



EPI ICT FOR E-GOVERNMENT ASSESSMENT

RECOMMENDATIONS AND PRIORITIZATIONS

FINAL

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USAID ECONOMIC PROSPERITY INITIATIVE (EPI)

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DATA

Author(s): Marc Vogtman and Jay Hariani

Reviewed By:

Malkhaz Nikolashvili, Activity Manager

Chris Thompson, Component Lead

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ABSTRACT

The EPI is a competitiveness program focusing on selected firm-level and industry-level improvement through assistance to selected agricultural and nonagricultural value chains. In support of its competitiveness work, EPI works with the Government of Georgia (GoG) to address key policy and administration areas that most directly affect Georgia's competitiveness support private sector growth.

The project team determined that there is significant potential to pursue EPI objectives through e-governance support. The EPI project assigned Information and Communication Technology (ICT) and e-government subject matter experts to research, identify, and prioritize opportunities for potential EPI intervention. Interventions may include design and implementation of ICT solutions, business process reengineering, change management, and training/capacity building. Due diligence for prioritization includes documenting a program description, designing an action plan for intervention, identification and description of resources, and an estimation of impact on key performance indicators related to Georgian competitiveness and private sector growth.

This report is intended to serve as an inventory and action plan for GoG e-governance opportunities that the EPI project will use to establish and refine work plan priorities.

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I. EXECUTIVE SUMMARY

EPI conducted a series of interviews with GoG officials, private sector representatives, nongovernmental organizations (NGOs), and donor groups to identify e-government opportunities, assess public and private sector capabilities, and increase understanding of information and communication technology (ICT) priorities. Based on our e-government assessment, and in consideration of Deloitte's experience and knowledge of development effective practices, our team has developed an inventory of e-government initiatives. We also created a proposed, high-level action plan for those that we determined were feasible and in the interest of GoG and USAID.

The following projects were evaluated by Deloitte for potential funding and implementation and also selected by GoG and USAID for funding:

1. IPR System (Sakpatenti)
2. Trade Facilitation System (Data Exchange Agency)
3. State Property Management System (SPMS)
4. Container Terminal Management System (GR)

	Project	Relevance	Impact	Risk	Timeline	Next Steps
1	Sakpatenti	High	High	Low	12 months	Procure system implementer
2	Trade Facilitation System	High	High	Med	Phase 1: 4 months Phase 2: TBD	Phase 1: Scoping, dependencies, business requirements. Phase 2: Initial implementation
3	State Property Management System	High	High	Low	Phase 1: 3 months Completion: 18 months	Phase 1: Project scoping and business requirements documentation
4	Container Terminal Management System	High	High	Low	Phase 1: 3 months Completion: 18 months	Phase 1: Project scoping and business requirements documentation

The following projects were evaluated by Deloitte for potential funding and implementation, but not selected by USAID for funding:

1. Agricultural Commodity Pricing System (Department of Agriculture)
2. Standards, Technical Regulations and Metrology Ministry of Economy and Sustainable Development (MOESD)

	Project	Relevance	Impact	Risk	Timeline	Proposed Next Steps
5	Agricultural Commodity Pricing System	High	High	Med	18 months	Six-month pilot and feasibility study
6	Standards MIS	High	Med	Low	4 months	Requirements, procurement, and implementation

Section A below provides high-level action plans and descriptions of each of the evaluated projects.

II. ACTION PLANS

SAKPATENTI INTELLECTUAL PROPERTY RIGHTS SYSTEM

BACKGROUND

Sakpatenti is a stand-alone legal entity, falling directly under the prime minister's office. The program was established to modernize, standardize, and support enforcement of policies, processes, and regulations for intellectual property rights (IPR) management.

In order to improve efficiency, reduce indirect costs, better allocate its scarce funding, and maintain the support of stakeholders, Sakpatenti leadership is prioritizing the implementation of a new electronic filing system. The goal of the effort is to reengineer, standardize and automate 300+ business processes, and consolidate departmental functions to be able to provide 100+ future processes that will help implement the e-filing system.

DESCRIPTION OF INITIATIVE

The Sakpatenti e-filing initiative will include the application of best practices in design, development, implementation, and adoption of a Web-based intellectual property rights system, as well as business process redesign in the areas of design, trademarks, finance, legal copyrights, application submission, data collection, application adjudication, and IPR information reporting.

PROPOSED SCOPE FOR EPI INTERVENTION

The scope of this initiative includes functional and technical requirements development and validation, business process analysis and documentation and procurement of a Georgian ICT subcontractor for implementation. The proposed system design will include:

- E-filing for IPR applications
- Front-end application interface
- Back-end process automation to manage the adjudication and issuance process
- Database design
- Data migration
- Copyright and trademark search and reporting functionality

Deloitte will manage subcontractor performance and perform independent validation and verification of the system. Deloitte also recommends a period of change management support to ensure standardized methods, processes, and procedures are in place for the end users of the E-filing system to help facilitate efficient and prompt handling of all changes. This will help Sakpatenti in maintaining the proper balance between the need for change and the potential detrimental impact of changes.

BREAKDOWN OF ACTIVITIES AND RESOURCES

1. Requirements Documentation
 - Resources: one expat, two local
 - Deliverables: Sakpatenti Functional and Technical Requirements

- Timeline: eight weeks
- 2. Procurement
 - Resources: one expat and one local
 - Deliverables: Sakpatenti Request for Information (RFI), Request for Proposal (RFP), and Source Selection Documentation
 - Timeline:
 - Expat: three weeks Level of Effort (LOE)over two—three months
 - Local: two weeks LOE over two—three months
 - EPI Staff: five weeks LOE over two—three months
- 3. System Design and Development
 - Resources: one subcontractor firm on FFP contract
 - Deliverables: Phased system development and implementation
 - Timeline: six months
- 4. Quality Management and IV and V
 - Resources: one expat and one local
 - Deliverables: Monthly IV&V and Performance Reports
 - Timeline:
 - Local: three months LOE over six months
 - Expat: three weeks LOE over six months
 - EPI Staff: six weeks LOE over six months
- 5. Change and Transition Management
 - Resources: two locals
 - Deliverables: Training, standard operating procedures, and Transition Plan
 - Timeline: three-four months

ESTIMATED IMPACT

In open economies, like that of Georgia, intellectual property rights protection can have a notable effect on economic growth. A strong IPR regime incentivizes innovation and encourages foreign direct investment. In general, there is strong evidence that the ability of a country to effectively provide and enforce IPR protection has a substantial, positive effect on growth. The implementation of an IPR system is a first step in strengthening Georgia's intellectual property rights protection regime, and providing a legal basis for IP ownership. The long-term impact is increased foreign direct investment, and increased growth in local entrepreneurship as local businesses are incentivized to remain in Georgia.

Source: *The role of intellectual property rights in economic growth. Journal of Development Economics.* (<http://www.sciencedirect.com/science/article/pii/S0304387895000399>). August 2001

Source: *The composition of foreign direct investment and protection of intellectual property rights: Evidence from transition economies. European Economic Review.* (<http://www.sciencedirect.com/science/article/pii/S001429210200257X>). February 2004

TRADE FACILITATION SYSTEM

BACKGROUND

The Data Exchange Agency (DEA) was founded last year as part of Georgian government initiative to improve its ability to transmit data between ministries and standardize system platforms across the government. One of the DEA's first major initiatives is to build a government-wide data exchange network. External software and hardware vendors — Microsoft and HP — are implementing the data exchange network. When completed, the system will have a standard message format, communication protocols, and methods for exchanging data across the government in real time.

The concept and system are based on Microsoft's Open Government Framework (<http://www.microsoft.com/government/ww/initiatives/Pages/open-government.aspx>), a blueprint for government data exchange that has been used successfully in other countries. The system is scheduled for completion by the end of the year. DEA plans for the Trade Facilitation System to be the first major business application to utilize the new system.

The concept for the Trade Facilitation System is very similar to the United Nation's (UN) Single Window Concept. When implemented, the single window concept allows goods importers to register at a single office or website and receive all required permits, licenses, and clearances for bringing their goods into a given country. For example, a country that has implemented single window would allow an agricultural goods importer to pay a required duty, receive a permit from the agricultural authorities, and receive a license from the food safety inspector all from a single system or organization.

DESCRIPTION OF INITIATIVE

In order to effectively implement the Trade Facilitation System, EPI will work with all of the various stakeholders — Customs/Ministry of Finance, DEA, licensing and regulatory authorities — to catalog the changes to ICT systems and business processes required to make this system a reality. EPI will also work to catalog the overall systems requirements for the Trade system in a way that can be articulated to potential implementation vendors.

PROPOSED SCOPE FOR EPI INTERVENTION

EPI will support the Trade Facilitation Project in four steps.

1. Assist the DEA in determining the scope and vision for the Trade Facilitation System.
2. Procure and manage a local IT vendor to document stakeholders, system dependencies, system integration points, and recommendations on components to be included in a Phase 1 implementation of the Trade Facilitation System. This will include developing a coordination strategy between DEA and all government entities performing functions related to trade, such as the Maritime Transportation Administration, the Aviation Department, the Land Transportation Department, and the Customs Division. The EPI project has identified e-government initiatives at each of these offices that should be integrated with the larger Trade Facilitation System effort.
3. Procure and manage a local IT vendor to document detailed functional and system requirements for the Phase 1 implementation of the Trade system.
4. Procure and manage a local system developer/implementer to implement the Phase 1 Trade Facilitation System.

BREAKDOWN OF ACTIVITIES AND RESOURCES

1. Step 1: Establish Trade Facilitation System Vision
 - Resources: two expats and one local
 - Deliverables: Trade Facilitation System Stakeholder Conference and Trade Facilitation System Vision Whitepaper
 - Timeline: 30 days
2. Step 2: Phase one Implementation Planning
 - Resources: one expat, one local, and one local vendor contract
 - Deliverables: Stakeholder Coordination Plan, Trade Facilitation System Process Map/Analysis, and Phase one Implementation Plan
 - Timeline: 30 days
3. Step 3: Identify Trade Facilitation System Requirements
 - Resources: one expat, two local, and one local vendor contract
 - Deliverables: Phase one Requirement (Functional and Technical) and Business Process Change Assessment and Plan
 - Timeline: 60 days
4. Step 3: Phase one Trade Facilitation System Implementation
 - Resources: one expat, two local, and one local vendor contract
 - Deliverables: Functional Phase one System, System Documentation, User Documentation, and monthly IV and V and performance reports
 - Timeline: eight months

ESTIMATED IMPACT

According to the UN, the benefits of implementing the single window concept can be divided into two areas – government and trade related:

- Government Benefits:
 - Correct revenue yields Improved trader compliance
 - Enable the use of sophisticated “risk management” techniques for control and enforcement purposes
 - More effective and efficient deployment of resources
- Trade Benefits:
 - Benefits for Trade
 - Cutting costs through reducing delays
 - Faster clearance and release
 - Predictable application and explanation of rules
 - More effective and efficient deployment of resources

Source: *United Nations Economic Commission for Europe: The Single Window Concept* (<http://unpan1.un.org/intradoc/groups/public/documents/UNECE/UNPAN019892.pdf>). April 2003

STATE PROPERTY MANAGEMENT SYSTEM

BACKGROUND

Under the direction of the Ministry of Economy and Sustainable Development (MOESD), the Georgian government is undertaking an effort to implement a system for managing data related to state-owned property and to support the execution of property transactions. The objective is to increase accountability for state property and increase transparency in ownership transfer. The driving objective behind this initiative is the current ambiguity related to ownership rights of many properties assumed to be state owned. As such, following (or in parallel to) the implementation of the state property management information system, MOESD also intends to conduct a comprehensive property inventory to validate and record information on all state-owned property. This will facilitate the sale and transfer of ownership of property to the private sector and serve as a source of revenue generation for the government. There has already been other donor involvement, and the project appears to be well funded by the Georgian government.

DESCRIPTION OF INITIATIVE

To date, a full analysis of existing business processes in state property management cycle has been conducted, some future state processes have been defined, and an operations manual has been developed. MOESD leadership has also indicated that technical and functional requirements have already been developed under the present e-Government implementation project; however, the EPI project has not verified the completeness of requirements or determines if they have been documented with sufficient detail.

In order to support this initiative, the EPI project would need to oversee a thorough requirements validation and project scoping exercise. Given the implementation risk associated with this project due to the political and revenue generation motivations, it will be critical to explicitly limit the scope of USAID-sponsored EPI support. Only by doing so will EPI be able to mitigate the risk of project cancellation or stagnation during implementation and the risk of conflict-of-interest during the GoG's property inventory.

PROPOSED SCOPE FOR EPI INTERVENTION

The EPI project would (independently or through the procurement of a local IT subcontractor) validate and, if necessary, revise and complete the detailed technical and functional requirements for the State Property Management System. During this effort, our staff would assess the current state of any existing implementation efforts and develop a detailed action plan for the entire program. Based on that action plan, the EPI project would identify and validate with MOESD stakeholders the scope of our intervention.

Based on the work described above, the EPI team will develop bidding documents to procure a local IT contractor to implement the State Property Management System — per the limited scope described in our action plan. The EPI project would then be responsible for providing oversight, performance management, and IV&V for the implementation contractor.

BREAKDOWN OF ACTIVITIES AND RESOURCES

1. Requirements validation phase
 - Resources: one expat and one local
 - Deliverables: functional and technical requirements, current state analysis, action plan, and project scope

- Timeline: 30 days
- 2. Procurement phase
 - Resources: one expat and two local
 - Deliverables: bidding documents
 - Timeline: 90 days
- 3. Implementation and IV&V phase
 - Resources: one expat, one local, and one local vendor contract
 - Deliverables: functional system, system documentation, user documentation, monthly IV&V, and performance reports
 - Timeline: 180 days

ESTIMATED IMPACT

There is a significant impact potential for this initiative. If executed effectively, the system would facilitate asset recognition for the GoG and support revenue generation through the transfer or property to the private sector. The benefit to the private sector is the decrease in time and bureaucracy in acquiring new property for the use of commercial enterprise. Quantifying the impact is difficult, however, until a full current state assessment is conducted.

CONTAINER TERMINAL MANAGEMENT SYSTEM

BACKGROUND

Georgian Railways (GR) is an organization in transition. GR is undergoing a business restructuring process that will split the organization into three separate, state-owned entities – Infrastructure, Passenger, and Freight Operations. Nontransportation-related components are divided into several subsidiaries. As the reorganization continues, each operating unit will need to become more self-reliant, efficient, and profitable.

During the project's meetings with counterparts from the Freight Operating Unit (FOU), there was consensus that helping the FOU's new rail container terminal become more efficient would help decrease the costs of goods for Georgian consumers and at the same time drive down transportation costs for Georgian businesses. It could also decrease road congestion by encouraging the use of rail freight. Moreover, the GR's FOU feels that the container terminal will increase the percentage of containerized cargo they are asked to transport by freight forwarders and customs, potentially straining the capacity of the terminal.

A critical aspect of making the container terminal more efficient is the implementation of a Container Terminal Management System (CTMS).

DESCRIPTION OF INITIATIVE

The CTMS initiative would leave the GR with a valuable ICT system to improve the efficiency and productivity of its newly constructed container terminal. The initiative would involve technology, business process, and procurement support work streams.

PROPOSED SCOPE FOR EPI INTERVENTION

The EPI project would perform a requirements gathering and analysis project to identify both the technical and process change needs for the new container terminal management system. The results of the CTMS requirements analysis would be used to develop an RFP

for the procurement and implementation of the system. The EPI project would work with GR counterparts to author a request for information and proposals (RFI and RFP), help to review vendor responses, and assist in the selection of the vendor. During and after the implementation of the system, the EPI project would perform independent verification and validation (IV&V) on the system implementer's work.

BREAKDOWN OF ACTIVITIES AND RESOURCES

1. Requirements Gathering Phase
 - a. Resources: two expat and one local
 - b. Deliverables: CTMS Process and Technology Assessment
 - c. Timeline: 30 days
2. Procurement Phase
 - a. Resources: one expat and two local
 - b. Deliverables: CTMS RFI & RFP
 - c. Timeline: 180 Days
3. Implementation and IV&V Phase
 - a. Resources: one expat, one local, and one local vendor contract
 - b. Deliverables: Functional system, system documentation, user documentation, monthly IV&V, and performance reports
 - c. Timeline: 180 Days

ESTIMATED IMPACT

The impacts of the CTMS include decreasing the transportation costs of Georgian business, decreasing road congestion, and making Georgia more appealing for the importers of goods. Such a system would also have a huge number of indirect "customers" – the small businesses and consumers that would pay a lower cost for goods as a result of increasing the use of containerization by freight forwarders and shippers.

GEORGIAN COMMODITY PRICING INFORMATION SYSTEM

BACKGROUND

There is no formal system of collecting commodity price information and distributing that information within the Georgian agriculture sector. This basic lack of market price information leads to suboptimal outcomes for market participants. EPI planned to undertake development of a commodities price information system that will collect price information on a variety of relevant commodities and distribute this information to a wide network of producers – a Georgian Agricultural Market Information System (GAMIS); however, due to lack of the sustainable business model for the system operation, USAID did not select the initiative for funding.

DESCRIPTION OF INITIATIVE

The initiative will seek to evaluate the approach utilized by the Grameen Foundation, Google, and Esoko for mobile agricultural marketplaces. This evaluation will include an assessment of the critical success factors for GrameenPhone (a mobile network operator) in the Bangladesh mobile commodity market and the Grameen Foundation's partnership with Google to develop GoogleTrader in Uganda.

The initiative will also include a review of partnership opportunities with Georgian mobile network operators and explore creating a platform similar to GrameenPhone within Georgia capabilities through the development of a technology pilot. Following testing and feasibility analysis, the pilot system shall be capable of transfer to a local firm or organization.

PROPOSED SCOPE FOR EPI INTERVENTION

This initiative will use a best-practices-based approach to develop the technology demonstration and pilot for the system. It will build a fully functional system pilot based on methodology employed in other successful mobile market systems, such as, for example, the Esoko platform developed in Ghana and later deployed throughout Africa and the Middle East.

