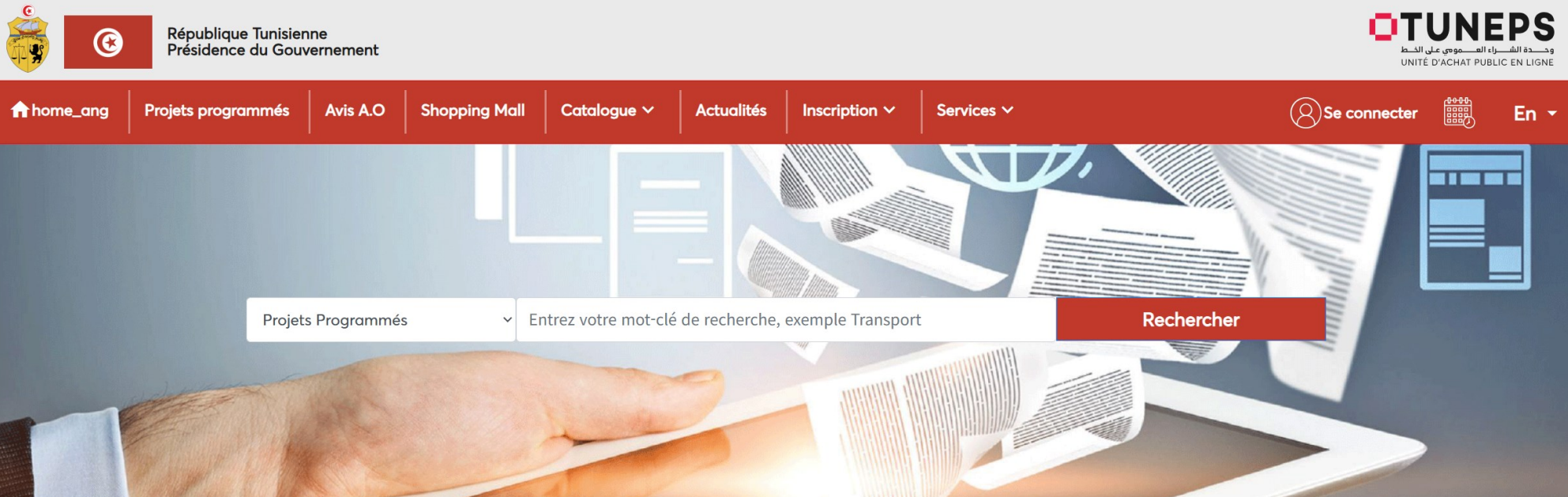


This is not an ADB material. The views expressed in this document are the views of the author/s and/or their organizations and do not necessarily reflect the views or policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy and/or completeness of the material's contents, and accepts no responsibility for any direct or indirect consequence of their use or reliance, whether wholly or partially. Please feel free to contact the authors directly should you have queries.

Government e-Procurement System

What's To Be Done : Lessons learned from TUNEPS



April 29, 2025 (Seoul, Korea)

Kyu-hyeog Chae
(Korea IT Consulting)

I. Intro for e-Procurement system

1. Critical Success Factors in e-Procurement
2. ADB : e-Government Procurement Handbook
3. OECD Recommendation on e-Procurement
4. WB : e-Procurement Reference Guide

II. Case study of Tunisia

1. The Journey TUNEPS Has Taken
2. Overall Timeline of TUNEPS Projects
3. The mid- and long-term Target Model of TUNEPS
4. Lessons learned from TUNEPS

III. Considerations for sustainable system

1. Institutionalization
2. Package S/W(COTS) and Customed S/W
3. Sufficient requirements analysis
4. Incentives and other inducements are needed
5. Informatization and Response

Intro-1. Critical Success Factors in e-Procurement

Survey of e-Procurement CSF

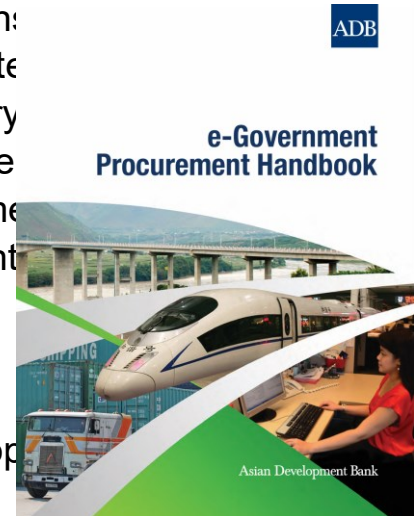
CSFs (number of citations)	S&A (2003)	AGV(2003)	WB(2 003)	PLS- Ram boll (2000)	ECO M (2002)	KPM G (2001)	OGC (2002)	DOF (2001)	CGE C (2002)	OSD (2001)	Buy- IT (2002)	AOT (2003)	DOIR (2001)
End-user uptake and training (11)	X	X	X	X	X		X	X	X	X	X	X	
Supplier adoption (10)	X	X	X		X		X	X		X	X	X	X
System integration (9)	X		X	X		X	X		X	X		X	X
Business case/PM (9)		X		X		X	X	X	X	X		X	X
Re-engineering the process (8)	X	X	X			X	X		X	X	X		
Security and authentication (8)	X	X	X	X			X	X		X		X	
Top management support (7)	X	X	X				X		X		X	X	
Change management (7)	X	X	X				X	X	X				X
Performance measurement (7)				X			X	X	X	X		X	X
e-Procurement implementation strategy (7)	X	X		X	X			X					X
Technical standards (7)	X		X	X		X	X	X				X	

Source: Kishor Vaidya, , "Critical factors that influence e-procurement implementation success in the public sector" (Journal of public procurement, volume 6, issues 1&3, 70-99, 2006)

Intro-2. ADB : e-Government Procurement Handbook

Technical Considerations

- To realize its full benefit, an e-government procurement (e-GP) system has to be **interoperable with multiple external systems** (such as those of banks, certification authorities, and suppliers) and **internal back-office systems** (such as those of the treasury and for income taxes). The exchange of information between the e-GP system and the external systems during different phases of procurement should be seamless.
- Technical considerations related to e-GP implementation include **information security, interoperability, reliability, scalability, and availability.** Apart from ensuring reliability, it is also recommended that governments establish mechanisms to handle potential system disruptions by applying business continuity planning (BCP) and disaster recovery (DRPs). Key system components of e-GP that should be included in any risk management strategy include content management, access control management, workflow management, and system integration. The information issues of authentication, authorization, confidentiality, integrity, and non-repudiation also need to be addressed within the risk management framework, along with virus protection and other security threats.
- Additional technical requirements to be considered **include use of single sign-on (SSO)** capability so that users log on once and are able to access all appropriate services in e-GP based on authorizations created for them in the system, use of server certificates supporting secure communication over an encrypted **Secure Sockets Layer (SSL)** session, and extensive audit trail facilities implemented for every electronic procurement and administration activity performed through the system.
- By applying a service-oriented architecture (SOA) paradigm Online help can be offered.....
- The e-GP system should also include **performance measures** to assist with administration, establish maintenance criteria, and generate performance standards.



