

NATIONAL STRATEGY FOR INFORMATION SOCIETY DEVELOPMENT

ACTION PLAN



REPUBLIC OF MACEDONIA



1. RECOMMENDATIONS FOR INFORMATION SOCIETY DEVELOPMENT

2. DIRECTIONS

2.1 INFRASTRUCTURE

2.2 E-BUSINESS

2.3 E-GOVERNMENT

2.4 E- EDUCATION

2.5 E-HEALTH

2.6 E- CITIZENS

2.7 LEGISLATION

3. PRIORITY AREAS ENABLING STRATEGY SUSTAINABILITY

4. ACTION PLAN

4.1 INFRASTRUCTURE

4.2 E-BUSINESS

4.3 E-GOVERNMENT

4.4 E-EDUCATION

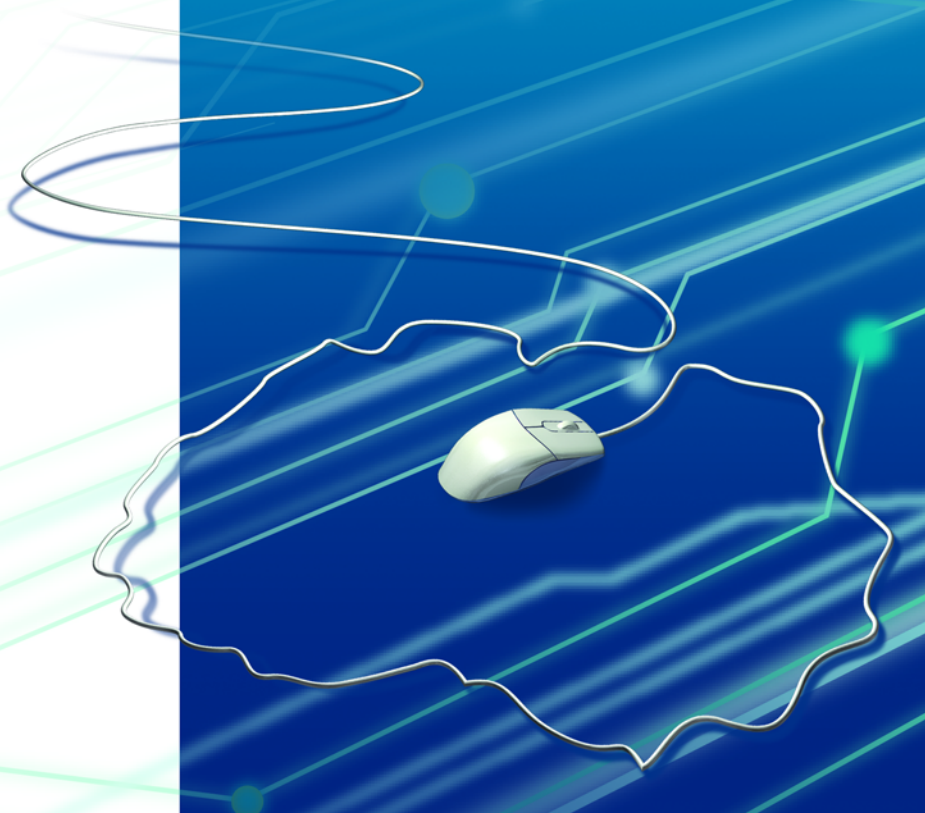
4.5 E-HEALTH

4.6 E-CITIZENS

4.7 LEGISLATION

4.8 SUSTAINABILITY

LITERATURE



4 ACTION PLAN

This Action Plan entails all projects, pilot projects, initiatives or programmes, divided by the previously stated pillars, where in an identical manner they are represented, linked to the realisation of a specific objective from the Strategy, responsible authority of the activity, other participants in the realisation, the time of implementation, financial projection, as well as critical factors for the implementation, the sources of financing and potential risks in respect to the Expected Outcomes. For a portion of these projects that are already in a preparatory phase the following is listed: defined responsible authority for the activity and secured financial means, the actual responsible authority of the project and the specific approved financial means. The listed priorities for realisation of some of the projects are not binding priorities, but reflect a proposal for grouping of the projects.

4.1 INFRASTRUCTURE

Type of activity:	Project - PR1.01	
Title of the Activity	Activities for ensuring wide presence and spreading the idea of massive usage of fast and cost-effective internet	
Area	Infrastructure O1.01	
Reference	E-Government, e-citizens, e-education	
Responsible Authority	Government of the Republic of Macedonia, Information Society Agency	
Participants:	<ul style="list-style-type: none"> • AD "Makedonski telekomunikacii"; • Universities; • Private sector; • Non-Governmental organisations; • Education. 	
Activity Description	Measures of the Government of the Republic of Macedonia for: Providing internet access to public locations (university campuses, transport centres, libraries and cultural centres) with application of modern networking technologies (Wi-Max, of the PMP type) Providing quick internet at reduced prices; Providing free-of-charge access of the citizens to internet by dialling a specific number.	
Expected Outcomes	Increase in the number of Internet users and promotion of the Internet services	
Components:	1. Component 1	Linking of Governmental institutions
	2. Component 2	Linking of educational, cultural and other centres
	3. Component 3	Linking with the local administration
Preconditions	Practical usage of the ID cards, a decision taken at Government level, for a rational building of communication infrastructure at the level of the Republic of Macedonia	
Period of Implementation	The end of 2006	
Financial Projection	A study on the financial projection 100.000 EUROS Realisation - about 5 million EUROS	

<i>Critical factors for implementation</i>	
Financial sources	Budget, donor institutions, local self-Government, private sector
Expert staff, human resources, necessary knowledge and expertise	National human resources potentials for the development of the project are available.
Development Environment	Promotion, Agency for Electronic Communications, Information Society Agency
Technologies	Following the trends in the technology, i.e. wide-band services (digital subscriber line), WDM optical technologies, digital subscribers lines - DSL lines, using of Wi-Fi, Wi-Max, transfer of data through existing protocols, FR, IP, ATM, WLAN grid - infrastructure and other advanced technologies that provide quality services.
Deadlines	2007 implementation of the project
Monitoring of the Realisation	Published material, research on the acceptance and usage of the services, conducting an opinion poll of the citizens through scheduled plans in a project-management, number of electronic services and internet users.
Risks	Lack of financial means and lack of quality project management co-ordinating all activities given the complexity of the project, it is necessary to split the project in phases and areas.

Type of activity:	Project - PR1.02	
Title of the activity	Defining of the existing capacities and the planned activities on the part of the infrastructure of the civil service and in the public enterprises/institutions and the telecommunication services operators	
Area	Infrastructure O1.02	
Reference	E-Government, e-education	
Responsible Authority	Information Society Agency	
Participants:	<ul style="list-style-type: none"> • Governmental institutions; • Agency for Electronic Communications; • mobile and fixed network operators; • telecommunication services operators; • State Statistical Office. 	
Activity Description	Screening of the condition with the existing capacities in the area of infrastructure, which can serve as basis for future projects	
Expected Outcomes	Precise and relevant data for the existing capacities and the possibilities to link and use those capacities to other users - projects	
Components	1. Component 1	Defining the existing capacities in the part of the infrastructure in the civil service
	2. Component 2	Defining the existing capacities in the part of the infrastructure in the public enterprises
	3. Component 3	Defining the existing capacities in the part of the infrastructure in the companies (economic operators)

Preconditions	Financial means, consent from all responsible authorities, co-operation with the State Statistical Office
Period of Implementation	By the end of September 2005
Financial projection	50.000 EUROS
<i>Critical factors for implementation</i>	
Financial sources	Budget, donors and private sector
Expert staff, human resources, necessary knowledge and expertise	- MARNET; - universities, IT faculties, national experts and consultants; - MASIT; - State Statistical Office
Development environment	Information Society Agency
Technologies	In order to complete the analysis of the capacities, hardware and software support is needed
Deadlines	It is necessary to finish the analysis in due time, for the purposes of undertaking further activities in respect to the infrastructure, as well as for equipping and staffing of the institutions.
Monitoring of the Realisation	Through reports and implementation schedules within the project
Risks	Lack of consent, financial means, inappropriate project management

Type of activity:	Project - PR1.03	
Title of the activity	Design and implementation of the backbone network for the need of the Governmental institutions; - civil service; - private sector;	
Area	Infrastructure O1.02	
Reference	E-Government, e-citizens, e-education	
Responsible Authority	Information Society Agency	
Participants:	<ul style="list-style-type: none"> • MARNET; • MASIT; • Institutes, universities; • Private sector; • Agency for Electronic Communications. 	
Activity Description	Design and construction of the backbone network at the level of the Republic of Macedonia, whereas all subjects will find interest in its respective implementation, usage and maintenance.	
Expected Outcomes	Plan for development and implementation of a quality infrastructure which in a longer period of time shall meet the needs of the beneficiaries and building of partnership relations between the subjects, possibilities for a regional networking	
Components	1. Component 1	Analysis of the existing resources
	2. Component 2	Design of the network with a rational usage of the existing capacities
	3. Component 3	Implementation and monitoring
Preconditions	Political will, financial means, synergetic acting of all responsible authorities, knowledge of the existing infrastructure and its integration	

Period of Implementation	By the end of 2007
Financial projection	Subject of a study (an assessment for the preparation of the study - 100.000 EUROS) Project realization 3-4 million Euro
	<i>Critical factors for implementation, financial means, control and monitoring system</i>
Financial sources	Government and donor organisations
Expert staff, human resources, necessary knowledge and expertise	MARNET, IT faculties, national experts and consultants, with the possibility to include foreign experts for the purpose of a regional networking
Development environment	Legislation
Technologies	Optics, security technologies, VPN
Deadlines	By the end of 2006
Monitoring of the Realisation	Through project management, pursuing of the implementation of the plans and through the planned periodical reports
Risks	Financial means, inefficient project management, lack of political will, inactive participation of all responsible authorities

Type of activity:	Project - PR1.04	
Title of the activity	Assessment of the necessary legal framework for development of the ICT infrastructure	
Area	Infrastructure, legislation, related to C1.02	
Reference	Regulations, e-business	
Responsible Authority	Ministry of Transport and Communications	
Participants	<ul style="list-style-type: none"> • MASIT; • Information Society Agency; • Agency for Electronic Communications; • Ministry of Transport and Communications; • Donor institutions. 	
Activity Description	Team of national experts shall make an overview and analysis of the international organisations' legislation and analysis of the legislation in the Republic of Macedonia	
Expected Outcomes	Overview of the needed legislation that needs to be harmonised or to be adopted	
Components	1. Component 1	Analysis of the national legislation
	2. Component 2	Analysis of the EU legislation
	3. Component 3	Guidelines and proposals for amendment and changes of the existing laws; Passing of new laws (Law on Information Society).
Preconditions	Political will, active involvement of all interested parties, financial means.	
Period of Implementation	6 months	
Financial projection	60.000 EUROS	
	<i>Critical factors for implementation</i>	
Financial sources	Donor institutions, Government of the Republic of Macedonia (budget)	
Expert staff, human resources, necessary knowledge and expertise	Using of foreign experts for those parts of the legislation which need to be harmonised in compliance with the EU law	

Development environment	Experiences of the EU experts in respect to the legislation
Technologies	n/a
Deadlines	End of 2006
Monitoring of the Realisation	Through regular reports
Risks	Absence of political will, inertia of the public institutions

Type of activity:	Project - PR1.05	
Title of the activity	Structural change of the Telecommunications Directorate and its transformation into Agency, with monitoring over its operation	
Area	Infrastructure objective O1.01, O1.02, O1.03	
Reference	E-Government, e-citizens, legislation, e-business	
Responsible Authority	Agency for Electronic Communication	
Participants:	<ul style="list-style-type: none"> • Agency for Electronic Communications; • Donor institutions; • Experts in the field. 	
Activity Description	Organisational architecture and staffing of the Agency for Electronic Communications, which will have the role of a regulatory body in the area of telecommunications, bringing of all necessary and needed secondary legislation	
Expected Outcomes	An efficient Agency that will meet the European standards of work	
Components	1. Component 1	Establishing of an Agency for Electronic Communications
	2. Component 2	Passing of the required secondary legislation
	3. Component 3	Structuring, staffing and training
Period of Implementation	12 months	
Financial projection	Subject of a study (an assessment for the production of the study - 100.000 EUROS)	
<i>Critical factors for implementation</i>		
Financial sources	Donors	
Expert staff, human resources, necessary knowledge and expertise	Foreign experts in the field of electronic communications legislation	
Development environment	Desired experiences and practices are those coming from the EU members of the Member States of the EU	
Technologies	n/a	
Deadlines	The implementation of the project affects the efficiency of monitoring and regulation of the market of electronic communications, establishing and constituting of the Agency is needed as soon as possible	
Monitoring of the Realisation	Through report for adopted acts, project management, pursuing of the implementation of the plans and through the planned periodical reports and bulletins	
Risks	Long period for adoption of the acts	

Type of activity:	Project - PR1.06
Title of the activity	Analysis on the introduction of all corresponding standards regarding the usage of ICT (data, services, infrastructure, management, security, documentation...)

Area	Infrastructure O1.02, O1.03	
Reference	With all pillars	
Responsible Authority	Information Society Agency	
Participants:	<ul style="list-style-type: none"> • Government institutions; • private sector; • donor organisations. 	
Activity Description	Analysis of the priority standards which should be introduced in the state and in the public institutions	
Expected Outcomes	Introduction of IT standards and narrowing of the gap with the EU legislation and overall improvement in the part of the ICT	
Components	1. Component 1	Analysis of the priority standards
	2. Component 2	Determining the level of introduction of standards
	3. Component 3	System of monitoring and evaluation of the results
Preconditions	Consent from all responsible authorities and dedication to the introduction of the standards, each institution shall need to produce an internal analysis of the level of introduction of the standards.	
Period of Implementation	4-6 months	
Financial projection	100.000 EUROS	
<i>Critical factors for implementation</i>		
Financial sources	The Government of the Republic of Macedonia and donor organisations	
Expert staff, human resources, necessary knowledge and expertise	National experts and if necessary, engagement of foreign experts	
Development environment	It is desired to use the experiences from the countries that have introduced the standards, in the sense of using best practices and avoiding mistakes	
Technologies	Specific technology is not required	
Deadlines	The introduction of standards is a long process that requires a lot of financial means and energy, nevertheless, it is necessary to introduce the standards determined as the priority ones as soon as possible	
Monitoring of the Realisation	Through a developed system for introduction of the standards and control over the conducting of the changes	
Risks	Lack of financial means, insufficient commitment and perseverance in respect to the introduction of the standards, insufficient involvement of the employees in the institutions	

Type of activity:	Project - PR1.07
Title of the activity	Production of educational CD material on the use of e-services
Area	Infrastructure O1.01, O1.03
Reference	With all pillars
Responsible Authority	Private sector
Participants:	<ul style="list-style-type: none"> • Government institutions; • private sector; • donor organisations; • non-Governmental sector;
Activity Description	Production of an interactive CD that shall also contain an Internet-service in respect to that how the citizens should use the e-services of the institutions

Expected Outcomes	Greater number of Internet-users and greater knowledge among the citizens of the possibilities of the Internet services and the benefits of the Information Society	
Components:	1. Component 1	A methodological preparation of the material to be understandable and acceptable for the citizens that do not possess sufficient knowledge of the IT technology and using of computers
	2. Component 2	Defining of the contents
	3. Component 3	Production and distribution
Preconditions	The Governmental and the public institutions should provide a minimum package of e-services that can be offered to the citizens and usage of the ID cards.	
Period of Implementation	4-6 months	
Financial projection	Donor institutions in co-operation with the IT sector, public and Governmental institutions, the banks 200.000 Euro	
<i>Critical factors for implementation</i>		
Financial sources	private sector, Government and Governmental institutions, donors organizations	
Expert staff, human resources, necessary knowledge and expertise	There is national potential available for the implementation of this project	
Development environment	Promotion of the benefits from the e-service and the development of the information society	
Technologies	IP technologies	
Deadlines	Existence of content for e-services	
Monitoring of the Realisation	Through implementation schedules in the project management	
Risks	None	

Type of activity:	Project - PR1.08	
Title of the activity	Defining of the demands for ICT resources and human resources in the respective institutions	
Area	Infrastructure O1.02, O1.03	
Reference	E-Government, e-citizens	
Responsible Authority	Information Society Agency	
Participants:	<ul style="list-style-type: none"> • Agency for Electronic Communications; • Civil Servants Agency; • Government and the Governmental institutions; • State Statistics Office. 	
Activity Description	Defining of the needs of the institutions on the part infrastructure (hardware, software, human resources).	
Expected Outcomes	Overview of the needs which shall represent the basis for further staffing and further equipping of the institutions, but also considering of the possibility for using common resources.	
Components:	1. Component 1	Analysis of the existing capacities
	2. Component 2	Possibilities for using external capacities
	3. Component 3	Staffing and further equipping
Preconditions	Political will, financial means, co-operation with the State Statistics Office	

Period of Implementation	4-6 months
Financial projection	100.000 Euro The implementation of the first component shall establish the needs as well as the necessary financial means for implementation of the project
Critical factors for implementation	Lack of IT staff in the institutions who should determine the need and the existing resources, financial means
Financial sources	The Government of the Republic of Macedonia, donor institutions
Expert staff, human resources, necessary knowledge and expertise	National capacities and human resources
Development environment	Promotion of need for educated staff
Technologies	Required technology will be determinate, based on the training
Deadlines	4-6 months
Monitoring of the Realisation	Through reports
Risks	Lack of sufficient funding for completion of the project, i.e. staffing and equipping in accordance with the defined needs in the component 1.

Type of activity:	Initiative - IN1.01
Title of the activity	Analysis of the concessions obligations with the AD "Makedonski telekomunikacii" and the possibility for readjustment of the obligations in other projects
Area	Infrastructure O1.01, O1.02
Reference	E-Government, e-citizens
Responsible Authority	Ministry of Transport and Communications
Participants:	<ul style="list-style-type: none"> • AD "Makedonski telekomunikacii"; • Ministry of Transport and Communications; • Electronic Communications Agency.
Activity Description	To establish the options in order to be able to more efficiently and more effectively utilise the means (services) evolving from the obligations of AD "Makedonski telekomunikacii" towards the state.
Expected Outcomes	Allocating resources for implementation of projects
Preconditions	Consent from both parties and readiness for co-operation
Period of Implementation	3-4 months
Financial projection	n/a
Critical factors for implementation:	Absence of political will and lack of desire for co-operation
Financial sources	n/a
Expert staff, human resources, necessary knowledge and expertise	National capacities and human resources
Development environment	Political will for collaboration from all interested parts
Technologies	n/a
Deadlines	Does not affect other activities, however it can contribute to the projects related to building of the physical infrastructure
Monitoring of the Realisation	Through a report and suggested possible solutions acceptable for all parties
Risks	Lack of interest for co-operation and flexibility

Type of activity:	Initiative - IN1.02	
Title of the activity	To produce an overview of all on-going projects and activities in the area of IT at the level of the Republic of Macedonia	
Area	Infrastructure O1.02, O1.03	
Reference	Connected with all pillars	
Responsible Authority	Information Society Agency	
Participants:	<ul style="list-style-type: none"> • Information Society Agency; • Donor organisations; • Local Self-Government; • Governmental institutions; • Private sector. 	
Activity Description	Insight into the on-going project in place in the Republic of Macedonia	
Expected Outcomes	Efficient utilisation of the donor funds, avoiding of overlapping and duplication of the activities, possibility for linking of projects and mutual usage of the infrastructure and the resources, the received results shall serve as basis for creation of a portal, which is a subject of another project;	
Components:	1. Component 1	Forming of donor council in which all donor organisations and institutions shall be members
	2. Component 2	Creation of an overview of the existing projects, analysis of the development programmes of the donor institutions
	3. Component 3	Forming of a concept for co-ordination of the projects, of the participants in the projects and of the donors
Preconditions	Consent of all parties, by the Government and by the donors, legislation	
Period of Implementation	A process that should be developed on continuous basis	
Financial projection	Subject of a study (an assessment for the production of the study - 100.000 EUROs)	
<i>Critical factors for implementation</i>		
Financial sources	The Government and the donor institutions	
Expert staff, human resources, necessary knowledge and expertise	The existing human resources in the country including the foreign representatives of the donor organisations working in the Republic of Macedonia	
Technologies	Hardware and software for completion of the project	
Deadlines	End of 2005	
Monitoring of the Realisation	Bulletins, reports, presentations of successful projects	
Risks	Absence of political will, unwillingness for co-operation and co-ordination of the activities among the donors, inefficient system of monitoring and control.	

Type of activity:	Initiative - IN1.03	
Title of the activity	Reduction of administrative procedures for receiving licences necessary for construction of the infrastructure in the interest of the state (high priority projects)	
Area	Infrastructure C1.02	
Reference	Infrastructure and legislation	
Responsible Authority	Information Society Agency in co-operation with the responsible ministries which issue licences in respect to construction of infrastructure.	

