Approved
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THE STRATEGIC PROGRAM FOR GOVERNANCE TECHNOLOGICAL MODERNIZATION (E-TRANSFORMATION)

1. SITUATION DESCRIPTION

1. In the twenty-first century information technology (IT) has become an indispensable element in everyday life. Governments around the world try to be in line with innovation and increasingly use information technology in their present activities. Technologies improve public services, efficient government activities and facilitate democratic participation, bringing governments closer to citizens.

2. Moldovan citizens deserve a modern government that uses technological innovations to improve quality of life. The government that uses information technology becomes more efficient, more intelligent and better able to meet the challenges of XXI century. This strategic program will be implemented to make public institutions more efficient, more dynamic and closer to the needs of citizens.

3. Moldovan citizens use information and communication technologies more often lately. In 2010, 89% of Moldovans were using mobile services, 38% use the Internet and 37% of households had a computer at home. Recently, regulatory reforms have contributed to significant reductions in prices for broadband. Another catalyst is the positioning of Moldova among the top ten countries with the highest Internet speed in the world.

4. The public sector in Moldova is delayed in taking technology to modernize public services and effective governance. Citizens and businesses still receive public services in the traditional way, making queues at counters of authorities for certificates, forms and information. Traditional way of citizens' interaction with state institutions involves cost and time, causing discontent and creating opportunities for corruption.

5. IT is an essential factor for achieving and implementing governance reforms. By using technological innovation, the government will boost public sector modernization and will ensure effective implementation of the reform of public administration and strategic planning programs in the public sector. This strategic program will help achieve the objectives stipulated in the Government Activity Program "European Integration:

Freedom, Democracy, and Welfare, 2011-2014", Central Public Administration Reform Strategy, the national strategy to prevent and combat corruption, the national strategy for building an Information Society: Electronic Moldova, e-government concept, the law on transparency in decision making, the law on information access and institutional development plans of the central authorities.

6. To achieve government objectives, the government will invest in IT solutions that will contribute to delivering qualitative and efficient public services at minimal cost. Saved resources can be used for investment in priority areas for citizens as health, education, social protection, and to develop an economy based on knowledge and innovation.

2. PROBLEM DEFINITION

7. The level of requests of public services by citizens is about 70%. Moldovan citizens face a series of problems in accessing public services, such as corruption, bureaucracy and inefficiency of public institutions, long waiting counters CPA authorities, poor communication and incomplete information on how to access and provision of public services.

8. About 90% of Moldovan citizens consider corruption as a problem in Moldova and about 50% of them would be inclined to give bribes to solve a problem in the state. Bribery proved to be the general solution to the problems of citizens in interactions with state institutions in over 80% of the cases where a bribe was offered.

9. Waiting time at counters, poor conditions and inefficient delivery of services in some institutions do not meet the EU and international standards as well as citizens' expectations. Citizens seeking public services are forced to travel long distances thus wasting time, effort and money to obtain information or services from the public institutions.

10. The development of public services available on the Internet is still relatively small, and the content of many public sector websites is of poor quality, preventing quick access to information by citizens. There is a delay in offering public services online in a context where 80% of people aged 16-25 years and 60% of cities use Internet and Moldova being placed among the top 10 countries with highest Internet speed.

11. Using IT resources in public administration is sporadic and uncoordinated, which decreases the efficiency and agility of governance. The study conducted in 2010 by the Ministry of Information Technology and Communication reveals insufficiency of computers in institutions, the budget for such purposes and the need to change the management of

financial resources allocated for the computerization of the CPA authorities.

12. According to studies conducted by USAID in 2011, the public sector has over a hundred data centers that are utilize less than 20% of full capacity, that are vulnerable to security and high operating costs. This dispersion of IT resources in the public sector prevents the provision of quality services for citizens and businesses, and effective collaboration between authorities and civil servants.

13. Today, many public sector IT jobs are developed within the public sector and IT systems are often created based on proprietary software that uses closed standards, which creates dependence on certain suppliers and prevents their integration into an interoperable IT environment. This way of resource and IT systems management does not allow reuse and sharing of resources, thus creating redundancy and low security.

14. Collaboration with the private sector is minimal and confined to the purchase of hardware and software. This practice of public sector results in high operational costs, reduced quality of IT systems, and limited use of innovative models of service.

15. The public sector seriously lacks staff to manage IT resources and to promote information technology in public service and government efficiency. Low remuneration of public employees does not allow public institutions to hire highly qualified experts. This deficiency leads to uneven IT development in various public sectors and prevents frequent use of information technologies. The 2011 UNDP study points out that low wages and lack of incentives schemes constrain the development of IT capacity in the public sector.

3. GENERAL AND SPECIFIC OBJECTIVES

16. In 2010, the Government of the Republic of Moldova launched the Governance e-Transformation process. This strategic program sets the objectives of this process and provides a unified vision to modernize and improve the efficiency of public services through IT governance. At the same time, this strategic program creates a systemic approach on intelligent IT investments and enhances IT capacity of the public sector.

17. **General objective:** By 2020, the government will become more transparent, and responsive, and perform better due to intelligent investments in IT and their massive use in the public sector.

18. **Specific objectives:**

a) **Modernization of public services** through digitization and business process reengineering. Citizens and businesses can easily access

through a single government portal information and electronic services provided by the Central Public Authorities. These services will be accessible through various channels: Internet, mobile, kiosks, interactive terminals and others.

b) **Optimization of government operations** through interoperability, IT asset consolidation, and data reuse. Citizens will benefit from a connected and efficient government. Public institutions will overcome departmental silos and will operate and interact through a shared technology platform in order to offer high quality services. Citizens will be able to offer personal data to government only once, and public institutions will be able to reuse this data for the delivery of services.

19. Achieving these objectives will change the way public sector manages and uses technology. Insurance regulatory framework, IT capacity, applying a smart IT investment framework and extensive collaboration with the private sector will lead to a coordinated and coherent approach in IT, including strategic planning, budgeting, conceptualization, management, contracting and quality control investments in IT.

20. The IT enabled reforms will remove inefficient practices of government interaction with citizens and internal operation. Inefficient and redundant processes will be restructured to reduce duplication of resources and efforts by standardizing processes and sharing similar resources.

21. The Strategic Program for Governance Technological Modernization (E-Transformation) aims to support the government in achieving development objectives of the European Integration Program: Freedom, Democracy, and Welfare (2011-2014), which highlights e-government as a priority area for Republic of Moldova.

4. MEASURES TO ACHIEVE OBJECTIVES

4.1 Promoting the principles of open government

22. *The open government program* will be elaborated and implemented to promote transparency, combat corruption, improve the governance and modernize public services for citizens and businesses.

23. In 2011, several pilot activities within this program were made, such as the launch of open data portal (date.gov.md), publication of the database on public spending by the Ministry of Finance, approval and implementation of the Directive, according to which, every CPA authority will publish at least three sets of "valuable" data for citizens and businesses

monthly. Also, in August 2011, the Government expressed interest to join the Open Government Partnership.