Intro-3. OECD Recommendation on e-Procurement

VIII. RECOMMENDS

- that Adherents improve the public procurement system by harnessing the use of digital technologies to support appropriate e-procurement innovation throughout the procurement cycle.

To this end,

Digital technology development	<ul style="list-style-type: none">• Employ recent digital technology developments that allow integrated e-procurement solutions covering the public procurement cycle. Information and communication technologies should be used in public procurement to ensure transparency and access to public tenders, increasing competition, simplifying processes for contract award and management, driving cost savings and integrating public procurement and public finance information.
State-of-the-art e-procurement tools	<ul style="list-style-type: none">• Pursue state-of-the-art e-procurement tools that are modular, flexible, scalable and secure in order to assure business continuity, privacy and integrity, provide fair treatment and protect sensitive data, while supplying the core capabilities and functions that allow business innovation. E-procurement tools should be simple to use and appropriate to their purpose, and consistent across procurement agencies, to the extent possible; excessively complicated systems could create implementation risks and challenges for new entrants or small and medium enterprises.

Source: OECD, Recommendation of the Council on Public Procurement(2015)

Intro-4. WB : e-Procurement Reference Guide



e-Procurement Reference Guide

e-Procurement (e-GP), which is procurement of goods, works and services through internet-based information technologies is emerging worldwide with the potential to drive procurement reform, increase competition and promote integrity in public procurement. When properly designed, it can drastically reduce costs, facilitate information accessibility and reduce opportunities for corruption.

This e-Procurement Reference Guide was created for the governments that are trying to embark on e-Procurement implementation agenda. This on-line resource is a compilation of the most useful publicly available on-line materials that cover various issues of e-Procurement implementation

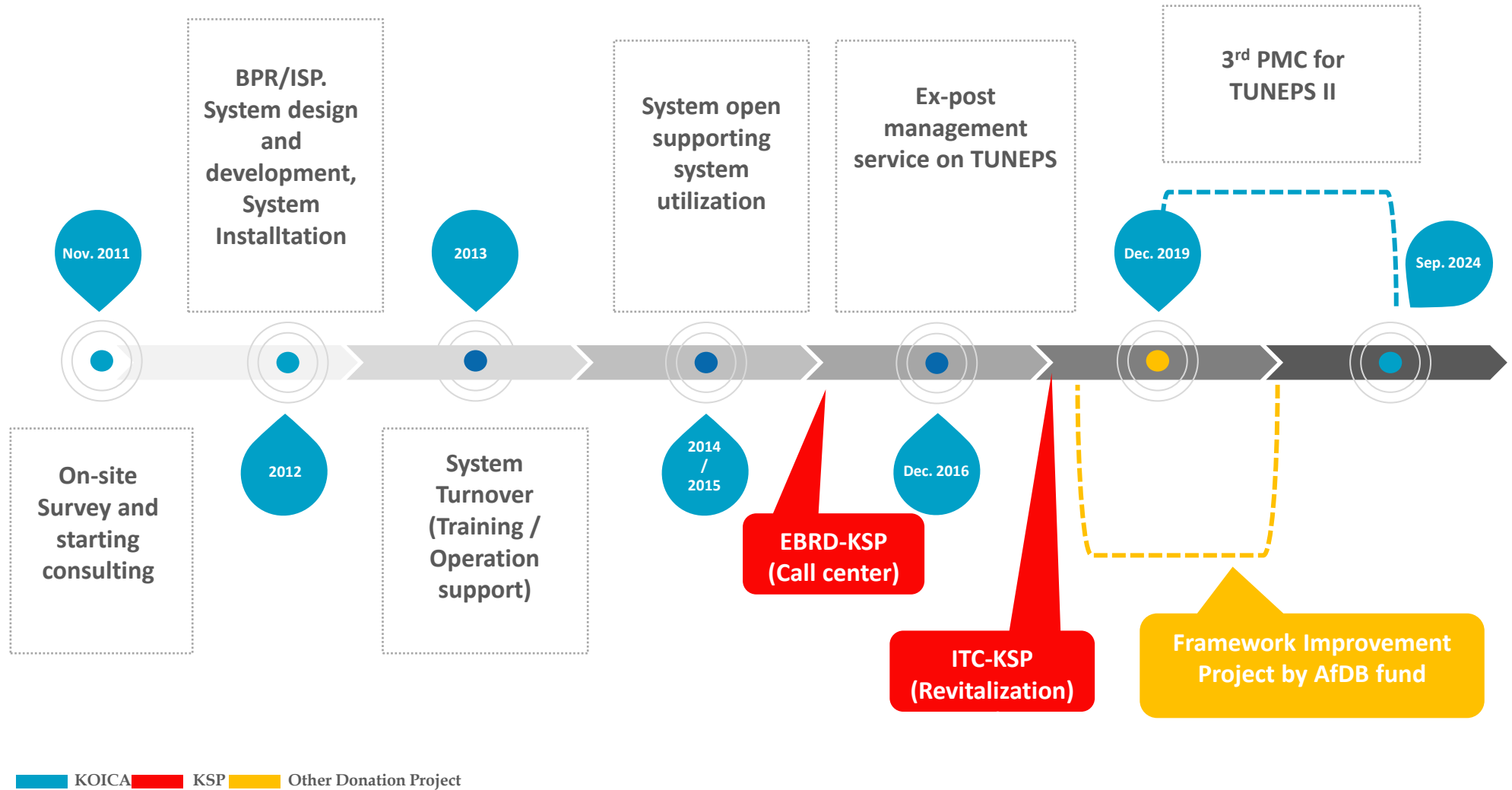
1. Overview of the e-Procurement Reference Guide
2. E-Procurement as a Tool for Promoting Transparency, Competition and Efficiency
3. Leadership, Change Management and Communications Strategy
4. Planning for e-Procurement Implementation
5. Estimating the costs of e-Procurement Implementation
6. Business Models for e-Procurement implementation
7. Legislation, Regulations and Policy
8. Functional and Non-Functional Requirements
9. Technologies and Applications
10. Standards
11. EU's e-Procurement Initiatives in Europe
12. Overview of e-Procurement Efforts in Various Countries
13. Industry Solutions
14. Lessons Learned
15. Training Resources Available Through the World Bank Group