BREAKDOWN OF ACTIVITIES AND RESOURCES

1. Review other GAMIS-like systems and projects
 - Resources: one expat and one local
 - Deliverables: GAMIS Assessment Report
 - Timeline: 30 days
2. Create Technology Pilot
 - Resources: two expat and one local
 - Deliverables: GAMIS Technology Pilot
 - Timeline: 45 days
3. Extend Technology Pilot
 - Resources: two expat and one local
 - Deliverables: GAMIS Technology Pilot
 - Timeline: 45 days

ESTIMATED IMPACT

GAMIS will provide a critical market “signal” to agricultural producers and buyers – a recent price quote for a given commodity at local markets. This information will help inform their decisions about what to grow, when they should begin planting, and what amount of a commodity they should invest in producing. Such information will help improve agricultural sector productivity, reduce price volatility, and improve the livelihoods of farmers across the country.

STANDARDS, TECHNICAL REGULATIONS, AND METROLOGY MIS

BACKGROUND

The Agency for Standards, Technical Regulations and Metrology was established in 2005 to provide services to citizens and businesses related to measurement standards and calibration. As part of its mission, the agency, for a fee, supplies industry, academia, government, and other users with standards documentation, which are certified by the government to provide standards of measure in terms of temperature interval, linear distance, angle degree, electrical current, frequency, and mass. Standards are applied by user as calibration standards for measuring equipment and procedures, quality control

benchmarks for industrial processes, and in production of commercial products. The Agency additionally provides calibration services, whereby a business owner will bring a piece of equipment or a tool (such as a water meter, electrical meter, gas pump) to the Agency laboratory for certified calibration.

DESCRIPTION OF INITIATIVE

The current process for delivery of standards information services is almost entirely manual and paper based. Customers must travel to the Agency headquarters in Tbilisi, make a request for information about a specific standard, pay the appropriate fee in person and on an ad hoc basis, and receive a paper report containing the requested information. Additionally, scheduling of appointment for calibration services are done by phone or in person, resulting in service delivery delays.

Due to private sector growth and government support for economic expansion, there is an increasing demand for standards documentation. To meet this demand, the Agency has identified the need for a customer accessible website and information system supporting the search for and purchase of standards reports and data.

PROPOSED SCOPE FOR EPI INTERVENTION

The scope of this initiative includes the development of a Web-based system for the purchase and delivery of standards documentation. The system should provide standard e-commerce functionality, allowing customers to search for standards information online, select a standards report, and purchase a PDF of the report for download. Business requirements include:

- Create a Web-accessible database and library of standards data
- Support all business processes related to search of the database by customers
- Support all business processes related to selection and delivery of standards, including both electronic delivery of PDF documents and automated printing and shipping coordination of any standards that are legally prohibited from being delivered electronically
- Permit payment for all services online on an ad hoc or subscription basis
- Publish and maintain an informational resource of import standards for target countries
- Support all administrative business processes involved with updating, adding, and removing standards data

The system will also support business processes related to appointment scheduling and payment for calibration services, including both in-house (at the Agency headquarters) and on-location (at the customer's facility) service delivery.

BREAKDOWN OF ACTIVITIES AND RESOURCES

2. Requirements Gathering Phase
 - Resources: one expat and one local
 - Deliverables: Functional and Technical Requirements
 - Timeline: three weeks
3. Procurement
 - Resources: one expat and one local

- Deliverables: RFI, RFP, & Source Selection Documentation
- Timeline: four weeks LOE over two months
- 4. System Design and Development
 - Resources: one subcontractor firm on FFP contract
 - Deliverables: Phased system development and implementation
 - Timeline: three months
- 5. Quality Management and IV&V
 - Resources: one expat and one local
 - Deliverables: Monthly IV&V and Performance Reports
 - Timeline:
 - Local: six weeks LOE over three months
 - Expat: three weeks LOE over three months

ESTIMATED IMPACT

Increased access to standards documentation by local firms is expected to result in stronger adherence to product or process standards. Modernizing this Agency, and making the standards data easily accessible, supports export of Georgian-produced products in the region and in Europe.

III. APPENDICES

- A. BACKGROUND**
- B. METHODOLOGY**
- C. FINDINGS**

A. BACKGROUND

The Economic Prosperity Initiative (EPI) is a competitiveness program focusing on selected firm-level and industry-level improvement of value chains in agriculture and other value chains in the Georgian economy. EPI's Business Enabling Environment (BEE) Component focuses on policy, legal, and regulatory improvements, including those involving the application of ICT through e-governance solutions. BEE activities should support competitiveness in targeted value chains or in some cases, business in general. These enhancements should build upon already significant enabling environment improvements engineered by the GoG in recent years. The BEE Component maintains the working relationship with all of EPI's GoG clients, though from time to time, the Agriculture Sectors Component, the Nonagricultural Sectors Component, and the Project Management Component (PMC) will also have periodic contact with various GoG entities. The primary role in this context for PMC is support to BEE in its e-governance implementations with the GoG.

Since not all activities of the GoG are economic or business enabling environment in nature, not all GoG opportunities for policy, legal, regulatory, and e-governance solutions will fall within the purview of EPI. Still, sufficient opportunities do exist to suggest that the BEE work plan contains a significant focus on e-governance. Those opportunities must be prioritized, and in order to ensure that the support provided by EPI through the BEE component in the area of e-governance is consistent in keeping with international effective practice as defined by Deloitte, standard approaches should be identified, articulated, and complied with in various areas important to succeed: analysis/assessment, business process reengineering, transition management (change management, Human and Institutional Capacity Development, training, etc.); design of e-government solutions (software, systems, hardware, etc.); and implementation of those designs.

The challenge of this consultancy is to expeditiously identify and prioritize those GoG e-governance opportunities that EPI can support because of their anticipated impact on competitiveness and to incorporate into the EPI work plan all actions that are necessary to consistently and successfully implement these e-government initiatives according to international effective practice as defined by Deloitte.

B. METHODOLOGY

In June and July of 2011, Deloitte ICT and e-government specialists met and interviewed stakeholders from Georgian government entities, nongovernmental organizations, and private sector entities to identify e-government opportunities, assess public and private sector capabilities, and increase understanding of information and communication technology (ICT) priorities.

Following our information gathering and due diligence efforts, our team assessed each potential e-government initiative for alignment with EPI objectives, potential impact on private sector growth and competitiveness, implementation risk, resource requirements, and capability to execute a specific intervention. Informing this assessment are extensive experience in e-government and ICT implementation as well as subject matter expertise in relevant program areas (drawn from Deloitte's knowledge resources).

Our team then designed action plans for each recommended e-government intervention, detailing short- and long-term activities, execution strategies, and level-of-effort cost buildups.

Deloitte met and interviewed stakeholders from the following government entities:

- Ministry of Agriculture (MoA)
 - MoA Development Department
 - National Food Agency
- Ministry of Finance (MoF)
 - State Budgeting Department
 - Revenue Service
 - Customs Department
- State Procurement Agency
- Sakpatenti
- Ministry of Economy and Sustainable Development (MOESD)
 - Agency for Standards, Technical Regulations, and Metrology
 - Communication, IT, and Innovation Department
 - Trade Department
 - Maritime Department
 - Aviation Department
 - Land Transportation Department
- Ministry of Justice (MoJ)
 - Data Exchange Agency
- Georgian Railways
- National Statics Office of Georgia (Geostat)

C. FINDINGS

PROJECTS EVALUATED FOR POTENTIAL INVESTMENT

	Project	Relevance	Impact	Risk	Timeline	Next Steps
1	Sakpatenti	High	High	Low	12 months	Procure system implementer
2	Trade Facilitation System	High	High	Med	Phase 1: 4 months Phase 2: TBD	Phase 1: Scoping, dependencies, business requirements. Phase 2: Initial implementation
3	State Property Management System	High	High	High	6-12 months	Develop requirements and procure system implementer
4	Container Terminal Management System	High	High	Low	Phase 1: 3 months Completion: 18 months	Phase 1: Project scoping and business requirements documentation
5	Agricultural Commodity Pricing System	High	High	Med	18 months	Six-month pilot and feasibility study
6	Standards MIS	High	Med	Low	4 months	Requirements, procurement, and implementation

SAKPATENTI INTELLECTUAL PROPERTY RIGHTS MANAGEMENT

Sakpatenti is a stand-alone legal entity, falling directly under the prime minister's office. The program was established to modernize, standardize, and support enforcement of policies, processes, and regulations for intellectual property rights management.

In order to improve efficiency, reduce indirect costs, better allocate its scarce funding, and maintain the support of stakeholders, Sakpatenti leadership is prioritizing the implementation of a new electronic filing system. The goal of the effort is to reengineer, standardize, and automate 300+ business processes and consolidate departmental functions to be able to provide 100+ future processes that will help implement the e-filing system.

Sakpatenti currently accepts paper applications for patents and trademarks, approximately a 50/50 split between foreign and local businesses. Applications are accepted in English or Georgian for domestic businesses. If submitted in English, the certified date of application is

confirmed and the application is given 90 days to submit a certified Georgian translation. International trademarks are submitted and issued in English.

Approval times vary based on the type of application, and there is room for acceleration of the approval processes.

- Trademarks – 9 months
- Patents (on inventions) – 18 months
- Patents (utility models) – 12 months
- Patents (designs) – 9 months

Accelerated approval procedures are also available. A two-week approval with a three-month period of public opposition is permitted for some acquisitions. This policy resulted in a 20% increase in local applications, indicating additional potential for growth in revenue from through automation.

Government Agency
Sakpatenti
Description of Initiative
<p>The Sakpatenti e-filing initiative requires the implementation of a Web-based intellectual property rights system, as well as business process redesign in the areas of design, trademarks, finance, legal copyrights, application submission, data collection, application adjudication, and IPR information reporting. Business requirements for this initiative are documented in detail in EPI's Sakpatenti BPR Analysis document. Those requirements, in summary, include:</p> <ul style="list-style-type: none"> • Business process redesign • System requirements documentation <ul style="list-style-type: none"> – E-filing for IPR applications – Front-end application interface – Back-end process automation to manage the adjudication and issuance process – Database design – Data migration – Copyright and trademark search and reporting functionality • Organizational redesign for Sakpatenti • Change management, communication, and training • Transition management and system adoption support
Current Status
<p>The current application process is entirely paper based an inefficient and the Sakpatenti organization is fully engaged and supportive of the migration to a Web-based, automated system. They are also ready and willing to modify business processes and engage in organizational change based on donor project recommendations and support.</p> <p>Existing copyright and trademark data is stored in internal systems. The existing system consists of a custom-developed, premise-based Java application with an Oracle database back end. If they need to make data available to stakeholders, it is done on an ad hoc basis, publishing subsets of data to the Web for reporting.</p> <p>They are also prepared in terms of physical hardware and infrastructure. They just purchased a new server farm and are in the process of configuring it for migration of current and future systems.</p> <p>The EPI project has conducted a full current state analysis, documenting current and future processes, and detailing the requirements of this modernization initiative. The next step is the development of solicitation documents and management of a procurement to bring on one or more contractors for execution of the next project phase.</p>

Resources Allocated

Sakpatenti has allocated dedicated resources to the modernization process and is ready to begin when the donors allocate their resources. USAID is also committed to this effort and is supporting EPI's involvement.

Similar Initiatives in Other Countries

Bosnia Intellectual Property Rights System

Potential Impact on Private Sector Growth

Very high potential impact on private sector growth. Intellectual property rights protection is a significant issue in Georgia and the lack of an effective IPR system makes defense of IPR challenging. The implementation of this system is a first step in encouraging greater innovation from Georgian businesses.

Potential for EPI Investment

There is significant opportunity for EPI to manage the Sakpatenti modernization. Sakpatenti is an engaged partner, potential impact is high, and the business requirements are straightforward. System adoption is also relatively low risk, as the required business user population is small.

TRADE FACILITATION SYSTEM

The DEA under the Ministry of Justice (MoJ), established in 2010, is tasked with the modernization and standardization of policies, processes, and infrastructure for data management. This agency is undertaking multiple, related modernization initiatives in support of its objectives. A key, ongoing program serving as a through line for DEA objectives is the establishment of a unified data exchange infrastructure. Microsoft and Hewlett Packard (HP), under the direction of the MoJ, are developing the infrastructure that will support data exchange across ministries – beginning with the unification of the MoF financial registry, the public registry, and the civil registry. The long-term intent for the data exchange infrastructure is for it to serve as a basis for future modernization.

One such application of the data exchange infrastructure is the implementation of a single-window solution to manage trade imports and exports. The paper-based clearance process for goods at seaports, airports, and overland border points puts Georgia at a competitive disadvantage in global commerce. The single-window system, known as the Trade Facilitation System, is a comprehensive solution to integrate the entire trading community, including (but not limited to) ministries, ports, banks, and commercial entities.

Currently, the Trade Facilitation System initiative is solidly in the idea stage. Financial institutions, the Ministry of Finance, and a few influential private sector stakeholders in maritime trade are promoting the project. Many other important stakeholders – such as customs, the maritime department, the aviation department, and agencies related to land transportation – have not yet been engaged. Nor do they appear to have the necessary IT capacity to integrate their services. As such, pursuit of this initiative will need to be incremental.

Government Agency

Ministry of Justice, Data Exchange Agency

Description of Initiative

The paper-based clearance process for goods at seaports, airports, and overland border points puts Georgia at a competitive disadvantage in global commerce. The Data Exchange Agency is spearheading an initiative to implement a single window solution to manage import/export transactions. The system, known as the Trade Facilitation System, is a comprehensive solution to integrate the entire trading

community, including ministries, ports, banks, commercial entities, etc.

There is potential to support this initiative in the following manner:

- Conduct extensive current state assessment of all processes and subprocesses related to trade and import/export and to develop detailed functional requirements. The assessment must include requirements in the areas of policy, technology, data, and process change. In this assessment, attention must be given to the ministries and systems whose participation and data are necessary components of a single window solution for Georgian trade.
- At the completion of this assessment, provide a recommendation and action plan for a first -phase implementation of the Trade Facilitation System, including a proposal for one or more system designs and a phased development plan.
- Procure an implementer for the Phase 1 implementation.

Current Status

The data exchange infrastructure, which is intended to be the supporting framework for the Trade Facilitation System, is currently under development. A firm completion date has not been established, but expectations are that it will be available within the next year.

The Trade Facilitation System will require participation, data integration, and policy adherence from multiple government ministries and private sector actors. The success of the initiative is highly dependent on the reduction of manual processes. As such, detailed process analysis of import/export processes is required to determine the “critical path” – the processes and data that must be integrated into the system in order for it to be viable. The EPI project has begun this process, but further detail is required.

Resources Allocated

No resources have been specifically allocated to this initiative expect for funding of the data exchange infrastructure. The Trade Facilitation System is in the idea stage.

Similar Initiatives in Other Countries

U.S. National Institute of Standards and Technology (NIST): <http://www.nist.gov/index.html>

Potential Impact on Private Sector Growth

There is substantial impact potential on private sector growth and competitiveness with this initiative. Increased efficiency, connectivity, and data integration will allow for faster trade transactions, increased attractiveness of the Georgian market, and overall potential for expansion of multiple industries.

Potential for EPI Investment

There is a clear tie between the objectives of the Trade Facilitation System initiative and the objectives of the EPI project; however, there is some risk associated with execution given the cross-ministry cooperation and level of data access required. It is a very worthwhile investment for the EPI project, and for the Georgian government, to develop a clear current state understanding and set of functional requirements for this initiative.

Trade Facilitation System-Related Opportunities

The following opportunities may be required for, or should be pursued, as part of the Trade Facilitation System initiative. The EPI project recommends that a thorough due-diligence effort be conducted at the outset to determine which components and stakeholders of the trade process are included in an initial implementation of this incremental trade automation program.

MOESD e-Services Portal

Government Agency

Ministry of Economy and Sustainable Development

Description of Initiative

The latest trends in e-governance postulates open government, meaning that data collected by the public authorities should be made public in an easily useable format, so that whoever would like to use this data to add value and offer services should be able to do so.

The MOESD e-Services Portal would consolidate and make available on a Web-based platform all MOESD services for citizens and businesses. This should include both services that are already available in electronic form, as well as those not yet automated. The system should be designed for future scalability and integration/interaction with the systems of other ministries.

Current Status

A local firm, GED Developments, conducted an ICT assessment of the MOESD and developed a concept document and high-level implementation action plan for the e-Services Portal. Additionally, the MOESD IT department, in cooperation with the Analytical Services Department, has conducted interviews with all agencies and departments that fall under the Ministry to gather and document requirements for the portal. At this time, however, most of those agencies and departments are not sufficiently automated and do not have most data in electronic form. Those departments would need to undergo modernization before the e-Services portal could provide access to most useful services.

Resources Allocated

Beyond the investment in GED Developments' ICT assessment and any internal requirements gathering the Ministry has conducted, no resources have been allocated to the e-Service Portal initiative.

Potential Impact on Private Sector Growth

This initiative, by itself, is unlikely to greatly affect Georgian competitiveness or private sector growth. Such impact is dependent on the services made available and its integration with other initiatives.

Potential for EPI Investment

There is a great deal of overlap between this initiative and the objectives of the Trade Facilitation System. The MOESD e-Services Portal should be considered a dependent project in the context of integrating data for the single window project.

Maritime Transportation Administration Information Systems

The Maritime Transportation Administration (MTA) is responsible for technical regulation of maritime activities and functions, including registration of ships, documentation of ISM code, load lines, various other codes related to specs and registration, and certification of shipping vessels technical specifications with regard to international standards of safety and security.

Georgian Maritime's objective is to become a competitive and attractive shipping and trading port for international traders. However, three years ago, Georgian ports were blacklisted by the Parties Memorandum of Understanding, which adds an additional level of inconvenient and time-consuming inspections on all ships that are officially registered to Georgia. This additional burden on ship owners disincentivizes growth of the Georgian maritime trading industry and reduces revenues. The way off of the blacklist is better, more efficient registrations and inspections and the elimination of substandard ships from service.

Government Agency

Ministry of Economy and Sustainable Development, Maritime Transportation Administration

Description of Initiative

The Maritime Transportation Administration requires support to automate processes and business

services, and to move all existing data into an electronic format. The primary functions are ship registration and registrations renewal, and the issuance of trainings and certifications for ship crew.

