FOREWORD FROM THE MINISTER OF FINANCE

The Federal Public Procurement and Property Administration Agency (FPPA) has been given the responsibility to lead the introduction of the use of electronic means in the procurement of our goods, works and services and it has been working behind the scenes to ensure that this process is successful. In order to guide the introduction of the electronic-Government Procurement (e-GP) System, a strategy document and roadmap has been developed. The e-GP Strategy and Roadmap covers a period of five years from 2018 to 2023.

The introduction of the e-GP System is also a part of the broader Government objectives of e-Government. We see that the implementation of the e-GP fits in very well in the broader Government initiative of working towards smart governance through digital transformation which is aimed at achieving four objectives:

1. Bringing the Government closer to the people by increasing awareness levels of the services offered by the Government and making customers aware of their rights and making it easy for customers to influence and participate in design of Government policies and schemes;

2. Effective governance through integration and information sharing amongst various government entities and actors;

3. Improved service delivery through electronically enabled services which are faster, easier to demand and have pre-defined and published service levels thereby leading to a visible enhancement in quality of service delivery; and

4. Socio-Economic growth through participation of the private sector and deployment of its resources, entrepreneurship and competence. At the same time, the private sector would also benefit through the e-Government programs as government services will be delivered faster and at a lower cost to the customers thereby resulting in lower cost of doing business.

The e-GP Strategy and Roadmap is designed to achieve all the broader e-Government objectives mentioned above with regards to public procurement. The preparation of the Strategy required a significant level of reflection and consultation, on the challenges and the focus and priorities for public procurement in Ethiopia. As a result, the Strategy has set out an ambitious vision for public procurement. Achieving this vision will involve a significant level of change and flexibility to proactively respond to issues as they arise and I urge all stakeholders to be determined so that together we can realise our dream. The process of implementing the e-GP System will be challenging particularly for the FPPA but it will also present itself with opportunities in skills and capacity development, increased competition and transparency, greater efficiency in the delivery of public services among others.

This Strategy is designed with a focus of active engagement with stakeholders to during the process of Implementation and I take this opportunity to thank all stakeholders for their
contribution to the development of this Strategy. We believe that this Strategy has also struck the right balance in maintaining what we do well and responding to future requirements and opportunities. I commend all the staff of the FPPA for their continued efforts, dedication, and commitment to reforming public procurement. The publication of Strategy signals only the first step in a long journey through implementation. I would also like to extend my sincere gratitude to the Steering and Technical Committees for providing oversight and technical responsibilities, respectively on the Introduction of the e-GP. The implementation of this Strategy therefore has the full blessings of both Committees. I look forward to its successful execution.

Hon. Ahmed Shide
MINISTER OF FINANCE
FOREWORD FROM THE DIRECTOR GENERAL

We at FPPA are pleased to be the ones to drive the process of introducing the electronic Government Procurement (e-GP) System in Ethiopia. In delivering a System as big as the e-GP, strong leadership is critical at various levels. Government has provided unwavering leadership in this regard and I am committed to provide the leadership that is required so that this project is successfully executed and I call upon all the members of staff of the FPPA to embrace this initiative, from the onset.

The strategy document has given us a clear direction to take in the introduction of the e-GP system. It has highlighted some of our strengths as a country and in public procurement and we are determined to build upon what we are already doing best so that we become a beacon of pride in Africa. The strategy also brought to the fore the areas in which we are not doing well! For us we take this as an opportunity to engage and find solutions to the challenges that we encounter in public procurement. I know that introduction of new ways of doing things requires upgrading skills of the people charged with the responsibilities to execute those duties and I want to assure you that a comprehensive capacity building programme has been incorporated in the strategy to ensure that people are ready for the tasks.

We are clear in our minds in terms of the change we would like to bring in public procurement, and this goes beyond the use of computers in undertaking procurement. We would create an environment in public procurement which focuses on good governance through the digitalisation of procurement practices and ultimately offering improved service delivery to the public.

The implementation of the e-GP system will deliver the following broad strategic objectives:

i. Improved Governance through enhanced transparency and accountability;
ii. Effectiveness through management information and efficient processes; and
iii. Socio-economic development through competitiveness and improved investment climate.

It is the above objectives which are expected to be delivered by the introduction of the e-GP system which give me the motivation to push and ensure that the country benefits. I now extend this call to my management and staff to see the bigger picture of the implementation of this system. I understand the responsibility charged on the Agency is huge and I invite all our stakeholders to partner with us as we embark on this ambitious programme. Together we will succeed!

The delivery of this system will require engagement with stakeholders, teamwork and effective communication. I pledge to provide inspired leadership as we move forward with this process.

Hon. Marta Luwigi
DIRECTOR GENERAL
EXECUTIVE SUMMARY

Background

1. The government of Ethiopia has initiated several steps to reform public financial management to assure good governance particularly value-for-money, transparency and accountability in public procurement. This is now further strengthened with the Directive issued by the Ministry of Finance and Economic Cooperation (MOFEC) Pursuant to Article 78/2 of the Ethiopian Federal Government Procurement and Property Administration Proclamation no 649/2009 and Article 19 of the definition of powers and duties of the Executive Organs of the Federal Government of Ethiopia Proclamation No 471/2005/6 (as amended). The Federal Public Procurement and Property Administration Agency (FPPA) is established and functional as a regulatory body for procurement and property management. Regional states have established similar regulatory bodies. Recently, the new draft proclamation was prepared following the UNCITRAL Model law and international best practices and is in the process of finalization.

2. The Government of Ethiopia has realized the challenges in the public financial management and has taken up initiations for the introduction of e-Procurement system strengthening the Public Financial Management systems. Financial governance is the purpose of the Public Finance Management Reform. Good governance in the public procurement sector plays a significant role in the success of the public expenditure Management as about 65 percent of the Government of Ethiopia’s (GoE) annual budget is expended through procurement, mostly in transport, energy, water, agriculture and education; this represents an annual expenditure of about US$3.5 billion. Introducing e-procurement is expected to help manage the expenditure of the huge public fund through public procurement with greater transparency, efficiency, and effectively enhancing compliance, providing a procurement platform with equal treatment to all bidders, applying same rule of law, maintaining integrity of the government buyers as well as private sector, and at the same time raising awareness of the general public about the expenses of the government. Ethiopia may save a huge amount of money with the efficiency gain through the standardization and automation of the procurement processes through e-Procurement. There will be a $35 million saving annually even if the saving is taken conservatively at just one percent (1%) of the annual budget (including lower administrative costs, less paper and travel time, and other). This saving is a lot more than the planned expenditure to design and implement e-procurement system. The cost-saving impact of e-procurement will be observed in the medium term (if not sooner), suggesting that supporting e-procurement is well justified. Countries around the world have the experience of saving from 5% to 20% in different procurement settings.

3. The FPPA is mandated to lead the e-Procurement initiative in the country, and is working in coordination and collaboration with MOFEC and Ministry Communication and Information Technology (MCIT) as well as other stakeholders.
4. An e-Procurement Readiness Assessment was carried out in March 2018 to review the readiness of the procuring entities, the private sector and other relevant stakeholders in public procurement sector with the focus on enabling drivers for the success of e-Procurement. Multilateral Development Banks (MDB) e-Procurement Readiness Assessment Survey Questionnaire was updated and used to capture the specific readiness environment of the Ethiopian context. As part of the readiness assessment, the mission made visits to ministries, local authorities, parastatals, private sector associations, professional institutions, and other stakeholders to assess the current procurement practices and readiness regarding the legislative framework, communications infrastructure, connectivity, ICT capability, etc. Stakeholders were consulted face-to-face in the field for the survey.

