



Interim Report

Report on Design and Implementation of e-Government (CS-01) Institutional Capacity Building on ICT Policies in Thailand

Presented by

**Institute for Information Technology Innovation (KU-INOVA)
Kasetsart University**



for

Ministry of Information and Communication Technology (MICT)

with the support from International Bank of Reconstruction and Development (IBRD)

30th April 2013





Topics of the presentation

Cluster 1: Interoperability

Cluster 2: Institutional Structures and Governance

Cluster 3: Innovation in Public Services

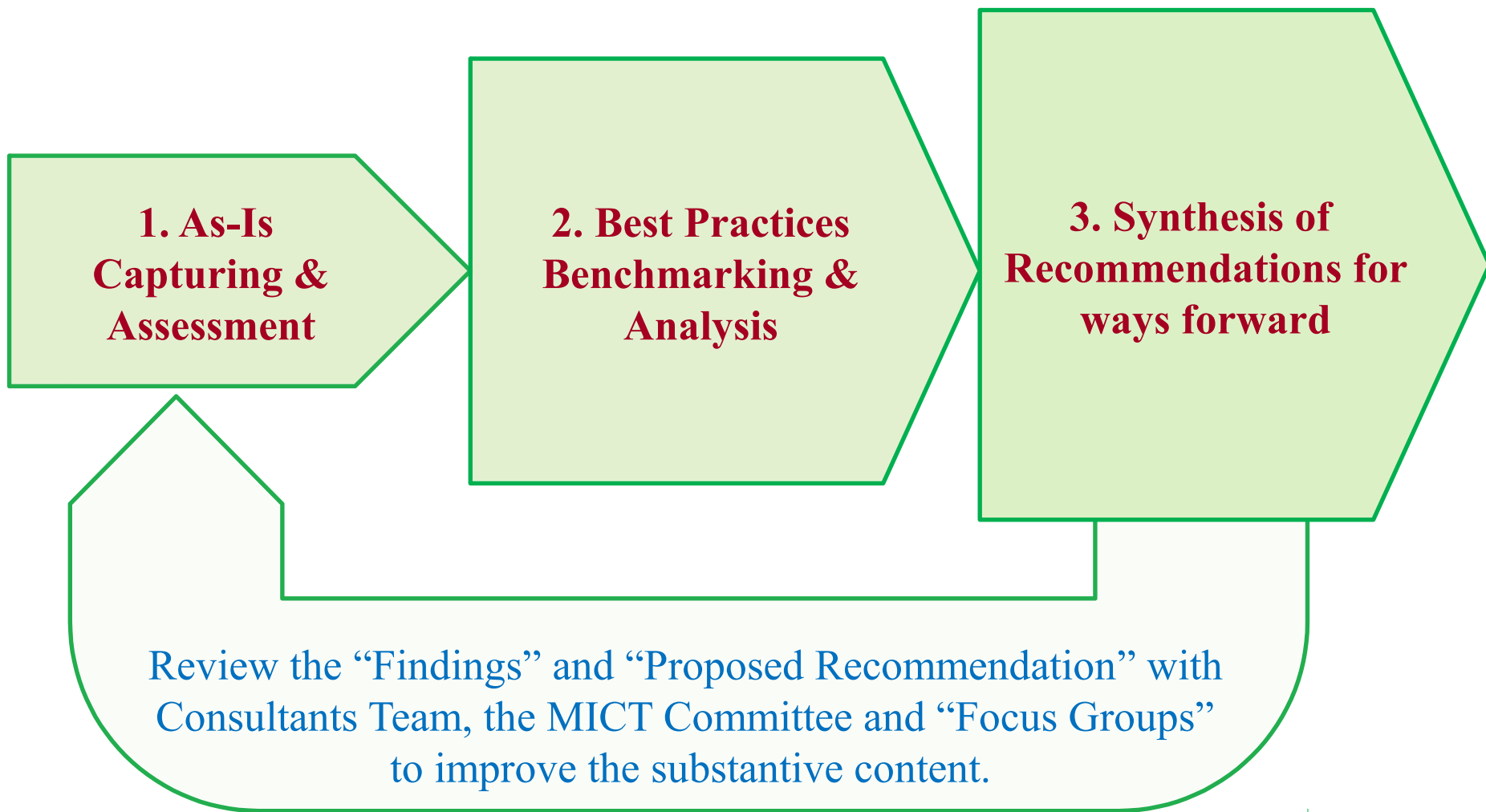
Cluster 4: Doing More with Less for More

Cluster 5: Other Related Tasks

Cluster 6: ASEAN e-Government Direction



Conceptual Framework



The Project Work Plan

Today date: 30 April 2013





Deliverable 2: Interim Report

Study and Analysis of *existing e-Government*

conditions in selected countries as the case studies and also in Thailand including work situations, problems, obstacles and solutions.

The areas of interest include:

- **Interoperability**
- **Institutional structures and governance**
- **Innovation in public services, and**
- **Doing more with less for more**



Outline of Interim Report

- ▶ **Section 1: Introduction** summarizes the project tasks & activities
- ▶ **Section 2: Interoperability** - the study result on existing e-government services and infrastructure in Thailand
- ▶ **Section 3: Institutional Structures and Governance** - the e-government institutional structures and governance available in the public sectors of other countries around the world including Thailand.
- ▶ **Section 4: Innovation in Public Services** - the strategies and approaches of fostering innovation in the delivery of public services in several countries.
- ▶ **Section 5: Doing More with Less for More** - the strategies and implementation concepts of radical re-engineering/reform and radical cost reduction in the use of and investment in IT.
- ▶ **Section 6: Other Related Task** – detailed proposed options of international e-government study visits.



Task Cluster 1: Interoperability



Interoperability

- ▶ Study of Existing E-Government Services and Infrastructure in Thailand
- ▶ Thailand's Business Case of Interoperability
- ▶ Studies of E-Government Interoperability Frameworks and Models in other Countries
- ▶ Thailand e-Government Interoperability Framework (TH e-GIF)
- ▶ Governance Model for Ensuring Interoperability and Data Sharing
- ▶ Channel Integration Framework



Study of Existing E-Government Services and Infrastructure in Thailand

- ▶ Existing E-Government-Related Infrastructures
 - Government Information Network (GIN)
 - GIN2.0 & Super GIN
- ▶ E-Government Services in Thailand
 - Thailand's E-Government Services in the UN e-Government Survey 2012
 - Study of Existing E-Government Services in Thailand by KU-INOVA Consultant Team
 - Summary and Recommendations
 - Citizen Inclusion and E-Participation



Existing e-Government-Related Infrastructures

- ▶ Ministry of Information and Communication Technology (MICT) to establish the national information network for government, namely Government Information Network (GIN) in year 2005
- ▶ At present, GIN is responsible by the Electronic Government Agency (Public Organization) (EGA), governed by MICT, to further develop and improve the network operations for quality e-government services and interoperability according to the MICT's policy.



GIN Evolution

- ✓ GIN covering total 300 local administrative agencies all over the country.
- ✓ 20 ministries are already electronically connected through GIN.
- ✓ EGA has improved GIN based on GIN2.0 platform
- ✓ GIN2.0 can utilize several advanced features
- ✓ Already cover 1,199 offices in 2012.
- ✓ EGA now connects another 850 administrative agencies in the capital and local areas within 2013, and the total target covering 4,000 offices by 2014.
- ✓ Increase bandwidth



Government Information Network (GIN)



GIN2.0 Connectivity Diagram





GIN Present and Future.

- ▶ Presently, all 20 ministries are already electronically connected through GIN. There are also around 1,199 from 4,000 government offices (inclusive of all sub offices and local administrative offices) that are connected online and EGA has provided new connectivity to other 850 administrative agencies in the capital and provincial areas.
- ▶ In the fiscal year 2013, EGA is implementing more connectivity to local administrative agencies in district areas. With the budget proposal by MICT, the next generation of network infrastructure called Super GIN has already been recommended which is the extensible and superhighway version of GIN with higher bandwidth covering more agencies in the last-kilometer district areas.



E-Government Services in Thailand

- ▶ Thailand's E-Government Services as reported in the UN e-Government Survey 2012
- ▶ Study of Existing e-Government Services in Thailand by KU-INOVA Consultant Team (from about 1,000 government websites)
- ▶ Summary and Recommendations
- ▶ Citizen Inclusion and e-Participation

E-Government Services in Thailand

- ▶ Thailand's E-Government Services reported in the UN e-Government Study
 - According to the UN e-Government Survey Report 2012, Thailand has been ranked 92 out of 193 countries around the world for its advancement of e-government services,
EGDI (e-Gov Development Index) calculated from the three indices:
 1. **Online public service index**
 2. **Telecommunication index**
 3. **Human capital index.**

Thailand's E-Government Services in the UN Survey

EGDI (Index Value)= (Online Service + Telecom Infrastructure + Human Capital)/3

Countries	Rank	Index Value	Online Service Index	Telecommunication Infrastructure Index	Human Capital Index
Malaysia	40	0.6703	0.7908	0.4510	0.7691
Viet Nam	83	0.5217	0.4248	0.3969	0.7434
Thailand	92	0.5093	0.5098	0.2361	0.7819



4 Stages of
Online Services



Online Service Index

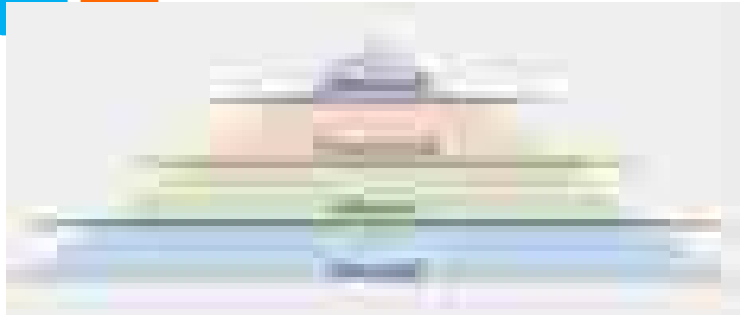
UN e-Government Survey Report adopts an assessment method to benchmark different progresses of e-government online services by classifying this online service index into four development stages with their meaning descriptions, as follows:

- ▶ **Stage 1 - Emerging Information Services**
- ▶ **Stage 2 - Enhanced Information Services**
- ▶ **Stage 3 - Transactional Services**
- ▶ **Stage 4 - Connected Services**

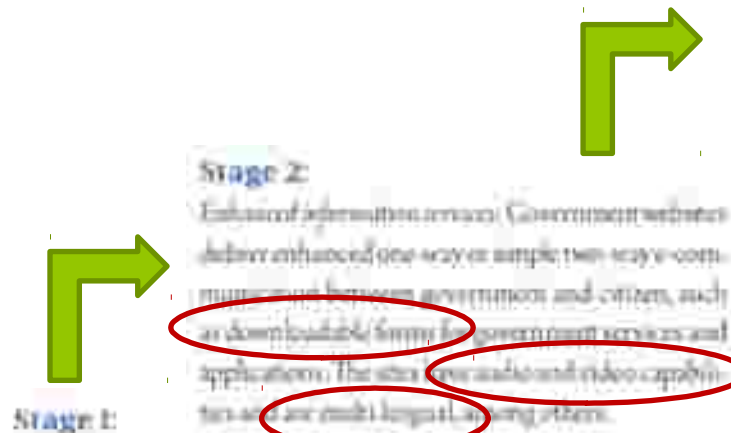
ถ้าจะให้ e-Gov Development Index ประเทศไทย ก้าวหน้าขึ้นไปอย่างน้อย 10 อันดับ จะต้องทำอะไร (โดยใช้ข้อมูลสำรวจเฉพาะของ UN)

- ▶ ปัจจุบัน Online Service ประเทศไทยได้คะแนนเท่าไร และเพราะอะไร
- ▶ Online-Service-Index ประเมิน หรือ คำนวณอย่างไร
= คำนวณจาก e-Gov Online Service ของหน่วยงานราชการทั่วประเทศก้าวหน้า
แบบ Stage-I (Information Web), ให้นำหน้า 7
แบบ Stage-II (One-way or Two-way web, มีสองภาษา), ให้นำหน้า 24
แบบ Stage-III (Transactional Web), ให้นำหน้า 30
แบบ Stage-IV (Connected e-Gov, Citizen Centric Services) ให้นำหน้า 39
- ▶ Online-Service-Index ประเทศไทย
= 0.5098 = (Stage I=100%), (Stage II=55%), (Stage III=31%), (Stage IV=39%)
- ▶ หมายความว่า websites หน่วยงานภาครัฐเข้า Stage I 100% แล้ว
- ▶ ถ้าจะทำให้ทุก websites ของภาครัฐเป็น Stage II ถึง 100% แทนที่จะเป็นแค่ 55%
ต้องทำอะไร ตัวอย่างของคำตอบคือ.....
- ▶ ครม. สั่งการให้ทุกส่วนราชการ ปรับปรุงทุกเว็บให้มี "แบบฟอร์มให้ประชาชน
download", "ให้มีการสื่อสาร 2 ทางผ่านเว็บ เช่น ถามตอบคำถาม" "จัดทำข้อมูลภาษา
อังกฤษ" และ "ให้มีข้อมูลที่เป็นภาพและเสียงด้วย"

Online Service Index



4 Stages of Online Services



Stage 1:
Emerging information services: Government websites provide information on public policy, governance, laws, regulations, relevant documentation and types of government services provided. They have links to ministries, departments and other branches of government. Citizens are mainly able to obtain information on what is new in the national government and institutions and can follow links to archived information.

Stage 2:
Enhanced information services: Government websites deliver enhanced one-way or simple two-way communication between government and citizens, such as downloadable forms for government services and applications. The sites have audio and video capabilities and are multi-lingual, among others.

Stage 3:
Transactional services: Government websites engage in two-way communication with their citizens, including reporting and submitting government policies, programmes, regulations, etc. Some form of electronic authentication of the citizen's identity is required to successfully complete the exchange. Government websites process non-financial transactions, e.g. e-voting, downloading and uploading forms, filing taxes online or applying for certificates, licenses and permits. They also handle financial transactions, i.e. where money is transferred via a secure network to government.

Stage 4:
Personal services: Government websites have changed the way government communicates with their citizens. They are proactive in responding to citizens and applications from the citizens using Web 2.0 and offer many new tools, resources and e-solutions that enable departments and ministries to streamline internal information, data and knowledge as they interact from government agencies through integrated applications. Governments have allowed users to get government content in a citizen-centric approach where e-services are personalized to citizens through their needs, wants and expressed groups to provide tailor-made services. Governments create an environment that requires the citizen to be more involved with government activities and to contribute to social decision-making.

- Our Methodology -

Study of Existing E-Government Services in Thailand by KU-INOVA Consultant Team

- ▶ A survey of e-government services in Thailand is conducted during **the first quarter of 2013** by the KU-INOVA
- ▶ The consultant team applies the similar methodology used for the UN e-Government Survey 2012 (**4 stages of development, with similar characteristics for each stage, but slightly different scoring**)
- ▶ The survey explores the online services of 303 government units in all 20 ministries ranging from the ministries, departments, divisions downward to unit levels, including independent public agencies, state enterprises, and other concerned agencies – **about 1,000 websites**.
- ▶ However, it **excludes public agencies at the provincial and district areas**. This is to learn the position of Thailand at present in term of its development stage of e-government and online public services within the timeframe of the project.

- Our Methodology -

Study of Existing E-Government Services in Thailand by KU-INOVA Consultant Team

The survey and analysis on e-government services in Thailand are done with 303 government units, about 1000 websites in total to deliver the result as below.

Stage 1 - Emerging Information Services (weighted score = 7)

Achieving the development stage 1, which is comparable to 100%, will earn the weighted score of 7 (The full score of 100 equals to the full weighted score of 7 for the development stage 1).

Stage 2 - Enhanced Information Services (weighted score = 24)

The 4 parts of information services and their scores are as following:

- a) Having downloadable forms is counted for 25%
- b) Having audio and video capabilities is counted for 25%
- c) Being multi-lingual website (Thai and English languages) is counted for 25%
- d) Having interaction with citizen through one-way or two-way communication (e.g. open forums, online notification, e-mail correspondence, Q&A, social media,) is counted for 25%

- Our Methodology -

Study of Existing E-Government Services in Thailand by KU-INOVA Consultant Team

Stage 3 – Transactional Services (weighted score = 30)

The 4 parts are as described below:

- a) Having public opinion polls on a website is counted for 25%.
- b) Having online application services on a website is counted for 25%.
- c) Having e-payment services on the website is counted for 25%.
- d) Having full-transaction services on website (e.g. end-to-end process of online application submission, tracking, approval and issuance) is counted for 25%.

Stage 4 - Connected Services (weighted score = 39)

Two parts as described below:

- e) Having connected e-government services, electronic data interchange, and interoperability systems for service collaboration across different (at least two) agencies is counted for 50%
- f) Providing citizen-centric services through integrated/connected applications with less paper at one-stop service point is counted for 50%

-The Scoring Result -

Study of Existing E-Government Services in Thailand by KU-INOVA Consultant Team

No.	Government Agencies	Development Stage (%)				Total (%)
		1	2	3	4	
		Weighted score				
		7%	24%	30%	39%	100%
1	Office of the Prime Minister	100	74	18	20	38
2	Ministry of Defense	100	78	17	6	33
3	Ministry of Finance	100	87	37	27	49
4	Ministry of Foreign Affairs	100	52	6	12	26
5	Ministry of Tourism and Sports	100	92	38	8	44
6	Ministry of Social Development and Human Security	100	78	25	6	36
7	Ministry of Agriculture and Cooperatives	100	82	35	18	44
8	Ministry of Transport	100	76	36	28	47
9	Ministry of Natural Resources and Environment	100	78	35	15	42
10	Ministry of Information and Communication Technology	100	89	50	28	54
11	Ministry of Energy	100	86	33	22	46
12	Ministry of Commerce	100	85	50	38	57
13	Ministry of Interior	100	81	48	25	51
14	Ministry of Justice	100	75	27	29	45
15	Ministry of Labour	100	85	40	40	55
16	Ministry of Culture	100	78	33	6	38
17	Ministry of Science and Technology	100	88	30	17	44
18	Ministry of Education	100	80	27	23	43
19	Ministry of Public Health	100	90	43	40	57
20	Ministry of Industry	100	84	33	26	47
21	Independent Public Agencies	100	82	22	22	42
Average		100	82	33	22	45



Stage 1 - Emerging Information Services

- ▶ The survey finds that all selected Thai government agencies provides online information services such as policy, governance, laws, regulations and other associated information. They have web links for public access to websites of other ministries and public agencies.
- ▶ People can reach both present and past information. Thus, the development at stage 1 is fully scored 100%.



Stage 2 – Enhanced Information Services

- ▶ The survey reveals that the Thai government websites provide interactive e-communication between government and citizens, assessed for the average development score of 82%.
- ▶ The first top three agencies with their websites providing enhanced information services are:
 - Ministry of Tourism and Sports (92%),
 - Ministry of Public Health (90%)
 - Ministry of Information and Communication Technology (89%)
- ▶ The least score is:
 - The Ministry of Foreign Affairs (52%).
 - Maybe this is because the websites of some departments and divisions still lack downloadable forms, audio and visual information, and other e-communication channels to reach directly those offices.

