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BACKGROUND PAPER

E-GOVERNMENT FORESIGHT IN BULGARIA

SOFIA
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Introduction

This document has been prepared within Work Package 4 of the ForeTech project with the aim to:

- a) argument why e-government domain has been chosen for foresight in Bulgaria
- b) fine-focus (find the key themes) e-government foresight as a follow up of two round table discussions of the e-government stakeholders
- c) sum up the major developments in e-government domain in Bulgaria

The paper borrows from the existing literature on foresight initiatives, unique local experience in building public-private partnerships, unique input or existing documents on e-government prepared by representatives of e-government stakeholder community (Coordination Center for Information, Communication and Management Technologies at the Council of Ministers, Bulgarian Association for Information Technologies, Cisco Systems and Bulgaria e-readiness assessment 2003 prepared by ARC Fund).

The paper was also thought to be selling paper to the glocal¹ e-government and development stakeholders for active support in the foresight initiative through participation and/or funding.

Bulgarian team chose e-government as a foresight area because:

- It has been recognized as a priority for country's development in a broad public-private consensus
- Favorable policy and regulatory framework exists
- Government is (circa 50 percent) and is expected to be the largest consumer of ICT products and services for the next 3 to 5 years
- E-government applications would reduce extremely high transaction costs of doing business in Bulgaria, might increase quality of service and decrease corruption

¹ Glocal=global+local

- E-government foresight might have a multiplication effect for conducting of spin-off foresights (tax reforms, IT sector, education, etc.)
- E-government foresight results might have directly impact policy implementation and revision
- The complex ICT applications in government, society and business have been identified as a foresight area by the Romanian team as well.

1. Shaping the future by public-private visionary partnerships: Crafting e-government

Foresight ‘experiments’ at European level provide a public-private partnership (PPP) laboratory to extend existing knowledge, share visions and shape policies for development. Foresight transforms technology and business forecasts into a visioning process and insightful policies. PPPs are realized in order to achieve social goals broader than concrete business contracts. Through involving all actors and stakeholders in the process of production and sharing anticipations, visions and knowledge, civil societies could overcome market failures and inefficiencies in administration; reduce transaction costs and attract additional resources, and through larger policy ownership increase its enforcement potential.

In Bulgaria PPPs have demonstrated their significant impact potential in a number of areas like anti-corruption national agenda (*Coalition 2000*), local governance (*Municipal Forums* in Stara Planina and *Agenda 21*) and in particular ICT area (*IT for Development Initiative* and *Bulgaria Development Gateway*). All of these partnerships involved major stakeholders – government at central or local level, business sector and its associations, donor community and civil society; conducted needs analyses and drafted policies that have been endorsed by the community and implemented with different success. Due to the short-termed horizon planning and limited focus on forecasting, these initiatives differ from foresight initiatives, yet they could serve as sound foundations and benchmark for upcoming foresights.

Conducting effective foresight requires existence of a clear political will and support, working societal infrastructure – strong business associations, legitimate and responsible businesses, a reasonable level of trust between different sectors, including government, education and business, overall “positive-sum game” mentality and people with identified future in this area.

E-government domain has been identified as one that is a priority for the government, with a clear leadership of a deputy Prime Minister, with a policy consensus outlined in the recently adopted e-government strategy, which itself is a result of a public-private partnership. Modernization of public administration is a top-priority seen both by official statements and market analyses showing the government consumes between 40 and 50 percent of ICT equipment and services in last three years.

E-government initiatives at local level (Municipality of Dobrich and Varna District Court) have proven that vision is more important than financial resources when introducing e-services and transforming business processes. Lack of vision or even conflicting visions could practically stop a large e-reform initiative (Customs Agency). Poor planning (result of non-existing vision) could undermine value of IT investments because of interoperability issues or misbalance between hardware and software (Ministry of Agriculture and Forests).

Donors like the World Bank, UNDP, USAID, DFID and the European Commission have committed hundreds of thousands in a number of projects aimed at either particular e – government pilots or capacity and technological development or business reengineering required for effective e-government. Implementing agents of these projects are quite diverse – from central and local governments, and foreign consulting companies, local IT firms or NGOs and university spin-offs.