Source: WB, e-Procurement Reference Guide(2011)

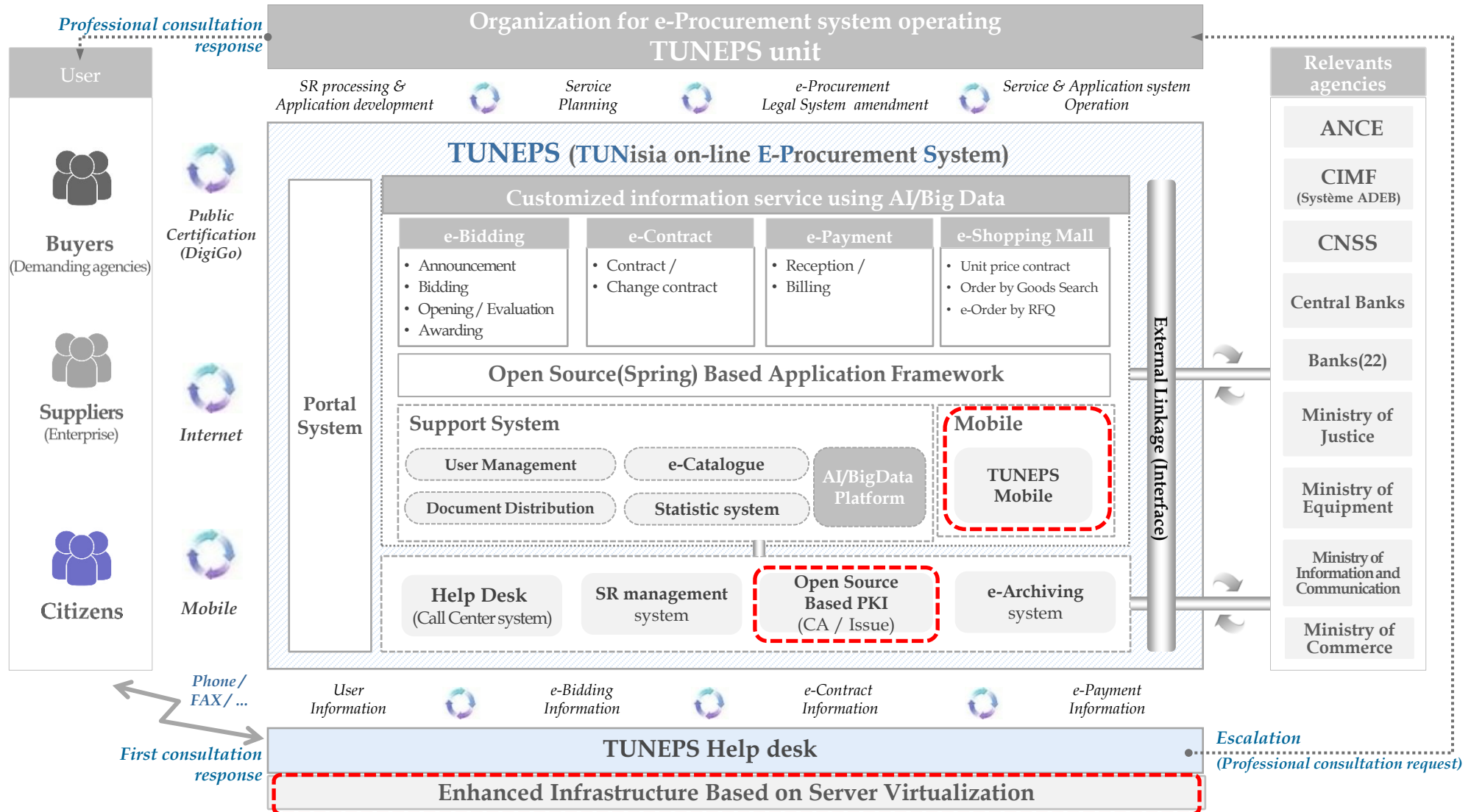
II-1. The Journey TUNEPS Has Taken

Project Title by KOICA	<ul style="list-style-type: none"> ▪ (1st) Establishment of a Pilot e-Procurement System in Tunisia ▪ (2nd) Ex-Post Management Service on TUNEPS ▪ (3rd) PMC for TUNEPS 2: E-Procurement System Improvement in Tunisia
Project Duration	<ul style="list-style-type: none"> ▪ 1st Project (November 2011 ~ December 2013) <ul style="list-style-type: none"> ➤ BPR/ISP(including legislation and catalog) , Equipment, Capacity Building ▪ 2nd Project (March 2016 ~ August 2016) <ul style="list-style-type: none"> ➤ Legal Consulting, Capacity building(operation & management), Mid-long term Strategy Consulting ▪ 3rd Project (December 2019 ~) <ul style="list-style-type: none"> ➤ Consulting, PKI & Mobile Service Development, Server Virtualization & Equipment, Education Room
Partner Organization	<ul style="list-style-type: none"> ▪ HAICOP(Haute Instance de la Commande Publique: (eng)High Authority for Public Procurement)