Stage 2 – Enhanced Information Services

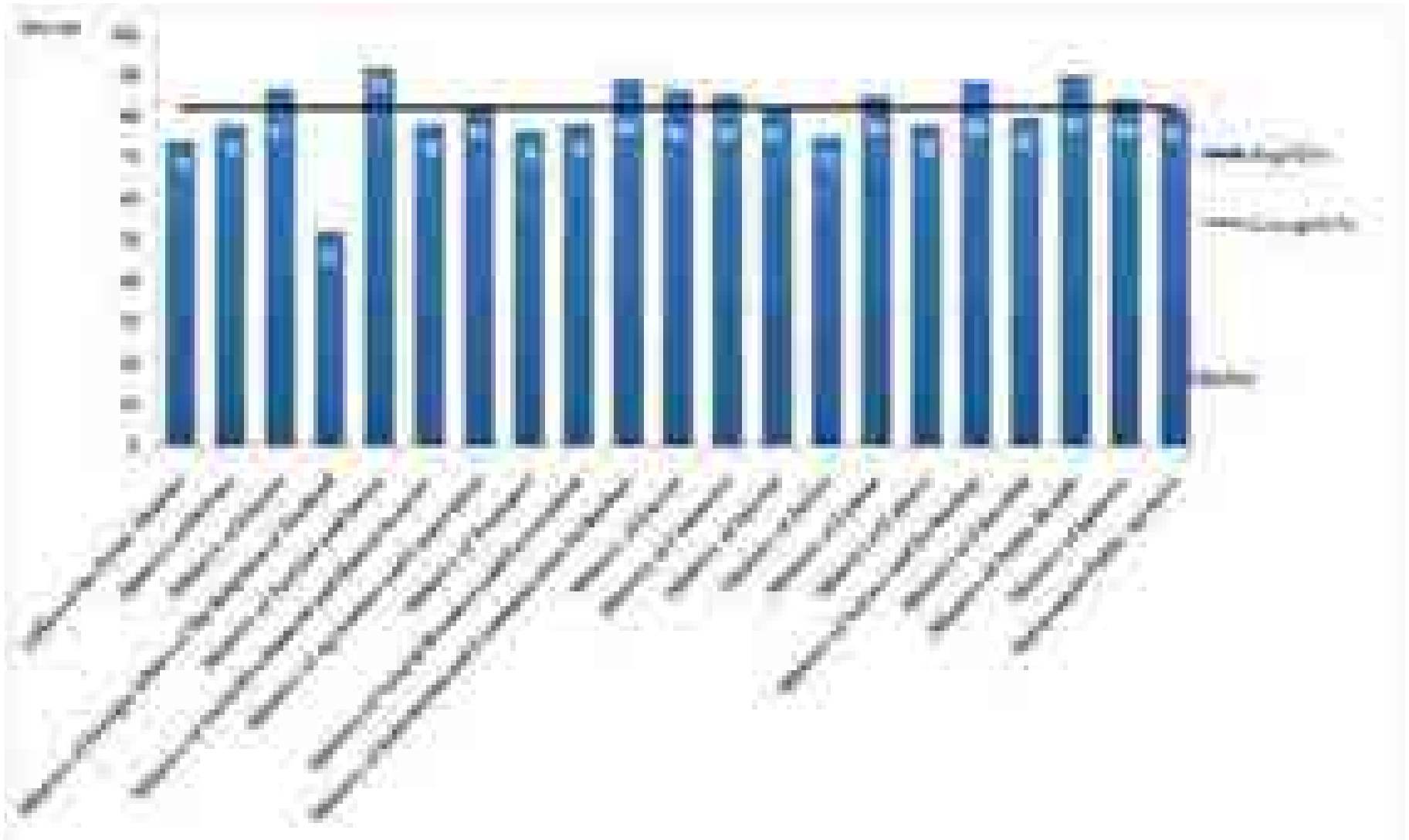


Figure : Development of Thailand e-Government Services at Stage 2
Report on Design and Implementation of e-Government : Institutional Capacity Building on ICT Policies for Thailand



Stage 3 – Transactional Services

- ▶ The development of Thailand’s e-government services at stage 3 is assessed at 33%.
- ▶ The top developed agencies are:
 - Ministry of Information and Communication Technology and Ministry of Commerce (50% equally),
 - Ministry of Interior (48%)
 - Ministry of Public Health (43%).
- ▶ The least is Ministry of Foreign Affairs (6%) of which some offices have no transactional services due to their nature of work with not much direct relation to citizens, such as the Department of Protocol and the Department of International Organizations.
- ▶ Ministry of Social Development and Human Security (25%) – having several basic e-transaction services, but still lack of e-payment, no e-certificates/e-licensing, and end-to-end full e-transaction process, etc.

Stage 3 – Transactional Services

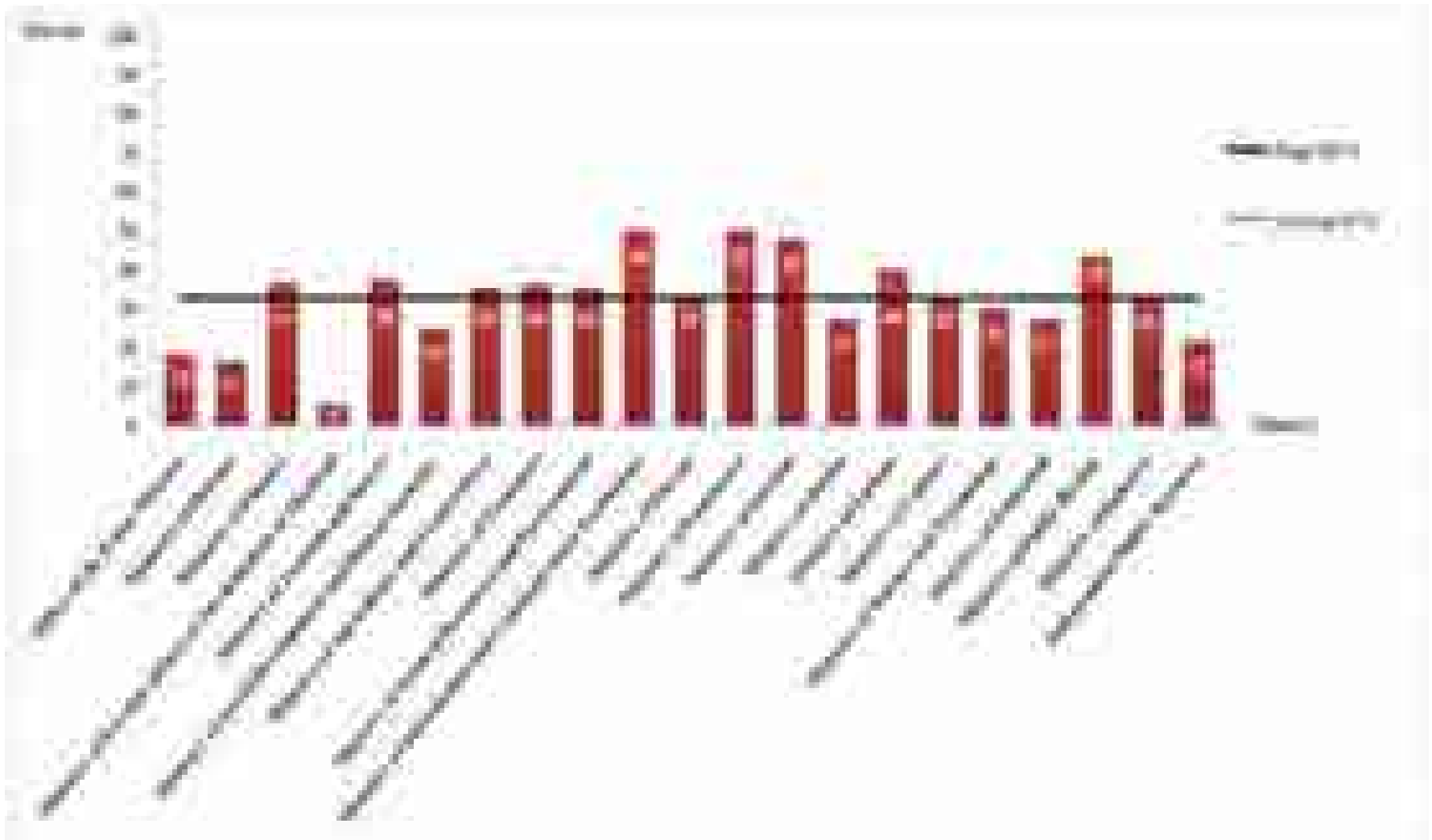


Figure : Development of Thailand e-Government Services at Stage 3



Stage 4 – Connected Services

- ▶ The development of Thailand's e-government services at stage 4 is assessed for 22%.
- ▶ The most highest scored are:
 - Ministry of Labour and Ministry of Public Health (40% equally)
 - Ministry of Commerce (38%)
 - Ministry of Justice (29%)
- ▶ The agencies with least score are:
 - Ministry of Defense, Ministry of Social Development and Human Security, and Ministry of Culture (6% equally).
- ▶ The survey found that all government agencies have already had at least one cross-agency interoperability system in place. There are some on-going projects that are not taken in assessment.
- ▶ However, it is quite evident that the overall public services are not citizen-centric yet. It is because some government agencies implement their own interoperability systems specifically applicable for their scope of work only.

Stage 4 – Connected Services

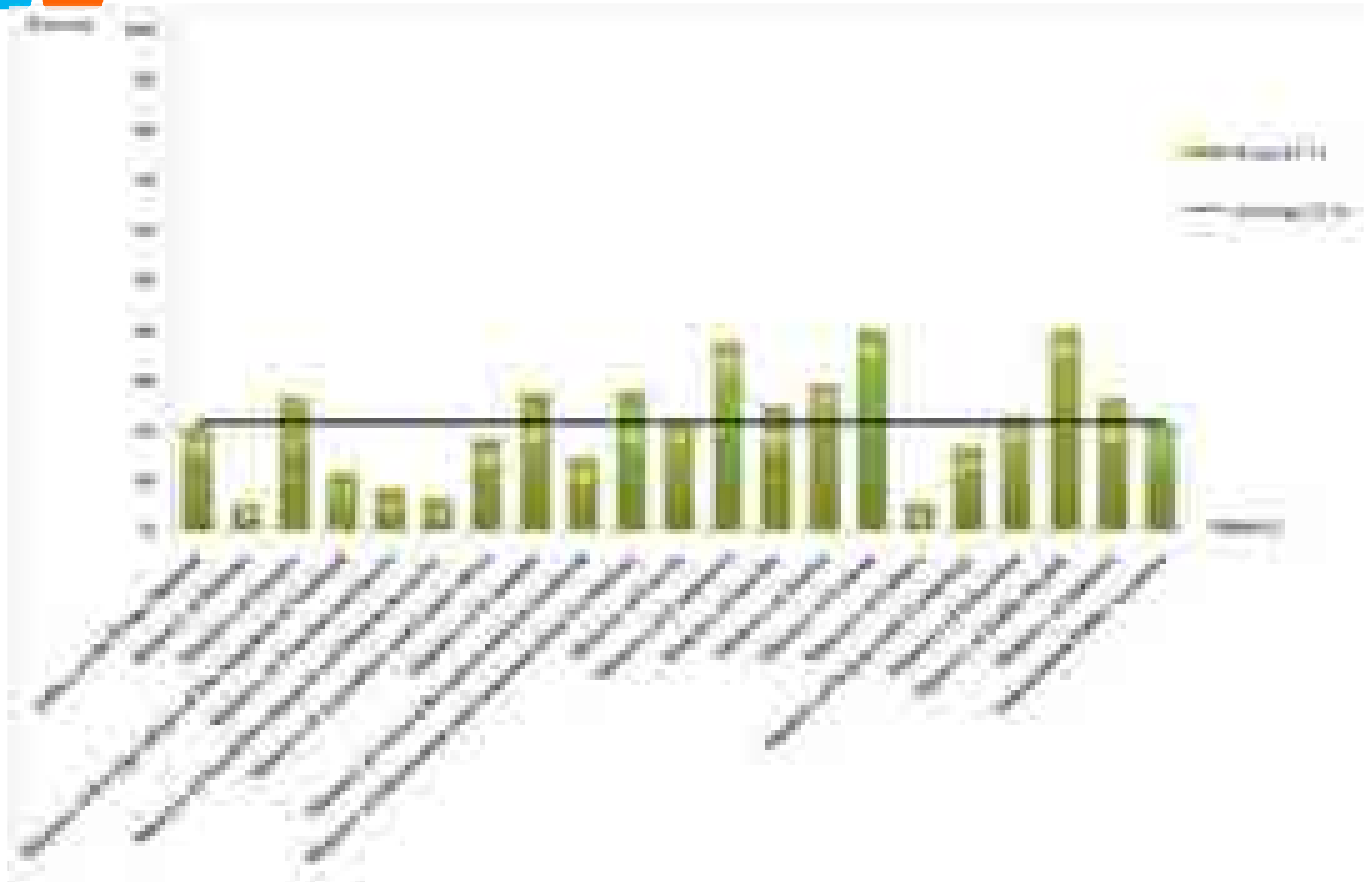
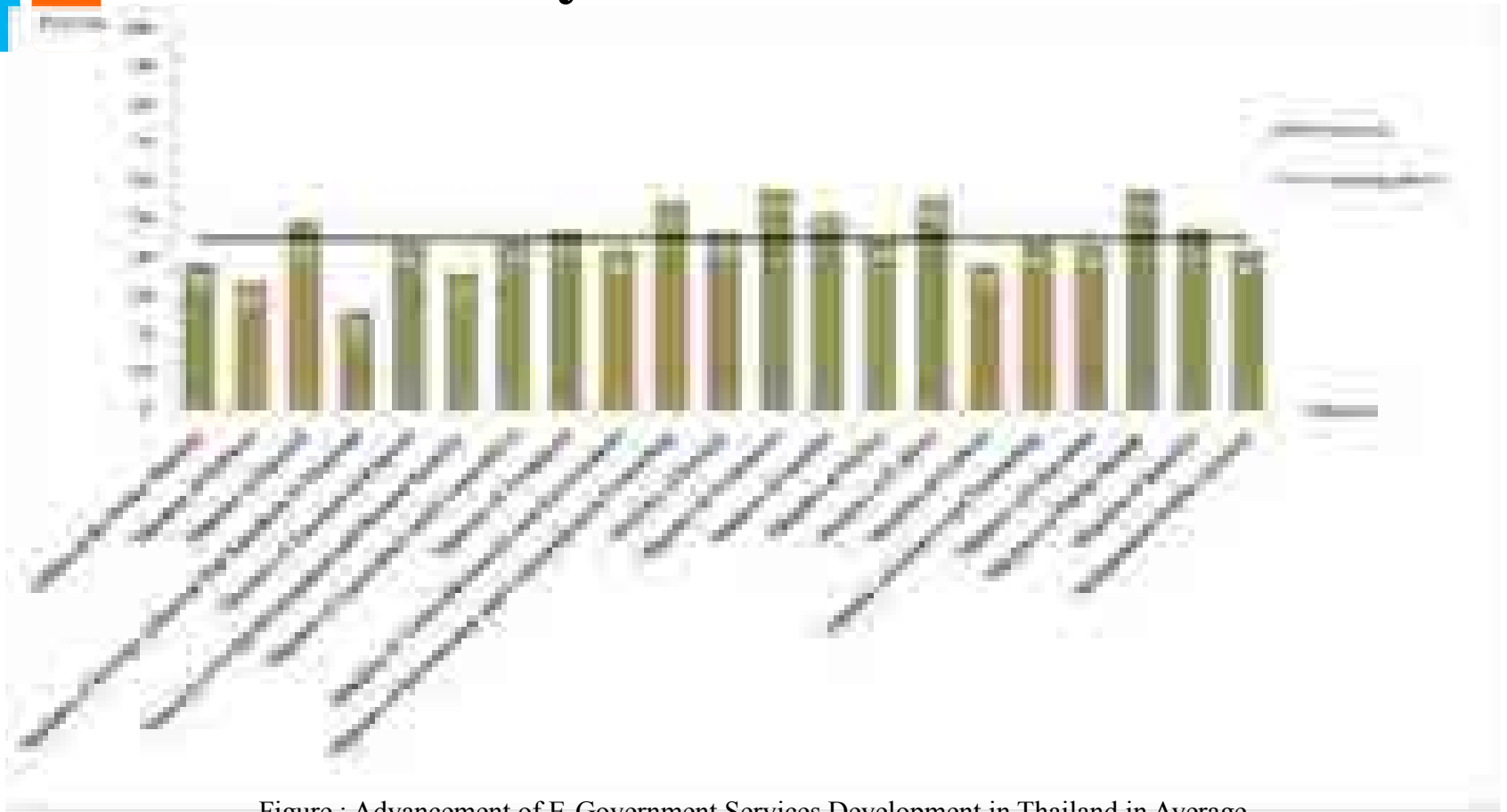


Figure : Development of Thailand e-Government Services at Stage 4


Summary and Recommendations



The average score of e-government services development of all government agencies is 45%. This means the average of country's advancement of e-government development is quite modest. Among all 20 ministries and a group of independent public agencies, there are 10 government agencies that can advance their online service development above the average while the other 10 agencies and the group of independent public agencies are below the average .

Thailand's E-Gov Online Services Possible Improvement

Data Source	Stage 1 (%)	Stage 2 (%)	Stage 3 (%)	Stage 4 (%)	Average (%)	Ranking
UN survey 2012	100	55	31	39	45	92th
KU-Inova survey 2013	100	81	33	22	45	92th





Summary and Recommendations

- ▶ The recommendations are proposed firstly for short-term development to enhance e-government services, especially to improve the development stage 2 to the full extent of 100%.

In achieving it, the government agencies are suggested to provide

- downloadable e-forms,
- audio and video capabilities
- Interactive e-communication channels
e.g. public opinions, Q&A
- Bi-lingual web page
 - The survey found that the websites of some public agencies contain only bilingual topics and headings but the content is just in Thai language, and that the bilingual websites are provided just by the department and divisions levels.



Summary and Recommendations

- ▶ The next improvement is to leverage the development stage 3 & 4 by enhancing people participation in expressing their opinions and conducting online transactions on the government websites.
 - For example, the government websites shall allow people to operate online application submission by themselves, and e-transaction throughout the whole process without using paper documents (with digital signatures, and perhaps utilizing citizen cards).
 - This could be based on for further development by any public agencies to fulfill their citizen-centric public services consequently in Stage 4 (implementing more connected e-transactions, e.g. for National Security, Single Window Justice, Single Window for Business and Citizens, etc.)