5. The e-Procurement Readiness Assessment identifies nine (9) key components for e-procurement readiness by the score range of minimum One (1) to highest four (4). The overall Level of Readiness (LoR) on nine (9) components was assessed as Moderately Satisfactory level with the score of 2.97 out of 4.

6. e-GP Readiness Assessment revealed that the MCIT and Bahir Dar University (BDU) have developed in-house and already using e-Procurement systems. BDU has been using the system for the last seven years internally for its procurement purposes. MCIT developed the e-Procurement system under the e-Government Strategy Implementation Plans 2020 and are also using the system since 2017 for the Ministry’s own procurement purposes. FPPA as the mandated authority for the procurement sector is going to establish a unitary end-to-end national e-Procurement system to be used across all government procuring entities. During the e-GP Readiness Assessment, both the systems from the MCIT as well as BDU were assessed going through the demonstration of the systems considering the feasibility of qualifying one of the systems to be upgraded as the national e-Procurement System. The assessment of the two systems concluded with the decision that the MCIT e-Procurement system is more appropriate to be used as the national system with required further enhancements. Gaps and enhancement requirements will be identified in the MCIT system to meet the business, functional and technical requirements of the FPPA, as well as make the system in line with the international best practices. An analysis of two systems was prepared based on the demonstrations made and is given in the subsequent sections.

7. The governance of public procurement is pivotal to public trust in Government and is a barometer for the quality of public administration, making it a priority target for strengthening. In Ethiopia, the procurement reforms were initiated, and implementation of e-Procurement is the major thrust to streamline the procurement procedures and practices, provide greater transparency, enhance efficiency and effectiveness, ensure accountability and integrity, provide equal treatment to the bidders, enhance compliance and performance in procurement transactions, provide a platform for citizen participation and greater value-for-money to achieve sustainable socio-economic development through the electronic procurement platform.
8. The e-Procurement Strategy (2018-2023) has been developed based on Ethiopian country context and learning from the international best practices. The strategy assists the government to successfully plan and implement the enhanced e-Procurement system. The Foppish expected to implement the e-Procurement Strategy successfully in coordination and collaboration with the MoFEC, MCIT and other stakeholders following the right e-Procurement implementation framework.

Problem Statement

9. Problems in the public procurement sector in Ethiopia include:
   i. Challenges in procurement planning and implementing the plans;
   ii. Lack of transparency in procurement process;
   iii. Delay in procurement evaluation and contract award process;
   iv. Lack of accountability;
   v. Poor contract management;
   vi. Inconsistency in using procurement standards;
   vii. Poor data management and lack of access to procurement information; and
   viii. Poor coordination between and among procuring entities.

Justification

10. Government seeks to continue strengthening the Public Financial Management systems by enhancing e-Procurement to provide a platform for:
   (i) increased transparency in procurement procedures and practices;
   (ii) improved efficiency in procurement, by minimizing the procurement cycle time, maximizing value for money, and fostering accountability through re-engineered procedures, and built-in process workflows and audit trails;
   (iii) improved confidentiality, integrity and authenticity of transactions between the procurement entities and the suppliers;
   (iv) streamlined procurement procedures across the government through standardization of processes and practices building in the e-Procurement system;
   (v) enhanced procurement management information system a common procurement database and electronic trail of procurements to facilitate proper monitoring, evaluation, reporting and planning of public procurements.
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<th>Abbreviation</th>
<th>Definition</th>
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<tbody>
<tr>
<td>BOM</td>
<td>Bill of Materials</td>
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<td>BOQ</td>
<td>Bill of Quantities</td>
</tr>
<tr>
<td>BPR</td>
<td>Business Process Re-engineering</td>
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<td>CPV</td>
<td>Common Procurement Vocabulary</td>
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<td>DRS</td>
<td>Disaster Recovery Site</td>
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<tr>
<td>e-GP</td>
<td>e-Government Procurement</td>
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<tr>
<td>e-PPMU</td>
<td>e-Procurement Project Management Unit</td>
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<tr>
<td>e-PSC</td>
<td>e-Procurement Project Steering Committee</td>
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<td>e-PWG</td>
<td>e-Procurement Working Group</td>
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<tr>
<td>FPPA</td>
<td>Federal Public Procurement and Property Administration Agency</td>
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<tr>
<td>GoE</td>
<td>Government of Ethiopia</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>ICB</td>
<td>International Competitive Bidding</td>
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<tr>
<td>ICT</td>
<td>Information and Communications Technology</td>
</tr>
<tr>
<td>IFMIS</td>
<td>Integrated Financial Management Information System</td>
</tr>
<tr>
<td>KPI</td>
<td>Key Performance Indicator</td>
</tr>
<tr>
<td>MDA</td>
<td>Ministries, Departments and Agencies</td>
</tr>
<tr>
<td>MDB</td>
<td>Multilateral Development Banks</td>
</tr>
<tr>
<td>MCIT</td>
<td>Ministry of Communications and Information Technology</td>
</tr>
<tr>
<td>MoFEC</td>
<td>Ministry of Finance and Economic Cooperation</td>
</tr>
<tr>
<td>OCDS</td>
<td>Open Contracting Data Standard</td>
</tr>
<tr>
<td>PE</td>
<td>Procuring Entity</td>
</tr>
<tr>
<td>PKI</td>
<td>Public Key Infrastructure</td>
</tr>
<tr>
<td>PMIS</td>
<td>Procurement Management Information System</td>
</tr>
<tr>
<td>PPPDS</td>
<td>Public Procurement and Property Disposal Service</td>
</tr>
<tr>
<td>UNSPSC</td>
<td>United Nations Standard Products and Services Code</td>
</tr>
<tr>
<td>UNCITRAL</td>
<td>United Nations Commission on International Trade Law</td>
</tr>
<tr>
<td>WB</td>
<td>World Bank</td>
</tr>
</tbody>
</table>
CHAPTER 1: INTRODUCTION

1.1 Background

Financial governance is the purpose of the Public Finance Management Reform. Good governance in public procurement sector plays a significant role in the success of the public expenditure management as about 53 percent of the Government of Ethiopia’s (GoE) annual budget is expended through procurement, mostly in transport, energy, water, agriculture and education; this represents an annual expenditure of about US$3.5 billion. Introducing e-procurement is expected to help manage the expenditure of the huge public fund through public procurement with greater transparency, efficiency, and effectively enhancing compliance, providing procurement platform with equal treatment to all bidders, applying same rule of law, maintaining integrity of the government buyers as well as private sector, and at the same time raising awareness of the general public about the expenses of the government. Ethiopia may save a huge amount of money with the efficiency gain through the standardization and automation of the procurement processes through e-Procurement. There will be a $35 million saving annually even if the saving is taken conservatively just one percent (1%) of the annual budget (including lower administrative costs, less paper and travel time, and other). This saving is a lot more than the planned expenditure to design and implement e-procurement system. The cost-saving impact of e-procurement is to be observed in the medium term (if not sooner), suggesting that supporting e-procurement is well justified. Countries around the world have experience of saving from 5% to 20% in different procurement settings.