II-2. Overall Timeline of TUNEPS Projects



II-3. The mid- and long term Target Model of TUNEPS



II-4. Lesson1 : Pilot project as Calling Water through Publicity

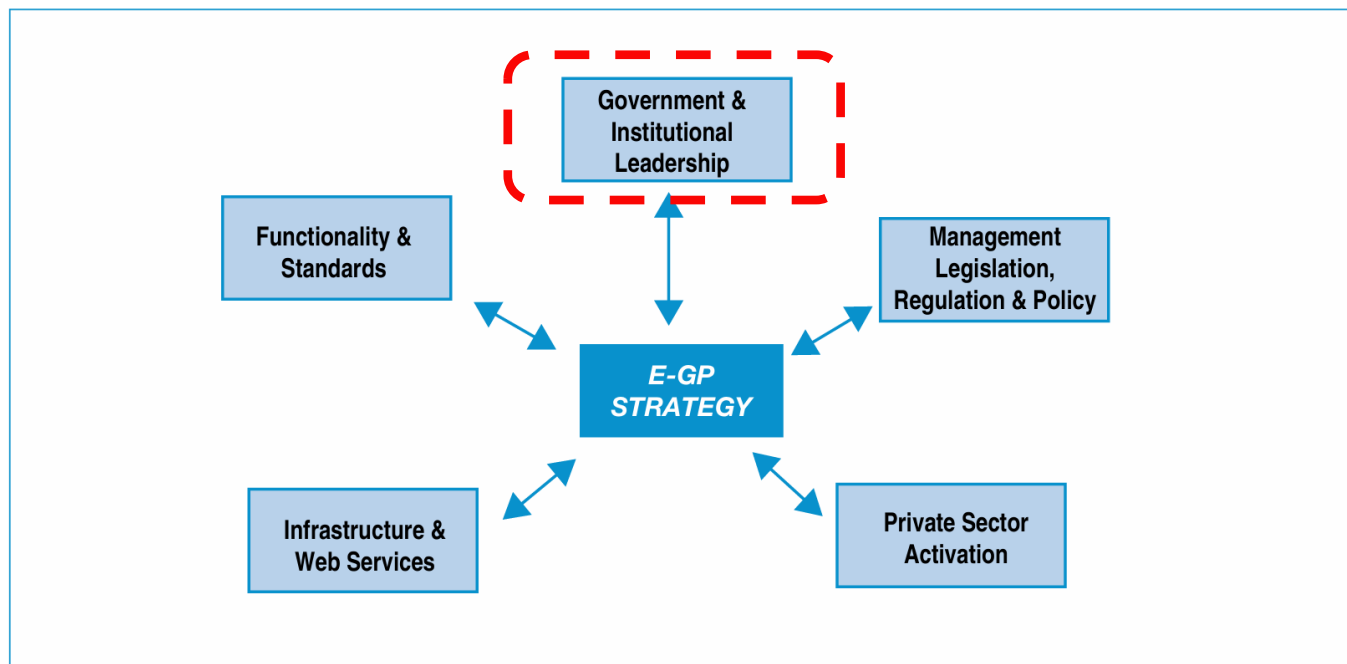
- TUNEPS set up the on-line help desk by ERBD support (2015 ~ 2016)
- TUNEPS had a **Regional Awarded** by **Open Government Partnership** (2015)
- TUNEPS was upgraded by additional support of KOICA (2016)
- TUNEPS upgrade project is running by KOICA support (2019 ~ 2024)



II-4. Lesson1 : Political momentum

- It can be seen as a flagship project for government transparency, launched in 2010 in Tunisia as part of the political reforms resulting from the "Arab Spring."

Figure 4 e-Government Procurement Reform Strategy



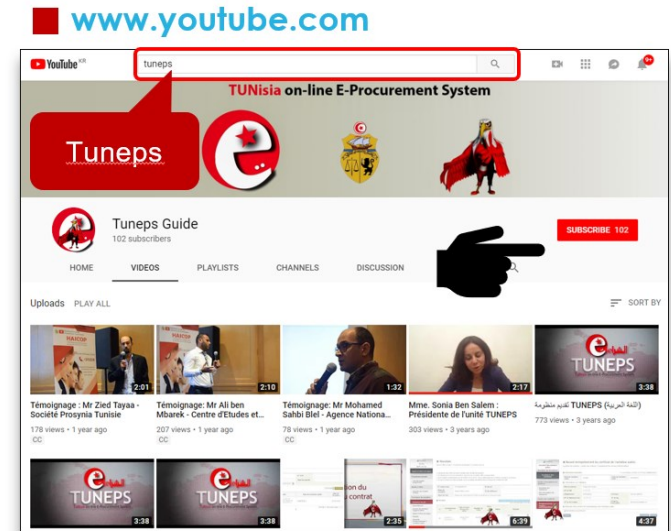
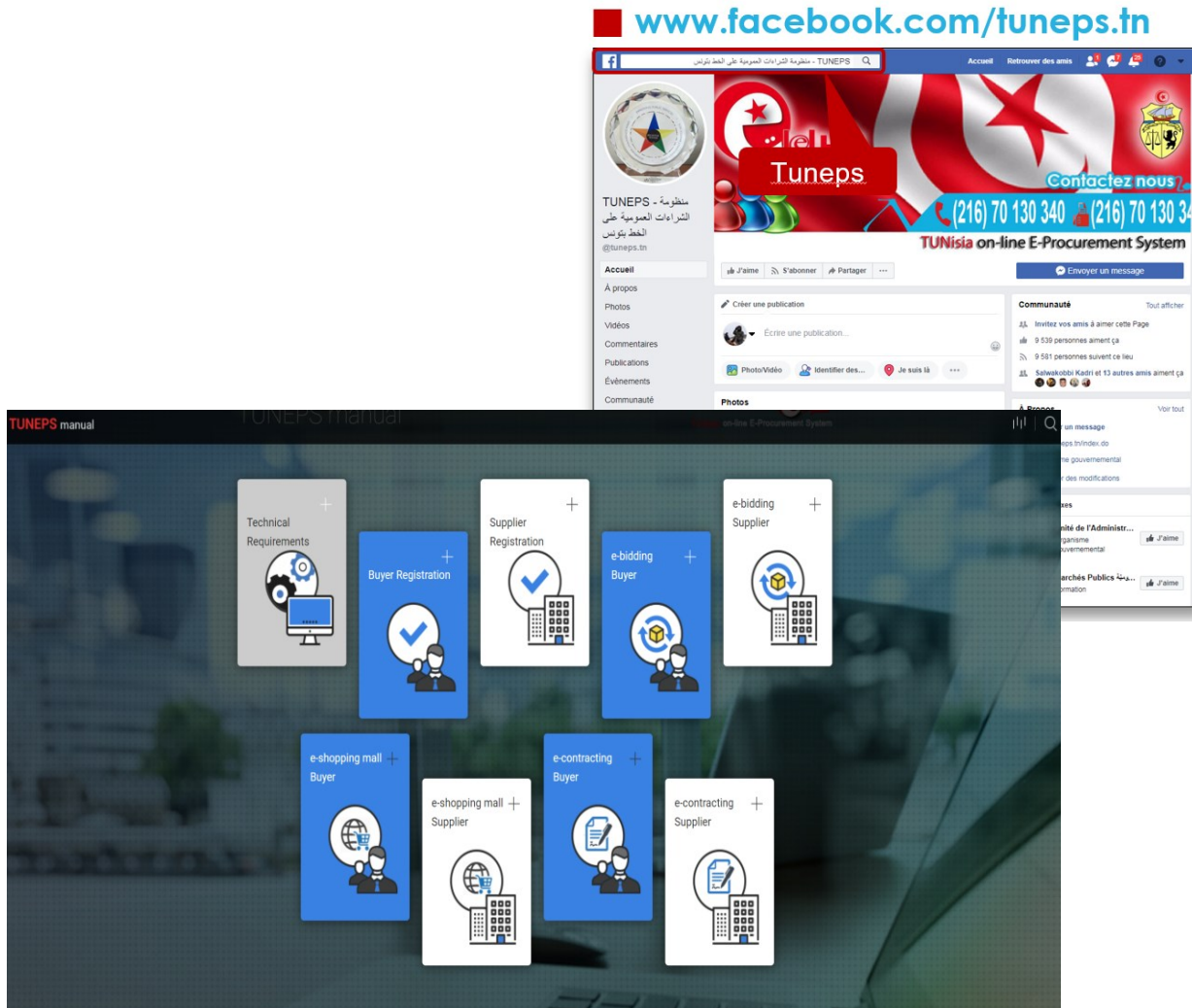
- **Enhance transparency** in government operations,
- **Improve overall work efficiency** across departments,
- **Ensure stability in fiscal management**, and
- **Foster the growth of small and medium-sized enterprises (SMEs).**

E-GP = e-government procurement.