Business associations in ICT sector have proven to be well organized and have the capacity to influence and facilitate policy-making. There is a common understanding that with or without foresight e-government will be build in Bulgaria sooner or later. Yet neither academics nor businesses would like to leave the government alone decide on specifics of e-government (commercial code solutions vs. open-source, prioritization of e-pilots to be implemented under the e-government strategy and others), standards and procedures for tenders for technology, or levels of investment in education and overall business environment. Although the long-termed horizon in the foresight is a challenge (where the average planning horizon is not longer than a few quarters) for all local

stakeholders, the preparatory phase convinced us that e-government stakeholders will be among the most comfortable and motivated discussing and creating a common vision for the next 15 to 20 years.

Crafting e-government is a process with significant multiplication effects – it will improve quality of service delivery, reduce corruption and save citizens' and business' time and thus increase productivity and welfare. The side effects could be a growing ICT industry, greater demand for IT specialists and higher requirements for civil servants, and increased computer penetration. Building e-government foresight will probably result in building scenarios or even foresights in other tangent areas such as education or ICT industry.

Building e-government is also part of the European accession process and will ensure that Bulgaria will not be digitally divided from the rest of the European Union or internally in the next 10 years. Foresight-ing e-government we have to foresee what kind of e-government strategies will be implemented – imitation, adaptation or some kind of innovation in the period before accession, and what will happen after the act of accession, based on existing forecasts for the European Union. The e-government foresight will stimulate a broader discussion and potentially a foresight on the role of Bulgaria, or the region (Southeast Europe), in the European Union 20 years ahead. Indications that such foresight will emerge (if not already started) could be found in the Global Bulgaria Initiative (coalition of leading Bulgarian business, academic or think tanks leaders).

2. Summing up e-government in Bulgaria

a. EU context

The e-Government is an element of the transition from industrial to information society and is a means for acceleration of integration process of Bulgaria in the European Union. It should enable citizens and businesses to participate in the democratic process and the new knowledge-based economy. The e-government applications would raise internal efficiency of the administration as well. E-government is not a state; it is rather a process of change. The transformation refers to three areas of interaction and service delivery: administration to citizens, administration to businesses, and administration to administration. E-government foresight will thus respond to the major stakeholder priorities – EC and other EU donors (A2C mainly and partially A2B), World Bank, USAID and local business community (A2B), and government and some specific EU programmes as IDA (A2A). Various projects under the Fifth framework programme fit within the e-government domain (Smart-city, e-Munis and others).

e-Europe series of programs provide the strategic framework for the information society development in the European area. “Government on-line” was also one of the major strategic directions of *e-Europe+* action plan in 2001. Administrations were encouraged to get closer to citizens and businesses through the use of the Internet. Electronic public administration was seen as an instrument for accelerating the transition to the knowledge-based economy in the Candidate Countries by stimulating access to and use of basic on-line government services. E-government is expected to contribute to lower administrative burdens, higher transparency and efficiency and faster economic growth, and last but not least – stimulate the participation in the democratic process.

Different studies, policies and recommendations from the European Commission suggest that all governments should support and foster development and implementation of open-source software when providing e-government services.

The e-government concept is further developed in “*eEurope 2005: An information society for all*” This plan stresses the Information society potential to improve

productivity and quality of life. This potential is growing due to the technological developments of broadband and multi-platform access, i.e. the possibility to connect to the Internet via other means than the PC, such as digital TV and 3G. These developments are opening up significant economic and social opportunities. New services, applications and content will create new markets and provide the means to increase productivity and hence growth and employment throughout the economy. They will also provide citizens with more convenient access to information and communication tools.

e-Europe 2005 Action Plan proposes actions in the field of Information society and e-Government. These actions serve as a benchmark or base-line standards for the e-government foresight. The Action Plan itself is a consequence of a common vision for the European Union and accession countries' role in it. It includes the following milestones:

