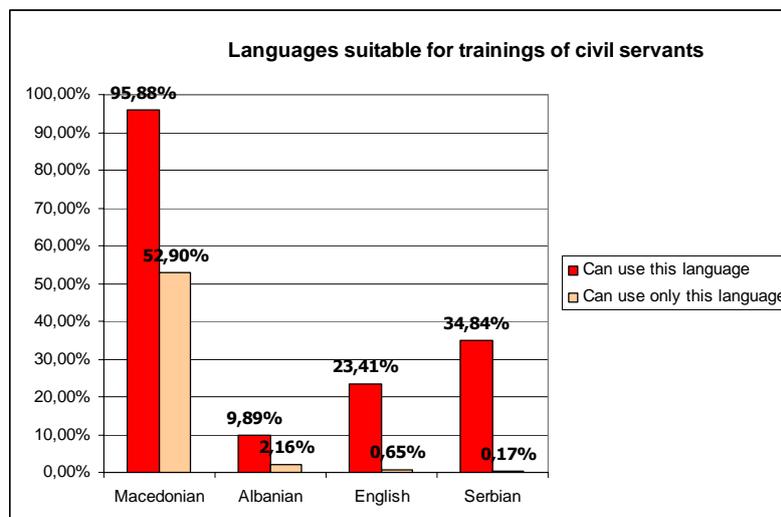
Graph 2: Languages suitable for trainings of civil servants

Based on the draft results, the working groups recommended that the training should be held in a language which suits the needs of the attendants the most.

6. Content and Scope of Needed Trainings, Training Delivery

In order to establish the need for immediate training on IT skills from each of the four major subject groups, the civil servants were required to answer these questions regarding every type of IT skill: 1) how often do they have the need for such skills at their jobs; and 2) what is their level of knowledge in the appropriate area.

The conclusions arising from the analysis of the obtained results, as well as the recommendations, are separated in five sections, one for each major subject group of IT skills and one part regarding summary (general) conclusions and recommendations.

6.1. Basic computer skills

Based on the obtained results, the research working group formulated recommendations on the kinds and size of trainings needed at this point in Macedonian public administration. In order to satisfy these needs, the funds of about 20 EUR per attendant per training module are required for training delivery, if local experts are used. The costs for curriculum development and training of trainers should be considered separately, depending on the scope and expertise needed for it.

Overview of training topics from the area of Basic Computer Skills	Civil servants needing this type of training	Minimum funds needed for training delivery
Basic IT–related terms: hardware, software, memory, networks, security, legal issues	1.082	21.640 EUR
Using a computer and working with files: using an OS, settings, desktop, windows, icons, files and directories/folders	1.090	21.800 EUR
Text processing: creating and formatting documents and templates, using tables, images and mail merge	1.244	24.880 EUR
Using spreadsheets: structure, functions and program possibilities for calculations, use of math. & logical formulas and functions, creating diagrams	1.430	28.600 EUR
Databases: understanding and using databases by creating, changing and merging tables, working with forms, requests and reports	1.484	29.680 EUR
Presentations: using modern presentation software, preparation of slides by incorporating text and graphical elements, as well as effects	585	11.700 EUR
Using the Internet: finding information on the web by using a web browser and using an e-mail	1.314	26.200 EUR

The working group also established that, due to the various platforms of IT system and software tools it is necessary to standardize the curricula and levels of knowledge of the civil servants for the separate basic IT skills. For this purpose, an internationally acknowledged and recognizable curriculum should be introduced, as well as certification of the civil servants for the appropriate IT skill.

The funds needed for introduction of nation-wide certification scheme start from about 30 EUR per civil servant, with an estimated cost of 231.870 EUR for all civil servants in the executive branch covered by the survey.

6.2. e-Government

So far within the bodies of the executive branch of the Government of Republic of Macedonia, only the civil servants with managerial and expert vocations have been dealing with issues related to the creation of IT policies, strategic and action plans for development and implementation of solutions in the area of e-government in the. In order to address the needs of the moment, the working group recommended that the trainings for acquiring IT skills related to the issues of e-government stated in this subject group should be planned and organized only for the civil servants with managerial and expert vocations.