Citizen Inclusion and e-Participation

- ▶ The U.N. e-Government Survey 2012 assessed the performance of countries around the world in citizen inclusion and e-participation and ranked Thailand the 20th out of 193 countries
- ▶ E-participation is classified into 3 levels according to the UN e-Government Survey, which are:
 - e-Information
 - e-Consultation
 - e-Decision Making

e-Participation score in the U.N. Survey

Country	Rank	Index value	E-information	E-consultation	E-decisionmaking	total
Republic of Korea	1	1	75	78	100	81
Thailand	20	0.3158	0	30	17	26
China	24	0.2105	25	14	33	17
Viet Nam	28	0.1053	0	8	17	19





E-Information

- ▶ The government websites provide basic information, such as government policy, laws, regulations, program implementation, and other related services for people. To achieve the level of e-information, the following information shall appear on the government websites, according to the U.N.'s guide:
 - Government Structure
 - Policies and Programs
 - Points of Contact
 - Budget
 - Laws and Regulations and Other Information of Public Interest
 - Community Networks
 - Blogs
 - Web Forums
 - Text Messages
 - Newsgroups
 - e-Mail Lists



E-Consultation

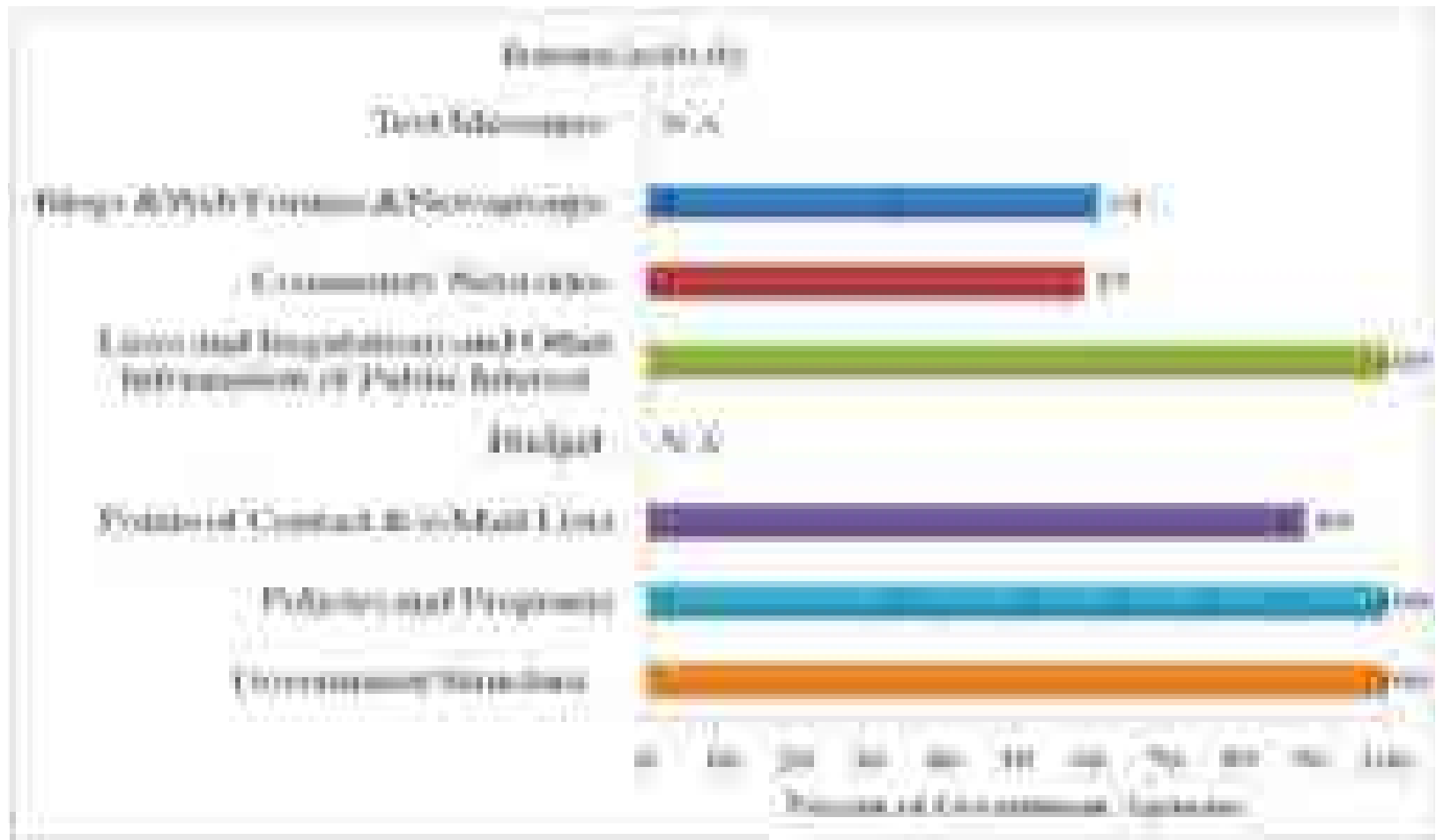
- ▶ The government websites are open for citizen inputs such as their opinions and suggestions towards e-government services through the tools such as chat rooms, opinion polls, social media, newsgroups and other interactive tools to support citizen inclusion and e-participation. promote e-consolation, the public websites should activate the followi ngs, as per the U.N.'s guide:
 - Online Polls
 - Online Surveys or Feedback Forms
 - Chat Rooms or Instant Messaging
 - Weblogs (blogs)
 - Listservs or Newsgroup
 - Other interactive tools



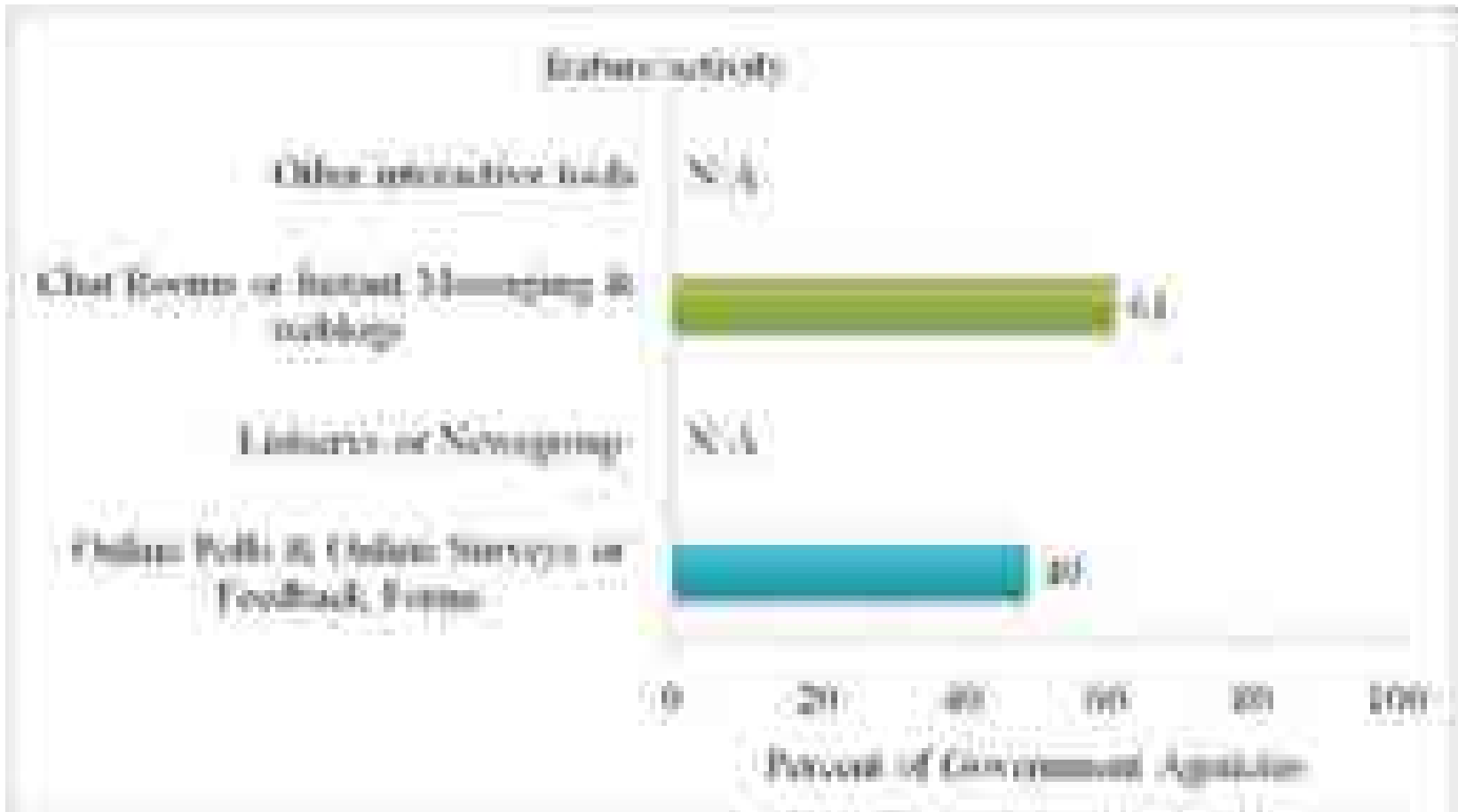
e-Decision Making

- ▶ The government websites shall allow interaction between people and government officials and are open for people engagement in the process of policy and decision making through such channels as online voting or e-petition. The suggested tools are, for example:
 - Online Discussion Forums
 - Archive of Past Discussion Forums
 - Government Officials Respond to Citizen Input
 - Government Officials Moderate e-Consultations
 - Online Petitions
 - Online Voting
 - Real-Time Delphi Survey (online questionnaire)

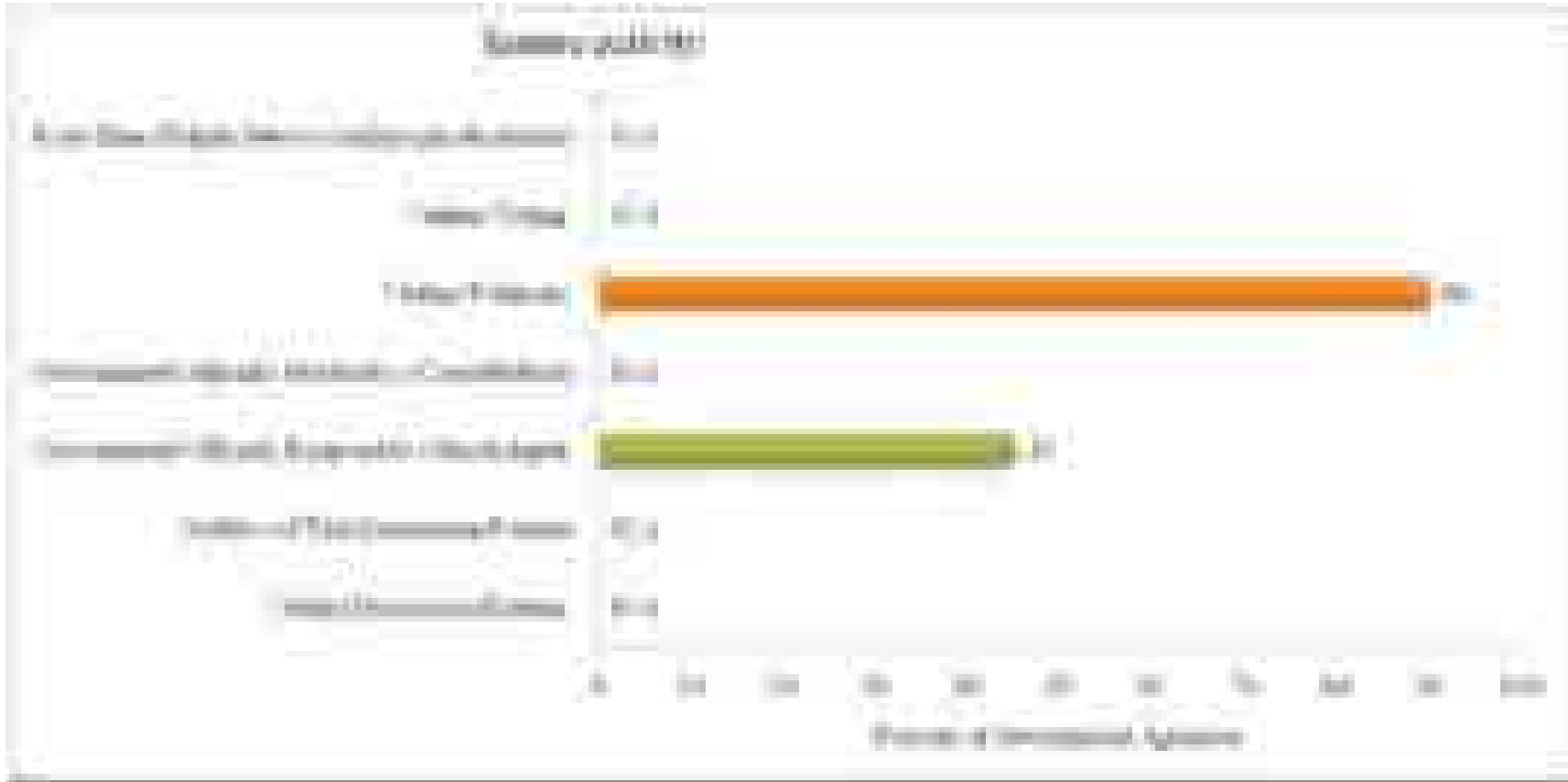
E-Information tools used by governments



E-consultation tools used by governments



e-Decision Making tools used by governments



Interoperability

- ▶ Study of Existing E-Government Services and Infrastructure in Thailand
- ▶ Thailand's Business Case of Interoperability
- ▶ Studies of E-Government Interoperability Frameworks and Models of Foreign Countries
- ▶ Thailand e-Government Interoperability Framework
- ▶ Governance Model for Ensuring Interoperability and Data Sharing
- ▶ Channel Integration Framework



Thailand's Business Case of Interoperability

- ▶ Thailand National Single Window (TH-NSW)
- ▶ Agriculture Disaster Relief Information System (Aggie DRIS)
- ▶ e-Saraban/e-Document Correspondence
- ▶ National Research Indexing Hub



Thailand National Single Window (TH-NSW)

TH-NSW involves 36 public authorities to collaborate under the signed Agreement in connecting their IT systems to enable e-document exchange online.

- ▶ Improvement of Cargo Clearance through TH-NSW
- ▶ Improvement of Trade Efficiency through TH-NSW

Thailand National Single Window (TH-NSW)

Improvement of Cargo Clearance through TH-NSW

Customs Clearance	Before 1998	1998-2007	2008-2011
Customs intervention	6-8 steps	2-4 steps	0 step (green line) 1 step (red line)
Document requirement	5 copies	1-3 copies	0 copy (green line) 1 copy (red line)
Intervention time	3-10 days	½ - 1 day	0 hour (green line) 0.5-1 hour (red line)
Turnaround time (per declaration)	3-10 days	10- 30 minutes	95% < 5 minutes

<http://www.unescap.org/tid/unnext/pub/brief8.pdf>

Thailand National Single Window (TH-NSW)

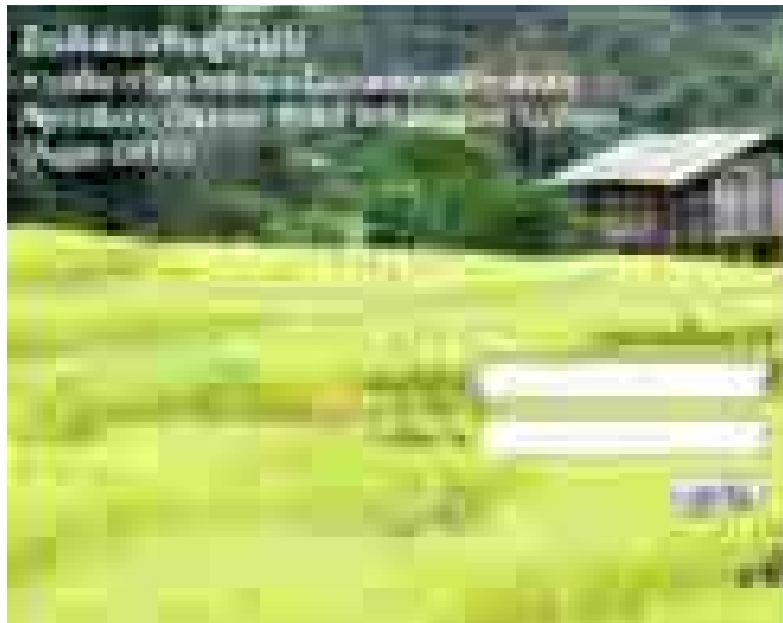
Improvement of Trade Efficiency through TH-NSW

Trading across border	2007	2008	2009	2010	2011
Export					
No. of Documents to Export (number)	9	7	4	4	4
Time to Export (days)	24	17	14	14	14
Cost to Export (US\$ per container)	848	615	625	625	625
Import					
No. of Documents to Import (number)	12	9	3	3	3
Time to Import (days)	22	14	13	13	13
Cost to Import (US\$ per container)	1042	786	795	795	795

<http://www.unescap.org/tid/unnext/pub/brief8.pdf>

Agriculture Disaster Relief Information System (Aggie DRIS)

Agriculture Disaster Relief Information System (Aggie DRIS) is the interoperability system collaboratively developed and implemented among 7 public agencies for handling timely assistance to be directly delivered to agricultures/farmers who suffer from natural disaster.



Agriculture Disaster Relief Information

System (Aggie DRIS)





Agriculture Disaster Relief Information System (Aggie DRIS)

The benefits of Aggie DRIS could be briefly described as follows:

- ▶ It helps suffering farmers to receive assistance more speedily and precisely.
- ▶ It enables, for the first time, the data interoperability of “Farmers Registers” of 3 government authorities, which are
 - Department of Agricultural Promotion (for agriculture farmers), Department of Livestock Development (for livestock farmers), and Department of Fisheries (for fishermen), and activates automated data interchange and data search.
- ▶ It provides real-time information and report of operations in both local level (individual farmer, villages, districts, provinces) and central/country level (ministry and prime minister’s war room/operation center).
- ▶ The system is further improved by adding geographical (map) data to illustrate clearly harvesting and farming areas and other related information useful for disaster management.

E-Saraban/e-Document

e-Saraban or e-Document is the government information and document exchange system that has been developed in response to the strategic agenda of smart government development and Thailand e-Government Interoperability Framework (TH e-GIF) for the benefits of time and cost reduction. At present, there are approximately 26 government agencies involved in e-Saraban system implementation.





E-Saraban/e-Document

Electronic Correspondence Management System (e-CMS) by EGA.



National Research Indexing Hub (NRDB)

- ▶ NRDB having been supported by National Research Council of Thailand. It is aimed to collect and classify all research work in Thailand for easy access and development of information system for public use.

- ▶ Presently, there are 50 databases from 37 agencies enabled for research data interoperability activated by using 65 standardized data sets.



National Research Indexing Hub (NRDB)

<http://www.vijai.net/search.jsp>.



