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DEVELOPMENT OF E-STATISTICS IN THE CONTEXT OF E-GOVERNANCE IN MOLDOVA

Invited Paper

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Abstract
The article provides an overview of first steps in the e-Statistics building in Moldova in the context of e-Governance Concept.

I. INTRODUCTION

1. As a modern European country that has chosen a democratic path to development, the Government of Moldova recognizes that joining the global knowledge economy is a national priority. Recognizing the historical and strategic importance of this task, in June 2002 the Republic of Moldova signed the Declaration of Intent among the member states of the Stability Pact for South- Eastern Europe, and committed itself to build an Information Society based on principles established in the UN Charter, the Universal Declaration of Human Rights and enshrined in the Okinawa Charter on the Global Information Society. This was followed on 19 March 2004 by a Presidential Decree directing the Government to begin the process of preparing a National Strategy on Information Society Technologies for Development (ISTD). On 8 June 2004 the Government established the guiding principles for the National Strategy issuing an Official Decision “Policies for building information society in the Republic of Moldova”. A National Committee on Building an Information Society was created as a multi/stakeholder mechanism to monitor the implementation of related policies. A package of fiscal and other facilities for Information and Communication Technologies (ICT) companies approved by the Parliament in December 2004 is yet another proof of confidence that the Government has in moving forward towards a developed Information Society.

II. CURRENT IT DEVELOPMENT STRATEGIES

2. Several strategic documents provide guidance on e-development in Moldova (National Development Strategy 2008-2011, National Strategy e-Moldova, EU-Moldova Action Plan). The formulation of the National Strategy for Building of Information Society in the Republic of Moldova (2005-2010) approved by the Government in March 2005, occurred within the framework of a special Government project supported by the

United Nations Development Programme (UNDP) in Moldova in an open and participatory manner. The National ISTD Strategy builds on the intent of the above-mentioned Presidential Decree and Government Decision, and elaborates the Government of Moldova's commitment to building an inclusive Information Society that prepares the Republic of Moldova and its citizens to compete in the emerging global knowledge economy.

3. Based on the approved National Strategy "e-Moldova" the Project "Building e-Governance in Moldova-1" included into the work plan relatively *small starting projects*: to develop a policy framework (eGovernance Concept, eGovernance Portal Concept), pilot eServices (eTax Declarations) and framework and tools for Training of public servants in ICT.

III. RISKS AND OBSTACLES IN IMPLEMENTATION OF COUNTRY STRATEGY

4. A good strategy is a very important step in achieving the tangible results: e-Moldova Strategy being appreciated as a well developed policy document which reflects at a great extend the strategic priorities for building an information society, for supporting the sustainable growth and for achieving the Millennium Development Goals (MDGs). Nevertheless, a range of risks does exist that could affect strategy implementation in absence of elementary conditions. Such risks may include: limited budget resources, "limited sense of ownership" from the national authorities, insufficient Government leadership in mobilization of all the actors and lack of common approach and vision. Ironically, most of the obstacles to successful implementation of eGovernment have nothing to do with technology (Parks-[1]).

5. Aware of these problems, the main stakeholders of building Information Society in Moldova undertook concrete interventions, such as the Government Project: "Building e-Governance in Moldova-1" which was supporting implementation of the eGovernance component of e-Moldova Strategy. The main actors involved in the process are represented by international organisations, NGOs, Academic institutions, private sector with the main government institutions in leading role and as an owner of the results on behalf of the Republic of Moldova citizen.

6. The lack of legal, organisational and semantic interoperability is an obstacle to the roll out and take up of e-government services. The incompatibility of services of different institutions discourages citizens and businesses from embracing them. Interoperability needs to be addressed at the administrative, semantic and legal levels through a closer cooperation between government institutions (public authorities).

IV. ESSENCE OF EGOVERNANCE CONCEPT

7. The new citizen oriented approach is fundamentally transformative and calls for new innovative approaches to employ ICT for governance and empowerment of citizens. eGovernance is considered to be an integrative concept for governance and democracy (KESKINEN, KUOSA, 2006) [4].

8. Defining a vision that represents the priority objectives of government and the shared voice of all stakeholders was a challenge for Moldova. E-governance is defined generally as the use of information and communication technologies as a tool to achieve better governance, by enabling better policy outcomes, higher quality services, greater engagement of citizens, and other locally identified results.

9. Many of the best known examples of eGovernment involve the delivery of public services over the Internet. The e-Citizen Web Portal in Singapore is a good example of this kind of application. The Asia Foundation defines eGovernment as "the application of information technology to improve the efficiency and accountability of government." [1]

10. The approved eGovernance Concept of the Republic of Moldova specifies that electronic Governance represents the modality of application and use of information and communication technologies with the goal of insuring the access to information and provision of public services in interactive regime.