Participants:	<ul style="list-style-type: none"> • Operators providers of electronic communications; • Institutions that plan to construct infrastructure (highways, gas-pipelines and alike); • Ministry of Transport and Communications; • Ministry of Environment and Physical Planning; • Agency for Electronic Communications;
Activity Description	<p>Establishing of the bottlenecks in the process of obtaining necessary documentation;</p> <p>Analysis of the possibility to reduce the procedure and defining a criterion for determining of the priorities of the projects</p>
Expected Outcomes	Reduction of the time needed to obtain the necessary licences from the responsible ministries.
Preconditions	Legislation, re-design of the working process, back-office reorganisation
Period of Implementation	3-6 months
Financial projection	Subject of a study (an assessment for the production of the study - 100.000 EUROS)
<i>Critical factors for implementation</i>	
Financial sources	Government, donors organizations, private sector
Expert staff, human resources, necessary knowledge and expertise	National experts
Development environment	Introduction of system of quality
Technologies	Required technology will be result of the study
Deadlines	End of 2005
Monitoring of the Realisation	Established procedures
Risks	Inefficient organisation of the working processes, lack of trained staff, inertia of the human factor

4.2 E-BUSINESS

Type of activity:	Project - PR2.01
Title of the activity	Defining of standards for a digital invoice and digital order
Responsible Authority	Chamber of Commerce of Macedonia
Area	E-business - C2.01
Participants:	<ul style="list-style-type: none"> • All interested business operators (the major ones); • Ministry of Economy, Ministry of Finance; • Public Revenues Office; • State Statistical Office; • National Bank of Macedonia • Banks; • Chamber of Commerce of Macedonia; • MASIT; • Universities.
Activity Description	In essence, the project entails preparation of standards, definition of XML-schemes for digital order and digital invoice for the interest companies and institutions for electronic commerce.
Expected Outcomes	A more simplified inclusion of more small and medium-sized companies into the e-business, given that one part of the preconditions for this inclusion would have been solved in advance. Simplification of the electronic business through adoption of standards in the documentation.
Preconditions	Completion of the regulation on electronic signature.
Period of Implementation	12 months
Financial projection	0 - the major companies would finance the project through participation of experts and resources form the companies and from the institutions
<i>Critical factors for implementation</i>	
Financial sources	Participation with resources by all involved parties in the project.
Expert staff, human resources, necessary knowledge and expertise	The needed human resources would come from the major companies interested in introduction of the project and from the interested members of the MASIT, creation of the XML-schemes and low-cost simple software in order to be used also by the small companies that participate in the chain of suppliers to the major companies.
Technologies	The standard to be developed on a technology which all interested parties can use it and the technology it self to not be a precondition to use the standard
Deadlines	24 months
Monitoring of the Realisation	Through quarter reports and meetings of interested companies representatives. Check did after 24 months the standards for digital invoice and digital order are developed and implemented by the companies
Risks	Lack of interest among the companies Conflict of interests among major companies

Type of activity:	Project - PR2.02	
Title of the activity	Analysis of the e-readiness of the Republic of Macedonia for e-business	
Area	E-business - O2.02 and O2.03	
Responsible Authority	The National Council for Entrepreneurship and Competitiveness	
Participants:	<ul style="list-style-type: none"> • MASIT; • Information Society Agency; • National Council for Entrepreneurship and Competitiveness; • Universities. 	
Activity Description	Gathering of data for WEF and publishing of the same in order to have a view of the e-readiness in the Republic of Macedonia.	
Expected Outcomes	Clear overview of the e-readiness of the Republic of Macedonia. Macedonia in the Network Readiness Index of the WEF.	
Components:	1. Component 1	Parallel research and training
	2. Component 2	Universities undertake the research
Preconditions	Certain methodologies according which the data will be collected and analyzed	
Period of Implementation	Once a year in duration of three months.	
Financial projection	15.000 EUROS per research.	
<i>Critical factors for implementation</i>		
Financial sources	Initially: donors. Latter: fees from the reports	
Expert staff, human resources, necessary knowledge and expertise	Human resources: the students from the universities. Experts: at the moment the National Councils for Entrepreneurship and Competitiveness (NCEC) is responsible for conducting of this research. They, in co-operation with the consulting company and the WEF, shall train professors and assistant professors at the Universities that would plan, organise and would conduct this research each year. The first time, the universities would participate as partners to a specific consulting company in the conducting of the research in order to gain experience. Later on, the universities would be the responsible party for the research.	
Technologies	The methodologies and standards of the World Economic Forum should be applied	
Deadlines	The first analysis to be performed between February -June 2006	
Monitoring of the Realisation	Annual publishing of the data in the Network Readiness Index of the World Economic Forum	
Risks	Lower level of the research The data to not be accepted by the World Economic Forum and Macedonian companies	

Type of activity:	Project - PR2.03	
Title of the activity	Development of a business model for reorganisation and digitising of the business processes and implementation of the e-business.	
Responsible Authority	A body composed of Macedonian experts, supported by a consulting company and three selected Macedonian enterprises.	
Area	E-business - O2.04 and O2.01	
Participants:	<ul style="list-style-type: none"> • Information Society Agency; • MASIT. 	

Activity Description	Creation of a detailed business model and development of a detailed business plan for three enterprises for reorganisation and digitalisation of the processes
Expected Outcomes	Detailed business models for three companies in Macedonia developed
Preconditions	The companies should be at the beginning level of e-business
Period of Implementation	6-9 months
Financial projection	50.000 EUROS
<i>Critical factors for implementation</i>	
Financial sources	Combined financing: Donors through voucher system and financing by the respective company
Expert staff, human resources, necessary knowledge and expertise	There are available experts in the private sector and at the universities who would implement this activity. For a detailed analysis of the process, the members of the expert group shall acquire additional knowledge through the training organised for them.
Development environment	This activity should be promoted, the companies should be selected through a tender and a body that would conduct the process should be constituted.
Technologies	Enterprise Resource Planning. Custom Relationship Management Software, and Supply Chain Management Software. Process Mapping and Methodologies for Process reorganisation.
Deadlines	Commencement: at the end of 2005.
Monitoring of the Realisation	Defining of key points and monitoring of the implementation and the achievement
Risks	Inability to find adequate companies. Differently presented condition in respect to the e-business in the company selected through tender.

Type of activity:	Project - PR2.04	
Title of the activity	Training for introduction of the ICT and e-business in the companies	
Responsible Authority	Agency for Entrepreneurship / Association of IT-centres	
Area	E-business - O2.02, O2.03 and O2.01	
Participants:	<ul style="list-style-type: none"> • Incubators; • Trained trainers. 	
Activity Description	Conducting training for the employees in the incubators on how to help the companies in their region regarding the introduction of the ICT and the e-business in their own business.	
Expected Outcomes	<ul style="list-style-type: none"> - spreading of the e-business initiatives; - continuous training provided by the incubators to the enterprises; 	
Components:	1. Training of trainers	Training of a national group, which would be trained by international experts for introduction of e-business (IT and organisational aspects) in small and medium-sized enterprises.
	2. Training provided by the trainers to the employees in the pillars	Training of the employees in the incubators / IT - centres throughout the Republic of Macedonia by the trained group on introduction of e-business (IT and organisational aspects) in the small and medium-sized enterprises in their regions.

Period of Implementation	- 1 week each six months for the national group; - 4 weekends per year for the employees in the incubators.
Financial projection	Up to 50.000 EUROS
<i>Critical factors for implementation</i>	
Financial sources	- 1 st phase: donors; - 2 nd phase: incubators should cover for their own expenses for these training.
Expert staff, human resources, necessary knowledge and expertise	International experts for introduction of ICT and e-business in the companies Macedonian experts in the area of ICT and e-business Employees in the Macedonian incubators
Development environment	A classroom facility equipped with computers.
Technologies	Simulation software
Deadlines	Commencement: September 2005
Monitoring of the Realisation	The number of presentations and of the training that the employees in the incubators have held for the enterprises in their regions. The number of businesses that have created an e-business model.
Risks	- insufficient staffing of the incubators; - lack of training for the expert body

Type of activity:	Project - PR2.05
Title of the activity	Promotion of e-business
Responsible Authority	MASIT and the Information Society Agency
Area	E-business - O2.03
Participants:	<ul style="list-style-type: none"> • Donors; • Enterprises.
Activity Description	Direct promotion oriented towards enterprises in the Republic of Macedonia for the possibilities offered through e-business. The promotion shall be organised through sending of brief case studies and examples in which is explained how a specific enterprise, with similar features to those of the Macedonian enterprises, had implemented the e-business, as well as the benefits and the problems it had encountered.
Expected Outcomes	- increased information of the enterprises of e-business; - increased contact of the enterprises with the local incubators.
Period of Implementation	1 bulletin once per months. In total, 24 months.
Financial projection	20.000 EUROS
<i>Critical factors for implementation</i>	
Financial sources	Donors
Expert staff, human resources, necessary knowledge and expertise	- an expert body shall provide the case studies; - MASIT shall provide the logistical support.
Deadlines	January 2006 - December 2007
Monitoring of the Realisation	The number of enterprises that receive the bulletin. Number of follow up requests from the companies
Risks	Inappropriate analysis and articles in the bulletin. Low interest from the companies

Type of activity:	Project - PR2.06	
Title of the activity	Analysis of the need for development of a Research Centre for E-business	
Responsible Authority	Universities	
Area	E-business - O2.02 and O2.03	
Participants:	<ul style="list-style-type: none"> • Information Society Agency; • MASIT; • MCA; • Electronic Communications Agency; • State Statistics Office. 	
Activity Description	Analysis of the need for establishing a Research Centre that would perform researches in the area of e-business and would prepare reports, guidelines and directions for e-business for the Republic of Macedonia.	
Expected Outcomes	Feasibility study	
Preconditions	A consent from all the parties regarding the objectives and the manner of operation of the centre.	
Period of Implementation	12 months	
Financial projection	15.000 Euro	
	<i>Critical factors for implementation</i>	
Financial sources	Initially, from donors, MASIT and from the universities	
Expert staff, human resources, necessary knowledge and expertise	Consultants company that will provide objective analysis of the need for research center	
Deadlines	the analysis to be done till June 2006	
Monitoring of the Realisation	Periodical reports for the dynamics of the research	
Risks	Uncompleted analysis and not taking in account all the aspects needed to make quality decision	

Type of activity:	Project - PR2.07	
Title of the activity	Guide for the implementation of e-business in small and medium-sized enterprises (SME)	
Responsible Authority	Universities	
Area	E-business - O2.01 and O2.02	
Participants:	<ul style="list-style-type: none"> • MASIT; • Information Society Agency; • Agency for Entrepreneurship. 	
Activity Description	To create a Guide which shall take into consideration the conditions in the Republic of Macedonia and shall be used by the Macedonian SMEs in conducting e-business	
Expected Outcomes	Guide for Conducting e-business in the Republic of Macedonia - published and disseminated	
Components:	1. Component 1	Creation of the Guide
	2. Component 2	Dissemination of the Guide
Preconditions	<ul style="list-style-type: none"> - to receive the data on the e-preparedness of the Republic of Macedonia for e-business; - created business plans for the selected companies. 	

Period of Implementation	3-6 months
Financial projection	Up to 10.000 EUROS
	<i>Critical factors for implementation</i>
Financial sources	Donors
Expert staff, human resources, necessary knowledge and expertise	- expert body formed for the creation of the plan of the three major enterprises in the Republic of Macedonia; - incubators.
Technologies	Simulation software regarding the impact of the e-business on the operation of the company
Deadlines	to be completed June 2006
Monitoring of the Realisation	Number of requested guides. Requested assistance from the incubators by the small and medium-sized enterprises
Risks	The guide to not reflect the real needs of the Macedonian companies

Type of activity:	Initiative - IN2.01
Title of the activity	Organisation and participation in fora for making contacts and exchange of information at national and at international level.
Responsible Authority	Information Society Agency
Area	E-business - O2.03
Participants:	<ul style="list-style-type: none"> • MASIT - participants; • Companies - participants; • Electronic Communications Agency - participants; • Banks - participants; • Universities.
Activity Description	Forums on which the participants in the process, which can be mutually connect in the e-business - chain of values would discuss the current development and the possibilities of mutual connecting in an e-business
Expected Outcomes	Established contacts and exchanged information of the plausible co-operation between the various business subjects.
Period of Implementation	Each 6 months
Financial projection	5.000 EUROS
	<i>Critical factors for implementation</i>
Financial sources	1 st phase: the Government and donors; 2 nd phase: MASIT and the Government.
Deadlines	Before launching a tender for selection of enterprises for creation of a project for them
Monitoring of the Realisation	The number of present participants on the conference
Risks	The Forums not to offer quality information for the companies. As a result of this the number of participants on the following forum to be reduced

Type of activity:	Initiative - IN2.02
Title of the activity	Forming of an Association/Foundation of subjects interested in implementation of specific projects (for instance: electronic signature).

Responsible Authority	A kind an association/foundation that needs to be defined additionally.
Area	E-business - O2.01 and O2.03
Participants:	<ul style="list-style-type: none"> • Private enterprises (in case of a digital signature); • Macedonian Telecommunications; • KIBS; • Business banks.
Activity Description	The basic activity of the association would be the division of the roles of each of the members for the purpose of implementation of the foreseen project. This in practical terms would mean, to produce an analysis of the situation in which is currently this project, the necessary steps for its implementation and undertaking of activities by each of the subjects for the purpose of implementation of those steps.
Expected Outcomes	Sooner implementation of a project that is already started, as a result of an active and organised work of the responsible authorities
Preconditions	To inspire the participants to find their own interest in a form of an association.
Period of Implementation	3-6 months
Financial projection	0 - the association would be finances by the deposits of the founders.
<i>Critical factors for implementation</i>	
Financial sources	Starting: invested by the founders and the interested parties
Expert staff, human resources, necessary knowledge and expertise	The responsible entities would be the key persons from the interested institutions, and if needed, external persons or institutions would be engaged who would be deployed for resolving of specific problems.
Development environment	This activity would be promoted upon an initiation meeting of the responsible authorities.
Deadlines	Commencement: immediately.
Monitoring of the Realisation	Number of projects on which the association is working Number of successfully realized projects
Risks	A resistance by the subjects, lack of initiative to start energetically and in an organised manner with the implementation of the project.

Type of activity:	Initiative - IN2.03
Title of the activity	Placing information about the business operators in the Republic of Macedonia on a web portal
Responsible Authority	The Central Registry of the Republic of Macedonia
Area	E-business - O2.03
Activity Description	<ul style="list-style-type: none"> - Creation of a web-portal where information of the business subjects, which are not a business secret, would be presented (precise title, ownership, seat, balance sheets, deponents in which banks). - placing a link to the web portal to those companies which have a web portal and a link to the e-market-centre, for those who do not have one, as well as an e-address for contact.
Expected Outcomes	<ul style="list-style-type: none"> - opening of business subjects towards the internet; - simple access to basic information of the business operators;
Preconditions	Decree with which the institution shall be bound to make electronically accessible all information that is not a business secret.

Period of Implementation	2 months, including the time needed to organise the work. The time of implementation is also in direct correlation with the ending of the project for e-market-centre.
Financial projection	100.000 EURO's
<i>Critical factors for implementation</i>	
Financial sources	Donors
Expert staff, human resources, necessary knowledge and expertise	The Central Registry should conduct the activity, provided it creates its own web portal or a company that is specialised in that.
Development environment	This activity should be promoted, the companies should be selected on a tender, and a body that is going to conduct the process should be formed.
Deadlines	Commencement: May 2005
Monitoring of the Realisation	Number of companies presented on the portal. The quality and updating the data. Portal traffic.
Risks	No decree. Privately owned portals to offer better data.

4.3 E-GOVERNMENT

Type of activity:	Project - PR3.01
Title of the activity	Creation of a web portal for participation of the citizens in the building of the society (e-democracy)
Area	E-Government
Reference	Objective 1 - participation of the citizens in the building of the information society
Responsible Authority	The Government, the General secretariat, the ministries
Participants:	Representatives from all bodies of the civil service and the bodies of the local self-Government units
Activity Description	The web-portal should enable through several forms active participation of the citizens in the building of the society, with the possibility for a debate, asking questions and initiating new ideas within the local and the central authorities.
Expected Outcomes	Greater transparency in the operation of the Government
Preconditions	Political will and active involvement of all subjects
Period of Implementation	Up to one year
Financial projection	3.000 Euro
<i>Critical factors for implementation</i>	
Financial sources	Budget of the Republic of Macedonia
Expert staff, human resources, necessary knowledge and expertise	There are available experts and human resources
Development environment	Infrastructure and technical equipping
Technologies	Web-technology, XML
Deadlines	One year
Monitoring of the Realisation	Through regular reports
Risks	Absence of will and inertia of the public institutions

Type of activity:	Initiative - IN3.01
Title of the activity	Government measures - initiatives for reduction of the tax for (software) services from IT technology
Area	E-Government
Reference	Objective 3 - legal and institutional framework for development of the information society
Responsible Authority	Government of the Republic of Macedonia
Participants	Government of the Republic of Macedonia
Activity Description	The Government should launch initiatives for reduction of the tax of this kind
Expected Outcomes	Achieving a reduction tax for software services form the IT technology
Preconditions	Political will at the level of the Government
Period of Implementation	Up to one year
Financial projection	200.000 Euro

<i>Critical factors for implementation</i>	
Expert staff, human resources, necessary knowledge and expertise	There are available experts and human resources for realization of this initiative
Deadlines	Up to one year
Monitoring of the Realisation	Through appropriate Government institutions
Risks	Absence of political will and inertia on the part of the Government

Type of activity:	Project - PR3.02	
Title of the activity	Defining of standards and architecture for e-Government applications and pilot projects	
Area	E-Government, infrastructure	
Reference	Objective 5 - electronic and on-line transactions for e- Government services which stimulate economic and social prosperity.	
Responsible Authority	The Government of the Republic of Macedonia, CIT	
Participants:	Representatives from all bodies of the civil service, the Information Technology Sector at the General Secretariat of the Government, CIT and representatives from the University	
Activity Description	Defining of standards, processes, methods and products for e-Government applications	
Expected Outcomes	Greater efficiency and efficacy of the Government	
Components:	1. Component 1	Defining of infrastructure
	2. Component 2	Defining of standards
Preconditions	Political will and active involvement of all subjects	
Period of Implementation	Up to one year	
Financial projection	Up to 15.000 Euro	
<i>Critical factors for implementation</i>		
Financial sources	The Budget of the Republic of Macedonia	
Expert staff, human resources, necessary knowledge and expertise	There are available experts and human resources	
Development environment	Infrastructure and technical equipping	
Technologies	Web-technology, XML	
Deadlines	Up to two years	
Monitoring of the Realisation	Through regular reports	
Risks	Absence of will and of necessary financial means	

Type of activity:	Project - PR3.03	
Title of the activity	Providing a unique programme for electronic document management (document & and workflow management)	
Area	E-Government	
Reference	Objective 2 - infrastructure at satisfactory level	
Responsible Authority	Government of the Republic of Macedonia, CIT	
Participants:	Representatives form all bodies of the civil service and the bodies of the local self-Government	

Activity Description	Implementation of the document management and workflow system primarily in each body of the civil service, and later on, implementation of the electronic document management programme with the local authorities.	
Expected Outcomes	Greater efficiency and efficacy of all involved institutions in the project	
Components:	1. Component 1	Implementation of the system internally in each body of the civil service administration
	2. Component 2	Implementation of the system internally in each body of the local self-Government unit
	3. Component 3	Providing a unique programme
Preconditions	Political will and active involvement of all subjects	
Period of Implementation	Up to one year	
Financial projection	Up to 100.000 Euro	
<i>Critical factors for implementation</i>		
Financial sources	The Budget of the Republic of Macedonia and other external sources	
Expert staff, human resources, necessary knowledge and expertise	There are available experts and human resources	
Development environment	Infrastructure and technical equipping	
Technologies	Web-technology, XML	
Deadlines	Up to two years	
Monitoring of the Realisation	Through regular reports	
Risks	Absence of will and necessary financial means	

Type of activity:	Project - PR3.04	
Title of the activity	Enabling access to free of charge information to all laws and legal documents	
Area	E-Government	
Reference	Objective 3 - legal and institutional framework for development of the information society	
Responsible Authority	The Government of the Republic of Macedonia	
Participants:	The bodies of the state authority, the Parliament of the Republic of Macedonia	
Activity Description	Public announcement and free of charge access to all information related to the laws and legal acts.	
Expected Outcomes	Greater awareness of the citizens regarding all legal projects passed by the Government	
Preconditions	Political will and active involvement of all subjects	
Period of Implementation	6 months	
Financial projection	Up to 3.000 Euro	
<i>Critical factors for implementation</i>		
Financial sources	Budget of the Republic of Macedonia	
Expert staff, human resources, necessary knowledge and expertise	There are available experts and human resources	
Development environment	Infrastructure and technical equipping	

Technologies	Web-technology and XML
Deadlines	Up to one year
Monitoring of the Realisation	Through regular reports
Risks	Absence of will of all involved subjects