A recent study\(^1\) of 137 large contracts in Ethiopia found that it took, on average, 219 days -- from advertising to contract signature -- to complete the procurement process of a government-financed contract. Also, that 36 percent of the time was spent on administrative reviews and approvals. All processes are manual and most of them are repetitive for off-the-shelf goods. Market research and data management to monitor performance is weak, oversight over procurement activities is weak with low audit coverage (less than 50 percent at the Federal level, and only recently initiated at the Regional level). The study shows that there are significant delays in International Competitive Bidding (ICB) contracts for goods, works and consultants for government-funded contracts, as well as for Bank-financed projects. There is an urgent need to modernize and automate procurement practices. A priority for the GoE during the next five years is the introduction of an e-GP (e-Government Procurement) system -- to improve efficiency and accountability in the procurement process and also reduce costs.

The GoE has initiated several steps to reform public financial management to

\(^1\) Procurement Value Chain Analysis of August 2015 by SPA Infosuv East Africa Ltd.
assure good governance particularly value-for-money, transparency and accountability in public procurement. This is now further strengthened with the Directive issued by the Ministry of Finance and Economic Cooperation (MOFEC) Pursuant to Article 78/2 of the Ethiopian Federal Government Procurement and Property Administration Proclamation no 649/2009 and Article 19 of the definition of powers and duties of the Executive Organs of the Federal Government of Ethiopia Proclamation No 471/2005/6 (as amended). The Federal Public Procurement and Property Administration Agency (FPPA) was established and is functional as a regulatory body for procurement and property management. Regional states have established similar regulatory bodies. Recently, a new draft proclamation was prepared following the UNCITRAL Model law and international best practices and is in the process of finalization.

The GoE has realized the challenges in the public financial sector and taken up initiations for the introduction of e-Procurement system strengthening the Public Financial Management systems. GoE, therefore, plans to adopt the e-Government Procurement (e-GP) to provide a platform for:

- increased transparency in procurement procedures and practices;
- improved efficiency in procurement, by minimizing the procurement cycle time, maximizing value for money, and fostering accountability through re-engineered procedures, and built-in process workflows and audit trails;
- improved confidentiality, integrity, and authenticity of transactions between the procurement entities and the suppliers;
- streamlined procurement procedures across the government through standardization of processes and practices building in the e-Procurement system;
- enhanced procurement management information system a common procurement database and electronic trail of procurements to facilitate proper monitoring, evaluation, reporting and planning of public procurements.

Introduction of an e-GP system is expected to incorporate and streamline end-to-end procurement processes and related functions (from planning to contract monitoring and payment) while applying tighter controls over spending and product preferences. Implementation of e-procurement automates the internal and external processes associated with the procurement process including supplier selection for different types of procurement and opens the way for new efficient procurement methodologies that can increase market access and competition. Besides the relevant internal and external process integration, the e-GP system is expected to bind all the stakeholders in the e-GP platform for collaboration, coordination and ensuring accountability of the transactions carried out in the system.

1.2 E-Procurement Implementation Status in Africa

The countries in Africa are at different levels of e-Procurement implementation stages. An e-GP Readiness Assessment in Ethiopia revealed that there are two e-Procurement initiatives already being used in isolation in two institutions to
address some of their institutional procurement requirements. With that it can be considered that Ethiopia has already got some e-Procurement experience. At the regional level, Botswana, Rwanda, South Africa, Tunisia, and Zambia have already embraced end-to-end e-Procurement system as a tool for public procurement reform and already getting visible enhancements in public procurement sector and received benefits regarding socio-economic development. Tanzania launched e-Procurement in February 2018, and Uganda, Ghana, Zimbabwe, Ethiopia, and Malawi have completed few of the initial steps for starting e-Procurement.

Table 1 below shows the e-Procurement Initiation and implementation status in few of the countries in Africa:
<table>
<thead>
<tr>
<th>SN</th>
<th>Description</th>
<th>Botswana</th>
<th>Ethiopia</th>
<th>Kenya</th>
<th>Rwanda</th>
<th>South Africa</th>
<th>Tanzania</th>
<th>Uganda</th>
<th>Zambia</th>
<th>Zimbabwe</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>e-Procurement Strategy</td>
<td>✓ ✔ ✔ X</td>
<td>✔ ✔ ✔ X</td>
<td>✔</td>
<td>✔ X</td>
<td>✔ ✔ ✔ ✔ ✔ ✔</td>
<td>✔</td>
<td>✔ ✔</td>
<td>✔ X</td>
<td>✔ ✔</td>
</tr>
<tr>
<td>3</td>
<td>Procurement Information portal</td>
<td>✓ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔</td>
<td>✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔</td>
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<td>✔ ✔</td>
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<tr>
<td>4</td>
<td>Legislative Support on e-Procurement implementation</td>
<td>✓ Amended Act and regulation supports e-Procurement</td>
<td>✓ New proclamation facilitates the use of e-Procurement</td>
<td>✓ Public Procurement Act, 2015 and regulations facilitates e-Procurement</td>
<td>✓ Public Procurement Law 2011 supports e-Procurement</td>
<td>✓ State level legislations supporting e-Procurement. Central government policy to use e-Procurement mandatorily</td>
<td>✓ Regulation covers e-Procurement</td>
<td>✓ Amended regulation supports e-GP. Also e-Procurement Guidelines developed</td>
<td>✓ Amended regulation supports e-Procurement</td>
<td>✓ Revised Procurement act and regulation supports e-Procurement. Also e-Procurement Guidelines developed</td>
</tr>
<tr>
<td>5</td>
<td>e-Procurement Implementation Status</td>
<td>Annual procurement plan, procurement</td>
<td>Preparation of scope and requirements for the Running IFMIS based e-Procurement</td>
<td>End-to-End e-Procurement will be Partial e-GP Systems since 2006, Unified e-GP</td>
<td>End-to-end TANePS. Pilot implementation started in Feb,</td>
<td>End-to-end e-GP with open contracting being</td>
<td>End-to-end e-GP System with Open Contracting</td>
<td>End-to-end system with Open contracting at</td>
<td></td>
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<tr>
<td>SN</td>
<td>Description</td>
<td>Botswana</td>
<td>Ethiopia</td>
<td>Kenya</td>
<td>Rwanda</td>
<td>South Africa</td>
<td>Tanzania</td>
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<tr>
<td>7</td>
<td>e-Procurement System Acquisition model</td>
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<tr>
<td></td>
<td>Commercial off-the-Shelf product procured, customized and new modules developed</td>
<td></td>
<td>enhancement of home-grown e-Procurement system will be done</td>
<td></td>
<td></td>
<td>Developed by SOE in close collaboration with the RPPA and Ministry of Finance and Economic planning</td>
<td>Commercial off-the-Shelf product procured, customized and new modules developed</td>
<td>Commercial off-the-Shelf product procured, customization underway and new modules will be developed</td>
<td>Commercial off-the-Shelf product procured, customized and new modules developed</td>
<td>At the acquisition stage</td>
</tr>
</tbody>
</table>
1.3 E-Procurement Readiness Assessment

An e-Procurement Readiness Assessment was carried out in March 2018 to review the readiness of the procuring entities, the private sector and other relevant stakeholders in public procurement sector with the focus on enabling drivers for the success of e-Procurement. Multilateral Development Banks (MDB) e-Procurement Readiness Assessment Survey Questionnaire was updated to capture the specific readiness environment of the Ethiopian context. As part of the readiness assessment, the mission made visits to ministries, local authorities, parastatals, private sector associations, professional institutions, and other stakeholders to assess the current procurement practices and readiness regarding the legislative framework, communications infrastructure, connectivity, ICT capability, etc. Stakeholders were consulted face-to-face in the field for the survey. List of the organizations participating in the e-GP Readiness Assessment is given.