Source: Multilateral development banks (MDBs). 2004. *Strategic Electronic Government Procurement—Strategic Overview: An Introduction for Executives*.

Source: ADB, e-Government Procurement Handbook(2013)

II-4. Lesson2 : Promotion and Training Material



II-4. Lesson3 : Education program with Cooperation



II-4. Education for Suppliers



Comment réussir les appels d'offres via TUNEPS ? procédures et conseils

كيف تساهم في طلب عروض عبر بوابة TUNEPS ?

Animée par un expert hautement qualifié en marchés publics et la plateforme Tuneys

Thèmes abordés :

- Principes, procédures, préparation et démonstration pratique
- Cas pratiques de soumissions d'appels d'offres en ligne (un exemple pour chaque participant)
- Conseils pratiques et personnalisés
- Documents en format PDF offerts
- Attestations fournis à la fin de la formation
- Nombre de places limité

FORMATION EN LIGNE

Tunipages est votre partenaire pour gagner plus de marchés: Veille, Formation et Accompagnement

INFOLINES : 98 403 088 - 58 403 088 - 93 309 362

Tél : 73 468 042 Fax : 73 468 047 hanen.limem@tunipages.tn

Tunipages est certifiée ISO 9001:2015



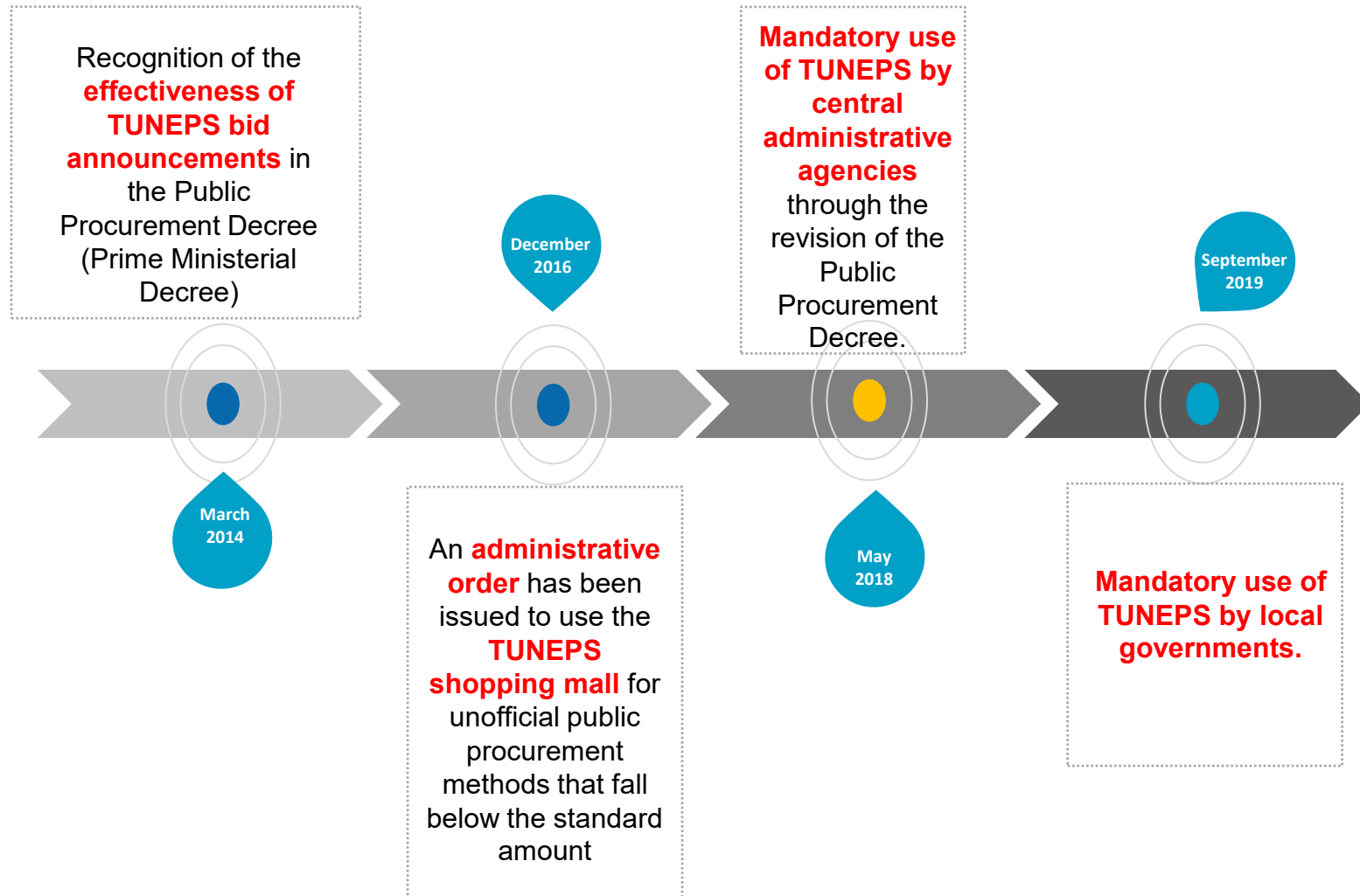
Price :

- Training: 200 DT HT/participant
- Annual subscription for monitoring private and public markets in Tunisia + Training for one person + annual technical assistance: 440 DTHT
- Annual subscription for monitoring private and public markets in Tunisia Annual subscription for monitoring markets in the Maghreb, Africa and Gulf countries + Training for one person + annual technical assistance: 720 DTHT