Type of activity:	Project - PR3.05
Title of the activity	Introduction of the ID card
Area	E-Government
Reference	Objective 6 - increased number of ICT experts and increased level of ICT literacy in the civil service
Responsible Authority	Ministry of Interior
Participants	The private sector with active participation of the bodies of the state authority
Activity Description	Implementation of the identification personal card of the citizens with all necessary personal details.
Expected Outcomes	Efficiency, efficacy in the operation and personal data security
Preconditions	Existing of political will and active involvement of all subjects
Period of Implementation	Up to 24 months
Financial projection	2.000.000 euro
<i>Critical factors for implementation</i>	
Financial sources	Budget of the Republic of Macedonia, donations and other external sources
Expert staff, human resources, necessary knowledge and expertise	There are available experts and human resources
Development environment	Infrastructure and technical equipping
Technologies	Web-technology, XML
Deadlines	Up to 24 months
Monitoring of the Realisation	Through regular reports
Risks	Absence of will among all involved subjects and of the needed financial means

Type of activity:	Project - PR3.06
Title of the activity	Creation of a web-portal for all existing services for the citizens and the business community
Area	E-Government
Reference	Objective 6 - increased number of ICT experts and increased level of ICT literacy in the civil service
Responsible Authority	Government, General Secretariat, Ministries and local self-Government bodies
Participants:	The private sector through a public tender
Activity Description	Electronic accessibility and offering of all services by the Government to all subjects, the civil service bodies and the bodies of the local self-Government units
Expected Outcomes	More efficient and more transparent work of the Government viewed from the aspect of the external subjects
Preconditions	Political will and active involvement of all subjects

Period of Implementation	From 6 up to 12 months
Financial projection	Up to 3.000 Euro
<i>Critical factors for implementation</i>	
Financial sources	The Budget of the Republic of Macedonia, donors
Expert staff, human resources, necessary knowledge and expertise	Experts and human resources are available
Development environment	Infrastructure and technical equipping
Technologies	Web-technology, XML
Deadlines	One year
Monitoring of the Realisation	Through regular reports
Risks	Absence of will of all involved subjects

Type of activity:	Project - PR3.07
Title of the activity	Employment and training of ICT personnel in the civil service
Area	E-Government, e-education,
Reference	Objective 6 - increased number of ICT experts and increased level of ICT literacy in the civil service
Responsible Authority	Government, Ministries
Participants:	All bodies of the state authorities and the bodies of the local self-Government units, the Civil Service Agency
Activity Description	Employment and training of needed ICT personnel in the civil service for the purpose of implementation of the current and the strategic tasks and objectives
Expected Outcomes Preconditions	Successful realization of all of the set activities and tasks in the field of ICT Creation of all necessary preconditions and possibilities by the Government for employment, training and keeping of the ICT personnel
Period of Implementation	Up to 24 months
Financial projection	500.000 euro
<i>Critical factors for implementation</i>	
Financial sources	The Budget of the Republic of Macedonia
Expert staff, human resources, necessary knowledge and expertise	Expert personnel in the field of ICT is insufficient
Deadlines	Up to 24 months
Monitoring of the Realisation	Through regular reports
Risks	Absence of sufficient political will for implementation of this project

Type of activity:	Project - PR3.08
Title of the activity	Training and certification for ICT literacy of the civil service
Area	E-Government, e-education
Reference	Objective 6 - increased number of ICT experts and increased level of ICT literacy in the civil service
Responsible Authority	The private sector, business community

Participants:	The state authority bodies, bodies of the local self-Government units, educational institutions and external subjects	
Activity Description	Civil servants in general terms, have a very low level of ICT literacy. For these reasons, and on the other hand, for the purpose of achieving efficient implementation of the set tasks, training and certification for ICT literacy is necessary.	
Expected Outcomes	Increased efficiency and efficacy of the employees	
Components:	1. Component 1	Defining of kind and way of training and education
	2. Component 2	Defining of certification
Preconditions	Existence of strong will for conducting of this concept of training	
Period of Implementation	Up to 12 months	
Financial projection	Up to 50.000 Euro	
<i>Critical factors for implementation</i>		
Financial sources	The budge of the Republic of Macedonia, donations and other external sources	
Expert staff, human resources, necessary knowledge and expertise	Sufficient external expert personnel is available for conducting of this kind of training for the civil service	
Deadlines	24 months	
Monitoring of the Realisation	Through regular reports	
Risks	Absence of sufficient initiative and will for implementation of this concept, as well as of the needed financial means	

Type of activity:	Project - PR3.09	
Title of the activity	Creation of portal of the Government of the Republic of Macedonia	
Area	E-Government	
Reference	Objective 6 - increased number of ICT experts and increased level of ICT literary in the civil service	
Responsible Authority	Government, General Secretariat, Ministries	
Participants:	The private sector through public tender	
Activity Description	Implementation and redesign of the portal on the basis of adopted standards	
Expected Outcomes	New portal of the Government of the Republic of Macedonia	
Period of Implementation	Up to 6 months	
Financial projection	Up to 3.000 Euro	
<i>Critical factors for implementation</i>		
Financial sources	The budget of the Republic of Macedonia and donations from the private sector	
Expert staff, human resources, necessary knowledge and expertise	There are available expert personnel and needed human resources	
Development environment	Infrastructure and technical equipping	
Technologies	Web-technology, XML	
Deadlines	One year	
Monitoring of the Realization	Through regular reports	

Type of activity:	Project - PR3.10
Title of the activity	Equipping of the municipalities with at least 3 computers and unimpeded access to Internet and of the points of public access
Area	E-Government
Reference	Objective 2 - infrastructure at satisfactory level
Responsible Authority	Government, local self-Government
Participants:	The bodies of the local self-Government units, the private sector
Activity Description	Providing necessary equipment for the purpose of implementation of the projects as well as hiring a person for maintenance of the computers and conducting of training for the personnel in the municipalities
Expected Outcomes	Readiness of the bodies of the local self-Government units for implementation of the concrete projects
Period of Implementation	Up to 12 months
Financial projection	Up to 300.000 Euro
<i>Critical factors for implementation</i>	
Financial sources	The budget of the Republic of Macedonia, donations and other financial sources
Expert staff, human resources, necessary knowledge and expertise	There are available expert personnel and other human resources
Development environment	Infrastructure and technical equipping
Deadlines	One year
Monitoring of the Realisation	Through regular reports
Risks	Lack of sufficient financial means

Type of activity:	Initiative - IN3.02
Title of the activity	Initiatives for stimulation of use of services via internet and creation of contents
Area	E-Government,
Reference	Objective 3 - legal and institutional framework for development of the information society
Responsible Authority	Government of the Republic of Macedonia, CIT
Participants:	Administrative bodies, Ministry of Economy and other ministries
Activity Description	Promotion of this project through which increase of the usage of services via internet shall be stimulated.
Expected Outcomes	Drastic increase of the usage of the services via Internet
Preconditions	Existence of strong will in the administrative bodies
Period of Implementation	12 months
Financial projection	Up to 20.000 Euro
<i>Critical factors for implementation</i>	
Financial sources	The budget of the Republic of Macedonia, private sector, donations and other external financial resources
Expert staff, human resources, necessary knowledge and expertise	Sufficient expert personnel and human resources are available for the implementation of the project
Development environment	Infrastructure and technical equipping

Technologies	Web-technology, XML
Monitoring of the Realisation	Through regular reports
Risks	Absence of sufficient strong will and determination among the administrative bodies for implementation of this project

Type of activity:	Project - PR3.11	
Title of the activity	Analysis of the requests made by the users in each body of the civil services, redesign and reorganization of the existing procedures in the operation of the civil service	
Area	E-Government	
Reference	Objective 5 - electronic and on-line transactions for e-Government services which stimulate the economic and social prosperity	
Responsible Authority	Government, General Secretariat, Ministries	
Participants:	Representatives of the civil services bodies	
Activity Description	It is essential that each body of the administration conducts an analysis of the business process and the client/user requests that it performs and responds to, for the purpose of preparation of the automation of the working processes and introduction of electronic operation.	
Expected Outcomes	Readiness for electronic operation	
Components:	1. Component 1	Defining of all work processes
	2. Component 2	Selection which process can be automated
Preconditions	Concrete intention and clearly expressed will by each civil service body to implement this project	
Period of Implementation	12 months	
Financial projection	500.000 euro	
	<i>Critical factors for implementation</i>	
Financial sources	Budget of the Republic of Macedonia, donations	
Expert staff, human resources, necessary knowledge and expertise	There are available expert personnel and other human resources	
Development environment	Infrastructure and technical equipping	
Monitoring of the Realisation	Through regular reports	
Risks	Lack of sufficient financial means and of sufficient efforts	

Type of activity:	Project - PR3.12	
Title of the activity	Preparation and conducting of Governmental Sessions	
Area	E-Government	
Reference	Objective 6 - increased number of ICT experts and increased level of ICT literary in the civil service	
Responsible Authority	Government, General Secretariat	
Participants:	The private sector	
Activity Description	Current manner of working of the Government needs to be changed and transition should be made towards electronic operation	
Expected Outcomes	Complete automation of the preparation and management of the Sessions of the Government	

Preconditions	Clear determination of the Government
Period of Implementation	Up to 12 months
Financial projection	Up to 50.000 Euro
<i>Critical factors for implementation</i>	
Financial sources	The budget of the Republic of Macedonia, the private sector
Expert staff, human resources, necessary knowledge and expertise	There are available expert personnel and other human resources
Development environment	Infrastructure and technical equipping
Technologies	Web-technology, XML
Deadlines	One year
Monitoring of the Realisation	Through regular reports

Type of activity:	Project - PR3.13
Title of the activity	Prompt informing of amendments and questions posed by the Members of Parliament
Area	E-Government
Reference	Objective 6 - increased number of ICT experts, increased level of ICT literacy within the civil service
Responsible Authority	Government, General Secretariat, Parliament of the Republic of Macedonia
Participants:	The private sector
Activity Description	Accessibility to all information regarding the amendments and questions posed by the Members of Parliament
Expected Outcomes	Enabling of access of the citizens to up-to-date information regarding the amendments and the questions posed by the Members of Parliament
Period of Implementation	Up to 12 months
Financial projection	Up to 3.000 Euro
<i>Critical factors for implementation</i>	
Financial sources	The budget of the Republic of Macedonia, donations
Expert staff, human resources, necessary knowledge and expertise	There are available expert personnel and human resources
Development environment	Infrastructure and technical equipping
Technologies	Web-technology, XML
Deadlines	One year
Monitoring of the Realization	Through regular reports

Type of activity:	Project - PR3.14
Title of the activity	Creation of a web portal for e-legislation for suggestions and comments of laws and other regulations (e-legislation)
Area	E-Government, e-citizens
Reference	Objective 1 - participation of the citizens in the building of the information society
Responsible Authority	NGO
Participants:	The private sector

Activity Description	A constructive participation of all responsible authorities, lawyers, solicitors and scientists is necessary in the making of efficient legislation
Expected Outcomes	Creating legal acts of better quality
Period of Implementation	From 6 to 12 months
Financial projection	Up to 3.000 Euro
<i>Critical factors for implementation</i>	
Financial sources	Donations and other external financial sources
Expert staff, human resources, necessary knowledge and expertise	There are available sufficient expert personnel and human resources
Development environment	Infrastructure and technical equipping
Technologies	Web-technology, XML
Deadlines	One year
Monitoring of the Realization	Through regular reports

Type of activity:	Project - PR3.15	
Title of the activity	Setting-up of the physical infrastructure in the administrative institutions and ensuring access to internet	
Area	E-Government, infrastructure	
Reference	Objective 2 - infrastructure at sufficient level	
Responsible Authority	Government, ministries, local self-Government	
Participants:	External subjects, the private sector and internal resources of the civil service bodies	
Activity Description	Installing of the infrastructure at physical level is needed, i.e. the physical linking between all administrative bodies at state and at local level, between the Government, the civil service bodies and the bodies of the local self-Government	
Expected Outcomes	as first and important precondition for further implementation of the other projects it is expected that the administrative bodies shall be linked at physical level	
Components:	1. Component 1	Analysis of the current situation
	2. Component 2	Finding of the possible technical-technological solutions
	3. Component 3	Selection of the most favourable manner of implementation of the project
Preconditions	Firm resoluteness and determination at the highest level for the purpose of implementation of such complex project	
Duration of the implementation	From 24 to 36 months	
Financial projection	Up to 3.000.000 Euro	
<i>Critical factors for implementation</i>		
Financial sources	The budget of the Republic of Macedonia, donations, other external financial sources	
Expert staff, human resources, necessary knowledge and expertise	Outsource personnel and needed human resources are available	

Technologies	Modern optical infrastructure
Deadlines	Up to three years
Monitoring of the Realisation	Through regular reports on the implementation of the project in phases
Risks	Absence of sufficient initiative and will for implementation of this concept, as well as lack of the needed financial means

Type of activity:	Project - PR3.16	
Title of the activity	Building a Logical infrastructure among the state institutions.	
Area	E-Government, infrastructure	
Reference	Objective 2 - Infrastructure on a satisfactory level.	
Responsible authority	The Government, the ministries, the local self-Government	
Participants:	External entities, the private sector and in-house resources of the civil service bodies.	
Activity description	It is necessary to have logical infrastructure and connection of all the administration authorities on the bases of already decided upon concept of physical infrastructure, among the Government, the civil service bodies and the local self-Government units.	
Expected outcome	Developed and realized concept of logical infrastructure for connection of all the administration authorities.	
Components:	1.Component 1	Realization of all technical and technological solutions
	2. Component 2	Choice and implementation of technical solution
Preconditions:	Realized concept of physical infrastructure.	
Period of implementation:	From 12 to 24 months	
Financial projection:	Up to 1.000.000 Euro	
<i>Critical factors in the process of implementation</i>		
Financial sources:	The budget of the RM, donations, other external financial sources	
Expert staff, human resources, necessary knowledge and expertise	Outsource expert staff and necessary human resources for realization of the project.	
Development environment:	Logical interconnection based on the IP-unified protocol	
Deadlines:	24 months	
Monitoring of the realisation:	Through current reports on the phase realization of the project.	
Risks:	Lack of enough incentives and will for realization of this concept, as well as lack of necessary financial means.	

Type of activity:	Project - PR 3.17	
Title of the activity:	E-Procurement system	
Area	E-Government	
Reference	Objective 6 - Increased number of ICT experts and increased level of ICT literacy in the public administration.	
Responsible authority	The Government, the Ministry of Finance	
Participants:	The private sector in close cooperation with the civil service bodies.	

Activity description	The realization of the project implies finding solution for introduction of electronically centralized public procurement system.
Expected outcome	Greater transparency in the work of the Government regarding the public procurement.
Preconditions:	Clearly expressed political will for realization of this project.
Period of implementation:	Up to 12 months
Financial projection:	Up to 20.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The budget of the RM, donations
Expert staff, human resources, necessary knowledge and expertise	Outsource expert staff and necessary human resources for realization of the project.
Development environment:	Infrastructure and technical equipment.
Technologies:	Web technology, XML
Deadlines:	One year
Monitoring of the realization:	Through current reports
Risks:	Lack of strong enough will and determination in the administration authorities for the realization of the project.

Type of activity:	Project - PR 3.18
Title of the activity	Monitoring of the harmonization of the legislation of the Republic of Macedonia with the EU legislation.
Area	E-Government
Reference	Objective 3 - Legal and institutional framework for the development of information society.
Responsible authority	The Government, the General Secretariat - Sector for European Integration
Activity description	Continuous monitoring of EU legislation and the harmonisation of the legislation of the Republic of Macedonia with the EU legislation.
Expected outcome	Harmonisation of the legislation of the Republic of Macedonia with the EU legislation.
Period of implementation	Up to 18 months
Financial projection	Up to 10.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources	Donations
Expert staff, human resources, necessary knowledge and expertise	There is the necessary expert staff and human resources
Deadlines	18 months
Monitoring of the realisation	Through regular reports

Type of activity:	Project - PR3.19
Title of the activity	Electronic supply of data to the State Statistical Office by the administration authorities and the institutions of the educational system (e-statistics).
Area	E-Government
Reference	Objective 5 - Electronic and online transactions for e-Governmental services giving impetuous to the economic and social prosperity. Objective 4 - Logical infrastructure form contemporary ICT solutions and networking of the Governmental institutions.

Responsible authority	The Government, CIT, the State Statistical Office.	
Participants:	The administration authorities and the institutions of the educational system.	
Activity description	Creation of joint queries and reports and provision of the necessary software.	
Expected outcome	<p>More efficient exchange of official information and data provided by:</p> <ul style="list-style-type: none"> • Rationalisation of the work in the state bodies ; • Reduced period from collection of data to their publishing; • Provision of grater data quality. 	
Components:	1. Component 1	Establishing a list of data that can be a subject of electronic supply by the administration authorities and the institutions of the educational system to the State Statistical Office.
	2. Component 2	Definition of joint queries and reports covering the needs of both parties.
	3. Component 3	Adoption of the existing software or creation of new software enabling the electronic transfer of data from the administration authorities and the institutions of the educational system to the State Statistical Office.
Preconditions	Existence of IT infrastructure in the administration authorities and the institutions of the educational system supplying data to the State Statistical Office.	
Period of implementation	Within 14 months for the administration authorities and the institutions of the educational system having the IST infrastructure, and for the others within 14 months as of the moment of provision of ICT infrastructure.	
Financial projection	Up to 50.000 Euro	
<i>Critical factors in the process of implementation</i>		
Financial sources	The Budget of the RM, donations	
Expert staff, human resources, necessary knowledge and expertise	<p>For the State Statistical Office:</p> <ul style="list-style-type: none"> • There is expert staff though not enough to cover all the current and planned activities; • For certain activities in the creation of the software it is necessary to engage outsource expert staff (not from the State Statistical Office) having the needed knowledge and expertise. 	
Development environment	Infrastructure and technical equipment.	
Technologies	Web technology, XML	
Deadlines	Two years	
Monitoring of the realisation	Percentage of data supplied electronically (out of the total number of data that were not supplied electronically before the beginning of the project).	
Risks	<ul style="list-style-type: none"> - Not sufficient determination of the involved parties; - Lack of provision of the necessary financial means. 	

Type of activity:	Project - PR3.20	
Title of the activity:	Electronic online dissemination of statistical data from the State Statistical Office to the beneficiaries.	
Area:	E-Government	
Reference	Objective 5 - Electronic and online transactions for e-Governmental services giving impetus to the economic and social prosperity.	
Responsible authority	State Statistical Office	
Activity description	Creation of an out-put databases and web page for electronic distribution of statistical data from the State Statistical Office.	
Expected outcome	Achievement of a greater efficiency in the work of the administration authorities, other entities and all the beneficiaries by up-dated and fully accessible databases.	
Components:	1. Component 1	Creation of a meta databases
	2. Component 2	Creation of an out-put dissemination database
	3. Component 3	Creation of a web page
Period of implementation:	In succession over a period of 5 years.	
Financial projection:	Up to 20.000 Euro	
<i>Critical factors in the process of implementation</i>		
Financial sources:	The Budget of the Republic of Macedonia ,donations	
Expert staff, human resources, necessary knowledge and expertise	There is expert staff though not enough to cover all the current and planned activities; For certain activities in the creation of the software it is necessary to engage outsource expert staff (not from the State Statistical Office) having the needed knowledge and expertise..	
Development environment:	Infrastructure and technical equipment	
Technologies:	Web technology, XML	
Monitoring of the realisation:	Percentage of data supplied electronically to the beneficiaries (out of the total number of statistical data that were provided by the State Statistical Office in accordance with the Programme for Statistical Surveys).	
Risks:	Lack of provision of the necessary financial means and enough expert staff.	

Type of activity:	Project - PR3.21	
Title of the activity:	One stop shop for company registration.	
Area:	E-Government	
Reference	Objective 6 - Increased number of ICT experts and increased level of ICT literacy in the public administration.	
Responsible authority	Central Register	
Participants:	The private sector	
Activity description	Need of automating the whole process of company registration.	
Expected outcome	Achievement of one stop shop system.	
Period of implementation:	Up to 18 months	
Financial projection:	Up to 10.000 Euro	

<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations, the private sector
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Development environment:	Infrastructure and technical equipment.
Technologies:	Web technologies, XML.
Deadlines:	24 months
Monitoring of the realization:	Through regular reports

Type of activity:	Project - PR 3.22
Title of the activity:	E -Taxation system.
Area:	E-Government
Reference	Objective 6 - Increased number of ICT experts and increased level of ICT literacy in the public administration.
Responsible authority	The Government, the Ministry of Finance
Participants:	Representatives of the admonition authorities, the private sector.
Activity description	Enabling electronic payment of taxes.
Expected outcome	Increase of the efficiency in the payment of taxes
Period of implementation:	Up to 18 months
Financial projection:	Up to 100.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations, the private sector.
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Development environment:	Infrastructure and technical equipment
Technologies:	Web technologies, XML
Deadlines:	24 months
Monitoring of the realization:	Through current reports.