- **Broadband connection.** Member States should aim to have broadband connections for all public administrations by 2005. Since broadband services can be offered on different technological platforms, national and regional authorities should not discriminate between technologies when purchasing connections (using open bidding procedures, for example).
- **Interoperability.** By end 2003, the Commission will issue an agreed interoperability framework to support the delivery of pan-European e-government services to citizens and enterprises. It will address information content and recommend technical policies and specifications for joining up public administration information systems across the EU. It will be based on open standards and encourage the use of open source software.
- **Interactive public services.** By end 2004, Member States should have ensured that basic public services are interactive, where relevant, accessible for all, and exploit both the potential of broadband networks and of multi-platform access. This will require back-office reorganization and also implies addressing access for people with special needs, such as persons with disabilities or the elderly. Commission and Member States will agree on a list of public services for which interactivity and interoperability are desirable.

- **Public procurement.** By end 2005, Member States should carry out significant part of public procurement electronically. The experience of the private sector shows that reducing costs is most efficiently achieved through the use of the Internet in supply chain management, including e-procurement. Council and Parliament should adopt as quickly as possible the legislative package on procurement.
- **Public Internet Access Points (PIAPs).** All citizens should have easy access to PIAPs, preferably with broadband connections, in their communes/municipalities. In establishing PIAPs, Member States should use structural funds and work in collaboration with the private and/or voluntary sector, where necessary. The Commission intends to continue to support technology development in the research programme and good practice showcases to the extent possible through the follow-up programme to the PROMISE programme.
- **Culture and tourism.** The Commission, in co-operation with Member States, the private sector and regional authorities, will define e-services to promote Europe and to offer user-friendly public information. These e-services should be deployed by 2005 and build on interoperable interfaces, use broadband communication, and be accessible from all types of digital terminals.

b. National policy and regulation – e-government strategy and respective regulations

During the past several years Bulgaria has achieved a significant progress towards the development of e-Government. The Information Society Development Strategy, adopted in 1999, defines the need to upgrade the quality of communications between administrations through providing electronic services and knowledge management. The modernisation of the public administration requires higher standards of transparency, accountability and reduction of discretionary power complying with the conditions for accession in the EU.

As a result of the implementation of the Information Society Development Strategy a number of strategic documents have been developed and adopted to guide the public administration's activities in connection with e-Government. The legal framework in the country has been largely harmonized with the *acquis communautaire* of the European Union and it can rather quickly develop for the purposes of e-Government.

Special legislation has stipulated the public access to information and the protection of citizens' rights, however the existing strategic and statutory documents do not respond to all the institutional, national and international requirements.

On February 6th, 2002 a Coordination Center for Information, Communication and Management Technologies (CCICMT) was established as a special ICT coordination unit under the auspices of the Council of Ministers and with the support of the United Nations Development Program in Bulgaria, following the recommendations of an *IT for Development Initiative* in the *Issues Paper*, published in 2001.

One of the main tasks of this coordinating body has been the definition of an e-Government strategy. This was done in a public-private partnership setting unfolded in 4 stages:

At the first stage over 60 participants from various stakeholders were involved working on the development of the Bulgarian e-Government Strategy. These experts formed several working groups and discussed the draft version of the concept of e-Government developed by the Information Services Directorate at the Council of Ministers. A public forum was organized for discussion of the draft strategy.

At the second stage of development of the e-Government Strategy the document was drawn up according to the comments of the participants in the discussions and was disseminated among them for approval.

At the third stage the minister of public administration assigned a task force of public administration experts to develop and adopt the final structure and methodology of the e-Government Strategy. The final version of the document was coordinated with representatives of the working groups. The e-Government Strategy was developed during 20 meetings of the task force and 2 seminars with representatives of the working groups.

At the fourth stage the strategy was reviewed by an independent expert and was presented for discussions at the Council of Ministers. After the detailed revision of the document by the task force a public discussion with all the working groups was organized. Finally the strategy was submitted to the Council of Ministers for approval.

The strategy reveals the essence of e-Government and its importance for the whole society. It identifies the strategic goals of e-Government, and further organisation and management of the related processes.