The e-Procurement Readiness Assessment identifies nine (9) key components for e-procurement readiness by the score range of minimum One (1) to highest four (4) as follows in Table 2 and relative radar is shown on Figure 1:

Table 2: e-Procurement Readiness Assessment Components

<table>
<thead>
<tr>
<th>e-Procurement Readiness Components</th>
<th>Level of Readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. GOVERNMENT LEADERSHIP</td>
<td>2.8</td>
</tr>
<tr>
<td>2. HUMAN RESOURCE MANAGEMENT</td>
<td>2.7</td>
</tr>
<tr>
<td>3. PLANNING AND MANAGEMENT</td>
<td>2.7</td>
</tr>
<tr>
<td>4. POLICY</td>
<td>2.5</td>
</tr>
<tr>
<td>5. LEGISLATION &amp; REGULATION</td>
<td>3.0</td>
</tr>
<tr>
<td>6. INFRASTRUCTURE AND WEB SERVICES</td>
<td>3.2</td>
</tr>
<tr>
<td>7. STANDARDS</td>
<td>2.3</td>
</tr>
<tr>
<td>8. PRIVATE SECTOR INTEGRATION</td>
<td>3.8</td>
</tr>
<tr>
<td>9. SYSTEMS (CURRENT E-GP SYSTEMS)</td>
<td>3.8</td>
</tr>
<tr>
<td><strong>Overall readiness score</strong></td>
<td><strong>2.97</strong></td>
</tr>
</tbody>
</table>

The overall Level of Readiness (LoR) on nine (9) components was assessed as **Moderately Satisfactory** level with the score of **2.97** out of 4.
Numerous observations were made from the discussions with government officials and other stakeholders. The consulted stakeholders during mission and through the questionnaire response provided feedback and recommendations for the implementation of the e-GP system in the country. Several building blocks for the implementation of e-Procurement are already in place in Ethiopia, especially few of the achievements and experiences gained with the implementation of IFMIS and e-Procurement in Ministry of Communication and Information Technology (MCIT) and Bahir Dar University (BDU) are invaluable and has taken substantial time for many other countries to achieve, for example:

1. The seamless interface and integration with the Integrated Financial Management System (IFMIS) and its transactions when the systems are ready for the interfaces;
2. Classification of procurement items – Successfully using the United Nations Standard Products and Services Code (UNSPSC) and Common Procurement Vocabulary (CPV) classification standards;
3. Catalog of core set of common user items are already in the database, providing a facility for mapping with the economic code of IFMIS facilitating budget and expenditure planning;
4. System can be interfaced with external systems, IFMIS, Tax system and Business Registration system if those systems provide interfacing provisions.
5. Transformation among users (procurement entities and suppliers) has taken place following extensive sensitization and training programs leading to acceptability;
6. A significant number of suppliers have been registered through the Supplier Database in FPPA; and
7. Repository database of procurement information and data from past procurements established.

Based on the assessments, Ethiopia is ready for implementing a full-fledged end-to-end e-procurement in both the public and the private sector with the Level of Readiness Score 2.97 out of 4. The public and private sector, are both enthusiastic about the benefits of e-procurement and are ready embrace the new e-Procurement platform.

An analysis of each of the components is given in Annex 1.

1.4 Feedback and Recommendations from the Stakeholders

During the e-Procurement Readiness Assessment, stakeholders were asked to provide their feedback on the procurement environment, existing e-Procurement Systems. Most of the respondents provided their candid feedback and recommendations, which should be considered in the new e-Procurement system. Stakeholders’ feedback is provided below:

Feedback and Recommendations from the Respondents:

1) All procurement invitations should be accessible on the e-GP system.
2) All Procurement and Contract administration should be regulated by FPPA with full capacity and resources, as currently the capacity and resources are not adequate for comprehensive monitoring of the procurements and contracts.
3) The e-GP strategy should recognize and consider existing initiatives started to modernize government procurement.
4) The system is expected to be supportive rather than rigid.
5) Awareness creation for suppliers & subject to use skilled Professionals.
6) Internet Network infrastructures should be easily accessible and affordable to all as the cost for Internet is high and access to Internet outside Addis Ababa is challenging.
7) New e-Procurement system should follow open architecture and use open source software tools, database and system software.
8) Proper standards, regulations and procedures are required
9) If it is possible to have a system that can integrate all the processes at both Ministries, Departments and Agencies (MDAs), and other Government Affiliated Agencies, it would be ideal instead of having many stand-alone systems.
1.5 Existing e-Procurement Systems in the Country

e-GP Readiness Assessment revealed that the MCIT and Bahir Dar University (BDU) have developed systems and already using e-Procurement systems. BDU has been using the system for the last seven years internally for its procurement purposes. MCIT developed the e-Procurement system under the e-Government Strategy Implementation Plans 2020 and also using the system for its own procurement purposes. FPPA as the mandated authority for the procurement sector is going to establish a unitary end-to-end national e-Procurement system to be used across all government procuring entities. During the e-GP Readiness Assessment, both the systems from the MCIT as well as BDU were assessed going through the demonstration of the systems considering the feasibility of qualifying one of them to be upgraded as the national e-Procurement System. An analysis of two systems based on the presentations made by the MCIT and the BDU during the mission are given below.

1.6 Comparison of MCIT and BDU e-Procurement Systems

The e-GP Readiness Assessment revealed that there are other e-Procurement initiatives being carried out at different levels and by different organizations, primarily MCIT has developed an e-Procurement system under the e-Government initiative, and BDU developed the system to address its internal procurement requirements. During the World Bank mission on e-GP readiness assessment and fact finding in March, 2018, the mission had the opportunity to see the demo of the systems and review the systems in-line with the International Best Practices, and Ethiopia country procurement context. A comparative chart was prepared on different factors as follows:
Table 3: Comparison of the Existing Systems

<table>
<thead>
<tr>
<th>SN</th>
<th>Factors</th>
<th>MCIT</th>
<th>BDU</th>
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<tbody>
<tr>
<td>1.</td>
<td>Scope</td>
<td>The MCIT’s system was designed by the MCIT with an intention to make the National e-Procurement system as outlined in the National e-Government Strategy Implementation Plans 2020 covering all procurement methods of the procurement legislation, and using latest technology platforms. User interface looks intuitive.</td>
<td>BDU’s system is also a localized system designed to solve internal procurement challenges at the BDU and has been used for the last 7 years in BDU. As the system is focused to automate internal processes and fulfill the BDU’s internal requirements, customizing the system to the national level will definitely require more time and resource. Furthermore, as per the demonstration, the BDU’s system is fully based on the current paper-based procurement laws and procedures of FPPA.</td>
</tr>
<tr>
<td>2.</td>
<td>Functionality</td>
<td>In the MCIT’s system contract management is one of the main modules of the system with contract administration and closure, and procurement documents exchange including issuance of bidding documents and bid evaluation are fully automated. e-Payment framework is there. e-Reverse auction is also there. E-Catalog - suppliers are not at the level of using e-Catalogs KPIs for monitoring and evaluation of the end-to-end procurement process /balance score card system is integrated. System has got Rule Management Engine (RME) - Multiple Rule set management. Workflow and Decision Support System (DSS) is one of the powerful tools in the system. Considers part of GRP/ERP Ecosystem. Interoperability framework of Microsoft is followed.</td>
<td>Although it was reported that this is end-to-end system, it was not apparent during presentation that BDU’s system covers contract management. Besides, bid submission and evaluation are not fully automated and it was learnt that there is a practice of accepting manual bid submission which leads to undertake evaluation manually.</td>
</tr>
</tbody>
</table>
The System also included Management Information System. (MIS), which should be enhanced. Currently it asks for bidding document uploads. Document should not be uploaded, should be web-forms. But system should be able to generate the PDF document for reference and archival. Bid document is copyright issues, so, should not be allowed to download by evaluators, only view on the screen.