Type of activity:	Project - PR3.23
Title of the activity:	E-Budget system
Area:	E-Government
Reference	Objective 6 - Increased number of ICT experts and increased level of ICT literacy in the public administration.
Responsible authority	The Government, the Ministry of Finance
Participants:	Representatives of the admonition authorities, the private sector.
Activity description	It is necessary to monitor the spending of the budgetary means electronically.
Expected outcome	Transparent way of allocation of budgetary means and direct monitoring of their spending.
Period of implementation:	Up to 18 months
Financial projection:	Up to 10.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations, the private sector

Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources
Development environment:	Infrastructure and technical equipment
Technologies:	Web technologies, XML
Deadlines:	24 months
Monitoring of the realization:	Through current reports.

Type of activity:	Project - PR3.24	
Title of the activity:	Measuring the quality of the IST literacy.	
Area:	E-Government	
Reference	Objective 6 - Increased number of ICT experts and increased level of ICT literacy in the public administration.	
Responsible authority	The Government, the ministries	
Participants:	Civil Servants' Agency, the private sector in cooperation with the civil service bodies.	
Activity description	It is necessary to have parameters for measuring the quality of ICT literacy, i.e. the level of the technical culture.	
Expected outcome	It is expected to get a measurable parameter for the degree of the ICT literacy in the public administration.	
Period of implementation:	Up to 24 months.	
Financial projection:	Up to 20.000 Euro	
	<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM.	
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources	
Deadlines:	24 months	
Monitoring of the realization:	Through current reports.	

Type of activity:	Project - PR3.25	
Title of the activity:	Establishment of a register of all the databases (registers) in the state institutions - central registers.	
Area:	E-Government	
Reference	Objective 6 - Increased number of ICT experts and increased level of ICT literacy in the public administration.	
Responsible authority	The Government, CIT, the ministries	
Participants:	Representatives of the administration authorities.	
Activity description	It is necessary to establish one central register of all the data - central database, by integrating all the databases of the state institutions.	
Expected outcome	Establishment of one central database.	
Components:	1. Component 1	Establishment of databases individually in each administration authority.
	2. Component 2	Analyses of the way of integration of the individual databases.
	3. Component 3	Establishment of a central database.

Preconditions:	Complete readiness and clear position of all the administration authorities regarding the realization of the project.
Period of implementation:	From 24 to 36 months
Financial projection:	Up to 300.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations and other external financial means
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Development environment:	Infrastructure and technical equipment.
Technologies:	Web technologies, XML
Deadlines:	Three years
Monitoring of the realization:	Through current reports.

Type of activity:	Project - PR3.26
Title of the activity:	E-Government solutions.
Area:	E-Government
Reference	Objective 6 - Increased number of ICT experts and increased level of ICT literacy in the public administration.
Responsible authority	The Government
Participants:	The private sector
Activity description	Concrete solutions by integrating the mobile telephony (currently, there is a greater percentage of mobile telephone users in the state than Internet users).
Expected outcome	Increase of the efficiency in the work of the civil administration.
Period of implementation:	From 24 to 36 months.
Financial projection:	Up to 100.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations, the private sector.
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Development environment:	Infrastructure and technical equipment.
Deadlines:	Three years
Monitoring of the realization:	Through current reports

Type of activity:	Project - PR3.27
Title of the activity:	Introduction of standards for protection of information systems ISO 17799.
Area:	E-Government
Reference	Objective 3 - Legal and institutional framework for the development of information society.
Responsible authority	The Government, the ministries

Participants:	Representatives of the civil service bodies, the Ministry of Defence, the Ministry of Interior, Directorate for Protection of Classified Information
Activity description	The information systems must meet the strict standards regarding protection and security.
Expected outcome	Meeting the world standards for protection of the information systems.
Period of implementation:	From 24 to 36 months.
Financial projection:	Up to 500.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations and other financial sources.
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Development environment:	Infrastructure and technical equipment.
Deadlines:	Three years
Monitoring of the realization:	Through current reports.

Type of activity:	Project - PR3.28
Title of the activity:	Defining standards for minimal ICT infrastructure.
Area:	E-Government
Reference	Objective 2 -. Infrastructure on a satisfactory level.
Responsible authority	The Government, the local self-Government.
Participants:	The organs of the self-Government units, the private sector
Activity description	It is necessary to define the minimum standards as precondition for realization of the infrastructure and management of the information system on a local level.
Expected outcome	Infrastructure readiness for realization of the following projects on a local level.
Period of implementation:	From 24 to 36 months
Financial projection:	Up to 20.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations and the private sector.
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources
Development environment:	Infrastructure and technical equipment.
Deadlines:	Two years
Monitoring of the realization:	Through current reports

Type of activity:	Project - PR3.29
Title of the activity:	Introduction of the ISO 9001 standard and quality of the Governmental services.
Area:	E-Government
Reference	Objective 3 - Legal and institutional framework for the development of information society.

Responsible authority	The Government, CIT
Participants:	Representatives of the Government, the General Secretariat, the private sector.
Activity description	In order to meet the quality of the Governmental services it is necessary to introduce the ISO 9001 standard.
Expected outcome	Getting standardized Governmental services.
Period of implementation:	From 24 to 36 months.
Financial projection:	Up to 300.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations and the private sector.
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Deadlines:	Three years
Monitoring of the realization:	Through current reports

Type of activity:	Project - PR3.30
Title of the activity:	Granting official e-address to the citizens.
Area:	E-Government
Reference	Objective 6 - Increased number of ICT experts and increased level of ICT literacy in the public administration.
Responsible authority	The Government, the Ministry of Interior
Participants:	Representatives of the administration authorities, the private sector.
Activity description	Something like granting SBRN (Single birth registration number), granting official e-address to the citizens.
Expected outcome	Realization of the project.
Period of implementation:	From 3 to 4 years.
Financial projection:	Up to 100.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM.
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Development environment:	Infrastructure and technical equipment.
Technologies:	Web technologies, XML
Deadlines:	Four years
Monitoring of the realization:	Through current reports

Type of activity:	Project - PR3.31
Title of the activity:	Geographic information system - GIS
Area:	E-Government
Reference	Objective 6 - Increased number of ICT experts and increased level of ICT literacy in the public administration.
Responsible authority	Cadastre
Participants:	Representatives of the civil service bodies, organs of the self-Government units, the private sector, other external entities.

Activity description	Development of an integrated and joint geographical information system.
Expected outcome	Realized project by obtaining powerful and efficient GIS applicable for every entity.
Period of implementation:	From 3 to 4 years
Financial projection:	Up to 1.000.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations, other external financial sources.
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources
Development environment:	Infrastructure and technical equipment
Technologies:	Web technologies, XML
Deadlines:	Four years
Monitoring of the realization:	Through current reports

Type of activity:	Project - PR3.32
Title of the activity:	Possibility of exchange of data created in (or for) individual state institutions and organs with the other institutions in the country - INSPIRE initiative.
Area:	E-Government
Reference	Objective 6 - Increased number of ICT experts and increased level of ICT literacy in the public administration.
Responsible authority	The Government, the ministries
Participants:	The private sector and the representatives of the administration authorities.
Expected outcome	Realization of the project.
Period of implementation:	From 3 to 4 years.
Financial projection:	Up to 20.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations, the private sector.
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Development environment:	Infrastructure and technical equipment.
Technologies:	Web technologies, XML.
Deadlines:	Four years
Monitoring of the realization:	Through current reports

Type of activity:	Project - PR3.33
Title of the activity:	Standardization in the creation of data model for urban plans (GUP and DUP)
Area:	E-Government
Reference	Objective 6 - Increased number of ICT experts and increased level of ICT literacy in the public administration.

Responsible authority	Cadastre
Participants:	Representative of the administration authorities, public enterprises performing activities in regard to the spatial planning, the private sector.
Activity description	Introduction of the standard for creation of data model for the municipalities, as well as Spatial Plan for the Republic of Macedonia.
Expected outcome	Obtaining a standardized way of creation of data model.
Period of implementation:	From 3 to 4 years.
Financial projection:	Up to 200.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations, the private sector.
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Development environment:	Infrastructure and technical equipment.
Deadlines:	Four years
Monitoring of the realization:	Through current reports

Type of activity:	Project - PR3.34
Title of the activity:	Digital integrated cadastre of the Republic of Macedonia
Area:	E-Government
Reference	Objective 6 - Increased number of ICT experts and increased level of ICT literacy in the public administration.
Responsible authority	Cadastre
Participants:	Representative of the administration authorities, public enterprises performing activities in regard to the GIS, the private sector.
Activity description	Obtaining digital integrated cadastre, under the competence of the SAGW - State Authority for Geodesic Works (envisaged project of the World Bank).
Expected outcome	Digitalization of all the data issued by the cadastre.
Period of implementation:	From 24 to 36 months.
Financial projection:	Up to 500.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations, other external financial sources, the private sector.
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Development environment:	Infrastructure and technical equipment
Technologies:	Web technologies, XML
Deadlines:	Three years
Monitoring of the realization:	Through current reports

Type of activity:	Project - PR3.35
Title of the activity:	GIS - web portal for the available state land.
Area:	E-Government
Reference	Objective 6 - Increased number of ICT experts and increased level of ICT literacy in the public administration.

Responsible authority	The Government of the RM
Participants:	Representatives of the administration authorities, the private sector.
Activity description	Enabling to be acquainted with the available state land offered for sales. The result would be transparency in the work, as well as bigger profit from the sales.
Expected outcome	Transparency in the work.
Period of implementation:	From 3 to 4 years
Financial projection:	Up to 10.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations, other external financial sources, the private sector.
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Development environment:	Infrastructure and technical equipment
Technologies:	Web technologies, XML
Deadlines:	Three years
Monitoring of the realization:	Through current reports

Type of activity:	Project - PR3.36
Title of the activity:	Protection of natural resources, the environment and the natural national wealth by creation of a GIS - database.
Area:	E-Government
Reference	Objective 6 - Increased number of ICT experts and increased level of ICT literacy in the public administration.
Responsible authority	The Government, the ministries
Participants:	The private sector and the representatives of the administration authorities.
Activity description	Creation of a GIS - database for analyses that have not been performed so far in the country like: waste management, control over sound and visual pollution, creation of marsh routes in the transport of dangerous materials and alike, for which there is a demand by the EU.
Expected outcome	Obtaining a GIS database.
Period of implementation:	From 3 to 4 years
Financial projection:	Up to 20.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations, other external financial sources, the private sector.
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources
Development environment:	Infrastructure and technical equipment
Technologies:	Web technologies, XML
Deadlines:	Three years
Monitoring of the realization:	Through current reports

Type of activity:	Project - PR3.37
Title of the activity:	Project for the Ministry of Interior and the security services.
Area:	E-Government
Reference	Objective 3 - Legal and institutional framework for the development of information society.
Responsible authority	MI
Participants:	Representatives of the administration authorities, Customs Administration of the Republic of Macedonia.
Activity description	Realization of integrated security communication and information systems.
Expected outcome	Increase in the effectiveness and efficiency.
Period of implementation:	From 24 to 36 months
Financial projection:	Up to 5.000.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM, donations, other external financial sources.
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Development environment:	Infrastructure and technical equipment.
Technologies:	Web technologies, XML
Deadlines:	Three years
Monitoring of the realization:	Through current reports

Type of activity:	Project - PR3.38
Title of the activity:	Adoption of national policy on information and communication security.
Area:	E-Government
Reference	Objective 3 - Legal and institutional framework for the development of information society.
Responsible authority	Directorate for Protection of Classified Information
Participants:	Representatives of the Government, the Ministry of Defense, the Ministry of Interior, the Ministry of Foreign Affairs, Intelligence Agency, the Ministry of Transport and Communications, the private sector.
Expected outcome	Adoption of national policy on information and communication security
Period of implementation:	Up to 6 months.
Financial projection:	100.000 euro
<i>Critical factors in the process of implementation</i>	
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Deadlines:	Six months
Monitoring of the realization:	Through current reports

Type of activity:	Project - PR3.39
Title of the activity:	Security certification of the information and communication systems for classified information processing.
Area:	E-Government
Reference	Objective 3 - Legal and institutional framework for the development of information society.
Responsible authority	Directorate for Protection of Classified Information
Participants:	Representatives of the Government, the Ministry of Defense, the Ministry of Interior, the Ministry of Foreign Affairs, Intelligence Agency, the Ministry of Transport and Communications, the private sector.
Activity description	It is an obligation of the Directorate for Protection of Classified Information to carry out security certification of the information and communication systems for classified information processing.
Period of implementation:	Up to 24 months
Financial projection:	Up to 100.000 Euro
<i>Critical factors in the process of implementation</i>	
Financial sources:	The Budget of the RM.
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Deadlines:	Two years
Monitoring of the realization:	Through current reports

Type of activity:	Project - PR3.40
Title of the activity:	Establishment of a National Body for information and communication security.
Area:	E-Government
Reference	Objective 4 - Logical infrastructure form contemporary ICT solutions and networking of the Governmental institutions.
Responsible authority	The Government
Participants:	Representatives of the administration authorities, the private sector.
Activity description	It is a legal obligation of the Government to establish a National Body for information and communication security.
Expected outcome	Establishment of a National Body for information and communication security.
Period of implementation:	Up to 6 months
Financial projection:	200.000 euro
<i>Critical factors in the process of implementation</i>	
Expert staff, human resources, necessary knowledge and expertise	There is expert staff and human resources.
Deadlines:	Six months
Monitoring of the realization:	Through current reports

Type of activity:	Project - PR3.41	
Title of the activity:	Social protection information system implementation	
Area:	e- Government	
Reference	Infrastructure, O1.03	
Responsible authority	Ministry of labor and social policy	
Participants:	Ministry of labor and social policy, Social Welfare Centers	
Activity description	Implementation of electronic centralized system for cash benefits and social services	
Expected outcome	Database of cash benefits and social protection services, electronic communication between the Ministry and other public institutions and data exchange, better financial accounting, control and reporting	
Components:	1. Application software development	Software for cash benefit eligibility determination, finance and accounting, social work inspection
	2. Network infrastructure	Connecting the Ministry with the Social Welfare Centers and other public institutions
	3. New equipment	New hardware and operating software installation
	4. Training	Training courses for IT stuff
Period of implementation:	2004-2008	
Financial projection:	1.400.000 USD	
<i>Critical factors in the process of implementation</i>		
Financial sources:	Loan and Budget of RM	
Expert staff, human resources, necessary knowledge and expertise	Local and foreign consultants and IT companies	
Technologies:	Technical standards development, technology in compliance with the recommendations of EU	
Monitoring of the realisation:	Indicators	
Risks:	Problems with implementation	

4.4 E-EDUCATION

Type of activity:	Project - PR4.01	
Title of the activity:	Proteus - portal for sublimating all the activities in the area of the e-education.	
Area:	E- education (O1)	
Reference	E-Government	
Responsible authority	Agency for Information Society.	
Participants:	<ul style="list-style-type: none"> • Ministry of Education and Science; • ICT company (deliverer of the solution); • national and foreign donors (beneficiaries). 	
Activity description	The existence of many donations and numerous projects for increase of the IT use in all segments of the education that are most often not coordinated and not standardised, implies a strong need of coordination and monitoring of these activities from one central point where information can be received for the various activities that are on going, as well as for those that are to begin with the realisation in the established strategy. Briefly, the Proteus portal will be the sublimate of all the IT activities in the area of education.	
Expected outcome	<ul style="list-style-type: none"> - Database for the activities in the area of application and use of the ICT in the education; - more appropriate coordination, alignment and control over the activities; - greater transparency. 	
Components:	1. Standards	Adoption of standards for identification and registration of existing projects.
	2. Creation of the solution	Design, creation and implementation of dynamic web-solution.
Preconditions:	It is necessary to have legislation binding all those that have on going or planned future projects in the area of the education to register the projects, stating the necessary information on the objectives of the projects and on the expected outcome.	
Period of implementation:	3-6 months initial implementation Continuous activity.	
Financial projection:	<ul style="list-style-type: none"> - 30.000 Euro for creation; - 3000 Euro per year for maintenance. 	
<i>Critical factors in the process of implementation</i>		
Financial sources:	Foreign Donations; State budget; % from the reported projects.	
Expert staff, human resources, necessary knowledge and expertise	Use of ICT company that will realise the solution. It will be maintained by ICT experts in the Information Society Agency or by the company that realised the solution.	
Development environment:	Web application	
Technologies:	<ul style="list-style-type: none"> - Web server where the portal would be hosted; - Adoption of the European standards for creation of portals for monitoring and keeping record of projects. 	

Deadlines:	Continuous activity
Monitoring of the realisation:	The Information Society Agency will monitor the creation of the solution in accordance with the previously compiled specification on the functionality of the portal.
Risks:	Inefficient maintenance of the portal thereby losing its function that it is supposed to have.

Type of activity:	Project - PR4.02	
Title of the activity:	Broadband interconnection of the science and research, educational and cultural institutions and connection of MARNET with the European Academy network GEANT and the global Internet.	
Area:	E-education (O1, O3)	
Reference	Infrastructure	
Responsible authority	MARNET - Macedonian Academy and Research Network (Universities)	
Participants:	<ul style="list-style-type: none"> • Ministry of Education and Science; • Ministry of Transport and Communication; • Telecommunications Directorate; • Macedonian Telecommunications; • Internet providers; • beneficiaries (elementary schools, high schools and universities). 	
Activity description	<p>Having this kind of development, the network would provide continuous, cost-effective and qualitative transmission of information among the entities, as well as with the other educational entities in the world.</p> <p>Alongside the interconnection of the listed institutions in the country, it is also of great importance to support and join the action plans in the region and the appropriate EU projects in the area of quick networks.</p>	
Expected outcome	<ul style="list-style-type: none"> - Quick data transmission among the entities in the education from the country and the other entities from the neighbouring countries and wider; - creation of conditions for development, use and application of the ICT in the educational process. 	
Components:	1. Component 1	Broadband interconnection of the educational, scientific and cultural entities.
	2. Component 2	Connection of MARNET with the European academy network GEANT.
	3. Component 3	Connection of the educational, scientific and cultural entities on Internet.
Preconditions:	Identification of the existing infrastructure among the entities.	
Period of implementation:	4 years	
Financial projection:	3.500.000 euros for 4 years	
<i>Critical factors in the process of implementation</i>		
Financial sources:	<ul style="list-style-type: none"> - HIPERB program for Balkan region reconstruction (2.300.000 euros) - European Union-DANTE project - GEANT (600.000 euros) - State budget (600.000 euros); - Foreign donations and international funds 	

Expert staff, human resources, necessary knowledge and expertise	The project will be realised with the existing experts from the university, MARNET and private ICT companies.
Development environment:	<ul style="list-style-type: none"> - Strategic goal of the European Union in the development of Information society is support and development of the national academic networks, through their financing, number of documents, declarations and political decisions. The European Union under the fifth and sixth framework is financing the development of the fast academic networks through GEANT project - following the fast development of the academic networks in the neighboring countries - Active involvement of the educational subjects - Development of the detailed plan for the project realization
Technologies:	<ul style="list-style-type: none"> - Analyses of the current network infrastructure, hardware and software equipments which MARNET and the others educational institutions have. - Procurement and installation of new equipment: new optical cables, renting existing optical cables, active equipment based on WDM, procurement of wireless systems based on OFDM, WiMAX, WiFi
Deadlines:	Continuous process
Monitoring of the realisation:	The realisation will be analysed by monitoring the indicators for speed of the communication among the entities, as well as by the number of entities connected to the Internet.
Risks:	Untimely staffing, developing the staff in professionals and financial stability of MARNET.

Type of activity:	Project - PR4.03
Title of the activity:	Supplying all the educational, scientific and cultural institutions with appropriate ICT equipment and introduction of normative on exchange of information.
Area:	E-education (O2)
Reference	Infrastructure
Responsible authority	Ministry of Education
Participants:	<ul style="list-style-type: none"> • Information Society Agency; • business sector (ICT companies); • MARNET; • Macedonian Telecommunications.
Activity description	<p>The project is to supply appropriate ICT equipment in the educational, scientific and cultural institutions, which is the only precondition for the use of the services in the information society.</p> <p>Meeting the standards set by the European Union for the number of computers per student, the number of students using the Internet, the number of teachers whose profession is different than IT and use of IT equipment, should be a qualitative measure for the achieved results.</p>
Expected outcome	Improvement of the educational process through the use of ICT, as well as meeting the standards set by the European Union.