The document has been drawn up as a major element of the overall reform of the Bulgarian public administration. For the purposes of ensuring continuity, while taking into consideration the comprehensive nature of the reform process, the existing major strategic documents of the Government have been reviewed and used in the research. Furthermore, it has used a number of other sources of information on the international experience and best practices in the development and implementation of e-Government strategies.

The strategy reflects a common vision on establishing e-Government in accordance with the current assessment of realities in this country. **The vision** for e-Government in Bulgaria is the following:

The Government of the Republic of Bulgaria will provide modern and efficient government, while using the means of up-to-date information technologies in order to meet the real needs of citizens and businesses at any time and any place.

In connection with the implementation of the e-Government Strategy a detailed e-Government Action Plan and other supporting documents will be drafted.

- **Significance to the economic and social development of the country.** Priority will be given to the introduction of services which will save time and resources to citizens and businesses, thus eliminating administrative barriers and accelerating economic and social development.
- **Economic efficiency.** Priority will be given to projects with high return on investment, achieved as a result of decreased costs of services and/or increased level of collection. All projects will be assessed in terms of cost-efficiency with regard to investments made and the operational costs needed for the maintenance of the systems during their useful life.
- **Substantial demand for integrated public services.** When developing projects, the target group of potential customers for the respective services will be assessed, considering the rate of readiness to use these services. Priority will be given to projects meeting the needs of as many potential users as possible. Initially, priority will be given to projects that do not require any special conditions for the use of data and provision of services.
- **Compliance with EU priorities.** In light of the harmonization of Bulgaria's administrative practices with those of EU, priority will be given to the automation of services which have been selected as indicators for the evaluation of e - government in the e-Europe Action plan – Annex III
- **Anti-corruption effect.** Priority will be given to projects, leading to increased transparency in the state administration and decreased corruption risk.

The e-Government Implementation Plan is to be passed together with the National Program. For the management of this process an Interdepartmental Council at high managerial level has been established. Its co-chairs are the Minister of the Public Administration and the Minister of Finance. The appointment of an e-Government National Program head is expected for the operative management of the strategy.

At its first meeting, the Council established two working groups which will lead the activities related to the implementation of e-Government in Bulgaria. The first one is the Council of the Chief Information Officers (CIO), comprised of the ministerial CIOs. Representatives from the National Social Security Institute, the National Health Insurance Fund, the National Statistical Institute, the National Audit Office, the Cadastre Agency, the National Revenue Collection Agency and other agencies are also invited to take part in the Council's meetings. The Working group for Development of the National Program for e-Government Implementation comprises representatives from each individual ministry and some government agencies. The Working group will be headed by the Head of the National Program for e-Government Implementation (when appointed).

Together with the adoption of the strategy, the Council of Ministers has adopted a resolution for participating in the EU IDA Program whose goal is to create a united information space for data exchange between the EU candidate and member states administrations. The IDA Program's mission is to support the implementation of EU's policies and activities by coordinating the building of a Trans-European telecommunication networks among the administrations. The main objective of the Program is the building of a "network" (European domain) of "networks" (Local domain), while the exchange of information is carried out by specialized "portals" (Euro portal).

c. Readiness for e- government and demand for services

The Bulgarian government has been working for two years now to create a backbone network for internal communication between ministries, regional governments, municipalities, etc. The network uses an Intranet/VPN solution, opened to the public with own security system, high-speed optic-fiber channels (T-1; T-3; OC-3); supporting systems for national registries with public access and support of internal document management system, and a two way Internet connection of at least 2 MB capacity. Currently this network is operating in Sofia connecting 96 buildings and in some of the larger towns, nationwide.

In 2001 the National Statistical Institute collected information on available IT resources in public administration but the data has not been made available even to senior state officials. Most recently IDC and the Council of Ministers conducted a survey among central government ministries (with the exception of the Ministry of Interior, Ministry of Defense and Ministry of Finance) on IT equipment and human resources, followed by a study by Cisco Business Solutions and CoM on the net readiness of the government.