II-4. Lesson4 : Global Cooperation



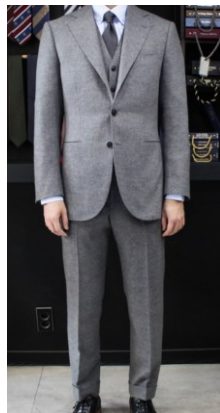
III-1. Institutionalization



III-2. Package S/W(COTS) and Customed S/W



Package Software
(COTS:Commercial off-the-shelf)



Customed Software

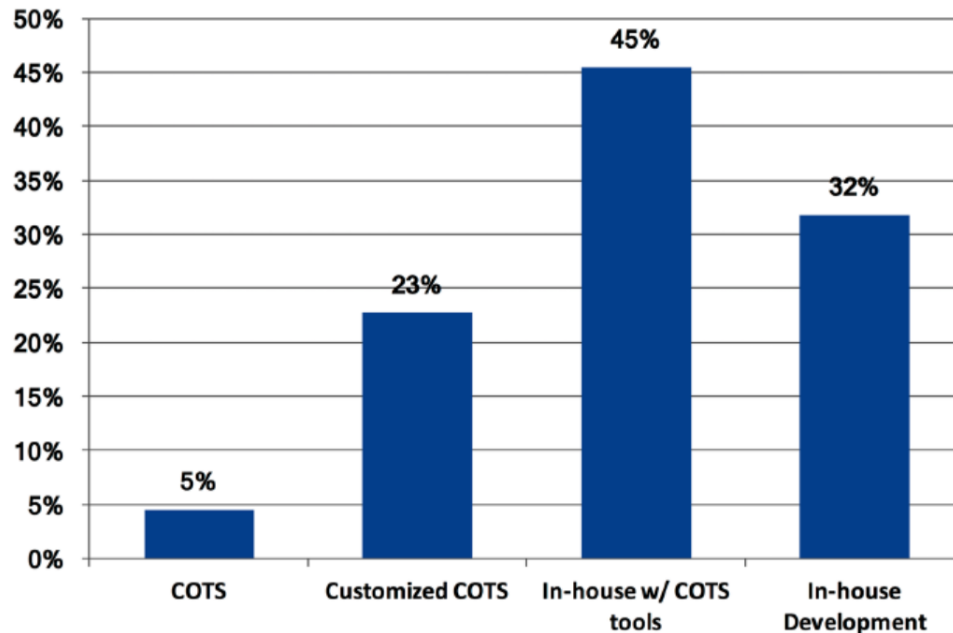


INDEX

- 01) The objective of Project Management
- 02) Project Management methodology
- 03) Project management in Korea
- 04) Project management Contents
- 05) Monitoring and Controlling Project Stage (or Phase)
- 06) Key document for Project objective achievement
- 07) Information system audit

<All or nothing? - In Latin America and the Caribbean>

Source: Authors own analysis



A benefit to off-the-shelf solutions is that as they are usually designed with an optimal public procurement system in mind, countries that adapt their processes to the new system and therefore are more likely to have a more efficient system.

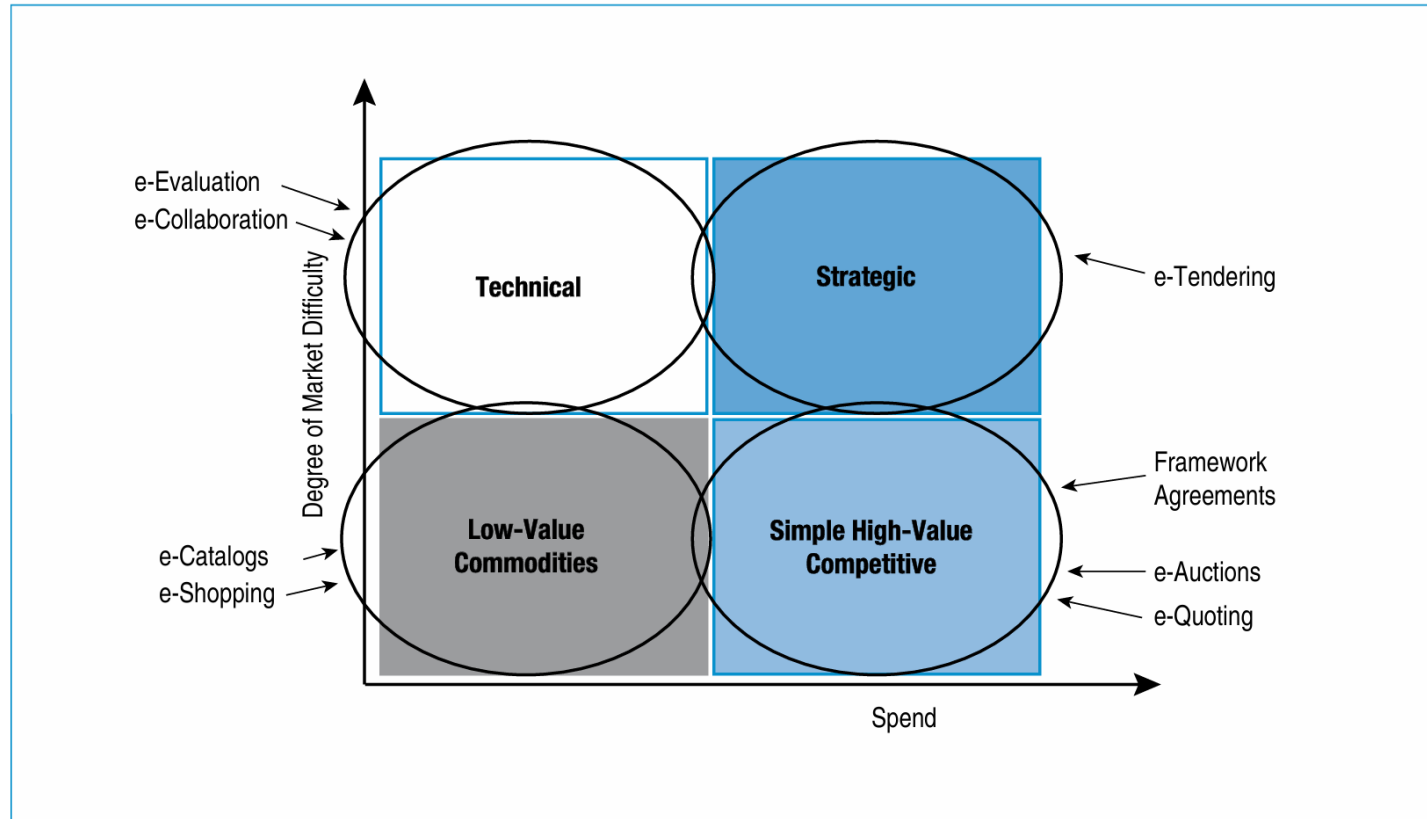
However, this takes time to plan and political will to make the changes needed to adapt to the new system. This has become easier for countries that adopted e-GP later as they did not have legacy systems that were difficult to replace as there were already people in place with an interest in maintaining the current system and status quo. Off-the-shelf solutions are of course not a panacea and have their own issues in the beginning they can be cheaper and faster (the technological part) to install, but have higher costs later on in terms of maintenance and upgrade costs.