Components:	1. Terms of reference	Terms of reference for equipment of all the educational, scientific and cultural institutions by defining the necessary hardware and software. Defining the standards and normatives on exchange of information.
	2. Implementation	Implementation of the computer equipment and software defined in the previous phase.
Preconditions:	Interconnection of institutions, existence of Intranet.	
Period of implementation:	2-3 years	
Financial projection:	3.000.000-5.000.000 Euros	
<i>Critical factors in the process of implementation</i>		
Financial sources:	<ul style="list-style-type: none"> • Foreign donations; • The Budget of the RM; • The own means of the institutions 	
Expert staff, human resources, necessary knowledge and expertise	The project will be realised by the assistance of the experts from the universities and the private ICT companies.	
Development environment:	<ul style="list-style-type: none"> - Analysing the current conditions with ICT in education subjects. - Development of detailed plan for implementation and monitoring of project activities. 	
Technologies:	Networking, servers, working stations, printers, presentation equipment, (video beams), software.	
Deadlines:	Continuous process.	
Monitoring of the realisation:	The Ministry is to monitor the realisation of the project by following the standards set by the EU for the number of computers per student, the number of students having access to the Internet etc.	
Risks:	Not coordinated activities for networking, supply of hardware and software equipment.	

Type of activity:	Project - PR4.04
Title of the activity:	Development of e-contents in the curricula
Area:	E-education (O15, O16)
Responsible authority	Ministry of Education and Science
Participants:	<ul style="list-style-type: none"> • Information Society Agency; • Universities; • Elementary and high schools.
Activity description	Development of contents giving impetus to the use of the ICT and fulfillment of its possibilities in the preferment of the lessons in the education.
Expected outcome	<ul style="list-style-type: none"> - Increased productivity and more efficient education; - Improvement of the quality of the lessons; - Increasing the ICT literacy; - Increase of the number of ICT users.

Components:	1. Analyses	Analyses of the existing practice for the use of e-contents, defining standards for their development.
	2. Realisation	Realisation of unified e-contents that are to be applied in the educational process.
	3. Campaign on continuous development	Marketing campaign assisted by the authors of the literature and the participants in the educational process themselves having concrete motivation for development of the contents.
Preconditions:	It is necessary to have hardware and software equipment in the educational, scientific and cultural facilities.	
Period of implementation:	Continuous process	
Financial projection:	200.000 Euros at the beginning. 50.000 - 100.000 Euros per year	
<i>Critical factors in the process of implementation</i>		
Financial sources:	<ul style="list-style-type: none"> - Foreign donations - Ministry for education and science - Finances gathered from commercial use of the developed content 	
Expert staff, human resources, necessary knowledge and expertise	Private ICT companies that would work on the technical part, as well as training of the participants in the educational process on the development of e-contents.	
Development environment:	<ul style="list-style-type: none"> - Standardisation of the content and possibility for easy access to them needs to be provided. - These conditions can be made in the same project with definition of standards for content development - Development of software for use of the developed content. 	
Deadlines:	Continuous process	
Monitoring of the realisation:	Continuous monitoring by the Ministry of Education and Science on the standards of creation of e-contents and their application in the educational process.	
Risks:	Lack of infrastructure for e-contents and not enough ICT literacy.	

Type of activity:	Project - PR4.05
Title of the activity:	Development of the existing higher education ICT orientations into faculties.
Area:	E-education (O10)
Reference	Legislation
Responsible authority	Ministry of Education and Science
Participants:	<ul style="list-style-type: none"> • Ministry of Justice; • Universities
Activity description	<p>In order to have successful profiling of ICT specialists that are going to be the bearers of the information society development it is necessary to redefine the status of the existing educational institutions that are profiling ICT staff and to develop themselves into independent faculties.</p> <p>It is necessary to make a distinction between applicative and scientific directed education of ICT specialists, as well as to stimulate educational profiles of ICT specialists on many levels (advanced, higher, certified) and to align the specialists according to their field of specialisation.</p>

Expected outcome	Increased number of ICT specialists.	
Components:	1. Analyses	Analyses of the need to redefine the status of the existing institutions and to the need to educate ICT staff by certain specialists.
	2. Legislation	Adoption of the necessary legislation in order the existing institutions to develop into faculties
Period of implementation:	12-24 months	
Financial projection:	1.000.000 Euros	
<i>Critical factors in the process of implementation</i>		
Financial sources:	The Budget of the RM	
Expert staff, human resources, necessary knowledge and expertise	The universities will provide all the necessary resources for successful completion of the project.	
Deadlines:	1-2 academic years	
Monitoring of the realisation:	The Ministry of Education and Science is to monitor the activity and to make an analysis on the bases of determining the number of ICT staff educated by these institutions.	

Type of activity:	Project - PR4.06
Title of the activity:	E-technologies Centre
Area:	Universities (ICT faculties), private sector
Reference	E-education (O2, O5, O6, O11, O14)
Responsible authority	E-Business, e-Government, e-health, Infrastructure, e-citizens
Participants:	<ul style="list-style-type: none"> • Universities (ICT faculties); • MASIT; • Governmental institutions.
Activity description	In the Republic of Macedonia lacks experience on development of e-projects. Therefore it is necessary from the beginning to establish a framework and standardisation on how to develop and monitor that kind of projects. It is necessary to prepare development and monitoring methodology on these projects. In the contrary a lot of means would be spent without achieving any adequate results. Having this in mind, it is also necessary to provide: laboratory (test-bed) for e-technologies (hardware, standard and wireless networks, software), defining the e-standards, development methodology and project management of e-projects and e-applications, modeling methodology, testing and assessment of the performances of e-solutions and equipment, testing and certification of e-projects and e-solutions, defining a curricula on training of the staff on e-technologies and certification.
Expected outcome	<ul style="list-style-type: none"> - Defined standards on e-technologies; - Increase of the quality on the implemented ICT solutions; - certified ICT staff on e-technologies.
Preconditions:	Establishment of a laboratory (test-bed) for e-solutions.
Period of implementation:	1.5 years for development, continuous work over the whole life cycle of the e-projects defined in the Strategy.
Financial projection:	Initially: 300.000 - 350.000 Euro; - continuously: 150.000 Euro per year
<i>Critical factors in the process of implementation</i>	
Financial sources:	Donors, the Government of the RM, MASIT, world ICT companies.

Expert staff, human resources, necessary knowledge and expertise	There are experts at the universities, in the private and in the Governmental sector that would implement this activity. The members of the Center would receive additional knowledge on the detailed implementation through the trainings organised for them. Also top world consultants will be engaged.
Technologies:	Network infrastructure, hardware, e-software, development tools for e-application, software for modeling business processes and e-technological implementations, testing, comparative analyses of e-solutions between the European countries and the USA, world and Macedonian e-standards, classroom and laboratory for training of e-staff.
Deadlines:	Immediately
Monitoring of the realisation:	Gant-diagram is to be created to monitor the realisation of the activities and to submit the agreed reports on the implementation.
Risks:	Lack of provision of means, not beginning on time, lack of coordination among the participants.

Type of activity:	Project - PR4.07	
Title of the activity:	Digitalisation and presentation of the cultural, historical, archeological and ethnological heritage.	
Area:	E-education (O15, O16)	
Responsible authority	Ministry of Culture	
Participants:	<ul style="list-style-type: none"> • Monument Protection City Offices; • Ministry of Culture; • Digitalisation Centres. 	
Activity description	Massive digitalisation of the movable and non movable heritage of the Republic of Macedonia. The project is to provide conditions on the improvement of the heritage protection, as well as easier access to the information for the project.	
Expected outcome	Collection and categorisation of information for cultural, historical, archeological and ethnological heritage. Publically accessible resource in databases. Digitalised collections of cultural heritage.	
Components:	1. Organisation	Establishing a consortium in which representatives of all the relevant factors from the area of cultural protection will participate.
	2. Analyses	Analyses of the continuous status and defining the digitalisation standards.
	3. Digitalisation	Digitalisation and archiving of the cultural, historical, archeological and ethnological heritage.
Period of implementation:	5-10 years	
Financial projection:	500 000 Euro per year	
<i>Critical factors in the process of implementation</i>		
Financial sources:	<ul style="list-style-type: none"> - Ministry of Culture; - Foreign donations. 	
Expert staff, human resources, necessary knowledge and expertise	The digitalisation, categorisation and archiving of the documentation will be performed by national experts.	

Development environment:	Existence or adaptation of a law for archiving the cultural heritage in digital form, and providing the opportunity for interoperation between the users of those data.
Technologies:	Digitalisation technologies, processing of the materials and technologies for creation of web solutions thereby making the data accessible to the general public.
Deadlines:	Continuous process.
Monitoring of the realisation:	The Ministry will monitor the digitalisation process through percentage analyses of the assumed quantity of information obtained by the analysis.
Risks:	Not existing standardised ways for categorize the cultural heritage. Not existing enough ICT equipment and ICT literacy in the institutions which are responsible for protecting the cultural heritage.

Type of activity:	Project - PR4.08	
Title of the activity:	Development of systems and tools for distance learning and open forms of education.	
Area:	E-education (O9)	
Responsible authority	Information Society Agency	
Participants:	<ul style="list-style-type: none"> • Ministry of Education and Science; • Universities; • Private ICT companies; • MARNET 	
Activity description	<p>The development of alternative forms of education is inevitable in a knowledge based society where the possibility of training should be available at any time and from any place.</p> <p>The project is to provide standards, applications and tools for implementation of these forms of education.</p>	
Expected outcome	<ul style="list-style-type: none"> - Alternative forms of education; - Quicker and more efficient education based on the needs on those that are learning; - Mobile education; - Increase of the quality of the contents. 	
Components:	1. Study	<ul style="list-style-type: none"> - Establishment of the needed systems and tools for specification of their functionalities; - Establishment of standards that these systems are to be implemented.
	2. Creation	Creation of technological solutions.
	3. Implementation	Supply of the necessary equipment, implementation and testing of the technical solutions.
Preconditions:	It is necessary to have legal framework on the application of tools for distance learning in the educational process.	
Period of implementation:	2 years	
Financial projection:	1.000.000 Euro	
<i>Critical factors in the process of implementation</i>		
Financial sources:	<ul style="list-style-type: none"> - EU projects; - Investment in the ICT business. 	

Expert staff, human resources, necessary knowledge and expertise	Local ICT experts and private ICT companies will participate in defining the standards, in the change of the legal regulation and in the development and implementation of solutions.
Development environment:	The use of the systems and the tools should start and be coordinated at the Universities. It would be beneficial if the academic research network MARNET is involved in the project which can provide the necessary infrastructure.
Technologies:	During the development and the implementation processes Web technologies should be used, and Web server should be used form application hosting.
Deadlines:	The design and the development should start as soon as possible. Version of the tools should be implemented in 1 year period, and testing period should last for 1-2 academic semesters.
Monitoring of the realisation:	The Agency for information technology should provide continues monitoring of the realisation of the project, through allocating own resources or using the resources from the companies which will be responsible for development and implementation of the systems and tools.
Risks:	Insufficient ICT existence in institutions which should use those systems and tools, and insufficient ICT literacy in those institutions.

Type of activity:	Project - PR4.09
Title of the activity:	Macedonian Educational Management Information System and portal development.
Area:	E-Education (O4)
Reference	Infrastructure, e-Government
Responsible authority	Ministry of Education and Science
Participants:	<ul style="list-style-type: none"> • Information Society Agency; • Private business (ICT companies), (creation of solution); • Central Register; • Universities; • Educational institutions; • National University Library.
Activity description	<p>Creation of central information system of the academy citizens, of scientific and research activities, of the cultural institutions.</p> <p>This central information system will enable creation of electronic dossiers of every citizen that was involved in the educational process. The dossiers would contain information for all the activities in which the citizen participated. Appropriate creation of an electronic dossier for the teachers thereby their scientific and research work can be monitored in a simple way.</p> <p>In the light of an easier access to information from the system a portal solution is to be developed having various access levels. The portal is to be the only access spot to all the activities of the employees in the academy institutions and their achievements.</p>
Expected outcome	<ul style="list-style-type: none"> - Improvement of the administration activity in all the segments of the educational system and enabling quick information for all the scientific and research activities; - More clearer overview and easier way of obtaining information for all

	the entities in the educational system; - Precise and up dated record of the resources and the staff in the educational system.	
Components:	1. Standards	Adoption of standards for exchange of information.
	2. Software solution	Design, creation and implementation of software solution based on centralised database.
	3. Creation of a portal	Portal for easier access to the information from the information system.
Preconditions:	- Completion of the projects for interconnection of all the institutions on the Internet; - Existence of central information system on a state level.	
Period of implementation:	24 months	
Financial projection:	300.000 Euro.	
<i>Critical factors in the process of implementation</i>		
Financial sources:	- Means from the Universities; - The Budget of the Republic of Macedonia - Foreign donations.	
Expert staff, human resources, necessary knowledge and expertise	The university professors will be included in the process of defining the functionalities and creation of the system that can be realised by local ICT company.	
Technologies:	Development of web based solution, and use of database which will be able to handle the necessary amount of data and can provide proper levels of security.	
Deadlines:	Plan for realisation of the solution should be developed as soon as possible. That plan should be sent to all subjects which will use the system, and after the approval the development of the applicative solution should start. Its implementation and testing are next steps.	
Monitoring of the realisation:	The realisation should be monitored from independent body which will monitore the implementation, the security and the way the system is used by the subjects in education	
Risks:	Uncoordination between subjects in education. This system should be accepted and supported by all these subjects, especially from the ministry of education and science	

Type of activity:	Project - PR4.10
Title of the activity:	ICT Education for all
Area:	E-education (O12, O13)
Reference	E-citizens
Responsible authority	Ministry of Education and Science
Participants:	<ul style="list-style-type: none"> • Universities (training of trainers) • Certified centers (training the population); • Non-Governmental organisations; • National Techniques of Macedonia (NGO on technology development).
Activity description	A project of this kind will aim at increasing the use and application of the information technology in the everyday life by education of all the

	structures of the population. Introduction of the IT education since the elementary school and increasing the number of subjects in all high schools (no matter their orientation), as well as obligatory IT education for all students in Macedonia are steps that the entities involved in the formal education have to undertake. For those that are not involved in the formal education free or not very expensive courses are to be introduced by certified institutions where they can receive the elementary education necessary for using the information technology. Realisation of summer training schools is one of the activities that can be part of this project.	
Expected outcome	Enabling the citizens to use ICT and their active participation in the knowledge-based society.	
Components:	1. Analyses	An analysis of the current level of the ICT education and the number of citizens that are to participate in the training.
	2. Establishing training centres	Establishing accredited centres that are to perform the training of the citizens by defining the conditions that are to be fulfilled by these centres.
	3. Training	Performing the training in the centres established for that purpose.
Preconditions:	Existence of centres that will perform training of the citizens for elementary ICT literacy.	
Period of implementation:	- initially 6-9 months; - continuous activity.	
Financial projection:	200.000 Euros (Phase 1 and 2), 50.000 Euros a year	
<i>Critical factors in the process of implementation</i>		
Financial sources:	- Ministry of education and science - Participation from the citizens which will be enrolled in the training	
Expert staff, human resources, necessary knowledge and expertise	National experts will be included in the performance of the training.	
Development environment:	Law which will regulate the employments in the state administration and in the education system concerning the ICT knowledge which needs to be possessed by the employees.	
Technologies:	ICT equipment is needed for the training, as well as systems and tools for easier and simpler conducting of the training.	
Deadlines:	Continuous process	
Monitoring of the realisation:	Report on the number of citizens that participated in these centres and reports on the issued certificates for ICT knowledge.	
Risks:	- Inexistence of criterias and standards which will measure the level of ICT knowledge - Insufficient use and existence of ICT in education and in the others segments of living	

Type of activity:	Project - PR4.11
Title of the activity:	Introduction of local and European certificates.
Area:	E-education (O14)
Reference	E-Government

Responsible authority	Information Society Agency	
Participants:	<ul style="list-style-type: none"> • Ministry of Education and Science; • Line ministries; • Universities; • Certified educational centres; • Civil Servants Agency. 	
Activity description	The ICT use is a basic precondition for active participation in a knowledge-based society. Therefore all the citizens should possess the elementary skills for using the ICT. The introduction of certificates will enable to easily check whether someone possesses the necessary skills. Alongside the adoption of the European certificates, the project is to consider the possibility of introducing local certificates.	
Expected outcome	Establishing the minimum of ICT knowledge that every employee in the civil service has to possess, as well as the citizens for their active participation in a knowledge-based society.	
Components:	1. Establishing the necessary knowledge	Acquiring the necessary knowledge for obtaining certificates in various fields.
	2. Establishing accreditation standards	Establishment of the standards that the centres performing the certification of the citizens for ICT knowledge have to meet.
	3. Accreditation of centres	Defining the procedures for obtaining accreditation.
	4. Training on certification	Performing training and testing for issuing certificates.
Preconditions:	Change in the legislation for existence of certification centres which certificates will be valid on a state level and wider.	
Period of implementation:	12 months	
Financial projection	Initial investment of 50.000 Euro.	
<i>Critical factors in the process of implementation</i>		
Financial sources	Financies from the certification centers	
Expert staff, human resources, necessary knowledge and expertise	The activity will be performed by participation of national experts. The Universities are to have important role in issuing certificates, while the ICT business community is to have important role in training the citizens.	
Development environment:	Definition of all laws which will regulate the accreditation process for the certification centers, and the conditions under which they will be able to issue certificates	
Technologies:	The level of ICT in the certification centers must be at acceptable level for conducting the appropriate certification. The centers should have equipment with needed hardware and licensed software	
Deadlines:	This project should start as soon as possible. The first step should be forming of the accreditation center after which announcement for becoming certified center should be published.	
Monitoring of the realisation:	The agency for information technology or the accreditation center will monitor and coordinate the process for certification.	
Risks:	Insufficient cooperation between state institutions concerning the formation of a accreditation center which will be responsible to accredited certification centers	

Type of activity:	Project - PR4.12	
Title of the activity:	Redefinition of the curricula for ICT formal education.	
Area:	E-education (O7, O8)	
Responsible authority	Ministry of Education and Science	
Participants:	<ul style="list-style-type: none"> • Information Society Agency; • Universities; • High schools; • Elementary schools. 	
Activity description	Content and structure redefinition of the existing curricula and subjects, and introduction of ICT education at all levels of the educational process (elementary school, high school and higher education), as well as in those fields where the ICT is not a research area.	
Expected outcome	Increase of the ICT skills for those that will pass through the formal educational system.	
Components:	1. Status analysis	An analysis of the existing plans in the educational institutions.
	2. Need analysis	Definition of the objectives that are to be achieved at different levels of the educational process, as well as definition of the necessary contents that is to be introduced.
	3. Creation	Creation and development of new curricula for all the levels of the educational process.
Period of implementation:	9 months	
Financial projection:	70.000 Euro	
<i>Critical factors in the process of implementation</i>		
Financial sources:	<ul style="list-style-type: none"> - the Budget of the RM; - Foreign donations; - EU projects. 	
Expert staff, human resources, necessary knowledge and expertise	The university ICT experts will actively participate in the performance of the project.	
Development environment:	Promotion through accreditation institutions and involvement of experts from the specific areas in the new content definition	
Technologies:	Web portals describing new curricula with details about the content of every course	
Deadlines:	New curricula and the implementation of the European standards should be finished until the next academic year 2006/2007	
Monitoring of the realisation:	Ministry of education and science and the commissions for accreditation of the new curricula.	
Risks:	The inability of the higher educational institutions to accept fast and often changes	

Type of activity:		Project - PR4.13	
Title of the activity:	Virtual digital libraries.		
Area:	E-education (O15, O16)		
Responsible authority	Ministry of Culture		
Participants:	<ul style="list-style-type: none"> • Information Society Agency; • Ministry of Education and Science; • National University Library; • Larger libraries in the country; • Private ICT companies. 		
Activity description	Digitalisation and accessibility to the librarian material in the local languages and in the European Union languages.		
Expected outcome	Easier and quicker access to the contents. Improvement of the quality of the scientific and educational activities.		
Components:	1. Analysis	An analysis on the quantity of the information that are to be digitalised, as well as defining the functionalities of the technical solution.	
	2. Creation of a solution	Creation of a technical solution for the use of digital libraries.	
	3. Implementation	Implementation and testing of the solution and digitalisation of the existing contents of the libraries.	
Period of implementation:	One year for technical solution. Continuous process of adding new contents.		
Financial projection:	300.000 Euros for equipment in the libraries 80.000 Euros a year for digitization		
<i>Critical factors in the process of implementation</i>			
Financial sources:	The Budget of the RM. (Science Development Fund)		
Expert staff, human resources, necessary knowledge and expertise	The activity will be performed by national experts with the participation of private ICT companies in the creation of technical solution.		
Development environment:	The use of the academic network in providing fast and cheap access to information		
Technologies:	Web environment for easier accessibility to information.		
Deadlines:	The project should start as soon as possible. Current conditions should be analyzed and a project for further activities should be made.		
Risks:	Insufficient ICT equipment in the libraries as well as insufficient ICT education of the employees in the libraries and of those which will use the services		