Interoperability

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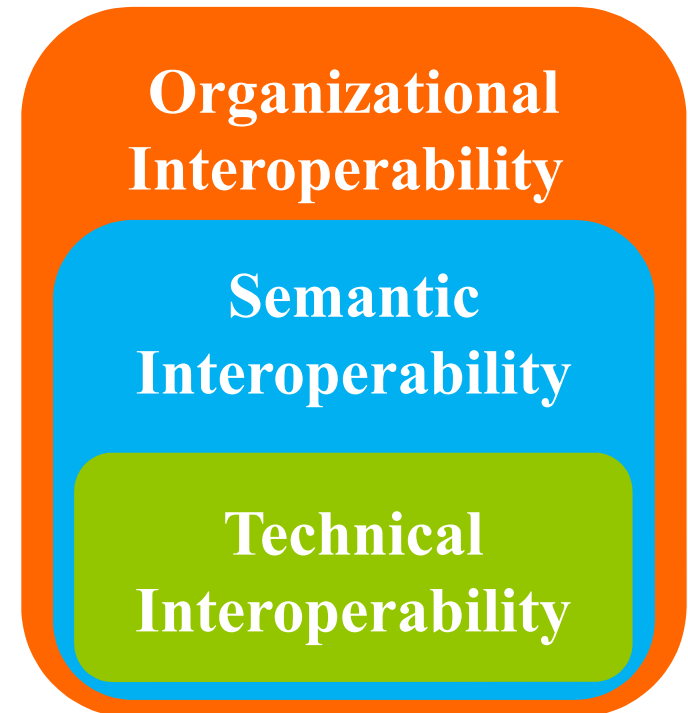
Studies of E-GIF and Models of Foreign Countries

- ▶ E-Government Interoperability Models
- ▶ Influencing Factors for E-Government Interoperability
- ▶ Problems and Obstacles to E-Government Interoperability Development
- ▶ Criteria for e-GIF Standard Selection

E-Government Interoperability Models

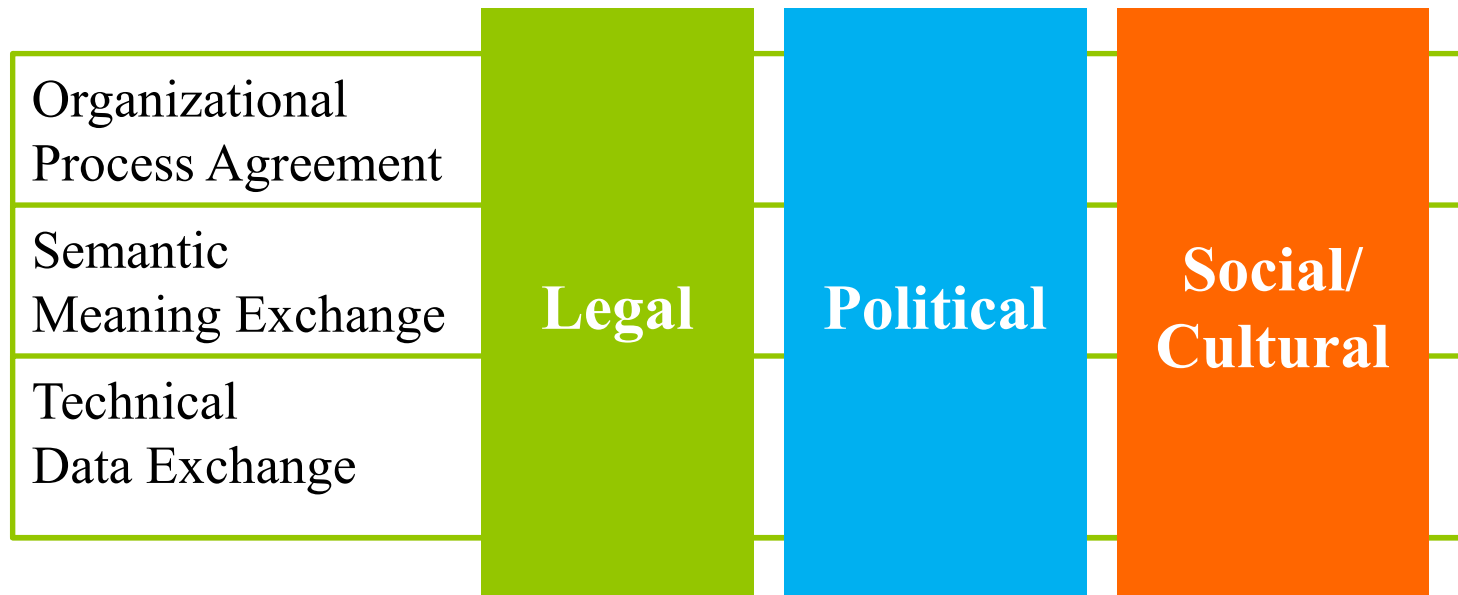
On the basis of those interoperability goals, the following interoperability levels are established:

- ▶ Organizational Interoperability
- ▶ Semantic Interoperability
- ▶ Technical Interoperability



Influencing Factors for e-Government Interoperability

These factors become additional critical dimensions of the interoperability problem and any e-government effort must address them.





Problems and Obstacles to e-Gov Interoperability Development

The three major obstacles that draw back e-gov interoperability development are as follows:

- ▶ Over-engineering
- ▶ Lack of focus on government-wide business transformation
- ▶ Inadequate implementation

Criteria for e-GIF Standard Selection

CS Transform on e-GIF recommends to specify the minimum technical standards. It is recommended to select standards which are:

- ▶ Open and developed through an open decision-making process
- ▶ Matured for some time, and those that are tried and tested
- ▶ Internationally accepted in nature and not for use in any specific country or region
- ▶ Easily deployable and openly published with no restrictions on reuse
- ▶ Well-supported and gain acceptance in the marketplace and broadly adopted by users

CS Transform is a specialist global consulting business, focused on delivering Citizen Service Transformation in the public sector, led by the senior management team from the UK Prime Minister's office that delivered the UK's e-Transformation strategy between 1999 and 2004. (source: <http://www.cstransform.com/>)

Interoperability

- ▶ Study of Existing E-Government Services and Infrastructure in Thailand
- ▶ Thailand's Business Case of Interoperability
- ▶ Studies of E-Government Interoperability Frameworks and Models of Foreign Countries
- ▶ Thailand e-Government Interoperability Framework
- ▶ Governance Model for Ensuring Interoperability and Data Sharing
- ▶ Channel Integration Framework

Thailand e-Government Interoperability Framework



▶ TH e-GIF was initiated in 2006 in response to the policy of MICT for promotion of automatic interoperability between different public agencies and to achieve the target of a one-stop service electronic business process between e-government information systems.

▶ It was firstly developed by the e-Government Promotion and Development Bureau of MICT as TH e-GIF version 1.0 and later improved in 2010 as TH e-GIF version 2.0 which is enforced until present.



TH e-GIF Goals

The main goals of TH e-GIF are as follows:

- 1) To support and encourage the development of citizen-centric e-government services.
- 2) To support and encourage the development of e-government interoperability systems to activate cross platforms interconnection for electronic document exchange.
- 3) To promote the use of open and international.
- 4) To define common data naming rules and national standardized data set.
- 5) To foster stakeholders collaboration in selecting and improving technical standards.
- 6) To appoint lead agencies for implementation and application of e-GIF at each level

Major Elements of TH e-GIF

The major elements of TH e-GIF are in alignment with those of other national e-GIF around the world, as earlier presented. The six elements of TH e-GIF are:

- ▶ Political Will
- ▶ Inter-Agency Collaboration and Social/Cultural Change
- ▶ Legal Power
- ▶ Process Agreement
- ▶ Meaning Exchange Agreement
- ▶ Technical Development



Interoperability

- ▶ Study of Existing E-Government Services and Infrastructure in Thailand
- ▶ Thailand's Business Case of Interoperability
- ▶ Studies of E-Government Interoperability Frameworks and Models of Foreign Countries
- ▶ Thailand e-Government Interoperability Framework
- ▶ Governance Model for Ensuring Interoperability and Data Sharing
- ▶ Channel Integration Framework

Governance Model for Ensuring Interoperability and Data Sharing

▶ Regulatory agencies

- e-Government Promotion and Development Bureau

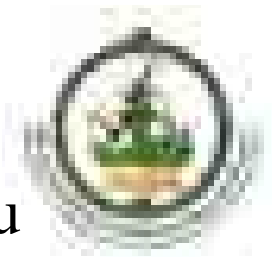
Ministry of Information and Communication Technology

▶ Framework : TH e-GIF



▶ Management tools

- National Registry and Repository System (**NRR**)
(Collection of Announcement and Downloadable Standardized Data Sets)



National Registry and Repository System (NRR)



Interoperability

- ▶ Study of Existing E-Government Services and Infrastructure in Thailand
- ▶ Thailand's Business Case of Interoperability
- ▶ Studies of E-Government Interoperability Frameworks and Models of Foreign Countries
- ▶ Thailand e-Government Interoperability Framework
- ▶ Governance Model for Ensuring Interoperability and Data Sharing
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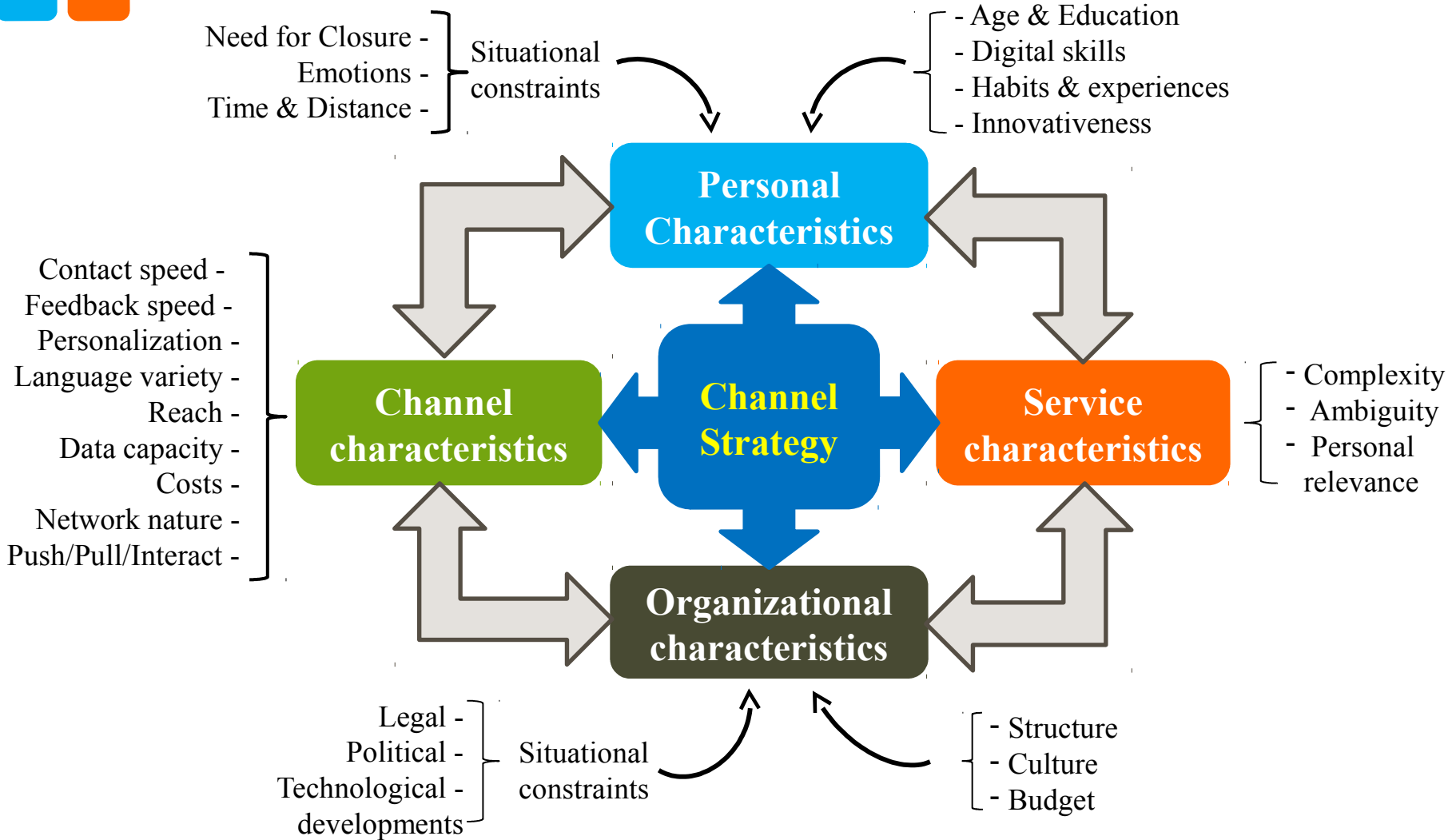
Channel Integration Framework

Channel integration refers to **strategies** aimed at consolidating either physically or logically customer information and its use to provide an all-encompassing view of the customer. (*Gartner*)

*Citizen is customer
of government*

<http://www.gartner.com/it-glossary/channel-integration/>

Channel Integration Framework



MULTI-CHANNEL MANAGEMENT:
RECENT DEVELOPMENTS IN PES AND E-GOVERNMENT



Channel Strategy

- ▶ Four key steps that need to be undertaken in designing and implementing an Channel Strategy:
 - Identify personal need
 - Shape organizations and policies
 - Deliver services effectively
 - Assess and Measure outcomes

Ecotec Research Limited, 2009



Channels

- ▶ Thailand Government Hot line (1111)
- ▶ Survey on Household with ICT in Thailand
- ▶ Thailand's Government Projects on Public Internet Access
 - Community ICT Centers
 - SchoolNet
 - Government Kiosks?
 - Government Service Centers?
 - Mobile Government App?
 - etc.

Thailand Government Hot line (www.111go.th)



Survey on Household with ICT in Thailand

The National Statistical Office, as a central office responsible for both economic and social data collection of the country, has been regularly conducting the survey on household with ICT. The survey has been made in 83,880 households for their use and having ICT in 2012 to interview family leaders and family members aged 6 year old up.

- ▶ Households with ICT
- ▶ Use of Computers, Internet, and Mobile Phones



Households with ICT

Year	Total number of households (in Thousands)	Percentage of households with ICT			
		Fixed Line	Fax	Computer ¹	Internet
2008	18,279.8	22.6	1.8	19.6	8.6
2009	19,060.2	21.4	1.5	20.3	9.5
2010	19,644.9	20.9	1.7	22.8	11.4
2011	19,786.4	18.6	1.6	24.7	13.4
2012	20,025.4	15.6	1.7	26.9	18.4

Percentage of Households with ICT in Thailand during 2008-2012.

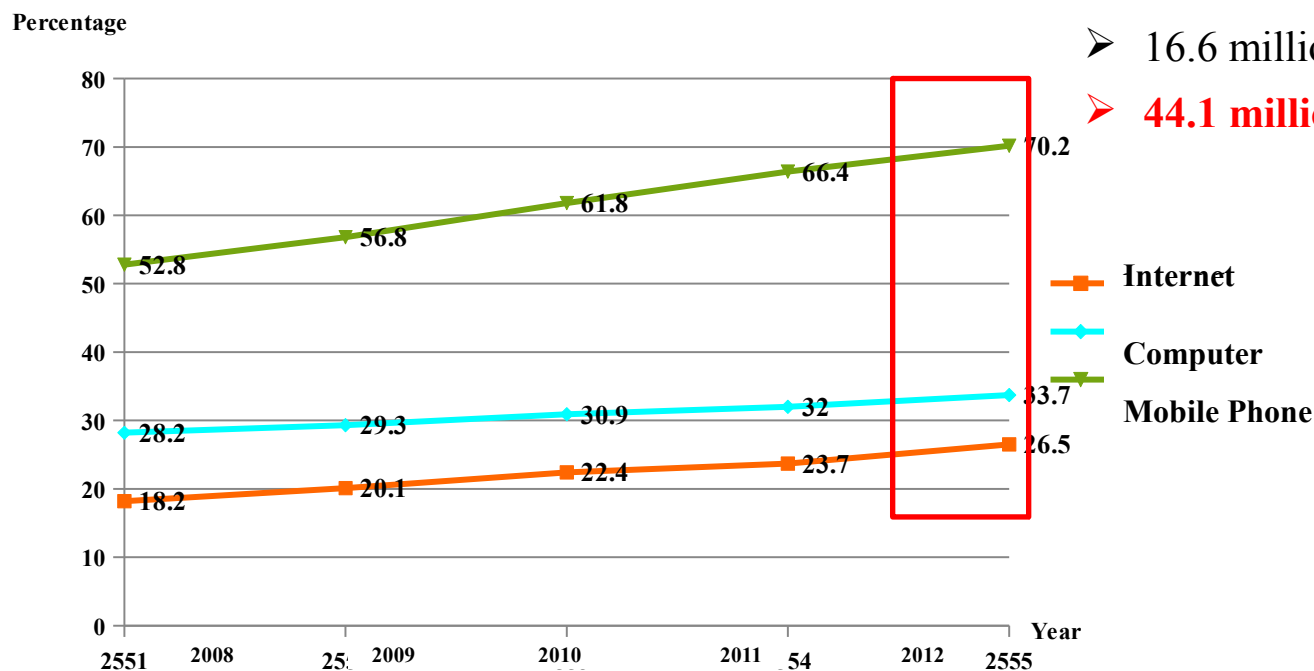
1 Computer is PC, Notebook, PDA and Smart phone

http://service.nso.go.th/nso/nsopublish/themes/theme_5-1-3.html

Use of Computers, Internet, and Mobile Phones

The survey in 2012 reported that among the total 62.9 million population aged from 6 years up

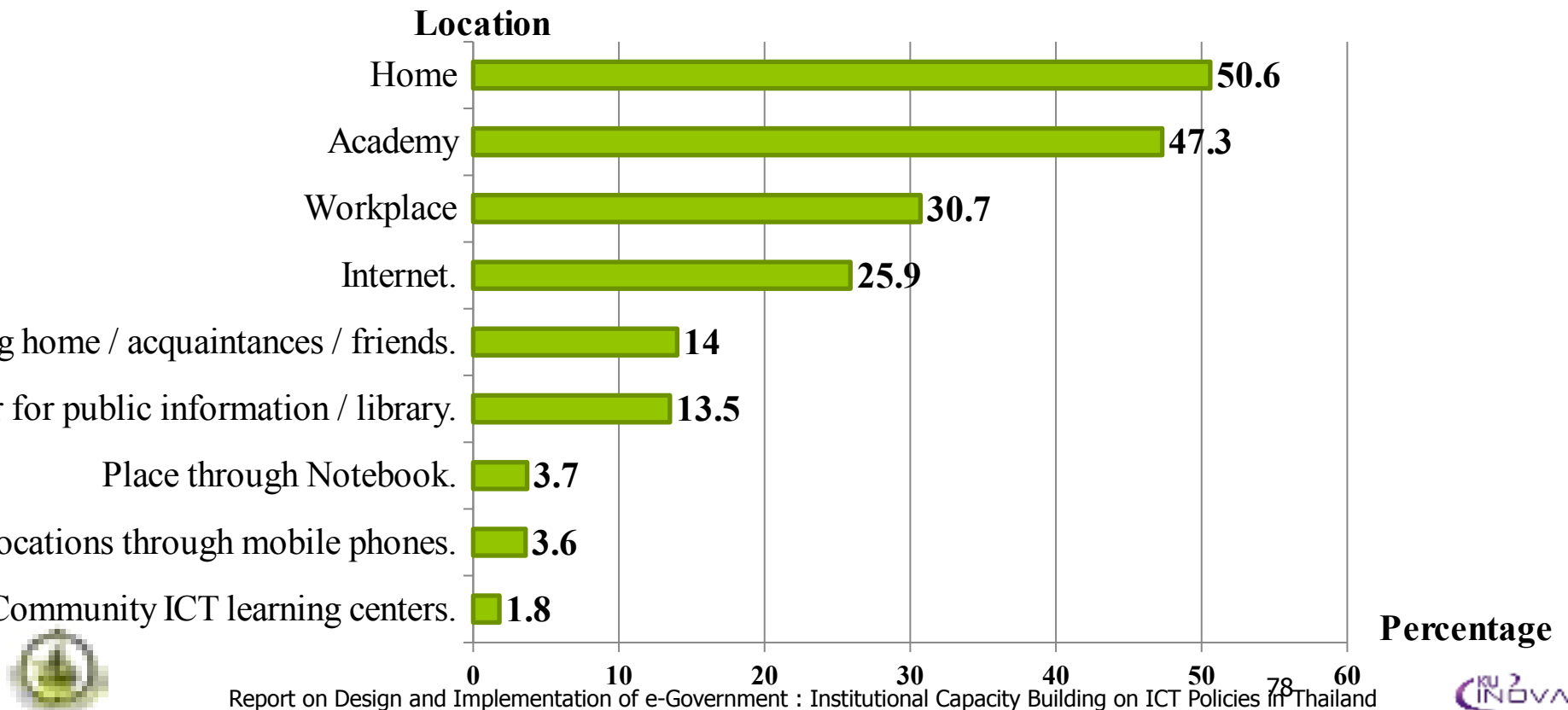
- 21.2 million computer users (33.7%)
- 16.6 million internet users (26.5%)
- **44.1 million mobile phone users (70.2%)**



The Use of Computers, Internet and Mobile Phones in Thailand during 2008-2012

Use of Computers, Internet, and Mobile Phones

The survey on places for internet use in 2012 showed that most population use internet. Percentage of Internet Usage in Thailand Classified by Locations



Use of Computers, Internet, and Mobile Phones

Most Internet connection in 2012 is made with fixed broadband, counted for 55.7%, 2G mobile wireless broadband for 14.7%, and 3G for 9.7%

		Type of Internet.					
		Narrowband		Broadband			
All over Thailand.	Number of households with Internet use. (Thousands)	Analogue modem, ISDN	2G Mobile Phone	Fixed broadband	3G Mobile Phone	N/A	
		3,686.7	15.3	14.7	55.7	9.7	4.6

Mobile phone services will be launched in Thailand in April 2013

Thailand's Government Projects on Public Internet Access



ICT Community Learning Center



Universal Service Obligation (USO)



SchoolNet Thailand



University Network (UniNet)

ICT Community Learning Center

Ministry of Information and Communication Technology has established a policy to spread knowledge and information and communication technology to communities around the country to help bridge the digital gap between urban and rural communities and encourage community members.

