



# Technical Assistance Consultant's Report

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## **ARMENIA: Case Study on e-Government Procurement Development** (Financed by R-CDTA 7437: Asia Pacific Procurement Partnership Initiative)

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For **Asian Development Bank**

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## ABBREVIATIONS

ADB	Asian Development Bank
AMD	Armenian Dram (National currency of Rep. of Armenia)
APPI	Asia Pacific Procurement Partnership Initiative
ARMEPS	Armenia Electronic Procurement System
CA PC	Contracting Authority Procurement Coordinator
CA PCA	Contracting Authority Procurement Coordinator Assistant
CA PO	Contracting Authority Procurement Officer
CfT	Call for Tenders
CIDA	Canadian International Development Agency
CIS	Commonwealth of Independent States
CPAR	Country Procurement Assessment Report
CPBs	Central purchasing bodies
CPV	Common Procurement Vocabulary
CSO	Civil Society Organizations
DMC	Developing Member Country
DP	Digital Print
eGP	e-Government Procurement
EKENG	E Governance Infrastructure Implementation Unit
EU	European Union
FFPMC	Foreign Financing Projects Management Center
GoA	Government of Armenia
GPA	General Procurement Agreement
ICT	Information and communication technology
KPIs	Key performance indicators
LoP	Law on Procurement
MEAT	Most Economically Advantageous Tender
MoF	Ministry of Finance
NGO	Non-governmental organization
NUTS	Nomenclature of Territorial Units for Statistics Codes
OSCE	Organization for Security and Cooperation in Europe
PCRB	Procurement Complaint Review Board
PSC	Procurement Support Center
PSRC	Public Services Regulatory Commission
RA	Republic of Armenia
SCPEC	State Commission for the Protection of Economic Competition
SIGMA	Support for Improvement in Governance and Management
SME	Small and Medium Enterprises
SNCO	State Non Commercial Organization
SPA	State Procurement Agency
TI	Transparency International
TP	Tender Package
UNDP	United Nations Development Program
USAID	United States Agency for International Development
WTO	World Trade Organization

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## INTRODUCTION

### General

This case study presents an investigation of Armenian government's e-Procurement initiative. This case study is initiated within the scope of RETA 7437-Asia Pacific Procurement Partnership Initiative. The APPI undertakes studies of e-GP initiatives of selected ADB Developing Member Countries and is planning to present them in planned Asia-Pacific Conference on e-GP.

We have analyzed eGP through the critical success factors of e-procurement implementation. For this reason we have explored international experience at first, then constructed the structure of information to be gained on Armenia eGP, reviewed available documentation and initiated several interviews with appropriate officials.

### ADB and Armenia

Armenia joined ADB in 2005. Armenia is the 24th largest shareholder among regional members and the 32nd largest overall.

### Asia Pacific Procurement Partnership Initiative

In August 2009, ADB hosted a consultative meeting (consultation) to canvass with stakeholders across Asia and the Pacific on the possible advantages of establishing a procurement forum or similar facility to promote informed policy dialogue and more effective information exchange on internationally acceptable or good procurement practices. The consultation participants concluded that an approach that fosters stronger dialogue and collaboration among various stakeholders to support public procurement reform and related efforts of DMCs in Asia and the Pacific was needed and would benefit ADB's member countries, development partners, and civil society organizations (CSOs). As a result, ADB started Procurement Partnership Initiative.

### Data acquisition

The data collection method used in the research is of the non-standardized type, and it has basically consisted of analysis of contents of written documents. The documents are mainly the international origin and the official Armenian documents that appropriate organizations have published through their official web sites. Indeed, Armenian documents on eGP that are relevant for our research have been produced by the following three different bodies:

- Legislative bodies, e.g. the National Parliament of Republic of Armenia – [www.parliament.am](http://www.parliament.am)
- Regulatory bodies, e.g. the Government of the Republic of Armenia – [www.gov.am](http://www.gov.am) and the Ministry of Finances of Republic of Armenia – [www.mfe.am](http://www.mfe.am)
- Executive bodies - «Procurement Support Center» Non Commercial State Organization [www.procurement.am](http://www.procurement.am) and [www.armepps.am](http://www.armepps.am)

Semi-structured interviews with open-ended questions focused on when, what, how and why certain problems had taken place. In particular, we interviewed:

- Karen Brutyan, Head of Public Internal Financial Control and Public Procurement Methodology Department, Ministry of Finance
- Arthur Araqelyan, Deputy Chief of Procurement Support Center (PSC), State Non Commercial Organization (SNCO)

## COUNTRY CONTEXT

### Overview<sup>1</sup>

The Republic of Armenia is a sovereign, democratic, social, rule of law state. The state power is administered pursuant to the Constitution and the laws based on the principle of separation of the legislative, executive and judicial branches.

<b>Official Name:</b>	Republic of Armenia - Hayastany Hanrapetoutyun (Hayastan)
<b>Capital City:</b>	Yerevan
<b>Official Language:</b>	Armenian
<b>Religion:</b>	Christian, Armenian Apostolic Church
<b>Currency Unit:</b>	Armenian Dram, introduced in 1993.
<b>Population:</b>	3,210,000 (as of 2001, Census)
<b>Ethnic Breakdown:</b>	Armenians - 96%. Minorities: Russians, Yezidis, Kurds, Assyrians, Greeks, Ukrainians, Jews and others
<b>Territory:</b>	29.74 thousand square kilometers
<b>Neighboring Countries:</b>	In the North: Georgia; in the East: Azerbaijan; in the South: Iran; in the South-West: Nakhijevan (Azerbaijan); in the West: Turkey.

### Economy

After growing at around 10% per year on average for a decade until 2008, Armenia's economy has been devastated by the global economic crisis. Its real gross domestic product has declined by 14.1% in 2009. Prompt and effective anti-crisis measures carried out by the government in 2009 helped Armenia enter a phase of stabilization and recovery in 2010. Given this, GDP expanded by 2.1% in 2010.

In the Global Competitiveness Report 2010–2011<sup>2</sup> produced by the World Economic Forum, Armenia was ranked among 139 countries:

- 98<sup>th</sup> in the **Global Competitiveness Index** (Score: 3.8 from 1-7)
- 103<sup>th</sup> in the **Diversion of public funds** (Score: 2.7 from 1-7 where 1 = very common; 7 = never occurs) (In your country, how common is diversion of public funds to companies, individuals, or groups due to corruption?)
- 78<sup>th</sup> in the **Favoritism in decisions of government officials** (Score: 2.8 from 1-7 where 1 = always show favoritism; 7 = never show favoritism) (To what extent do government officials in your country show favoritism to well-connected firms and individuals when deciding upon policies and contracts?)
- 91<sup>st</sup> in the **Burden of government regulation** (Score: 3.1 from 1-7 where 1 = extremely burdensome; 7 = not burdensome at all) (How burdensome is it for businesses in your country to comply with governmental administrative requirements (e.g., permits, regulations, reporting)?)
- 54<sup>th</sup> in the **Wastefulness of government spending** (Score: 3.4 from 1-7 where 1 = extremely wasteful; 7 = highly efficient in providing necessary goods and services) (How would you rate the composition of public spending in your country.)

<sup>1</sup> <http://president.am/library/armenia/eng/>

<sup>2</sup> Global Competitiveness Report 2010–2011 World Economic Forum

[http://www3.weforum.org/docs/WEF\\_GlobalCompetitivenessReport\\_2010-11.pdf](http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2010-11.pdf)

## PUBLIC PROCUREMENT IN ARMENIA

### 1. Current Situation

#### 1.1 Indicators

Public procurement of goods, works and services in Republic of Armenia (RA) constitutes a major proportion of the total government expenditure.

Table 1: Procurement Indicators of RA upon Ministry of Finances of RA

	2009 (billions) AMD	2010 (billions) AMD	2011* (billions) AMD
GDP	3141.7	3501.6	3.763
Budget	929.1	954.3	1001.1
Procurement of goods and services	152.3	159.9	173.2
% of procurement vs. GDP	4.8%	4.5%	4.6%
% of procurement vs. Budget	16.3%	16.8%	17.3%

\* - projected I Exchange Rate: 1 USD = 376.60 AMD (8 June 2011)

#### 1.2 Centralization vs. Decentralization

**Definition:** Centralized procurement is organized through Central purchasing bodies (CPBs) which are entities that procure on behalf of other public bodies, meaning that the actual beneficiary of such procurement is not its contracting authority. Decentralized Procurement is an arrangement in which certain purchasing authority or functions are delegated to smaller units of management by a central authority which retains policy and direction and responsibility.

**Current situation in Armenia:** After adoption of new Law on Procurement (LoP) (adopted on December 22, 2010 and is effective from the January 1, 2011) Armenia has transferred its semi-centralized procurement system (per old LoP only state government bodies or community institutions had ability to participate in centralized procurement system) into decentralized one. At the same time, Armenia has adopted strategy of developing unified Armenia Electronic Procurement System (ARMEPS). This will help to monitor the procurement process and avoid biased decisions from buyers' side. Though paper-based procurement concurrently will occur till the GoA adopts Procedure on eTendering implementation (envisaged date of document adoption is October 31, 2011) and makes the electronic procurement as mandatory. (This intention has been affirmed by Mr. Brutyan during interview with the author of this study, May 31, 2011). Per upcoming Procedure, ARMEPS will become mandatory from the beginning of 2012.

**History:** Before the reform, Central purchasing body in Armenia was State Procurement Agency (SPA). The SPA procured goods, works, and services in coordination with line ministries. The role of line ministries was, however, limited to providing technical specifications, setting up tender committees, and supervising contract performance. Through its representative in tender committees, the SPA exercised full control over finalization and distribution of bidding documents; receipt, opening and evaluation of bids; and signing of contracts.



### 1.3 Reforms

Armenia launched its public procurement system with independence and the transition from a centralized to a market economy in 1991. Reform began in earnest in 2000 as emphasis shifted toward improving the overall business environment and creating an enabling framework for domestic and foreign investment. In 2010 GoA has started second stage of Public Finance Management Reforms to be implemented during upcoming decade. The following 4 areas of activity are to be addressed: firstly, GoA will have to enhance fiscal discipline aimed at greater macroeconomic stability and budget system predictability. Secondly, resources must be tied up to relevant policies and priorities. Thirdly, money should be backed by a specific value providing for efficiency in the use of public funds. Fourthly, GoA will have to ensure proper financial accountability<sup>3</sup>.

Second stage reforms with focus in public procurement have been initiated by GoA approval of the document titled «Strategy of Improvements of the Procurement System» (April 23, 2009). After on, Prime Minister adopted Decree N862-A on Timeline for the activities derived from the Strategy of Improvement of the Procurement System<sup>4</sup>(October 12, 2009). The upcoming amendments provided for significant changes in the previous procurement system, including principal reconsiderations of powers of involved bodies and processes of procurement.

### 1.4 Legislation framework

The first LoP has been adopted in 2000. It has been replaced with new version in December 6, 2004. The last modification of LoP has been signed by President of Armenia in December 22, 2010 and is effective from January 1, 2011. The legislative framework is comprised of the current LoP and its supportive by-law document - GoA Decree #168-N on «Organization of procurement procedures» (adopted on February 10, 2011).

Considerable work has been done to bring the procurement legislation of Armenia in conformity with the UNCITRAL Model Law, GPA (WTO General Procurement Agreement) and EC Public Procurement Directives.

Moreover, the WTO Committee on Government Procurement adopted (December 7, 2010) a decision that invites Armenia to accede to the Agreement on Government Procurement<sup>5</sup>. Armenia is the only and first CIS (Commonwealth of Independent States) country that joined GPA. The Agreement on Government Procurement aims to provide a common legal framework for public procurement by harmonizing the applicable legal framework to a certain extent.

### 1.5 Donor Support

#### European Union - OECD / SIGMA

SIGMA (Support for Improvement in Governance and Management, a joint initiative of the OECD and the European Union) assists Armenia in the framework of the EU's European Neighborhood and Partnership Instrument (ENPI)<sup>6</sup>. Sigma supports to ongoing public administration reform in Armenia

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<sup>3</sup> Prime Minister Tigran Sargsyan's Statement at Armenia's Public Finance Management Reform Workshop, June 2010 - <http://www.gov.am/en/speeches/1/item/3029/>

<sup>4</sup> Only Armenian versions are available. [www.procurement.am](http://www.procurement.am)

<sup>5</sup> [http://www.wto.org/english/news\\_e/news10\\_e/gpro\\_07dec10\\_e.htm](http://www.wto.org/english/news_e/news10_e/gpro_07dec10_e.htm)

<sup>6</sup> SIGMA and Armenia: [http://www.sigmaweb.org/document/26/0,3746,en\\_33638100\\_33638200\\_44395930\\_1\\_1\\_1\\_1,00.html](http://www.sigmaweb.org/document/26/0,3746,en_33638100_33638200_44395930_1_1_1_1,00.html)

and is aimed at enhancing its capacities to comply with the requirements of EU integration and to effectively use EU support as a potential candidate for EU membership.

The recommendation to decentralize the procurement system in Armenia was among other findings of OECD SIGMA program experts in order to harmonize LoP with EC Public Procurement Directives and WTO GPA.

Under financial assistance of the European Union, in December 2008, SIGMA developed the following documents: “Overview of Public Procurement in Armenia” and “Analysis of the Armenian Public Procurement Law and Implementing Decree vis-a-vis the EC Public Procurement Directives and Agreement on Government Procurement”.