24. *The open government program* aims at actively providing to public institutions public data in the most disaggregated form possible and in a machine-readable format.

25. The public sector owns and produces the most of government public data. Within *the open government program* public authorities will collaborate with business, civil society and independent IT developers to harness public data with new technologies and innovative applications. This will improve the quality of public services and encourage citizen participation in decision-making process and governance efficiency.

26. The reuse of public sector data will be provided by the national regulatory framework, which will take into account people's basic rights such as the right to information access, privacy and security of personal data as well as European and international standards on public data.

27. Open government program will incorporate new communication technologies and social networks (social media) to promote transparency of public servants. Currently, social networks are becoming an important medium for disseminating information. Given the increasing number of people that use these new technologies like social networks, the public sector can benefit from them and provide quality services, promote innovation in government decisions, disseminate information about events and include citizens' suggestions for the governance process.

4.2 Public Service Digitization

28. By 2020, all public services that can be digitized will be delivered to citizens and business electronically, alongside traditional methods. Ministries and other public authorities will draw up plans for the digitization of public services that will be integrated into sectorial strategies and their plans for institutional development. In addition, the legal barriers that prevent electronic delivery of public services and usage of IT in government operations will be evaluated and eliminated.

29. In the process of digitization, public institutions will take into account the Electronic Service Delivery Model, which will outline all stages, including the conceptualization, design, development, contracting and promotion. This Model will explain the organizational, technological, financial and legal aspects as well as performance measurement in the electronic delivery of a public service. The model

will provide methodologies and tools to enable fast, efficient and sustainable delivery of electronic services. In the process of public service digitization, services that are requested by citizens and business and necessary for reform and European integration will be given priority.

30. Public institutions will direct IT investments toward the improvement of public services, including investments in back-office, databases, internal IT systems, and IT equipment. In this way, the government will deliver added value from its IT investments directly to citizens and business.

31. The public sector will work extensively with the private sector, academia, developers and civil society in order to promote and implement this strategic program. In particular, partnerships with the private sector, civil society, local government and development partners will help achieve a high level of usage of electronic public services, in line with EU standards and objectives.

32. The National Commission for e-Transformation, at the level of central government and the Council of Coordinators for e-Transformation at the level of each public institution will provide a balanced implementation of the Governance e-Transformation objectives.

4.3 Reengineering of public services and operational processes

33. The governance e-Transformation process does not only imply digitization of existing bad processes. Public services will be reviewed so that inefficient, fragmented or obsolete processes can be eliminated. Remaining processes and services will be combined to provide maximum convenience, minimum cost and easy interaction between government and citizens.

34. Information technologies will enable interdepartmental integration and collaboration and necessary system interoperability for providing such complex public services.

35. The government will develop a roadmap of back office digitization, undertaking a prior review of the IT assets and usage of IT within the public sector. Paper archives and records in outdated formats will be digitized and will catalyze the process of governance e-Transformation.

4.4 Providing modern channels of access to public services

36. Almost half of Moldova's citizens are already online and they expect online public services accessible through Internet or mobile phone,

regardless of where the institution responsible for service delivery is located physically and institutionally, 24 hours a day, 7 days a week.

37. This strategic program supports the government to meet these expectations, placing it closer to citizens and ensuring a variety of access channels so that citizens can choose the most convenient for them: internet, mobile, interactive kiosks, etc. This approach meets the needs of all citizens, including people with disabilities.

38. The unique government portal will simplify the electronic access and use of public services. The government web pages will be reviewed and consolidated and electronic access to public services will be integrated into the single portal so that people can find information and services much easier. The security measures of the government portal will be increased to meet the new role of the portal in the transition from information services to interactive and transactional services. Citizens will have a personalized experience in their interactions with CPA authorities and will receive quality customer service.

4.5 Shared government technology platform

39. The Central Public Administration will create and use a reliable, flexible, scalable, secure and efficient shared technology platform, which will facilitate the sectorial transformations and achieve governance e-Transformation objectives.

40. The shared government technology platform will provide the following benefits:

a) innovative delivery model based on consumption of infrastructure services, platform services and software services;
b) IT resource efficiency through reuse and redesign;
c) public institutions relieved from the burden of managing their own infrastructure so that they can dedicate to their mission and create value-added services for citizens and business;
d) reduced maintenance costs in data centers through rationalization, consolidation and virtualization;
e) reduced paper consumption and a green government.

41. This platform will allow delivery of quality services for citizens and businesses and will improve IT efficiency in the public sector. Cloud computing technology allows sharing of systems and IT resources and maximizing their use at a much lower cost. Cloud technology in the public sector will reduce the cost paid to purchase hardware and software licenses.

42. Developments in IT create the possibility for different teams,

departments or organizations to collaborate and share resources. This provides greater flexibility and responsiveness to the needs of citizens and businesses, while reducing costs.

43. The shared government technology platform will host common services such as unified communication, email, instant messaging, collaboration, document management, virtual workspaces and shared calendars. In addition, the government will optimize IT spending through the gradual replacement of physical workstation with virtual workstation. These measures will lead to lower costs and increase IT security in the public sector.

44. Also, platform level services such as authentication, electronic payment service, notification and audit service systems will be launched from the government technology platform leading to savings through reuse.

45. The existing telecommunications network that connects each ministry, agency and public institution will be improved and used and will ensure secure a high-speed access to IT services and resources of government technology platform.

46. The Policy on the use and efficient operation of the government technology platform will be adopted and implemented to ensure smart investments in technology infrastructure of the taxpayers' money. This policy will ensure that Central Public Administration authorities, when considering investing in IT either for new systems of for upgrades of existing systems, will first consider to use the shared technology platform services, either as IaaS, PaaS, or SaaS. If the services requested could not be provided immediately from the shared government technology platform, the Ministry or Agency can request the services from the following budget cycle. Only if the IT system under consideration has to be independent from the shared government technology platform, for national security considerations, the Ministry or agency can proceed to develop the IT system independently from shared platform.

47. To meet the increased need for digitization of public services, archives and records, the technological platform will be further extended for hosting and delivery of additional electronic services.

4.6 Data Center Consolidation

48. Data center consolidation comes to solve the current problem of the IT resources spread across over a hundred data centers, which exposes the public sector to vulnerabilities, encourages inefficiency, corruption and lack of transparency.

49. Data center consolidation is a key element in assuring governance and citizen security, protection of IT resources and of electronic services continuity plan. The shared technology platform will provide data back-up, archiving and retrieval of applications in real time in case data is not available.

50. By 2020, the majority of existing data centers will be consolidated into the shared government technology platform. This will include the migration of IT systems and resources into the shared platform and will initiate the delivery of electronic services form the platform. Migration and the launch of electronic service delivery from the government technology platform will be gradual, and will start at institutions with the highest level of training.

51. Those more than 100 data centers will be consolidated into a few data centers that meet all necessary security and reliability measures. To enable the full delivery of electronic services, these data centers will be connected to each other and to the public institutions through the government telecommunications network.