There are currently 1,887 ICT Community Learning Centers established all over the country, accounted for 23.59% (information as of 12 February 2013) of the total target of 8,000 centers nationwide.



<http://thaitelecentre.com/>

Universal Service Obligation (USO)

USO was established to reduce the disparity in access to telecommunications services in urban and rural communities and allows people to equally access public information and services. It is enforced under the notifications of National Broadcasting and Telecommunication Commission (NBTC) (year 2005 and 2009)

There are now 419 USO NET centers (form 500 areas) established and officially announced for operation by NBTC.



SchoolNet Thailand

SchoolNet Thailand, a computer network for Thai schools, SchoolNet is the studentcentric educational network that provides equal opportunities for students to get access to the Internet, and the contents and delivery of educational services.

SchoolNet has more than 5,000 schools as members. Since then, SchoolNet has become a part of EdNet, the national education network that aims to provide Internet connections to schools all over the kingdom, which is about 38,000 schools



University Network (UniNet)

The national inter-university network (UniNet), established in 1996, is a government project aiming to establish a high-speed network between major universities and academic institutes in Thailand in order to distribute knowledge more efficiently across universities.

UniNet has already covered 3,097 higher educational institutions across the country and enhances its internet services with the Internet infrastructure upgrade from 25 Gbps to 30 Gbps.



<http://www.uni.net.th/UniNet/index.php>

Examples of e-Government Services via mobile phones

Lessons learn, development & usage assessment of these mobile app will be further conducted.

Government Agency	Service
The Revenue Department of Thailand	RD Smart Tax
National Electronics and Computer Technology Center (NECTEC)	Traffic Voice Information Service (TVIS)
Metropolitan Waterworks Authority	Water bill payments via the Internet (Internet Banking)
Metropolitan Electricity Authority	Electricity bill payments via Internet (Internet Banking)
Office of the Permanent Secretary for Agricultural and Cooperatives	Fonluang Report (for Royal Rain Catalysis)
Office of The National Water And Flood Management Policy	Water Report

Examples of e-government services via mobile phones



E-FILING

The Revenue Department of Thailand



<https://itunes.apple.com/th/app/rd-smart-tax/id616843710?mt=8>

Examples of e-government services via mobile phones



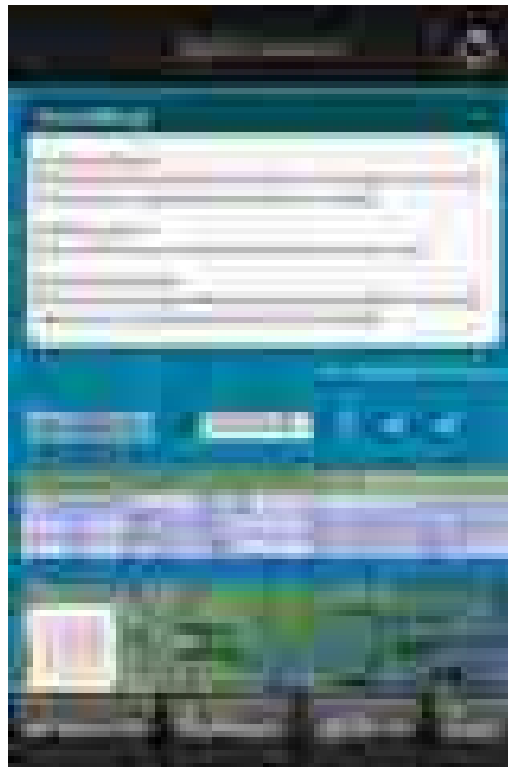
<http://www.tvis.in.th/home/mobileapp.php>

Examples of e-government services via mobile phones



Fonluang

Office of the Permanent Secretary for Agricultural and Cooperatives



<https://play.google.com/store/apps/details?id=com.aromdee.Fonluang&hl=en>

Examples of e-government services via mobile phones



Water4Thai

Office of The National Water And Flood Management Policy
(ONWF)



<https://itunes.apple.com/th/app/water4thai/id548984244?mt=8>



Conclusion

Existing E-Government

- ▶ Government Agency connected covering country with GIN (reliability, service and security)
- ▶ Thailand's Government Projects on Public Internet Access (reduction of digital divide)
- ▶ TH e-Government Interoperability Framework
- ▶ National Registry and Repository
- ▶ Most of the population possess mobile phones, computer and Internet (an increasing trend).
- ▶ e-Government services (transaction & interconnection levels) are still minimal, especially the services available via mobile phones.



Task Cluster 2: Institutional Structures and Governance

Institutional Structures and Governance

- ▶ Studies on e-Government Institutional Structures and Governance in Selected Countries
 - ✓ World Bank
 - ✓ U.S.A.
 - ✓ Republic of Korea
 - ✓ Vietnam
 - ✓ Switzerland
- ▶ Thailand's E-Government Institutional Structures and Governance
- ▶ Conclusion



The World Bank Study on Models and Functions of National E-Government Institutions

Four basic models - studied from 30 countries by World Bank (2009)

1. ***Policy and Investment Coordination*** led by the ministry of finance/treasury/economy/budget/planning -- enforcing policies and priorities through budget processes, yet allowing effective decentralization of implementation
2. ***Administrative Coordination*** led by the ministry of public administration/services/affairs/interior/state -- encouraging broad participation across agencies, outcome-oriented model
3. ***Technical Coordination*** -- coordinating activities under the ministry of ICT to address ICT issues
4. ***Shared or No Coordination*** -- each ministry is responsible for the part of the e-government strategy within its field of expertise



The World Bank Study on Models and Functions of National E-Government Institutions

Alternative Models -- to overcome sectoral silos and civil service constraints

- ▶ *Establishing ICT agency* -- to coordinate and monitor implementation of e-government under supervision of an inter-ministerial committee that sets policies and strategies
- ▶ *Establishing Council of Chief Information Officers* -- to play a role in consensus building, vertical and horizontal communication, team-based problem solving, knowledge sharing

Summary of Models for National E-Government Institutions

Model	Countries	Benefits	Drawbacks
<i>Policy & investment coordination</i> (cross-cutting ministry such as finance, treasury, economy, budget, or planning)	Australia, Brazil, Canada, Chile, China, Finland, France, Ireland, Israel, Japan, Rwanda, Sri Lanka, United Kingdom, United States	Has direct control over funds required by other ministries to implement e-government. Helps integrate e-government with overall economic management.	May lack the focus and technical expertise needed to coordinate e-government and facilitate implementation.
<i>Administrative coordination</i> (ministry of public administration, services, affairs, interior, state, or administrative reform)	Bulgaria, Arab Republic of Egypt, Germany, Republic of Korea, Mexico, Slovenia, South Africa	Facilitates integration of administrative simplification and reforms into e-government	May lack the technical expertise required to coordinate e-government or the financial and economic knowledge to set priorities.

Summary of Models for National E-Government Institutions (con't)

Model	Countries	Benefits	Drawbacks
<p><i>Technical coordination</i> (ministry of ICT, science and technology, or industry)</p>	<p>Ghana, India, Jordan, Kenya, Pakistan, Romania, Singapore, Thailand, Vietnam</p>	<p>Ensures that technical staffs are available; eases access to non-governmental stakeholders (firms, NGOs, and academia).</p>	<p>May focus too much on technology or industry and disconnected from administrative reform.</p>
<p><i>Shared or no coordination</i></p>	<p>Russian Federation, Sweden, Tunisia</p>	<p>Least demanding and with little political sensitivity (does not challenge the existing institutional framework and responsibilities of ministries).</p>	<p>May lead to rivalries among ministries. No cross-cutting perspective. Fails to exploit shared services and infrastructure and economies of scale.</p>

Summary of Models for National E-Government Institutions (con't)

Model	Countries	Benefits	Drawbacks
<i>Alternative Models</i>			
➤ <i>ICT agency</i>	Bulgaria, Ireland, Republic of Korea, Singapore, Sri Lanka -- having adopted variations of central ICT agencies	Free from government bureaucratic requirements and flexible to react swiftly to changing demands.	May not receive political and financial support if not directly linked to a powerful ministry or prime minister's office. The public sector bureaucracy may reassert control over the agency. Political interference may reduce effectiveness of agency staff and undermine its businesslike culture.
➤ <i>Council of Chief Information Officers</i>	Australia, Canada, Singapore, South Africa, United Kingdom, U.S.A.	n/a	n/a



The World Bank Study on Models and Functions of National E-Government Institutions

Functions of E-Government Institutions

- *Strategy and policy making*
- *Governance and coordination*
 - Develop **government-wide information infrastructure**, shared networks, data centers, business processes, and one-stop service delivery centers
 - Formulate **e-laws and frameworks for IT governance**
 - Mobilize, prioritize, and **allocate resources** for e-government infrastructure and services
 - **Monitor, evaluate, and communicate lessons of experience**, provide feedback, and **ensure accountability**
- *Facilitation of e-government implementation*



The World Bank Study on Models and Functions of National E-Government Institutions

Characteristics of e-Government Institutions

➤ *Strategy formulation*

- No steering committee or by **steering/inter-ministerial committee**

➤ *E-government program coordination*

- Policy and investment coordination / Administrative coordination / Technical coordination

➤ *Choices of Facilitators for implementation*

- No facilitator / by MICT / by ICT agency under other ministries / by CIO council / by public-private partnership

Characteristics of Thailand's e-Government Institution

No.	Name of the Institution	Policy and Strategy					Implementation			
		Policy	Strategy	Investment	Coordination	Technical	Facilitation	Monitoring and Evaluation	Reporting	
1	Ministry of Finance	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
2	Ministry of ICT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
3	Ministry of Digital Policy and Planning	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
4	Ministry of Education, Youth and Sports	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
5	Ministry of Health	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
6	Ministry of Labour	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
7	Ministry of Agriculture and Rural Development	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
8	Ministry of Natural Resources and Environmental Conservation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
9	Ministry of Tourism and Sports	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
10	Ministry of Transport	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
11	Ministry of Industry and Commerce	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
12	Ministry of Energy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
13	Ministry of Royal Palace	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
14	Ministry of Royal Administration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
15	Ministry of Provincial Administration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
16	Ministry of Local Government Administration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
17	Ministry of Regional Development	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
18	Ministry of Provincial and Local Government Administration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
19	Ministry of Provincial and Local Government Administration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
20	Ministry of Provincial and Local Government Administration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

- Strategy formulation through **Steering/Inter-Ministerial Committee**
- **Policy and investment coordination** led by the Ministry of Finance and also the **technical coordination** led by the Ministry of ICT



E-Government Policy Structure and Governance Mechanisms in the U.S.

Organizational Arrangements

- ***Office of E-Government*** – leading the e-government building
- ***President's Management Council (PMC)*** – as “Managing Partners”
for each e-government initiatives to ensure their implementation
- ***Office of Management & Budget (OMB)*** – overseeing the progress & working on adequate funding for the initiatives
- ***CIO Council & other federal management councils*** – forming portfolio steering groups to focus on e-government in four citizen segments: G2C, G2B, G2G, and Internal Efficiency and Effectiveness
- ***Portfolio Steering Committees*** –coordinating & advising agency program managers about their initiatives & supporting their corresponding portfolio manager & daily interacting w/ the managing partners
- ***Four Portfolio Managers*** -- hired by OMB to lead Integrated Project Teams in four citizen segments

E-Governance Structure for E-Government in U.S..A.

Click icon to add picture



Note: CIO- Chief Information Officer, HR- Human Resources; IPT -Integrated Project Team



E-Government Policy Structure and Governance Mechanisms in the U.S.

Managerial Tools for Control and Coordination

a) Tools based on authority

- OMB developed **evaluation frameworks** for control and coordination in e-government initiatives

b) Tools based on budget

- Office of e-Government...
 - utilized the e-Government Fund of the fiscal years under the E-Government Act of 2002.
 - strengthened its collaboration with the budget office of the OMB.
 - **linked the evaluation frameworks of the e-government initiatives to budget allocations.**

c) Tools based on persuasion

- Office of E-government joined established committees and made new forums for **enhancing the degree of collaboration and sharing** of experiences and information among federal agencies.



E-Government Policy Structure and Governance Mechanisms in the Republic of Korea

Organizational Arrangements

- Major actors:
 - The Special Committee for E-Government (under the Committee for Governmental Innovation, led by the President) – *set up roadmap, review implementation, coordinate among ministries*
 - Ministry of Government Administration and Home Affairs (MOGAHA) -- *planning*
 - Ministry of Information and Communication (MIC)--*technology*
 - Ministry of Planning and Budget --*budget*
- Other Government Agencies – following the guidance & technological advice of the major actors to implement e-government initiatives

Managerial Tools for Control and Coordination

- Tool based on persuasion -- The Special Committee to enhance communication/coordination/collaboration among government agencies

Organizational Structure for e-Government in Korea





Institutional Structure for E-Government of Vietnam

In strengthening the organization, management and supervision, the Government of Vietnam had encouraged and promoted the following activities:

- Consolidating ICT application programs in government offices for the development of e-government in Vietnam to facilitate the management and supervision.
- Having the projects owned by ministries and localities working under the supervision and management of such ministries and localities.
- Strengthening the ICT National Steering Committee
- Having the Ministry of Information and Communications be the standing office.



Institutional Structure for E-Government of Vietnam

- **Ministry of Information and Communications (MIC)** – *formulating a standard design for national information systems*
- **Ministry of Home Affairs (MOHA)** – *coordinate with MIC in guiding the functions in state agencies*
- **Government Office** – *providing e-forms for transaction among ministries*
- **Government Cipher Committee** – *working on standards & technical regulations on coding in information safety & confidentiality*
- **Ministry of Public Security (MPS)** – *ensuring security in IT application*
- **Coordination among state agencies aimed at:**
 - ***Enhancing compatibility*** between information infrastructures of state agencies
 - ***Facilitating e-transactions*** among state agencies and between state agencies and individuals



E-Government Governance in Singapore

- ▶ **Ministry of Finance (MOF)** -- *setting policy direction, provide funding, champion the initiatives*
- ▶ **Infocomm Development Authority of Singapore (IDA)**
– as the Government CIO
 - *defining ICT policies standards, procedures , conceptualizing & managing whole-of-government projects*
 - *driving the e-government implementation & provide technical expertise under the oversight of the inter-ministerial E-Government Policy Committee & MOF*



E-Government Governance in Singapore

- ▶ Each government agency appoints the **agency CIOs** to assist Permanent Secretaries of Ministries, Heads of Organs of State and Chief Executive Officers of Statutory Boards to:
 - articulate the organization's vision in ICT exploitation
 - align ICT policies, standards, projects, systems and infrastructure with those of the central authority, to meet business needs and priorities;
 - provide leadership in the planning and prioritization of IT initiatives, in alignment with the eGov2015 master plan
 - ensure appropriate management attention, manpower and monetary resources are given to implement infocomm technology initiatives.

Institutional Structure for e-Government Implementation in Switzerland

Organizational Structure for Implementation of e-Government Strategy





Institutional Structure for e-Government Implementation in Switzerland

- ▶ ***Steering Committee*** -- steering & monitoring implementation of the e-Government Strategy
- ▶ ***Advisory Board*** -- advising the Steering Committee, the Programme Office, and the organizations in charge of project implementation
- ▶ ***Program Office*** -- coordinating implementation of the strategy.
- ▶ ***Project Leader Organizations*** – responsible for each priority project



Institutional Structure for e-Government Implementation in Switzerland

Controlling Process

▶ Four dimensional control of management:

- Implementing priority projects
- Implementing the Framework Convention in the cantons and municipalities
- Positioning the e-Government Switzerland in international comparison
- Evaluating e-government from the perspectives of target groups/end users

Thailand's E-Government Institutional Structures and Governance





Thailand's E-Government Institutional Structures and Governance

Recommendations for further strengthening Governance Mechanisms in Thailand

- ▶ Two options of managerial schemes for control and coordination of e-government implementation, depending upon the timeframe of bureaucratic process required for official approval.
 - a) *Committee for e-Government Integration and Development (Chaired by Minister of MICT)*
 - b) *Committee for Standardization of Interchanged Government Information (Chaired by Permanent Secretary of MICT)*



Conclusion

- ▶ The institutionalized structures to lead and manage e-government programs requires:
 - **engagement of top political leadership**
 - **strong coordination of activities among various government agencies**
 - **partnerships among government, the private sector, and civil society**
 - **Top-down leadership and institutional coordination to be complemented by bottom-up collaboration and local initiative**
 - **significant adaptation to support the demands of citizens and key stakeholders for connected and real-time services delivered in a transparent manner.**



The World Bank Study on Models and Functions of National E-Government Institutions

Observations and suggestions for further development of e-government institutional and governance mechanisms:

- **Identifying appropriate institutional functions and capabilities**
- **The appropriate level of centralization and decentralization**
- Another key institutional design issue is the **balance between technological leadership and business, and institutional leadership**
- The importance of **cross-sector partnerships**.
- **Top-down leadership and institutional coordination** must be **complemented by bottom-up collaboration and local initiative**.
- **Further research** is urgently **needed** to understand the governance and institutional mechanisms needed to guide e-government.