The study suggested that there are 294 PC per ministry surveyed, yet with large disparities between ministries reaching 8 times difference between the most equipped and least equipped ministries. Expert estimates suggest that around 18% of workplaces in the central and local government administrations are equipped with computers. The regional governments have the most up-to-date equipment and almost 90-100% of the workplaces are computerized. Not all computers are yet connected in a network. More than a third of respondents say that intranets do not cover all units or branches of a given ministry in the country. The predominant type of the network in the government is Ethernet (44% of respondents) and Fast Ethernet (39% of respondents). Only 11% responded that they had FDDI and 6% – Gigabit.

The e-government strategy suggests that connectivity to Internet varies from 80-100% in regional administrations, trough 70-80% in ministries to less than 20% in local government administrations. The average level would be 20% connectivity. One of the measurable goals of the government would be that in 5 years time 50% of the Internet users will be users of e-government applications.

The public administration shows a positive development in web presence over the last few years. In 1997 there were only two sites, that increased to more than 120 in 2001. Currently more than 90% of the state institutions have Internet sites. In addition, there are 4-5 sites of regional administrations, and more than 30 of municipalities. Still these sites are mainly with static information and not updated. Several web sites provide for online downloading of forms – i.e. tax forms. It is expected that in 2003 with recently published

secondary legislation necessary for the implementation of the Law on Electronic Document and Electronic Signature, as well as regulatory changes for integration of internal government registries, more government web sites will become interactive and will allow for e-payments and electronic submissions of documents.

In April 2003 a national digital signature provider – Information Services Ltd. was licensed and in near future will be fully operational.

Nine sites of ministries provide feedback possibilities through email or web form. The same option is provided by three to five regional administrations (15%) and around 15-25 of the municipalities (7-8% of all). Sofia Municipality is a big exception at the municipal level providing for example online tracking services for the citizens' requests.

Only 4.3% of the population currently visits public administration web pages. General population tends to be less interested in e-administration than firms. Firms visit more often government Internet sites due to their interest in public procurement – around 6% of the companies use various e-government services. This phenomenon could be explained by the lack of adequate services for people and immediate savings for businesses or other type of value added that e-services can provide. E-government development is still supply-driven and not demand-driven. The investments and e-pilots are designed to address challenges that the administration has or perceives as most hindering development (their work).

The Net Ready Score (Cisco methodology) of overall Bulgarian government is 144 where the 'best-in-class' is about 166 out of 200. However, it is more important to measure the gaps per dimension than the overall score.

As a whole, the employees in Bulgarian public administration assess positively the development of e-Government. This attitude is an important precondition for the implementation of such a complex and highly comprehensive reform. According to a recent study by the National Center for the Study of Public Opinion at the National Assembly "Problems of the administrative reform" at the end of 2002, the establishment

of e-Government is considered as useful for the work of 58.3% of the employees. The expectations about this relation have changed quickly after adopting the e-Government strategy. The employees point out as a problem that the penetration of the modern tools of communication is not quick enough. Less than two thirds (63.1%) of the respondents answer positively to the question if there is established e-mail communication in their internal administrative system. From the total number of employees, on the average lesser than half (46.3%) use systems for document exchange, and this percent is rising to 68.9% in departments where such system is already set up. About the “computer literacy” of the employees, it could be said that it is high in comparison to that of the population - about 70% state that they use Internet, while this percent is considerably lower among the population (18.7%). Although the “computerizing” of the population is carried out at a relatively quick pace, options should probably be explored for computer access to administrative documents by the means of administration terminals.

Among the most interesting government websites are those of the General Tax Directorate (downloading tax forms online, public registers for VAT and companies with unserviced debts to the budget), Bulstat (National Company Registry), public procurement registry at the Council of Ministers, small public procurement registry at the SME Agency, public database with all public information for listed companies, soon to be operational - public registry of NGOs with public interest, registry to check if proper listed in the electoral lists, and many others. Yet, the direction of flow in most cases is from the government to citizen. Large tax-payers could also submit their tax-documents via Internet. Last but not least, is the possibility to obtain all relevant information concerning a case movement in Varna district court.