52. The shared government technology platform and data center consolidation will allow adoption of modern practices of data protection, availability and continuity of services and an easier delivery model for these services.

4.7 Implementation of enterprise architecture

53. A governmental-wide Enterprise Architecture Framework will be established to provide a comprehensive view into how an agency performs its business activities and how IT systems enable and support those activities.

54. This framework will be based on Service Oriented Architecture (SOA) principles. SOA will offer proven and standardized ways to achieve business flexibility, facilitate collaboration and reuse of business services, support business processes with flexible and easy to integrate IT systems.

55. Service-oriented architecture (SOA) is a set of design principles for systems development and integration that allow for increased interoperability through loose coupling of services with operating systems and other technologies that support the applications. SOA is often seen in a continuum with other IT concepts such as distributed computing, modular programming and cloud computing. A well-managed SOA environment will enable government's rapid response to changing business demands, increase the agility of its business processes, and strengthen IT

infrastructure by better retaining and reusing existing IT assets.

56. The shared government technology platform is based on the principles of SOA. This platform is a private cloud offering three main service delivery models – Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS).

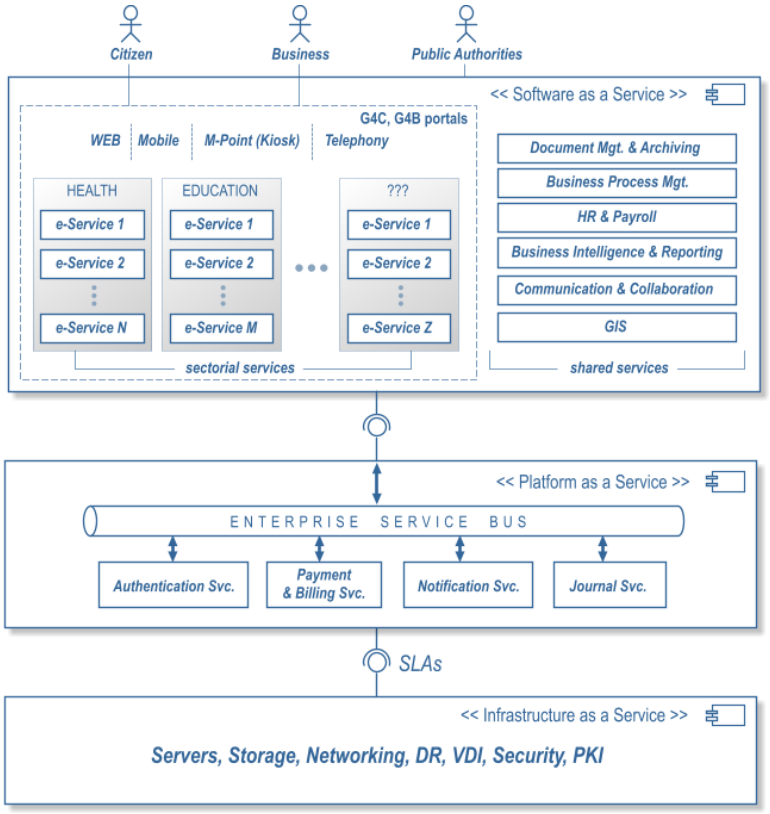

Fig. 1 M-CLoud Architecture

4.7.1 Infrastructure as a service

57. The Infrastructure level services will rely on re-using existing IT resources so that ministries and agencies can extend their IT capacity in a very short time frame. When requested resources are no longer necessary, the agency will be able to scale them down, therefore functioning on a pay-for-usage basis.

4.7.2 Platform as a service

58. The Platform level services will offer common functionalities to business services operated by ministries and other Central Public Authorities on the software as a service level, such as authentication and

electronic payments services. Platform level services will speed up the development and deployment of electronic services. Significant savings will be achieved through reuse of platform level services, which will become standard practice in public sector.

59. The government will rationalize the functionalities of the information systems used in public sector, identifying common and generic functional areas such as authentication and electronic payment. These functionalities will be generalized and promoted to the platform level to be reused by ministries and other center public authorities in their electronic services delivery. Platform level services will be re-used by many business services in a multitude of contexts, and will be highly configurable, universal, simple, flexible and extensible.

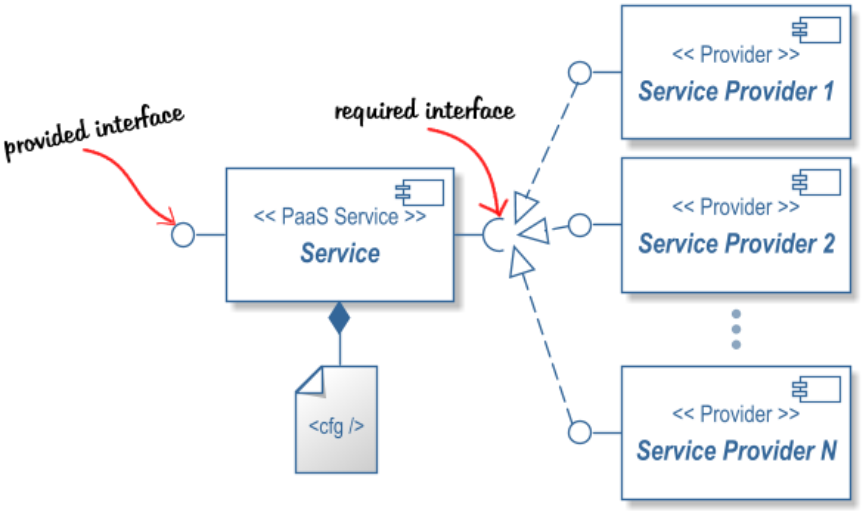

Fig. 2 Platform level services architecture

60. This architecture of the platform level services offers important benefits. Among them are:

Higher Availability	This design contributes to higher availability of the service, since if a service provider will fail still others are operable and the overall service continues to function.
Cost Efficiency	The efficiency benefits are twofold. First, since the Service is a re-usable component it saves implementation and integration costs for each electronic service. Secondly, the design allows

	connection to multiple providers and leads to healthy competition between them, letting providers to compete on quality of service and on prices.
Functional Flexibility	It is possible to configure different service providers to be invoked in different usage scenarios. It is also possible to use one or many providers for the same transaction when necessary.
High Maintainability	The system's components are highly decoupled and communicate through well-defined interfaces. All providers are connected through configurable parameters, which make it possible to add new providers or to disable existing providers on the fly.
Technological Neutrality	The design allows equal possibilities and conditions for providers to get on board and for citizens to decide who will serve them.

61. Currently, the shared government technology platform defines four re-usable platform level services:

a) *Authentication and Access Control service (AAC)* – provides a unified way to solve application security related tasks such as identity management, authentication, transaction authorization, etc;

b) *Payment service* - provides a unified way for government institutions to accept electronic payments for all public services;

c) *Notification service* – provides a unified way to send notifications when needed, thus allowing for offline interaction with citizens;

d) *Journal service* – provides a unified way to store and retrieve data regarding user activity within information systems.