**It is worth mentioning that another strategic decision that worked for LAC countries was to develop their platforms only for goods and services as they tend to be lower in value and higher in volume than works.*

Source : IGI Global. 2017 “Electronic Government Procurement in Latin America and the Caribbean”

<e-Government Procurement Applications>

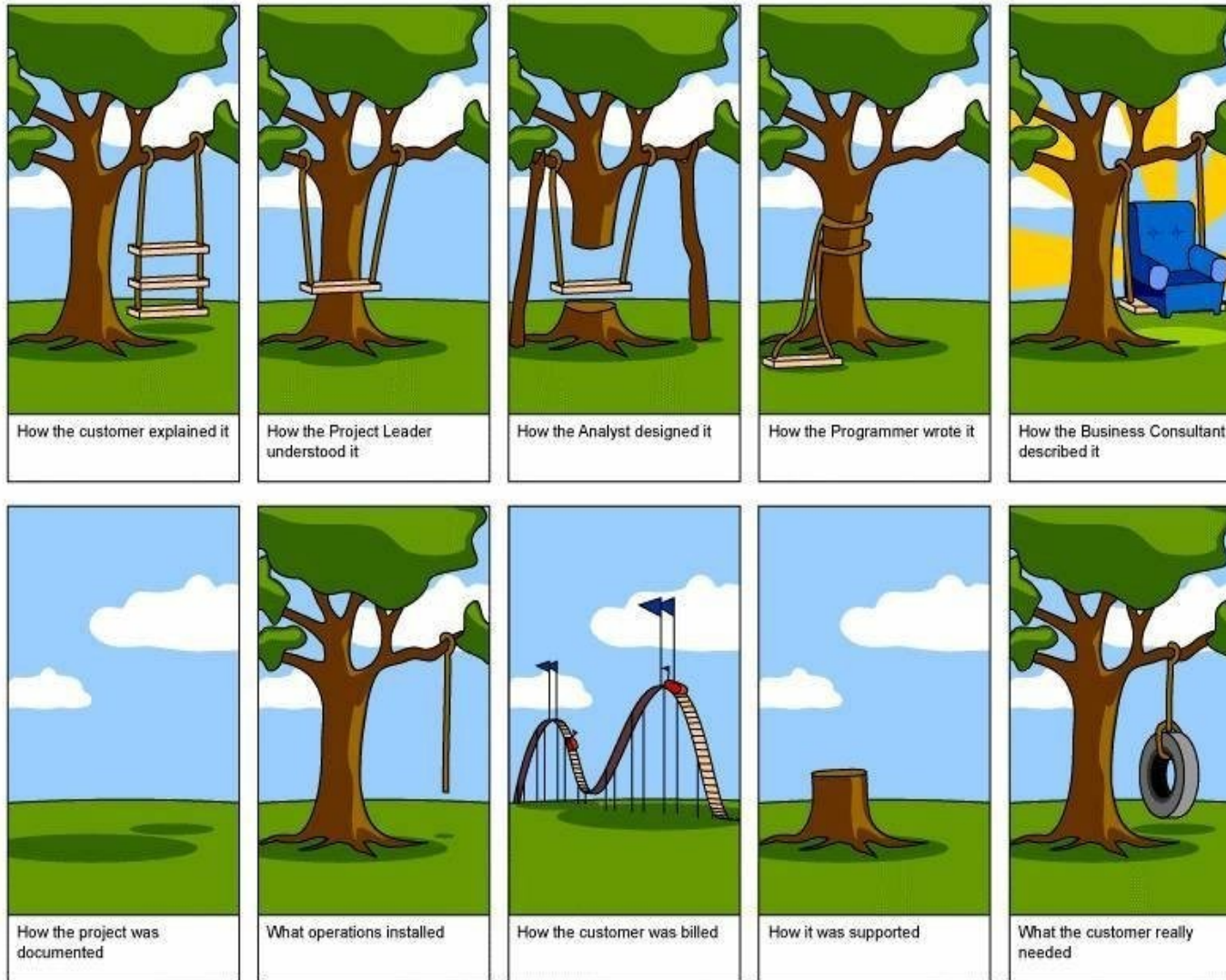
Figure 7 e-Government Procurement Applications



Source: P. Schapper. 2011. A Risk Managed Approach to e-Government Procurement – A Management Perspective. Workshop presentation in Botswana, adapted from Open Geospatial Consortium.

Source: ADB, e-Government Procurement Handbook(2013)

III-3. Sufficient requirements analysis



<>Unnecessary rework was required due to insufficient consideration of the different levels of requirements depending on the culture of the partner country and the user's ICT experience.

For example, In the case of e-procurement in Korea, one person in charge of bid opening is in charge, but in the case of Jordan, there was a request to develop so that three people can open the bid, as was the conventional practice at the time of manual work.

III-3. Sufficient requirements analysis



Tender box for bidding documents before e-procurement

개찰 목록(물품) 온라인 매뉴얼

- 개찰시간과 순서를 지키지 않음으로 인해 나라강력과 입찰을 집행하는 집행관에 대한 불만과 오해, 입찰업체의 업무공백을 초래할 수 있으니 오늘 주할것의 개찰시간 및 순서를 지켜 집행해 주시기 바랍니다.
- 낙찰방법이 앞쪽 지정된 경우 [낙찰/입찰방법]의 링크를 클릭하시어 변경하실 수 있습니다. (단, 재입찰, 복수견적(역경매), 협상에 의한 계약 제외)
- 입찰공고번호를 클릭하면 공고내용 및 공고서를 조회 할 수 있습니다.
- 복수견적(역경매)인 경우 공고명 클릭시 현재 입찰상태를 조회할 수 있습니다.