3. Database
The MCIT system has data set for CPV – European Standard, and national suppliers registration data set

4. Interoperability
The design of the MCIT system has considered interoperability with the other government systems particularly IFMIS. The Demo has also indicated that the system has design capability to interface with other systems including Bank’s and financier’s systems.

5. System Security
The MCIT system uses WoredaNet which is the e-government platform used across all government agencies and functions. As a result, the system is considered to be more reliable with the necessary security tools and monitoring capability. Besides, the developed e-procurement system at MCIT has inbuilt security functionality that protects confidential procurement information like bid documents through encryption and decryption keys.

6. Operation and Maintenance
e-GP is part of MCIT’s core responsibility of modernizing government functions through digital processing and communication. Hence, the ministry has the legal responsibility and assumed to have the required resources to provide the necessary

The BDU’s system provides 287 data base tables that includes UNSPSC.

There is no clarity that such level of interoperability has been considered or possible with the BDU’s system.

Similar security functionality has not been observed or not presented related to the BDU’s system.

It is not clear on how after sale technical support from the side of the BDU system as it relies more on individuals who are limited in number and the service has no direct relevance to the core function of the university.
operation and maintenance service. But we also learnt that the MCIT system has been developed by a vendor and it is appropriate to confirm that MCIT continues to have full ownership of the system including the codes so that it could be able to provide the required operation and maintenance services and modification based on changes in user requirement.

**Recommendation:** A detailed evaluation of the MCIT system has to be carried out against standard specifications and international best practices. The MCIT System is recommended to be upgraded and used as the national e-procurement system. The MCIT e-procurement system should address the gaps identified and incorporate all additional requirements to meet the business, functional and technical requirements of the FPPA.
CHAPTER 2: e-PROCUREMENT STRATEGY OF ETHIOPIA

2.1 Vision Statement

The vision statement for the adoption of enhanced e-Procurement is as follows:

*Good governance in the public procurement sector through the digital transformation of procurement procedures that contributes to the Socio-Economic Development of the country.*

2.2 Mission Statement

The mission statement is as follows:

*To attain value for money, transparency, accountability, efficiency and competition in public procurement by leveraging Information and Communications Technologies*

2.3 Strategic Objectives

The e-Procurement system is expected to facilitate in the following aspects of procurement:

- a) To enhance decision-making capabilities of procurement officials by providing meaningful and comprehensive procurement information;
- b) To improve financial planning and budgeting;
- c) To improve transparency and accountability in procurement procedures and practices;
- d) To bring efficiency throughout the procurement process and minimize the procurement cycle time;
- e) To foster and encourage participation and promote competition among suppliers;
- f) To harness economies of scale through demand aggregation and maximize value for money in government procurement;
- g) To enhance citizens’ and businesses’ confidence in the government procurement process and the utilization of public funds;
- h) To ensure confidentiality, integrity and authenticity of all transactions and data between/among the procurement entities and the suppliers;
- i) To enhance the management of procurement records and information; and
- j) To bring in control and financial discipline in the public procurement saving cost through administrative efficiency

The objectives are summarized as three broad and high-level objectives as shown in Figure 2: namely

- iv. Improved Governance through enhanced transparency and accountability.
- v. Effectiveness through management information and efficient processes.
vi. Socio-economic development through competitiveness and improved investment climate.

Figure 2: Objectives for E-Procurement

These objectives form the basis of the performance indicators set out below. Several aspects of these benefits are also set out in other terms and partially quantified in the business case.

The following benefits are expected to arise with implementation of the enhanced e-procurement:

a. **Transactional benefits:** The Organization for Economic Cooperation and Development (OECD) estimates savings from implementation of e-Procurement to be in the range of 5-20% of the procurement value. The GoE spends approximately 65% of the budget annually through procurement. This implies that with e-procurement implementation, even if 1% savings is made, the amount of saving will be significant per year (approximately $35 million USD), which can be utilized for the implementation of other socio-economic programs.

b. **Value for Money**
   i. E-procurement allows for increased quality supplies, because larger markets are made accessible, and bidders compete not only on cost, but also on quality.
   ii. Further Savings arise from:
       - Savings made due to reduced cost of procurement stemming from more efficient use of innovative procurement methods as well as simplification of internal administrative processes.
       - Reduced transactional costs on bidders, which translate into lower prices quoted.
- Increased competition amongst bidders since the bidding process is open to all potential providers.

c. **Efficiency Gains:** Efficiencies will be for both Government and the private sector.
   i. *Reduction of the procurement cycle time* due to the reengineering and automation of certain phases.
   ii. Since the manual processes are eliminated, there is *easy access to the market and tender opportunities*, easier bidding processes etc.
   iii. *Timely payments to suppliers* using electronic payment of invoices. This leads to better control of cash flow and efficient contract management, which can lead to lower price quotations.
   iv. *Standardization* - since e-procurement is majorly template-driven, it makes all transactions standardized and traceable. In addition, there are reduced errors in process and documentation for buyers.
   v. *Dematerialization* – reduction in archival and storage costs, paper consumption due to use of electronic platform and reduced need to use hard copies thus providing environmental and financial benefits.

d. **Accountability**
   i. E-Procurement strengthens Accountability by enhancing transparency and improves access to management and audit information from a central source.
   ii. Administrative workflow together with audit trail makes the officials more responsive and accountable to their responsibilities.
   iii. Tender documentation and outcomes of the procedures (winning suppliers, rankings, and final offers) are automatically posted online and available to all.

e. **Transparency**
   i. Eligibility criteria and evaluation parameters for the technical and qualification of bidders are clearly parameterized and published in advance, this leads to an increased strategic accuracy of the offers.
   ii. Performance Measurement: E-Procurement also provides more significant and timely procurement information that creates the potential for regular analysis and reporting for many stakeholders on different aspects.
   iii. The low cost-efficient access to accurate, timely and comprehensive management information in e-procurement provides intelligence on spending patterns, inventory, performance and compliance enables strengthening of control, oversight, efficiency and planning capabilities as well as competition.
   iv. Incorporation of Open Contracting Data Standard (OCDS) in e-Procurement system encourages citizen engagement in public
procurement through the access and use of the procurement data from different stages of procurement cycle.

f. Governance
   i. E-procurement can improve public governance, as it allows to implement the key principles of public procurement effectively in synergetic balance enhancing all facets of good governance.
   ii. Provides automated governance of all procuring entities through innovative procurement tools of collaboration like framework agreements in the same way despite if any procuring entities may be geographically remote.
   iii. It is also easier to share best practices, due to the availability of information and documents online.
   iv. The data collected in e-procurement systems will 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 strategic objectives and indicators are presented in Annexure 2.

2.4 Strategic Arrangements of e-Procurement System Functions and Components

Around the world, governments have been traditionally embracing ICT to improve the efficiency and effectiveness with which they deliver services to their citizens and provide timely and accurate access to information. These initiatives span the entire spectrum of government responsibilities and are generically termed e-Government initiatives (or e-Governance). One of the most successful applications of ICT is in the area of public procurement, known as Electronic Government Procurement (e-GP).