Sigma currently supports Armenia through projects in the following areas: Civil Service and Public Administration Reform; Financial Control and External Audit; Policy and Strategic Capacities; Public Procurement; Regulatory Management.

### **World Bank – Public Sector Modernization Project I**

Public Sector Modernization Project I for Armenia was aimed to enhance efficiency in public sector management through: (i) piloting innovations in selected institutions; and (ii) improving transparency in government decision-making and policy implementation<sup>7</sup>. One of the six project components was the introducing e-Procurement (acquisition of eTendering system). The Project duration was from May 04, 2004 to February 28, 2011. During this period PSMP I has initiated two Country Procurement Assessment Reports (CPAR) consequently in 2004 and in 2009<sup>8</sup>.

### **USAID**

USAID financed (i) development of the official procurement web site ([www.procurement.am](http://www.procurement.am)), (ii) seminars and workshops to introduce the LoP to the officials from line ministries and other procuring entities, and (iii) preparation of the Draft Implementation Strategy in 2005.

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<sup>7</sup> Public Sector Modernization Project I

<http://web.worldbank.org/external/projects/main?Projectid=P060786&theSitePK=40941&pagePK=64283627&menuPK=228424&piPK=73230>

<sup>8</sup> Armenia - Country procurement assessment report 2009

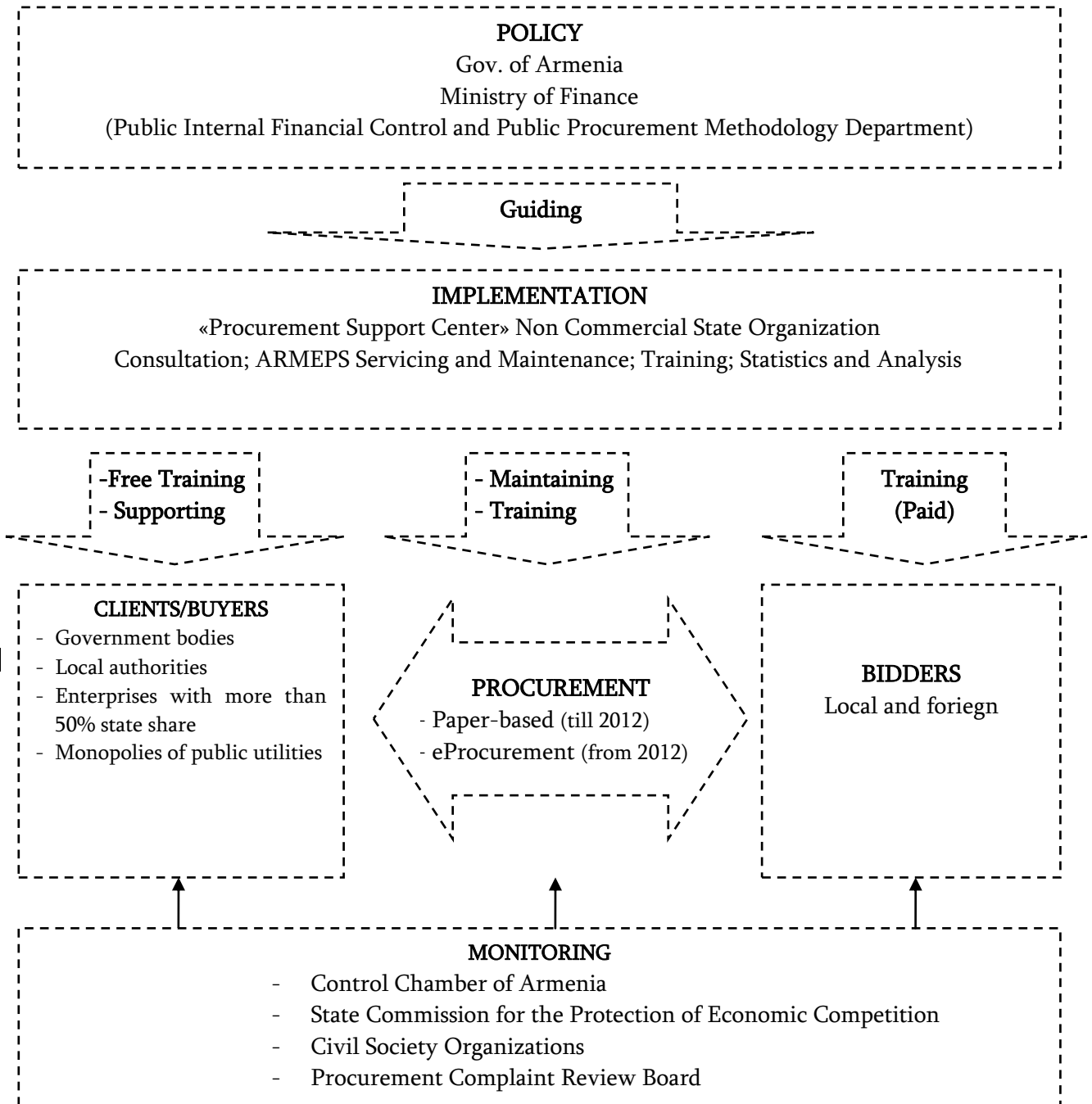
[http://www.worldbank.org.am/external/default/main?pagePK=51187349&piPK=51189435&theSitePK=301579&menuPK=64187510&searchMenuPK=301607&theSitePK=301579&entityID=000333037\\_20091005002008&searchMenuPK=301607&theSitePK=301579](http://www.worldbank.org.am/external/default/main?pagePK=51187349&piPK=51189435&theSitePK=301579&menuPK=64187510&searchMenuPK=301607&theSitePK=301579&entityID=000333037_20091005002008&searchMenuPK=301607&theSitePK=301579)

## 2. Hierarchy

### 2.1 Hierarchy Diagram

Below is the hierarchy diagram of the procurement system in Armenia:

**Figure 1:** Diagram of procurement hierarchy in Armenia



## 2.2 Government of Armenia (GoA)

According to LoP, GoA approves:

- The procedure for procurement outside of the Republic of Armenia implemented by state bodies (e.g. embassies and consulates);
- The procedure for e-procurement;
- The procedure for procurement planning, approval of procurement subject specifications, preliminary control and financing of procurement;
- The types of public-private partnership transactions, specification requirements for such transactions as well as the procedure for development and approval of specifications;
- The procedure for application of procurement procedures stipulated in this law;
- The procedure for composition and activities of evaluation commission;
- The main terms and conditions of the invitation and contract;
- The procurement plan to be financed by the state budget;
- For members of the Procurement Complaint Review Board envisaged in this law:
  - o The procedure for assessment of knowledge of the Republic of Armenia procurement legislation by procurement coordinators of state entities and local authorities);
  - o The amount of and the procedure for remuneration.

## 2.3 Ministry of Finance (MoF)<sup>9</sup>

Upon LoP, public procurement regulation and coordination is primarily organized through the authorized body which is the MoF. Within the MoF, the responsible body is the Public Internal Financial Control and Public Procurement Methodology Department.

Particularly, in the sphere of public procurement, MoF:

- Coordinates the efforts for development of draft legal acts on procurement and adopts or submits them for approval;
- Carries out the methodological guidance of the procurement process and, within that scope, provides methodological assistance to clients in facilitation of procurement activities;
- Ensures the existence of a system for professional education, continuous training and qualification assessment of clients' procurement specialists;
- Facilitates publication of the Bulletin;
- Coordinates the procurement related collaboration between international organizations, foreign states and the RA state bodies and local self-governments;
- Registers procurement contracts to be funded by the state budget;
- Publishes the annual public procurement report and the list of qualified procurement specialists;

## 2.4 Procurement Support Center (PSC)<sup>10</sup>

The powers of the Center for Procurement Support are set out in the Charter of PSC (GoA Decree #168-N on «Organization of procurement procedures» (adoption date February 10, 2011) and the contract concluded between the PSC and MoF. According to the article 16 of LoP, PSC State Non Commercial Organization (SNCO):

- Conducts professional education and continuous training for procurement specialists;

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<sup>9</sup> Website: [www.mfe.am](http://www.mfe.am) (The content is only in Armenian)

<sup>10</sup> *Current website* is accessed through two domains: [www.procurement.am](http://www.procurement.am) or [www.gnumner.am](http://www.gnumner.am). Website is managed by MoF and not by PSC. *Upcoming official website* will be [www.armeps.am](http://www.armeps.am) which is currently undergoing testing

- Provides free professional advice to clients and paid professional advice to bidders and other entities;
- Evaluates the eligibility and the qualification of bidders to participate in procurement process, concludes framework agreements, compiles and publishes it in the Bulletin:
  - i. The list of bidders, who signed framework agreements;
  - ii. The list of pre-qualified potential bidders.
- Implements the e-procurement system service and coordination functions;
- Compiles and publishes electronic newsletters on goods, works and services, analyzes procurement statistics and publishes opinions;
- Conducts a random assessment of technical specifications of procurement subject and bidder qualification criteria approved by a Client in order to ensure the compliance to the requirements for ensuring competition and nondiscrimination stipulated under this law. The results of assessment are submitted to the clients and the Authorized Body (MoF).
- Ensures the existence of a procurement support service (hotline) in order to register procurement related signals and promptly respond to the questions;
- Acts as the secretariat of the Procurement Complaint Review Board:
  - i. Organizes the Board activities,
  - ii. Evaluates the completeness of received complaints (appeals) and provides an opinion on all complaints to the Board,
  - iii. Publishes the Board decisions,
- Implements other powers set out by this law, the Republic of Armenia government and the Authorized Body (MoF).

## 2.5 Clients / Buyers

According to Article 2 of LoP, clients are:

- State administration bodies and local self-governments, state and community agencies envisaged in the Republic of Armenia Constitution and laws;
- The Republic of Armenia Central Bank ([www.cba](http://www.cba));
- State or community non-commercial (non-profit) organizations
- Entities with over fifty percent of government or community shareholding;
- Associations (unions) formed by the state or community or the Republic of Armenia Central Bank or state or community non-commercial (non-profit) organizations or entities with over fifty percent of government or community shareholding;
- Legal entities - recipients of funds donated by the government or community or the Republic of Armenia Central Bank or state or community non-commercial (non-profit) organizations or entities with over fifty percent of government or community shareholding – for procurements financed by donated funds;
- Public undertakings.
  - o Physical or legal entities operating in the regulated public services sector and included in the list approved by the Republic of Armenia Public Services Regulatory Commission ([www.psrc.am](http://www.psrc.am));
  - o Other entities operating in the public services sector and carrying out one or more of the relevant activities stipulated by this Article, based on a special or exclusive right, if the procurement is conducted for the purpose of exercising such activities;

- Entities over which the government or community or a state or a community non-commercial (non-profit) organization or an entity with over fifty percent of government or community shareholding may exercise a dominant influence.

The head of the Client appoints an entity responsible for procurement (procurement coordinator), which:

- Is responsible for the facilitation and coordination of the Client's procurement process;
- Provides an opinion on procurement related documents approved by the Client's;
- Implements the powers of the secretary of the evaluation commission;
- Drafts the minutes of a given procurement and the procurement contract and submits them to the approval of the Client's head.

The following could be appointed as the procurement coordinator: (i) Relevant unit of the Client; (ii) An official(s) of the Client; (iii) An invited consultant(s).

The staff of the procurement unit, officials and invited consultants shall be included in the list of qualified procurement specialists published by the Authorized Body. The individuals are included in the aforementioned list after successfully passing the examination assessing their knowledge of the Republic of Armenia legislation on procurement organized by the Authorized Body.

## 2.6 Bidders / Suppliers

**Eligibility Criteria:** Article 5 of LoP sets eligibility and qualification criteria for the bidders willing to participate in procurement process. The bidder must satisfy the qualification criteria set out in the invitation. The bidder shall meet the following criteria set out in the invitation and required to fulfill contractual obligations:

- Compliance of professional activity to activities stipulated in the contract;
- Professional experience;
- Technical resources;
- Financial resources;
- Labor resources.

**Equal participation in procurement:** Article 6 of LoP sets forth that any entity, regardless of being a foreign natural person or a legal entity or a stateless person, has equal right for participation in the procurement process. Participation of any entity in the procurement can be restricted only by the Republic of Armenia Government decision based on the national security or defense interests of the Republic of Armenia.

## 2.7 Monitoring

**Control Chamber of the RA<sup>11</sup>:** Internal controls and audit systems are closely linked with procurement reforms in Armenia. The Control Chamber, as an independent audit institution provides important assurance on how public money is being spent. The Control Chamber is a state body. The RA Control Chamber performs its activities in accordance with the RA Constitution and the RA law “On the RA Control Chamber”, as well as annual activity plans of the Control Chamber. During the control implementation Control Chamber is guided by the control principals of the International Organisation of Supreme Audit Institutions (INTOSAI).

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<sup>11</sup> [www.coc.am](http://www.coc.am)

**State Commission for the Protection of Economic Competition of RA (SCPEC)**<sup>12</sup>: The SCPEC is a state body implementing the state policy in the sphere of economic competition protection. The Commission is established according to the procedure defined by the RA Law “On Protection of Economic Competition” and is independent in the framework of its authorities.