62. **Authentication service** will ensure the integrity and security of the information exchanged as part of the financial transaction. The government will offer citizens and business multiple authentication mechanisms relevant for different security contexts, such as M-Pass (simple one factor authentication with username and password), e-ID (strong authentication using digital certificates) and mobile e-ID (strong authentication using

mobile technologies).

63. The government will use electronic identity and authentication technologies such as 'public key' and mobile eID to meet these requirements. Additionally, the Authentication and Access Control (AAC) service will implement basic security tasks such as identifying and authenticating users and determining their rights into various governmental information systems.

64. **Electronic payments** will allow interactive and transactional electronic service delivery. The government will implement the e-Payment Gateway (GePG) to enable transactional e-services, improve services delivered to citizens and businesses. The government e-Payment Gateway will be developed on a flexible and extensible architecture and make it possible for any public agency to accept payments using any financial instrument available on the market.

65. Payments are part of public service delivery: from the population documentation services of the to traffic fines. People are often forced to make many roads from the public institution to the bank and back again to make payments, which consumes time.

66. Platform as a service will offer a wide range of payment methods, such as electronic payments with bank cards. E-payments mechanisms will allow public authorities meet citizen expectations, deliver better service, and make significant efficiency gains. These include staff timesaving, financial savings (for example from lower transaction charges, and a more streamlined and error-free interaction with government.

4.7.3 Software as a service

67. Services delivered at the SaaS level are electronic services for citizens and business and could be grouped into two major categories – sectorial services and shared services.

68. **Sectorial services** will be implemented and maintained by different sectors, such as education, healthcare, social protection etc. and directly consumed by citizens and businesses. These services are accessible through the single government portals. Access to the portals will be possible through different channels such as web, mobile or kiosks.

69. **Shared services** at the SaaS level are those services that will be used across ministries and agencies. The shared government technology platform will provide software solutions for common business processes including e-mail, IP telephony, IM, collaboration applications, human resources, accounting, electronic records management, payroll and

geospatial systems, CRM and reporting systems etc., i.e. those services which help optimize the work of public sector authorities.

4.8 Interoperability Framework Implementation

70. Modern connected government demands connected IT systems. Interoperable systems working in a seamless and coherent way across the public sector are crucial for providing better services tailored to the needs of citizens and business at a lower cost.

71. The government will develop and adopt the Interoperability Framework (GIF) which will set out the government's technical policies and specifications for achieving interoperability and IT systems coherence across the public sector. The GIF will define the essential prerequisites for connected and web-enabled government and is a cornerstone policy in the Strategic Program.

72. Adherence to the GIF policies and specifications is mandatory. The main thrust of the GIF is to adopt open standards and specifications, which are well supported in the market place for all government systems. Government agencies will be able to improve business processes and ensure effective operations by taking advantage of increased interoperability.

73. Implementation of GIF will improve data collection and consistency. GIF will make it possible that authentication and personal or business information be provided only once. Public authorities shall facilitate the electronic retrieval of citizen data by other authorities in the government, provided that citizens consent to grant access to their personal data in accordance with the law on the Protection of Personal Data. Ministries and agencies will efficiently exchange information and reuse the data that is already collected by a public institution, to reduce the burden on the citizens.

74. The citizen will overcome the complexity of government and will be able to interact with many government agencies without the need to understand which agency is responsible for specific service delivery.

4.9 Ensuring information security

75. Building trust and confidence is quintessential for achieving governance e-transformation. Protecting the privacy of citizens, businesses and communities and safeguarding public sector information assets will underpin all e-government activities.

76. Information assurance – confidence in the security, integrity and

availability of information systems – is therefore essential to achieving the goal of delivering public services via IT, as well as making government more effective and efficient and increasing citizen trust in the public sector's ability to manage and use data.

77. Security risks related to electronic public services will be managed throughout their life cycle (planning, analysis, design, development, testing, implementation, operation and maintenance, withdrawal). Appropriate security measures will be implemented to prevent fraud involving electronic services, identity theft and unauthorized access to personal data. The interoperability and access to electronic services by internal and external entities is within the scope of coverage for security risk management.

78. The government will approve and implement the Information Assurance Policy and will adopt international and EU standards and practices that will contribute to electronic services security and protection of sensitive information.

79. Civil servants, IT managers, and other public officials will undertake information security training as part of capacity building programs.

80. Structures and capabilities will be provided to coordinate information security issues, including prompt response to information security incidents.

81. Ensuring legal and regulatory framework, systemic and complex approach based on risk-analysis and training programs and information are critical success factors for information security.

4.10 Application of innovative technologies

82. The government will continuously monitor emerging technologies and consider their implementation within the public sector to increase the governance performance.

83. The key principles that will underpin the government's approach to technology are:

a) **technology change will be incremental rather than revolutionary**, yet the net effect of these increments will enable far-reaching changes for agencies;
b) **IT will become ubiquitous**, with mobile connectivity widely available, and intelligence embedded in almost all objects;
c) as the IT industry becomes increasingly standardized and new technologies become commodities, **web services will be a**

common feature of all business systems, leading to them becoming **interoperable**;

d) consistent **implementation of open standards** by agencies will be essential to realize the potential of commoditized web services;
e) new technologies will need **a level of demonstrated maturity** for widespread adoption in government;

84. Government will continually assess all emerging technologies for their potential application to electronic service delivery and electronic government operations. At the time of publication of this Strategic Program, some emerging technologies that may be evaluated for usage in the public sector are next generation interfaces, audio and video analytics, predictive analytics, big data, in-memory computing, 4G/5G wireless, near field communication, internet of things and augmented reality.

4.11 IT Capacity building in public sector

85. The government has to equip public servants with the skills and knowledge necessary to respond to the opportunities and challenges of the global knowledge based economy. Government IT capability is crucial to the improved delivery of public services and productivity in government operations. It means new skills, knowledge and attitudes to be adopted as part of a new institutional culture for a connected, accessible, IT-enabled government.
86. Moldova will align to EU best practices described in the Digital Agenda for Europe in developing IT capability and benefit from EU and international training programs to increase the IT skill level of its employees.
87. The government will ensure the supply of IT talent in the public sector by:

a) Run capacity building programs for e-Transformation Coordinators and IT managers in the public sector
b) Develop communities of practice for e-Transformation Coordinators and IT managers
c) Ensure the alignment of universities IT curricula to the needs of the public sector
d) Create a technology fellows program in partnership with universities in order to tap into the emerging talent pool and bring talent into the public sector

e) Develop integrated IT workforce plans as part of the overall HR plans of agencies and ministries
f) Develop the IT Project Management and IT Procurement professions and foster excellent working relationships and exchange of skills between disciplines
g) Adopt a formal career path to attract and retain IT talent in the public sector
h) Enforce a competency framework and incentives scheme in the public sector

88. The government will map out and upgrade its current IT capabilities, and apply change management practices to implement e-government initiatives. The government will ensure continuous IT capability development of its staff. Capacity building programs will target government officials, e-Transformation Coordinators, IT managers, and staff managing IT assets and projects in the public sector.