E-Procurement is made up of various functions that, as concepts, are largely stand-alone, but need to be integrated to serve procurement management of the Government. It should cover end-to-end processes and practices of public procurement and should be compliant with the prevalent procurement arrangements, in case of Ethiopia, Federal Government Procurement and Property Administration Proclamation no 649/2009 and Article 19 of the definition of powers and duties of the Executive Organs of the Federal Government of Ethiopia Proclamation No 471/2005/6 (as amended), practices and based on the lessons learned from the international practices. The stakeholders of e-Procurement have to fully understand the scope of the e-Procurement system to leverage the electronic platform. The mere use of incomplete functions and processes does not give desired benefits. For the sake of strategic alignment of the proclamation in the electronic environment the following definition provides a comprehensive understanding of the e-Procurement Platform:
"An e-Government Procurement (e-Procurement) is the collaborative use of information and communications technologies by government agencies, bidding community, regulatory, oversight agencies, other supporting service providers, and civil society in conducting ethical procurement activities of the government procurement process cycle for the procurement of goods, works and service, and management of contracts ensuring good governance and value-for-money in public procurement, and contributing to the socioeconomic development of country" (Shakya, 2015, p. 141)².

The e-Procurement platform shall be developed incorporating all the provisions as prescribed in the prevalent legislation and fulfilling the requirements of e-Procurement platform as given by the definition embracing all key principles of procurement. The e-Procurement system shall be a single platform for all procurements funded by the government fund as well as the procurement under the fund of development partners. The e-Procurement system will be a web-based system that encompasses the total procurement lifecycle, all procurement modalities, and record all procurement activities. Figure 3 below depicts a conceptual model of the e-Procurement Platform perceived to be implemented in Ethiopia.

Figure 3: Conceptual model of interaction of End-to-End e-Procurement Platform

The e-Procurement architecture shall provide procuring entities, bidders and other relevant stakeholders like Auditors, Banks and their branches, e-Payment

service providers and development partners with secure access to an integrated range of procurement systems and services. The general public shall get access to all the public information, i.e., Annual procurement plans, Invitation to Bids, Best Evaluated Bids Notices, Contract award details, Contract execution status and completion reports, debarment/blacklisting/suspension lists, procurement performance statistical and analytical reports, and other information of public interests.

The standard modules and functionalities to be included in the end-to-end e-Procurement System are briefly described below:

2.4.1 **AN INTEGRATED END-TO-END E-PROCUREMENT PLATFORM**

The e-Procurement Platform shall act as a one-stop information and procurement transaction platform on all public procurements carried out by the public entities in the country. All procurement notices published by the procuring entities in the country shall be accessible from the Portal. The Portal should have transaction capabilities developed, which should be available for use by all public agencies. Functionality on the portal may include annual procurement plans of all Procuring Entities, Centralized user registration (bidders, procuring entities, oversight agencies, banks, and other users), a list of bidding opportunities, easy search facility, procurement guidelines and manuals, circulars, details of awarded contracts, list of blacklisted contractors, secured bidding document preparation and submission, built-in workflow and audit trail, complaint handing, contract management, and Procurement Management Information System (PMIS), and other procurement information through visualization of Open Contracting data for the citizens.

2.4.2 **A CENTRALIZED USER REGISTER OF ALL THE USERS OF E-PROCUREMENT SYSTEM**

In the registration modules, profiles of Suppliers/Contractors/Consultants registration, and also registration of Procuring entities and their users/officers, and their e-Procurement system access rights and authentication information are stored. Additionally, the central register stores the user credentials of all other users including MOFEC, FPPA, Regional level agencies, PPPDS, Auditor General, Attorney General, Review Board, Development Partners, System Administrators, and others (Figure 4). The concept of single sign-on shall apply and the same information can be used across all procurement activities while its validity is current. Therefore, the registration module shall support the register for the users:
a. A **Bidder Register**, which will record basic details of bidders interested in doing business with any part of the public sector. The need for a common registry of suppliers has already been recognized by governments, to avoid a situation where firms black listed in one area continue to work in other areas of government.

b. A **Procuring Entity Register**, which will host the details of procurement entities participating in e-Procurement and their designated procurement officers.

c. **Other users register**, which will host the details of users from FPPA, PPPDS, Ministry of Construction, Auditor General, Attorney General, Review Board and Panels, Regional Agencies, Development partners, Banks, Insurance companies, Ethio Telecom, other oversight agencies, public agencies, and departments.

### 2.4.3 An e-Bidding System

E-Procurement system shall fully comply with the prevalent procurement legislation and other approved practices incorporating the facilitates including the preparation and publication of Annual Procurement Plans (APP), e-publishing/e-advertisement, preparation of e-bidding documents by procuring entities, bid preparation by bidders, online clarification to e-bidding documents for different types of procurement methods for goods, works and services procurement types,
and also including project procurements under the fund from the development partners, e-bidding document amendments, secured e-bid submission, automated e-bid opening, e-evaluation, complaint handling, e-contract award, e-contract management, publication of document and data in compliance to the Open Contract Data Standard (OCDS). The procurement process shall be supported by e-Payment, e-Guarantees and Securities, e-Authentication, and seamless interoperability with the IFMIS, tax, banks, mobile networks and other relevant government services.

The e-Procurement system shall support all procurement methods as:

Table 4: Procurement Methods

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<thead>
<tr>
<th>SN</th>
<th>Procurement methods</th>
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<tbody>
<tr>
<td>1</td>
<td>Open bidding</td>
</tr>
<tr>
<td>2</td>
<td>Restricted tendering</td>
</tr>
<tr>
<td>3</td>
<td>Request for proposals</td>
</tr>
<tr>
<td>4</td>
<td>Two-stage tendering</td>
</tr>
<tr>
<td>5</td>
<td>Request for quotation</td>
</tr>
<tr>
<td>6</td>
<td>Direct procurement</td>
</tr>
<tr>
<td>7</td>
<td>Electronic Reverse Auction</td>
</tr>
<tr>
<td>8</td>
<td>Procurements under the PPP</td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Framework Agreements</td>
</tr>
</tbody>
</table>

E-bidding is a relatively simple set of functions. The technically most demanding element of this function is the security demands of online bid lodgment, although potentially all elements have strong security requirements. The establishment of e-Bidding procedures is usually accomplished through the re-engineering of the Standard Bidding Documents (SBD), procurement processes following security protocols and security at the different level of procurement processes. All the SBDs prepared for the all above procurement methods should be re-engineered and converted into web forms and digital documents so that all procurement data can be captured in a structured format, and the data made available for analysis and decision-making purposes.

e-Procurement system shall be a single platform for all procurements funded by the government fund as well as the procurement under the fund of development partners. The operations and qualities of the e-Bidding service shall be consistent with the standards set by the Multilateral Development Banks (MDB) so that the development partners also use the e-Procurement system for the project procurements funded by the development partners. The World Bank, AfDB, and other development partners have set minimum standards and qualities that must be met if e-Procurement systems are to be applied to the loans, grants or credits that it provides.

3 See http://siteresources.worldbank.org/INTPROCUREMENT/Resources/E-
Tendering_Requirements_for_MDB_Loans-Grants_and_Credits_November_2009.pdf
2.4.4 E- PURCHASING: E-FRAMEWORK AGREEMENTS, E-AUCTION AND E-QUOTING SYSTEM.