Type of activity:		Project - PR4.14	
Title of the activity:	Promoting the development of ICT literature in the Macedonian language and in the languages in the use of the educational system.		
Area:	E-education (O12, O13, O15)		
Responsible authority	Ministry of Education and Science		
Participants:	<ul style="list-style-type: none"> • Publishing houses; • Literature authors; • Universities 		
Activity description	The existence of ICT literature in the Macedonian language will		

	contribute to its greater use by all the citizens because of the increased and easier possibility of access to information for its use.
Expected outcome	- Increase in the use of the ICT; - Increase of the ICT literacy.
Period of implementation:	Continuous process
Financial projection:	50.000-100.000 Euros a year
<i>Critical factors in the process of implementation</i>	
Financial sources:	- Ministry of education and science - Finances from selling the literature - Foreign donations for development of professional literature on local languages
Expert staff, human resources, necessary knowledge and expertise	The project can rely on existing human resources which exist in the higher education system. Stimulation is a main factor for motivating the authors to produce literature
Deadlines:	The project should start as soon as possible with clear strategy what should be achieved, and with clear plan of activities which will be taken in order to increase the use and existence of ICT literature on local languages
Monitoring of the realisation:	The realization can be monitored by a body which will be formed for the project realization and that body will be responsible for monitoring the effects of the project and according to them will plan the next activities.
Risks:	Insufficient stimulation of the authors which can make them not interested in the project

Type of activity:	Project - PR4.15
Title of the activity:	Electronic application for enrollment at the faculty or for obtaining a scholarship, accommodation in a student centre.
Area:	E-education (O4)
Reference	E-citizens, e-Government
Responsible authority	Ministry of Education and Science
Participants:	<ul style="list-style-type: none"> • Universities; • High schools.
Activity description	The creation of a single information system for all educational institutions will open a possibility of offering e-services to the citizens. A part of these services can be the competitions for awarding a scholarship or applications for student dormitories announced by the Ministry of Education and Science. This kind of services will communicate with the information system and may provide instant information for the results of the competitions.
Expected outcome	- Transparency in the work of the institutions of the Government; - Increase use of the ICT.
Preconditions	Existence of clear plan for project implementation which will be accepted by all subject in the education
Period of implementation:	6 months to 1 year
Financial projection:	40 000 Euros 3000-5000 Euros yearly for maintenance

	<i>Critical factors in the process of implementation</i>
Financial sources:	- Ministry for education and science - Foreign donations
Expert staff, human resources, necessary knowledge and expertise	The project realization can rely on existing human resources for development of the project plan, as well as for the realization and maintenance part.
Technologies:	Web server for hosting the project and web technologies for its realization
Deadlines:	The realization should start as soon as possible. 1 year is estimated for its development and implementation.
Monitoring of the realisation:	Existing commissions, or a central body formed for project realisation will monitor its realization and will evaluate the results from its implementation
Risks:	Insufficient will from all institutions to accept involvement and support for the project, as well as insufficient existence of ICT equipment in these institutions and on citizens side

Type of activity:	Project - PR4.16	
Title of the activity:	Macedonian ICT monolingual dictionary with explanations	
Area:	E-education (O13, O15)	
Responsible authority	Metamorphosis Foundation	
Participants:	<ul style="list-style-type: none"> • Metamorphosis Foundation; • MANU; • Institute for Macedonian Language "Krste Petkov Mirkov"; • Information Society Agency; • Ministry of Education and Science; • adequate educational institutions (Faculty of Philology, ETF-CTIA, FMNS-II, MARNET); • The media and the publishers (specialised and general); • Associations and companies (MASIT, Microsoft); • Specialised civil organisations (Free Software - Macedonia); • Individual experts (translators, lectors, ICT professionals, journalists); • Interested citizens. 	
Activity description	Establishing a platform for public debate with broad professional participation in the standardization of the ICT notions finally resulting in a monolingual Macedonian dictionary with explanations thus surpassing the situation of confusion in the language that is a cause for aggravation of the implementation and development.	
Expected outcome	Unification in the use of specialised ICT notions in the written and oral expression.	
Components:	Component 1	Establishment of an initial working group composed of representatives of the key participants (coordinative body) and specification of the working standards.
	Component 2	Creation of a collaborative working software (open forum with a possibility of voting for the proposed solutions).

	Component 3	Collection/digitalisation of the available results of all similar projects and their inclusion as proposals / starting bases.
	Component 4	Inclusion of the professional and general public through their direct participation in the process of proposing, evaluating, acceptance and application of the solutions.
Preconditions:	Existence of clear plan for implementation of the project which will be accepted by the most of the interested subjects	
Period of implementation:	Maximum of 1 year for setting the infrastructure. The Web application will stay active in the future and will serve as public resource for all which will be interested	
Financial projection	5,000 Euros	
<i>Critical factors in the process of implementation</i>		
Financial sources	- Metamorphosis Foundation; - Other donations.	
Expert staff, human resources, necessary knowledge and expertise	Realization of the project can rely of human resources which exist in the country in the development of the project plan, as well as in the development, implementation and maintenance part	
Development environment:	System which can offer transparency and implementation of open standards.	
Technologies:	Web-server for hosting the project. Web-application (database and web-site) with functionality for exporting the data in different formats.	
Deadlines:	Realization of the project already started in May 2005 with initial contacts and meetings. The forming of the working group and the development of the first version should be made in June 2005, after which the database will be filled with data and that data will be evaluated using public forums.	
Monitoring of the realisation:	The working group will develop clear and transparent system of values for monitoring in phases and will evaluate the results, including the public in its work.	
Risks:	Insufficient will from the institutions to support the project on institutional level, by providing the experts and giving the available materials which they have for research.	

Type of activity:	Project - PR4.17
Title of the activity:	Centres for ICT Technology Transfer
Area:	E-education (O5, O11)
Responsible authority	Information Society Agency
Participants:	<ul style="list-style-type: none"> • Universities; • Private businesses (MASIT).
Activity description	Connection of the educational institutions with the business companies for implementation of innovative solutions. Support and assistance in the creation of new companies based on sustainable idea.

Expected outcome	- Decrease of the unemployment; - Development of the use of ICT by establishment and support of incubation companies.
Period of implementation:	1-2 years
Financial projection:	2.000.000 Euros starting investition
<i>Critical factors in the process of implementation</i>	
Financial sources:	- Foreign donations - Local municipalities in which the project will be activated - Private initiatives
Expert staff, human resources, necessary knowledge and expertise	Needed human resources exists, eventually consultants with experience or training in the area may help in project realization.
Deadlines:	The project should start as soon as possible. The initial realization period is 3-5 years.
Monitoring of the realisation:	Coordination body will monitor the project realization. That body can be also a commercial company which can be formed merging the universities and the private companies, and will be responsible for realization of the project and monitoring of its results.
Risks:	Low level of coordination between private companies and higher education institutions because of the inability of these institutions for fast and simple reorganization and adaptation to different conditions.

Type of activity:	Project - PR4.18
Title of the activity:	Electronic application for enrollment in high school and elementary school.
Area:	E-education (O4)
Reference	E-citizens, e-Government
Responsible authority	Ministry of Education and Science
Participants:	<ul style="list-style-type: none"> • Universities; • High schools; • Elementary schools.
Activity description	<p>The creation of a single information system for all educational institutions will open a possibility of offering e-services to the citizens. A part of these services can be the competitions for enrollment in high schools and elementary schools announced by the Ministry of Education and Science.</p> <p>This kind of services will communicate with the information system and may provide instant information for the results of the competitions.</p>
Expected outcome	- Transparency in the work of the institutions of the Government; - Increased use of the ICT.
Preconditions	Existence of ICT infrastructure for development and maintenance of the project
Period of implementation:	1-2 years
Financial projection:	40 000 euros 3000 - 5000 euros year maintenance
<i>Critical factors in the process of implementation</i>	
Financial sources:	- Ministry of education and science - Foreign donations - Finances from those which will use the system

Expert staff, human resources, necessary knowledge and expertise	Human resource for realization of the project exists in the area of project plan development as well as in the area of the solution development, implementation and maintenance.
Technologies:	Web technologies for development of the project and Web servers for hosting the solution.
Deadlines:	The project can start as soon as possible. The estimated period for its development is 1 year.
Monitoring of the realisation:	Appropriate body formed for the project should monitor its realization as well as project realization.
Risks:	Insufficient existence of ICT equipment in the education and the citizens, and insufficient ICT literacy.

4.5 E-HEALTH

Type of activity:	Project - PR5.01	
Title of the activity	Creation of IS Development Strategy in the health care sector	
Area	E- Health O5.01 - O5.08	
Responsible Authority	Ministry of Health	
Participants	Health Insurance Fund Clinical Centre in Skopje	
Activity Description	Implementation of the Strategy for integral information system, through creation and linking of sub-systems of several Clinics and Centre, developed on the basis of a unified model.	
Expected Outcomes	Improvement of the operation and securing of quality data on the location where the biggest number of medical interventions in the Republic of Macedonia are carried out.	
Components	1. Creation of a unified development model	Creation of a universal solution which shall meet the needs of all Clinics in a Centre.
	2. Pilot installation	Testing of the solution on a selected Clinic with the biggest number of performed medical interventions of different kind.
	3. Installation of a common network	Establishing of a unique network infrastructure at the level of the Clinical Centre with the links towards external subjects.
	4. Implementation of the solution	Introduction of the solution in all clinics of the Centre.
Preconditions	Detailed analysis and assessment of the current state of affairs of the ICT resources at the Clinical Centre and securing of a minimum needed personnel.	
Period of Implementation	Two years	
Financial projection	US\$ 10.000.000	
<i>Critical factors for implementation</i>		
Financial sources	The Budget of the Republic of Macedonia, donor programmes for establishment and local budgets for maintenance and upgrading.	
Expert staff, human resources, necessary knowledge and expertise	The existing expert personnel for creation of such solution is critically insufficient, especially those for the maintenance of the systems after the completion of the implementation.	
Development environment	Co-ordinated requirements of the project in compliance with the needs of all Clinics, for the purpose of building of a unified development model.	
Technologies	Crucial resources are needed for creation of a project solution, for development of a unified software solution, for hardware and network infrastructure.	
Deadlines	The project should be realised immediately after setting of the unique system for encoding and installation of the databases in the health sector, simultaneously with the project for application of the Unique Health Care Card	

Monitoring of the Realisation	Monitoring of generated medical and financial data and periodic assessment of the satisfaction of patients and of medical personnel on the basis of conducted surveys and questionnaires.
Risks	High costs for establishment and especially for maintenance of such a system and the lack of ICT personnel.

Type of activity:	Creation of a Study and Project - PR5.02	
Title of the Activity	Introduction of a unique encoding system	
Area	E-Health O5.02, O5.03, O5.06, O5.08	
Responsible Authority	Ministry of Health and Health Insurance Fund	
Participants	<ul style="list-style-type: none"> • Republic Institute for Health Protection (beneficiary) • Bureau for Medicines (beneficiary) • Medical Chamber (beneficiary) • State Statistical Office • Consultants (creators of the study) • Software company (the party responsible for project implementation) 	
Activity Description	Creation of a study for definition of the manner and the rules for encoding of data used by two or more entities in the health sector: diseases, medicines, medical aids, doctors, health care institutions, etc., bearing in mind the existing registries and identifiers. The follow-up activity to the study should be the establishment of data structures among the subjects that generate such data.	
Expected Outcomes	Established criteria for harmonisation of databases and definition of electronic exchange of data electronically in order to enable an increased degree of integration and controlled exchange of data.	
Components	1. Current state of affairs and EU recommendations	Setting of the existing legislation, data structures and identifiers, as well as establishing of the EU directives and the recommendations for this field.
	2. Definition of the system	Definition of the form and structure of all necessary registries and records in the health sector, with special focus on unique identifiers.
	3. Systemic solution	Implementation of the relation/reference databases for the defined data structures.
	4. Migration of existing data	Transfer of the existing data to the new technological platforms.
	5. Publishing of data	Enabling usage of data by the interested subjects through direct exchange or by publishing on web-site in compliance with the data protection legislation.
Preconditions	Composing of an expert team with representatives from all subjects that generate data in the health sector.	
Period of Implementation	18 months	
Financial Projection	US\$ 500.000	
<i>Critical factors for implementation</i>		

Financial sources	Foreseen funds within the World Bank Loan for the Project for Health Sector Management for establishment and local budgets for maintenance and upgrading.
Expert staff, human resources, necessary knowledge and expertise	The creation of the study shall be conducted with the existing staff of the responsible authorities and the stakeholders of the activity, combined with participation of a renowned consultations expert in the course of preparation of the study and the software company for installation of the databases
Development Environment	Legislation proscribing standards and fashion of exchange and usage of data, for the purpose of securing compliance and protection of data and development of individual ICT solutions for their own needs, with modules for exchange of data in accordance with the defined protocols.
Technologies	A crucial investment is needed for engagement of an expert for the consulting services, for hardware, for development of adequate solutions based on the relation/reference databases and for web-services for publishing of data.
Deadlines	For the purpose of reduction of the scope of the migration of the existing data, the study should be produced as soon as possible, and the establishment of data structures should be carried out before the beginning of the application of the electronic health card
Monitoring of the Realisation	Workshops organised for the purpose of receiving opinions and remarks on the study from the subjects in the health sector and analysis of data from the aspect of up-dating, physical and logical control.
Risks	Insufficient consideration of the existing data structures and identifiers, and securing of funds for maintenance of the data structures both, at the level of technological solution, and at the level of up-dating of data.

Type of activity:	Project - PR5.03	
Title of the activity	Introduction of Electronic Health Card	
Area	E-Health O5.01, O5.02 O5.04	
Reference	E-Government	
Responsible Authority	Ministry of Health and the Health Insurance Fund (MHIF)	
Participants	Health care service providers (beneficiary) Pharmacies (beneficiaries) ICT company (provider of the solution)	
Activity Description	Introduction of a document of identification of patient, doctors and diagnosis, for prescription of medicines and control of payment of health insurance taxes, electronically.	
Expected Outcomes	Increased quality and accuracy of data and significant reduction of the identification time while providing medical services, delivery of medicines and other medical aids.	
Components	1. Definition of the solution	Selection of the most suitable solution bearing in mind the conditions in the Republic of Macedonia as well as the EU guidelines, and definition of the contents of data and ways of exchange of data.
	2. Pilot installation	Testing of the solution at a given location (smaller municipality)

	3. implementation of the solution	Introduction of the solution on the entire territory of the Republic of Macedonia
Preconditions	Bringing into conformity with the other initiatives and projects implemented in the Republic of Macedonia which foresee electronic identification (identity cards, bank cards and etc.)	
Period of Implementation	One year	
Financial projection	US\$ 20.000.000	
<i>Critical factors for implementation</i>		
Financial sources	Local budgets and donor programmes	
Expert staff, human resources, necessary knowledge and expertise	The available human resources for realisation of this activity are insufficient and reaching a critical level, and especially in view to the big number of foreseen participants in the activity	
Development environment	The legislation, infrastructure at the level of a public network and establishing of an institution or a centre for further processing and conducting of data (processing/switching centre)	
Technologies	The necessary investment implies substantial scope of financial means needed for establishing of the system, including hardware, software solution, communications services and specialised equipment for creation, issuing and usage of electronic cards.	
Deadlines	Bringing into compliance with the deadlines of the EU directives on European Health Care Card	
Monitoring of the Realisation	Monitoring of the indicators in this sphere in accordance with the EU recommendations.	
Risks	High costs for establishment and, in particular, for maintenance of such a system.	

Type of activity:	Project - PR5.04	
Title of the activity	Hospital Information System in the major Health Care Institutions	
Area	E-Health, O5.01, O5.03, O5.05 - O5.08	
Responsible Authority	Ministry of Health	
Participants	Special hospitals (beneficiaries) ICT company (provider of the solution) Health Insurance Fund (MHIF)	
Activity Description	Creation of an information package with minimum parameters for the special hospitals, through development of a common access to the technological platforms, for recording of the work in electronic form (electronic patient record)	
Expected Outcomes	Unique citizens' registry data and medical data of the patients, statistical medical data and financial data regarding the operation of the hospitals as a way of monitoring of the fulfilment of the responsibilities foreseen in the contract with MHIF	
Components	1. Definition and creation of the solution	Creation of a universal solution which shall meet the needs of all hospitals, irrespective of their specialisation
	2. Pilot installations	Testing of the solution on three locations (hospitals of various type and scope of work)

	3. Implementation of the solution	Introduction of the solution in all special hospitals in the Republic of Macedonia
Preconditions	Detailed analysis and assessment of the current state of affairs and of the existing ICT resources in the special hospitals.	
Period of Implementation	Two years	
Financial projection	US\$ 1.500.000	
<i>Critical factors for implementation</i>		
Financial sources	Foreseen funds within the World Bank Loan for Project for Health Sector Management for establishment and local budgets for maintenance and upgrading.	
Expert staff, human resources, necessary knowledge and expertise	The existing expert personnel for creation of such solution is sufficient, however, the maintenance of such system implies significant increase of ICT staff in the hospitals.	
Development environment	Co-ordinated requirements of the project in compliance with the needs of all special hospitals and in compliance of the assumed needs of the future beneficiaries.	
Technologies	Crucial investments are needed for the hardware and for development of a unified software solution.	
Deadlines	Deadlines should be in compliance with the existing transformation of the system of financing in the public health.	
Monitoring of the Realisation	Monitoring of the generated medical and financial data.	
Risks	Adjustment of the solution to the on-going transformation of the system of financing in the public health.	

Type of activity:	Project - PR5.05	
Title of the activity	Electronic appointments, electronic informing and notification of the patients - citizens	
Area	E-Health, O5.01, O5.08	
Responsible Authority	Ministry of Health	
Participants	ICT company (provider of the solution)	
Activity Description	Upgrading of the existing web-site to the level of a true web-portal that would enable full interaction with the users of the portal (citizens, companies and institutions)	
Expected Outcomes	Improvement of the process of realisation of the rights the citizens deriving from health insurance, of the performance of the obligations of the employers and transparency in the work of the MHIF through publishing of needed information.	
Components	1. Two-way communication	Enabling, delivery of information from the users towards the web-site of the MHIF.
	2. Electronic signature	Establishing a authentication of identity and confirmation for data submission
Preconditions	Completion of the legislation for electronic signature and establishing of adequate body for issuing and certification of electronic keys.	
Period of Implementation	One year	
Financial projection	US\$ 100.000	
<i>Critical factors for implementation</i>		
Financial sources	Foreseen funds from the World Bank Loan for the Project for Health Sector Management for establishment and local budget for maintenance.	

Expert staff, human resources, necessary knowledge and expertise	Engagement of an ICT company for specific phases, but also training on web-design and web-programming of at least two persons from the MHIF's IT Sector for the purpose of ensuring continuous development.
Development environment	Promotion of the web-possibilities for the citizens, companies and institutions.
Technologies	Investment for the initial setting up of the system and for up-dating of the offered contents.
Deadlines	Continued development.
Monitoring of the Realisation	Assessment of the satisfaction of the users through conducted surveys and questionnaires.
Risks	Mistrust and indifference in respect to the usage by the potential users

Type of activity:	Project - PR5.06	
Title of the activity	Information System in the other Health Care Institutions, including the private ones	
Area	E-Health, O5.01, O5.03, O5.05-O5.08	
Responsible Authority	Ministry of Health	
Participants	ICT company (provider of the solution) Health Insurance Fund	
Activity Description	Completion and upgrading of the existing information system in accordance with the on-going reform of the health care system, with adequate strengthening of the system resources.	
Expected Outcomes	Improvement of the processes of collection of the health insurance contributions/charges and payment of the services for the health care service providers.	
Components	1. Basic system	Upgrading of the system resources (processing capacity, number of work stations, network connections and additional programme modules), in accordance with the on-going needs
	2. Reports regarding the management	Implementation of a system for articulation of the data into useful information for the top management (management information system)
	3. Document management	Implementation of a system for a complete electronic keeping and recording of the documentation (document management system)
Preconditions	Precise assessment of the current solution, including the analysis of the weaknesses and shortcomings.	
Period of Implementation	Two years	
Financial projection	US\$ 1.000.000	
<i>Critical factors for implementation</i>		
Financial sources	Foreseen funds from the World Bank Loan for the Project for Health Sector Management for establishment and the local budget for maintenance.	
Expert staff, human resources, necessary knowledge and expertise	Current state of affairs in the IT sector of the MHIF implies the recommendable as well as necessary increase in numbers of the employees for realisation of this activity. For the creation of the additional programme modules and installation of the specialised sub-systems, it is necessary to engage ICT company as an external partner.	
Development environment	Definition of the solutions by the end users, instead by the ICT experts.	

Technologies	Investment in the hardware software equipping and especially in training of the end users.
Deadlines	Completion of the information system by bringing it in compliance with the on-going reform of the health system including the observation of the deadlines.
Monitoring of the Realisation	Assessment of the state affairs within the regular annual revision of the operation by an independent party.
Risks	Amendments and addition to the project requirements as a result of the on-going reform of the health care system.