89. The following skills will be built in the public sector:
a) Digital literacy of public servants
b) IT business practices for government officials
c) Project management and delivery
d) IT procurement and contract management
e) Technology design and architecture

90. A *Common reference framework* for HR management in government will include IT skills audit, planning future skill requirements, development programs, standardization of job titles and functions, and resource allocation.

91. The government will position e-Transformation Coordinators and IT Managers in the public sector as part of staff employment schemes. Incentives schemes and career advancement opportunities will promote IT skills development. Performance evaluation schemes in the public sector will include IT capability as a core indicator.

92. Special training programs that address the enhanced roles and responsibilities of the targeted groups will be run based on best international experience and practices and conducted in partnership with leading educational providers.

93. Training programs for e-Transformation Coordinators and IT Managers will be organized on a regular basis and with end-examination for certification of successful completion. The government will pilot an inception-training program to include modules like:

a) Leadership (e-government, Strategic Planning, Change Management)
b) Technical Skills (Enterprise Architecture, e government Architecture, Information and Systems Security, Support and Services)
c) Management (IT Resources Management/IT Project Management, Procurement and Contract Management, Vendor Relationship Management, IT Financial Management)
d) Communication (Making Business Cases, Effective Presentation)

94. Special attention will be given to consolidation of skills for managing IT projects in public institutions in order to ensure successful investments in high quality services and systems.

95. Technological developments, such as the Internet and mobile communications will support learning in new ways in the public sector, including virtual learning environments.

96. The government will engage in a proactive cooperation with the private sector and education partners in building its IT capability. Partnering with competitive central public educational institutions and private training industry players will provide programs to support governance e-transformation. The government will facilitate cooperation between local academic institutions and their international peers as well as encourage cooperation with leading IT multinationals to increase IT capability in the public sector. Capacity of local universities and private sector to provide customized and up-to-date training to the public sector will be strengthened.

4.12 Intelligent IT investments in the public sector

97. The government has set as a goal to outsource the majority of IT work into the private sector in order to lead to higher quality IT in government and private sector growth. To deliver on this goal, the government will develop a robust IT investment framework with the mission to support the achievement of the objectives of governance e-Transformation (delivering quality public service and efficient government).

98. This investment framework will include:
a) strategic planning and budgeting;
b) project development and management;
c) procurement and supplier management;
d) performance measurement.

99. This IT investment framework will be used by Ministries, Agencies and other public authorities to ensure that IT investments across

government are well planned and managed and deliver the responsiveness and value for money required by government.

100.This framework will encourage good practice and consistency in IT strategic planning through tools and methodologies that improve planning and managing and that help achieve measurable benefits and outcomes. Additionally, this framework will increase the transparency of government IT spend, optimize the performance of IT investments, and improve the practice of public-private partnerships and IT outsourcing.

4.12.1 Strategic Planning and Budget

101. Ministries, agencies and other public authorities will develop yearly IT roadmaps for their institution, which must be aligned to their sectorial strategy and mission. Each institution will plan on a yearly basis the public services it needs to digitize, so as to achieve the vision that all public services will be online by 2020.

102.In order to support their strategic planning, public institutions will budget accordingly to incorporate the efforts of delivering public services online. The government will monitor closely its IT spending from the State budget and from international development partners in order to optimize IT spending and ensure its alignment with the governance e-transformation priorities.

103. Public institutions will implement internal programs to manage costs associated with online public services. These will be based on improving procurement, optimizing internal processes, diminishing fixed costs, measuring the volume and quality of services. The price of online public services will be justified in terms of necessary costs necessary for their delivery by the public authorities.

104.IT budget submissions will be constructed around key points that drive value for agencies, for government as a whole, and most importantly for citizens, including:

1. *IT inventory* to ensure that individual projects are consistent with the agency mission and government policy objectives;
2. *IT reviews* of existing IT projects and systems;
3. *Budget justification* that includes total cost of ownership and return on investment calculations.

4.12.2 IT Project Management

105. The government will use agile and result-oriented development principles, which have long been considered best practice in the private sector and lead to increased success and reduced risk in managing IT investments. To maintain the discipline of on-time and on-budget, organizations prioritize critical needs and end-user functionality.

106. Moving forward, government IT projects will be structured to deploy working business functionality in release cycles no longer than 12 months, and, ideally, less than six months, with initial deployment to end users no later than 18 months after the project begins.

107. While project managers need to define each phase of the IT project and rigorously manage scope, the government will stimulate modern and innovative approaches for private sector to manage projects as long as the services are delivered on time, on budget, and within adequate level of quality.

4.12.3 Procurement and supplier management

108. As by 2020, the government commits to move the majority of IT work to the private sector, for the benefit of the government and of the economy as a whole, IT procurement and contracting rules will be improved.

109. Effective IT acquisition requires a combination of thorough knowledge of the government acquisition system, a deep understanding of the dynamic commercial IT marketplace, and the unique challenges inherent to successfully delivering large IT projects in a modular and phased approach.

110. IT procurement plans at the agency and whole of government levels will be reviewed to promote more strategic and targeted decisions about IT investments. An increased preparedness by agencies to collaborate on IT procurement and systems will help obtain the best prices and deliver improved efficiency and effectiveness.

111. To ensure a professional relationship between the contractor and the customer, the government will assess suppliers on 10 performance criteria (Supplier Performance Evaluation Matrix) that capture the technical, business, and relationships aspects of a supplier's capability to successfully deliver government IT.

112. To eliminate waste, delayed project delivery and eroded value of IT Investments, the government will develop a set of model contracts to encourage commercial use and exploitation of intellectual property (IP) from government procurement.

113. Additionally, the government will reconsider its procurement and contracting processes to develop clearer and more comprehensive contracting policies and open the market for the small businesses. Small businesses in the technology space drive enormous innovation throughout the economy.

114. To make change happen, the government will create standardized training and development opportunities to develop a cadre of acquisition professionals with the specialized knowledge and experience required to complex IT acquisitions across the government.

Quality Commitment	Expected high quality products and services
On-budget delivery	Delivering the project within budget
On-time delivery	Delivering the project within the milestones set in conjunction with the client Ministry or Agency
Performance	Delivery of operational SLAs, end user satisfaction, performance against benchmarks
Project management	Leadership, planning stability, risk management and visibility of supply chain
Relationship management	Support for the Government agenda, collaboration, recognition of shared objectives, customer focus, openness, issue resolution and contract management efficiency
Feasibility and design	Inspiring transformational change, fitting with the project scope, quality of proposals, quality of design, demonstration of value for money
Build	Usability, technical build, fit for purpose deliverables and build efficiency/rework
Integration and implementation	Delivery of business benefits, quality of integration, quality of deployment and knowledge transfer

Innovation	Innovation in technology, processes, customer service

Table 1. Supplier Performance Evaluation Matrix

4.12.4 Performance measurement

115. Public administration and every public institution in part will inventory its resources and IT systems and will conduct IT auditing according to consistent IT auditing methodologies. Data collected during resource and IT systems inventory and also during IT auditing will be analyzed for opportunities of intelligent IT investments in the public sector. Authorities will restructure and finish the IT projects with poor performance in their portfolios and will reorient their budget to other initiatives. Inventory and analysis results will be used to rationalize IT systems and resources and capitalize on the current state investments.