Task Cluster 3: **Innovation in Public Services**

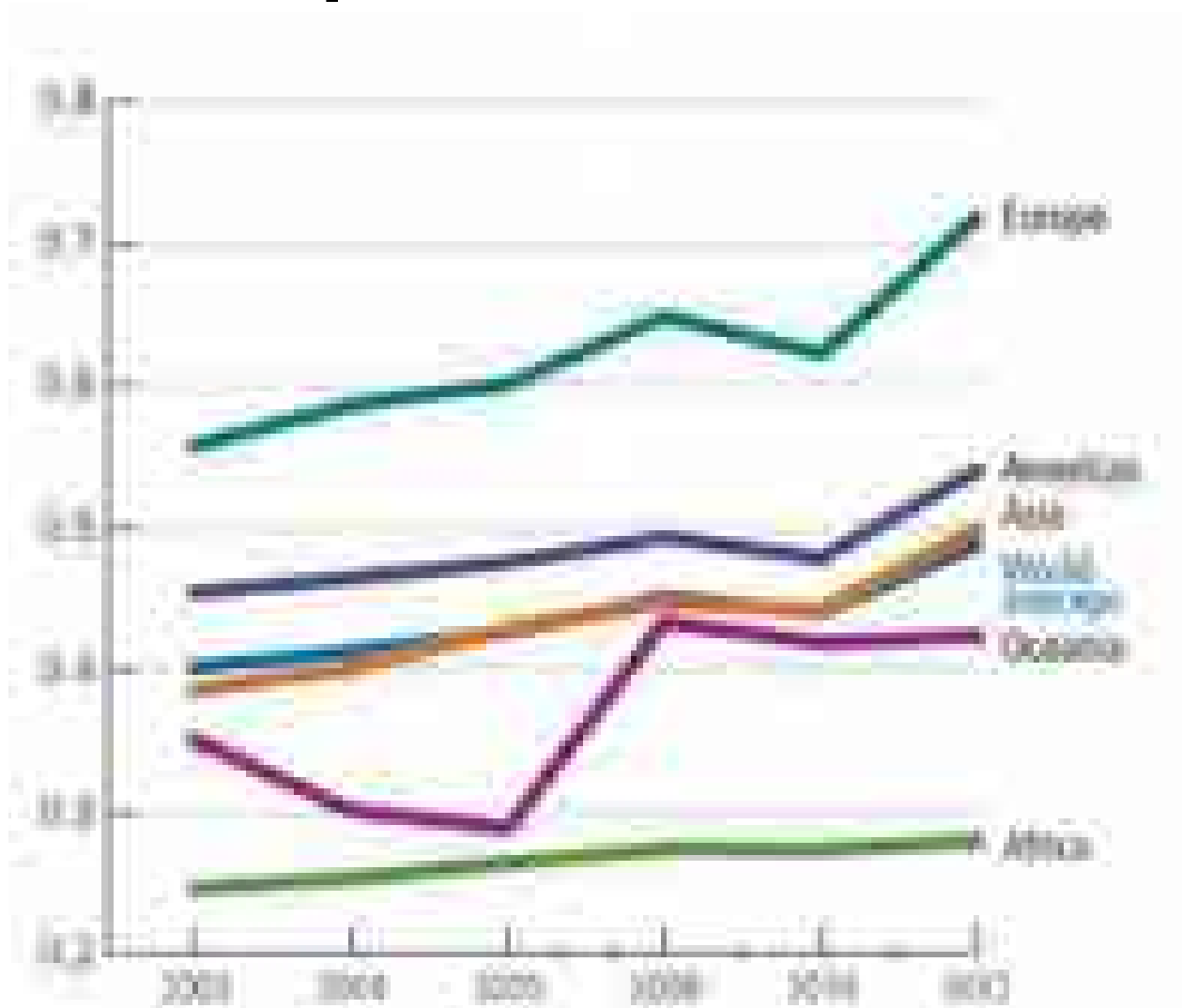




Innovation in Public Services

- ▶ International E-Government Initiatives and the Advancement
- ▶ Selected Case Studies of IT enabled Innovations in Public Services
- ▶ Current Innovation Programs for Online Public Services in Thailand

Advances in regional e-government development in the last decade



Source: United Nations E-Government Survey 2012



International E-Government Initiatives and the Advancement

E-Government in Africa

- The development of e-government in Africa slightly delayed and remains the widespread lack of infrastructure and functional literacy. The development of e-government in Africa such as
 - **Seychelles:** E-services are available through the government e-Services Gateway that provides a **secure single point of entry** for all online government services.

E-Government in the United States of America

- Attention to concepts of **an integrated government portal**, **re-engineering** of back-office processes and towards **user centric solutions**, which serve to synergize **governance processes and systems across multiple public administration domains**.



International E-Government Initiatives and the Advancement

E-Government in Asia

- Continues to expand e-government services further. Expanding infrastructure broadband and mobile access for public services. The development of e-government in Asia like
 - Republic of Korea develops and provides mobile applications for Government services,

E-Government in Europe

- European region has the highest level of e-government development, and now looking to adapt innovative technologies to human development and economic sustainability in the future like.
 - **Regelhulp – Simplifying Online Applications for Social Services:** is a digital guide government of Netherland for anyone who is looking for care or support.
 - **Zanzibar-** is a web-based purchase-to-pay (P2P) and electronic market place solution, developed by UK Government Organizations and Office of Government Commerce (OGC), providing a common hosted platform for **e-Purchasing and e-Invoicing.**



International E-Government Initiatives and the Advancement

E-Government in Oceania

➤ **Australia** continues to be the leader in the Oceania region. The national portal (<http://australia.gov.au>) acts as a one-stop-shop that connects citizens to the information and services like

- **VANguard – Government Authentication Services** Securing online transactions for business and government
- **Human Service** - The site is a convenient, **single entry point for health, social and welfare payments and services** through the **Medicare program**



Selected Case Studied of IT enabled Innovations in Public Services

- ▶ To highlight and discuss case studies of IT-enabled innovations in public services
- ▶ Driven open source and shared services for establishing/developing in public services



Selected Case Studied of IT enabled Innovations in Public Services

- ▶ Singapore Government
- ▶ E-Services in Korea
- ▶ Australia Government
- ▶ Innovative E-Government in the United Kingdom
- ▶ Innovation in E-Government Services in the United States of America
- ▶ Innovation in E- Government Services in Austria
- ▶ Open Source Strategy in Spain
- ▶ Open Source Initiatives of European Commission



Types of Innovation in Public Services

- ▶ Cloud-based government services/G-Cloud
- ▶ M-Government services
- ▶ National web portal (one-stop-service)
- ▶ Open government platform
- ▶ Open source strategy
- ▶ Crowdsourcing



Singapore Government

The Singapore government's innovations are divided into 4 main targets:

- 1. Information services of government:** serves as a convenient gateway for anyone to locate information about the Singapore Government
- 2. Citizens or Residents:** guides and helps citizens to find more details and interested services and provide the key information for the citizens' need
- 3. Businesses:** serving Singapore's business community to help and answer questions how to start, grow and sustain their business
- 4. Non Residents:** is a one-stop portal to help anyone who wants to settle down in Singapore.

Singapore Government's Portal Web

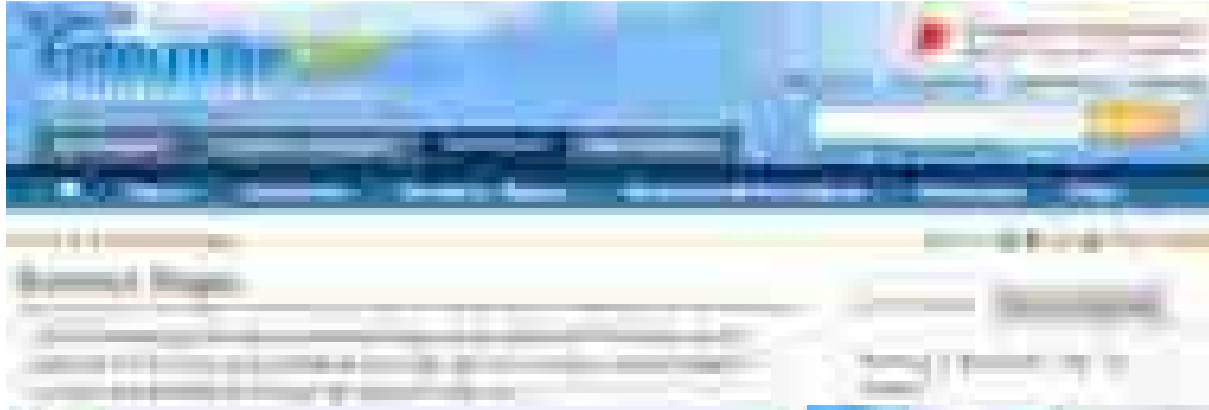


Information services of government

Citizens/
Residents



Singapore Government's Portal Web



◀ Singapore's Business Community



Non-Residents ▶





E-Services in Korea

Republic of Korea is one of the leading countries in Asia and the Pacific that has deployed several successful innovative public services such as:

- **National Tax Service (NTS):** provides several major IT services for Taxpayers
- **M-Government:** adoption of mobile technologies to support and enhance government performance and foster a more connected society

Examples of Korea's **Mobile Applications**





Australia Government

There are a number of **blogs on innovation and related topic** though not necessarily with a public sector focus which may assist in understanding innovation issues more broadly.-

- ▶ **AGIMO** (Australian Government Information Management Office) the blog of the Australian Government Information Management Office
- ▶ **eGov.Au** a blog on e-Government and Gov 2.0 thoughts and speculations from Australian citizen's perspective
- ▶ **Innovation Leadership Network blog:** a blog on innovation written by two academics on many issues of managing innovation

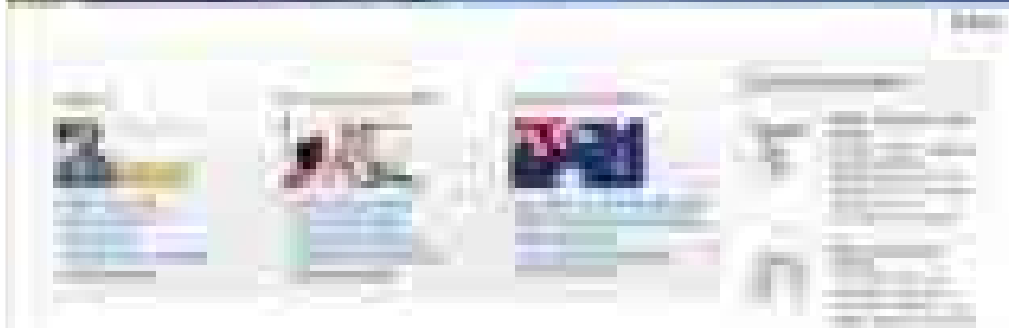
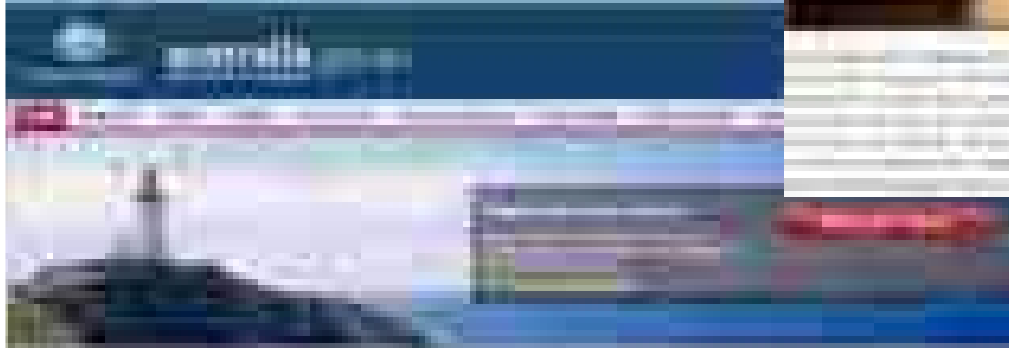


Australia Government

- ▶ **Public Sector Innovation blog** news and information from the Innovation Capability Team
- ▶ **Public Services Lab blog and Policy Innovation blog** for Science, Technology and the Arts (NESTA) on innovation in services and policy.
- ▶ **Apps Services** serve applications to access to Australian Government resources from the palm of the user's hand by mobile phones.

National web portal

**The Australian Government
Information Management Office** ▶



◀ **Gateway to Information & Services**

Innovation Blog – Crowdsourcing

Explore ideas and opinions.





Innovative E-Government in UK

The Technology Strategy Board is the UK's innovation agency. Its goal is *to accelerate economic growth* by stimulating and supporting business-led innovation. The Technology Strategy Board devised innovation platforms such as:

- **Assisted Living Innovation Platform (ALIP)** is promoting independent living and improved quality of life
- **Sustainable Agriculture and Food Innovation Platform** aims for development of new technologies that will increase food productivity, while decreasing the environmental impact of the food and farming industries.

G-Cloud is the Government Cloud provides a secure and resilient shared environment through which public sector bodies can resource ICT services at greater speed and lower cost.

Innovative E-Government in UK

National Web Portal ▶



◀ **Open Innovation Portal
(Crowdsourcing)**

Innovative E-Government in UK

▶ G-Cloud Services





Innovation in E-Government Services in U.S.A.

The website **USA.gov** collects and consolidates all information and services for citizens in one place, including agency services at the state and local level, which vastly increases the effectiveness of user search and uptake.

- **healthfinder.gov** is a government web site collecting information and tools to help the individual citizens stay healthy.
- **Election Assistance Commission (EAC)** is committed to openness and transparency by using the OpenEAC portal (eac.gov/open) to give the public an opportunity to provide input on the Open Government Plan and efforts to promote transparency, public participation and collaboration.

U.S.A. Government's Services

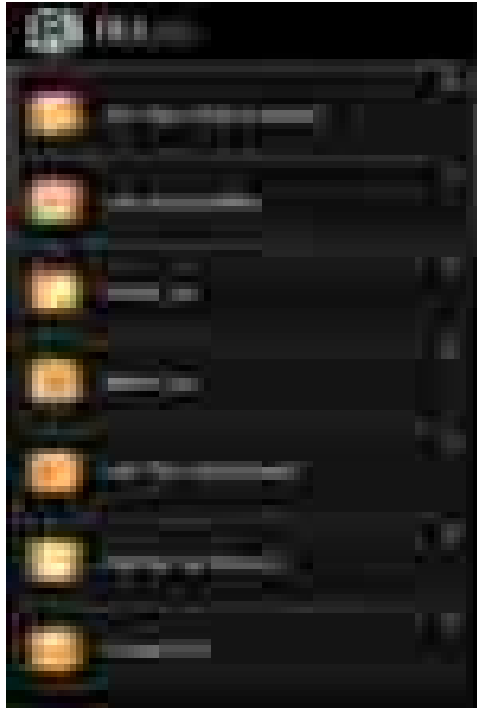


◀ E-Government Portal

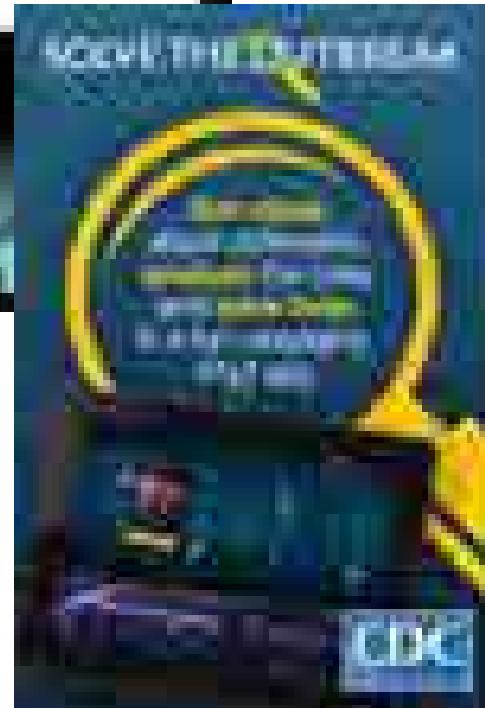
open election assistance
commission portal
(Crowdsourcing) ▶



Example of U.S.A's **Mobile Application**



◀ **Internal Revenue Service (IRS)**
Check your tax refund status,
sign up for tips and much more.



Solve the Outbreak ▶
Centers for Disease Control and Prevention (CDC) The app where you get to be the disease detective.

Innovation in E-Government Services in U.S.A.

The Open Government Platform (OGPL) is based on an open source that Data.Gov partners with the Government of India National Informatics Centre.



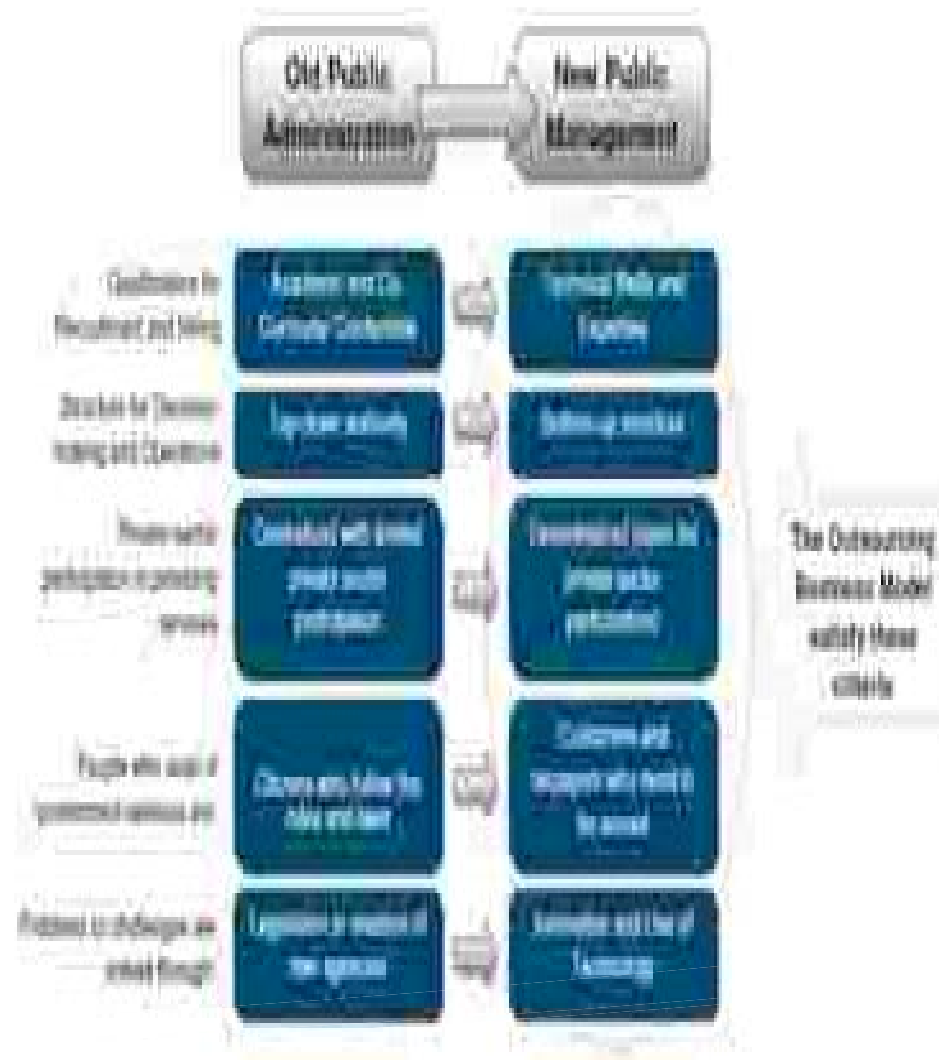
Source: <http://www.opengovplatform.org/>

Innovation in E-Government Services in U.S.A.

Government Sector Outsourcing

is an innovative Public Management idea emphasizing and prioritizing on efficiency and cost effectiveness in spending taxpayer money for public service improvement. This business model combines the use of technology with technical expertise.