The overall assessment of e-government in Bulgaria is that it is in its early stage of e-government development, but if good coordination and project management is applied, and adequate training of civil servants is provided, with a common vision elaborated, it is possible to achieve at least 90 percent of the ambitious e-government program.

3. Focus, challenges and next steps

The study suggests that the foresight initiative should look at five issues from a point of potential challenges or factors that might inhibit or facilitate e-government applications development. Briefly we summarize the proposed focus issues below.

One of the issues for e-government foresight is to identify areas where societal effects of e-government implementation would be with widest possible effects

Expert discussions suggested that both currently and in the future technologies might develop faster than the societal capacity to use it as a tool to resolve a social or administrative issue. Yet, limited financial and labor resources require careful examination of focusing the use of technologies preventing from excessive use in domains where demand for such e-solution is still marginal and shortage or lack of supply where demand exists. In line with this we will foresight the **development of needs, capacity and internal system-dynamics effects** in three major groups – citizens, businesses and government. A critical factor issue would be **the diffusion of computer technology at homes, businesses and public access points**, and policies and financial mechanisms that could assist diffusion in areas of largest social impact. Another critical factor for effective e-government applications lies in the **education and training** of all stakeholder groups.

In particular we will be interested in foresighting **the balance of demand for e-justice delivery, e-administration and e-democracy, the type of services** provided within each chosen domain **and financing models to be implemented**.

In the field of technology (apart from computerization of society and business) we are interested to foresee and eventually draft policy for **alternative channels of delivery** (smart cards, telephones, interactive TV) addressing a potential challenge for e-government implementation – digital divide and social exclusion.

Further we will foresight the **open-source code movement impacts** on e-government, as well as the **factors that might inhibit open-source code diffusion** in Bulgaria.

Other factor issues, related to the diffusion of e-government applications are related to overall economic situation in the country, namely **purchasing power, technological infrastructure, level of gray economy, strategies of ICT companies, property rights protection, level of trust in business, quality of education and level of public-private partnerships.**

E-government foresight should integratively foresee **financial/investment modes** for building e-government (tax based investment, offset, concession, private investment for percentage of e-administration turnover). In addition to that, a critical issue would be implementing **public policies and financial instruments facilitating diffusion of specific services.** Foresight exercise could add a significant value to the development agenda of the country by elaborating **different scenarios and potential impact assessment** of these measures.

Another valuable focus would be the **coordination of donor assistance** in the field of e-government. Experience in the past several years showed that a lot of duplication efforts exist sometimes leading to interoperability problems.

A key issue of foresight is its overall transformation potential and potential implementation of e-Democracy and e-Governance applications that would have much broader societal effects than simply reduction of transaction costs, reducing the level of corruption, strong ICT sector and faster building of knowledge economy. The e-government might push political development towards **direct democracy**, increasing **participation rates** in political activities and elections at all levels.

Among other issues the e-government panel might look at the **interoperability issues** (with other countries) and **cultural diversity – foresighting the role of Bulgaria in the integrated e-Europe.** Last, but not least, the panel and the project team would have to overcome a cultural resistance to the long-term planning.

Next steps

E-government foresight will be conducted by **one panel**, consisting of **twelve expert representatives** of major e-government stakeholders, having a kick-off meeting, **eight meeting sessions** and wrap-up meeting and holding **two large-scale round-tables** to discuss interim results and endorse the final foresight within a larger stakeholder community.

The kick-off meeting will explore the identified issues for foresight; draft a methodological work-plan and key challenges, factors and scenarios for discussion and vision formulating, and finally set-up a complex communication environment, to allow for effective decision making and broader inclusions of interests in the e-government foresight.

At this stage we envisage the following process: eight meeting sessions will focus on four thematic issues, challenges, factors, identified at the kick-off meeting. The first round-table will discuss interim results of the four meetings of the panel and will be used as a initial consensus building instrument. The next four meetings of e-government panel will further discuss the issues and address the potential conflict points identified by the first round-table. The e-government foresight will be assisted by the Communication strategy aiming at larger-scale awareness and support of the initiative. The e-government foresight would adjourn with the second round-table endorsing the results and manifesting a common vision for the e-government development in Bulgaria.

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