116. The government will monitor and assess through an integrated monitoring and evaluation (M&E) framework the efficiency of the e-government implementation efforts at the level of each public institution. The performance indicators reflecting the efficiency of e-government implementation will be an indispensable part of the Central Public Administration authorities' plans to deliver public services of high quality and to improve governance.

4.13 Enabling a favorable regulatory, policy and standards framework

117. Successful implementation of the Strategic Program for Governance e-Transformation will be achieved through a reexamination of the entire regulatory framework. This effort involves not only the adoption of new normative acts, but also the review of normative acts in force. Moreover, public authorities will assess emerging challenges taking into account best international practices and the EU regulatory framework.

118. New initiatives to improve the legal framework have to regulate access to information, electronic identity, electronic signature, electronic payment methods, obligations of public authorities and public officials about public services in electronic format and others.

119. In order to access online services, public authorities will not only remove legal barriers, but will also put in place different incentives for citizens and businesses to transact electronically for public services.

120. The regulatory framework will give citizens the right to access public services online and will catalyze efficient governance using IT.

121. Key regulations and standards for ensuring successful implementation of the Strategic Program for Governance e-Transformation are:

a) Government e-mail service
b) Government web resources
c) Shared authentication, identity management, and access control
d) Electronic payment
e) Interoperability Framework
f) e-Service Reference Architecture
g) Cloud-first policy and SOA
h) Open standards
i) Basic security policy
j) Software lifecycle policy
k) Data Reuse policy
l) Social Media policy
m) Mobile access
n) Electronic Money regulation

122. Legislation enabling governance e-transformation will be systematically evaluated to comply with international treaties and standards.

123. Any barriers to the implementation of the Strategic Program from Governance e-Transformation will be removed. Specifically, any legal and policy impediments to the provision of quality services to citizens and business via IT and improved business operations of the government will be removed.

124. Thus, a mechanism for internal coordination will be established in collaboration with Central Public Authorities. For this purpose, efficient coordination of various policies regarding the legislative framework necessary for implementation of the present Strategic Program will be ensured.

5. ESTIMATING THE IMPACT AND COSTS

5.1 Defining impact

125. Effective implementation of this strategic program will contribute to achieving the expected impact, namely that smart investments in IT and its massive use in the public sector will lead to increase of

transparency, efficiency and responsiveness of government, development of a dynamic and competitive private sector, and building a prosperous society based on knowledge.

5.2. Financial costs

126. Public administration will strive to attract all potential partners in the process of consultation, implementation, attracting investment and creating government e-transformation frameworks.

127. Financial resources estimated in the context of expected impact are:

a) governance e-Transformation Project funded by agreement with the International Development Association;

b) budgetary fund "Electronic Moldova";

c) authority and CPA authority budgets tailored to the priorities established by this strategic program and related strategies;

d) international development partners to be involved at the level of financial resources and specialized international expertise;

e) private sector will be encouraged to invest in implementing and promoting government e-transformation in ways that enhance public-private collaboration.

5.3 Non-financial costs

128. Non-financial costs will target primarily the creation and effective operation of an appropriate regulatory framework, which will enable implementation of this strategic program and achievement of the desired results.

129. Also, in addition to investments in financial terms, an important factor in generating results and impact of government e-transformation of the society as a whole, will be mobilizing human and political potential, to achieving a friendly climate for productive cooperation and promoting a constructive, positive, open, and enthusiastic attitude aimed at achieving results and impact. This involves professional abilities and skills, experience, availability, political and personal will of institutional, public and private entities, involved in governance e-Transformation.

130. Public support and support for reformed measures to be implemented have as preconditions public confidence, awareness of advantages and benefits of information technology which they bring to delivery of quality public services and increase of government efficiency and performance. They will contribute to the participation of citizens and

society in the process of governance e-Transformation and in strengthening participatory democracy.

131. Developing and maintaining effective relationships with the private sector and outsourcing IT projects and e-government initiatives will reduce the investment from the state budget required for achieving government e-transformation goals.

132. Institutional architecture will contribute to delivering the objectives of governance e-Transformation through a centralized approach to Strategic Program implementation at a decentralized level.

133. National Commission for E-Transformation was created to establish the vision and offer the necessary leadership within governance in order to implement this vision. The Commission will provide the necessary platform for decision-making, performance evaluation and insurance of smart investments and efficient use of IT in the public sector.

134. At national level, the implementation will be coordinated by the National Commission for e-Transformation, established by Government Decision no.632 of 8 June 2004 and renamed by Government Decision no. 760 of August 18, 2010.

135. Institutional architecture will be reviewed so that the delivery of governance e-transformation goals will expand and deepen. This will involve adjustments in the role and responsibilities of e-transformation coordinators that will actively participate in the elaboration of policies and will manage IT portfolio in public institutions.

136. This effort will allow for e-Transformation coordinators to focus on delivering IT solutions that support the mission of public institutions and reduces bureaucratic obstacles to delivery of quality public services and effective functioning of public administration.

6. EXPECTED RESULTS AND PERFORMANCE INDICATORS

6.1 Expected Results

137. Through digitization of public services for citizens and businesses, development and implementation of a unique government portal, a common technology platform, an appropriate framework for interoperability, capacity-building measures IT, the government relies on generating the following results:

a) intensification and optimization of communication between public agencies and citizens, businesses and other public institutions;

b) optimizing the flow of documents and information by the CPA authorities and at inter-institutional level and reducing the multitude of administrative procedures;
c) gradually combating corruption at the CPA authorities;
d) changing of the mentality and attitude of civil servants regarding the beneficiaries they serve (openness to innovations and technologies, kindness, fairness, responsiveness, etc..)
e) ensuring open access to information and public services;
f) increasing the transparency of CPA authorities and encouraging citizen participation in the governing process;
g) more effective management of financial, material and human resources in the CPA authorities;
h) improving the quality of human potential of CPA authorities and consolidation the staff capacity to manage and use IT;
i) creating a competitive framework suitable for ICT companies;
j) improving cooperation in society, both at the state-citizen and at public-private partnership levels;
k) results in the context of global trends related to saving, environmental protection, ensuring equal access to public services for people with disabilities and others.

138. In the long run, consolidation and perpetuation of these results will help to generate the expected impact in the context of improving quality and transparency of governance and centering it on the citizens, meaning a good, transparent, connected and focused on the interests and needs of citizens governance.

6.2 General framework of performance indicators

139. In the context of creating a general monitoring and evaluation (M&E) framework for the efficient implementation of the Strategic Program there shall be used a range of indicators grouped per categories. For each concerned field and, respectively, CPA authority there shall be implemented in parallel specific M&E frameworks, including a range of sub indicators relevant for the sector and the selected institution, considering also a number of other factors, such as the measure in which a service is and will be digitized (parts or procedures gradually digitized at a certain stage), the specifics of the sector and of the institution etc. A part of the indicators from the general framework presented below are part of the results framework under the Moldova Governance E-Transformation Project financed from an IDA credit and co/financed by other international

donor organizations, whereas other indicators concern the international rankings referring to e-development in the world, including e-governance etc.