Type of activity:	Project - PR5.07	
Title of the activity	Information Systems of the Primary Health Care Institutions, including the private ones	
Area	E- Health, O5.01, O5.03, O5.05 - O5.08	
Responsible Authority	Ministry of Health	
Participants	<ul style="list-style-type: none"> • Health Insurance Fund • Surgeries (beneficiaries) • ICT company (provider of the solution) 	
Activity Description	Creation of an information package for the surgeries through creation of a common access to the technological platforms, for recording of the work in electronic form (electronic patient record).	
Expected Outcomes	Unique citizens' registry data and medical data of the patient, statistical medical data, and financial data for the operation of the surgeries.	
Components	1. Definition and creation of the solution	Creation of a standard solution
	2. Pilot installation	Testing of the solution in 5 locations (surgeries with various scope of work)
	3. Implementation of the solution	Introduction of the solution in all of the surgeries in the Republic of Macedonia
Preconditions	Detailed analysis and assessment of current situation and the existing ICT resources in the surgeries.	
Period of Implementation	Two years	
Financial projection	US\$ 5.000.000	
<i>Critical factors for implementation</i>		
Financial sources	Budget of the Republic of Macedonia, donor programmes for establishment and local budgets for maintenance and upgrading.	
Expert staff, human resources, necessary knowledge and expertise	The existing expert personnel is sufficient for the implementation of such a solution, however not sufficient for maintenance of the systems following the completion of the implementation.	
Development environment	Coordinated requirements of the project for the purpose of meeting the needs of the surgeries with various scope of work.	
Technologies	Crucial investments are necessary for supply of hardware equipment and development of the unified software solution.	
Deadlines	The deadlines should be in compliance with the current transformation of the system of financing of the public health.	
Monitoring of the Realisation	Monitoring of generated medical and financial data and periodical assessment of the satisfaction of patients and of medical personnel on the basis of conducted surveys and questionnaires.	

Risks	Great number of surgeries in physically isolated locations and exceptionally severe current condition in respect to existing hardware and software resources.
-------	---

Type of activity:	Project - PR5.08	
Title of the activity	E-Pharmacies O5.04	
Area	E-Health	
Responsible Authority	Pharmacies	
Activity Description	Introduction of a web-portal with possibilities for information in respect to the availability, ordering and reserving of a specific medicine.	
Expected Outcomes	Increase of accessibility and improvement of the process of distribution of medicines and medical aids.	
Components	1. Common web-portal	Establishing of a common web-portal with access to all interested pharmacies
	2. Two-way communication	Enabling of a two-way communication between the web-portal and the citizens
Preconditions	Completed information systems in all interested pharmacies	
Period of Implementation	6 months	
Financial projection	US\$ 50.000	
<i>Critical factors for implementation</i>		
Financial sources	Own funds from the pharmacies and from donor programmes.	
Expert staff, human resources, necessary knowledge and expertise	Engagement of an ICT company for development of the solution in co-operation with a working team composed of experts from the major pharmacies.	
Development environment	Promotion of the web-possibilities for the citizens.	
Technologies	Investment for an initial set-up of the system and for upgrading of the offered contents.	
Deadlines	Continued development	
Monitoring of the Realisation	Assessment of the satisfaction of the citizens through surveys and questionnaires	
Risks	Competitive position of the pharmacies on the medicine and medical aids market.	

4.6 E-CITIZENS

Type of activity:	Program - PG6.01 Priority 1	
Title of the activity:	E-civil participation	
Area:	E-citizens - Support to the local communities in the creation of locally sustainable ICT policy - O 6.01, O 6.02, OC 6.03, O 6.04, O 6.05	
Reference	E-Government (offer of e-services / civil portal / interoperability - interconnections)	
Responsible authority	MDW / USAID and the Methamorphosis Foundation ¹⁸	
Participants:	<ul style="list-style-type: none"> • Ministry of Local Self-Government; • NGO sector and donations (expertise and management) / implementation (e -points); • CSGU (Community of the Self-Government Units) / LSGU (local partner / implementer); • AIO (coordinator of the local and other services); • UNDP, MDW / USAID, FIOOM (existing infrastructure on the e-points); • The Government of the RM; • The business sector (own resources); • Local municipalities, schools (own resources); • Providers. 	
Activity description	Placing the ICT on the political agenda of the local self-Government and providing disposable public services of benefit to the citizens delivered according to the subsidiary principle and good governance. Increase of the number of e-services users by educating the users and opening of publicly accessible e-points.	
Components:	1. Local - service policies from the point of view of the citizens	Support to the process of creation of ICT policies for LSGU that will prescribe the commitments, obligations and tools for offering quality and sustainable e-services to the citizens. Support to the introduction of the ICT policies in other LSGU development strategies. The policy and the e-consultants (see item 2) together with the local leaders will take care to add the ICT component in all the aspects of functioning of the local self-Government taking into account NSIS&AP. Supporting the implementation of the local strategies.
	2. E-consultants	Process of engagement of e-consultants (national experts operating in micro regions) ¹⁹ , who after the specialised training will offer free services on the transfer of knowledge of the employees in the local self-Government for those that will decide to participate in this development programme and will accordingly participate in the creation of the local ICT policy. The e-consultants will work on the basis of the international

¹⁸ The project is approved and initial budget for realisation is provided by the responsible authorities.

¹⁹ The term micro regions in this draft programme covers several municipalities that naturally gravitate in one region and are interdependent with infrastructure and human resources and usually they are comprised of one city and several rural environments that will share the resources from one point. This is a technical issue and the division of the regions will be based on the operative solutions and the needs of the implementers of the project in the interest of more efficient functioning of the project. Each micro region will be covered by one consultant that will in principle be a local expert.

		known model e-Rider and will be engaged on the project as outsource independent consultants of the local self-Government.
	2. Infrastructure	Participation of the local self-Government, the business sector and other partners in the provision of the necessary infrastructure.
	3. E-points	Evaluation of the infrastructure, human resources and possible partners (see: participants) in every municipality. Classification of several categories in e-points - public-private partnership - (within the state and local institutions, schools, universities, libraries. Internet clubs, business and NGO - sector, centres for NGO support (FIOOM), digital clubs, Metamorphosis Foundation), ICT centres in the LSGU (UNDP, MDW/USAID), centres for supplementary education (Babylon centres - Youth and Sports Agency), lifetime education centres (Workers University), wireless "hot-spots" on public places, catering facilities, buildings, transport centres, municipality wireless networks). Some of the centres will be equipped for promotion with equipment for people with special needs (pilot project).
	4. E-civil education	Continuous trainings with covering a wide scope of the population and improvement of the ICT knowledge e-civil education ²⁰ using the local infrastructure (e-points, national experts).
	5. ICT pilot projects of the local communities.	Support to the innovation and progress initiatives adding value to the offer of e-services to the citizens.
	6. Interaction and interoperability	Interoperability ²¹ , standardisation and unification on a service level among the institutions and accompanying Guidelines defining the obligations and time frames in their mutual communication on an institutional level.
Preconditions	Local elections and new local Government (in the first half of 2005).	
Period of implementation:	2,5 years (from the middle of 2005 until the end of 2007)	
Financial projection:	1.200.000 Euro (66% of the budget is provided by the responsible authorities)	
<i>Critical factors in the process of implementation</i>		
Financial sources:	Donors and NGOs (software, equipment, expertise), local elections (workforce, training, infrastructure).	
Expert staff, human resources, necessary knowledge and expertise	Employees in the local self-Government (computer centres, information centres, local communities), e-consultants, outsource local companies and experts.	
Development environment:	Implementers support the process, NGOR, the local business, AIO in cooperation with the Government and the local partners.	

²⁰ The term e-civil education is used in correlation with the term civil education in the transition into knowledge-based society.

²¹ Horizontal - at the same level, vertical - between different levels of the hierarchy.

Technologies:	Computer equipment, software, network equipment, Internet.
Deadlines:	From the middle of 2005 until the end of 2007.
Monitoring of the realisation:	Indicators: a number of PIAP- terminals (terminals in e-points) of 1.000.000 citizens; a number of Internet users per 1000 citizens; integration of the local ICT policy in the strategic documents of the local self-Government as a basis for building the e-services; a number of publicly disposable services; percentage of institutions offering essential electronic communication in both directions; a number of municipalities having ICT policies; a number of municipalities having CIO (main information coordinator - an expert in the local self-Government that is responsible for implementation of the ICT policies); a number of employees in the ICT sector in the municipalities; a number of computers per employee in the SGU; a number of municipalities actively using the advanced technologies for internal communication as well as advanced technologies regarding the citizens; a number of citizens using the new technologies in the communication with the responsible institutions; digital divide-index
Risks:	Lack of local support and political will in certain municipalities.

Type of activity:	Project - PR6.01	
Title of the activity:	E-citizen portal (citizens.mk)	
Area:	E-citizens / standards for e-services (O 6.02, O 6.03, O 6.04)	
Reference	E-Government	
Responsible authority	The Government of the Republic of Macedonia / the General Secretariat	
Participants:	The Government of the Republic of Macedonia and the public institutions, AIO, LSGU.	
Activity description	A possibility of the citizens to access from one point (by references and functionally) to all the data, services, information and forms that are of their interest.	
Components:	1. The first and the second phase - informative / elementary interaction	In the first implementation phase the civil portal will provide a possibility to download application forms, make an appointment, institutional maps for certain requests, guidelines and lists of necessary documents on one spot with universal presentation layout. At the same, a publicly accessible address book of all the institutions and responsible individuals in all the segments of the administration will be placed on the civil portal. There will also be placed an easily manageable support system to the users. An element of this portal will also be forms that safely and anonymously will make a public opinion and recommendation poll on the functioning of all the state organs, as well as files of complaints and corruption of those organs. Then this information will be distributed to the responsible institutions in that area, as well as to the superior responsible institutions in for their supervision. As a part that is to be developed in order to give impetus to the civil initiative is the civil forum ("e-democracy") that is public and at a disposal for all. This tool will be used in order to improve the services

		<p>offered to the citizens and for receiving feedback and initiatives of civil nature.</p> <p>In the second phase, the portal will cover services (at all levels) for registering and paying taxes, searching for vacancies, applications for social beneficiaries, applications for personal documentation, registration of vehicles, construction permits, police calls, inspectorates, public libraries, applications and communications with public educational institutions, change of address of living, health services and alike.</p>
	2. The third phase - e-one stop shop system	The third phase (mid-term) comes after the introduction of legal and organisational reforms for implementation of one stop shop system, the civil portals will offer one stop shop system for the citizens. Following the introduction of one stop shop system and PKI ²² through the e-civil portal the citizens can access the resources in a universal manner and quickly from their homes or public places and make all the necessary financial transactions and transactions of documents.
Preconditions	The first / the second phase does not exist; the third phase - introduction of PKI, e-banking and one stop shop (with all the accompanying acts).	
Period of implementation:	2006-2007 year (the first 2 phases)	
Financial projection:	100.000 Euro	
<i>Critical factors in the process of implementation</i>		
Financial sources:	Donations / own means	
Expert staff, human resources, necessary knowledge and expertise	Governmental ICT experts, manufacturing companies	
Development environment:	For later components: one stop shop system. Currently: Law on Free Access to Public Information and Guidelines on the Quality of the Services.	
Technologies:	Software / services / standards	
Deadlines:	The first phase: the beginning of 2006. The second phase: the second half of 2007.	
Monitoring of the realisation:	Indicators: a number of portal users; a number of citizens per 1000 citizens that electronically performed at least a part of the procedures.	
Risks:	Postponing the implementation of the introduction of one stop shop system.	

Type of activity:	Project - PR6.02
Title of the activity:	Civil initiatives for information society (Overcoming the digital divide initiative)
Area:	E-citizens / overcoming the digital gap (O6.05)
Reference	None direct references
Responsible authority	AIO

²² Public Key Infrastructure

Participants:	<ul style="list-style-type: none"> • NGO sector, foundations and donations; • The Government of the RM, the local self-Government, the business sector. 	
Activity description	<p>The civil associations knowing the needs of the citizens in the best possible way, by using the micro-projects will fast and efficiently educate the citizens about the possibilities and ways of access to the e-services that are of interest to a certain target group (for example, citizens with special needs). They will also have a possibility of offering some specific tools for that target group.</p>	
Components:	1. The first phase	Defining the priority target groups and regions in order to surpass the differences from the digital gap.
	2. The second phase - a series of grants	The organisations through the projects will perform e-civil education for certain target groups and /or will offer solutions for specific tools. It is also possible to have campaign projects, as well as projects for free distribution of literature and software.
	3. Parallel component	NGO body for monitoring the performances of the e-services offered by the Government in each step of their implementation and preparation of monthly reports with recommendations for improvement of the services. Public and independent offline and on-line tools for evaluation of the services by the citizens.
Preconditions	Acquired funds, institutional strengthening of the agency for grant making process, analysis prior to the grant programme	
Period of implementation:	3 years	
Financial projection:	100.000 Euro	
<i>Critical factors in the process of implementation</i>		
Financial sources:	Foundations	
Expert staff, human resources, necessary knowledge and expertise	NGO resources	
Development environment:	Law on Associations of Citizens and Foundations, Law on Information Society, local policy on information society.	
Technologies:	None special from the side of AIS, technology will be implemented in the projects from the NGO site	
Deadlines:	The first phase: summer / autumn 2005. The second phase: by the end of the timeframe of the Action Plan.	
Preconditions	Indicators - Digital divide Index	
Period of implementation:	Not quality implementation of a part of the projects.	

Type of activity:	Project - PR6.03
Title of the activity:	Measures for support to the local contents.
Area:	E-citizens / O6.06
Reference	E-business
Responsible authority	AIO
Participants:	The Government of the RM; PE; LSGU; the business and the NGO sector.
Expected outcome	Certain benefits for the companies producing quality, proofreading, free of charge and disposable on-line material.

Components:	1. Private initiative	Assessment of the possibilities of certain subventions and modus (taxes or public competitions, as well as the Broadcasting Council). Implementation, sustainability in awarding grants.
	2. Public ownership	Creation of an online library for materials in public ownership - accessible and free for all the users (archives, projects supported by the Broadcasting Council, AB materials and alike).
Preconditions	Regulations and licencing system for public access to content	
Period of implementation:	2006-2007 year	
Financial projection:	25 000 Euro	
<i>Critical factors in the process of implementation</i>		
Financial sources:	Donors	
Expert staff, human resources, necessary knowledge and expertise	Companies (portals, contents writers)	
Development environment:	Available typical licences available to content providers	
Technologies:	Digital rights management	
Deadlines:	One year.	
Preconditions	Indicators: quantity of a local on-line material.	
Risks:	Lack of interest from content owners	

Type of activity:	Program - PG6.02	
Title of the activity:	E-security	
Area:	E-citizens / C 6.02	
Reference	E-business, e-Government	
Responsible authority	AIO	
Participants:	The Government of the RM, LSGU, the business sector	
Expected outcome	Trust in the online systems for transmission of information and financial transactions.	
Components:	1. The first phase: standards and institutions	a) Establishment of a working group for e-security within the AIO that will monitor the information security; b) Preparations of changes in the regulation in the area of e-crime; c) Strengthening the e-crime department within the MI by knowledge and technology; setting technology for sharing information between different institutions for detecting 'interdisciplinary' schemes of the e-crime; d) Strengthening the fight against piracy (as one of the greatest risks for discrediting of information with viruses, spy software and similar), malicious hacker attacks in cooperation with the providers, misuse of credit cards etc.; e) Creation of a security framework that is to be implemented in each institution and which will contain good security practices (physical, network, software,

		policy on secrecy of information, responsibilities, strict rules for protection in keeping data from credit cards and alike).
	2. The second phase: monitoring	Continuous monitoring of the parameters.
Period of implementation:	The first phase: summer / autumn 2005. The second phase: winter 2005/2006 - by the end of the timeframe of the Action Plan.	
Financial projection:	50.000 Euro	
<i>Critical factors in the process of implementation</i>		
Financial sources:	Donations	
Expert staff, human resources, necessary knowledge and expertise	Education and employment of staff.	
Development environment:	Book of rules and legal acts on data security and privacy.	
Technologies:	Network security appliances, insurance of systems and software, physical insurance.	
Deadlines:	The first phase: summer / autumn 2005. The second phase: winter 2005/2006 - by the end of the timeframe of the Action Plan.	
Preconditions	Indicators: the level of e-crime in Macedonia; the level of information of the citizens on their rights and data security.	
Period of implementation:	Disobeying the standards for security and privacy thereby diminishing the effect of this programme.	

Type of activity:	Project - PR6.04	
Title of the activity:	Environmental information system and adequate portal.	
Area:	E-citizens / O6.04	
Reference	E-Government, e-business, sustainable development.	
Responsible authority	Ministry of Environment and Physical Planning.	
Participants:	The Government of the RM, the NGO having the ecology as its main activity, PE (Water Economy, Utilities hygiene ...), Cadastre, inspectorates, media, LSGU, business sector.	
Expected outcome	Publicly accessible data, resources and ICT tools in connection with the monitoring and the transparency of the parameters on the quality of the environment in the whole local self-Government in the Republic of Macedonia.	
Components:	1. Environmental Information System	Creation of an information system that in interconnection with the information systems for spatial planning, cadastre and other GIS systems, metrological stations, inspection services, public enterprises will aggregate the data on the status of the parameters of the soil, air, water, agricultures etc. and will follow the trends that will be publicly available to all the interested parties.

	2. Informative portal	Creation of an informative portal that will represent a presentation level for the collected data through Internet having sub-sector specialised in the needs and interests of the public institutions, business sector, non-Governmental organisations and the citizens, and will at the same time, have educational nature with an appropriate resource centre alongside the informative nature.
Preconditions	Institutional strengthening of the Ministry of environment	
Period of implementation:	2006 - 2007 year	
Financial projection:	50.000 Euro	
<i>Critical factors in the process of implementation</i>		
Financial sources:	Donors, the Ministry of Environment and Physical Planning	
Expert staff, human resources, necessary knowledge and expertise	Companies (portals, contents writers)	
Development environment:	Implementation of the National Strategy of Ministry of Environment	
Technologies:	Software	
Deadlines:	One year	
Preconditions	Indicators: percentage of publicly accessible data on the situation of the environment in the Republic of Macedonia.	
Period of implementation:	Not sufficiently fast implementation of the information systems in the other institutions.	

4.7 LEGISLATION

Type of activity:	Program - PG7.01	
Title of the activity	Enactment of the Law on information society	
Area	Legislation	
Reference	PG07.01	
Responsible Authority	Ministry of telecommunications	
Participants	<ul style="list-style-type: none"> • MASIT • Agency for information society • Competent ministries • Donators 	
Activity Description	Team of domestic will make overview and analyses of the legislation in the region, comparative law, EU and legislation in Macedonia	
Expected Outcomes	Enactment of law and its implementation	
Components	<ol style="list-style-type: none"> 1. Analyses 2. Comparison 3. Draft 	
Preconditions	Political will, active cooperation between all interested parties, financial resources	
Period of Implementation	6 months	
Financial projection	15.000 EUR	
<i>Critical factors in the process of implementation</i>		
Financial sources	Donators, Governmental Budget	
Expert staff, human resources, necessary knowledge and expertise	100 EUR per day, experts in the field of law and technology	
Deadlines	June 2005-June 2006 (one year)	
Monitoring of the Realisation	Domestic and foreign expert team 2 years after enactment of the law will monitor the implementation and will propose amendments if it is necessary	
Risks	No political will, bad stability in the country	

Type of activity:	Program - PG7.02	
Title of the activity	Enactment of the Law on electronic commerce	
Area	Legislation	
Reference	PG07.02	
Responsible Authority	Ministry of telecommunications	
Participants:	<ul style="list-style-type: none"> • MASIT; • Agency for information society; • Competent ministries; • Donators. 	