**Civil Society Organizations**: Among active participants for monitoring of state budget spending is a Transparency International (TI)<sup>13</sup>. TI Anticorruption Center has been monitoring the procurement field since 2007. Among TI publications are Monitoring of public procurement system of Armenia in 2008-2009, Procurement Guide for Businesses (2010), and Mapping Public Procurement System in Armenia (2007). Publications can be found at TI website.

**Procurement Complaint Review Board (PCRB)**: According to Article 45 of LoP any person has the right to file a complaint against the actions (inaction) and decisions of the Client, the evaluation commission and the Procurement Complaint Review Board. The members of the Board must be Armenian citizens. The Board is a unit implementing unprejudiced and independent review, which does not have any interests in the outcomes of the given procurement process, and the members of the Board, when implementing their rights and responsibilities, are protected from external influence.

The Board includes one representative of:

- The public administration bodies envisaged in the Republic of Armenia Constitution and laws;
- The Republic of Armenia urban communities;
- The Republic of Armenia Central Bank;
- Non-Governmental Organizations (Unions) registered in the Republic of Armenia, which have submitted a written request to the Authorized Body.

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<sup>12</sup> [www.competition.am](http://www.competition.am)

<sup>13</sup> [www.transparency.am](http://www.transparency.am)

## eGOVERNMENT PROCUREMENT IN ARMENIA

### 1. Current eGP elements

eGovernment Procurement (eGP) is the use of Information Technology (especially the internet) by Governments in conducting their procurement relationships with suppliers for the procurement of works, goods and consulting services required for the public sector<sup>14</sup>.

eGP involves the introduction of electronic processes to support the different phases of a procurement process – publication of tender notices, provision of tender documents, submission of tenders, evaluation, award, ordering, invoicing and payment. The process is illustrated below.

Table 2: eGP Process

PRE-AWARD PHASES	POST-AWARD PHASES
eNotification → eAccess → eSubmission → eEvaluation → eAwarding	eOrdering → eInvoicing → ePayment
<b>Contractual module types:</b> eTendering and ePurchasing	
<b>Infrastructure module types:</b> Contract Management, e-Certificates, e-Signatures, Vendor Management, Statistics	

In comparison with above-provided eGP process, Armenia currently uses fragmented eGP. Few available tools are not yet interoperable with each other and developed in different periods with incomplete functionalities. Below are presented descriptions of these tools:

*Procurement website:* The website is the current official website of procurement notifications and managed by MoF. It can be reached by two domains: [www.procurement.am](http://www.procurement.am) or [www.gnumner.am](http://www.gnumner.am). The information is mainly in Armenian. The website provides information on (i) Procurement related regulations and documents (in Armenian); (ii) Procurement plan(s) (in Armenian); (iii) Specific opportunities and notices for bidders (in Armenian and in fewer cases in English); (iv) Contract awards with name of the winning bidder and contract value (in Armenian) and (v) Overview and resolutions to complaints (in Armenian). The website does not publish information on (i) Standard bidding documents, (ii) News, events and policy initiatives related to public procurement and (iii) Interactive content (procurement forum, Q and A, customer survey and feedback, policy dialogue and experience sharing).

*eCatalog:* Though eCatalog<sup>15</sup> is developed but it is not yet functioning and is presented in Armenian version only. The website shows only classification of products and provides ability to suppliers to register in simplified web form. The log-in place for entering into the system is lacking. This website will be replaced with new tool to be acquired further by GoA. The decision on either acquisition or development of eCatalog will be made as soon as GoA will find donors for implementation of ePurchasing part of eGP. (This is told by Mr. Brutyan during interview with the author of this study, May 31, 2011).

<sup>14</sup> <http://www.mdbegp.org/www/definitionsus/tabid/63/language/en-US/Default.aspx>

<sup>15</sup> <http://ecatalog.gnumner.am/>



## 2. eGP Reforms and Legislation Framework

### 2.1. Chronology

Reforms are guided by the MoF leadership which is recognized as the lead authority for the implementation of the eGP agenda. eGP reforms were initiated in Armenia by GoA Decree #137 on «Strategy for Introducing the System of Electronic Procurement» adopted in January 26, 2006.

Chronology of eGP Reforms is as follows:

N	Document / Activity	Adoption Date
1	<p><b>GoA Decree #137 on «Strategy for Introducing the System of Electronic Procurement»</b></p> <p><b>Note:</b> Key provisions are highlighted in this section. GoA failed to fit the deadlines for planned activities and all the actions have been transferred into new strategy.</p>	Jan 26, 2006
2	<p><b>«Strategy of Improvements of the Procurement System»</b></p> <p><b>Note:</b> eGP related provisions are highlighted in this section. GoA generally succeeded to fit the deadlines for planned activities with a bit delay for eTendering implementation.</p>	April 23, 2009
3	<p><b>Decree N862-A on «Time schedule for the activities derived from the Strategy of Improvement of the Procurement System»</b></p> <p><b>Note:</b> The Time schedule generally duplicates what is set forth in Strategy 2009 with regard eTendering system deployment.</p>	Oct 12, 2009
4	<p><b>eTendering system Technical Requirements development and RFP announcement for the system acquisition with financial support of the Public Sector Modernization Project I (World Bank)</b></p>	Jan 21, 2010
5	<p><b>Foreign Financing Projects Management Center (FFPMC) of MoF selected an appropriate company for eTendering System provision</b></p> <p><b>Note:</b> Selected company information is presented in eTendering System section</p>	Mar 17, 2010
6	<p><b>Law on Procurement</b></p> <p><b>Note:</b> eGP related provisions are presented in this section</p>	Dec 22, 2010
7	<p><b>GoA Decree #168-N on «Organization of procurement procedures» and PSC establishment</b></p> <p><b>Note:</b> The Decree includes new Charter of PSC which delegates PSC with the power to service and maintain upcoming eTendering system. eGP related provisions of the Decree and eGP related activities of PSC are presented this section.</p>	Feb 10, 2011
8	<p><b>MoF provided PSC with the Timetable of eTendering official launch and training of buyers and bidders.</b></p> <p><b>Note:</b> Timetable is presented in this section</p>	May 26, 2011
9	<p><b>eTendering system is to be launched officially by PSC.</b></p> <p><b>Note:</b> The characteristics of the system are discussed in eTendering System section.</p>	Sep 01, 2011

## 2.2. Strategy for Introducing the Electronic Procurement - 2006

The strategy to introduce an eGP system is aimed at increasing the effectiveness of state expenditure management, increasing its transparency, encouraging competition and reducing corruption risks in the budget process. The strategy defines eGP system structure and functionalities, system management model, amendments in legislation framework, etc. The base for the strategy is the document titled “eGP Roadmap” developed during seminar on eProcurement held in Yerevan in 5-7 June, 2005 and organized by USAID Armenia funded project.

### Milestones

In particular, the following stages and deadlines are declared:

- I Stage: Preparation of EP (March, 2006),
- II Stage: E-tender (January, 2008)
- III Stage: EP (January 2009)

**Note:** As can be seen, the deadlines stated by the government were not met. The implementation of e-GP has been delayed, mainly due to political change, lack of capacity, an overambitious implementation approach, and the absence of a detailed action plan. Though the strategy were stating that Armenia was in favorable atmosphere for initiating eGP system as:

- Armenia was in the stage of overall procurement system reforms and upcoming amendments could be harmonized with the requirements of eGP
- In state entities were done little investments with regard electronic procurement
- Law on electronic commerce was in the stage of formation
- There was strong donor support from EU, World Bank and USAID

### MoF and PSC

The strategy offers to authorize MoF to be a leader in eGP reforms. But the third party should be assigned to maintain eGP system to be acquired. This third party should be State Procurement Agency (renamed to Procurement Support Center).

**Note:** This component is already implemented and currently Procurement Support Center is implementing its activities due to new Charter.

### Benchmarking

The strategy suggests MoF to construct the structure of the database which is to be filled with the information appropriate to quantitative indicators. This database will help to make decisions on amendments in policy, targeting and milestones. It will also help to assess the reforms.

Those indicators are:

- Average duration of the period from notification to awarding the contract
- The number of contract notifications
- Average number of bidders per contract notification
- The number of contracts won by each bidder, which will provide an overlook on which bidders are the most frequent winners of tenders thus preventing any bid collusion cases
- The average cost of tender organization and participation per buyer and bidder side
- Annual number of canceled contract notifications
- Annual volume (in AMD) of acquired goods and services
- Percentage structure of price ranges of awarded contracts
- Classification of goods and services

**Note:** We would like that MoF consider other metrics for eGP area such as (i) Number of bidders that won tenders / % of total number of all registered bidders and (ii) Number of trained buyers and suppliers

#### eGP vs. paper-based procurement

The strategy proposes the use of traditional system of procurement (paper-based) along with eGP during one year after eGP official starting. This will help to identify deficiencies, get feedback and suggestions and to undertake appropriate changes in the eGP system.

**Note:** Neither Lop Nor GoA Decree #168-N on «Organization of procurement procedures» (Feb 10, 2011) does contain any provision for deadline to use the paper-based procurement. Though paper-based procurement concurrently will occur till the GoA adopts Procedure on eTendering implementation (envisaged date of document adoption is October 31, 2011) and makes the electronic procurement mandatory. Per upcoming Procedure, ARMEPS will become mandatory from the beginning of 2012. (This intention has been affirmed by Mr. Brutyan during interview with the author of this study, May 31, 2011).

**International Practice:** According to the Ernst & Young survey, eight EU Member States have already made e-Notification mandatory and a further four are thinking of doing the same. At present, two countries have made e-Access mandatory. In other cases, some Member States have made or plan to make post-award phases such as invoicing and payment mandatory (SE & DK). Other Member States do not plan to adopt a mandatory approach. The most frequent element is e-Signatures, made mandatory in 19 of the 32 countries. Portugal, where e-Procurement has been mandatory since 1 Nov 2009, is the exception as it should now be nearing 100%<sup>16</sup>.

#### Critical Success Factors

Strategically, reforms will fail if there is no commitment to participate in eGP. To prevent lack of private sector participation,

- Business associations should be enrolled in consultation group initiated by MoF
- Business community should be informed and trained
- MoF should develop communication strategy
- eGP should be integrated with existing financial management systems

Issue: Integration of existing financial management systems with eGP is not yet considered. Communication strategy is not yet developed. (Interview with Mr.Brutyan, May 31, 2011).

### **2.3. Strategy of Improvements of the Procurement System – 2009**

Through this document, GoA has provided more clarifications with regard eGP system deployment.

#### Deployment of eGP system

The document states that eGP system deployment is a part of overall procurement reforms initiated by GoA. However, it is to be implemented as separate initiative based on this strategy. The document sets new timelines for eGP implementation which has two stages:

- **Stage 1: eTendering system deployment**

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<sup>16</sup> Evaluation of the 2004 Action Plan for Electronic Public Procurement - Accompanying document to the Green Paper on expanding the use of e-Procurement in the EU

Open and restrictive bidding covers 85 % of all government procurement. Thus, it is decided to automate these procedures through eNotification, eSubmission, eEvaluation and eAwarding. It is easier to start eGP system deployment with eTendering as it is requiring fewer costs for the GoA on maintenance and fewer costs for the bidders on participation.

**- Stage 2: ePurchasing system deployment**

The component considers automation of other procurement procedures - Frequent tenders through eCatalogs and Competitive negotiations through eReverse Auctions. It is planned to incorporate also infrastructure tools such as:

- Contract Management System as to gather in one database all the information of procurement contracts.
- Procurement planning
- Statistics and reporting
- Procurement monitoring
- Financial management of procurement contracts

Timeline for deployment of eTendering system

The timeline relates only to Stage 1 - eTendering system deployment. Along with implementation of the Stage 1 and based on the results and feedback, MoF will develop the Action Plan and Timeline for Stage 2 (ePurchasing System Deployment).

Table 3: eTendering system deployment schedule

Stage 1 – eTendering system deployment		
1	Development of Technical Requirements for eTendering system acquisition	2009
2	eTendering system vendor selection and contract signing	2009
3	eTendering system development	2009
4	Hardware acquisition	2010
5	Testing of eTendering system	2010
6	Training of Procurement coordinators	2010
7	Official start of eTendering system	2011

**Note:** As can be seen, the deadline for Training of Procurement coordinators was not met. The training process has not even started by PSC. The main problem is the absence of appropriate financing to equip 4 training rooms.

Training of government buyers

The training of engaged specialists is a critical success factor for eGP system deployment. This is a challenge to have skilled specialists even within the advanced legislative framework. For this reason, the unified qualification system of teaching and ongoing training should be developed for the buyers' procurement coordinators.

Training of private sector participants (bidders)

Private sector participants shall be trained to use eGP. Planned interventions include (i) organizing formal training sessions; (ii) developing manuals and document templates; (iii) establishment of call center or hotline service for inquiries

## 2.4 Law on Procurement - 2011

Below are presented provisions from LoP related to eGP.