140.The implementation of these frameworks obviously requires cooperation between the institutions involved in the e-Transformation process, as well as between the institutions, which are monitoring the developments within related sectors. In this context, the State Chancellery shall cooperate with the Ministry of Information Technology and Communications, the National Regulatory Agency for Electronic Communications and Information Technology, the National Bureau of Statistics, as well as all CPA authorities involved, which shall provide data referring to the progress ascertained and to possible challenges which the concerned CPA authorities might be facing while implementing the referenced Strategic Program and in achieving its ambitious objectives and specific goals mentioned above.

Key Performance Indicators (general framework)

Denomination of Indicator	Unit of Measure	Description/Definition of indicator	Baseline Situation (2010)	Target values (2020)	Frequency of reporting	Data Source / Data Collection Methodology	Responsibile Entity for Data Collection
International Rankings Indicators referring to E-Governance							
E-Governance Readiness	Coeff.	This index – part of international e-governance ranking – reflects the status of the existing technological infrastructure and the level of readiness, the existing capacities of using IT in a country, it is a composite measure of the capacity and willingness of countries to use e-government for ICT-led economic and social development.	0.4611		Annual	Global E-Government Survey organized under the auspices of UN Public Administration network	State Chancellery (Council of Coordinators for E-Transformation)
A. Web Measurement Index (MI)	Coeff.	This index reflects the degree of available public e-services development, and refers to the informational content, diversity and quality of governmental institutions' web pages, their accessibility for citizens etc.	0.2952		Annual		Ministry of Information Technology and Communications (results dissemination)
B. Telecommunication Infrastructure Index (TII)	Coeff.	This index reflects the level of telecommunication infrastructure development	0.1933		Annual		
C. Human Capital Index (HCI)	Coeff.	This index shows to what extent the citizens of a country, including the public officers, are ready for e-transformation, and is a composite measure of the adult literacy rate and their enrolment in the educational process	0.8999		Annual		
Uptake of E-Government by the country's citizens							
A. Share of citizen who access the Governmental site	%	This indicator measures the percentage of population that accessed a Government website at least once over the previous 12 months (until 2016), and at least once over the previous 6 months (during the period 2016-2020).	7%	50%	Annual	National Citizen Survey	State Chancellery (Council of Coordinators for E-Transformation)
B. Number of unique visits to the Governmental portal	No.	This indicator measures the number of unique visits to the Government services portal.	0	800,000	Annual	Web statistics (automatically generated)	State Chancellery (Council of Coordinators for E-Transformation)
E-Government's Perception by the country's citizens							

A. The degree of citizens' satisfaction with the quality of public services delivered online	%	This indicator measures the share of citizens who are satisfied with the online public services out of the total number of citizens benefiting from digitized services provided through the Government to Citizen (C2C) portal	0	70%	Annual	National Citizen Survey	State Chancellery (Council of Coordinators for E-Transformation)
B. The degree of citizen awareness of the e-governance benefits and importance	%	This indicator measures the share of citizens who state they know the advantages, benefits, and recognize the importance of digitization in the public sector from the total number of respondents	0	80%	Annual	National Citizen Survey	State Chancellery (Council of Coordinators for E-Transformation)
C. The level of public confidence in and support of public services' digitization	%	This indicator measures the share of citizens who state they are confident in the quality and security of the online public services delivery, through internet or mobile phones, and who would like and recommend to others to access public services in online regime.	0	80%	Annual	National Citizen Survey	State Chancellery (Council of Coordinators for E-Transformation)
Uptake of the common governmental infrastructure by the central public administration (CPA) authorities from Moldova							
A. The share of central public administration authorities included in the e-transformation process	%	This indicator measures the percentage of country's CPA authorities which have migrated onto the M-Cloud system their services and other functionalities that can be digitized out of the total existing number of such institutions	0	100%	Annual	Government Statistics	State Chancellery (Council of Coordinators for E-Transformation)
B. The share of digitized public services	%	This indicator measures the share of services provided by the CPA authorities in online regime in the total number of services provided by the referenced institutions and which can be digitized	-	100%	Annual	Annual Reports	State Chancellery (Council of Coordinators for E-Transformation)
C. The number of public sector employees trained in IT and e-transformation	No.	This indicator measures the number of public sector employees who have been trained in modern IT instruments utilization, management of e-transformation projects, e-leadership etc.	0	4,000	Annual	Statistics from annual progress reports	State Chancellery (Council of Coordinators for E-Transformation)
D. Share of public officers with IT use abilities	%	This indicator measures the share of CPA authorities' employees who have abilities of complex work with IT out of the total number of public officers employed in the PCA authorities	-	70%	Annual	Government Statistics	State Chancellery (Council of Coordinators for E-Transformation)
E. Share of ICT expenditures in the total amount of CPA authorities' expenditures	%	This indicator measures the share of ICT expenditures in the total amount of annual expenditures supported by the CPA authorities during the Strategic Program implementation period	-		Annual	Government Statistics	State Chancellery (Council of Coordinators for E-Transformation)

F. Share of citizens' complaints referring to the quality and reliability of an e-service delivered by a CPA authority from the total number of received complaints	%	This indicator measures the percentage of citizens' complaints and reclamations referring to the quality and reliability of a service delivered by the CPA institutions out of the total number of complaints and reclamations (referring to the quality of a public service) received by the CPA authorities.	-	20%	Annual	Quarterly reports submitted to the EGC by the selected PCA authorities/ involved in the e-transformation process.	State Chancellery (Council of Coordinators for E-Transformation))
G. Number of citizens' (solicitors of public services) complaints referring to the quality of services provided by the CPA authorities	No.	This indicator measures the annual number of citizens' complaints and reclamations referring to the quality and reliability of a service delivered by the CPA institutions during the Strategic Program implementation period.	-				
H. Number of notifications/alerts referring to the corruption of public officers in the context of CPA authorities delivering a public service	No.	This indicator measures the number of alerts/notifications/complaints addressed to the Center for Combating Economic Crime and Corruption in the context of public service delivery by a CPA authority, and shall help identifying changes in this indicators' values as a result of the referenced Strategic Program implementation	-*		Annual	Annual reports from selected institutions submitted to EGC, State Chancellery. Source of verification: Center for Combating Economic Crime and Corruption	State Chancellery (Council of Coordinators for E-Transformation)
Data Centers Consolidation							
The share of consolidated data centers	%	This indicator measures the share of data centers consolidated during the referenced Strategic Program implementation period out of the total number of existing data centers	0	>50% (cel puțin 50%)	Annual	Annual reports of relevant entities	State Chancellery (Council of Coordinators for E-Transformation)
Open and Transparent Government							
A. Number if data sets published on the Open Government Data Portal	No.	This indicator measures the number of data sets published/posted by the CPA authorities and available for the public on the Open Government Data Portal	0	1,200	Annual	Web Statistics (automatically generated)	Moldova E-Government Center
B. Share of CPA authorities which publish/post data on the Open Government Data Portal	%	This indicator measures the share of central governmental institutions publishing on the Open Government Data Portal data of interest for the public and data which can be made public according to the Moldovan legislation in force, out of the total number of existing public institutions	0	100%	Annual	Reports submitted by each concerned institution to the EGC	Moldova E-Government Center

* Monitorizarea va începe treptat la instituțiile selectate pentru implementarea graduală a e-serviciilor şi drept an inițial se va lua anul dinaintea începerii digitizării serviciilor la instituția în cauză.