Currently, registration is conducted through a combination of paper-based application processes and email. All records are maintained on paper, and key information is stored in a single, offline Excel spreadsheet. The process for issuing certifications is similarly manual and paper based.

The following functions should be modernized and automated:

- Ship registration, and registration renewal
 - Automate the application process in a Web-based environment – full electronic delivery of the provisional license
 - Back-end reporting, with full historical information for each ship, and consolidated access to information
 - Ability to share information with international authorities
 - Integrated payment mechanism
 - Automatic renewals through auto notifications, with details on amount owed
- Training and certifications process for ship crew
 - Automated application for certifications
 - Integration with certifying bodies
 - Integrated payment mechanism
 - Integration with ship registration system to associate crew members with their ships

Current Status

There is no existing system for ship registration, and all data is stored offline. There is an existing system for certifications, but it is antiquated and not Web-accessible. The Maritime department appears to be somewhat soloed from other trade-related functions and agencies, which is notable given the current efforts around the Trade Facilitation System project. The data captured here is relevant to expedited trade interactions, as are the processes.

Server hardware has already been purchased and a data center will be set up in the MTA headquarters. Internet services are already funded and available.

Resources Allocated

No resources allocated yet, but there is a lot of political and business will and there will be resources available. Maritime does not have an internal IT department, but they are prepared to outsource ongoing IT support services.

Potential Impact on Private Sector Growth

Modernization of Maritime systems will directly benefit businesses by expediting processing in ports. At a larger scale, increased transparency and data connectivity will reduce opportunity for corruption – eliminating the ability for people to solicit bribes for expedited certification – and will help Georgia to get off the blacklist. Removal from the blacklist will increase registrations, commerce, and revenue for the MTA, as well as job creation.

Potential for EPI Investment

This is an attractive initiative, in that there are clear ties to EPI objectives. However, there are clearly other components to increasing port efficiency that must be considered. The overlap with the Trade Facilitation System is clear, and this project should be integrated with that larger effort.

Aviation Department Information Systems

The Aviation Department under the MOESD is responsible for regulation of air traffic and many of the certifications and licensing related to the movement of goods across the Georgian border by air. This includes:

- Licenses, approvals, and certifications for aircraft pilots and flight crews

- Technician licenses and certifications for air traffic controllers and aircraft maintenance organizations
- Air operator certifications for airlines operating in Georgia and internationally
- Registrations for airplanes that are owned by entities legally registered in Georgia
- Inspections of aircraft and issuance of inspection certifications
- Airport certifications
- Certifications for training organizations serving all levels of air travel-related personnel

Currently, all licensing and certification applications are initiated by phone or through submission of a paper application. Application reviews and issuance of the license or certificate are manual processes. This is becoming increasingly untenable, as the volume of work conducted has been increasing steadily. Approximately 750 applications for crew licenses are received every year. Three to five new aircraft are registered annually. Renewals and new applications for technical licenses, record updates related to training, and inspection renewals are growing steadily.

More importantly, it is increasingly necessary to quickly access, search, and share the data collected by the Aviation Department. This is not currently possible, as most records are maintained in hard copy, and a small amount of key data is compiled in an offline Excel spreadsheet.

Government Agency

Ministry of Economy and Sustainable Development, Aviation Department

Description of Initiative

The Aviation Department requires an integrated database of registration, certification, and licensing data, as well as a web-based system supporting the application, adjudication, and issuance of certifications. Additional capabilities should include robust search functionality and reporting modules.

Requirements for this initiative include:

- Develop functional and technical requirements for an Aviation Department Information System.
- Support web-based application and issuance of licenses and certifications for crew members, air traffic controllers, and maintenance crews.
- Support web-based application for aircraft and airport inspection certifications, including scheduling inspections.
- Provide integration capability with civil registry to validate personal information of applicants.
- Provide integration with Ministry of Foreign Affairs systems to coordinate diplomatic flights.
- Modernize and automate printing of licenses and certificates.

Current Status

Currently, most records are maintained in hard copy, and a small amount of key data is compiled in an offline Excel spreadsheet. Most applications and coordination with other agencies is initiated by phone. No system integration currently exists, and aviation certification data is unavailable without substantial manual processes.

The Aviation Department has developed a two-year action plan for the organization, but has not started any development project.

Resources Allocated

There is not yet any donor involvement, and the Department has not received any resources from the government for modernization.

Potential Impact on Private Sector Growth

Direct impact of this initiative on competitiveness or private sector growth is likely to be moderate. However, there is high potential for significant cross-agency value-add.

Potential for EPI Investment

The Aviation Department is eager for modernization, and there is a clear need. While there is little potential for direct impact on EPI objectives from this as a stand-alone initiative, there are clear ties to large trade and import/export objectives as detailed in the Trade Facilitation System initiative. The Trade Facilitation System necessitates the unification and simplification of processes, as well as integration of all goods transportation data. In this context, the integration of the Aviation Department modernization objectives with the Trade Facilitation System action plan is both desirable and likely to enhance the effectiveness of that program.

Land Transportation Department Information Systems

The Land Transportation Department under the MOESD is responsible for issuing permits for and maintaining data on cargo and passenger service vehicles (e.g., tour busses) that cross the Georgian borders. This includes Georgian-registered vehicles leaving the country as well as foreign businesses coming into Georgia.

Government Agency

Ministry of Economy and Sustainable Development, Land Transportation Department

Description of Initiative

The Land Transportation Department requires an integrated database of border crossing permit data as well as a web-based system supporting the application, adjudication, and issuance of permits. Additional capabilities should include robust search functionality and reporting modules. Currently, permits are issued through a paper-based application process. The adjudication process requires input from multiple ministries, and this is currently done manually and on paper. Some electronic records are maintained, but in multiple disparate Excel files that are stored offline. The Land Transportation Department issues about 20,000 permits every year, at approximately 70 GEL per permit.

Requirements for this initiative include:

- Develop functional and technical requirements for a web-based permit application system and integrated database of permit data.
- Document functional and system requirements.
- Procure a system implementer.
- Manage implementation and conduct quality assurance and IV&V.
- Support change management and system adoption.

Current Status

The Department has engaged the Analytical Services Department to support the scoping and requirements definition of this initiative, but no work has been initiated.

Resources Allocated

There is not yet any donor involvement, and the Department has not received any resources from the government for modernization.

Potential Impact on Private Sector Growth

Direct impact of this initiative on competitiveness or private sector growth is likely to be moderate. However, there is high potential for significant cross-agency value-add.

Potential for EPI Investment

The Land Transportation Department is eager for modernization, and there is a clear need. While there is little potential for direct impact on EPI objectives from this as a stand-alone initiative, there are clear ties to large trade and import/export objectives as detailed in the Trade Facilitation System initiative. The Trade Facilitation System necessitates the unification and simplification of processes, as well as integration of all goods transportation data. In this context, the integration of Land Transportation Department modernization objectives with the Trade Facilitation System action plan is both desirable and likely to enhance the effectiveness of that program.

STATE PROPERTY MANAGEMENT INFORMATION SYSTEM

Under the direction of the MOESD, the Georgian government is undertaking an effort to implement a system for managing data related to state-owned property, and to support the execution of property transactions. The objective is to increase accountability for state property and increase transparency in ownership transfer. The driving objective behind this initiative is the current ambiguity related to ownership rights of many properties assumed to be state owned. As such, following (or in parallel to) the implementation of the state property management information system, MOESD also intends to conduct a comprehensive property inventory to validate and record information on all state-owned property. This will facilitate the sale and transfer of ownership of property to the private sector and serve as a source of revenue generation for the government.

Government Agency

Ministry of Economy and Sustainable Development

Description of Initiative

MOESD wishes to facilitate revenue generation and business development through sale and business leasing of state-owned property. To support this goal, they must implement a State Property Management Information System and conduct a state property inventory to establish a definitive and transparent record of state-owned property, as well as property transference transactions.

One of the goals of the program is to increase quality of service and interaction between the MOESD and its clients, particularly within its privatization policy. This includes parties seeking granting of licenses for usage of state resources, leases of state properties, and purchases of state property.

Requirements for this initiative include:

- Develop/validate detailed technical and functional requirements.
- Develop separate modules tailored to the privatization cycle (i.e., identification and processing of property that is to be transferred to private sector entities), and the public property management system.
- Establish capability to manage the process of transferring and certify ownership to a private sector entity.
- Establish the capability to manage contracted relationships with the private sector, including property repossession if contract requirements have not been met.
- Support procurement of a system designer/implementer.
- Provide contractor management and IV&V.
- Support the design and execution of a property inventory.

Current Status

To date, a full analysis of existing business processes in the state property management cycle has been conducted, some future state processes have been defined, and an operations manual has been developed. MOESD leadership has also indicated that technical and functional requirements have already been developed under the present e-Government implementation project. This effort has been funded by another donor project and executed by the Analytical Services Department. However, the current status

and level of progress are unknown. MOESD has expressed some interest in having EPI support the initiative.

Resources Allocated

The project has existing funding and donor support, but the value and number of resources is now clear.

Potential Impact on Private Sector Growth

There is potential for impacting EPI performance indicators. This initiative would benefit the private sector and would provide a source of revenue for the Georgian government. However, the inventory effort is likely to be a long-term challenge, so the timing of any benefit is unknown.

Potential for EPI Investment

It is unclear if there is good opportunity for EPI involvement. There has already been other donor involvement, and the project appears to be well funded by the Georgian government. There also seems to be a lot of political risk around execution. This initiative has been around for a while and has yet to be executed effectively. More investigation of the political and logistical environment around this initiative is recommended in order to determine if it is a good use of EPI resources.

CONTAINER TERMINAL MANAGEMENT SYSTEM

Georgian Railways (GR) is an organization in transition. GR is undergoing a business restructuring process that will split the organization into three separate, state-owned entities – Infrastructure, Passenger, and Freight Operations. Nontransportation related components are divided into several subsidiaries. As the reorganization continues, each operating unit will need to become more self-reliant, efficient, and profitable.

During the project's meetings with counterparts from the FOU, there was consensus that helping the FOU's new rail container terminal become more efficient would help decrease the costs of goods for Georgian consumers and at the same time drive down transportation costs for Georgian businesses. It could also decrease road congestion by encouraging the use of rail freight. Moreover, the GR's FOU feels that the container terminal will increase the percentage of containerized cargo they are asked to transport by freight forwarders and customs, potentially straining the capacity of the terminal.

A critical aspect of making the container terminal more efficient is the implementation of a CTMS.

Government Agency

Georgian Railways

Description of Initiative

The freight unit of Georgia Railways anticipates an increase in container traffic. They require a system to identify where containers are in the terminal and manage container movements. Such a system could increase speed at which containers can transit through the system, decrease cost of using container-based shipping, and decrease road congestion.

Requirements of this initiative include:

- Design and implement a CTMS to increase efficiency and transparency in rail freight processes.
- Document functional and system requirements.
- Procure a system implementer.
- Manage implementation and conduct quality assurance and IV&V.
- Support change management and system adoption.

Current Status

The terminal is still under construction and, as such, the CTMS is still in the idea stage. However, the efforts of this initiative could be conducted in parallel to terminal construction.

Resources Allocated

No resources have yet been allocated.

Similar Initiatives in Other Countries

Container Terminal Vision (Russia) - <http://www.ant-tech.ru/eng/solutions/container/>

Autostore CTMS (UK) - <http://www.central-systems.co.uk/container-management-system.html>

Clearfield CTMS (US) - http://www.clearfield.com/projects_major_2.html

Potential Impact on Private Sector Growth

Potential for private sector impact is substantial. This directly relates to increasing global competitiveness, and could support growth among private sector exporters.

Potential for EPI Investment

Such a system would appeal to businesses, but also have a huge number of indirect “customers” – the small businesses and consumers that would pay a lower cost for goods as a result of increasing the use of containerization by customers. Such a project would leverage our experience in process change, billing systems, etc. This effort would also likely support the Trade Facilitation System objectives, though they are unaware of the project at this time.

STANDARDS, TECHNICAL REGULATIONS, AND METROLOGY MIS

The Agency for Standards, Technical Regulations, and Metrology, closely related to the Accreditation Agency, was established in 2005 to provide services to citizens, businesses related to measurement standards, and calibration. As part of its mission, the agency, for a fee, supplies industry, academia, government, and other users with standards documentation, which are certified by the government to provide standards of measure in terms of temperature interval, linear distance, angle degree, electrical current, frequency, and mass. Standards are applied by user as calibration standards for measuring equipment and procedures, quality control benchmarks for industrial processes, and experimental control samples. The Agency additionally provides calibration services, whereby a business owner will bring a piece of equipment or a tool (such as a water meter, electrical meter, gas pump, etc.) to the Agency laboratory for certified calibration.

Delivery of standards information services is almost entirely manual and paper based. Customers must travel to the Agency headquarters in Tbilisi, make a request for information about a specific standard, pay the appropriate fee in person and on an ad hoc basis, and receive a paper report containing the requested information.

Delivery of calibration services also requires face-to-face interaction, but necessarily so. However, it is notable that the majority of calibration services are delivered at the Agency headquarters in Tbilisi, requiring customers to transport any equipment weighing up to about seven tons.

There is substantial opportunity for improved business processes and information management at the Agency for Standards, Technical Regulations, and Metrology. The EPI project team has identified the following ICT programs:

Due to private sector growth, and government support for economic expansion, there is an increasing demand for standards documentation. The Agency’s standards are being

purchased by businesses at an increasing rate with more than 2,000 organizations and individuals using their services, and sales of about 200 standards documents per month. To meet this demand, the Agency has identified the need for a customer accessible website and information system supporting the search for and purchase of standards reports and data.

Government Agency

Ministry of Economy and Sustainable Development, Agency for Standards, Technical Regulations, and Metrology

Description of Initiative

The Agency for Standards, Technical Regulations, and Metrology requires a web-based system for the purchase and delivery of standards documentation. The current business model is selling hard copies of standards reports and requires in-person payment and pick-up. This service should become entirely digitized, allowing customers to search for standards online, select a standards report, and purchase a PDF of the report for download. Business requirements include:

- Create a web-accessible database and library of standards data.
- Support all business processes related to search of the database by customers.
- Support all business processes related to selection and delivery of standards
 - Electronic delivery of PDF
 - Automated printing and shipping coordination of any standards that are legally prohibited from being delivered electronically
- Permit payment for all services online on an ad hoc or subscription basis.
- Publish and maintain an informational resource of import standards for target countries.
- Support all administrative business processes involved with updating, adding, and removing standards data.
- Support business processes related to appointment scheduling and payment for calibration services, including both in-house (at the Agency headquarters) and on-location (at the customer's facility).

Current Status

- Some documented policies and procedures, but they need to be revised based on new regulations.
- Standards are currently stored and maintained in a Microsoft Access database.
- The Agency has a public website at GEOSTM.ge. It is currently only in Georgian and contains general information.
- Average annual sales are about 1 million GEL – 80% coming from metrology (calibration) services.
- There has been no work yet done on business process or business requirements documentation.

Resources Allocated

- Essentially no resources have been devoted to this initiative to date, but the Agency does plan to devote both manpower and finances.
- There is potential for co-financing with the Agency, or with other donor projects.

Similar Initiatives in Other Countries

U.S. National Institute of Standards and Technology (NIST): <http://www.nist.gov/index.html>

Potential Impact on Private Sector Growth

- Adherence to product or process standards is not mandatory for domestic or export sales,

however market demand makes it valuable in many cases. For example, there is value in safety standards.

- Modernizing this Agency, and making the Standards data easily accessible, support export of Georgian-produced products in the region and in Europe.

Potential for EPI Investment

There is a clear tie between the mission of the Agency and the objectives of the EPI project. Greater adherence to quality, safety, and performance standards for Georgian products and services will strengthen competitiveness of exports.

Because this is likely to be a relatively low cost initiative, it may be a long-term high-value investment. However, it is difficult to quantify the direct, short-term impact since much of the value of this initiative will be the long-term, improved reputation of Georgian products and services.

AGRICULTURAL COMMODITY PRICING SYSTEM

The MoA Development Department has a strong interest in supporting an agricultural commodities market by being a stakeholder in the development of a GAMIS. While the market, and the system, should ultimately be owned by a private sector organization or entity of some kind, the MoA has an interest in sponsoring and potentially financially supporting the ongoing maintenance of the GAMIS.

Government Agency

Ministry of Agriculture, Development Department

Description of Initiative

The GAMIS initiative has multiple components –organizational development, business planning, IT development, and business plan execution.

Organizational Development:

- Identify stakeholders in private sector, government, donor, and NGO organizations to form an executive council that will contribute to requirements, development, and implementation.
- Support relationship building between entities to develop a long-term ownership model for GAMIS.
- Work with Agriservice to determine level of interest and participation.

Business Planning Requirements:

- Determine a revenue model to at least partially subsidize ongoing system performance.
- Create a phased timeline for system features and system implementation.
- Determine long- term commodities market requirements outside of the technology.

ICT Business Requirements:

- Commodity price aggregation and price reporting system
 - Develop commodity price database, organized by market, product, and region
 - Allow for SMS and/or smart phone commodity price updates from “price shoppers” and from citizens. Support a dual price reports system (official prices, and citizen price reports)
 - Support ad hoc or subscription- based commodity price reporting via SMS
 - Support web-based commodity price reporting for those that do have Internet access
 - Potentially support smart phone applications for access to price data
 - Noncommodity price system
 - Develop a knowledge management system for nonprice information related to agricultural commodities
-

- Support community-driven content and social networking among the agricultural community
- Web accessible content primarily
- Determine feasibility for SMS access to some knowledge content
- Potentially support smart phone applications for access to knowledge data

Business Plan Execution

- Determine a marketing, roll-out, and private sector adoption strategy.
- Determine long-term requirements for commodity market sustainability.

Current Status

The MoA is fully supportive of the GAMIS initiative, but has stated that they will not sponsor it unless a private sector entity is identified that will be responsible for ongoing management and ownership of the system. If such an organization is identified, the MoA is in a position to fund, or at least subsidize, the ongoing maintenance costs. Additionally, the MoA wishes to set up a logistics center, which will provide national and international commodity price standards to support GAMIS.