### Article 7: Documents, their validity and e-procurement

1. Recording and maintaining of procurement related information must be ensured through the development of relevant documents, including electronic documents.
2. If the invitation sets out a condition for the bidder to submit information, it also contains the validity terms for such information. In the framework of functions set out in this law, the communication can be carried out electronically, including:
  - Electronic invitation to bid;
  - Electronic submission of bids in cases and pursuant to the procedure stipulated in the invitation;
3. The tools to be used for communication by electronic means, as well as their technical characteristics, must be non-discriminatory, generally available to any potential bidder and interoperable with information and communication technologies means in general use.
4. The following rules are mandatorily applicable to means for the electronic transmission and receipt of bids:
  - 1) The information regarding the specifications necessary for the electronic submission of bids, including encryption, shall be available to any interested bidders;
  - 2) The electronic devices for electronic receipt of bids must guarantee the integrity and confidentiality of the received data, fulfilling at least the following conditions:
    - a. The exact time and date of the receipt of bids can be precisely determined;
    - b. Before the deadline laid down for the acceptance of the data, no one can have access to the transmitted data;
    - c. In the case when the access control to the transmitted data has been breached, the unauthorized access can be clearly detectable;
    - d. Only authorized persons may set or modify the deadlines for opening data received;
    - e. During the different stages of procurement procedure, the access to received data is possible only by a simultaneous action of at least two authorized persons/systems and only after the date established according to provisions of subparagraph b) of this paragraph;
    - f. Data received and opened in accordance with the requirements of this paragraph must remain accessible only to persons authorized to acquaint themselves therewith.
  - 3) The bidders, before the deadline laid down for submission of bids, shall submit certificates, declarations and other documents, in case these are not available in electronic format.

### Electronic Auctions (Articles 38-41)

In general, Articles include provisions on: Conditions for conducting an electronic auction; Limitations for conducting an electronic auction; the procedure for conducting an electronic auction and Completion of an electronic auction.

## 2.5. GoA Decree on «Organization of procurement procedures» - 2011

GoA adopted the Decree #168-N on «Organization of procurement procedures» in 10 February, 2011. The Decree presents:

- Procedure for the organization of procurement based on new LoP requirements. The procedure sets that MoF should present for GoA consideration the Procedure for the organization of ePurchasing till 30 October, 2011.

- New Charter for PSC. This sets activities of PSC and funding sources for eTendering system servicing and maintenance.

## 2.6. Procurement Support Center establishment - 2011

Upon GoA Decree #168-N, «State Procurement Agency» SNCO has been renamed to “Procurement Support Center” SNCO. Through the Decree, GoA has adopted also new Charter for PSC.

### eGP related services

- PSC implements the e-procurement system service and coordination functions;
- PSC compiles and publishes electronic newsletters on goods, works and services, analyzes procurement statistics and publishes opinions;
- PSC ensures the existence of a procurement support service (hotline) in order to register procurement related signals and promptly respond to the questions;

### PSC funding sources

#### a. State budget of RA

Funding from the State budget of RA should cover the free of charge services of PSC set forth in Article 16 of LoP and in the contract between MoF and PSC.

#### b. Fee-based activities of PSC

The Charter of PSC sets forth the following fee-based activities for maintaining of eGP platform:

- PSC conducts professional education and continuous training for procurement specialists;
- PSC provides procurement and legal related consulting (Free of charge for buyers)
- PSC organizes specialized examination of technical specifications of goods and services to be acquired, contract notifications and their evaluations
- PSC organizes procurement procedures for non state entities (large enterprises, telecom operators, etc.)

**Note:** The Charter does not provide any justification of to be generated revenue structure per fee-based service. Moreover, such calculations are planned to do on factual base.

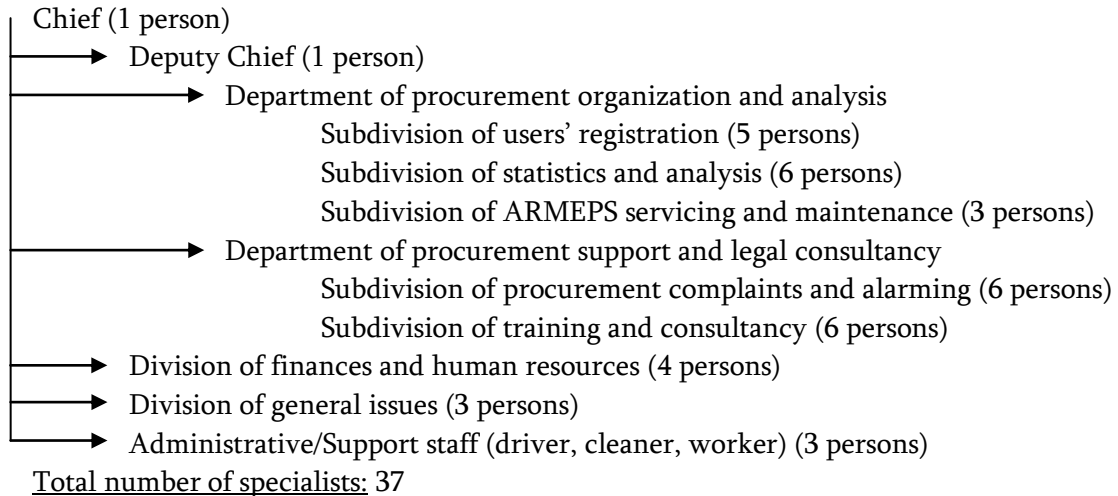
### PSC's revenue distribution

The revenue derived from fee-based activities is distributed with the following order:

Table 4: PSC's revenue distribution

A	Total Revenue of Earnings
B	Salaries to Procurement Compliant Review Board members and experts invited by board
50% of (A-B)	Upgrade and maintenance of the eTendering system
30% of (A-B)	Financial Motivation of PSC staff
10% of (A-B)	Training of PSC staff
10% of (A-B)	PCS Capacities Development

**Structure of PSC**



**2.7 Timetable for eTendering official launch and training of buyers and bidders -2011**

MoF provided PSC with the Timetable of eTendering official launch and training of buyers and bidders (May 26, 2011). The document states: “Taking into account, that GoA included eTendering system deployment among of its high priority tasks for 2011, MoF sets the steps of high preference and their implementation deadlines”.

Table 5: eTendering system official launch and training deadlines

	Activity	Deadline	
		State bodies	Local Authorities
1	Registration of Clients (Buyers) and their appropriate Procurement Coordinators who will utilize the eTendering system	June 20, 2011	September 01, 2011
2	Training of Procurement Coordinators of Clients	July 20, 2011	April 01, 2012
3	eTendering system testing by Procurement Coordinators of Clients	August 01, 2011	May 01, 2012
4	<b>Official launch of eTendering system</b>	<b>September 01, 2011</b>	<b>June 01, 2012</b>

**2.8 Other legislation supporting eGP Implementation**

eGP system requires a level of legislative support to provide a legal basis for electronic documents and transactions and identification of parties. There are also a number of often existing laws that relate to personal behavior, contracts, business dealings and audit which apply to eGP as a business activity. Some of those are presented in Table 6.

Table 6: List of laws and other legislative documents adopted in Armenia and related to eGP

Document / Activity	Adoption
Law of the RA "On electronic document and electronic digital signature" GoA Decrees providing application of the abovementioned Law: - "On adoption of the order of application of electronic documents and electronic digital signature in state bodies of the RA; - "On adoption of the authorized body of the Government of the Republic of	26 Jan. 2006

<p>Armenia carrying out accreditation of the centers certifying the electronic digital signature”;</p> <ul style="list-style-type: none"> <li>- “On adoption of the order of accreditation of the centers certifying the electronic digital signature”;</li> <li>- “On adoption of the order of book-registering of the authorized centers certifying the electronic digital signature”.</li> </ul>	
Law on Electronic Communication / Last modifications inserted in 17 Nov 2009	13 Aug 2005
Parliament of Armenia ratified Convention on Cybercrime of Council of Europe	12 Oct. 2006
Code of ethics / Standards of behavior of government officials	Drafting stage
Law on Consumer Rights Protections / Last modifications inserted in 14 April 2011	26 Jan. 2001
Law on Economic Competition Protection	<p>Adopted: 6 Nov, 2000 Last modified: 06 May 2011</p>



### 3. eGP supportive eGovernment environment

#### 3.1 Current situation

The phases of establishment of eGovernment can be described as follows:

1. One or more than one official web-sites of government, providing static information and a number of instruments for the link with the government assure the formation of the presence of the state/government in the network.
2. Strengthening participation of the government, official websites increase, provided information is more dynamic; users receive more tools for the link with the government.
3. Interactive presence of the state, where formal exchange of information among users and government bodies (receiving on-line applications).
4. Presence of the state in the transactions level, where users have easy data access, there are on-line transactions (payment of taxes and customs duties, etc.)
5. Interactive state, where the integration of the portal of government bodies within joint portal is over.

**Armenia case:** Armenia is currently in the 3rd level of this classification.

#### 3.2 Projects guided by E-Governance Infrastructure Implementation Unit

E-Governance Infrastructure Implementation Unit OJSC (EKENG) ([www.ekeng.am](http://www.ekeng.am)) was established in 2009 by the Government of the Republic of Armenia and is chaired by the Minister of Economy of Armenia ([www.mineconomy.am](http://www.mineconomy.am)). EKENG OJCS is responsible for the technical implementation of e-Society in Armenia according to the Concept of e-Society development in the Republic of Armenian approved by the Government.

The company provides a common framework ensuring a general coherence among different information systems and allowing different entities of the Government of Armenia to coordinate not only the various e-Society initiatives, but also to align information systems with overall business goals, to ensure interoperability and to avoid duplicate investments. This will contribute to the roll out of applications across the government (and private sector) in a more efficient manner.

To start the process and the implementation of e-Society secure electronic means of identification are required to access public and private services. Therefore one of the company's main projects is the introduction of electronic identification cards and biometric passports in order to equip citizens with identification and authentication tools.

EKENG is the only company in Armenia authorized to issue digital signatures to individuals and legal entities.

Here are projects guided by EKENG.

##### **E-ID Cards and e-Passports**

On March 15, 2008, the President of the Republic of Armenia issued an official order entitled "On the Conception for Migration System of the Republic of Armenia and for Introduction of the System of Electronic Passports and Identification Cards with Biometric Parameters in the Republic of Armenia."

In support of the Presidential Order, the Government of Armenia initiated a project for the introduction of electronic documents with biometric parameters in the Republic of Armenia which is coordinated by the Police of RA and EKENG OJSC.

The current passport will be replaced with e-ID card for citizens' identification inside the country and e-Passport serving as a travel document.

#### *Expected results*

- Establishment of safe and reliable electronic identification infrastructure,
- Introduction of fully compliant with ICAO standards electronic passports,
- Introduction of multifunctional eID card supporting e-services:

#### *E-Pension account*

Armenian citizens will have electronic personal pension account in the depository where social contributions will be accumulated. Personal pension accounts will be managed electronically by users.

#### *E-Banking (internet-banking, mobile-banking)*

Currently almost all large banks are planning to introduce e-banking implementation mechanisms, which will ensure information exchange between the bank and client as well as making bank transactions, submission of applications for using bank services, receipt of information, account opening, checking, making transfers, receipt of statements, provision of complaints, suspension of cards, closing of cards, etc.

#### *E-Signature Instrument*

Digital certificates and private keys can be stored in the card equipping citizens with the possibility for identification, authentication and electronic signatures.

#### *Medical card*

The card is envisaged to be used within the integrated health information system for citizens' identification ensuring high level of confidentiality and security. In addition, health information such as blood type, chronic diseases, and allergies can be stored in the chip for providing immediate treatment for emergency cases.

#### *Driving License*

Driving license information such as license type, expiry date, etc can be stored into the chip of eID card and replace the current driving license.

#### *Payment Card*

The card can be used for payments.

### **Certification Authority**

Certification Authority is an organizational and technical infrastructure for dealing with digital signatures and certificates hence enhancing trust and security in the provision of electronic services and promoting further uptake of services by citizens and businesses.

The implementation of Certification Authority is intended for:

- Ensuring confidentiality, integrity, authentication and non-repudiation,
- Establishment of safe and cost-effective identification infrastructure in electronic environment ensuring maximum safe and flexible identification of individuals during any electronic transaction,
- Providing the basis for the establishment of Certified e-Document Authority for preserving digital documents, ensuring legal authority of all retained documents, certifying the lifecycle of e-documents, being as an intermediary for secure e-document exchange between parties.

### *Current status*

The Republic of Armenia has received a loan from the International Bank for Reconstruction and Development towards the cost of E-Society and Innovation for Competitiveness Project, and will apply the part of the proceeds of the loan to the establishment of Certification Authority in the Republic of Armenia.

EKENG OJSC serves as the implementing agency for the project and will act as Trusted Root Certification Authority for all subordinate certification authorities in Armenia.

Currently EKENG OJSC is finalizing the Bidding document for the establishment of Certification Authority in Armenia and is cooperating with the World Bank for the final approval for the document.

### **e-Signature**

Digital signature means obtained signature-creation data and a cryptographic data modification of the given electronic document presented in a unique sequence of symbols in electronic form, which is attached to or logically associated with an electronic document and which is used to identify the signatory, as well as to protect the electronic document from forgery and distortion.

Nowadays EKENG OJSC is the only accredited certification center in the Republic of Armenia.

### **E-Health**

Integrated Health Information System is supposing universal modernization of health system via implementing modern information and communication technologies providing high-quality, safe, available and cost-effective medical services to the society with the purpose of improving the quality of public health and achieving increase of citizens' satisfaction with the health system.

### **Broadband network**

- National Broadband infrastructure across the whole country
- 100 Mbps internet access within the entire country
- Improvement of the regulatory and legal frameworks of the sector

### **Computer penetration**

- Increase the level of PC penetration in Armenia thus ensuring a sustainable economic development of the country
- Develop computer literate workforce through building capacity and competencies among Armenians of various ages
- Promote Armenian ICT market by stimulating the development of the local hardware and software industries
- Increase Internet penetration and number of people using online services, thus creating a basis for the introduction of new electronic services by the Government, businesses, educational institutions, and so on
- Decrease software piracy rate in Armenia through offering licensed preinstalled software packages.