Outsourcing of IT works							
Share of IT works outsourced to the private sector	%	This indicator measures the share of IT works/activities that have been outsources to the private sector out of the total volume of performed IT works	0	50%	Annual	Official Statistics	State Chancellery (Council of Coordinators for E-Transformation)

7. MONITORING AND REPORTING PROCEDURES

140. Arrangements for monitoring the results will meet the following purposes:

a) assessing the performance of IT projects and their impact, dissemination of evaluation results;

b) monitoring the disbursements of funds relative to the estimated disbursements prepared and submitted for approval to the Ministry of Finance;

c) monitoring the procurement of goods, tasks, services in accordance with established standards;

d) monitoring the IT and financial audit activities of institutions and using audit reports to evaluate the public authorities' performance;

e) assessing progress in implementation and achievement of expected results;

f) promoting and fostering the exchange of communication and exchange between institutions and the effectiveness of training by piloting innovative communication tools and evaluation;

g) ensuring transparency and dissemination of information regarding implementation activities and immediate, intermediate and long term results.

141. Monitoring the implementation of activities under e-Government Transformation Agenda will take place at several levels. At the level of each public institution, effective monitoring and evaluation projects will be done by e-Transformation Coordinator. Pubic authorities involved in the Governance e-transformation will report quarterly on progress, performance, potential problems, constraints, and barriers to implementation. EGC, in collaboration with the Coordinator for e-Transformation in every public institution concerned, will develop personalized monitoring and evaluation frameworks, including specific progress indicators .

142. At the national level of Governance e-transformation implementation, State Chancellery will monitor the activities of project implementation, will ensure the regulatory framework, and will conduct periodic evaluations that will help improve the ways in which goods are supplied, results are generated, and impact estimated.

143. At the level of international donor agencies involved in financing a phase, a component or a set of activities within the governance e-transformation, State Chancellery will comply with their requirements on reporting and monitoring and will prepare periodic progress reports, notes

and reports evaluation in the format agreed by the financial donor institution and the government.

144. E-Government Center will provide assistance to institutions in developing institutional monitoring and evaluation frameworks, will collect data on the dynamic performance indicators, will organize and coordinate the implementation of surveys among citizens and institutions, will report quarterly to the Bank World, National Committee for e-Transformation and the State Chancellery during the implementation of the "Governance e-transformation" Project. Public institutions will use the following reporting and monitoring tools: reporting quarterly on the progress of activities, including monitoring of performance indicators, and continuous performance monitoring journal.

145. Based on primary data received from institutions, foreign and local partners on implementing the e-Transformation, and data extracted from internal and external surveys done among selected citizens and institutions, the State Chancellery, upon request and need, will provide progress reports, mid-term evaluation and informative notes to the relevant institutions, and disseminate reports, notes, press releases on the results obtained at various stages of project implementation. Thus, the aim is to provide exhaustive, transparent and accessible information to citizens, businesses and Central Public Authorities.

146. To ensure an efficient data collection, verification, reporting and dissemination by general indicators of progress (at the national and international levels) that are monitored by other institutions and, respectively, call for a coordination of efforts by State Chancellery and partner institutions for Strategic Program implementation, entities involved in the implementation process will establish an institutional mechanism for data communication, collaboration and joint monitoring of indicators that require this need, in order not to double its activities.

147. Data collection will be automated where possible, will have as sources progress reports from the selected institutions, such as: internal and external surveys (at the national and international levels), automated reports generated by the modules monitoring the number of visitors, procedures covered online, the length of services recorded automatically, etc. However, digitalized public services, shared government portal and common technology platform are constructed in such a way so as to enable automated data collection.

8. STAGES OF IMPLEMENTATION:

Nr.	Actions and deliverables	Measures	Time frame	Responsible parties
1	Adoption of the *Open Government Program*	4.1	2011	Government
2	Adoption of the *e-Services Delivery Model*	4.2	2011	Government
3	Elaborating a plan for digitization of archives, paper registrars and those in formats that do not allow electronic services development	4.3	2011-2012	State Chancellery, Central Public Authorities
4	Launch of shared government portal	4.4	2011-2012	Cancelaria de Stat
5	Adoption of the Cloud First Policy	4.5	2011	Government
6	Creating the shared government technology platform	4.5	2011-2012	State Chancellery
7	Adopting a government-wide Enterprise Architecture Framework, including the catalogue of services, Information Security Policy and Services Management Model	4.7	2011-2012	Government
8	Creating the platform as a service: mobile-ID and e-payment services	4.7	2011-2012	State Chancellery
9	Adopting the Interoperability Framework	4.8	2011-2012	Government
10	Annual evaluation of public services for digitization	4.2	2011-2018	e-transformation CIO Council, State Chancellery,

				National e-Transformation Committee
11	Public services digitization	4.2	2011-2019	State Chancellery, Central Public Authorities
12	Digitization of intergovernmental shared services	4.5	2011-2015	State Chancellery
13	IT Capacity building in public sector	4.11	2011-2019	Central Public Authorities
14	Equiping public servants with necessary technological skills	4.11	2011-2019	State Chancellery, Central Public Authorities
15	Developing and ensuring intelligent IT investments in the public sector	4.12	2011-2020	Cancelaria de Stat, Public Procurement Agency
16	Outsourcing IT tasks to the private sector	4.12	2011-2020	Central Public Authorities, Public Procurement Agency
17	Ensuring a favorable regulatory framework	4.13	2011-2020	Central Public Authorities
18	Digitization of archives and paper records in the formats that do not allow the development of electronic services	4.3	2012-2018	Central Public Authorities, Cancelaria de Stat
19	Implementation of the Operation Model of the	4.5	2012	State Chancellery

	shared technological government platform			
20	Extending the existing technological government platform for hosting new services	4.5	2012-2015	State Chancellery
21	Adopting IT requirements for the common reference framework for HR management in the government	4.11	2012	State Chancellery
22	Elaborating IT work force plans, as part of the general plan on human resources in the government	4.11	2012	Central Public Authorities, State Chancellery
23	Reengineering of public servies and operational processes	4.3	2013-2018	Central Public Authorities, State Chancellery
24	Ensuring the diversity of access channels: internet, mobile phone, kiosks etc.	4.4	2013-2020	Government
25	Consolidating data centers	4.6	2015-2020	Central Public Authorities, State Chancellery