This component is important for value-for-money, efficiency gains, and comprises of e-purchasing, including e-framework agreements, e-auctions, e-quotations. E-purchasing is more important than e-bidding for small businesses. The acquisition of low value, high volume, and commonly used goods, works and consulting services by a direct quotation in the open market or from pre-qualified suppliers, and payment for the purchase constitutes the e-Purchasing activity. E-Purchasing functionality is relatively complex because there is a need to integrate workflows and transactions, as well as manage a wide variety of catalog for purchases and information flows including banking for many buyers and many sellers. E-Purchasing requires greater involvement of the Supplier community in working with online catalogs. E-Purchasing brings ease of purchase and reduces the transaction costs significantly; without which many framework agreements cannot be implemented. The e-Auction module (forward) also should provide the functions for the disposal of assets or sell-off excess from government entities or award licenses or permission through real-time online auction. It should also facilitate the aggregation of assets for disposal. E-Reverse Auctions are used for the competitive purchase of highly standardized commodity items.

2.4.5 E-PAYMENTS SYSTEM AND E-GUARANTEE MANAGEMENT

E-Payment is one of the challenges that the GOE should be fixing for the e-Procurement system to work all in automated manner. The e-Payment module facilitates online payments for the suppliers for the goods, works, and services procured through the e-Procurement system by the public procurement entities, and also payments by the bidders for registration, documents, and other services. All payments in the procurement process should ideally be handled electronically. This includes payments made by Bidders to the government and contract payments from the government to Suppliers.

E-Bid Security and Guarantee module works with the financial institutions, state and commercial banks for issuing bid securities, advance and performance guarantees and their management (validity tracking, the release of security and guarantee, forfeiture, extend validity and value of guarantee, etc.). For any financial transaction related to e-Procurement, bidders use bank service. Bid and Performance Securities should be prepared by banks with the negotiation with the bidders, and the banks themselves submit, update and manage the guarantee information in the system.

The e-Procurement system shall develop Application Programming Interfaces (API) and web services for the banks to integrate with the e-procurement system. The selected bank can be required to integrate its e-Payments and e-Guarantee solutions with the e-Procurement system or use the banking module of an e-Procurement system. There should be provision for contractors to transact such funds through a set of banking instruments approved and specified such as:

a. Credit card / purchase card / debit card
b. Internet Banking
c. Electronic Funds Transfer (EFT)
d. Over the Counter.

The e-Payment system design should ensure that contractors are not required to open an account with a particular bank and they may receive and make payment in whichever bank they have their accounts. Other modes may also be considered provided that the following requirements can be met without manual intervention:

a. **Payment acknowledgement**: A unique irrefutable reference number is generated as acknowledgement for the payments made by contractors.

b. **Payment reconciliation**: The reconciliation process reconciles the payment received in the central pooling account with that specific service request for which the payment was made (using the reference number for the service request).

c. **Payment timelines**: The e-Procurement system should be able to ascertain that the payments have been received, within a reasonable period of time (maximum 2 working days).

### 2.4.6 Interface with other Supporting Systems

Many e-Government Services are initiated and few of the systems are already in operation, but still lacks the maturity in terms of robustness and interoperability. The interoperability of the e-Procurement system with other government systems is an important part of gaining full benefits from the technology. There are close relationships between procurement activities and budget management and planning, including terms of progress payments, forward scheduling and contract commitments, inventory, and performance assessment and reporting. The efficient exchange of information should not be obstructed by differences in platforms or standards between the leading government entities. Interoperability of the critical systems with the e-Procurement system brings substantial efficiency in carrying out transactions and standardize the communication among the government agencies through standard data and information exchange.

An efficient interface should be built between the e-Procurement System and IFMIS, Tax system, Business Registration system, and other supporting systems when such government services are stable and available for integration or interfaces, which should facilitate automatic validation of budget allocation, availability, and payment; requisition creation, purchase order issuance, verification and validation of bidders’ credentials about registration and tax clearance and provides authenticity of the transactions. The e-Procurement needs to be accessible with two-way data exchange between many buyers and many sellers and includes the numerous operational considerations and authorizations for procurement that are likely to change on a daily basis.

Interfacing and integration with the external systems should follow the accepted interoperability frameworks at national and international level.

### 2.4.7 E-Procurement Management Information System (e-PMIS)

While the initial e-Procurement strategy has often been regarded as the centerpiece of e-Procurement, it adds relatively little value until accompanied by the
information and management systems associated with procurement workflow, control, and budgeting. The work that is undertaken to consolidate the e-PMIS is closely related to the management systems for procurement in each agency.

The development of the e-PMIS becomes a central part of the e-Procurement agenda with all standardized documents as well as guidelines and polices, legislation being available online in real-time to the internal management activities of departments and interacting with the workflow processes of contract construction and contract management and with reporting. E-PMIS should be operational from the very beginning of e-Procurement Implementation.

The e-PMIS shall include workflow and permission / authorization trails, and all information transactions in any part of the procurement process including contract management, contract planning, and interactions between stakeholders. Standard documents are required. All important events and data shall be linked to the Audit log module and e-PMIS for analyses, reporting and performance assessments.

Importantly, the e-PMIS is essential for comprehensive spend analyses, which should be undertaken monthly or quarterly or at least annually on a departmental/ministerial and whole-of-government basis. Spend analyses reviews what is bought, who are the buyers, and the transaction values, volumes and trends. This analysis provides the basis for the implementation business case and a list of baseline measures from which Key Performance Indicators (KPI) shall be developed. Areas of such analysis should be flexible by the user but shall be guided by the FPPA and could include:

a. Analysis of attainment of e-Procurement Strategic objectives by a set of well-defined performance indicators.

b. Procurement Performance of procuring entities through a set of indicators classified to cover all areas of core principles of good governance in public procurement (Efficiency, accountability, value for money, Equity, Fraud and Corruption Control, compliance, etc.)

c. Transaction analysis - the number & value of transactions.

d. Requisitioning activity - identification of the main buyers

e. Supplier analysis - the number of transactions per supplier

f. Off-contract spending – the number of suppliers used for the provision of similar goods/services, and if a local and/or central contract is in place for specific supply.

g. Payments – the current payment methods.

h. Payment errors – a measure of potential cost savings.

i. Late interest payments – a measure of potential cost savings.

Although a consistent architecture applies, some e-PMIS functionality needs to be readily customized department by department because they reach into mainstream management delegations and processes.
2.4.8 WORKFLOW MANAGEMENT SYSTEM

The Workflow Management System contains the workflow engine in its core and workflow rules stored in an Authority register. All the procuring entities modules will have an intelligent link with the workflow engine. The workflow automation module handles the flow of documents while preparing a tender, or a contract. The authorized personnel should use a workflow module for transferring draft tender documents and other documents through the document approval processes in each procuring entity with comments/ changes, and to seek approvals. All the activities in the workflow will be stored in an audit log. Workflow activities will be based on an Authority Register, which stores the user permissions to carry out authorized procurement activities. If a user lacks authority to perform an activity, the workflow engine will automatically refer the activity to a higher authority.

Audit trails of all user activities under the defined workflow shall facilitate the accountability of the users, officers and others which carrying out procurements using e-Procurement system. Audit trails could be assessed by the authorized users for system audit to ensure smooth operation of e-procurement system and its functions, and also could be shared with the court, auditor general and other relevant authorities with proper authority and purpose of access certified by the government.