Activity Description	Team of domestic will make overview and analyses of the legislation in the region, comparative law, EU and legislation in Macedonia	
Expected Outcomes	Enactment of law and its implementation	
Components:	1. Analyses 2. Comparison 3. Draft	
Preconditions	Political will, active cooperation between all interested parties, financial resources	
Period of Implementation	6 -12 months	
Financial projection	20.000 EUR	
<i>Critical factors in the process of implementation</i>		
Financial sources	Donators, Governmental Budget	
Expert staff, human resources, necessary knowledge and expertise	100 EUR per day, experts in the field of law and technology	
Deadlines	24 months	
Monitoring of the Realisation	Domestic and foreign expert team 2 years after enactment of the law will monitor the implementation and will propose amendments if it is necessary	
Risks	No political will, bad stability in the country	

Type of activity:	Program - PG7.03	
Title of the activity	Harmonization of laws and other regulations which are in connection or have effect on the functioning of information society	
Area	Legislation	
Reference	PG07.03	
Responsible Authority	Ministry of justice	
Participants	<ul style="list-style-type: none"> • MASIT • Agency for information society • Competent ministries • Donators 	
Activity Description	Team of domestic will make overview and analyses of the legislation in the region, comparative law, EU and legislation in Macedonia	
Expected Outcomes	Report in which will be mentioned all the laws which have to be amended	
Components	1. Analyses 2. Comparison 3. Draft	
Preconditions	Political will, active cooperation between all interested parties, financial resources	
Period of Implementation	6 -12 months	
Financial projection	60.000 EUR	
<i>Critical factors in the process of implementation</i>		
Financial sources	Donators,	

	Governmental Budget
Expert staff, human resources, necessary knowledge and expertise	100 EUR per day, experts in the field of law and technology
Deadlines	24 months
Monitoring of the Realisation	Domestic and foreign expert team 2 years after enactment of the laws will monitor the implementation and will propose amendments if it is necessary
Risks	No political will, bad stability in the country

Type of activity:	Program - PG7.04	
Title of the activity	Training of the civil servants, judges, prosecutors, public attorneys, lawyers and employees in the health, educational, cultural, scientific institutions and other public services.	
Area	Legislation	
Reference	PG07.04	
Responsible Authority	Ministry of justice	
Participants	<ul style="list-style-type: none"> • MASIT • Agency for information society • Competent ministries • Donators 	
Activity Description	A team of national and foreign experts will carry out training of the civil servants, judges, prosecutors, public attorneys, lawyers and employees in the health, educational, cultural, scientific institutions and other public services	
Expected Outcomes	Increasing the awareness on the use of information technology and the knowledge on the implementation of the legal and other regulation on information society	
Components	1. Analyses 2. Design of the trainings 3. Education	
Preconditions	Political will, active cooperation between all interested parties, financial resources	
Period of Implementation	24 months	
Financial projection	100.000 EUR	
	<i>Critical factors in the process of implementation</i>	
Financial sources	Donators, Governmental Budget	
Expert staff, human resources, necessary knowledge and expertise	100 EUR per day, experts in the field of law and technology	
Deadlines	June 2006-June 2008 (two years)	
Monitoring of the Realisation	Domestic and foreign expert team 2 years after enactment of the law will monitor the training	
Risks	No political will, bad stability in the country	

4.8 SUSTAINABILITY

Type of activity:	Project - PR8.01
Title of the activity	Establishment of the organisational structure and the capacities of the Information Society Agency.
Area	Priority areas for sustainability of the Strategy - item 3.
Reference	All the pillars.
Responsible Authority	The Government of the RM, the Information Society Agency.
Participants:	<ul style="list-style-type: none"> • Representatives of the Government of the RM; • Universities; • The private sector; • Non-Governmental organisations.
Activity Description	Creation of a feasibility study on the organisational structure and the capacities of the future Information Society Agency of the Republic of Macedonia.
Expected Outcomes	Defining the organizational structure and required capacities of the Information Society Agency
Preconditions	Forming of a expertise team with the representatives from most of the relevant subjects
Period of Implementation	October 2005
Financial projection	50.000 Euros
	<i>Critical factors in the process of implementation</i>
Risks	No sufficient consideration on the existing institutional structure

Type of activity:	Project - PR8.02
Title of the activity	Defining campaigns on building the public awareness about the information society.
Area	Priority areas for sustainability of the Strategy - item 4.
Reference	All the pillars.
Responsible Authority	The Government of the RM, the Information Society Agency.
Participants:	<ul style="list-style-type: none"> • Representatives of the Government of the RM; • Universities; • The private sector; • Non-Governmental organisations.
Activity Description	Creation of a complete campaign consisted of a sum of smaller campaigns that are to contribute to the building of the public awareness in the Republic of Macedonia about the significance of the information society for the general development of the country.
Preconditions	Forming of a expertise team with the representatives from most of the relevant subjects
Period of Implementation	18 months
Financial projection	50.000 Euro

Type of activity:	Project - PR8.03
Title of the activity	Establishment of a fund on information society development based on the principle of partnership between the public and the private sector.
Area	Priority areas for sustainability of the Strategy - item 5.
Reference	All the pillars.
Responsible Authority	The Government of the RM, the Information Society Agency.
Participants:	<ul style="list-style-type: none"> • Representatives of the Government of the RM; • Universities; • The private sector; • Non-Governmental organisations.
Activity Description	Establishment of a fund on information society development based on the principle of partnership between the public and the private sector.
Expected Outcomes	Found to be formed and to start with the financing of the separate projects
Preconditions	Involvement of all relevant parties in the process
Period of Implementation	End of 2005
Financial projection	50.000 Euro
	<i>Critical factors in the process of implementation</i>
Risks	No sufficient consideration of the existing representatives of the public and private sector.

Type of activity:	Project - PR8.04
Title of the activity	Establishment of indicators and methodology for evaluation of the information society development in the Republic of Macedonia.
Area	Priority areas for sustainability of the Strategy - item 6.
Reference	All the pillars.
Responsible Authority	The Government of the RM, the Information Society Agency.
Participants:	<ul style="list-style-type: none"> • Representatives of the Government of the RM; • Universities; • The private sector; • Non-Governmental organisations.
Activity Description	Creation of a study that will define the indicators and methodology for evaluation of the information society development in the Republic of Macedonia in the future.
Expected Outcomes	
Preconditions	Forming of a expertise team with the representatives from most of the relevant subjects
Period of Implementation	End of October 2005
Financial projection	50.000 Euro

LITERATURE

1. "National Information Society Policy" - 2003 - eSEEurope Initiative Common Guidelines (<http://www.stabilitypact.org/e-see/commonguidelines.pdf>)
2. "eSEE Agenda for the Development of the Information Society" - Stability pact - eSEEurope initiative (<http://www.eseeuropeconference.org/agenda.pdf>)
3. "Action Plan of the Committee for Information Technology 2003-2007 " - 2003 (<http://www.kit.gov.mk>)
4. "Principles and directions for building of e-Government - Concept for partnership between the Government, citizens and the private sector" (<http://www.kit.gov.mk>)
5. "eEurope 2005 Action Plan", Commission of the European Communities - 2003 (http://europa.eu.int/information_society/eeurope/2005/index_en.htm)
6. "eEurope +" Commission of the European Communities (http://europa.eu.int/information_society/eeurope/plus/index_en.htm)
7. "i-2010" Commission of the European Communities (http://europa.eu.int/information_society/eeurope/2005/all_about/2010_challenges/index_en.htm)
8. "Local e-Governance in Macedonia" - report - 2004 - UNDP (<http://www.undp.org.mk/e-governance/default.htm>)
9. "General Data about the situation regarding the ICT in Macedonia 2003-2004" - Research report - Metamorphosis Foundation (<http://www.metamorphosis.org.mk>).
10. "Use, positions and opinions about ICT among the citizens of Republic of Macedonia " - Research report - 2004 - Metamorphosis Foundation (<http://www.metamorphosis.org.mk>).
11. "Use, positions and opinions about ICT in certain organizations in Republic of Macedonia" - Research report - 2004 - Metamorphosis Foundation (<http://www.metamorphosis.org.mk>)
12. "Research Results: ICT Use in the Civic Sector of Republic of Macedonia - 2005 - Metamorphosis Foundation - (<http://www.metamorphosis.org.mk>)
13. "Strategy for development of Information Society in Bosnia and Herzegovina" (<http://www.is.gov.ba>)
14. "Declaration of Principles" - 2003 - World summit on Information Society Geneva (http://www.itu.int/wsis/documents/doc_multi-en-1161%7C1160.asp)
15. "Plan of Action" - 2003 - World summit on Information Society Geneva (http://www.itu.int/wsis/documents/doc_multi-en-1161%7C1160.asp)
16. "European Interoperability Framework for pan-European eGovernment Services" - 2004 - Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens - European Commission (<http://europa.eu.int/idabc/en/document/3761>)
17. "Study on Target e-Government Infrastructure for delivering European e-Government services" - 2004 - Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens - European Commission (<http://europa.eu.int/idabc/en/document/3760/5585>)
18. "Technical specifications for a Feasibility Study on a XML-Clearinghouse for pan-European eServices" - 2004 - Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens - European Commission (<http://europa.eu.int/idabc/en/document/3877/5585>)

19. "European Interoperability Framework" - 2004 - Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens - European Commission (<http://europa.eu.int/idabc/en/document/3473/5585>)
20. "Valoris report on Open Document Formats" - Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens - European Commission (<http://europa.eu.int/idabc/en/document/3439/5585>)
21. "OASIS Open Document Format for Office Applications (OpenDocument 1.0)" - 2005 - OASIS global consortium (<http://www.oasis-open.org/committees/download.php/12572/OpenDocument-v1.0-os.pdf>)
22. "Principles of the Estonian IT Policy 2004-2006" - 2004 - RISO - Estonia (http://www.riso.ee/en/Information_Policy_04.pdf)
23. "The 2005 e-readiness rankings" - 2005 - The Economist Intelligence Unit - (<http://www.eiu.com>)
24. "Strategies of Inclusion: Gender and the Information Society" - SIGIS - EU Information society technologies Programme - 2004 (<http://www.rcss.ed.ac.uk/sigis/public/deliverables/D08/1>)

NATIONAL STRATEGY FOR INFORMATION SOCIETY DEVELOPMENT AND ACTION PLAN

158



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
5. Filip Stojanovski	04.06.1974	Informatics engineer	Programme Coordinator, Metamorfozis Foundation	Conducting of the process with wide participation in the creation of the Strategy, not only it indicates to the fact that the needs for information development are common and universal, but also it indicates to the fact that it is possible to join forces from various ends of our society in order to achieve them together.
e-mail	flame@unet.com.mk			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
6. Dragan Nikolic	23.01.1969	Electrotechnical engineer (computer technology, informatics, automatics)	Ministry of Defense of the Republic of Macedonia, Head of the K-4 Sector (Command, Control, Communications, Computers)	In my view, this Strategy represents the first revolutionary document of this kind in the IT field in the Republic of Macedonia. The more important issue is that this document truly represents the realistically achievable steps in the development of the information society that the Republic of Macedonia should do in the coming period. This represents an enormous challenge and for that reason I am really looking forward to it.
e-mail	drgn@morm.gov.mk			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
7. Toni Petreski	03.09.1964	MA in Public Administration	President of the SC of MASIT, Chief Executive Director - Inet AD	Domestic IT companies should be the main stakeholder of the implementation of the project determined in the Action Plan of the of the National ICT Strategy, given that they are the most knowledgeable about the environment in which they can, in the fastest and most successful way, bring closer the information and communication technologies, both, to the private and to the public sector"
e-mail	toni@mkinter.net			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
8. Meri Kuchera Ilievska	10.07.1966	Economist	Member of the SC of MASIT, Marketing Manager of the EuroComputer Systems	This is not the first attempt to create such a document, for sure it is not the best one, however, it is an excellent indicator of where we stand and what do we need to do in order to find ourselves at least a step closer to our e-goal. One step is, simply, not too much..
e-mail	meri@ecs.com.mk			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
9. Ace Kocevski	07.06.1961	Construction Engineer	Mayor of Municipality of Veles	The National ICT Strategy provided us with an even greater desire to persist in the process of reaching the international experiences in the development of information systems, being aware that only in this manner our visions for development can be faster transformed into reality. Inspired by it, the Municipality of Veles is already in the phase of creation of a Strategy for introduction of e-municipality as a part of the objective to offer the citizens modern, fast and cost-effective services at any time and from any place.
e-mail	acekocevski@yahoo.com acekocevski@mt.net.			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
10. Aksenti Grnarov	17.03.1948	PhD in Technical Sciences	Professor, Computer Technics and Informatics Institute, Electrotechnical Faculty, University "St. Cyril and Methodius" - Skopje, Manger of the E-technology and computer networks center	The implementation of the Strategy is the biggest precondition for the development of ICT-industry in Macedonia, prevention of the brain-drain of the highly qualified personnel and the bright future of our children. The Strategy shall not be successful without an Agency or a Ministry for e-society.
e-mail	grnarov@mt.net.mk			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
11. Danilo Gligoroski	08.06.1967	PhD in Informatics	Assistant Professor, Natural Sciences and Mathematics Faculty, University "St. Cyril and Methodius" - Skopje	The Starategy was proposed by a working team in which wonderful synergy was created. I would be very happy if at least 25% of it is realised.
e-mail	gligoroski@yahoo.com			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
12. Marjan Gushev	28.06.1961	PhD in Electrotechnical Sciences, MSc in Electrotehcnial sciences	IT Cluster of the Competitiveness for Macedonia Project, Professor at the Informatics Insititute, Natural Sciences and Mathematics Faculty, University "St. Cyril and Methodius"-Skopje	I believe that we should have done this step much earlier, however, it is not late even today in order to see what our future is going to be.
e-mail	marjan@on.net.mk			

NATIONAL STRATEGY FOR INFORMATION SOCIETY DEVELOPMENT AND ACTION PLAN

160



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
13. Goce Armenski	03.12.1976	MSc in Informatics Electrotechnical engineer	Assistant at the Informatics Institute, Natural Sciences and Mathematics Faculty, University "St. Cyril and Methodius" -Skopje	The Strategy is just a small and initial step in the activities that are going to take Macedonia to become a country in which the citizens enjoy the benefits in the everyday life brought about with the usage of the ICT.
e-mail	armenski@ukim.edu.mk			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
14. Predrag Chemerikic	24.10.1966	High school	Manager of ON.net (Internet Service Provider)	The Strategy is excellent, however, it has to be implemented as soon as possible
e-mail	pc@on.net.mk			



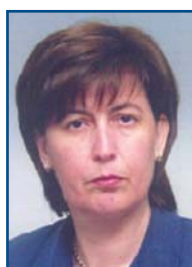
Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
15. Antoni Peshev	12.09.1962	Electrotechnical engineer	President of the American - Macedonian Chamber (AmCham), President of the Board of the Ultra Computing / Unet-Company Group	Strategies are created in order to be implemented, and if they are good, they last long. I believe our Strategy is good, and I wish the time is a witness to that.
e-mail	pesev@unet.com.mk			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
16. Dejan Kalinikov	18.05.1971	Electrotechnical Engineer, MBA	SEAF/Macedonia, Deputy Director	The Strategy represents a big step forward in the implementation of the vision - creation of the knowledge-based economy.
e-mail	dejan@seaf.com.mk			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
17. Borislav Popovski	28.01.1962	PhD in Electrotechnical Sciences, Msc in Electrotechnical Sciences	President of the SC of MARNET, Professor at the Telecommunications Institute, Electrotechnical Faculty, University "St. Cyril and Methodius" - Skopje	The creation of the Strategy was an indispensable step for undertaking the major challenge that lies before us - its implementation.
e-mail	borop@etf.ukim.edu.mk			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
18. Katerina Kostadinova - Daskalovska	02.09.1959	Economist	Director of the State Statics Office	Dissemination of timely, reliable and comparable statistical information to as greater as possible number of users represents a significant input in the qualitative development of each democratic information system.
e-mail	katerina.daskalovska@stat.gov			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
19. Vladimir Radevski	30.10.1964	PhD in Informatics	Professor and Dean of the Communications Sciences and Tehcnologies Faculty, South-East European University	The Strategy is a kind of Hazaric Dictionary, representing the needs and the vision for delopment of the information society in Macedonia: the implementation of each project shall provide an impetus for realisation of many other projecst in, undoubtedly, this most perspective field.
e-mail	v.radevski@seeu.edu.mk			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
20. Ejup Rustemi	24.09.1968	Electrotechnical engineer (eletronics and telecommunica-tions)	Member of Parliament of the Republic of Macedonia	In order to have a successful realisation of this Strategy, it is necessary to include and to reach a real consensus among all stakeholders - Government, private sector, civil society, science, education, international organisations and media - on the importance of creation of information society and establishing a partnership around a common goal.
e-mail	ejuprustemi@yahoo.com			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
21. Sasho Josimovski	21.01.1963	PhD in Economics M.A in electorcehnical sciences	Professor of Information Technologies and Electronic Business, Economics Faculty, University "St. Cyril and Methodius" - Skopje	The implementaiton of the Strategy is a possibility for the Republic of Macedonia to involve itself more actively in the international processes as well as in the European integration processes.
e-mail	sasojos@eccf.ukim.edu.mk			

NATIONAL STRATEGY FOR INFORMATION SOCIETY DEVELOPMENT AND ACTION PLAN

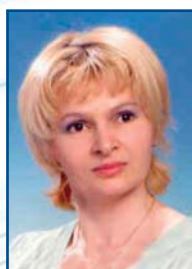
162



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
22. Mijalche Gjeorgiev	29.06.1980	MSc in e-business	Junior Assistant, Economics Faculty, University "St. Cyril and Methodius" - Skopje	A promising document that would bring Macedonia closer to the information society.
e-mail	mijalce@eccf.ukim.edu.mk			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
23. Kosta Trpkovski	18.12.1956	Electrotechnical Engineer	Director of the Electronic Communications Agency	Bringing of the Information Society Strategy and the implementation of the Action Plan shall mean progress for Macedonia and improvement of quality of living of each citizen of Macedonia.
e-mail	kosta.trpkovski@dtk.gov.mk			




Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
24. Elica Perchinkova	27.04.1963	Electrotechnical Engineer	Senior Associate, Electronic Communications Agency	I believe that we have the energy and the potential needed for the implementation of the Action Plan of the Strategy for the benefit of every one of us, for working environment and living conditions of greater quality.
e-mail	elica.percinkova@dtk.gov.mk			





Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
25. Pece Mitrevski	12.06.1967	PhD in Informatics	Assistant Professor, Technical Faculty - Bitola, University "St. Clement of Ohrid"	The Strategy without action is just a nice dream, however the action without a Strategy is a nightmare!
e-mail	pece.mitrevski@uklo.edu.mk			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
26. Darko Perushevski	10.03.1971	Electrotechnical Engineer	Manager, A1 Television - Skopje	Bringing of the Strategy, and especially the implementation of the activities listed in it, are a necessary precondition for the end objective: citizens and businesses to enjoy completely the achievements of the technological development and to catch up the pace with the nations in whose company we want to be.
e-mail	darkop@a1.com.mk			

	Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
	27. Vlado Vasiljevski	20.01.1958	Electrotechnical Engineer (informatics and automatics)	Government of the Republic of Macedonia, General Secretariat, Information Technology Sector	Each beginning is difficult, so is this one. The future has perspective.
e-mail	vasiljevski@gov.mk				

	Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
	28. Igor Dimitrovski	29.06.1963	Electrotechnical Engineer (informatics)	Assistant Director of the Health Insurance Fund of Macedonia	A comprehensive and a widely accepted Strategy for development of the information society shall finally move Macedonia forward towards the information society family of the world.
e-mail	igord@fzo.org.mk				

	Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
	29. Bardhyl Jashari	18.10.1971	Informatics engineer	Director of the Metamorfozis Foundation - Skopje	This Strategy provides the opportunity for the citizens and the non-governmental organisations to involve themselves more actively and with quality in the building of the information society in Macedonia.
e-mail	bjasari@soros.org.mk				

	Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
	30. Valentin Pepeljugoski	01.09.1962	PhD in law	Legal Advisor; Member of the Competition Commission of the Republic of Macedonia, Professor at the Social Sciences Faculty	The best thing that happened to Macedonia in the past 15 years.
e-mail	vpepeljugoski@on.net.mk				

Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
31. Matilda Dimovska	18.02.1961	M.A in Economics	United Nations Development Programme (UNDP), Programme Specialist	The information society, or the so-called knowledge-based economy or society, opens new challenges and opportunities in all domains of the Macedonian society. The influence of the ICT has defined itself as a decisive force in the modern world, as something that most fundamentally transforms and promotes economic and social activities. I hope that with this Strategy, Macedonia, in an accelerated manner, shall be able to catch up the pace with the global trends.
e-mail	matilda.dimovska@undp.org			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
32. Zoran Janevski	20.08.1967	Eletrrotehcnical Engineer (eletronics, tellecommunications)	United Nations Development Programme (UNDP), Project Manager	The strategy, in essence, is a framework that positions the role of the ICT in the acheivement of the national development goals, determines the legislation and the legal framework necessary for the creation of adequate environment for achievement of the common mision; identifies the existing opportunities, possibilities and challenges; determines the key strategic resources and initiatives needed for all of this to be realised.
e-mail	zoran.janevski@undp.org.mk			



Name and Surname	Date of Birth	Education	Current position and employment	On the Strategy . . .
33. Darko Dukovski	09.04.1974	MSc Electrotechnical Sciences	United Nations Development Programme (UNDP), Project Assistant	Brining of the Inforamtion Society Development Strategy and Action Plan should not be the end, but a begining of the efforts that the Republic of Macedonia makes in the creation of the information society and the improvement of the quality of living of its citizens.
e-mail	darko.dukovski@undp.org.mk			

CIP - Каталогизација во публикација
Народна и универзитетска библиотека „Св.Климент Охридски“
Скопје

007:004(497.7)

NATIONAL strategy for information society development and Action plan of the Republic of Macedonia / Working group,...(и др.); translation Ida Mijatovic - Skopje
Government of the Republic of Macedonia
2005 - 168 стр. : граф. прикази ; 30 см

Библиографија: стр. 154-155. Содржи и: Appendix

1. Работна група

а) Информациски системи - Македонија - Национална стратегија
COBISS.MK-ID 61807882

Translation:
Ida Mijatovic

Proofreading and correction:
Elizabeta Buova

Technical validation:
Vecko Burevski

Design and preparation for publishing:
Skopje, 2005.



Published by:





Republic of Macedonia

supported by:



FOUNDATION FOR AN OPEN SOCIETY IN MACEDONIA