Graph 3: Two thirds (2/3) of civil servants have no knowledge regarding the legal framework on ICT

In order to satisfy these needs, the funds of about 40 EUR per attendant per training module are required for training delivery, if local experts are used. The costs for curriculum development and training of trainers should be considered separately, depending on the scope and expertise needed for it.
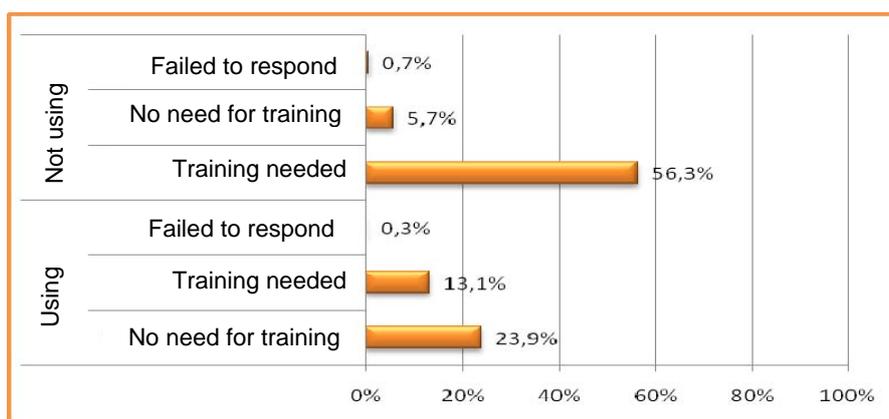
Overview of training topics from the area of e-Government	Civil servants needing this type of training	Minimum funds needed for training delivery
Legal framework/regulation related to ICT	675	27.000 EUR
Development of applied ICT policies: standards, security, privacy, access to public data etc.	580	23.200 EUR
The role of ICT in the public sector and coordination	600	24.000 EUR
ICT strategic planning	355	14.200 EUR
Principles and project cycle management and revision of projects for e-governance in the public sector	324	12.960 EUR
ICT budgeting	209	8.360 EUR
Main projects and applications in the area of ICT in the public sector	296	11.840 EUR
Cooperation between organizations and institutions: exchange of data between different registers	738	29.520 EUR
M-governance: using mobile technologies for e-governance	470	18.800 EUR

6.3. e-Democracy

In order to satisfy the needs for e-Democracy skills, the funds of about 40 EUR per attendant per training module are required for training delivery, if local experts are used. The costs for curriculum development and training of trainers should be considered separately, depending on the scope and expertise needed for it.

Overview of training topics from the area of e-Democracy	Civil servants needing this type of training	Minimum funds needed for training delivery
Basic principles of e-democracy: transparency, citizen participation, e-voting	765	30.600 EUR
E-citizens, ICT – services: principles and practical examples	719	28.760 EUR

6.4. ICT skills for specific applications

When addressing the needs for training for specific e-government applications, the funds of about 40 EUR per attendant per training module are required for training delivery, if local experts are used. The costs for curriculum development and training of trainers should be considered separately, depending on the scope and expertise needed for it.

Overview of training topics from the area of ICT skills for specific applications	Civil servants needing this type of training	Minimum funds needed for training delivery
uslugi.gov.mk	997	39.880 EUR
e-procurements	410	16.400 EUR

An immediate need has been established for training on other specific applications starting from "Project management," and "Accounting programs," to "Oracle," and "Corel" through "Insight in electronic classifications and nomenclatures," "Financial administration system," "Tax information system," and CAD application software (Microstation and AutoCad).

Considering that these skills might be needed by smaller number of specialized civil servants, the working group recommended design and implementation of procedures procedure in all institutions of the executive branch of the Government for submission of a request for immediate and other IT training.

6.5. Need for Continuous Needs Assessment

Based on the draft results the working group recommended conducting regular update of the data regarding the implemented IT trainings for the civil servants in the register of civil servants owned by the Civil Servants Agency.

It also recommended that the research for the needs assessment for IT training of the civil servants in the executive authority is performed every 2 years and that the percent of need for immediate training is monitored.