### **Cyber Security**

- Establish State Cyber Security Council
- Define the general scope of cyber security

- Initial audit of the “state of information security” within the Armenian Government and risk analysis
- Development of security open architecture, reference standards, cyber security law, legislation
- Launch of cyber security program

### 3.3 Projects highlighted in eGov website

The website aims to gather in one place information on all electronic tools used by various Government entities. Website: [www.e-gov.am](http://www.e-gov.am) and the information is only in Armenian.

The projects highlighted in the website are presented below:

#### **e-License**

The system provides enhanced flexibility for licensing applications, registration, revocation, etc. The pilot run of the system was done successfully in 2010 September with participation of the Ministry of Finance and the Ministry of Transport and Communication.

Web link: <https://www.e-gov.am/licenses/>

#### **e-Tax**

E-Tax system was introduced in the Republic of Armenia in 2009 providing Armenian taxpayers with the opportunity to electronically submit tax reports using e-signatures thus accelerating the entire procedure, making it more accurate and secure.

Web link: <https://file-online.taxservice.am/pages/loginPage.jsf>

#### **e-Visa**

The system allows applying for and receiving a visa electronically. Applications for e-Visas can be submitted online, verified on line, and e-visas will be approved and issued on-line within two business days.

Weblink: <https://evisa.mfa.am>

#### **e-Register**

The online business registry will make the process of business registration efficient by reducing the time taken to register companies as well as improving access to, and transparency of, information about companies. The system is installed with the support of EU project “Introduction of e-Governance system including modernization of existing database and its equipment for the State Registry of Legal Entities of the RA”. EU Contribution is € 285,400.00 (100% of total).

**Note:** ADB also implements project titled Institutional Modernization to Improve the Business Environment in the RA. The outcome of the project will be an efficient and transparent online business registry that will in turn meet two goals: (i) reduce the business registration time at the SRA from 7 days to 3 days; and (ii) improve information dissemination with respect to registered legal entities, which will help attract investments.

Web link: <https://www.e-register.am/am/>

#### **Interactive Budget**

Interactive Budget shows the real time progress of state budget implementation based on information imported from the Treasury’s database. The tool is developed upon tender initiated and financed by the Public Sector Modernization Project I (World Bank).

Web link: <https://www.e-gov.am/interactive-budget/>

**e-Pension (to be implemented)**

Every person will have electronic personal pension account in the depository where his/her social contributions will be accumulated. Personal pension accounts will be managed electronically by the users. The NASDAQ-OMX is leading the project.

**e-Cadastre (to be implemented)**

- Determining, recording and disseminating information about the ownership, value and use of land,
- Establishment of a new geocentric datum,
- Digital integration of the cadastre with the new geodetic network,
- Conversion of existing survey data to establish a Survey-accurate Digital Cadastre;
- Automated validation and processing of surveys, etc.

**Document flow system within the GoA**

The AI Partnership Ltd. (UK) has established the system of eGovernment in Armenia. At first, the system was established in the Ministry of Foreign Affairs of Armenia in 2006. From 2008 almost all state structures – the ministries, departments, and local administrations established the system of eGovernment in their departments. The system consists of several modules such as eDocuments, specialists ranking by estimation of their works. It allows sending documents with electronic signature. Besides, the system allows the citizens to track their inquiries electronically. The AI Partnership Ltd. won the electronic document flow system (EDMS) implementation tender initiated and financed by the Public Sector Modernization Project I (World Bank).

**3.4 Financial Management Systems**

**GFMIS (to be developed)**

In 2006, the MoF developed an Implementation Strategy for the introduction of Government Finance Management Information System (GFMIS). The main purpose of introducing a GFMIS is to integrate the systems operating in the four key activity areas of public sector financial management: budget preparation, budget execution, accounting and reporting. This will increase the effectiveness and efficiency of state financial management and facilitate the adoption of modern public expenditure management practices in keeping with international standards and benchmarks.

This is an overview of a GFMIS:

- Budget Preparation;
- Budget Execution;
- General Ledger (including Accounts Payable; Accounts Receivable Treasury Management and Bank Reconciliation; Chart of Accounts; Commitment Accounting);
- Reporting;
- Debt Management;
- Payroll and Pensions;
- Fixed Asset Management;
- Stores/Inventory Management; and
- Human Resources Development.

Table 7: List of Financial Management systems in Armenia

System	Description
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Central Bank System	GFMIS must exchange electronic messages with the CB system using BankMail and Lotus. This includes sending payment orders to CB and receiving payment and receipt confirmation from CB. The syntax of the messages that must be exchanged will be provided to the Supplier. Any information received from CB must be automatically reflected in the GFMIS through journals with appropriate audit trail.
E-Tendering System	The MoF is in the process of introducing an E-Tendering system. GFMIS must interface with this system to automatically import supplier and contract data and export supplier lists and history. The operation has to be seamless without the need for manual intervention.
Debt Management System	MoF is in the process of introducing a system to manage all internal and external debt. GFMIS must automatically reflect all debt related data in the General Ledger.
HRM System	MoF plans the introduction of HRM system. The system is likely to include a central Payroll module. GFMIS must automatically reflect all payroll related data to the General Ledger.
Revenue Systems for Tax and Customs	An interface must be developed between the GFMIS and the Revenue systems for tax and customs. Given the potential incompatibilities between the GFMIS and the existing revenue systems and the likely geographic spread of the revenue system, it may be more practical that a Tax and Custom authorities to send a file of balances of revenue accounts on a daily or weekly basis as maybe practical. These can then be imported to the GFMIS using the Journal facility. The format of this file will be determined by the GFMIS supplier.

### Characteristics of the current treasury system<sup>17</sup>

The current computerized information systems used by the MoF can be described as essentially electronic file transfer systems for central public sector cash management under a Treasury Single Account. Files (not individual transactions) are transferred daily between the Central Treasury, each of the Local Treasury Branches and the Central Bank, containing cash-oriented budget, revenue and expenditure transactions. The systems are cash-based, except with respect to contract commitments which are recorded and verified as they occur.

### State Debt Electronic System

MoF is planning to implement State Debt Electronic System which allows registering all debts and monitoring the payments to be done. This will help to calculate risks and budget resources proper allocation.

### ePayment System - ArCa<sup>18</sup>

Armenian Card was established by Central Bank of RA and 10 trade banks in March 2000 with the goal of establishment and development a new payment system. The Company presents service package which gives an opportunity to banks to issue and acquire ArCa, MasterCard, VISA and American Express cards

<sup>17</sup> Republic of Armenia: Public Financial Management Reform Priorities (Word Bank, October, 2010) - [http://siteresources.worldbank.org/ARMENIAEXTN/Resources/WB\\_report\\_eng\\_\(web\).pdf](http://siteresources.worldbank.org/ARMENIAEXTN/Resources/WB_report_eng_(web).pdf)

<sup>18</sup> [www.arca.am](http://www.arca.am)

Armenia: Case study on e-Government Procurement Development using the modern techniques, technologies and software of the processing centre as well as the Company's professional assistance. The number of card holders is currently 623860.

The Company is: (i) MasterCard Europe Principal Member and Processing Centre (Member Service Provider); (ii) Third Party Processor for VISA; (iii) Third Party Processor for American Express.

ArCa Payment System services are:

- Cash advance
- Payments in sale/service points for purchasing goods or services
- Utility payments via ATMs
- Electronic payments (including utility payments) via internet
- E-Commerce
- Card to card money transfer

# eTENDERING SYSTEM

## 1. Overview

### 1.1 Ownership

**Definition:** There are three types of models can be considered in order to meet the specific demands related to implementation of eGP:

- The public model. Here, all tasks, including the investment and risks of building the portal, are run by the government.
- The private model. Here, all tasks are run by private entities that bear the investment risks of the project.
- The mixed model (public-private partnership). In this model the participants share investment risks and the benefits of the project.

**Armenia case:** The model that Armenia has chosen for the development and operation of its eTendering system is based on the public model. However, the LoP does not specify this and thus leaves space for future developments. After getting feedback GoA can return on discussions about the model of ownership for eGP. (Interview with Mr.Brutyan, May 31, 2011).

### 1.2 GoA justification for starting with eTendering system

**Definition:** Government procurement via electronic bidding processes (e-Tendering) is the acquisition of high value, low volume goods, works and services by seeking bids (proposals) via a public process followed by the evaluation of bids and award of contracts.

**Armenia Case:** Procurement made by this method accounts for more than 85% of GoA procurement expenditure. eTendering is relatively easy to start for both state bodies and suppliers, low cost to implement and maintain, and provides significant value to businesses, enhances transparency and strengthens management. Functionality can be increased incrementally.

### 1.3 eTendering system provider

MoF along with support of Public Sector Modernization Project I funded by World Bank developed functional requirements to eGP. MoF's Foreign Financing Projects Management Center (FFPMC)<sup>19</sup> issued eTendering System RFP on January 21, 2010 and selected European Dynamics (Greece)<sup>20</sup> on March 17, 2010. European Dynamics tender offer was 290.168,00 Euro for eTendering module of its Electronic Public Procurement System (e-PPS).

**European Dynamics is assigned to undertake the following activities:**

- A. Development of ARMEPS operational requirements and system architecture:
- Evaluation (diagnosis) of procurement processes.
  - Setting-up of detailed description and specifications of IT systems, technologies, equipments as well as revised procurement processes required for ARMEPS installation, if needed.
- B. Installation of ARMEPS:
- Acquisition of the system's software licenses and tools for its upgrade;

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<sup>19</sup> [www.ffpmc.am](http://www.ffpmc.am)

<sup>20</sup> <http://www.eurodyn.com>



- Acquisition of e-Tendering, customization to GA's requirements, training of staff that will participate in customization of e-Tendering, into data conversion and migration from the existing systems;
  - Training of the staff, involved in e-Tendering customization, data exchange and rejection of existing systems.
  - Pilot testing of e-Tendering;
  - Preparation and application of e-Tendering Implementation Plan absolute establishment and exploitation of the system.
- C. Data archiving and security:
- Strategy ensuring sufficient archiving and security functionality;
  - Defining software requirements for data protection and security;
  - Acquiring the software for data protection and security and its implementation nationwide;
  - Preparation of action plan for disaster recovery.
- D. Training of end users
- E. Provision of Technical and User Manuals

**Considerations during tasks implementation:**

- The Consultant must assess the interfaces of the existing relevant systems (tax, treasury) and take them into consideration to ensure future data exchange with the e-Tendering system.
- At this moment the GoA processes involve 10.000 procurements per year. These numbers are expected to increase significantly with the implementation of the ARMEPS in the years to come.
- The number of the GoA employees expected to use the ARMEPS is expected to be 1500 and a minimum of 75% of them should be able to use the ARMEPS at the same time in addition to external Internet users without experiencing loss of functionality, degradation of system security, and with reasonable response time.

**License:** The project source code will be the property of the GoA. The GoA will have the right to provide it to the third parties for improvement, updating and solving of other issues thereof, with no right for its resale without Consultant's prior consent. European Dynamics supports open source software (OSS) initiatives and distributes a wide range of OSS solutions (e.g. e-collaboration, electronic procurement systems, WCM) free of license fees to public administrations.

**Company:** European Dynamics offers its services to the public and private sectors, in 27 countries world-wide. Customers include government institutions, multinational corporations, public administrations and multinational companies, research and academic institutes. The company has an extended expertise in the areas of e-Government, e-Business, e-Procurement, e-Collaboration, groupware and workflow, content, document and knowledge management, communications middleware, network management, ICT security, broadband and mobile applications.

**Clients:** the Council of the European Union, the European Commission, the United Nations and ministries and government authorities in several dozen countries.

## 2. ARMEPS Description

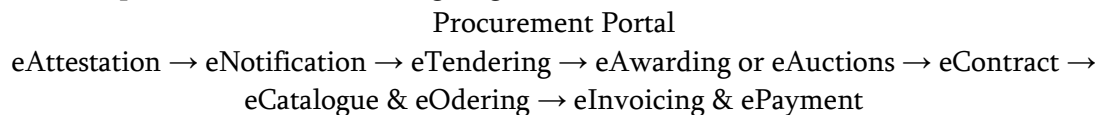
### 2.1 e-PPS Description

European Dynamics is tasked to create Armenian Electronic Public Procurement System (ARMEPS) on the basis of its product – e-PPS<sup>21</sup>. e-PPS is an open, secure, interoperable and re-configurable e-Procurement modular platform, addressing the full lifecycle of e-Procurement. The e-PPS platform and its modules attend to the needs of Contracting Authorities in a flexible, efficient and customized manner and are optimally and fundamentally integrated in the IT environment. e-PPS complies with both National and EU legislation on public procurement<sup>22</sup>. It offers a customizable support to specific functionalities addressing any practices at a local, regional or national level.

#### e-PPS Platform

The e-PPS platform is the result of over 10 years of work and advanced experience in the analysis of public procurement legislation in the field of electronic public procurement, the analysis of the market and the study of all important initiatives world-wide, the design and the implementation of static and dynamic demonstrators related to the European legislation, and finally the design and the development of a modern and efficient IT platform.