입찰공고번호: 20130217837

공고명: 참조번호:

개찰일자: 2013/01/31 ~ 2013/03/02 개찰여부: 미처리

나열공고리상정보이용 검색건수: 1건 10 목록고침

입찰공고번호	참조번호	공고명	낙찰/입찰방법	최초 개찰일시	예가 작성여부	개찰	결과
20130217837-00	참조3	노트북 구매 공고	최저가낙찰자결정/전자입찰	2013/02/15 1:00	작성완료	개찰시작	

검색 위치: 내 문서

내 최근 문서

바탕 화면

내 문서

내 컴퓨터

내 네트워크 환경

201301238240020130201095659

201302005310020130201135136

201302048590020130206110707

201302073710120130212085620

201302073710220130212094849

201302151160020130214094611

201302178370020130215082821

Koimo

내 음악

내 그림

PPS Received file

스내그잇 카탈로그

폴더 이름: ind Settings\Owner\My Documents\201302178370020130215082821

파일 종류: 모든 파일

선택 취소

tender opening with PKI after e-procurement

III-3. Sufficient requirements analysis :Business Process Re-engineering



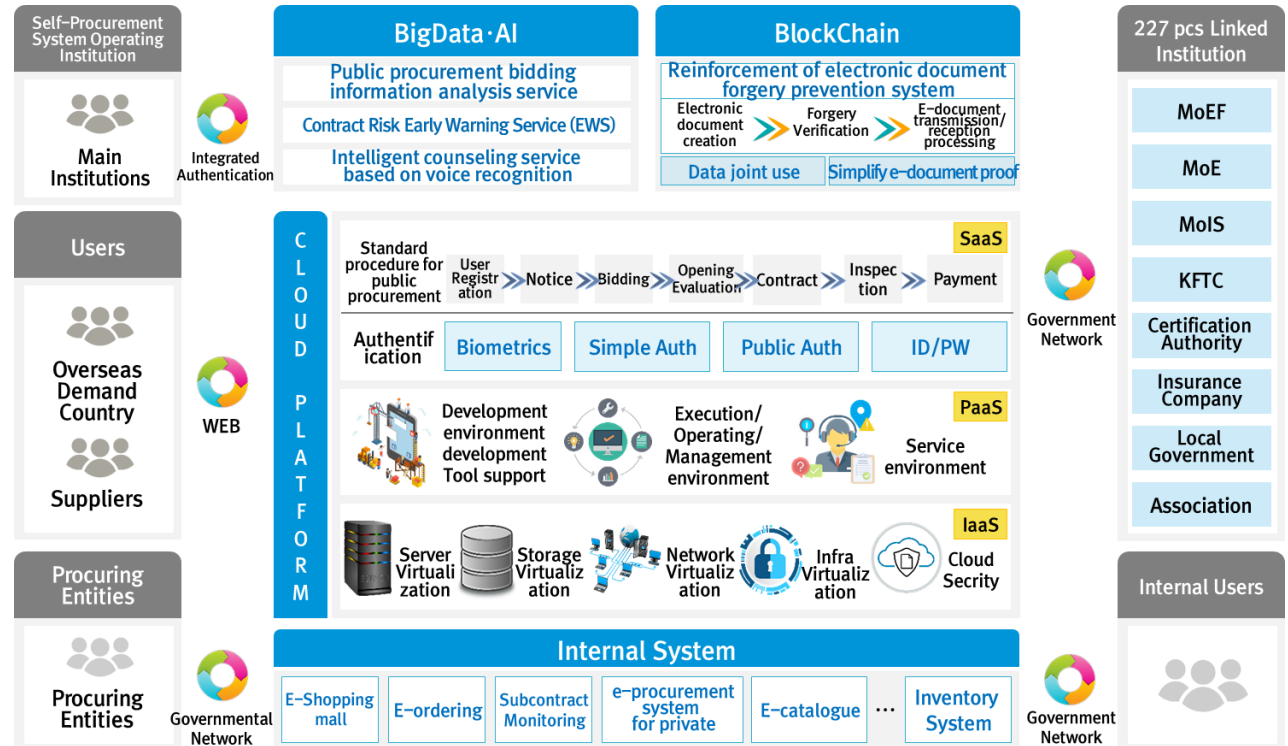
Typewriter



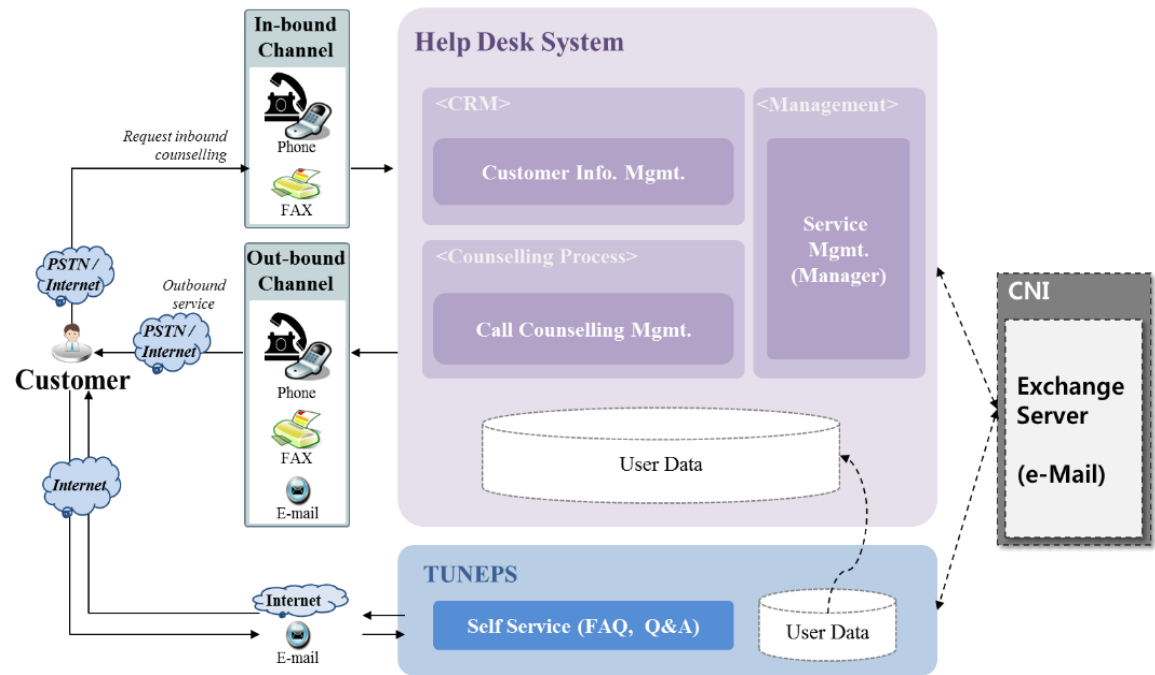
Computer with wordprocessor

III-4. Incentives and other inducements are needed

- ✓ Sufficient support and decision-making for business cooperation with key linkage target organizations (systems) and Expansion of institutions using the system



III-5. Informatization and Response



Thank you very much !!