Appendices

Appendix 1. Need for Immediate Training by Various Demographic Parameters (in %)
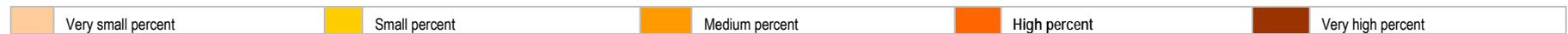
| | Very small percent | | Small percent | | Medium percent | | High percent | | Very high percent |

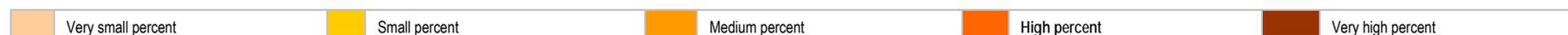| Parameter	1. Basic IT-related terms	2. Using a computer and working with files	3. Text processing	4. Tabular calculations	5. Databases	6. Presentations	7. Using the internet	AVERAGE – Basic computer skills	1. Legal framework (regulation) related to ICT	2. Development of applied ICT policies	3. The role of ICT in the public sector and coordination	4. ICT strategic planning	5. Principles for project cycle management and revision of projects for e-governance in the public sector	6. ICT budgeting	7. Main projects and applications from the area of ICT in the public sector	8. Cooperation between organizations and institutions: exchange of data between different registers	9. M-governance (using mobile technologies for e-governance)	AVERAGE – e-government	1. Basic principles of e-democracy: transparency, citizen participation, e-voting	2. E-citizens, ICT – services: principles and practical examples	AVERAGE – e-democracy	1. uslugi.gov.mk	2. e-procurements	AVERAGE – Specific applications	TOTAL AVERAGE
Gender																									
Female	11,6	12,1	14,4	17,4	17,9	7,8	16,1	13,9	13,0	10,9	12,4	7,5	5,0	3,8	6,0	15,8	7,9	9,1	10,8	9,0	9,9	13,4	4,4	8,9	10,5
Male	16,5	16,2	17,8	19,6	20,4	14,5	17,9	17,6	13,1	12,1	13,2	8,6	8,3	6,1	6,4	14,7	10,3	10,3	9,0	9,7	9,4	12,3	6,3	9,3	11,6
Age groups (years)																									
18-30	5,3	3,4	4,1	9,4	16,7	8,5	4,6	7,4	12,0	10,5	8,1	7,0	6,7	4,0	5,9	11,5	5,8	8,0	7,5	6,0	6,7	12,8	4,4	8,6	7,7
31-40	9,1	8,6	9,1	14,9	17,3	10,0	13,2	11,7	9,2	8,4	10,3	3,4	4,7	4,3	2,9	12,6	7,3	7,0	10,9	9,7	10,3	10,0	4,6	7,3	9,1
41-50	14,4	15,1	17,4	20,9	18,9	10,3	21,1	16,9	13,2	11,8	14,0	8,4	4,9	3,9	5,9	17,0	9,7	9,9	9,9	9,6	9,8	12,1	5,5	8,8	11,3
50+	19,4	19,7	23,0	21,6	21,4	13,2	20,3	19,8	15,5	13,4	15,4	10,5	9,3	6,7	8,7	17,2	10,9	12,0	10,9	10,8	10,8	15,8	5,8	10,8	13,3
Education level																									
PhD (Dr.)	0,0	7,7	7,7	18,2	23,1	15,4	15,4	12,5	46,2	16,7	36,4	8,3	18,2	0,0	9,1	54,5	0,0	21,0	9,1	18,2	13,6	20,0	9,1	14,5	15,4
MA	2,7	1,3	2,6	3,9	15,1	7,8	6,6	5,7	7,2	7,4	7,6	5,8	7,6	7,2	6,2	20,0	11,1	8,9	10,8	13,8	12,3	9,1	7,7	8,4	8,8
BA	13,3	13,0	14,1	19,9	23,8	15,6	18,4	16,9	17,5	15,6	16,1	9,3	8,3	5,2	7,3	18,4	12,4	12,2	12,2	11,4	11,8	15,0	5,9	10,5	12,8
TYUS	19,2	18,6	21,0	21,6	17,1	8,9	17,8	17,7	7,7	7,1	9,7	5,1	4,8	3,5	4,4	10,1	5,7	6,5	7,3	6,5	6,9	9,7	4,0	6,8	9,5
HSE	13,8	15,1	18,1	17,1	14,5	6,3	16,1	14,4	8,7	7,6	9,5	7,3	4,4	4,6	5,2	11,8	5,5	7,2	7,6	7,1	7,4	11,7	4,5	8,1	9,3
Work Experience (years of service)																									
1	3,3	2,0	4,3	7,4	17,0	12,5	5,0	7,4	14,2	13,7	9,1	7,5	7,2	4,2	6,0	10,7	5,9	8,7	8,2	5,2	6,7	12,9	5,2	9,1	8,0
5	9,0	7,4	8,1	13,4	17,2	8,0	9,6	10,4	10,1	7,4	10,1	6,8	6,9	5,2	5,2	12,2	9,4	8,2	10,0	9,3	9,6	12,4	4,8	8,6	9,2
10	8,2	8,6	10,9	17,6	19,6	11,1	14,5	12,9	11,4	11,7	10,3	7,1	6,2	5,6	4,6	16,3	10,9	9,3	8,8	10,9	9,9	9,7	7,2	8,5	10,1
15	17,1	16,6	14,4	22,0	19,3	8,9	25,1	17,6	9,7	10,7	11,5	7,2	4,6	4,6	4,2	16,0	7,4	8,4	11,0	6,7	8,9	10,0	4,6	7,3	10,6
20	15,1	16,1	19,6	19,3	21,0	12,2	19,6	17,6	13,2	10,5	14,2	6,8	5,2	3,0	5,2	16,9	7,2	9,1	10,0	10,5	10,3	15,0	4,4	9,7	11,7
25	17,2	17,8	22,6	23,7	18,8	11,2	21,6	19,0	13,3	11,8	16,0	8,9	6,9	5,3	7,8	18,7	10,1	11,0	8,6	11,8	10,2	14,9	5,6	10,2	12,6
30+	18,1	19,8	21,5	20,1	20,3	13,4	19,5	18,9	15,2	12,6	13,3	9,3	8,6	5,8	8,5	15,1	10,6	11,0	11,5	9,3	10,4	14,0	6,4	10,2	12,6