Eurodyn's e-PPS platform has the following diagram:



**Procurement Portal:** Front End Graphical User Interface layout for all high-level functionalities. It provides for configurable secondary functionalities, such as news, Frequently Asked Questions and an online help service. The service supports the registration of Contracting Authorities (Buyers) and Economic Operators (Suppliers). It also provides for account management and user authentication.

**e-Attestation:** Supplier profiling and database tool. It allows Contracting Authorities to build sophisticated strategic sourcing databases and Suppliers to upload relevant information on category specific selection and exclusion criteria.

**e-Notification:** Automated procedure to publish contract notices. Furthermore, it supports easy electronic access to tender documents and clarifications.

**e-Tendering:** Submission of tenders, either via the Web system or via an independent, standalone application. The system provides the capability of automatic validation of electronic tenders, in order for the Suppliers to receive immediate feedback to their bids.

**e-Awarding:** Opening and evaluation of tenders, inline with the related applicable legal regulations. The evaluation of tenders is achieved with the use of the established methods (Most Economically Advantageous Tender - MEAT or Lowest Price criterion), while the evaluation procedure can include e-Auctions.

**e-Auctions:** Dynamic subsystem that supports the receipt of improved tenders, through the use of electronic auction events. An e-Auction may also run as a stand-alone event.

<sup>21</sup> [http://www.eurodyn.com/default/page-view\\_category/title-Overview/catid-44.html](http://www.eurodyn.com/default/page-view_category/title-Overview/catid-44.html)

<sup>22</sup> Directives 2004/17/EC and 2004/18/EC and their amendments

**e-Contract:** Dynamic subsystem that establishes, manages and monitors contracts, collates bid history, monitors performance against agreed service level agreements (SLAs) and key performance indicators (KPIs) and alerts buyers to key activities, such as contract renewal dates.

**e-Catalogues & e-Ordering:** Catalogue-based tenders that facilitate towards e-Ordering and purchasing of products.

**e-Invoicing & e-Payment:** Electronic issuing and processing of invoices and payments.

### **Security**

The e-PPS platform ensures the equal treatment of all financial institutions and the transparency of competitions by adopting recognized and acceptable models, related to the protection of sensitive information. e-PPS is in full compliance with ISO 27001 and has received Impact Level 3 accreditation according to the HMG Information Security Standards.

### **Supported Procurement Procedures**

e-PPS supports “One-off Procurements”, such as Open, Restricted, Negotiated, Accelerated and Competitive Dialogue Procedures, as well as “Repetitive Procurements”, such as Framework Agreements / Contracts and Dynamic Purchasing Systems.

### **Time-stamping**

In order to record the exact time that a tender is submitted, and avoid the possibility of any disputes or objections, the e-PPS platform uses the services of an independent time-stamping authority. The exact time of the submission of a tender is stored in the database of the independent authority and is also sent to the Economic Operator.

### **Logical Architecture**

The logical architecture of e-PPS comprises core and e-Procurement specific modules. These modules constitute the fundamental parts for the development and functioning of a whole procurement cycle.

The core modules support core functionalities that are necessary for all e-Procurement implementations, regardless of their underlying legal or regional framework.

The e-Procurement specific modules support specific functionality, relying on the adaptation of core modules for achieving a customized result reflecting the needs of the client (e.g. e-Tendering and Dynamic Purchasing System). The e-PPS platform follows a three-tier architectural approach comprising of: the web/presentation tier; the business logic tier; and the Enterprise Information System (EIS) tier. All e-PPS implementations constitute Web-based applications and demonstrate high user-friendliness. This practically means that ordinary users with an Internet-enabled workstation and with basic exposure to IT can easily use the application.

Apart from Web-based clients, the e-PPS platform can deploy stand-alone desktop applications for specific operations, such as the creation of tenders. The client tier consists of client graphical user interface that allows users to invoke activities within the context of the system for completing procurement processes. The activities and the data made available to users are regulated by an advanced security module associating user accounts to user roles and access rights. The requests initiated in the client tier are transmitted to the business tier (Web servers), which in turn invokes respective Business Logic services (application servers). The system, following the execution of the built-in business logic,

responds to the client, returning appropriate results. The EIS tier provides the required system infrastructure and software for storing data and communicating with various hardware/software components such as user authentication servers (LDAP) and mail servers. The various system services, components, core modules and e-Procurement specific modules, along with a high-level description of each tier of the e-PPS platform are outlined in the following figure.

### **e-PPS Broadband and e-Collaboration modules**

e-PPS comes with additional horizontal modules offering to its clients a wide range of services. They include the organization of five multiparty on-line audio and video conferences, such as empowering remote cooperation of Buyers' officers, remote tender evaluation sessions, information days with Suppliers and contract management, e-Voting, etc. A powerful e-Collaboration module, including state of the art content and document management features, allows Buyers' officers to structure all their work, achieving optimum efficiency.

### **System Access**

System access is open, free, equal and unrestricted to all prospective bidders/consultants and members of the public.

### **Interoperability**

The eTendering system is interoperable through open standards with ICT products in common use. The system is an Internet based approach accessible by users through readily available and commonly used browser software.

### **Supported Electronic Procurement Procedures**

Open / Restricted / Negotiated (with advertisement) / Negotiated (without advertisement) / Competitive Dialogue / Framework Agreement / Simplified / Electronic Auctions

### **System Requirements**

**Framework requirements:** There are no particular operational requirements needed. The platform is fully implemented using J2SDK/J2EE framework, MVC (Model View Controller) and Orbeon X Forms.

**Platform requirements:** There are no particular platform requirements needed. The solution is multi-platform; it runs in most of the operating systems (Linux, Windows, Unix, Solaris, etc.) and with various database vendors / providers (MySQL, Oracle, etc.) as well as applications server/providers (JBOSS, Oracle Application Server, etc.).

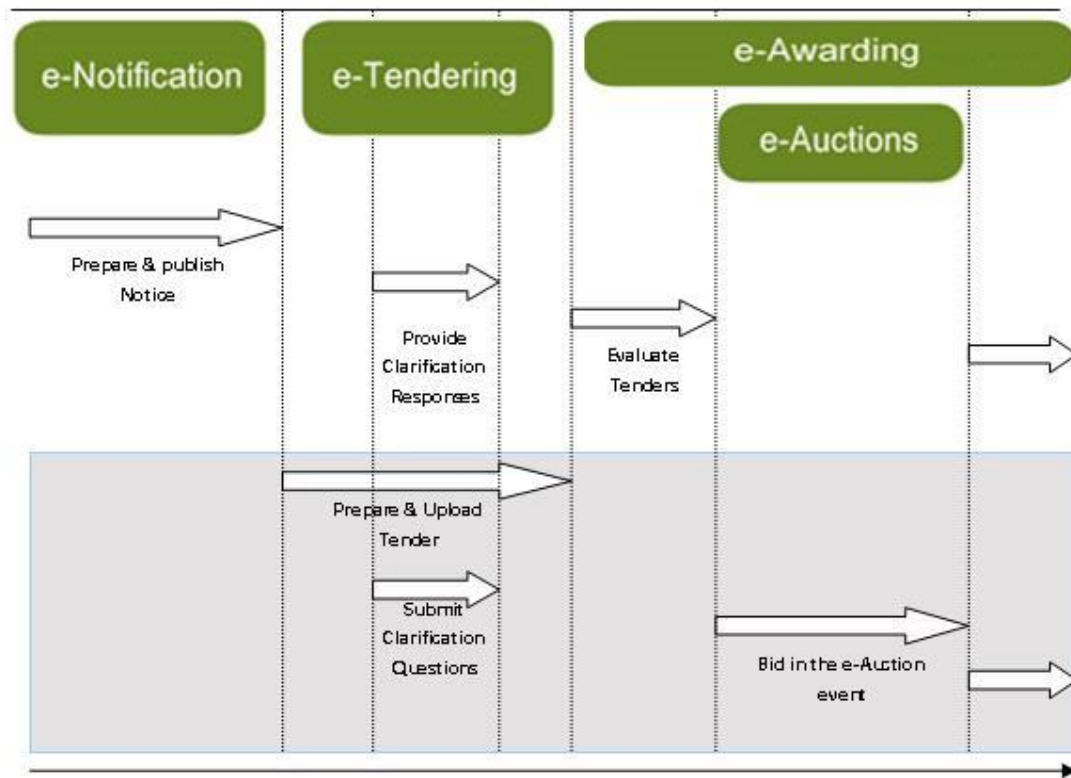
### **Other technical requirements:**

- UML
- J2EE / J2SDK
- EJB 3
- XML
- TSP (time stamping protocol RFC 3161)
- X509 v3 (certificates formats)
- OCSP (certificate verification RFC 2560) IETF
- XMLDSIG (format of reports) IETF
- XFORMS (form filling tool, for preparation of notices)
- DTD.2.0.5 (format of publications notices)

## 2.2 ARMEPS description<sup>23</sup>

### Workflow

ARMEPS is created on the basis of e-PPS and hosted at [www.armepps.am](http://www.armepps.am). It is currently undergoing testing. Figure 2 presents a high-level depiction of the workflow of the ARMEPS platform. In addition, the main terms that are used throughout the application are presented.



**Figure 2:** Procurement process workflow

## 2.3 ARMEPS Functionalities on Contracting Authorities' (Clients/Buyers) side

Registered Contracting Authorities have the following functionalities:

### CO Users

The following user roles are supported:

- Contracting Authority Procurement Coordinator (**CA PC**). Users with this type of role are authorized to manage the users of their Contracting Authority. Furthermore, they are allowed to create and publish CfTs, approve the evaluation report, award the final contract, and publish the relevant notice.
- Contracting Authority Procurement Coordinator Assistant (**CA PCA**). Users with this type of role have access to similar functionalities with the CAPC users except for the approval of the evaluation report.
- Contracting Authority Procurement Officer (**CA PO**). Users with this type of role are provided with limited rights within the Contracting Authority. Their provided rights are inherited when they are associated with a CfT (as Opening Staff and Evaluation Staff)

<sup>23</sup> Contracting Authority User Manual – Version 1.0 - [www.armepps.am](http://www.armepps.am)

**Prior Information Notices:** User can create, edit, delete and publish Prior Information Notices

**Collection of Requirements:** User can create Collection of Requirements, View the responses in the List of Collection of Requirements, Create a new Call for Tender (CfT) workspace based on the requirements collection, Provide answers (CPV codes, details) to comments in List of Collection of Requirements to Respond

**Creation of a new Call for Tenders:** User can:

- Create new CfT and Associate Contracting Authority Users to specific CfTs
- Establish workflow (Means define whether the following steps (required in the procurement process) will be carried out online or offline: Definition of the tender structure / Question and Answers / Tender opening and submission / Tender evaluation and assignment of scores / Complain and tender awarding
- Create Tender Structure – User defines Eligibility Criteria / Technical Envelope / Financial envelope. Each envelope is organized in sections and nested subsections which may contain numerous criteria.
- Set Contractual documents
- Associate created CfT with Prior Information Notices
- Create Notice by selecting from a subset of the official notice forms. Finalize the official notice form via Form Filling Tool.
- Publish Notice and Invite Economic Operators on 2nd round
- View, Edit, Answer and Publish Clarifications from Economic Operators
- Create a Specific Contract within a Framework Agreement

**Tender Opening:**

The opening of the tender documents is performed according to the four-eye principle and requires the involvement of two procurement officers who have been associated as Opening Staff (PO/OS) to the specific CfT. The first PO/OS user submits the list of tender documents which he proposes to be opened. The second procurement officer has the choice to either approve or reject the first opener's choice. Furthermore, the system provides the functionality to the first PO/OS user to insert the details of any offer which is received offline. All these actions are later registered in the automatically generated opening report.

For each submitted tender, the system performs the following checks:

- **Antivirus Check Results:** The system checks whether the submitted tender is infected by a virus.
- **D/P Match results:** The system checks whether the uploaded Digital signature matches the uploaded tender package.
- **TP Received on time:** The system checks whether the tender is received on time.

Definitions:

- TP - Tender Package is the supplier's response (i.e. offer) in a Call for Tender (CfT).
- DP - Digital Print is a file containing a unique generated code based on the contents of the tender package and the creation date of the tender package.

User can:

- Open or unlock the offers.

- Update list with tenders received offline - user provides information regarding tenders received offline

### **Evaluation of Tenders:**

The Evaluate Tender links directs the user to the main evaluation page. In this page, all the sections of the tenders are visible, e.g. Eligibility Criteria, Technical and Financial envelopes.

The status of the evaluation can be:

- **Not evaluated:** No evaluation of the tender exists.
- **Draft:** The tender has been evaluated and saved as draft. Further modifications are allowed.
- **Final:** The tender has been evaluated and saved as final. Further modifications are not allowed.
- **Finalized:** The tender has been evaluated and saved as final. In this case the Procurement Officer/Evaluating Staff Responsible user has approved all evaluations of the associated Procurement Officer/Evaluating Staff users.