Source: www.Tholons.com





Innovation in E-Government Services in Austria

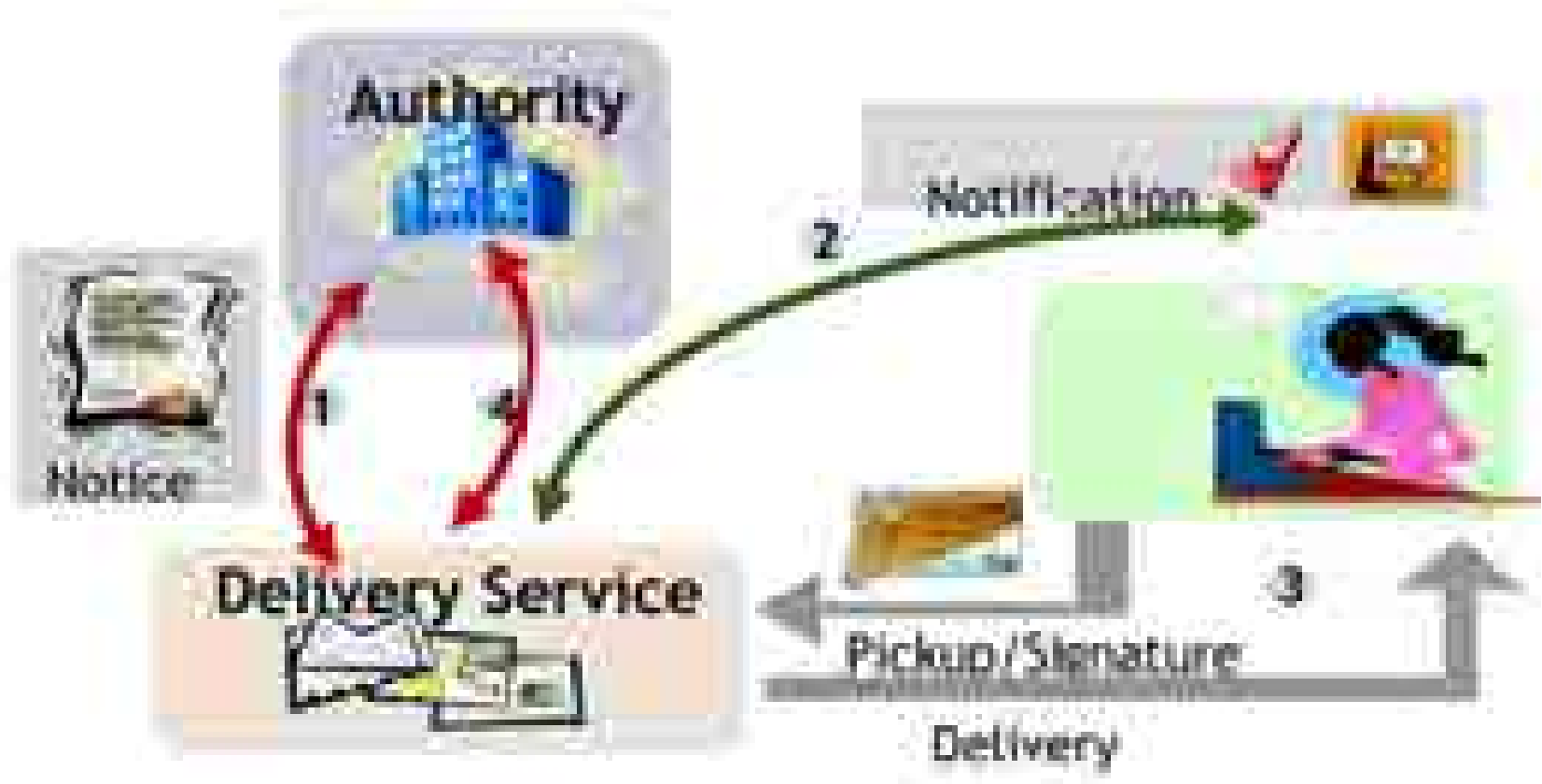
Austria Government has developed the web site “**HELP.gv.at**” as a "one-stop shopping" portal and the application of the citizen card as a uniform system of electronic identification in Austria contributed significantly to its success.

Electronic identification is recognized through the "**citizen card**" that can also be **used to sign documents securely and electronically**.

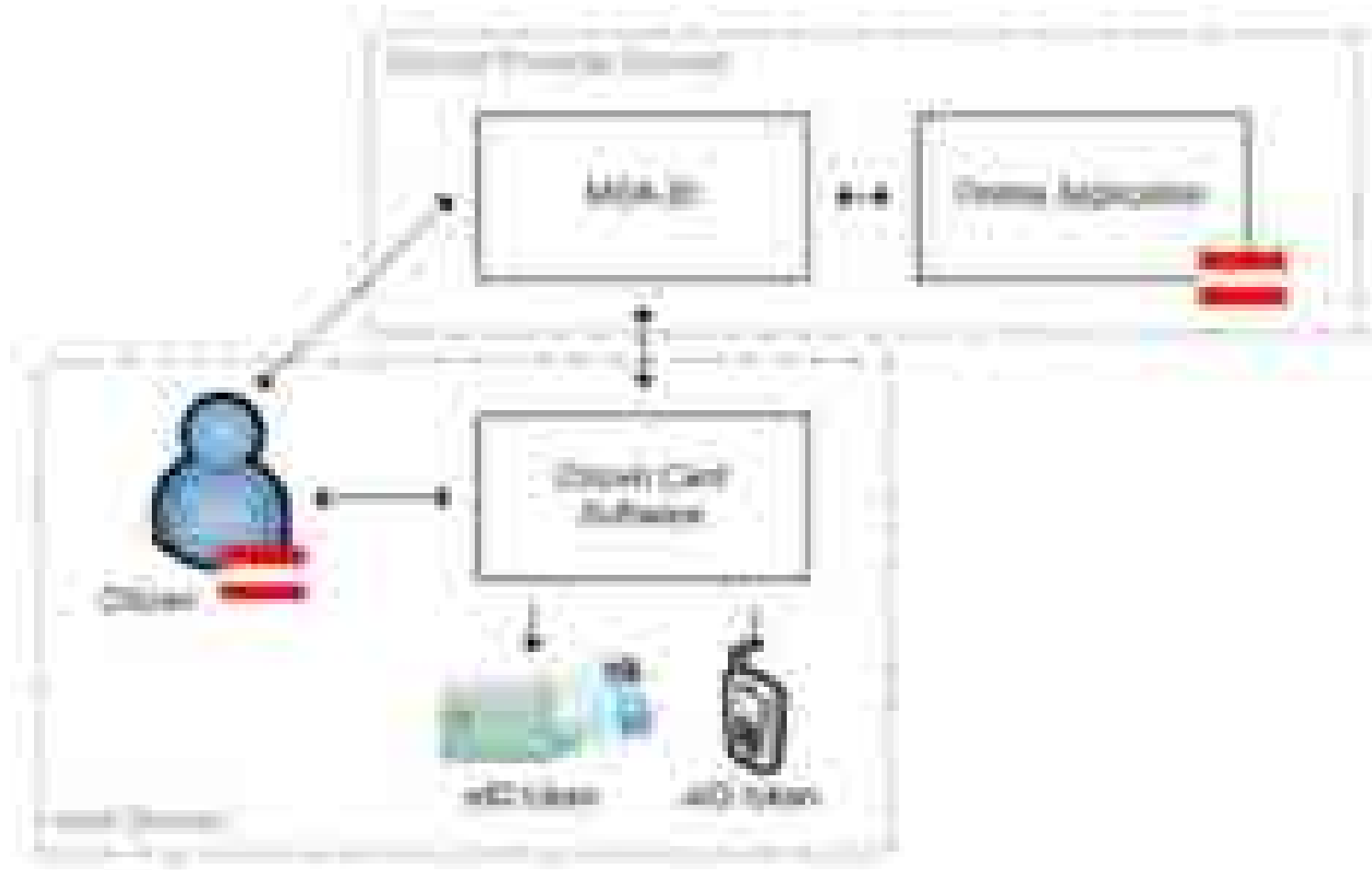
The e-card is the key to the health system for the citizen card functionality. It also becomes the **key to the e-Government services** for public administration in Austria.

Electronic Delivery in e-Government

► Citizen card for Identification & Authentication



User Authentication Process



*MOA: Module for On-line Applications



Open Source Strategy in Spain

Spain uses the **open source strategy** that is based on legislation for **re-use, sharing, and collaboration** in IT systems and **interoperability** between public administrations.

- **CENATIC** (National Center for the Application of Information Technologies and Communications) is a **strategic national center** of the Government of Spain to promote the **awareness and use of free software and/or open source** in all areas of the society.



Open Source Initiatives of European Commission

- ▶ **PEOPLE** is an initiative for **Open Source Services** created for the “Smart Cities” and developed within the framework of European projects.
 - **HOYRESPIRO** is a service developed as the pilot project in which provides **geo-referenced information to citizens** about the **air quality** in and around the city, the pollen levels, the **weather forecast** and the weather information
 - **Geocur** is another service providing information about learning offer in the city including calendar of courses as classified by sectors of activity



Current Innovation Programs for Online Public Services in Thailand

- ▶ Organizations Involved in Promoting Innovation in Online Public Services
- ▶ Innovation E-Service/E-Government



Organizations Involved in Promoting Innovation in Online Public Services

- ▶ *e-Government Promotion and Development Bureau, MICT* responsible for developing e-government related **policy and promoting e-government implementation** in the country and providing **national ICT infrastructures**
- ▶ *The Electronic Government Agency (Public Organization) (EGA)* responsibility is to drive the **implementation and operation of electronic government activities**, encourage the implementation of public online services and increase opportunities and reliable access to the government services.



Organizations Involved in Promoting Innovation in Online Public Services

- ▶ *National Broadband Network Company (NBNC Co)* to operate the ICT network nationwide. This entity develops **the broadband and telecom network policy** to ensuring standard quality of service and reasonable services fees.
- ▶ *National Electronics and Computer Technology Center (NECTEC)* responsibilities are to undertake, support and promote the **research & development** of electronics and computer technologies through research and development activities.



Organizations Involved in Promoting Innovation in Online Public Services

- ▶ *National Innovation Agency (NIA)* driving **national innovation** by coordinating, networking, fostering, and partnering different organization from various fields
- ▶ *Department of Business Development (DBD)* is a government department under the Ministry of Commerce with the mandate to promote and assist **business enterprises** in the country.
- ▶ *Each Individual Government Department* for example, the e-Revenue services of Department of Revenue, and Business Registration System by the Department of Business Development



Innovation E-Service/E-Government

- ▶ **Government Information Network (GIN)** This is a **secure, reliable and high-speed Government Intranet network** can support secure information exchange for all government agencies encourage by MICT
- ▶ **Government Cloud Services** Electronic Government Agency (EGA) provides the Cloud Computing services to government agencies. These services and their benefits include providing ICT infrastructure and information systems of government agencies
- ▶ **Government e-Portal** is a central system for easy access to information and e-services provided by the government in the single sign-on system. (At present 25 systems are linked to the portal)



Innovation E-Service/E-Government

- ▶ *Smart Citizen Info* creates a mechanism for information integration of government units that use the 13-digit citizen ID number system to provide services to the general public. The system allows anyone to check all the benefits and information through the Smart Box*
- ▶ *Free Public WI-FI service* The project targets to expand high-speed broadband network to cover 80 percent of the population in the next 3 years and 95 percent in the year 2020.

***Smart Box** an integrated device that provide connectivity and delivers government services through smart card authentication, currently is the pilot project in Nakhon Nayok



Innovation E-Service/E-Government

- ▶ **ASEAN CIO Forum**, The goal of this forum is to tie possible relationship in both critical sector of public and private to drive all business intentions, building pillars and pushing for adoption to support ASEAN economy, communities and competitiveness.
- ▶ **Thailand e-Government Interoperability Framework (TH e-GIF)** is the national policy framework and guidelines to drive the development of connected e-government systems for different government agencies to exchange information electronically
- ▶ **e-Doing Business** This cooperation is the recent phenomenon of the business that makes it easier, faster and cheaper by the exchange of information between government agencies. The launch of innovation services is to provide a single point, single form, single document and single number **for start-up business registration** (in process of automation implementation after process simplification & document harmonization among 3 regulatory agencies, i.e. **Dept of Business Development, Dept of Revenue, Office of Social Security**).



Task Cluster 4: Doing More with Less for More



Doing More with Less for More

- “Doing more with less for more” is to deliver **better public services at lower costs while impacting more people.**
- Strategies and implementation concepts of *radical/frugal re-engineering* taken up by different governments to achieve radical cost reductions.
- Reengineering enables **radical redesign** of business processes to achieve dramatic improvements.



Ultimate Vision

Shifting from the provision of services

To use of ICT to increase the value of services

By increasing front-end value of service delivery
and consolidating back-end systems & processes enabled by r
e-engineering & interoperability

**Slogan: Bigger and Better Front-end,
with Smaller & Smarter Back-end**

Referring to UN e-Gov Survey 2008.



Doing More with Less for More

- ▶ Studies on Strategies and Implementation Concepts and Cases of Public Services Re-engineering in Selected Countries
 - **Malaysia**
 - E-Procurement Case
 - **Ireland**
 - E-Procurement case
 - E-Government & Cloud Computing Case
 - **U.S.A.**
 - Data Center Consolidation Case
 - Open Government & Crowdsourcing Initiatives Case
 - Open Source Case
 - **U.K.**
 - Public Crowdsourcing Case



Strategies and Implementation Concepts and Cases of Public Services Re-engineering in Malaysia, Ireland, U.S.A. and U.K.



Malaysia

To drive towards excellence and quality in the public sector -- **a transformation in the role of the Malaysia public service -- from its primary role as the custodian of law and order to that of pace-setter and facilitator to the private sector as well as service providers to the people at large.**



Malaysia

Six principal strategies to reengineer the public service through **administrative reforms**.

- 1) Providing *customer-oriented services*
- 2) *Improving systems & work procedures* to strengthen administrative support mechanisms
- 3) *Streamlining organizational structures* & strengthening *human resources development*
- 4) Enhancing *accountability & discipline*
- 5) Urging *values of excellence & best practices*
- 6) Strengthening *public-private cooperation*



Malaysia

Steps of public service reengineering

- 1) Defining a **vision** for the organization (*what is the future that needs to be created?*)
- 2) Articulating and recording important **assumptions** (*why change & what are the required change?*)
- 3) Developing a **plan** (*what, why, when, who, how?*)
- 4) Business **analysis** (*evaluate organizational issues*)
- 5) Business **redesign** (*design new process*)
- 6) **Implementation** phase
- 7) **Measuring** the performance gains (*evaluate results*)

Case of Implementing Electronic Procurement (E-Perolehan)

E-Perolehan

an end-to-end procurement system that supports all Government procurement types with these online trading modules:

- Supplier Registration
- Central Contract
- Ministry Contract
- Direct Purchase
- Quotation
- Tender
- eBidding





Case of Implementing Electronic Procurement (E-Perolehan)

Benefits:

- **10% to 30% cost savings** generated through lower operational costs, overheads and supplier price.
 - ✓ e-Perolehan claims to have **saved government RM14 billion (approx. US\$ 4,500 million)** in 2012 and projected to **increase to RM20 billion (approx. US\$ 6,400 million)** in 2014
- **Reduce time** for application for registration and approval of supplies **from 36 days to 20 days**;
- **Reduce** number of **lost** supplier registration **documents from 5 to 1 %**



Ireland

The Public Service Reform Plan of Ireland addresses a wide range of issues such as:

- Implementation of **shared services models** for **HR, payroll, pensions** etc;
- Evaluation of **new business models** for the **delivery of non-core services**;
- Reform of **public procurement processes** and **property rationalization**;
- **Reducing costs**, addressing duplication and eliminating waste to **support job creation**

Integrated Approach to Public Service Reform in Ireland

- **Public Service Reform** -- focusing on delivering necessary structures, processes, ways of working, technologies & capabilities across all Government / cross-cutting reform
- **Sectoral Reform** – focusing primarily on frontline services
- Underpinned by the **Comprehensive Review of Expenditure**
- Enabled by the **Public Service Agreement**





Critical Success Factors for Public Service Reform in Ireland

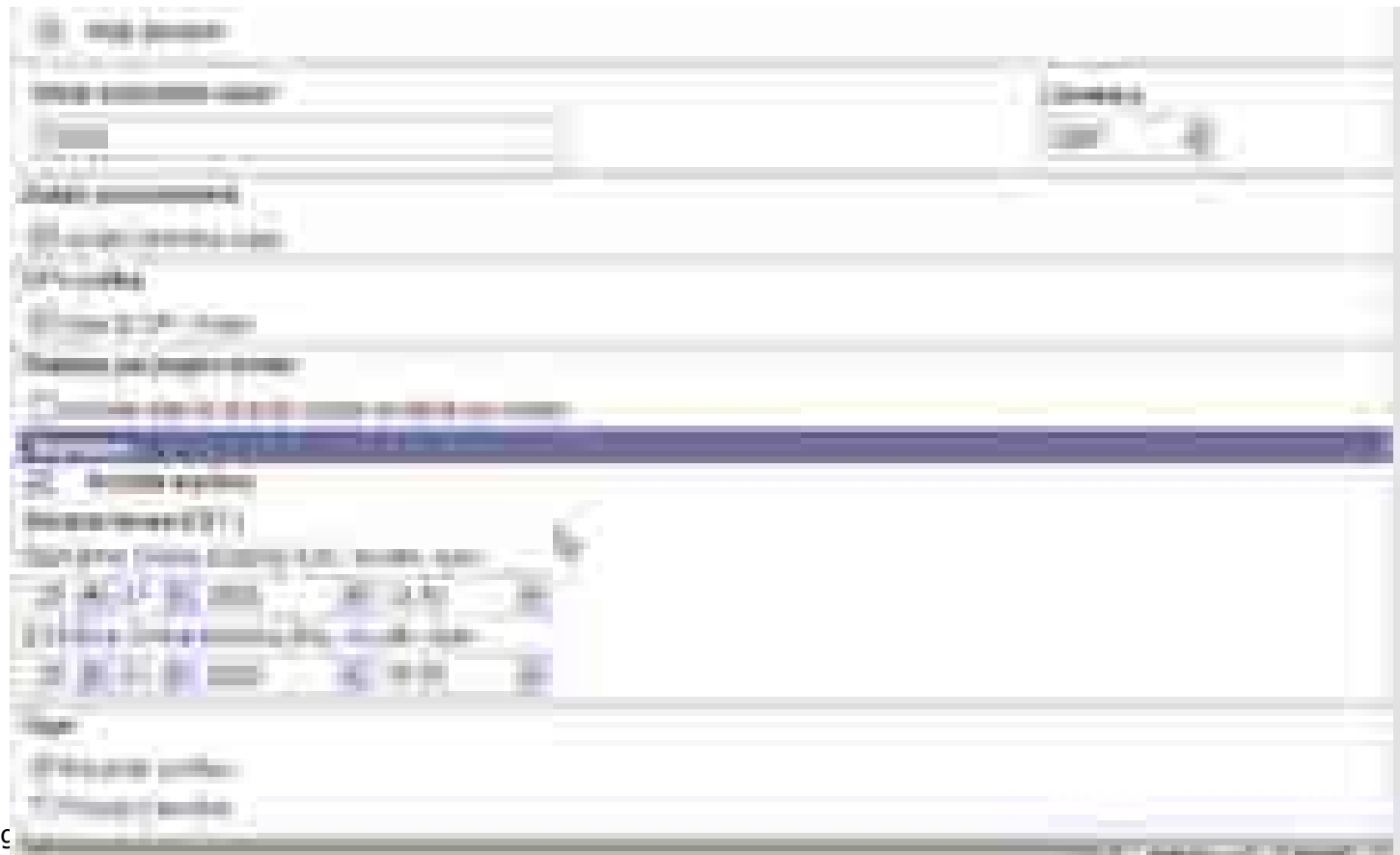
- ▶ **Prioritization of activities** to ensure a focus on delivering the most important outcomes first;
- ▶ **Effective communication** engaging the right stakeholders at the right time;
- ▶ **Robust delivery capability** supported by strong leadership across the public service;
- ▶ **Pragmatic and effective governance model** underpinning the delivery of reform;
- ▶ **Senior management ownership of reform** including delivery of the benefits; and
- ▶ Appropriate **approaches to encourage innovation** and prevent risk avoidance.

Case of Implementing Electronic Procurement



<http://www.etenders.gov.ie>

E-Auction



Case of Implementing Electronic Procurement

A Review of the Central Procurement Function found that **spend reduced from approximately €9 billion to €7 billion**. The report estimates that implementation of its recommendations, **over a three-year** period, could yield potential **annual savings** in the range of **€249 million to €637 million**,

Case of Consolidating ICT across the Public Service: e-Government and Cloud Computing

Cloud Computing Strategy for Public Services (2012)...

- places Cloud Computing at the heart of our ICT Strategy
- sets a course for centralising and implementing common ICT needs as a set of **shared services**
- commits to **reducing the number of computer and data centres** from potentially hundreds to approximately 10 primary facilities
- establishes the aim to **use external service providers** by establishing multi-vendor procurement frameworks
- computing and shared services over a number of phases
- considers a **new ICT organisational structure** and new ICT funding and governance arrangements over time



Case of Consolidating ICT across the Public Service: e-Government and Cloud Computing

Initial deployments for any public-facing & non-sensitive activity, i.e.