Appendix 2. Need for Immediate Training by Vocation

Very small percent	Small percent	Medium percent	High percent	Very high percent

Vocation	1. Basic IT-related terms	2. Using a computer and working with files	3. Text processing	4. Tabular calculations	5. Databases	6. Presentations	7. Using the internet	AVERAGE – Basic computer skills	1. Legal framework (regulation) related to ICT	2. Development of applied ICT policies	3. The role of ICT in the public sector and coordination	4. ICT strategic planning	5. Principles for project cycle management and revision of projects for e-governance in the public sector	6. ICT budgeting	7. Main projects and applications from the area of ICT in the public sector	8. Cooperation between organizations and institutions: exchange of data between different registers	9. M-governance (using mobile technologies for e-governance)	AVERAGE – e-government	1. Basic principles of e-democracy: transparency, citizen participation, e-voting	2. E-citizens, ICT – services: principles and practical examples	AVERAGE – e-democracy	1. uslugi.gov.mk	2. e-procurements	AVERAGE – Specific applications	TOTAL AVERAGE
State counsellor	10,5	8,1	8,1	19,4	24,3	8,6	11,1	12,9	20,6	21,2	12,9	9,7	16,1	10,3	10,3	30,3	15,2	16,3	16,1	9,7	12,9	14,3	6,3	10,3	13,1
Chief of division	8,6	8,6	8,6	14,0	26,8	15,5	14,5	13,8	18,5	16,7	17,3	1,9	11,5	7,7	9,8	26,4	8,3	13,1	11,5	11,5	11,5	18,4	6,1	12,2	12,7
Assistant chief of division	12,2	16,0	9,6	9,6	9,8	5,9	13,7	11,0	11,6	11,1	9,3	0,0	2,6	2,4	0,0	10,3	2,6	5,5	10,0	7,5	8,8	7,5	0,0	3,8	7,3
Chief of department	12,1	14,3	14,3	23,6	25,4	16,0	20,4	18,0	18,9	15,1	15,3	8,1	8,3	2,9	5,8	19,0	13,2	11,8	14,6	11,4	13,0	11,9	5,8	8,9	12,9
Counsellor	16,1	15,9	17,3	21,0	25,2	17,0	24,4	19,5	18,2	14,4	16,8	12,6	8,1	5,2	7,3	20,6	15,3	13,2	12,7	14,6	13,7	15,7	6,5	11,1	14,4
Senior associate	18,5	11,5	14,9	18,3	21,4	10,4	14,9	15,7	8,9	13,2	22,4	6,5	5,4	6,8	8,2	22,7	11,4	11,7	9,5	15,5	12,5	21,1	5,5	13,3	13,3
Associate	12,0	12,7	17,7	19,2	18,6	17,6	14,2	16,0	20,2	18,4	15,2	9,2	8,2	8,5	10,5	18,8	12,0	13,4	14,9	9,4	12,1	16,5	10,5	13,5	13,8
Junior associate	3,7	0,9	3,2	7,9	17,7	10,8	4,2	6,9	14,8	12,6	10,0	7,4	8,1	5,1	8,5	11,7	6,4	9,4	9,0	5,8	7,4	12,6	5,3	8,9	8,2
Senior officer	19,7	23,0	25,0	23,9	17,6	4,0	22,4	19,4	5,3	6,3	7,5	6,4	4,4	3,8	4,9	6,5	3,8	5,4	4,3	5,9	5,1	6,5	2,2	4,3	8,6
Officer	6,1	7,1	10,7	8,0	6,5	3,5	9,3	7,3	2,6	2,6	2,2	2,7	1,7	1,7	1,1	4,4	1,1	2,2	4,0	2,8	3,4	6,1	2,2	4,2	4,3
Junior officer	8,2	8,3	9,1	11,4	14,5	6,0	9,5	9,6	9,5	9,6	11,7	6,3	5,5	1,9	1,8	12,7	4,4	7,0	8,8	5,5	7,1	19,3	2,8	11,0	8,7
Independent officer	18,6	19,0	21,9	22,4	18,2	9,7	19,1	18,4	11,9	10,0	13,6	9,1	6,0	6,2	6,9	15,5	8,7	9,8	9,8	9,4	9,6	12,5	6,5	9,5	11,8

Appendix 3. Need for immediate training by institutions (in %)

	Very small percent		Small percent		Medium percent		High percent		Very high percent