The EPI project has already initiated business plan development and system requirements documentation. However, the business plan has not been validated by all stakeholders, and the private sector has not been sufficiently engaged to satisfy the MoA.

The MoA has also expressed a desire to develop research stations in each region as an information source for farmers; however, the feasibility of such an effort is undetermined. The business requirements for such centers might be met by the SMS capabilities of the system.

Resources Allocated

The MoA has not yet allocated any new resources to this effort. However, the donor community is prioritizing this effort and there is clear opportunity to obtain public, donor, and private sector support.

Similar Initiatives in Other Countries

Esoko: <http://www.esoko.com/about/>

AMP (Ukraine) SMS-based market information system:
<http://globalfoodchainpartnerships.org/india/Papers/AndriyYarmak.pdf>

Green Market (Albania): <http://www.greenmarket.al/>

Google Trader (Uganda): <http://techcrunch.com/2009/11/02/google-trader-gets-a-web-based-companion-in-uganda/>

Potential Impact on Private Sector Growth

The private sector impact for this program is substantial. The availability of state-wide commodity price data will allow commercial farmers to increase sales and productivity, as they will be able to modify their production strategy to meet demand. However, this is dependent not just on the technology, but the establishment of an accurate and trusted commodities market information system.

Potential for EPI Investment

GAMIS is a high priority, high impact initiative. However, the manner in which the project engages should be measured and cognizant of the enormous risk and complexity. First steps for EPI support include:

- Business plan development and validation with public and private sector stakeholders
- Business requirements documentation, including a phased ICT development timeline
- Implementation of a pilot system to gather feasibility data on the potential to develop a commodity price information system and to support adoption of an SMS-based reporting system

LOW COST INTERVENTIONS WITH MODERATE IMPACT

	Project	Relevance	Impact	Risk	Timeline	Comments
1	QA Reviews: Unified State FMIS and Debt Systems	Med	Med	Low	2-3 months each	Potential to identify quality improvements that result in larger impact
2	GEOSTAT Integrated Statistical Database	High	Med	Low	1 month	Combination of QA and implementation support
3	GEOSTAT Custom Reporting Service	High	Med	Low	2.5 months	Dependent on the integrated statistical database
4	GEOSTAT Web-based Survey System	Med	Med	Low	1-3 months	Requirements validation required

UNIFIED STATE FINANCIAL MANAGEMENT SYSTEM

The Ministry of Finance began working with the World Bank six years ago in an effort to integrate all state budgeting and financial system functions into a Unified State Financial Management System incorporating the state treasury information system, the unified general ledger, budget accounting system, etc. With support from WBG, the MoF has gone through several rounds of business process and requirements documentation and managed an unsuccessful source selection to bring on a developer. About one year ago the Ministry began developing the system internally with support from a stand-alone government department known as the Analytical Services Department – formerly the MoF’s internal IT department, now acting as a government shared service provider of technology support.

Government Agency

Ministry of Finance, State Budgeting Department

Description of Initiative

The MoF does not require direct ICT development support as they have already dedicated substantial resources to the Unified State Financial Management System initiative. However, the development work has, to date, been conducted without IV&V, and without a dedicated quality assurance entity.

Additionally, the Ministry wants to move to the international public sector accounting standard for state budgeting. Full adoption is planned for 2020 and a hybrid standard should be adopted by 2012.

The Ministry is in need of this support. Requirements for this initiative include:

- Provide subject matter expertise support in the areas of state financial systems, IT development best practices, system design, financial policy and best practices, and IT change management planning.
- Conduct an eight week IV&V, quality review, and policy review.
- Review policy and regulations.
- Introduction of international best practices into FAS IT process management and service quality

<p>improvement.</p> <ul style="list-style-type: none"> • Provide a written assessment and recommendations.
<p>Current Status</p> <p>The MoF is one year into development of the system with the Analytical Services Department. There is no officially planned date for system launch and it is unknown how the initiative is progressing. A rapid, eight week quality review would add significant value.</p>
<p>Resources Allocated</p> <p>The precise number of resources allocated to this effort is unknown, but the MoF has clearly invested a lot of manpower and capital in this effort. Additionally, there is a dedicated development team from the Legal Entity of Public Law, though size is also unknown.</p>
<p>Potential Impact on Private Sector Growth</p> <p>Difficult to directly quantify without research into similar successful initiatives in other countries. But the implementation of modernized, unified financial systems benefits all private enterprise that has a relationship to state services.</p>
<p>Potential for EPI Investment</p> <p>This is a moderate effort, quick win project. The impact on the private sector is indirect and not directly quantifiable, but it is an opportunity for EPI to provide direct support to a major, ongoing e-government initiative that could benefit substantially.</p>

UNIFIED DEBT MANAGEMENT SYSTEM

The Ministry of Finance is additionally implementing a Unified Debt Management System that will integrate the existing domestic and foreign debt management systems.

<p>Government Agency</p> <p>Ministry of Finance, State Budgeting Department</p>
<p>Description of Initiative</p> <p>The MoF does not require direct ICT development support as they have already dedicated substantial resources to the Unified Debt Management System initiative. The MoF originally planned to set up an internal quality assurance audit department, but was ultimately unable to allocate sufficient budget. As such, the initiative would benefit from IV&V and a quality assurance assessment.</p> <p>Requirements for this initiative include:</p> <ul style="list-style-type: none"> • Provide subject matter expertise support in the areas of state debt management systems, IT development best practices, system design, debt management policy and best practices, and IT change management planning. • Conduct an eight week IV&V, quality review, and policy review. • Review policy and regulations. • Introduction of international best practices into FAS IT process management and service quality improvement. • Provide a written assessment and recommendations.
<p>Current Status</p> <p>Implementation of a Microsoft package for debt management is currently underway. The Ministry has established cross function working groups for each area of requirements including debt management, loan, accounting, treasury, and reporting. Each cross functional team includes policy, process, and IT personnel.</p>

Resources Allocated

The precise number of resources allocated to this effort is unknown, but the MoF has clearly invested a lot of manpower and capital in this effort. However, they do lack a dedicated quality assurance team.

Potential Impact on Private Sector Growth

Difficult to directly quantify without research into similar successful initiatives in other countries. But the implementation of modernized, unified debt management systems benefits all private enterprise that has a relationship to state services.

Potential for EPI Investment

This is a moderate effort, quick win project. The impact on the private sector is indirect and not directly quantifiable, but it is an opportunity for EPI to provide direct support to a major, ongoing e-government initiative.

GEOSTAT MODERNIZATIONS

The GEOSTAT is a government entity responsible for consolidating and producing analyses on data related to key country and economic performance data for use by a number of government and private sector stakeholders. Over the years, GEOSTAT has been severely underfunded, still supported largely from their own budget and the revenue generated by their services.

About one year ago, GEOSTAT formed an internal IT department for the first time. Office leadership is now prepared to pursue initiatives to expand and improve services. Priorities include determining ways to better store, manage, and disseminate data to internal groups and to the public.

GEOSTAT seeks to improve their reputation for data quality, increase the trust other bodies put in important national statistics (GDP, inflation), and improve relations with the business community by providing more relevant, timely statistical data.

Government Agency

The National Statistics Office of Georgia (GEOSTAT)

Description of Initiative

GEOSTAT requires external support for their ongoing initiatives to develop an integrated statistical database, and to improve data collection in a manner that allows them to develop reports better targeted to the private sector.

Requirements for this initiative include:

- Design a business community outreach program to solicit feedback from certain EPI target sectors as to what types of reports and data would support their planning processes.
- Engage with GEOSTAT to provide the technologies, processes assistance, and support to make producing such reports possible.
- Support the design and creation of tailored research and custom reports to the business community based on data available from GEOSTAT. Consider associated feeds for this service.
- Provide technical consulting and IV&V on the implementation of their integrated database to help decrease the risk of delays or technical roadblocks.
- Create a web-based survey system to help ease the manual data collection process and allow GEOSTAT to collect data for ad hoc reports.

Current Status

Currently, statistical information is held in a wide variety of formats and databases. Each department of

GEOSTAT has their own method for storing and formatting its data. The IT organization is currently working to develop an Oracle-based, integrated database that will hold all of the data in a single, unified repository. The integrated database will also provide a standardized method for categorizing and storing data.

For data collection, another USAID-funded project is underway (implemented by World Vision) to equip GEOSTAT with mobile tablet devices for collection of survey data. GEOSTAT hopes creating electronic data capture systems will help improve the quality of its data and increase the frequency at which reports are generated. GEOSTAT has already begun the process of creating a web-based version of their most common data collection forms.

Resources Allocated

Nine internal IT staff and two contractors have been allocated to the current development initiatives.

Potential Impact on Private Sector Growth

GEOSTAT modernization initiatives do support private sector growth as local businesses are the target consumers of the data and reports provided by the office. There is definitely value in improving GEOSTAT service delivery and data accuracy. However, the impact of performance measure is likely to be moderate.

Potential for EPI Investment

GEOSTAT is willing to accept EPI's assistance, and certain interventions could provide great value to the business sector's ability to plan and forecast operations. This is a low-cost and low-risk intervention for the EPI project.

OPPORTUNITIES REQUIRING FURTHER INVESTIGATION

	Project	Relevance	Impact	Risk	Timeline	Comments
1	Revenue Services e-Portal	High	Med	Low	6-10 months	Impact is dependent on additional value to e-audit and e-invoicing services
3	Customs Capacity Development/Process Improvement	Med	Med	Low	3 months	Impact dependent on buy-in from Customs agency and willingness to accept recommendations

MINISTRY OF FINANCE REVENUE SERVICE E-PORTAL

During the last three years, the Ministry of Finance has developed and implemented several IT solutions that allow taxpayers to submit tax returns and other required documents, pay their tax liabilities, and monitor their tax accounts. Significant progress has also been made in simplifying and adding transparency to the budgeting process. However, the Ministry has not yet established an integrated e-portal for citizen and business services.

Government Agency

Ministry of Finance, Revenue Service

Description of Initiative

The MoF requires ICT design and development support in the creation of an e-portal for citizen and business services. Requirements for the ICT development and implementation services contractor include:

- Evaluate and enhance the e-invoice services system and integrate it into the e-portal.
- Evaluate and enhance the e-audit services system and integrate it into the e-portal.
- Evaluate and enhance the Audit Case Tracking System and integrate it into the e-portal.
- Provide insight and transparency through the e-portal into the Georgian state budget and budgeting process.
- Gather requirements for and develop business and citizen reporting capabilities through the e-portal.
- Provide ICT innovation training to MoF staff.

Current Status

The e-invoice system is currently operational. The e-audit system and Audit Case Tracking System are under development. The systems are currently not integrated, but were designed for future integration. To date, there is no indication that the e-portal project has been initiated.

Resources Allocated

The MoF has dedicated resources to the e-audit and Audit Case Tracking Systems, but there is no indication that any resources have been allocated to the e-portal project.

Potential Impact on Private Sector Growth

Unknown at this time. Need more information on what e-portal services would benefit Georgian business, and to what degree. The main value is in the e-invoice and e-audit systems, which are already available. Incremental impact from this initiative is unclear.

Potential for EPI Investment

MoF appears to be a good partner for e-government initiatives. They are ICT savvy, comfortable with complex IT development programs, and have qualified staff to serve as counterparts during implementation. However, the requirements for the e-portal are somewhat vague at this time, and an initial effort is required to fully scope the project, but early assessment gives the impression that the cost-benefit relationship may be unfavorable.

CUSTOMS CAPACITY DEVELOPMENT/PROCESS IMPROVEMENT

The Customs Division under the Ministry of Finance is responsible for collecting import duties and generally managing fees and financial transactions associated with cross-border trade. Because of their importance to trade and basic state governance, they are relatively well-funded and technologically advanced, with sophisticated e-government capabilities already in place.

Government Agency

Ministry of Finance, Customs Division

Description of Initiative

Customs currently uses ASYCUDA World as the primary information system, which integrates multiple modules supporting core customs data management. (e.g., Transit module). They are working on additional enhancements and customizations internally. Customs has also implemented a public website that will allow the submission of electronic declarations by business and individuals.

All systems development is performed internally, and Customs is not looking to partner with donors for this kind of support. They may have need of training and business optimization support to streamline

processes.

Current Status

There are no other entities supporting the potential business optimization and training needs of Customs at this time.

Resources Allocated

There are no other entities supporting the potential business optimization and training needs of Customs at this time.

Potential Impact on Private Sector Growth

Unknown at this time. A current state analysis of current processes and training needs would be required to determine potential impact.

Potential for EPI Investment

Unwillingness to work with private sector partners leaves little room for private sector involvement. Customs considers their organization technologically advanced, with sophisticated e-government capabilities already in place. There may be work to be done around process improvement, however the potential impact on EPI objectives is difficult to determine. Further investigation is required.

OPPORTUNITIES OUT-OF-SCOPE/NOT RECOMMENDED

	Project	Relevance	Impact	Risk	Potential for Future
1	Procurement Modernization	High	Low	High	Training/Capacity Development
2	National Food Agency Initiatives	High	High	High	Possible long-term opportunity after the agency determines a development strategy
3	Land Parcel Usage Registration System	Med	Med	High	Possible integration with property registration process or agricultural commodity pricing system
4	E-Commerce Shared Services Portal	High	Low	High	Support for relationship building among private sector e-commerce entrepreneurs
5	DEA Citizen Portal	Med	Med	Med	Possible long-term opportunity, dependent on application of data exchange infrastructure
6	Georgian Railways Passenger Mobile App	Med	Med	Low	Encouraging private sector development of consumer apps

PROCUREMENT MODERNIZATION

Over the past two years, the State Procurement Agency has substantially revised state procurement policy and increased transparency through ICT modernization and automation. The state procurement system provides a great amount of transparency into the tendering and contract award process under the Agency's policy of "Everyone sees everything."

The current, active procurement system has the following functionality and capabilities:

- Procurement business processes are automated through bid submission, but bid evaluation currently occurs offline and is documented using Word.
- The system provides transparency to the bid and evaluation process by providing access to bid and evaluation documents through an electronic library.
- The system supports multiple procurement types and timelines based on contract value
 - For contracts valued at 5,000 GEL or below, a simplified, single source, procurement is permitted.
 - For contracts valued at 5,000 to 200,000 GEL, a simplified competitive tender is initiated with a submission period of three working days.
 - For contracts valued at over 200,000 GEL, the system supports a full competitive tender with a submission period of 20 working days.
- The system supports registration of suppliers and procurement stakeholders with role-based access to information.
- The system allows any user to self-declare as a supplier or competitive entity, as long as they provide a financial deposit that is not refundable if they win but cannot deliver.

The Agency is preparing to launch a more advanced procurement system built using Oracle Business Intelligence (BI) Publisher Enterprise. The Agency is making good use of resources, currently hosting the system in a private cloud-like environment, using server space provided by other ministries. They are also working with the National Agency of Public Registry, who is performing the majority of IT development. They also have a software-as-a-service relationship with Oracle, paying a small annual fee rather than owning full software licenses.

The next generation procurement system, scheduled to go live in late November 2011, will have the following additional functionality:

- Full automation of the multistage bid evaluation process.
- Support private initial bids, followed by e-bay style sequential price auction.
- Provide a countdown to the end of the tender period.
- Incorporate additional future requirements:
 - Weighted criteria (technical vs. cost)
 - Notifications for bidders informing them how low their cost would need to be based on their technical score in order to win

The net benefit of these efforts has been an overall cost savings for the government through increased and more transparent price competition.

Government Agency
State Procurement Agency
Description of Initiative

The State Procurement Agency has already received \$500,000 from WBG for physical infrastructure upgrade and will soon move in to the new facility that was renovated using those funds. The top priority of the Agency at this time is the procurement of a dedicated data center and adoption of full system ownership. They are also undertaking a significant digitization and archiving effort of historical procurement documentation.

The only potential support needs are the movement of historical paper records into the electronic archives, and the establishment of a procurement system help desk.

Current Status

Regarding archiving, they have already transferred records through 2009 into the procurement documentation archiving system, and are starting on 2010. To date, there have been no activities related to establishing a help desk.

Resources Allocated

As stated, the Procurement Agency is well-funded for current initiatives.

Potential Impact on Private Sector Growth

The net benefit of current efforts has been an overall cost savings for the government through increased and more transparent price competition. There is unlikely to be any notable impact related to the archiving effort or the establishment of a help desk.

Potential for EPI Investment

At this time, there are no initiatives with the State Procurement Agency that would benefit greatly from EPI support. Hardware procurement is out of scope, and the data archiving is a task best performed by internal staff. They also have very strong leadership managing the procurement system modernization and procurement policy development.

NATIONAL FOOD AGENCY MODERNIZATIONS

The National Food Agency (NFA) – a recently established legal entity under the Ministry of Agriculture – is responsible for national regulations and services regarding food safety, fito-sanitary, and disease control for the agricultural markets. They provide service in three areas:

- Veterinary – This covers vet medicine, certificates for animal export, domestic transportation of animals, permissions for animal imports, accelerated registration for a fee
- Food safety – Includes food sanitation certificates for export
- Plant protection – This covers fito-sanitary certifications for export; pesticide registration; agro-chemical registration; regulation of chemicals

The NFS has multiple ongoing initiatives in support of improved services and private sector engagement with regard to their mission. This includes the Comprehensive Food Safety Action Plan, under which Georgian food safety legislation will be harmonized with EU regulations. The NFA also recently launched a new website (nfago.ge) to provide basic outgoing information about NFA services. It also provides some information on pesticides, agricultural practices, export requirements, etc. It does not yet allow for electronic access to services such as registrations, certifications, applications for export, etc. These services are currently supported only through paper-based processes.

The EPI project team has identified the following ICT programs:

- Electronic Public Portal
- Public-facing knowledge database and knowledge management system

- Electronic registrations and certifications

Government Agency

Ministry of Agriculture, National Food Agency

Description of Initiative

The NFA requires a public informational and services portal directed at private sector businesses in the agricultural industry. It should serve as an interactive knowledge management system with robust search capability, and provide access to automated electronic registrations and certifications for NFA services. The business requirements for the system include:

- Access to antibiotics and pesticide information, regulations, best practices, etc.
- Information on where drugs or other items can be obtained
- Interactive knowledge database with some community driven content
 - Allow citizens to identify and recommend for registration drugs or pesticides not yet registered in Georgia
 - Allow citizens to identify and recommend prohibition of drugs or pesticides that are currently permitted
- Process automations for certifications and registrations

Current Status

The only services currently automated for the NFA are those sponsored by the U.S. Government – a disease control measures system that facilitates rapid response on disease control issues. The NFA has also recently implemented Excel-based reporting systems for internal processes.