11. Generally the National e-Moldova Strategy and approved eGovernance Concept places the **citizen** in the centre of all the efforts oriented towards modernizing the public administration into an efficient and transparent system.

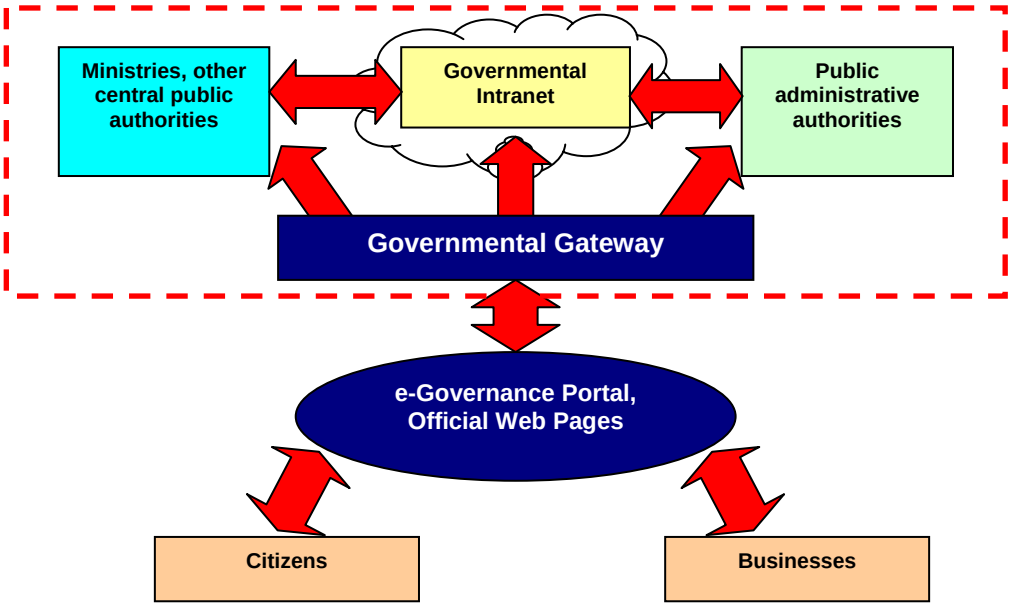

Figure 1. Essence of e-Governance defined in the eGovernance Concept of Moldova

12. It was important to follow the best practices in implementing eGovernment and eGovernance. When looking at the e-government experiences of other countries like Chile, Canada, and Brazil, there are a number of features that are common to each country. These countries appear to have placed a similar emphasis on developing a professional and non-partisan approach to information technology. They see having a chief information officer or a cabinet or department head as being vital to building successful e-government. They caution that cost savings arising from the early phase of e-government generally are limited and that in order to build long-run support, countries should develop low-cost, high-return demonstration projects [5]. Government of Moldova and UNDP tried to find the most important and sensitive areas to advance development of Information society.

13. The enabling factor that may help to increase the ICT development dynamics is an overall readiness of Moldova's people to switch from a traditional offline (physical) world in their relationship and communication with the government to an online mode. The e-Readiness Assessment Survey supported by UNDP states that psychologically and behaviourally half of the population is prepared for online-based activities. Today almost all state-citizen relations – 95% - are conducted through physical contact which is both ineffective from the public service delivery point of view and also potentially vulnerable to potential corruption.

14. The ICT development indicators confirm that the general public in Moldova seems to be ready to accept government services through online channels, which is an important pre-condition for success. This is supported by a fast growth of the internet community in Moldova (Table 1).[1]

[1] *Use of Information and Communication Technologies by the population of the Republic of Moldova PREPARED BY: Business Intelligent Service, FOR: UNDP Moldova, Project „Building e-Governance in Moldova" Chisinau 2007*

Table 1. The ICT development indicators, Moldova, 2007

Indicator	Value,
Fixed telepfony density	30,8 %
Mobile telephony density	55 %
Number of coputers per 100inh, *(auth est.)*	13,47
Population with access to computer	48,9%
Households with computer	20,8%
Internet users	23,4%
Population with access to Internet	25,6%
Companies that use computers	65,3%
Companies that use computers connected to Internet	50,6%
Employees that use computer	16,1%
Employess that use computer connected to Internet	8,7%

Source: UNDP Survey, ANRTI, Moldtelecom, authors estimation.