Institution	1. Basic IT-related terms	2. Using a computer and working with files	3. Text processing	4. Tabular calculations	5. Databases	6. Presentations	7. Using the internet	AVERAGE – Basic computer skills	1. Legal framework (regulation) related to ICT	2. Development of applied ICT policies	3. The role of ICT in the public sector and coordination	4. ICT strategic planning	5. Principles for project cycle management and revision of projects for e-governance in the public sector	6. ICT budgeting	7. Main projects and applications from the area of ICT in the public sector	8. Cooperation between organizations and institutions: exchange of data between different registers	9. M-governance (using mobile technologies for e-governance)	AVERAGE – e-government	1. Basic principles of e-democracy: transparency, citizen participation, e-voting	2. E-citizens, ICT – services: principles and practical examples	AVERAGE – e-democracy	1. uslugi.gov.mk	2. e-procurements	AVERAGE – Specific applications	TOTAL AVERAGE
CSA	4,2	2,0	0,0	8,3	8,5	6,3	2,1	4,5	4,1	6,3	6,3	4,3	4,3	6,4	4,2	8,3	8,3	5,8	10,6	8,5	9,6	2,1	4,3	3,2	5,8
SARM	50,4	48,5	41,7	45,8	51,2	16,9	49,2	43,4	15,8	14,0	77,8	1,9	22,2	0,0	7,7	81,5	0,0	24,5	12,0	82,0	47,0	96,3	3,8	50,1	41,3
GS	0,0	0,0	0,0	11,4	17,6	8,8	2,9	5,8	6,5	6,5	0,0	11,5	7,4	10,3	14,8	13,8	16,7	9,7	7,7	12,0	9,8	9,7	10,3	10,0	8,8
SAGW	17,2	20,1	22,4	30,8	11,7	2,9	34,7	20,0	0,4	0,4	0,4	0,0	0,4	0,0	0,0	0,0	0,0	0,2	0,4	0,4	0,4	0,4	0,0	0,2	5,2
DPDP	0,0	0,0	0,0	7,7	7,7	7,7	0,0	3,3	41,7	38,5	30,8	30,8	0,0	0,0	7,7	0,0	15,4	18,3	23,1	7,7	15,4	30,8	38,5	34,6	17,9
SSO	4,6	4,6	3,1	5,1	10,8	4,1	7,1	5,6	5,2	5,2	5,7	4,0	0,6	0,0	2,3	2,9	4,1	3,3	5,2	3,5	4,4	5,1	1,1	3,1	4,1
PRD	40,6	38,3	33,3	44,0	42,9	35,2	47,7	40,3	34,8	28,6	37,9	25,0	21,2	12,5	8,7	40,7	38,8	27,6	4,2	22,0	13,1	36,0	18,8	27,4	27,1
MI	8,3	7,4	9,6	8,6	10,6	6,4	6,9	8,2	6,9	7,5	6,8	6,5	3,7	4,2	3,3	7,1	3,3	5,5	5,0	3,4	4,2	7,3	4,6	6,0	6,0