Regarding the initiative described above, the NFA is still in the process of finalizing business requirements and determining priorities. They are not prepared to commit to a donor-sponsorship approach, or even to engage in discussions regarding scope.

Resources Allocated

Unknown at this time.

Potential Impact on Private Sector Growth

Potential impact for such an initiative is high. Agribusiness could benefit greatly from increased availability of food safety data, and from accelerated approval of registrations and certifications related to the import and export of animals and plans for agricultural purposes.

Potential for EPI Investment

While highly relevant to EPI goals, the NFA does not appear to be a cooperative partner for USAID at this time. They are currently evaluating the potential benefit of partnering with a number of donor projects and are not yet prepared to initiate new projects with EPI. Additionally, their first priority is the acquisition of hardware to establish a data center, and the laying of broadband lines to provide regional centers with access to the future collaboration portal.

LAND PARCEL USAGE REGISTRATION SYSTEM

The Development Department of the MoA is responsible for legal and regulatory activities regarding agribusiness and the commodities market, and is responsible for tracking ownership and usage information for agricultural land parcels. Land owners are required to register their land, provide personal data, land size and statistics, and crop information. The data is used by financial institutions for valuation, insurance companies, and a number of private sector organizations. The Department's objective is to keep the data as current as possible, which is a challenge with small farms in particular, as they tend to change crops

every year and land ownership can turn over rapidly. The current application process is paper based, and it is difficult for small, distant farmers to register.

Government Agency

Ministry of Agriculture, Development Department

Description of Initiative

The MoA Development Department requires a web-based land parcel registration system that is accessible via SMS to farmers who do not have internet access. The business requirements include:

- Develop and implement a web-based land parcel registration system.
- Support web-based application and profile update.
- Support SMS application and profile update.
- Support search and reporting on land parcel ownership statistics.
- Migrate existing Microsoft Excel or Access database to the web-based system.
- Provide informational website with news feeds, information, resource access.

Current Status

The current system is not accessible to the public or to private sector entities at all. Information is collected through paper-based processes and then manually entered into a Microsoft Excel database. The Department is planning to migrate to Access currently, but there are no existing plans to develop the web- and SMS-based registration system.

Resources Allocated

The Department has allocated no resources to this effort to date.

Potential Impact on Private Sector Growth

Current database is used for a “target program” by agricultural product (corn, wheat, etc.). Based on land usage, the government gives out seeds to farmers to sponsor private sector enterprise.

Beyond that, additional accuracy and availability of land parcel registration data is likely to make the agricultural sector more efficient overall.

Potential for EPI Investment

Independently, this is an attractive opportunity. The technology is relatively noncomplex and the user population is small, making the barrier to adoption low. However, the requirements for this have a lot of crossover with the National Agency of Public Registry (NAPR) land registration project. It may be difficult to generate impact out of this unless the land registry can be populated.

E-COMMERCE SHARED SERVICES PORTAL

The Communication, IT, and Innovations Department of MOESD is responsible for supporting the growth of ICT innovation in the Georgian private sector, and for increasing ICT innovation within MOESD.

Government Agency

Ministry of Economy and Sustainable Development, Communications, IT, and Innovations Department

Description of Initiative

In their efforts to support e-commerce entrepreneurship in Georgia, the Communications, IT, and Innovations Department of MOESD identified the following weaknesses of the current business environment:

- There is no legislative base for e-commerce to protect banks and electronic business from fraud.

- There is no shared service system to help business start an e-commerce enterprise.
- There is no training support on e-commerce and how to engage in international export.

As such, they have identified a potential initiative to design and implement a web-based portal to consolidate and offer services to e-commerce start-up organizations, connect them with banks, delivery services, cloud providers, application development support, and other e-commerce support services. The platform would also provide electronic training on how to start and run an e-commerce business.

Current Status

No action has been taken beyond problem definition.

Resources Allocated

MOESD has allocated no resources to this effort to date.

Potential Impact on Private Sector Growth

The impact of such a service is potentially great. A grass-roots community platform directed at e-commerce entrepreneurs could be a valuable tool in growing an attractive economic sector in Georgia.

Potential for EPI Investment

While the objective is in line with the EPI project's goals, a platform like the one described here is unlikely to be successful as a government-sponsored program. It would require the development of a social networking and knowledge-sharing platform, which is a market already served by popular commercial products that will always have better functionality. There are also already internationally available e-commerce facilitation platforms available like e-bay, Amazon.com Marketplace, and many others. A Georgia-specific platform might be a good idea, but it should emerge from the private sector, not from government, to be successful. An alternative approach may be to sponsor an innovation challenge among Georgian entrepreneurs to develop such a platform.

DATA EXCHANGE AGENCY CITIZEN PORTAL

The DEA under the Department of Justice, established in 2010, is tasked with the modernization and standardization of policies, processes, and infrastructure for data management. This agency is undertaking multiple, related modernization initiatives in support of its objectives. A key, ongoing program serving as a through-line for DEA objectives is the establishment of a unified data exchange infrastructure. Microsoft and HP, under the direction of the MoJ, are developing the infrastructure that will support data exchange across ministries – beginning with the unification of the MoF financial registry, the public registry, and the civil registry. The long-term intent for the data exchange infrastructure is for it to serve as a basis for future modernization.

An initial demonstration and application of the data exchange infrastructure is a citizen portal, which would provide citizens access to cross-ministry personal data.

Government Agency

Data Exchange Agency

Description of Initiative

The DEA is planning to use the new data exchange infrastructure to develop a number of user applications. The presentation layer of the unified data platform will be a web-based citizen portal. The portal should provide access to cross-Ministry citizen data, and should support integration of independent, private sector-developed applications.

Requirements for this initiative include:

- Conduct requirements documentation and thorough current state assessment to determine

<p>readiness for a presentation layer to the data exchange platform.</p> <ul style="list-style-type: none"> • Procure an implementer and design a phased development plan. • Develop a Citizen Portal and create promotional/training material to general private sector interest.
<p>Current Status</p> <p>The data exchange infrastructure is currently under development. A firm completion date has not been established, but expectations are that it will be available within the next year.</p> <p>The functional requirements for the citizen portal have been at least partially developed.</p>
<p>Resources Allocated</p> <p>Internal resources only have been allocated to the functional requirements effort.</p>
<p>Potential Impact on Private Sector Growth</p> <p>As services are targeted at citizens and not businesses, there does not appear to be an opportunity for impact on private sector growth.</p>
<p>Potential for EPI Investment</p> <p>Requirements are unclear at this time. Services appear to be targeted at citizens and not businesses, indicating a lack of relevance to private sector growth.</p>

GEORGIAN RAILWAY PASSENGER MOBILE APP

GR is undergoing a business restructuring process that will split the organization into three separate, state-owned entities – Infrastructure, Passenger, and Freight Operations. The Passenger division seeks to improve services to citizens through the innovative use of technology.

<p>Government Agency</p> <p>Georgian Railways</p>
<p>Description of Initiative</p> <p>The passenger unit of GR needs to support easier purchase of transit tickets, check schedules, and monitor arrival status.</p> <p>Requirements include working with a private sector entity to develop a mobile app for passengers to check schedules, and purchase tickets.</p>
<p>Current Status</p> <p>As the restructuring is underway, no action has been taken beyond the idea stage.</p>
<p>Resources Allocated</p> <p>GR has allocated no resources to this effort to date.</p>
<p>Potential Impact on Private Sector Growth</p> <p>As services are targeted at citizens and not businesses, there does not appear to be an opportunity for impact on the private sector growth.</p>
<p>Potential for EPI Investment</p> <p>This initiative, while useful and interesting, will benefit individual consumers more so than Georgian</p>

businesses.

D. ENVIRONMENTAL ASSESSMENT

In order to support our evaluation of e-Government initiatives for investment potential, the EPI project conducted a thorough assessment of the relevant GoG ministries and agencies that would be responsible for sponsoring and supporting the identified projects. In this section, we provide our analysis of each of these entities.

STATE PROCUREMENT AGENCY

OVERVIEW

State Procurement Agency represents a Legal Entity of Public Law (LEPL), which is controlled by the government of Georgia.

The agency carries out state control over state procurement process, which means control over legitimate and rational spending of budget funds. Herewith, its objectives are ensuring state procurement process transparency and promoting healthy competition on the marketplace. For these purposes, the agency created a Unified Electronic System of State Procurement, which became mandatory from December 2010. From this moment, all state tenders are conducted using this system in an open and transparent environment. The system enables any interested person to monitor the whole process of tender (obtain information about announced tenders, who participates in these tenders, who wins, who signs a contract, and who are disqualified). Elaboration of auction rules and procedures and administration of the e-tender system are other important responsibilities of the agency.

At present, the system incorporates more than 6,000 registered users. They have the opportunity to participate in any tender.

Organizational structure of the State Procurement Agency has not changed fundamentally after the release of the electronic system. Thus, the existing structure does not fully correspond to the actual requirements. The agency has prepared a draft of legislative amendments and a new HR concept. It is already planned to start the structural reorganization process of the agency from October 2011.

Until 2010, the purchases minimum amount for tender announcement was 200,000 GEL. After launching the e-tender system this level decreased to 5,000 GEL, which in turn, caused a sharp increase in a number of tenders (3,000-3,500 tenders were announced per year until 2010 and 21,000 tenders were announced before August 1, 2011). Despite the dramatic increase in the number of tenders, the number of employees has not changed in the agency and it still incorporates 35 employees (as it was before 2010).

It is planned to increase the number of employees and changes in methodology, because elaboration of all tender documentation and control over processes by human resources is absolutely impossible. The new methodology is based on the risk management system. Risks are determined according to the size of a tender, procurement unit, field, and specific buyer.

Current organizational structure includes five main functional services:

- Administrative service
- Financial service

- Legal Service – incorporates four employees. They provide system users (buyers and persons involved in the tender) with legal consultancy. Also, Legal Service’s responsibilities are: elaboration of normative acts and amendments related to these acts, representation of the State Procurement Agency in the courts and in the Dispute Resolution Board.
- Information Technology Service – incorporates four employees. Administration of system and network is their main duty.
- Information Processing, Analysis, and Statistics Service – elaborate tenders’ documentation and in case of incompatibility with the law, prepare notes. In some cases, on the basis of these notes, may begin administrative proceedings, which in turn, can lead to set responsibility or fine of the buyer and/or member/members of the tender commission. Twelve employees work in this service.

LEGAL FRAMEWORK

The basic law regulating activities of the State Procurement Agency is “The Law of Georgia on State Procurement.” Due to the fact that the new electronic system was a novelty for buyers, as well as for companies, specific changes have arisen. Thus, it was decided to implement general law (“The Law of Georgia on State Procurement”) and specification of concrete procedures and rules occurred in bylaws. This would make a flexible system and time needed for changes in it would decrease to a minimum. Indeed, after the system startup, one or more changes were made in bylaws during a week. Obviously, frequency of such changes would have been impossible in a law, which on the other hand, would have a negative effect on the implementation process. Currently, the agency operates according to the following bylaws:

- “The Rules for Conducting Simplified Procurement, Simplified Electronic Tender, and Electronic Tender.” Approved by order #9 of the Chairman of the State Procurement Agency. (April 7, 2011)
- “The Rules for the Identification of the Procurement Objects and the Determination of Homogeneity thereof.” Approved by order #7 of the Chairman of the State Procurement Agency. (September 20, 2010)
- “The Rules of Activity of the Procurement Related Disputes Resolution Board under the State Procurement Agency.” Approved by order #11 of the Chairman of the State Procurement Agency. (November 30, 2010)
- “The Rules for Issuance of Permissions for Procuring Entities Related to Implementation Simplified Procurement Activities.” Approved By resolution #1 of the Government of Georgia. (January 5, 2011)
- “The Rules for Defining Vehicles’ Age and/or Warranty Terms, for which Technical Service can be Purchased by Simplified Procurement.” Approved By resolution #26 of the Government of Georgia. (January 21, 2011)
- “The Rules for Telephone Service State Procurement.” Approved By resolution #99 of the Government of Georgia. (January 25, 2011)
- “The Rule of reporting of Procuring Entities.” Approved by order #2 of the Chairman of the State Procurement Agency. (February 20, 2011)
- “The Conditions and Rules for State Procurement of Design (Project) Services through a Design Contest.” Approved by order #3 of the Chairman of the State Procurement Agency. (February 20, 2011)
- Extract from the #8 minutes of Government of Georgia related to state procurement. (February 22, 2011)

- “The Fees and Payment Rules for Tender and Contest Announcement and for Bidding Documentation.” Approved by order #15 of the Chairman of the State Procurement Agency. (June 23, 2011)

ICT INFRASTRUCTURE

The State Procurement Agency has a close relationship with the National Agency of Public Registry (NAPR) and until organization of its own server infrastructure uses NAPR’s servers.

- Level 1: Desktop Environment – the computer park is quite obsolete (Pentium 4 with CRT monitors). There are only seven up-to-date computers in the agency. Old computers are equipped with Windows XP operating system and MS Office 2003 work environment; however, modern computers are working in Windows 7 and MS Office Package 2010. Unlicensed software is installed on some computers. Shared printers are used for printing purposes, which are located in every room.
- Level 2: WAN/LAN – an internal network exists inside the agency, which is primitively organized. Due to the fact that the agency plans a transition to a new building, modernization of an internal network is not scheduled. The agency has a VPN connection to the NAPR.
- Level 3: Server Infrastructure – at present, State Procurement Agency does not have its own server infrastructure. Electronic Procurement System is running on NAPR’s servers. Also, scanned copies of 2008-2010 data warehouse and business analysis systems are located on NAPR’s infrastructure, which is working in a testing mode. System Administration is performed by IT Service of NAPR. For spring 2012 planned transition to a new building and organization of a server room, where servers will be installed and system will be brought. At present, the agency has only one personal computer, on which is running (in a virtual environment) domain server, mail server, and communicator.
- Level 4: Support organization and Services – IT Service provides internal users with a mail service and technical support. Also, IT Service administers internal communicator and ensures proper work of procurement system’s specific modules.
- ICT structure, organizational chart, staffing – State Procurement Agency has an IT Service. At present, the Head of IT Service performs duties of Deputy of The Chairman of the agency. In the future HR concept, Deputy of Chairman’s position is not foreseen. One employee performs the functions of a network administrator, one is a System Administrator, and one is a programmer, who is located in NAPR’s building.
- ICT funding structure – current expenditures are financed from the budget of the agency. It tries to use donors’ aid for funding projects. There is no separate IT budget.

RECENT PROJECTS

The State Procurement Agency has successfully implemented several complex projects for the last two years:

Project name – Unified Electronic System of State Procurement.

Purpose – ensure legitimate and rational spending of state budget funds.

Project scope – creation and implementation of the electronic system for ensuring state procurement process transparency.

Terms – the project lasted nine months and was completed in November 2010.

Individuals involved in the project – employees of NAPR IT Service and its own staff.

Achievements – only for the year 2011, 118 million GEL (the difference between planned and actual procurement contract values) savings was made as a direct consequence of using system. Only 36 complaints were received from 21,000 tenders; System has 9,000 users from which 3,000 are procuring entities and 6,000 are companies.

Project name – Creation of an Infrastructure for Business Analysis System.

Purpose – creation of a new infrastructure for existing systems.

Project scope – Electronic System of State Procurements currently is working on NAPR's server. Within the project is the planned organization of the server and other necessary infrastructure for transition existing systems.

Terms – server's procurement procedure has been completed and in the near future, the equipment will be delivered.

Donor organization – 500,000 GEL

Project name – Business Analysis System.

Purpose – ensure access to the analytical information related to state expenditures; transition to risk-based system related to procurement process control.

Project scope – creation of a Business Analysis System on the basis of Unified Electronic System of State Procurement's databases; providing access to the system.

Terms – the project started two months ago and for now the first phase is completed. It is planned to add accounts to the system in the future.

Individuals involved in the project – NAPR IT Service.

Donor organization – GIZ.

Achievements – public control over the whole process of a tender, as well as, over the whole system and analytical information.

SERVICES PROVIDED TO BUSINESS

All commercial organizations, from which the state purchases product or service, are users of State Procurement Agency's system.

The agency provides its users with several important electronic services:

- Unified Electronic System of State Procurement
- Information about announced tender in the form of message
- Electronic Service of Dispute Resolution Board
- Black List

User agreements are formed electronically with users; also users are provided with manuals and recommended and necessary parameters for their computer system.

By the end of 2011, commercial organization will have the opportunity to announce tenders and procure desired products/services by using this electronic system.

FINANCIAL-ANALYTICAL SERVICE

OVERVIEW

Financial-Analytical Service represents a LEPL under the authority of the Ministry of Finance. It provides a complete IT cycle to the Ministry: business process analysis, software design, implementation, operational support, strategic planning, and analysis. In addition, it serves to the Ministry by techniques, infrastructure, and management systems.

The service is used by: The Ministry of Finance, State Treasury, Revenue Service, Academy of Ministry of Finance, Service Agency, Investigation Service, as well as any organization which is financed from the budget (eBudget, eTreasury).