15. The ICT development figures also mean that the population might be prepared to become an important actor in the Information Society if the government makes a breakthrough in e-services. Yet for that to happen, many governments' business processes must be re-engineered at both the front- and back-office and linking these together. This is not an easy task but, as other countries demonstrate, it is also not impossible, especially if the government possesses sufficient political will, patience, consistency and responsiveness to citizens' needs. *E-government may truly become an engine for Moldovan public sector reform, which is in progress now.*

16. Through the new project "Building e-Governance in Moldova-2" started in 2008, UNDP is assisting the Government of Moldova in further implementing the e-Governance services. With the overarching goal of strengthening democracy in the country, the Project aims to support the Government in advancing e-government solutions for a better public service delivery and more transparent decision making

17. The project will advance the use of Information and Communication Technologies by public administration for a more transparent and efficient exercise of its functions. It covers four main areas of intervention including: policy support, development of electronic public services, training, e-democracy and public awareness.

18. One of the project components is supporting the development of Information System of the National Bureau of Statistics as one of 8 main public services B2B services set up by European community that should be delivered electronically (and included in the e-Governance Concept of Moldova).

V. IT SYSTEM FOR STATISTICS

19. The e-Moldova Strategy, eGovernance Concept and The Strategy of Statistical System of Moldova Development and Action Plan for 2008-2011 provide the solid base for the development of the Statistical Information System of National Bureau of Statistics (NBS).

20. The Technical Assistance Solicitation was addressed by NBS to UNDP in the IT field requested to:

- ✓ Assess the previous developments and present needs;
- ✓ Estimate the necessary resources to fulfil the strategic objectives;
- ✓ Design the Concept of the e-Reporting system and the technical specifications;
- ✓ Design an action plan within the NBS strategy, including priorities and steps for implementation and possible available funds;
- ✓ Assess the investment plans for the next years;

21. As result of the first phase of the support (within the Project "Building e-Governance -1") the analysis of the situation has been undertaken and the draft Concept of e-statistical reporting subsystem of the NBS and the draft Technical Requirements toward e-statistical reporting subsystem of the NBS have been developed. As the analysis of the NBS IT systems shows, the main drawbacks of the system are:

- ✓ Human resources problem – lack of IT specialists, because of low, uncompetitive salary level in NBS.
- ✓ Lack of centralized statistical indicators database;
- ✓ Lack of IT system Development Concept;
- ✓ Obsolete park of computers;
- ✓ Obsolete and multiple types of software platforms used;
- ✓ Lack of standardized and compatible software used in all statistical applications;

22. The study visit in Latvia to learn about the best regional practices took place in November 2007. The main conclusions after the visit were as follows:

(a) The Latvian experience could serve as an example to follow for the Republic of Moldova in Information System for Statistics.
(b) The financial support from the European Union through its different programmes (PHARE, twinning, etc) was a decisive success factor. However, it is a time and resource consuming process (could take up to 2 years to obtain a decision).
(c) The Integrated Metadata Driven Statistical Data Management System is an approach that ensures the effectiveness of the statistical data processing.
(d) The long-lasting, meticulous and consistent work with statistical staff in learning other countries' best practices has been done to transform the existing system into new, modern, statistical system.

VI. CONCLUSIONS

23. Summing up improvement goals and IT strategy achieved in the Latvian statistical system, there are mainly the following targets fulfilled by the system implementation and are very important for the development of the IT system in Moldova[2]:

- Increased quality of data, processes and output;
- Integration instead of fragmentation on organizational and IT level;
- Reduced redundant activities, structures and technical solutions wherever integration can cause more effective results;
- More efficient use and availability of statistical data by using common data warehouse;
- Users (statistics users, statistics producers, statistics designers, statistics managers) provided with adequate, flexible applications at their specific work places;
- Tedious and time consuming tasks replaced by value-added activities through an more effective use of the IT infrastructure;
- Using metadata as the general principle of data processing;
- Use electronic data distribution and dissemination;
- Making extensive use of a flexible database management for providing internal and external users with high performance, confidentially and security.

24. As a follow-up action from the study visit of a workshop to discuss the draft Concept of Statistical e-Reporting Subsystem for NBS with participation of Latvian experts was organized in December 2007.

25. The work under the Concept of e-Reporting Subsystem and the Latvian experience convinced the experts of the need for a global, metadata driven approach in developing of the Information System for the Statistical system of Moldova. These needs are addressed partially in the "Building e-Governance -2" Project, which provides support for the development of the IT system Concept, Technical Specifications and Action Plan. The funds are provided by UNDP and by the Government of Moldova.

26. However, the Project funds are limited to the development of the Concept and Technical Specifications and do not cover the creation of the NBS IT system. Therefore, the National Bureau of Statistics and the Project are in the process of attracting additional funding from the European Union and donor countries to build a Metadata driven statistical information system, integrated into Moldova e-Governance system.

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