ME	1,9	4,8	8,1	15,0	20,6	11,1	6,5	9,7	7,1	6,5	8,3	9,6	11,8	1,5	6,0	11,6	7,5	7,8	15,2	2,9	9,0	9,7	1,5	5,6	8,0
MEPP	3,4	3,4	5,2	10,7	17,9	16,1	10,3	9,6	5,6	7,5	11,1	7,4	9,3	9,3	13,0	17,0	9,3	9,9	29,6	9,4	19,5	18,5	13,7	16,1	13,8
MH	21,9	23,4	24,6	24,6	24,6	16,4	28,1	23,4	33,3	25,0	28,1	16,1	9,1	10,7	11,3	31,0	23,2	20,9	15,8	14,0	14,9	17,9	10,3	14,1	18,3
MAFWE	18,3	18,7	16,5	17,8	31,4	15,4	26,4	20,6	27,1	24,1	28,0	18,5	11,8	17,0	5,7	33,3	29,4	21,7	28,8	26,9	27,9	30,8	12,0	21,4	22,9
MK	8,8	5,0	8,6	6,3	11,3	16,3	8,6	9,3	25,4	27,1	20,0	8,3	7,4	5,9	8,7	31,4	10,0	16,0	20,0	13,2	16,6	12,7	7,4	10,0	13,0
MLSG	13,3	0,0	0,0	21,4	40,0	7,7	0,0	11,8	0,0	26,7	13,3	6,7	13,3	6,7	7,1	14,3	14,3	11,4	26,7	7,1	16,9	6,7	0,0	3,3	10,8
MFA	0,0	3,4	3,6	0,0	3,6	0,0	6,9	2,5	10,3	6,9	0,0	3,7	6,9	6,9	6,9	10,7	3,7	6,2	0,0	3,7	1,9	3,4	0,0	1,7	3,1
MD	5,9	0,0	0,0	5,6	5,6	22,2	0,0	5,6	6,7	13,3	15,4	12,5	6,7	6,3	7,1	13,3	0,0	9,0	0,0	0,0	0,0	12,5	6,3	9,4	6,0
MES	5,7	4,2	8,3	8,3	11,4	12,9	11,6	8,9	14,5	9,1	7,4	4,3	7,4	2,9	7,4	10,0	5,7	7,6	17,4	5,9	11,6	5,8	2,9	4,4	8,1
MTC	0,0	0,0	0,0	14,3	7,1	7,1	7,1	5,1	7,1	7,1	7,1	0,0	0,0	0,0	0,0	15,4	0,0	4,1	7,7	9,1	8,4	7,7	7,7	7,7	6,3
MLSP	3,9	1,3	8,2	7,8	13,0	6,6	5,1	6,5	31,4	16,7	20,5	14,3	7,4	6,3	15,2	22,5	15,6	16,7	9,0	10,6	9,8	9,7	3,0	6,4	9,8
MF	3,6	1,8	3,6	21,4	37,5	38,2	9,1	16,4	9,4	9,6	5,6	7,5	5,7	7,4	5,7	7,8	7,5	7,4	9,4	10,0	9,7	7,8	8,0	7,9	10,4
SEP-IPARDPA	5,8	4,5	1,4	5,7	24,3	2,9	0,0	6,4	16,1	16,1	9,8	3,4	8,3	0,0	3,3	14,8	5,0	8,5	4,9	4,9	4,9	3,4	1,7	2,5	5,6
LS	12,5	6,3	6,3	0,0	6,3	6,3	6,3	6,3	6,3	6,3	0,0	6,3	0,0	0,0	0,0	0,0	0,0	2,1	0,0	0,0	0,0	6,3	0,0	3,1	2,9
PRO	16,3	17,5	22,7	22,4	19,8	11,1	16,5	18,0	15,7	12,7	13,0	10,6	7,9	6,9	9,1	17,7	12,9	11,8	11,6	9,7	10,6	15,2	5,9	10,5	12,8
CA	0,0	0,0	15,4	7,7	8,3	0,0	15,4	6,7	36,4	36,4	10,0	30,0	10,0	0,0	0,0	10,0	10,0	15,9	9,1	9,1	9,1	30,0	10,0	20,0	12,9
CMC	10,5	11,6	13,0	20,2	23,6	21,0	23,9	17,7	28,6	25,8	24,6	14,1	9,5	11,1	15,9	29,7	19,4	19,8	21,5	14,5	18,0	24,2	17,5	20,8	19,1