There are several divisions in the authority of Finance – Analytical Service:

- Administrative Department
- Research and System Analysis Department – whose main functions are: long-term strategic planning of the service activities; preparing reports on the service activities; researching and publication of the research results; information gathering, processing, and systematized submitting to the ministry; designing and management of long-term projects, planning, distribution, and maintenance of relative resources needed for projects implementation; service quality management; relationship with donors, international companies, and public sector; ensuring professional growth possibilities for the staff; elaboration of internal processes standards and coordinating their implementation; business process analysis and project management; defining and analysis of the tasks needed for the software development; elaborations and specification and architecture of software systems; preparation of service agreements.
- Software Application Development Department – software development and modernization; technical and pilot testing and documentation; technical consultation and training for other structural subdivisions of the service on software solutions; solutions to the problems risen during working process.
- Systems Administration Department – software development to ensure nonstop, high quality and reliable electronic information exchange between structural subdivisions of central staff and other member bodies of the ministry; administration of local computer networks, having taken into consideration security levels ensuring access on the global web sources; ensuring information security from unauthorized access; ensuring databases administration and databases archiving and recovery support; elaboration and periodic testing of the database recovery plan; ensuring uninterrupted performance of the main and backup server centers.
- Operations Department – registration of technical problem-related requests, their initial analysis and organization of restoration activities; consumer testing, software installation, and trainings of the users, users registration (computer systems, local networks, and email registration); overseeing the service agreement, upgrade and update of software; computer park planning, update, and technical support; software installation; solving various technical problems.
- Web-resources Management Department – elaboration of website concepts, informational architecture and design; development of website informational

management system; website informational management; development, administration, and information management for the corporate portal; current website design and structure improvement, website support and maintenance.

LEGAL FRAMEWORK

Financial-Analytical Service is created by government resolution and proposal of the Ministry of Finance. Financial-Analytical Service is established on the basis of the IT Department of the Ministry and does not have any special legal basis.

ICT INFRASTRUCTURE

Financial-Analytical Service is one of the most powerful IT organizations in the country, with developed infrastructure and qualified personnel.

- Level 1: Desktop Environment – in fact, the entire staff (about 70 positions) have a modern PC with licensed Windows 7 (majority of computers) and the package MS Office 2010. Although, in reality, Financial-Analytical Service provides a service for much more computers. There are about 3,000 computers in those organizations which uses the service of Financial-Analytical Service.
- Level 2: WAN/LAN – Financial-Analytical Service has a highly organized computer network. Internal computer network is based on the Georgian Governmental Network (GGN) infrastructure. This network incorporates all structural units of Ministry of Finance on the entire territory of Georgia. Nearly all the computers existing in this structure are united in one domain. Centralized Internet access is provided by Financial-Analytical Service to all organizations involved in the internal network.
- Level 3: Server Infrastructure – Financial-Analytical Service has a high-tech data center. It satisfies the basic parameter of TIER-3 standard for business-critical infrastructure. Server resources are fully virtualized and create a virtual cloud. It is planned to launch the DR site at the end of the year, which will be a mirror of the main site.
- Level 4: Support organization and Services – Financial-Analytical Service delivers IT services to both its employees and other state institutions. Internal IT services are: mail service (Exchange); Mailer Daemon; DNS; DHCP; ISA Server; Backup; UPS, generator; phone; monitoring and notification system (SMS, Mail). For external customers the Service provides functioning software systems, such as: treasury (eTreasury), budget (eBudget), auction (eAuction), Academy (universal testing system), and document flow (eDocument). The Service also provides web-hosting service to these institutions.
- ICT structure – Financial-Analytical Service is entirely IT's organization, so its organizational structure is considered above.
- ICT funding structure – Financial-Analytical Service's budget is totally IT's budget.

RECENT PROJECTS

Projects implemented in years 2010-2011

Project name – eTreasury – state treasury electronic service system

Purpose – Automation of information exchange process between State Treasury and spending organizations.

Achievements – simplifies budget spending organizations' workflow and transaction processes. Increase information exchange and process management effectiveness and minimize administrative expenses. ETreasury is actively used by 700 organizations (approximately).

Project name – eBudget

Purpose – simplifies and systemizes budget planning process by providing flexible and mobile data flow.

Achievements – dramatically increasing effectiveness and productivity of users; providing data storage into the unified database and systematically carrying out backup activities. Provide customized sets of reports for various user categories.

Project name – eDocument

Purpose – paperless document exchange process

Achievements – user-friendly and effective interface; electronic signature and approval, graphic visualization of document flow, control over task execution (Task Management), shared work capability, integration with HR and other system, the system work in large organizations such as: central office of Ministry of Finance, Revenue Service, Ilia State University, City Hall of Rustavi, Treasury Service, Parliament of Georgia, Ministry of Finance and Economics of Adjara.

Project name - eAuction

Purpose – implementation of transparent and accessible auction system

Achievements – all required functions are performed online, system has flexible monitoring functions that allow users to control bidding process, system provides Multilanguage interface and is equipped with alert system. The system is used by: Service Agency of Ministry of Finance, Ministry of Economy and Sustainable Development, and National Bureau of Enforcement.

Projects planned for the year 2011:

- Modification of budget system on the functional and technological level.
- Development and implementation of Foreign Debt Management System (FDMS)
- Enrollment of other state organizations in eAuction system
- Data storage back-up center construction and maintenance
- Incorporation of all electronic systems in united and unified system of the State Financial Management

SERVICES PROVIDED TO BUSINESS

Financial-Analytical Service does not directly provide any services to the commercial sector. It provides services to other state agencies, which then offer electronic services to external customers.

SAKPATENTI (NATIONAL INTELLECTUAL PROPERTY CENTER)

OVERVIEW

National Intellectual Property Center – Sakpatenti represents a Legal Entity of Public Law (LEPL), which:

- Implements a state policy in the field of intellectual property
- Creates an appropriate legislation
- Conducts an examination and issues protective documents
- Forms and disseminates patent information
- Promotes improvement of knowledge related to intellectual property

Sakpatenti conducts the national examination and issues protective documents (patents):

- On inventions
- On utility models

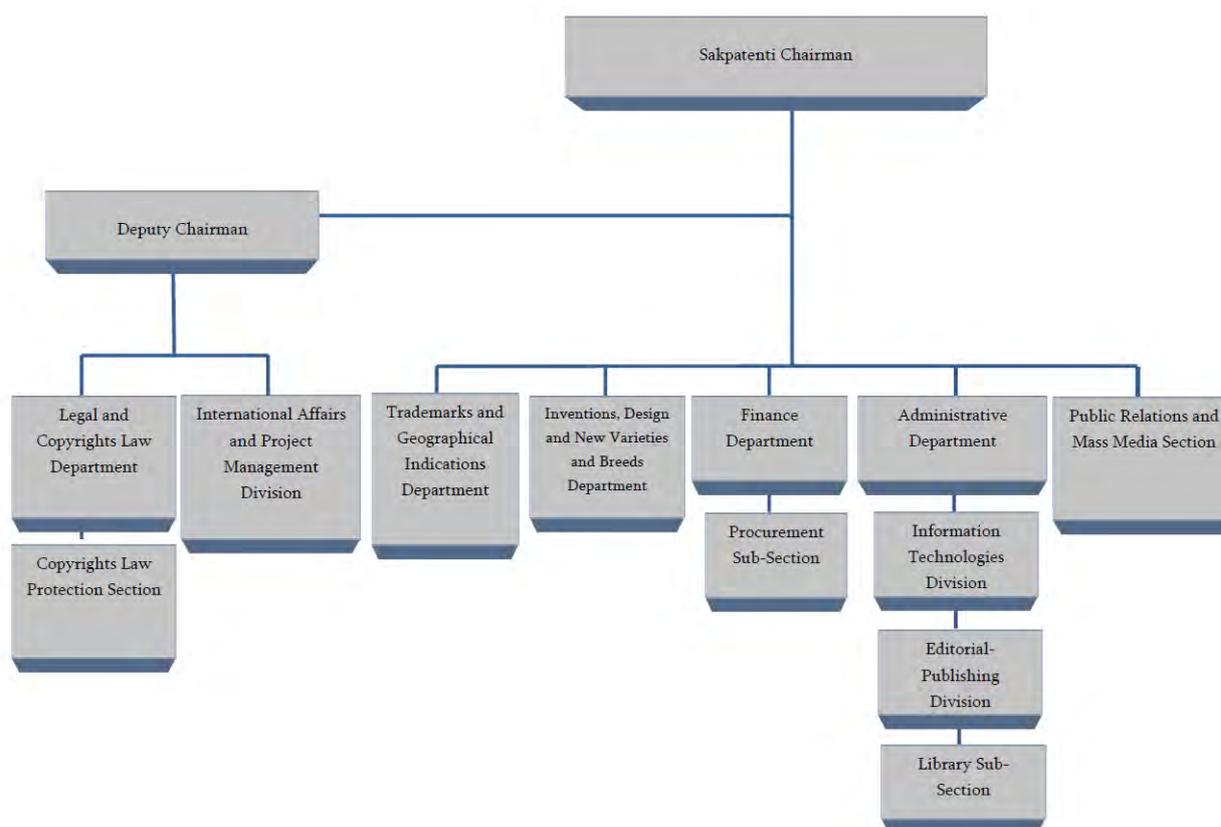
Registers and issues licenses:

- On design (Industrial pattern)
- On commercial indications (Trademarks, geographical indications, appellations of origin)
- On animal breeding and plant varieties

Deposits and issues a certificate:

- On objects of copyright (on scientific, literary, and artistic works)

Organizational structure of Sakpatenti follows on the next page.



LEGAL FRAMEWORK

Legislative framework of Sakpatenti is based on both national and international legal acts.

National legislation:

- Patent Law
- Law on Design
- Trademark Law
- Law on Appellations of Origin and Geographical Indications of Goods
- Law on protection of Animal Breeding and Plant Varieties
- Law on Copyright and Neighboring Rights

International agreements:

- WIPO Convention (1994)
- Paris Convention (1994)
- Patent Cooperation Treaty (1994)
- Bern Convention (1995)
- The Madrid Agreement (1998)
- TRIPS Agreement (2000)

ICT INFRASTRUCTURE

Sakpatenti holds a large amount of structured information (regularly receives and distributes it). Therefore, it is equipped appropriately. Due to the fact that the computer system was created only several years ago, IT management thinks to transfer hardware and software on the modern platform. Currently, exactly these changes are underway.

- Level 1: Desktop Environment – the vast majority of computers (approximately 80%) is obsolete and represents Pentium IV-based machines with Windows XP operating system and MS Office 2003 work environment. Enhancing process of computers is already started. Newer computers (20 PC and some laptops) are rigged with Core2Duo processors, Windows 7 operating system, and MS Office 2010. Sakpatenti uses only licensed operating systems and programs (MS Office and Antivirus Sophos). It has a central File Server in the office. There are a number of common printers; however, almost all employees have their personal printers.
- Level 2: WAN/LAN – Sakpatenti has two offices: central office and intellectual property library, where 12 computers are located (10% of the total number). Both offices are located in Tbilisi and at present they are working in an internal computer network. Wanex-optic cable is entered in both offices, through which they receive Internet access and connect each other by VPN. It is decided to move the whole center in one building. Presumably, for these purposes, the office will be built in the town of Mtskheta. As for the connection to other structures, Sakpatenti has a systematic exchange of information with international organizations, such as WIPO (World Intellectual Property Organization) and EPO (European Patent Office), and this process is performed through FTP. A computer connection network to other local authorities does not exist.
- Level 3: Server Infrastructure – The server room is primitively organized and it is not planned to update it until movement to the new office. At present, there are four servers in the mode of production at the center, from which only one is relatively newer. Sakpatenti has bought two Sun Servers in 2004. From one of these servers is running application developed by the center on the Java platform, which works on Sun Solaris operating system. Database application (Oracle) is working on the same operating system. Another Sun Server does not work in an active mode and in fact it serves as Hardware backup system. It is decided to move the application on Windows Server 2008 operating system and the database on MS SQL. Thus, it can be considered that in future, Microsoft systems will be adopted as a standard by SakPatenti. Due to the fact that older PCs cannot handle Java-written application, Sakpatenti has Terminal servers (Citrix), on which users are working in terminal mode. Currently, as storage Sakpatenti uses SCSI array of Sun, but it has already acquired SCSI Storage, which will be launched in the nearest future. Disaster recovery system does not exist at the center. What about the backup system, Sakpatenti is currently creating database backup, but system restore from a backup will take few days. At present, hardware component of a backup system has already been purchased and the system will be operational in the nearest future.
- Level 4: Support organization and Services – The most important functionality of Information Technology Division is to provide appropriate work of Sakpatenti's application, as this application represents working environment for the vast majority of employees. Corporate e-mail and web services are running on the computer located in server room of an Internet provider company. The head of the department provides administration function for both of these services in a remote mode.

- ICT structure – There are 13 employees in the Information Technology Division, from which only four are IT specialists (including department head). From these four, two provide technical support for PCs and other office equipment, one is responsible for Sakpatenti's web page and computer network, and server system function is performed by department head. The rest employees are operators of the department who upload the data in the system.
- ICT funding structure – IT budget of Sakpatenti consists of projects, which require external resources (for example, changes in website structure) and equipment purchases. Department's staff salaries are financed from the general budget.

RECENT PROJECTS

Sakpatenti's technical reequipment project is planned to perform the following works in the boundaries of this project:

- New (already purchased) servers installation and launching.
- Migration of Active Directory from Windows Server 2003 to Windows Server 2008 and launching new server platform's additional features.
- Introduction of SharePoint and creation of corporate portal on its basis.
- Exchange Server deployment and migration of corporate e-mail service in this system.
- Implanting Infrastructure Management System.

The first phase completion of the project is scheduled in September 2011, and the whole project will be completed at the end of the year.

The project's budget amounts to approximately 250000 GEL and it is almost entirely spent for the purchase of hardware and software.

The project is carried out by the IT department staff.

There is a risk that after the introduction of the portal, employees will have low interest with respect to the use of this service. Accordingly, it is planned to implement organization's internal processes through the portal, which will create a need of use of a portal.

SERVICES PROVIDED TO BUSINESS

At present, Sakpatenti does not provide any specific services to commercial firms, except the official bulletins and information about copyright (specific patents, trademarks). This information can also be obtained from the website.

Implementation of eFiling project is planned by Sakpatenti, which will allow the customers to submit and register their applications online.

LAND TRANSPORT AGENCY

OVERVIEW

Land Transport Agency represents a Legal Entity of Public Law (LEPL) under the authority of Ministry of Economy and Sustainable Development.

Its functions are:

- Elaboration of technical rules related to traffic, transportation of passengers, and cargo transportation security issues in the field of land transport.

- Supervision of the fulfillment process of acting international treaties and agreements, technical regulations, and other legislative and normative acts in the field of land transport.
- Issuance of certificates, permission, and access cards defined by legislation of Georgia, international treaties, and agreements in the field of land transport. Monitoring the fulfillment process of terms and conditions defined by these certificates, permissions, and access cards.
- Collaboration with international social organizations and state agencies in order to develop this sphere and harmonization of national legislation with EU legislation. Participation in the preparatory works related to joining to the main international conventions, treaties, and agreements.
- Participation in the elaboration process of intergovernmental treaties and agreements, realization of the national concepts, and programs related to traffic movement and safety.
- According to the law providing car testing centers for the mandatory periodic testing.
- Promotion of stable and proper operation of the transport market. Protection of national transporters' and consumers' rights and interests under its authority.
- By Code of Administrative Violations of the Rights, administrative offence review is the duty of Land Transport Agency.

At present, Land Transport Agency is partially funded from the state budget, but it is planned to move to self-financing. There are several divisions in the authority of Land Transport Agency:

- Financial administrative Service
- Cargo and Passenger Transportation Service – which in turn incorporates cargo and passenger transportation subdivisions. The subdivisions are responsible for analyzing situation, elaborating technical requirement, and conducting negotiations on quotas to various countries in their relevant field.
- Special Transport Service – which is responsible for the development of technical regulations for tram, rope way, and other special types of transport?
- Security Monitoring Service – its functions are: analysis, certification, and monitoring security issues related to transporters and auto stations. In the future, the service will be divided into two parts, one unit will work for analyzing the security situation and elaboration of technical regulations and the second will monitor the compliance issues to these regulations.
- Customer Relationship Service – it consists of three service centers (Tbilisi, Batumi, and Poti), where appropriate permits are issued. It is scheduled to open another service center in Kutaisi at the end of the year. Qualification Center – Training center for transporters, which will be launched in the nearest future and which will provide increasing competence for customers.

LEGAL FRAMEWORK

The basic law regulating the land transport sector is Georgian law “on Management and Regulation of Transport Sphere”. Also, its important several bylaws – technical regulations, rules bilateral (international) agreements, etc. Technical regulations of land transport sector are following:

- “The rule for creating the banner form for required periodic testing”

- “The technical requirements for transport, for which are conducted road validity tests”
- “Alteration rules for mechanical transport”
- “Service rules of vehicles”
- “Rules and conditions for operation of a auto station”
- “Rule for trucks and trailers about compliance with ECMT technical and security demands”
- “Rule for transportation cargo by vehicle”
- “Rule for passenger and cargo transportation by vehicle”
- “Work and rest regimes for international transportation companies”
- “Rule of using traffic control devices”
- “Requirements to self-made vehicles”

ICT INFRASTRUCTURE

The agency was created in April 2011, thus management did not have enough time for setting up serious computer infrastructure. So, the situation is following:

- Level 1: The vast majority of employees have modern PCs (40 computers) with Windows 7 operating system and MS Office 2003, 2007, or 2010 packages. File server does not exist;
- Level 2: WAN/LAN – The agency has internal network and Internet. Connection network to customer relationship regional offices does not exist;
- Level 3: Server Infrastructure – So far, server infrastructure does not exist in the agency;
- Level 4: Support organization and Services – Agency staff have Internet connection and corporate mail service. Server of Ministry of Finance is used for an e-mail server. Information Technology Service of Ministry of Finance provides proper operation of electronic document flow. The regional offices are also included in the document flow system. The only IT specialist of the agency ensures proper operation of PCs and other office equipment.
- ICT structure – The agency has only one IT specialist.
- ICT funding structure – There is no separate IT budget, but it was assigned appropriate funds for implementation of concrete IT projects in total budget in 2011.

RECENT PROJECTS

ICT projects are not implemented yet, but the agency already started work on special applications. At present, customer needs studying process is underway. Presumably, the application will allow the agency to register and analyze information about existing transports, certificates, and issued quotas in one system (database).

SERVICES PROVIDED TO BUSINESS

Currently, Land Transport Agency does not offer any kind of electronic service to customers.