2.4.9 E-CONTRACT MANAGEMENT SYSTEM

With the contract management module, a government agency is able to maintain an overview and track the works in progress, goods supplied, any contract variations, services rendered, payment processing, administration of advance and performance guarantees and performance appraisal of the contractors. Once part of a contract is completed, then payment to the supplier is more quickly arranged and transacted. The system will have automated bring-ups according to the contract schedule. These bring-ups will trigger quality and delivery verifications, bank transfers, and any re-scheduling of the bring-ups. When in place for a period of time, the system also collects a repository of knowledge that can be used to measure the performance of a contractor as well as the performance of procuring entities in public procurement. Contractor ratings, debarment, de-listing, dispute management and other functionalities can also be linked. Contract Management should be start from the very beginning of e-Tendering. The system will also have the following capacities:

a. **Contract Variations** and Supplementary Contracts – to record and publish price variations to the awarded price per line item or quantity purchased. A full audit trail of the contract and price variations is recorded. In addition to the contract variations, a provision of supplementary contracts should be available in the system, as the supplementary contract is allowed in Ethiopia.

b. **Contract Extension** – the system should manage the contract extension process. Many contracts are let for an initial period with the option to
exercise extensions for further periods. The system should provide an early warning report of contracts that are due to complete their current term. There can also be an automated report to show multiple extensions of the contract (this may arise for legitimate reasons or may reflect poor practice).

c. **Contract Cancellation** – the system should manage the contract cancellation process and maintain an evidence trail for future review and legal proceedings.

### 2.4.10 Help and Training

The Help & Training module provides the entire e-procurement system with consistent training content in user-friendly graphics, navigation, presentation, localization and context-based video. It should also provide user manuals, videos and FAQs for assisting users on using the e-procurement system efficiently.

### 2.4.11 Procurement Frameworks

New proclamation has introduced few of the modern, trending, and efficient procurement methods. One of the major changes in procurement framework would be the introduction of e-Reverse Auction.

**a. e-Framework Agreement**

Currently popular micro procurements and repetitive common user items can be procured through the use of strategic competitive method of procurement – the framework agreements, which are entered into after a competitive method of procurement under defined terms and conditions over a period of time. An increase in the percentage of framework contracts will lead to a decrease in number of micro procurements, and hence decrease in excessive use of administrative process, time, and money.

Framework Agreement conducted and managed electronically adds significant contribution to the aspect of strategic procurements for the government and its taxpayer citizens.

**b. E-Reverse Auction**

E-Reverse Auctions are used for the competitive purchase of highly standardized commodity items. Usually, the reverse auction is carried out online over the period of fixed set time in real-time. Bidders lower their bidding price each time they compete with other bidders allowing them to bid till the set time is completed. This method requires more resources regarding processing and computing servers, and high Internet speed as the transactions should be refreshed and seen by the bidders in real time. The e-reverse auction shall be operationalized at the later stage of e-Procurement implementation when such resources will be available.
2.4.12 E-CATALOGUES

e-Catalogues play a very important role in e-Procurement. E-Catalogues are built under the classifiers and identifiers. Classifiers for goods, works and services are required for e-Procurement as well as for budget organizations. Classification codes are required to allow analyses to roll-up data into summary form for reporting and analysis. For example, a financial report may present procurement expenditure in terms of ten broad categories of items, such as Fuel, IT, vehicles, etc. Thousands of line items are summarized and drilled into in as much detail as necessary. The UNSPSC® and the CPV are two most widely used catalogue classification standards in e-procurement systems in different countries.

In e-Procurement systems, e-catalogue is required for all of its processes, i.e. bidders choose their category of business during registration, procuring entities use e-catalogue for preparing bidding documents (especially preparing BOM, BOQ) in all of the procurements including framework agreements, preparing requisitions, call-off requests, and reporting purposes to make right strategic procurement. Catalogues are a basic standard for this type of procurement. The process goes from the publication of items online by suppliers, to the electronic selection, order, receipt and payments by the purchasing entity.

A framework agreement catalogue should contain the item name, item code, a description of the item, unit of measurement, supplier name, supplier part number (if any), etc. The framework agreement catalogue may allow for differential pricing by further specifying the freight charges (proximity-wise), taxes, discounts for specific users, etc. for delivery in various locations.

Commendably, MCIT e-Procurement is already successfully using the CPV classification standard and the users, i.e. procuring entities and suppliers are already learning to use the system.

e-Catalog of core set of common user items are already in the database, and it should provide a facility for mapping with the economic code of IFMIS facilitating budget and expenditure planning.

2.5 Upgrading State Procurement Portal

Federal Procurement Portal shall be managed and owned by the FPPA. The portal shall maintain the following information for the bidders and other relevant stakeholders:

Information Section
- Procurement Legislation, regulations, circulars, directives
- Procurement Guidelines, manuals
- Standard Bidding Documents
- Publication of Annual Procurement Plans
- Publication of Contract Awards
- Publication of Debarred bidders
- Publication of resolution of complaints and appeal reviews
• Market benchmark prices of common user items
• KPI based procurement analytics published for general public
• Tender Opportunities
• List of registered suppliers
• Price indices (reference prices)
• Training Information and schedule

Interactive Section
• Procuring Entity and other users Registration
• Invitation to Procurement Opportunities, bid document, addenda entry for open tendering by Procuring Entities
• Access to Complaint Lodgment
• Review Board and Review Panel investigators access
• Monitoring and Evaluation Module with KPIs
• Report generation in line with prevalent legislation and other statutory requirements

Federal Portal will have its working dashboard and carry out its procurement related data and information updating and communicate with bidders and procuring entities. Information on Federal Portal-related Tenders, contract awards, black listing, monitoring and evaluation and complaint and appeal handling through Review boards shall be updated automatically through e-Procurement system in real-time. The functions built in the Federal Portal also will have its workflow inter-linking all units of FPPA to operate in an automated manner using the electronic environment. More comprehensive functional requirements shall be prepared and incorporated when new proclamations are promulgated.

2.6 Implementation Framework for the Enhanced E-Procurement Platform

With the provisions in the prevalent legislation, implementation of an enhanced e-Procurement platform, it is expected to improve the situation in the governance of procurement and finance management, achieve better value-for-money and support the socio-economic development of the country. Also, as a result of the implementation of the e-Procurement system designed around the spirit of the key principles of public procurement, it is expected to improve transparency in the procurement process, ensure accountability, rule of law, equity and competitiveness, improve corruption control, and increase civil society awareness in regards to the public procurement.

A comprehensive e-Procurement Implementation Framework (e-PIF) shall be followed for the implementation of the e-Procurement system in Ethiopia. The e-Procurement implementation framework includes a comprehensive set of steps to be taken and interventions to be considered for the introduction, implementation, and adaption of the e-Procurement system. The framework covers the challenges to be addressed at the political level, administrative level, the private sector and

public community levels, as well as legal, technical, and institutional level.

The e-Procurement implementation framework is divided into three broader phases (see Figure 5): (a) Consensus Building, (b) Foundation Building, and (c) Implementation.

**Figure 5:** E-government procurement implementation framework

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**STEP 1: SITUATIONAL ANALYSIS AND CONSENSUS BUILDING**

**Step 1.1: Leadership/Sponsor**

The first step in the country’s e-Procurement implementation strategy is securing ownership of the political, top government level ownership, and designate a dedicated leadership with the proper sponsorship of the program. Once there is a political and executive leader, that leader plays a key role in marshaling the rest of the forces. If that leadership is not on board, the whole initiative may be uncontrollable or, at the least, very difficult. So, the first thing in initiating the e-Procurement would be identifying who that key sponsor was going to be and working hand-in-hand for the initiative.

The FPPA is mandated to lead the e-Procurement initiative going hand-in-hand with the MOFEC which shall provide the hosting for the primary data center for the e-Procurement system. The FPPA shall collaborate and coordinate with all other stakeholders, relevant ministries, departments and private sector institutions.