User can:

- Evaluate Eligibility Criteria, Technical and Financial envelopes and save the Evaluation
- Provide justification for the score awarded to a specific criterion
- Upload a document containing comments about the evaluation
- Set overall evaluation status, which are Discard Evaluation / Reevaluate Tender / Finalize the evaluation

**Note:** After the finalization of the overall status of all submitted tenders, all suppliers will be automatically ranked based on the scoring of their tenders. The automated ranking lists all suppliers who have submitted a tender along with their T/P receipt ID, their score, and the check for whether their tender has passed or failed the evaluation

- Create the evaluation report. The system generates a MS Excel file containing all details of the evaluation procedure. All the evaluators (PO/ES and PO/ESR) associated with the specific CfT must approve the evaluation report in order to continue the evaluation process

### **Contract Awarding:**

- *Final approval of the evaluation report:* After the successful creation and approval of the evaluation report by all users associated as evaluators to the CfT, the associated tender coordinator is required to approve and finalize the evaluation results.

The associated tender coordinator has the following choices:

- o **Approve and submit to next approval level:** This option is suitable when a Tender Board is responsible for this procurement process. In this case, the evaluation report is pending the final approval by the committee.
  - o **Reject:** The decision is made available to the Tender Board pending their final rejection.
  - o **Approve as Final:** The evaluation report is approved and the system proceeds to the generation of the pre-feedback ranking.
  - o **Reject and request re-evaluation:** The evaluation report is rejected and a new evaluation procedure commences.
- *Pre-standstill ranking:* User approves the ranking of the Economic Operators by listing into final ranking list
  - *Announcement of results:* In order to announce the results of the evaluation procedure to the Economic Operators who participated to this CfT, the user fills the provided on-line form. The system will notify all the associated Economic Operators

- *End of standstill period:* In order to close the mandatory feedback period after the announcement of the evaluation results, the user selects the “End standstill Period” function
- *Post-standstill ranking:* In order for the user (PO/TC) to approve the final ranking (after the end of the feedback period), he/she selects the tenders which will be included in the next phase (Pass/ Fail column). The user can also reject the current scoring and restart the evaluation procedure of the tenders.
- *Starting new procurement cycle:* This functionality is available only for certain types of procedures which involve more than one cycle (e.g. restricted and competitive dialogues), as other procurement procedures, like the open procedure, include only a single evaluation cycle.
- *Contract Awarding:* After the successful approval of the post feedback ranking, the user can award the contract to the selected supplier(s). In order to award the contract, the user must:
  - o Select the appropriate supplier from the Economic Operators column;
  - o Select the appropriate CPV code;
  - o Specify the contract value.The user can award the contract to more than one Economic Operator.
- *Creation of contract award notice:* After awarding the contract, the user can create and publish the contract award notice (once the Economic Operators have accepted the award). The user selects the type of contract award notice to create and the language in which the notice will be created. After creation, the contract award notice is listed along with the earlier published notices.

#### **Electronic Auctions:**

- *Creation of an e-Auction event:* To create an e-Auction event, the user must define the type of event. The system supports the following types of events: Round based / Time based / Combination. User can also upload general instructions and specifications regarding the event.
- *Scheduling the e-Auction:* The user can schedule the time and date for the e-Auction event. To schedule the event, the user should provide the following information: Starting date for the e-Auction event / Starting time for the e-Auction event / The body of the invitation which will be sent to the invited Economic Operators / An optional file attachment.
- *List of e-Auction events:* The list contains all e-Auction events (active and past) for the particular Cft. The “e-Auction Id” functionality enables to preview the e-Auction parameters. Furthermore, the user can attend an active e-Auction event.
- *Preview of an active e-Auction event:* The following functionality is enabled: Creation of a practice e-Auction event / Re-schedule the e-Auction event / Cancel the e-Auction event / Attend the e-Auction event
- *Suspend an e-Auction event:* To suspend an e-Auction event, the user should provide the justification and the duration of the suspension. The system will notify all participating Economic Operators when the suspension of an event is envisaged and communicate the suspension duration specified. No further bidding is allowed during the suspension period.
- *e-Auction Message board:* The message board provides functionality for the live communication between the user and the participating Economic Operators.
- *Preview of a completed e-Auction:* When an e-Auction event is completed, the user can preview the results of the event. The user can also generate a copy of the P.O Report. The system displays to the user some detailed information regarding the bidding process: Economic operator ID / Number of Bids per round / Details of the bids of each Economic Operator (timestamp, value, ranking after bid) / Final ranking of each Economic Operator. Furthermore, the following graphs describing the bidding



process are also provided: Best overall bid / Latest bid per Economic Operator / Rank for each Economic Operator.

**Export Procurement Record:**

The Export Procurement Record (Export Competition) functionality is available after the contract has been awarded. It allows POTC users to produce a single, easy to download, compressed file containing all documents and information (e.g. contract notices, clarifications, award notices, supplier's bids, etc.) related to the procurement process.

**Archival of CfTs:**

The archival functionality allows POTC users to remove the past/obsolete CfTs from the list of publicly available CfTs. CfTs can be archived if they are in the Awarded stage and if at least 370 days have passed since the date of awarding. After the archival, the CfT is removed from the public area and cannot be further retrieved by the Economic Operators using the search engine.

**Additional Functionality:**

- The Form Fill Tool (FFT) provides all functionality to create and navigate within the notice form.
- Inserting Common Procurement Vocabulary Codes (CPV) and the Nomenclature of Territorial Units for Statistics Codes (NUTS).

More information are provided in Contracting Authority User Manual - [www.armeps.am](http://www.armeps.am)

**2.4 ARMEPS Functionalities on Economic Operators' (Bidders/Suppliers) side**

Registered Economic Operators have the following functionalities:

1. **View CfT Workspace:** User can preview the details of the call for tender (CfT) (e.g. Title, Procurement Type, information regarding associated deadlines, etc).
2. **View CfT Documents:** User can view all notices and contract documents which are associated with the CfT
3. **Expression of Interest for a CfT:** Expression of interest through downloading one of CfT documents (e.g. Notice, Contract Document, Clarification attachment) and submitting a tender
4. **User notifications:** Users can associate notifications and specify the timing of alerts
5. **Clarifications:** Create Clarification Request and View Clarification Response
6. **Creation of a tender:** Creation of a new tender return → The tender preparation tool → Upload the tender return in the platform
7. **Feedback:** Create Feedback and View Response
8. **Electronic Auctions:** Participation in an e-Auction event → Submission of an offer → Extensions → Message Board → Suspension an e-Auction event → Preview of a completed e-Auction
9. **Contract Awarding:** Reply to contract award (Accept or Decline)

More information are provided in Economic Operators' User Manual - [www.armeps.am](http://www.armeps.am)

### 3. Effective Implementation of e-Tendering System

The efficient implementation of e-Tendering system is evidenced by the degree of availability of strategy plan, implementation plan, change management, training program, stakeholder identification and management, identification of the barriers to eGP and several other organizational aspects. We have tried to do benchmarking of those aspects with Armenian reality.

#### 3.1 Strategic Plan

**Definition:** An eGP strategy will be strengthened with a review of current procurement policies and their application, development, management and effectiveness. Further it should be supported with Government leadership, Implementation Plan and Monitoring for compliance and effectiveness.

**Armenia case:** GoA adopted in 2006 Strategy Plan for eGP and in 2009 Strategic Plan for overall public procurement procedure reform. The last one is a mid term procurement strategy with specified schedule of activities and which is consistent with the GoA development objectives. A comprehensive assessment of the management, technical, business, and governance capability of the existing procurement environment was preceded in terms of Country Procurement Assessment Report (CPAR) done by World Bank in 2009.

#### 3.2 Government leadership

**Definition:** The most important role of the government in eGP is strong leadership in setting the vision and goals, bringing about collective commitment for change in process and organizational structures, and formulating the policies and strategies necessary to put in place an eGP program. The government will need to nominate a lead agency to implement its policy and manage the risks, to lead and manage the transition to eGP.

**Armenia case:** Policy making and strategy development is assigned to MoF by LoP. The Public Internal Financial Control and Public Procurement Methodology Department of MoF has adequate human resources to provide its leadership role. In its turn, PSC is equipped with power to implement the policy, service and maintain eTendering system.

#### 3.3 Implementation plan

**Definition:** A comprehensive strategic implementation plan or action plan should be developed to address all the issues involved in implementing the system. Action plan should channel and coordinate the efforts of the national procurement authorities towards the defined goals.

**Armenia Case:** GoA adopted time schedule for the activities set forth in Strategy Plan. This time schedule is more general and focused on legal framework improvement (currently is changed), training of Contracting Authorities (in the process) and official launch of the ARMEPS (in testing period).

#### Recommendation:

Currently PSC is facing shortage of finances for equipping training facilities. This proves that State budget allocations are not sufficiently grounded for the efficient implementation of Strategy plan. GoA should re-estimate IT investment, personnel training investment and any other set-up related costs. GoA may search and identify funding sources other than State budget.

#### 3.4 Legislation and Regulation

**Definition:** eGP will be of limited effectiveness if it is required to operate against inefficient or ineffective procurement legislation or regulations, guidelines or management protocols. Regulation is a key factor in determining the integrity, fairness and effectiveness of government procurement. Regulation includes

enforcement of the legislation and its regulations, good management of behavior and process, external and internal auditing of compliance and performance and the maintenance of procurement responsibilities at agency level via accreditation and other means of performance management.

**Armenia Case:** Armenia has adopted new legislation and decree in 2011 which are in conformity with the UNCITRAL Model Law, GPA (WTO General Procurement Agreement) and EC Public Procurement Directives. Other supportive legislation is also existing (e.g. Law of the RA "On electronic document and electronic digital signature", Law on Electronic Communication, etc.)

### 3.5 Change management

**Definition:** A change management strategy builds awareness and ownership amongst procurement personnel. A well managed Change Management strategy is critical to a successful eGP implementation. Experience shows that when there are strong policies and a mandate to use the system, there are higher levels of compliance and a better ROI than when use is optional.

**Armenia Case:** New GoA Decree on Procedure for eTendering organization (to be adopted in October 2011) will make eGP as mandatory. It will enforce employees of state bodies and local authorities to learn the system. Though training process is not yet initiated. Call centre is set up to record and address all the issues of the users. It is planned to initiate awareness campaign along with launch of ARMEPS (September, 2010). This will include seminars, TV & radio interviews, newspaper articles, etc

### 3.6 Managing stakeholders

#### Private Sector Participation (Supplier Motivation)

- Suppliers' participation relates to how the ARMEPS is introduced and promoted amongst its users. Answers are provided during the interview with Mr. Araqelyan (Deputy Chief of PSC) (June 3, 2011).
- As access to ARMEPS is open and free of charge, there are no significant concerns relating to costs of participation in eGP.
- Limited conventional training interventions are provided for suppliers.
  - o The ARMEPS website contains PDF Manuals in Armenian and in English. In this way suppliers can learn the system the by themselves.
  - o Only one training room is prepared for the trainings in PSC and this room is to be used for buyers' training only. The private consulting companies have not yet expressed their interest to train suppliers.
- An independent appeal mechanism is in place. Per LoP Procurement Complaint Review Board is created which members are (i) the public administration bodies envisaged in the Republic of Armenia Constitution and laws; (ii) the Republic of Armenia urban communities; (iii) the Republic of Armenia Central Bank and (iv) Non-Governmental Organizations (Unions) registered in the Republic of Armenia, which have submitted a written request to the Authorized Body.

#### Issues:

The private sector officially does not participate in decisions related to eGP. There is no formal mechanism to facilitate consultations with private sector stakeholders.

Suppliers are not yet briefed on the benefits and requirements for ARMEPS as part on the introduction of the system. Use of technology for skills training is not yet tapped - online training tool and interactive demonstrations (CD ROM, Animation, Video material, etc.) are not yet developed.

Existing training facilities might not be adequate to accommodate training needs of Government buyers and private sector/ suppliers

### Buyers Activation

Buyers' activation relates to how the ARMEPS is introduced and promoted amongst its users. Answers are provided during the interview with Mr. Araqelyan (Deputy Chief of PSC) (June 3, 2011)

- Buyers are not trained yet to use the system. PSC should train 4000 procurement coordinators by the end of the year. Some part should be trained by the start of ARMEPS (September 1, 2011)
- A specific communication strategy for introducing the system to buyers is not put in place.
- Buyer training on the use of the system is mainly made available. 4 training rooms are prepared in PSC. Though only one of them is equipped with appropriate appliances. PDF Manual for buyers is placed in ARMEPS website. No online training tool (CD ROM, Animation, Video material, etc.) is developed yet.

### 3.7 Identification of the barriers to e-procurement

Best practice e-procurement implementations include identifying barriers to e-procurement. The barriers may be specific to the procurement process, the organisation itself or existing communication channels.

- Government procurement market is open to foreign bidders to promote competition and transparency. Article 6 of LoP sets forth that any entity, regardless of being a foreign natural person or a legal entity or a stateless person, has equal right for participation in the procurement process. Participation of any entity in the procurement can be restricted only by the Republic of Armenia Government decision based on the national security or defense interests of the Republic of Armenia.
- Not any economy sector, any location, state body or contract type is restricted for participation in the procurement process in Armenia.
- Legal infrastructure provides legitimacy for e-signatures, electronic documents and electronic transactions, etc.
- ARMEPS access is open, free, equal and unrestricted to all prospective bidders/consultants and members of the public. Citizen groups and other CSOs can maintain pressure on GoA to deliver on infrastructural commitments, and to reduce corruption in the tendering process. CSOs and academic groups could also help spread awareness about the system, and disseminate information drawn from the system.