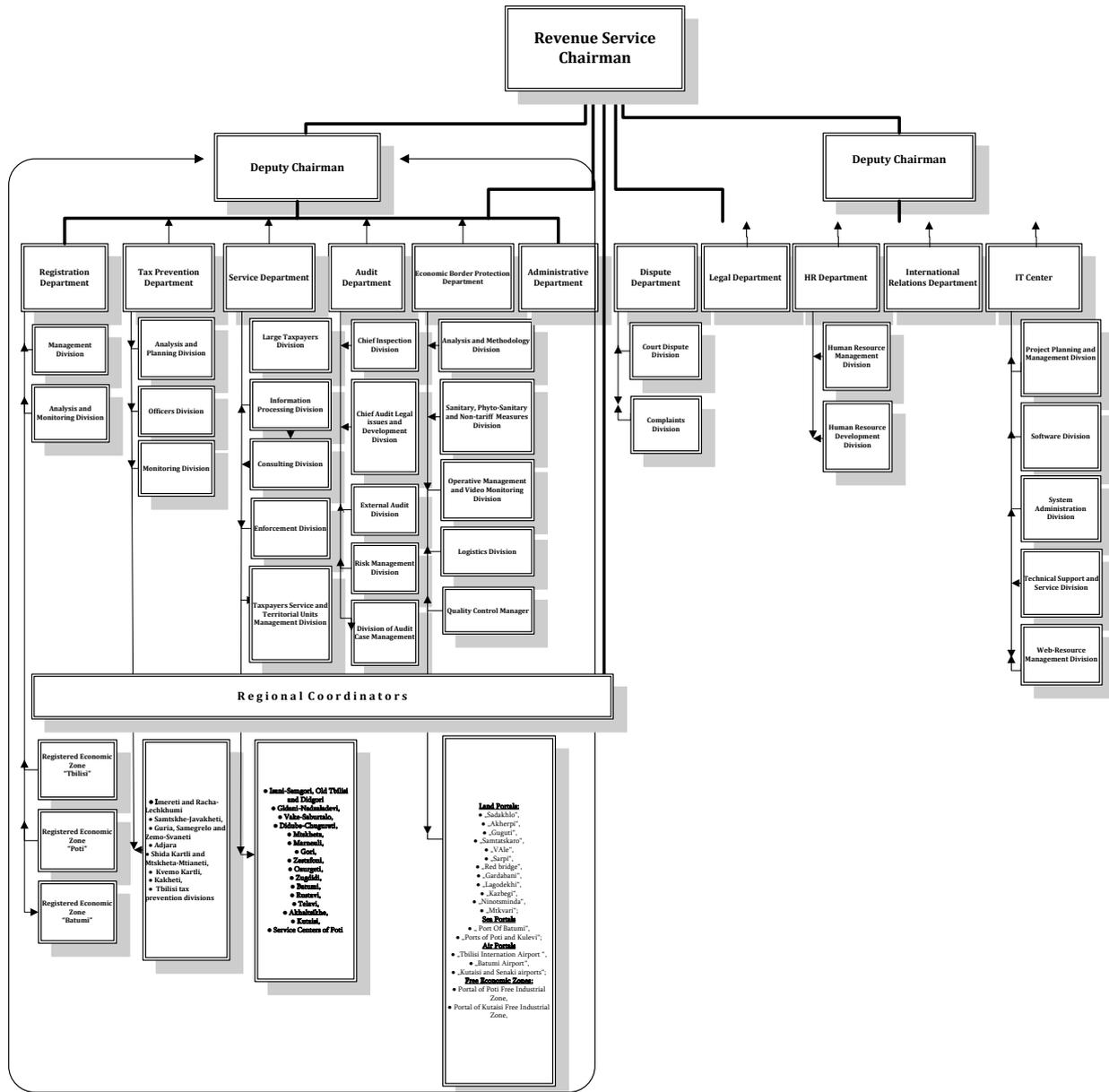
MINISTRY OF FINANCE REVENUE SERVICE

OVERVIEW

Revenue service represents a Legal Entity of Public Law (LEPL) under the authority of Ministry of Finance. Its structural units are:

- Public Relations and Marketing Department
- International Relations Department
- Human Resource Management Department
- Information Technology Center
- Administrative Department
- Legal Department
- Dispute Department
- Audit Department
- Service Department
- Tax Prevention Department
- Registration Department
- Economic Border Protection Department

The structure of Revenue Service follows on the next page.



Legal framework

The legal framework of the Revenue Service is: “Tax Code” “Administrative Offence Code”, and other normative and legislative acts.

ICT INFRASTRUCTURE

Revenue Service in terms of information technology is one of the leading organizations, which is constantly evolving. At present, the situation is as follows:

- **Level 1: Desktop Environment** – Due to the fact that Revenue Service purchases techniques in parallel with increase of organization, protection of computer hardware and software standards is impossible. Primarily, acquired techniques are accompanied by a licensed operating system and MS Office package. Thus, computers are equipped with Windows XP, Vista, and Windows 7 and also with

MS Office package 2003 (an insignificant amount), 2007, and 2010. In the organization, a file server to which all departments have allocated space to store documents exists. Now, it is decided to change the current system. The Ministry of Finance determined to create one vertical domain in which the whole ministry and all its subordinated LEPLs will be included. Also, it has begun to change the postal service and launching process of MS Exchange Server. These changes will simplify the management of the system and security policy. Printing is carried out mainly on high-performance shared printers. Scanners are on every workplace in a chancellery. Digitalization of paper documents and registration of electronic document flow are performed by these scanners.

- Level 2: WAN/LAN – Except the central office, Revenue Service has about 60 local offices. In each office is internal network, as well as all offices are joined to the united network of Revenue Service. Providing offices with network was implemented within the GNN project and the winning company (Magti) provided the offices required speed (direction, registered economic zone 15 MB/S, Tbilisi office 8 MB/S, Kazbegi – 256 KB/S). Internet services are distributed from a central office according to the appropriate need. Revenue Service has a network connection with the Ministry of Internal Affairs (optical cable), the Ministry of Justice and its LEPLs (separated channel, within the GNN project). Only declarants enter in the VPN system. Necessary services for declarants will be transferred on the WEB until the end of the year. Accordingly, VPN will not be necessary.
- Level 3: Server Infrastructure – Financial-Analytical Service provides the Ministry of Finance and all LEPLs within the Ministry by server resources. The service has a modern server room where the entire server infrastructure is located. Accordingly, Financial-Analytical Service provides Revenue Service with server service. Thus, servers are mainly centralized, except the cases when additional servers are located on concrete places. System backup is made regularly and kept in special library. Comprehensive Disaster Recovery system is currently under construction and will be completed by the end of the year. Databases are entirely on Oracle platform. Server techniques and data storage devices are from HP.
- Level 4: Support organization and Services –The center provides Revenue Service with electronic services necessary for operations. Despite this, formed and signed Service Level Agreements (SLA) do not exist between the center and Revenue Service. Responsibilities of the center are fully described in its regulations.
- ICT structure – The IT Center of Revenue Service incorporates the following divisions: A) Project Planning and Management Division – gathers analysis requirements from users related to the system; prepares technical tasks for system developers on the basis of these requirements; ensures quality control, project management, documentation, and implementation of systems. B) System Administration Division – due to the fact that the center does not have its own server infrastructure, division is staffed with only one specialist. C) Software Development Division – composed of programmers and is responsible for technical tasks related to software development. D) Technical Support and Service Division – provides proper work of employees' computers, Software, and other equipment in the central and regional offices. E) Web resource Management Division – provides proper work and development of WEB services; the division consists of skilled programmers and WEB designers, but high pace of

development puts stricter requirements, which spur Revenue Service to put more resources and time in staff training.

- ICT funding structure – IT center does not have a separate budget and is funded from the general budget of the Revenue Service. For employees who are involved in some projects are assigned funds, which are distributed in the form of bonuses.

RECENT PROJECTS

Projects implemented in years 2010-2011

Project name – Modernization of electronic collection order and electronic sequestration submitting service;

Purpose – Full relationship automation with banks, control write-off process from taxpayers' accounts, timely execution of sequestration filing/removal;

Achievements – Electronic exchange from banks, full automation of account seizure, and submission of a collection order reduce the probability of cutting excess funds from taxpayers' account within the collection order.

Project name – Electronic service of sequestering property (National Bureau of Enforcement, National Agency of Public Registry, Ministry of Internal affairs);

Purpose – Full automation of sequestration filing/removal from taxpayers' property, assembling electronic services to the relevant agencies (National Bureau of Enforcement, National Agency of Public Registry, Ministry of Internal affairs);

Achievements – Full automation of process, system efficiency, simplifying information exchange mechanism.

Project name – Return value-added tax (VAT) amount to Tax-Free foreign citizens on purchased goods in Georgia.

Purpose – Provide electronic registration process of receipts for returned VAT amount to Tax-Free foreign citizens on purchased goods in Georgia; creation of electronic service for payers and banks; developed and launched website for the taxpayers (shops); also created monitoring and management module for customs officers to control returning process of VAT to Tax-Free foreign citizens on purchased goods in Georgia.

Achievements – Full automation of process, system efficiency, simplifying information exchange mechanism.

Project name – Accounting tax agreement

Purpose – Automation of existing processes. Developed software module for accounting tax agreement, worked out module for receiving necessary information about the payer.

Achievements – Accounting of tax agreement is more flexible; receiving necessary information about payer automatically, which increases time efficiency.

Project name – Upgrade taxpayer electronic relationship services.

Purpose – Timely notification of a taxpayer about tax/custom processes related to him/her. Representation of documents about tax/custom processes on payers' web page (electronic payment request, order, pledge, etc.). Delivery of all relevant information to tax officer.

Achievements – Simplified procedures for submitting information for the taxpayer, full control of information about the taxpayer, reduced presentation by hand (by mail).

Project name – Software development for operation of Register Economic Zone.

Purpose – Full automation of existing processes of the Register Economic Zone; timely delivery of information about the cargo to the taxpayer.

Achievements – Improved quality of service for taxpayers; monitoring of ongoing processes.

Ongoing and Planned Projects

Project name – GPRS cash registers' registration and accounting.

Purpose – Automated registration process of GPRS cash registers; organizing procedures related to receiving information from GPRS cash registers.

Project name – Automation processes of the Audit Department

Purpose – Automatic determination of taxpayers by risk criteria in order to conduct the audit; automatic distribution of tasks on auditors; full accounting of results of the audit; simplification of data receiving process about taxpayers.

Project name – Automated submission process for return overpaid funds to payers or movement to another tax account by the Treasury Service.

Purpose - Automation of processes in the tax system related to this project; organize electronic service to the Treasury Service.

SERVICES PROVIDED TO BUSINESS

Revenue Service is working successfully for the delivery of electronic services to consumers. Taxpayer (consumer) has an opportunity to receive electronically the following services:

- Electronic declaration – Taxpayer has an opportunity to file all types of declaration electronically, obtain information about his/her obligations to the tax authorities, and become familiar with requirement defined by them.
- Electronic tax invoice – Allows user to subscribe electronically for the tax invoice, receive a confirmation from the buyer, and file to the tax authorities.
- Electronic application – Taxpayer can electronically request various types of services from tax/customs authority, as well as electronically receive a response on the requested application. The system provides standard-type applications on which tax/custom labor resources are not spent and system itself provides the answer.

ACYCUDA WORLD – Electronic customs declaration.

TAX FREE – Electronically fill special bill related to return VAT amount to tax free Foreign Citizens on purchased goods in Georgia.

GEORGIAN NATIONAL AGENCY FOR STANDARDS, TECHNICAL REGULATIONS AND METROLOGY (GEOSTM)

OVERVIEW

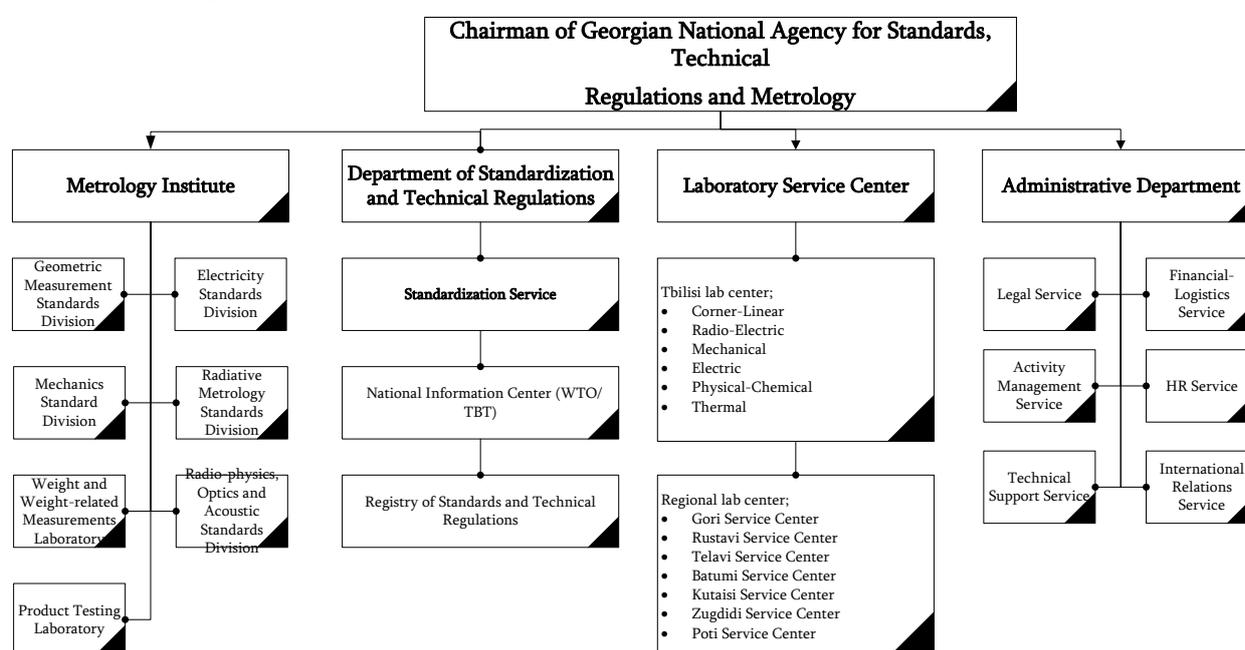
GEOSTM represents a Legal Entity of Public Law (LEPL) under the authority of Ministry of Economy and Sustainable Development, which is only partially financed from the state budget (approximately 20%).

GEOSTM's goals, functions, rights and responsibilities are:

- Formation, implementation and coordination of national policy in standardization and metrology fields.
- Elaboration of statutory framework to ensure traceability within the acting legislation.
- Playback measurement units on the entire territory of Georgia to ensure traceability. Transmission measurement units to sample means of measuring.
- Participation in the scientific-methodological bases elaboration process for the development of traceability.
- Creation and development of standard framework for measuring devices (included imported) verification, testing and type approval within the acting legislation.
- Conducting activities related to recognition and verification of legalized means of measurement.
- Conducting researches and scientific-technical works in order to create national standards for means of measurement. Elaboration of united methodical and normative-technical documentation for metrology sphere.
- Execution of examination in the case of litigation.
- Registering and updating standards, technical regulations and means of measurement and ensuring their transparency.
- Represent Georgia in international and regional organizations of standardization and metrology.
- Registration standards and technical regulations in accordance with defined rules.
- Development and/or approving normative document in the field of metrology.
- Conducting complex laboratory studies and tests on the metrology tools, materials and substances in accordance with defined rules.
- Providing professional trainings for specialists in the field of standardization and metrology.
- Organization and management of works in accordance with Georgian legislation and World Trade Organisation (WTO) agreement "Technical barriers to trade".

There are several divisions in the authority of Georgian National Agency for Standards, Technical Regulations and Metrology:

- Department of Standardization – which in turn incorporates three services: National Information Center of WTO relations (functions: providing WTO member countries with appropriate regulations acting in Georgia and informing them about any amendments in these regulations; ensure availability of international and European standards for all interested parties – entrepreneurs, state regulatory bodies). Standardization service (functions: processing applications presented from interested parties about launching new standard; learning suggestion compliance with other regulations; accepting new standard or sending reasonable refusal to the applicant). Registry of Standards and Technical Regulations (functions: registration standards and technical regulations acting inside the country).
- Metrology Institute – provides basis for unified measurement system inside the country. It incorporates variety of laboratories, which provide framework for caring and maintenance of standards.
- Administrative Department – it incorporates following services: HR Service, Legal Service; International Relations Service and Financial Logistics Service.
- Laboratory Service Center – it consists of regional laboratory centers and Tbilisi lab center in which operates several types of laboratories: mechanical, physical-chemical, electric, radio-electric, corner-linear, thermal. The main functions of the center are certification and calibration of low accuracy/class measuring equipment inside the country.



LEGAL FRAMEWORK

The agency was formed on the basis of “Standardization” law. In addition, legal framework of the agency includes the following laws and acts:

- Georgian Law on Traceability
- Georgian Law on Standardization

- Georgian Law on Production and Service Certification

Within the package of DCFTA (Deep and Comprehensive Free Trade Agreement) and by a Georgian government order are approved two documents: “Georgian government strategy in the field of standardization, accreditation, conformity assessment, technical regulations and metrology” and “Government program for elaboration of technical regulations and legislative acts in the field of standardization, accreditation, conformity assessment, technical regulations and metrology”. Therefore, all the planned reforms will be implemented in compliance with strategy and program defined in these documents. Intensive legislative lawmaking process is underway, prepared code project about “Safety and Free Flow of Goods” which incorporates almost the whole legislative base related to quality infrastructure.

ICT INFRASTRUCTURE

The ICT infrastructure of the agency is very poor. New management, which was appointed in 2011, plans development of this sphere. At present, the situation is as follows:

- Level 1: Desktop Environment – Vast majority of employees are provided with computers. Most of the computers are obsolete with Windows XP SP2 operating system. There are 10 new purchased computers with Windows 7 operating system. The agency uses MS Office 2007 (unlicensed).
- Level 2: WAN/LAN – Primitively made internal network through which employees have an access to the Internet. Network connection does not exist in regional lab centers and these centers do not have internal network.
- Level 3: Server Infrastructure – Does not exist any servers; therefore the agency does not have a server room. The agency website and mail service are located in the Internet provider company (Caucasus Online).
- Level 4: Support organization and Services – The IT staff of the agency provides support to the existing equipment. SLA (Service Level Agreement) does not exist for the regulation of this service.
- ICT structure – There are only two employees in the IT service and their main functions are: smooth functioning of internal network, computers and office equipment; providing technical assistance to the employees.
- ICT funding structure – IT service does not have separate budget.