Appendix 4. List of Abbreviations and Acronyms

English		Macedonian	
Acronym	**Full Name**	**Acronym**	**Full Name**
CSA	Civil Servants Agency	АДС	Агенција за државни службеници
AL	Albanian language	АЛ	Албански јазик
SARM	State Archives of the Republic of Macedonia	АРХИВ	Државен архив на Република Македонија
BD	Bachelor's Degree	ВСС	Висока стручна спрема
TYUS	Two-Year Undergraduate Studies	ВШС	Виша стручна спрема
GS	General Secretariat	ГС	Генерален секретаријат
SAGW	State Authority for Geodetic Works	ДЗГР	Државен завод за геодетски работи
DPDP	Directorate for Personal Data Protection	ДЗЛП	Дирекција за заштита на личните податоци
SSO	State Statistical Office	ДЗС	Државен завод за статистика
PRD	Protection and Rescue Directorate	ДЗСПАС	Дирекција за заштита и спасување
EN	English language	EN	Англиски јазик
MI	Ministry of the Interior	МВР	Министерство за внатрешни работи
ME	Ministry of Economy	МЕ	Министерство за економија
MEPP	Ministry of Environment and Physical Planning	МЖСПП	Министерство за животна средина и просторно планирање
MH	Ministry of Health	М3	Министерство за здравство
MAFWE	Ministry of Agriculture, Forestry and Water Economy	МЗШВ	Министерство за земјоделство, шумарство и водостопанство
MC	Ministry of Culture	МК	Министерство за култура
MK	Macedonian language	МК	Македонски јазик
MLSG	Ministry of Local Self-Government	МЛС	Министрство за локална самоуправа
MFA	Ministry of Foreign Affairs	МНР	Министерство за надворешни работи
MD	Ministry of Defense	МО	Министерство за одбрана
MES	Ministry of Education and Science	МОН	Министерство за образование и наука
MTC	Ministry of Transport and Communications	МТВ	Министерство за транспорт и врски
MLSP	Ministry of Labor and Social Policy	МТСП	Министерство за труд и социјална политика
MF	Ministry of Finance	МФ	Министерство за финансии
SEA-IPARDPA	Secretariat for European Affairs	СЕП-ИПАРДПА	Секретаријат за европски прашања
LS	Legislative Secretariat	С3	Секретаријат за законодавство
SR	Serbian language	SR	Српски јазик
HSE	High School Education	ССС	Средна стручна спрема
PRO	Public Revenue Office	УЈП	Управа за јавнни приходи
CA	Customs Administration	ЦУ	Царинска управа
CMC	Crisis Management Center	ЦУК	Центар за управување со кризи