### 3.8 Funding

PSC will get 160 mln AMD or approx. 425 000 USD from State Budget this year. The Charter of PSC gives also power to generate revenue from procurement and legal consulting, training, organization of procurement procedures for non state entities and from development of technical specifications. Not any justified business calculations are done for such services neither by MoF nor by PSC, whether the revenue generating services and budget subsidies are enough for smooth operation of PSC.

Mr. Araqelyan (Deputy Chief of PSC) noticed during the interview (June 3, 2011) that funding provided is not sufficient to equip 4 training rooms (each for 12 trainees) with appropriate hardware and software. PSC has managed to equip only one such room. Taking into consideration that 4000 procurement coordinators of Contracting Authorities should be trained and each training is estimated at one week, the only available room for 12 trainees will not sufficient to meet deadlines (to train all state specialists by the end of 2011.). Leveraging training resources through e-training was not yet considered.

Another concern is that not sufficient financing does not provide remuneration package designed to retain qualified technical and legal eGP staff at PSC. This shall be taken into consideration to avoid qualified personnel leaving for the better-paying private sector.

***Recommendation:*** GoA has not yet considered generating revenues through fees from buyers. The fees might be structured as Annual subscription fee or Transaction fee paid by suppliers. There is another option as well. GoA can charge some amount per tender participation which is more fair approach. However, such fees need to be kept on a reasonable level in order not to run the risk of reducing suppliers' participation.

### 3.9 Interoperability and infrastructure development

#### **Interoperability**

ARMEPS is an open, secure, interoperable and re-configurable e-Procurement modular platform. The system is interoperable through open standards with ICT products in common use. There are no particular platform requirements needed. The solution is multi-platform; it runs in most of the operating systems (Linux, Windows, Unix, Solaris, etc.) and with various database vendors / providers (MySQL, Oracle, etc.) as well as applications server/providers (JBOSS, Oracle Application Server, etc.). However, it is not planned yet to integrate ARMEPS with existing financial systems (Payment, Treasury, etc) and other e-government initiatives (Tax, State Register of Business, etc).

#### **Telecommunication**

- About half of Armenians or 1.5 million people, had access to Internet in 2010, including through mobile phones (Prime Minister Tigran Sargsyan's speech in May 13, 2011 during a parliament discussion on last year's budget performance<sup>24</sup>). The number of users connected to broadband Internet is 173,000 people. 3G-based telecommunications technology launched in 2010 covers almost the entire territory of the republic. Also a 4G mobile communication technology providing the speed of data transfer from base station to the device of the subscriber up to 100 megabit/sec. and speed from the subscriber to base station – up to 50 megabit/sec. was tested last year. According to government forecast, the number of broadband Internet users may rise this year (2011) to 300,000. The Armenian population is now about 3.260 million (as of ...2011).
- A fiber optic telecommunication network with a speed of 10 megabits will be created throughout Armenia by Ericsson (Interview of Advisor to RA's economy minister Vahe Danielyan to Armenian news agency in May 03, 2011).<sup>25</sup> The company will present its business model to the Public Services Regulatory Commission and will start working after getting relevant license. Ericsson plans to create a high-speed network in two years and plans to invest \$70 million. Project's goal is to make internet access available throughout the territory of Armenia. New network will provide high-speed internet to all cities, towns, and villages of Armenia.

### 3.10 Impact monitoring / Reporting

**Definition:** The data collected in eGP systems can assist with mandatory reporting obligations, audit and accountability requirements, as well as internal reporting to assist with on-going development of its procurement strategy. The first step in reporting and measurement is to benchmark existing procurement

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<sup>24</sup> <http://telecom.arka.am/eng/internet/2011/05/13/7155.html>

<sup>25</sup> <http://news.am/eng/news/57929.html>

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processes. This information can then be analyzed and compared to the metrics collected after the eGP tools and systems have been implemented to support the business case and demonstrate the ROI.

**Armenia case:** Strategy of Improvements of the Procurement System (2009) suggests MoF to construct the structure of the database which is to be filled with the information appropriate to quantitative indicators.

## RECOMMENDATIONS

Based on the analysis of the collected information and on international practice, some practical measures are recommended for better implantation of eGP in Armenia:

1. The formation of a high-powered steering committee or board with a mandate to take decisions on all issues is important factor for successful implementation of the eGP agenda. This board can be composed of concerned government ministries, PSC, Private Sector and CSOs under the strong Prime Minister leadership. Regular meetings once every six months should be initiated by this board to consider in detail all issues that arose during implementation and to provide solutions without loss of time.
2. After an official launch of ARMEPS, an e-procurement initiative needs to be monitored regularly to identify opportunities for ongoing improvements. This includes periodic and planned reviews. After specific period and based on collected information the Strategy should be updated and new objectives should be set forth.
3. A rational and affordable pricing model is also very important for sustaining the eGP initiative. Cost to government with 'No Cost' to supplier in the Pilot phase, and Cost to supplier with 'No Cost' to government in the roll out phase can be success formula for effective implementation of eGP. Currently, GoA is not considering such model of effective implementation of eGP. The Charter of PSC gives also power to generate revenue from procurement and legal consulting, training, organization of procurement procedures for non state entities and from development of technical specifications. Calculation of feasible fee structure was not yet undertaken by MoF or by PSC, so it is not clear if revenue generating services and budget subsidies will be sufficient to cover PSC operations.

International practice has several options for revenue generation by National Procurement Agencies such as (i) Annual subscription fee from suppliers; (ii) Transaction fee paid by supplier awarded the contract and (iii) Fixed fee per tender participation. However, such fees need to be kept on a reasonable level in order not to run the risk of reducing suppliers' participation.

4. PSC is facing shortage of finances for equipping training facilities, facilitating the server room (electric generator). This provides evidence that State budget allocations were not sufficiently calculated for the efficient implementation of Strategic plan. GoA should take stock of all direct and indirect costs related IT investment, personnel training investment and any other set-up related costs. GoA may consider funding sources other than State budget.
5. Another concern is that not sufficient financing does not allow providing incentive systems for retaining qualified technical and legal eGP staff at PSC. This may be taken into consideration to avoid qualified personnel leaving for the better-paying private sector.
6. PSC should create a sustainable training system for procurement practitioners to ensure compliance, professionalism and career development. 4 training rooms are prepared in PSC. Though only one of them is equipped with appropriate appliances. PDF Manual for buyers is placed in ARMEPS website. No online training tool (CD ROM, Animation, Video material, etc.) is developed yet. Buyers are not trained yet to use the system. PSC should train 4000 procurement coordinators by the end of the year. Some part should be trained by the start of ARMEPS (September 1, 2011)
7. Currently there are two procurement websites: [www.procurement.am](http://www.procurement.am) (managed by MoF) and [www.armeps.am](http://www.armeps.am) (managed by PSC). Ideally, information shall be consolidated on one website with appropriate information and English translation of this information.

## INFORMATION SOURCES

### 1. Web links for international resources

- e-GP working group composed of the Inter-American Development Bank (IDB), the African Development Bank (AfDB), The Asian Development Bank (ADB) and the World Bank - <http://www.mdbegp.org>
- ADB's regional capacity development technical assistance - <http://adbprocurementforum.net/>
- Asia: Procurement Strategies for the Public Sector conference - <http://www.publicprocurementasia.com>
- TA-7437 REG: Asia Pacific Procurement Partnership Initiative  
<http://www.adb.org/documents/tars/reg/43149-REG-TAR.pdf>
- OECD : High Level Seminar on E-Procurement, Efficiency and Integrity: Challenges and Good Practices  
[http://www.oecd.org/document/49/0,3343,en\\_34645207\\_34744758\\_45406321\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/49/0,3343,en_34645207_34744758_45406321_1_1_1_1,00.html)
- United Nations Public Administration Network (UNPAN) - <http://www.unpan.org>
- United Nations Procurement Capacity Development Centre - <http://unpcdc.org/home.aspx>
- European Commission - Internal Market - Public Procurement - e-Procurement  
[http://ec.europa.eu/internal\\_market/publicprocurement/e-procurement/index\\_en.htm](http://ec.europa.eu/internal_market/publicprocurement/e-procurement/index_en.htm)
- PEPPOL (Pan-European Public Procurement Online) - <http://www.peppol.eu/>
- ePractice.eu is a portal created by the European Commission - <http://www.epractice.eu/en/home/>
- UK National eProcurement Project - <http://www.idea.gov.uk/idk/core/page.do?pageId=1002>

### 2. Web links for Armenian resources

- Government of RA – [www.gov.am](http://www.gov.am)
- Ministry of Finances – [www.mfe.am](http://www.mfe.am)
- Ministry of Economy - <http://mineconomy.am/am/>
- Procurement official website – [www.procurement.am](http://www.procurement.am)
- ARMEPS – [www.armepps.am](http://www.armepps.am)
- European Dynamics - <http://www.eurodyn.com/default/page-index.html>
- e-PPS - [http://www.e-pps.eu/default/page-view\\_category/catid-87.html](http://www.e-pps.eu/default/page-view_category/catid-87.html)
- eGovernment Projects in Armenia - [www.e-gov.am](http://www.e-gov.am)
- e-Governance Infrastructure Implementation Unit - <http://www.ekeng.am/>
- Doing Business 2011 data for Armenia <http://www.doingbusiness.org/data/exploreeconomies/armenia>
- Public Sector Modernization Project II -  
<http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P117384>

### 3. Reviewed Armenian Literature

In English

- e-PPS Brochure
- ARMEPS User Manual for Economic Operators
- ARMEPS User Manual for Contracting Authorities
- Law on Procurement
- RFP # PSMP 2-C-2: Development or Customization of Off-the-shelf Software for the Government Electronic Procurement System (E-Tendering) / Credit # 3891 AM / Project Name: Public Sector Modernization Project / January 21, 2010
- Country Procurement Assessment Report: Republic of Armenia - World Bank, 2009
- Public Expenditure Review of Armenia - World Bank, 2003
- Public Financial Management Reform Priorities - Republic of Armenia - August 24, 2010 - World Bank
- Anti-corruption strategy and its implementation Action Plan for 2009-2012 – Gov. of Armenia - 10. 07. 2009

In Armenian only

- Comments on Law on Procurement of RA - Transparency International Anti-corruption



- GoA Decree #137 on «Strategy for Introducing the System of Electronic Procurement»
- «Strategy of Improvements of the Procurement System»
- Decree N862-A on «Time schedule for the activities derived from the Strategy of Improvement of the Procurement System»
- GoA Decree #168-N on «Organization of procurement procedures»
- OSI – RA Procurement Process Monitoring 2008-2009

#### 4. Reviewed Multinational Literature

MDB eGP - All these documents were prepared for the Procurement Harmonization Project of The Asian Development Bank, The Inter-American Development Bank and The World Bank

- Electronic Government Procurement (e-GP) – Readiness Self Assessment. November 2004
- International Survey of e-Procurement Systems. May 2007
- Electronic Government Procurement – Roadmap. March 2004.
- Strategic eGP – Standards Framework. March 2004
- Strategic eGP: Strategic Overview - An introduction for executives. March 2004
- Strategic Electronic Government Procurement – Strategic Planning Guide. June 2004

World Bank: e-GP Opportunities & Challenges - Knut Leipold, World Bank - June 2007

ADB: APPI - Country Public Procurement Profile Questionnaire (with eGP Overview sections)

OECD: Methodology for Assessment of National Procurement Systems - July 17 2006

#### EU

- Commission Staff Working Document – Evaluation of the 2004 Action Plan for Electronic Public Procurement - Accompanying document to the Green Paper on expanding the use of e-Procurement in the EU
- Case Studies on European Electronic Public Procurement Projects – Produced by European Dynamics S.A. on behalf of the European Commission – Volume I and II – 2004
- Functional Requirement for conducting electronic public procurement under the EU Framework – Produced by European Dynamics S.A. on behalf of the European Commission – Volume I and II – January 2005
- Study on the evaluation of the Action Plan for the implementation of the legal framework for electronic procurement (Phase II) - Country Profiles - European Commission Internal Market Directorate-2010
- Extended Impact Assessment - Annex to the "Action plan for the implementation of the legal framework for electronic public procurement" – European Commission – 2005
- Commission Staff Working Document – Requirements for conducting public procurement using electronic means under the new public procurement Directives 2004/18/EC and 2004/17/EC

#### 5. Reviewed Other National Literature

- E-Procurement in Government of Andhra Pradesh, India - K. Bikshapathi.
- Public Policy and the new regulatory framework on Electronic Government Procurement in Colombia -2006
- Critical Factors that influence e-Procurement implementation success in the public sector – Journal of Public Procurement, Volume 6, Issues 1 & 3, 70-99 2006, Kishor Vaidya, A. S. M. Sajeev and Guy Callender
- E-Procurement Adoption in the Danish Public Sector: The Influence of Economic and Political Rationality - Helle Zinner Henriksen & Volker Mahnke - Copenhagen Business School, Denmark – 2005
- National models of public e-procurement in Europe - Francesco Bof and Pietro Previtali - Journal of e-Government Studies and Best Practices - Vol. 2010 (2010), Article ID 315295, 14 pages
- Strategic Guide to e-Procurement - Australian Government - May 2006
- eProcurement Strategy of the Confederation – Switzerland - November 2008
- E-procurement in Korea – Public Procurement Service of the Republic of Korea - ADB Institute – 2005
- Philippines: Strengthening the Philippine Government Electronic Procurement – ADB: March 2009
- UK - e-Procurement Requirements Specification Template and Guidance