RECENT PROJECTS

Accomplished projects do not exist in this area.

It is planned to organize agency’s internal network and this network will connect computers (approximately five jobs) located in the reception of the building. After that, citizens will have an opportunity to find information in the digital archive.

At present, network connection between the agency and the Ministry of Economy and Sustainable Development does not exist. Given that the Ministry has been fully transferred to the electronic form of proceedings, it is important for the agency to be involved in the unified electronic proceedings system.

SERVICES PROVIDED TO BUSINESS

Currently, the agency cannot provide electronic service to the business, which leads to significant time and human resource expenditures.

CIVIL AVIATION AGENCY

OVERVIEW

Civil Aviation Agency represents a Legal Entity of Public Law (LEPL) under the authority of Ministry of Economy and Sustainable Development. The main activities of the agency are execution of technical regulations in the field of civil aviation and render related services.

Civil Aviation Agency aims to provide:

- Safe functioning of civil aviation and aviation security.
- Implementations of international standards in the field of civil aviation and promotion of European integration.

There are several structural units in the authority of Civil Aviation Agency:

- Flight standards, Certification and Inspection Department – which has following main functions: certification of airline companies and supervision of their activities; issuance, replacement and extension of the validity of air specialists' documents and registration of appropriate information; supervision of safety issues related to pilot-inspectors and methodical examination of civil aircraft crew; recognition of other certificates and qualification marks issued by the state; researching accidents occurred in this sphere; issuance of certificates for educational facilities and for teachers acting in this field; aircraft operators certificate register; supervision of defined rules execution by aircraft; supervision of protection of flight safety norms on the aircraft platform in the airport; elaboration of technical regulations; supervision of activities of Aviation-Medical-Expert Commission.
- Department of airports and airdromes – registration, certification and supervision of airdromes, helicopter landing sites in order to ensure civil aviation safety; supervision of airport illumination system conformity to the defines requirements; registration, certification and supervision of air fuel stations; elaboration of technical regulations; accounting of existing obstacles (related to the height) near airports and airdromes.
- Air Navigation Service Department – registration, certification and supervision of companies in this field; recognition of air traffic control, communication, navigation and air navigation service technical tools; monitoring the meteorological service execution process for aviation; organization of searching-rescue activities and coordination to other state authorities; organization of Georgian air space and participation in forming an air structure; supervision of composition and publication process of information related to air navigation; elaboration of technical regulations.
- Aircraft Validation and Registration Department – registration of state aircrafts; ascertaining validation of aircrafts and issuing appropriate documents; supervision of exploitation process of aviation techniques by airlines; certification and supervision of enterprises, which provide technical service to aviation techniques; inspection of foreign county aircrafts in accordance with European Aviation Safety Agency's requirements; investigation of aviation event; recognition of certificates or similar documents issued by foreign countries' aviation technical service enterprises; elaboration of technical regulations.
- Transportation-Shipping Department – provide an access to the international markets for airfreights registered in Georgia; provide an access to the Georgian

market for airfreights registered in a foreign country; registration and issuance of permissions on irregular transportation-shipping; issuance of permissions on aviation work in the territory of Georgia; conducting an auction related to distribution of flight frequency; approving flight schedules in accordance with navigation seasons; registration and certification of air freight terminals; supervision of transporting dangerous goods by civil aircraft; conducting negotiations about using Georgian air space in the cases defined by international agreements; participation in international projects elaboration-review process; elaboration of technical regulations.

- Aviation Security Department – prevention of illegal interference in aviation activities; constant supervision and control of airports and aircraft operators in order to avoid illegal activities in the civil aviation; elaboration of airlines security programs and periodic revision; issuing permits for employees of Civil Aviation Agency and for airfreight companies' (registered in Georgia) crew members in order to have them access to the limited spaces inside the airport; elaboration of national normative acts on the basis of International Civil Aviation Organization's standards and recommended practices in the aviation security field; assessment of civil aviation threat level and implementation risk management measures; supervision of airline activities in order to protect security regime; controlling quality of requirements fulfillment process in the civil aviation security sphere.
- Legal Department
- Administrative Department
- Financial Economic Analysis Department

LEGAL FRAMEWORK

The legal framework of Civil Aviation Agency is: international treaties; Georgian law “about management and regulation of transport sphere”, “Georgian Air Code” and legal acts and adopted rules represented below:

- “On Certification of Air Cargo Terminals and Approval of Certificate Forms;
- Certification rules of Air Traffic Services and Facilities;
- Certification Rule of Aerodromes;
- Rules for Investigation of Aviation Accidents and Incidents;
- Certification Rules of Air Specialists;
- Technical Service Rules of Aviation Techniques;
- About Approval of Certification Rules for Aircraft Operators;
- Certification Rules of Aviation Equipment;
- Certification Rules of Enterprises which Provides a Service to Aviation Techniques;
- Preflight Inspection Rules;
- Rules for Civil Aviation Security Personnel Selection, Hiring, Training and Certification;
- Rules for Defining Limited Access Zones Inside the Airport and for Issuing Permissions to Have an Access on these Zones;
- Certification Rules of Enterprises which Provides Civil Aircrafts with Fuel;
- Weapon Carrying Rule in Civil Airport Territory and in Aircrafts;

- Rules for the Selection, Acquisition, Maintenance and Inspection of Civil Aviation Security Equipment;
- Rule for Testing Civil Aviation Security Systems;
- Rules for Designing and Operation of Aerodromes and Helicopter Landing Sites;
- Rule of Meteorological Support to Georgian Civil Aviation;
- Rule for Transporting Dangerous Goods by Air;
- Flight Operation Rules for Aircrafts”.

There are several changes planned in the legal framework within the Twinning project initiated by EU in order to reach harmonization with European standards. The project currently is in an active phase and highly skilled group of experts are working in all departments. The project budget is 1250000 € and it will continue for 18 months (from April 2011 to December 2012).

ICT INFRASTRUCTURE

The agency was created in April 2011 and there are several months after the building has changed. At present, repair and infrastructure organization works are underway. The agency has quite high information technology requirements, but development of this field will start almost from the scratch. Today situation is as follows:

- Level 1: Desktop Environment – in fact, the entire staff (about 60 positions) have a modern PC with Windows 7 operating system and MS Office 2010 package. In this regard, established standard does not exist. Because the majority of employees are often in business trips, the agency plans to purchase laptops for these employees. So far, File Server is not running and all information is stored in users' PCs;
- Level 2: WAN/LAN – along with repairing the building, it is executing internal network creation process. Recently, finished tender about providing Internet service to the agency, where “Silknet” won. Network connection to other organizations does not exist (at present, there is no necessity of such network connection) ;
- Level 3: Server Infrastructure – servers are already purchased but not yet launched. General standard related to servers and software does not exist; consequently, technical task is defined for every concrete case based on system requirements.
- Level 4: Support organization and Services – there is not a separate IT service inside the agency, but technical departments incorporate highly qualified IT specialists and they will ensure proper work and development of computer systems in the future. It is registered a domain gcca.ge until launching the servers and as a mail service the agency uses Google App.
- ICT structure – there is one employee in an Administrative Department who provides service for PCs.
- ICT funding structure – separate IT budget does not exist in the agency. IT components of concrete projects are financed from the project budget. Ongoing activities in the IT field are financed from the agency budget.

RECENT PROJECTS

So far, none of the projects have been accomplished in the IT field. The agency is working to create a web page. It has already planned to set mail service, file server and internal corporate portal on purchased servers.

SERVICES PROVIDED TO BUSINESS

Civil Aviation Agency collaborates with commercial organizations working in this sphere and provides them variety of services. Currently, exchange of information performs in the form of paper documents. The process of transition to digital document flow is already started.

NATIONAL STATISTICS OFFICE OF GEORGIA (GEOSTAT)

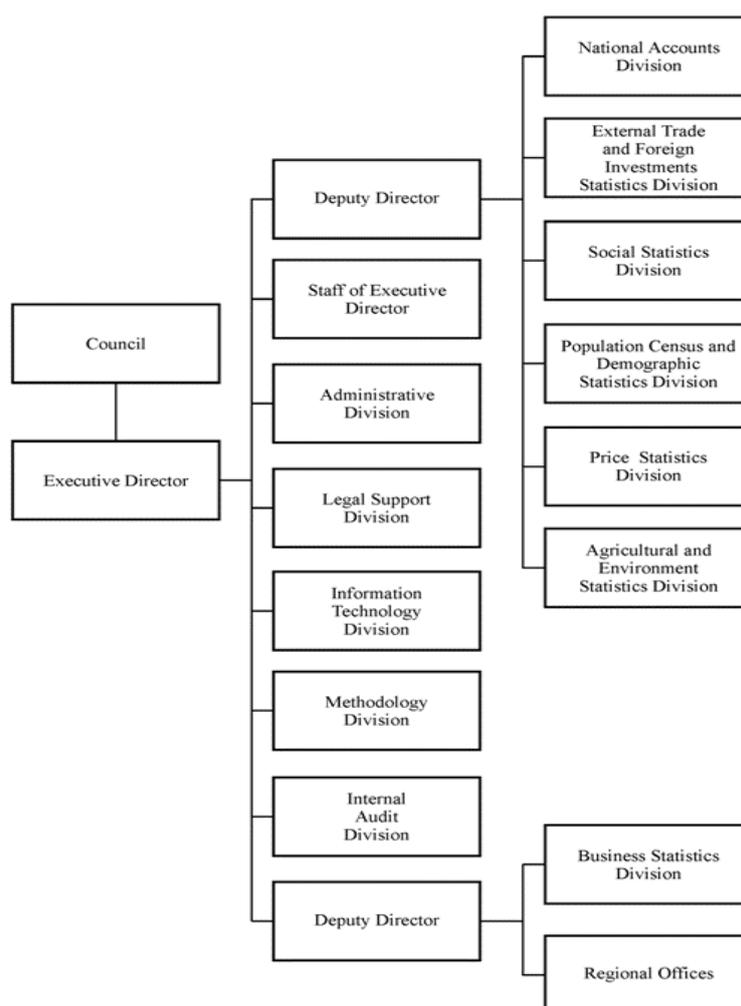
OVERVIEW

National Statistics Office of Georgia (GeoStat) represents a Legal Entity of Public Law (LEPL), which is established by the Law of Georgia, December 11, 2009, on “Official Statistics”.

GeoStat carries out statistical information gathering, processing, analyzing and distributing activities on the whole territory of Georgia. Main objectives of GeoStat shall be the following:

- Work out a unified policy for the field of statistics and secure coordinated cooperation with other bodies producing the statistics;
- Collect, process, maintain, analyze and disseminate data on social, demographic, economic and environmental situation of the country;
- Prepare and introduce statistical standards and methodology, which are compatible with international analogues;
- Create and realize statistical classification system;
- Create and improve statistical databases, information banks and networks;
- Create and approve statistical observance forms for producing official statistics;
- Ensure confidentiality of statistical data collected for producing official statistics, if such data allows for identification of observation unit, or if it is possible to identify such data through them;
- Ensure provision of information for users of statistical data;
- Conduct the census of the population;
- Cooperation with national statistics services of other countries, international organizations and donors for establishment and sharing international practice and methodology in the field of statistics.

Organizational Chart:



The staff of the GeoStat consists of the following units:

- National Accounts Division – maintain national accounts system; collect and process statistical related to state finance and monetary system; plan, organize and implement official statistical observation for those subject engaged in various economic activities who were not covered by regular statistical surveys; produce satellite surveys; calculate state Gross Domestic Product (GDP).
- External Trade and Foreign Investment Statistics Division – collects and process data on foreign economic activities (including Foreign Direct Investments (FDI); process data on foreign trade; carry out mirror comparison of export-import data; study local and foreign financial as well as nonfinancial investment flow; collect and process data for the balance of payments (including international services by the types of services, foreign debt statistics and international investment position.
- Social Statistics Division – design, organize and implement integrated surveys of households; calculate statistics regarding standard of living and economic activity status (employment, unemployment) of population; plan, organize and implement labor (regarding average monthly salary of hired employees) statistics survey; collect, process and analyze statistical data on the field of social infrastructure (health care, education, culture, offences etc.); plan, organize and implement other statistical surveys in social and demography sectors.

- Population Census and Demographic Statistics Division – plan, organize and implement general population census and also sample socio-demographic surveys during the period between population censuses; collect, process and analyze data on natural increase and migration of population.
- Price Statistics Division – register prices; calculate consumer, producer and other indices; determine and analyze level and dynamics of inflation; create databases for participation in international comparison program.
- Agriculture and Environmental Statistics Division – plan, organize and implement overall agriculture census, as well as various statistical surveys in the fields of agriculture and environment; produce official statistics in the fields of agriculture and environment; ensure operation of food safety information system of the country; conduct food balance.
- Business Statistics Division – creation, update and coordination of the system of registers for legal entities of private and public law; plan and organize statistical surveys and collect, process, analyze, disseminate and maintain regarding subject engaged in various economic activities.
- IT Division – IT support for statistical activities, designing, protecting and administering databases; ensure technical maintenance of network and office equipment; create and administer corporate and local computer networks; provide Web-publishing services for GeoStat.

GeoStat has the following territorial units:

- Tbilisi Division of the National Statistics Office;
- Gurjaani Division of the National Statistics Office;
- Gori Division of the National Statistics Office;
- Marneuli Division of the National Statistics Office;
- Borjomi Division of the National Statistics Office;
- Kutaisi Division of the National Statistics Office;
- Poti Division of the National Statistics Office;
- Batumi Division of the National Statistics Office.

Main functions of the territorial units of GeoStat on their defined territories shall be as following: produce official statistics; coordinate statistical activities; collect, process and maintain data on social, demographic and environmental situation; ensure protection of collected confidential information; create databases and information banks; maintain the archive of statistical survey questionnaires; carry out other activities envisaged by legislation.

LEGAL FRAMEWORK

Following laws and acts represent legal basis for GeoStat functioning:

- The Law of Georgia on Official Statistics;
- Charter of the National Statistics Service of Georgia;
- On Approval of Prices for Disseminating the Statistical data Generated beyond the Statistical Activity of Legal Entity of Public law National Statistics Office of Georgia;
- Statistical Activity Program for 2011.

During the year GeoStat works under the guidance of Statistical Activity Program, which is approved by the President of Georgia. According to this program GeoStat composes calendar for works to be done.

Significant changes are not planned in the legislation related to the GeoStat.

ICT INFRASTRUCTURE

Statistical data processing and analysis require considerable use of IT. Accordingly, this sphere is quite developed.

- Level 1: Desktop Environment – defining and maintaining standard on PCs is impossible because of periodic purchases. GeoStat equipment purchases are always in line with modern requirements. Almost all employees are provided with computers. The park consists of 180 computers with Windows XP operating system (except the new PCs) and MS Office 2007 package. Transition on Windows 7 is already planned. In the organization a file server to which all departments have allocated space to store documents exists. There is at least one printer in all rooms for general usage.
- Level 2: WAN/LAN – GeoStat has two domains, which are interconnected by VPN. Network connection does not exist with regional offices; however all offices have an Internet access and their employees connect with central office network by VPN Clinet. It is planned to launch VPN connection with Ministry of Finance (Revenue Service), Public and Civil Agencies of Registry.
- Level 3: Server Infrastructure – GeoStat has a server room with the cooling system; however special floor and special extinguishing system do not exist in the server room. The server room is too small for another server rack. At present, following servers are located in the server room: Domain Controller, File Server, Mail server, 2 Storage Server, Telephony Server, 4 DB Server (3 MS SQL, 1 Oracle). The Chancellery, social statistical system and general use base of GeoStat are working on MS SQL databases. Integration process of the unified statistical system on the Oracle database is underway. Regularly (once a day) implemented data backup process on Storage Server. Periodically (about once a month) implemented copying information from backup copies to DVDs.
- Level 4: Support organization and Services – officially SLA is not defined. The division provides GeoStat with postal and telephone services, also undertakes database maintenance and technical support to customer. It also ensures proper operation of statistical systems.
- ICT structure – except the manager IT division incorporates two network administrators, five programmers and one engineer-electric specialist.
- ICT funding structure – separate IT budget does not exist in the Geostat. Planned project, as well as wages for employees related to these projects, are financed from general budget and compose quite a big part of Geostat's budget.

RECENT PROJECTS

A project “paperless information collection system” started in October 2010 and finished in April 2011. The aim of this project was to create digital information collection and processing system for the field works.

Within the project has developed special application, which allows operator to directly enter the information in the system by net book. After that, information (CSV file) is sent to the

GeoStat, where automatic information elaboration and entering to the database for further processing occur.

The project was financed by USAID.

The application was elaborated by contractors; however information import part has been developed by local developers.

At present, "A Unified Statistical Base" creation project is underway.

The purpose of the project is to create a common workspace for all divisions of the Geostat.

Common procedure, services and interface will be created within the project. The system will have a Web interface and it will be possible to connect to the system from any location (from offices, at the time of fieldwork). Therefore, special application will not be necessary for collecting information after project completion. The system will be built on the Oracle database platform with new structure.

The project started in late November 2010. Technical task preparation process finished in February 2011 and after that system development started. It is planned to complete system by the end of September 2011 and start the testing process.

At the beginning the project was funded by MCG, which completed its mission in Georgia in April 2011 and after that project is financed by GeoStat.

In the project development employees of GeoStat as well as external contractors participated.

The main risks of the project are related to the timely completion of the project.

The expected result of the project is a unified system, which will simplify information (obtained from various sources) exchange process between the divisions.

SERVICES PROVIDED TO BUSINESS

At present, IT Division of GeoStat does not provide any kind of electronic service to the commercial business. Necessary information for the commercial sector is available on the GeoStat's website.

**USAID Economic Prosperity Initiative (EPI)
6 Samgebro St.**

Tbilisi, Georgia

Phone: +995 32 43 89 24/25/26

Fax: +995 32 43 89 27