- open data initiatives
- public information repositories
- public collaboration or surveying facilities
- analytics involving non-sensitive/non-confidential data
- front-end elements of online services or apps that do not store sensitive data
- simulation testing of the availability, robustness and functionality of online services



United States of America

IT Reform Strategies/Initiatives

- ▶ Federal Cloud Computing Initiative
- ▶ Federal Shared Services Strategies
- ▶ Federal Strategic Sourcing Initiative
- ▶ Federal Data Center Consolidation Initiative
- ▶ Mobile Strategies
- ▶ Open Government Initiative
- ▶ Crowdsourcing Initiative
- ▶ Line of Business Strategy



United States of America

Adopting Cloud Computing

- ▶ **reduces costs** by leveraging IT infrastructure at 60-80+ % utilization and provisioning services as needed.
- ▶ **increases efficiency and agility** through automation
- ▶ significantly **reduces** the administrative burden on **internal IT resources**.
- ▶ **buying** cloud services **on demand** eliminates the need for large, upfront capital expenditures and is considered an operating expense.



United States of America

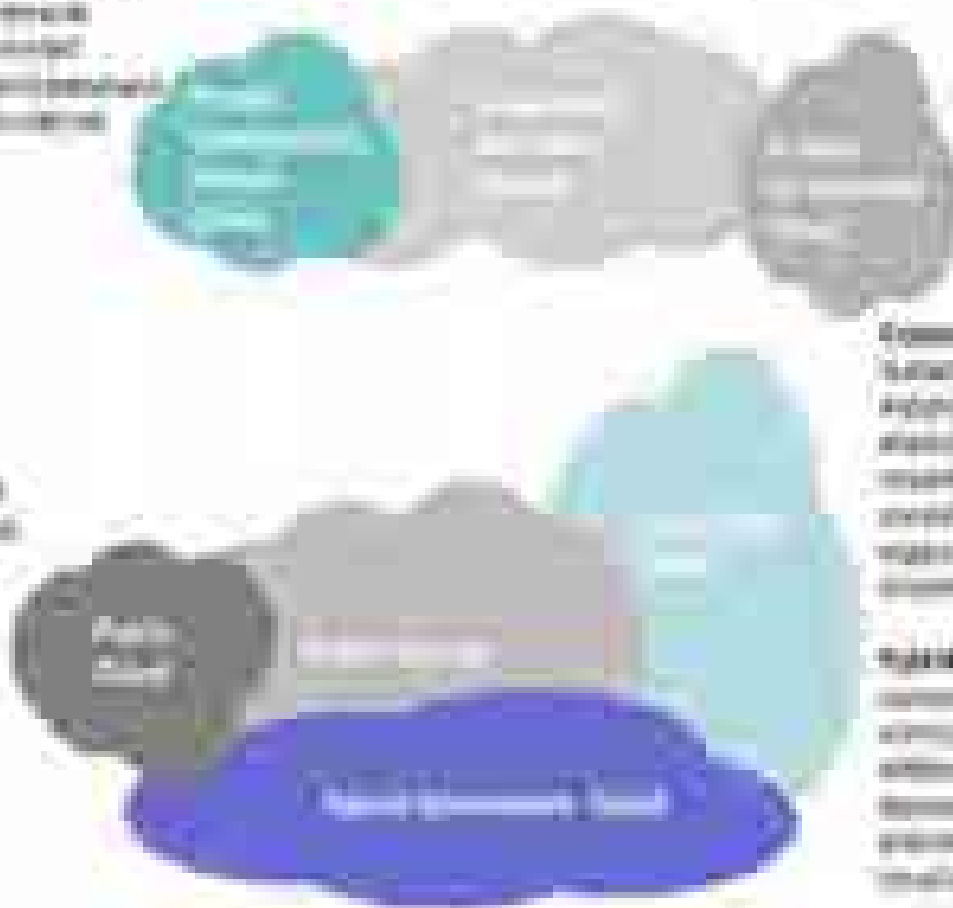
Cloud Sourcing Models / Deployment Models

- ▶ ***Private Government Cloud***. The cloud infrastructure is operated solely for a single organization.
- ▶ ***Community Cloud***. The cloud infrastructure is shared by several organizations & supports a specific community that have shared concerns (e.g., mission, security requirements, policy, and compliance considerations).
- ▶ ***Public Cloud***. The cloud infrastructure is made available for the general public and is owned by an organization selling cloud services.
- ▶ ***Hybrid Cloud***. The cloud infrastructure is a composition of two or more distinct cloud infrastructures (private, community, or public) that remain unique entities, but are bound together by standardized or proprietary technology that enables data and application portability.

Trust (Security and Data Privacy)

Private Cloud/Community Model
 Private, multi-tenant cloud computing services that are owned, managed and operated by the provider. The provider is responsible for the security, availability and performance of the cloud. The provider is also responsible for the security, availability and performance of the cloud. The provider is also responsible for the security, availability and performance of the cloud.

Public Business Cloud
 A public cloud service that is managed and operated by a government agency. The provider is responsible for the security, availability and performance of the cloud. The provider is also responsible for the security, availability and performance of the cloud.



Hybrid Cloud The cloud infrastructure that combines public cloud services with private cloud services. The provider is responsible for the security, availability and performance of the cloud. The provider is also responsible for the security, availability and performance of the cloud.

Multi-Cloud The cloud infrastructure that uses multiple public cloud services. The provider is responsible for the security, availability and performance of the cloud. The provider is also responsible for the security, availability and performance of the cloud.

Reference to NIST

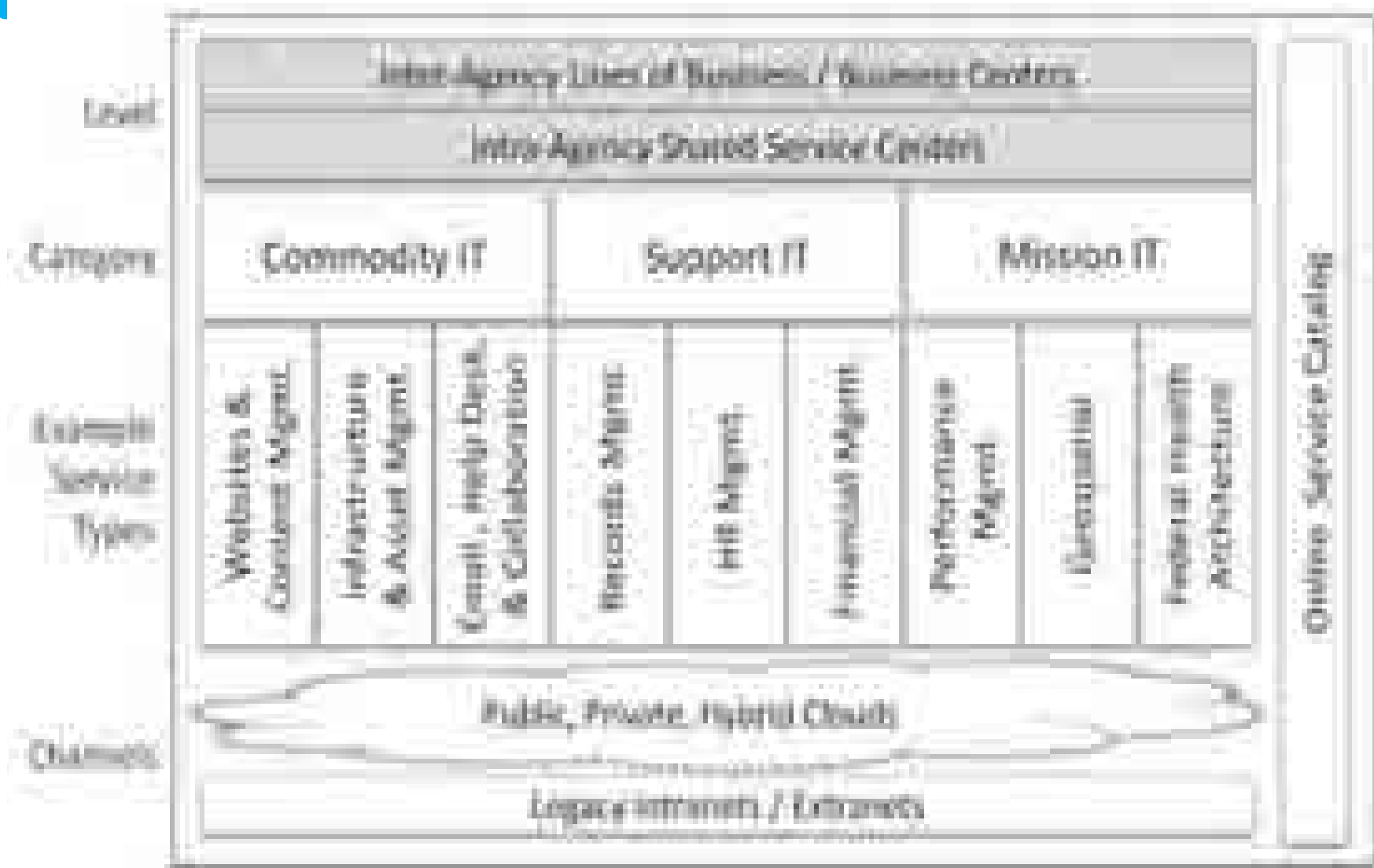


United States of America

Adopting Shared Services / Shared Platform Approach

- ▶ Based on the principle of ‘**build once, use many times**’
- ▶ Build for **multiple use cases at once**
- ▶ Use **common standards & architectures**
- ▶ Participate in **open source communities**
- ▶ Leverage **public crowdsourcing**
- ▶ Launch **shared government-wide solutions**

US Federal IT Shared Services Strategy





United States of America

Adopting Data Center Consolidation

By shutting down and **consolidating under-performing data centers** and optimizing data centers in the Federal inventory, the Government **saves taxpayers billions of dollars** and curb spending on under-utilized infrastructure.

Case Studies of Data Center Consolidation

U.S. Environmental Protection Agency (EPA)

- ▶ Major enterprise application hosting is **highly centralized**.
- ▶ Non-major applications are hosted in a **highly virtualized, shared services context** at the National Computer Center.
- ▶ EPA's consolidation plan focuses on achieving efficiencies via **virtualization** within EPA's four primary data centers and the smaller server rooms.



Case of Data Center Consolidation

Several efficiencies:

- ✓ Minimize data center energy consumption.
- ✓ Minimize long-term growth in IT operations costs.
- ✓ Maximize server and storage utilization.
- ✓ Maximize standardization and agility.
- ✓ Reduce long-term growth of IT infrastructure costs.

Cost Savings - EPA completion of the network optimization initiative **reduced** EPA's monthly WAN (Wide Area Network) costs by over **50 percent from \$179 to \$83 per megabit.**



Cases of Implementing the Open Government and Crowdsourcing Initiatives

- ▶ **Data.gov** -- to increase public access to Federal data & expand creative use of those data & receive feedback / comments / recommendations from the public for improvement.
- ▶ **Reboot.fcc.gov** -- connects with citizens over online & social media channels & increases public participation through the use of new media tools.



Cases of Open Source

- ▶ **Dept. of Homeland Security Public Cloud** for G2C services – cost-effective, **best-of-breed open source** platform enabling web site & services hosting for DHS.gov, FEMA.gov, USCIS.gov
- ▶ **NASA World Wind** –A strategy of supporting a fully open community allows actors from outside of government to participate in the project, furthering the adoption of the software and broadening its use in a range of applications, e.g. knowledge management.
- ▶ **Law Enforcement Automated Data Repository (LEADR) system** -- is an open source information sharing toolset to share **law enforcement information** across **jurisdictional boundaries** and today is in use by hundreds of agencies in the Southeastern United States.



United Kingdom

Three mutually reinforcing, systemic shifts that form the basis of a new model for public services:

- *A shift in culture*: from social security, to social productivity.
- *A shift in power*: from the center to citizens.
- *A shift in finance*: reconnecting financing with the purposes of public services



United Kingdom

Given conditions of fiscal stringency, there are **3 main reform strategies** for public services:

- ▶ ***‘resetting recent reforms’*** (taking reform themes of the recent past, such as targets and rankings, and reorienting them for an age of fiscal consolidation)
- ▶ ***‘system redesign’*** (involving more radical changes in the ways services are provided or basic incentive structures for public services, for instance over funding mechanisms for devolved governments and local government)
- ▶ ***‘East of Suez moments’*** (involving choices about areas of public services to be abandoned to focus resources on existing or new ones).



Cases of Public Crowdsourcing

- ▶ **www.data.gov.uk** -- to consolidate government data in a single searchable website to "help people understand how government works and how policies are made."
- ▶ To encourage discussion and crowdsourcing among civil servants, the portal **www.communities.idea.gov.uk** is a safe platform for knowledge sharing across the public sector where users can set up or join communities around specific issues.
- ▶ The project of "**Making A Difference with Data**" (**MADwDATA**) (<http://www.madwdata.org.uk/>) seeking to "spread understanding about open data and transparency in local public services". The initiative demonstrates how government information can be used by citizens to "raise issues, campaign and otherwise influence things that affect local communities".



Conclusion

Approaches & Activities for Reform

- ▶ Information sharing & integrated customer services
- ▶ Shared services
- ▶ Business process/government service outsource (BPO)
- ▶ Business process improvement
- ▶ Procurement reform
- ▶ External service delivery
- ▶ Rationalization & re-organization
- ▶ Citizen-centric web reform
- ▶ Open Government / Open source
- ▶ Cloud computing/technology
- ▶ Crowdsourcing
- ▶ Mobile strategy
- ▶ Data center consolidation



Task Cluster 5: **Other Related Tasks**





Other Related Tasks

- ▶ International Study Visit on e-Government
 - Option 1: Policy-Level Visit to European countries
 - Option 2: Middle-Management Level Visit to Republic of Korea / Singapore / U.S.A
- ▶ Workshop Arrangement



Option 1: Policy-Level

Visit to European countries
Switzerland, Austria, and Poland





Option 1: Switzerland

Switzerland is ranked the 15th of top twenty world leaders in e-government development
(UN e-Gov Survey 2012)

Target Topics:

- e-Government strategy (especially the principles of ‘develop once, use many times and open standards’);
- e-Government architecture;
- Open government;
- Federal Office Automation;
- Implementation of cloud computing strategy;
- Nationwide exchange standard for electronic records and documents for interoperability in e-government



Option 1: Switzerland

Proposed Organizations and Programs

- ▶ *Federal IT Steering Unit (FITSU)* issues **guidelines for the administrative units and centrally manages the standard services** of information and communication technologies.
- ▶ *Bern University of Applied Sciences* has the **‘Competence Centre for Public Management and e-Government’** established as a scientifically independent service, research, and development institution for public management and e-government.



Option 1: Austria

Austria belong to the leading e-Government countries in the European Union,
ranking first, in terms of full online availability of public services
(EU e-Gov champion in 4 years consequently).

Target Topics:

- Innovative e-Government platform,
- citizen-centric e-government,
- inclusive e-government (e-inclusion),
- Pan-European Public Procurement Online,
- e-Health directory services



Option 1: Austria

Proposed Organizations and Programs

- ▶ *Federal Computing Centre* is the market leader in IT services and e-Government partner for the Austrian federal government, which one of **the largest data centers in Austria.**
- ▶ *Ministry of Finance* serves as **a central electronic service platform for public administration in Austria entrepreneurs.** It has developed innovative e-Government solutions and has already received multiple awards as a result.



Option 1: Austria

- ▶ *Vienna University of Technology (TU Vienna)* has been a place of research, teaching and learning in the service of progress.

The TU Vienna is among the most successful technical universities in Europe and is Austria's largest scientific-technical research and educational institution.

Its mission is "technology for people".



Option 1: Poland

Poland as a best example of innovative regional solutions to e-government and good practice for other regions (on E-communication system for public administration) (recommended by EU).

Poland is ranked the fifth of the top ten countries in e-government development in Eastern Europe (UN e-Gov Survey 2012).

Other interesting initiatives are such as **e-Court, e-Tax, e-Land and mortgage systems.**

Target Topics:

- Security issues in e-government,
- Electronic communication system for public administration (SEKAP Project) (innovative regional solution to e-government),
- Reforming organizational structures of public administration,
- Coordination of interoperability between the administration systems, Government Cloud.



Option 1: Poland

Proposed Organizations and Programs

- ▶ *Ministry of Administration and Digitization*,
The Ministry works in response to the governmental strategies, to focus on developing the broadband infrastructure, support the development of web content and services and promote digital literacy among its citizens.
- ▶ *National Defence Academy*
for “Security issues in e-Government”



Option 2:

Middle-Management Level

Visit to Republic of Korea / Singapore / U.S.A.



Option 2: Republic of Korea

Republic of Korea as a major success case in numerous international economic indexes, and has served as one of the most successful best practice models in the global community.

- *Target Topics:* Smart e-government, m-Government, broadband policy, institutional governance, single sign-on integrated services, and uTradeHub/NSW for paperless trade.



Option 2: Republic of Korea

Proposed Organizations and Programs

- ▶ *Informatization Strategy Office, Ministry of Public Administration and Security (MOPAS)*, MOPAS provides different smart services and plans to create mobile offices using smart phones and tablet PCs.

The Informatization Strategy Office is responsible to coordinate policies on national informatization and e-government; operate e-government services and portal; promote global cooperation in informatization and e-government; develop policies related to personal information protection and cyber security.



Option 2: Republic of Korea

- ▶ *National Computing Information Agency (NCIA)* manages computerized administrative systems of government agencies and promptly responds to cyber attacks. NCIA works with MOPAS to further promote smart work, mobile administration, and cloud computing services.
- ▶ *Korea Trade Network Co. Ltd (KTNET)* as the e-Trade service provider for operating the uTradeHub* services and systems under the e-Trade promotion law.

***uTradeHub** as a new concept of a national e-Trade network and as a single online window for trading activities.



Option 2: Singapore

Singapore is recognized as **an e-government leader** by international benchmarking agencies. As well, Singapore is ranked the world's top 10 e-government leaders and also the 2nd top e-government leaders in Asia , by the UN E-Government Survey 2012.

- **Target Topics:** e-Citizen,
Cloud computing for government,
Cloud security standard,
Whole-of-Government Enterprise Architecture and e-Service Development,
collaborative social-networking platform for public offices, government web services exchange, m-Government/Services, Cluster development and Government Chief Information Office (GCIO).



Option 2: Singapore

Proposed Organizations and Programs

- ▶ *Infocomm Development Authority of Singapore (IDA)* is responsible for master planning, project-managing and implementing various infocomm systems and capabilities for the Government.

It oversees IT standards, policies, guidelines and procedures for the Government, and manages the infocomm security of critical infocomm infrastructure and the implementation and management of e-government programs.



Option 2: United States of America

U.S.A. is the top five world e-government development leader, according to the UN E-government Survey 2012, and the top ranked country in the Americas. U.S.A. was found a best practice example of an **integrated portal** that provides easy to navigate design and collects and consolidates all information and services for citizens in one place.

- **Target Topics:** e-government business process outsourcing, open government initiative, e-participation, cloud IT services, mobile government, cyber security, and data privacy.



Option 2: United States of America

Proposed Organizations and Programs

- ▶ *Office of Citizen Services and Innovative Technologies (OCSIT)* is the nation's focal point for data, information and services. In addition, it also takes **a leadership role** in identifying and applying new technologies to effective government operations and excellence in customer service in the government, e.g. **GS A open government initiatives, mobile government, Cloud IT Services, Data Center Services.**
- ▶ *Federal Risk and Authorization Management Program (FedRAMP)* is a government-wide program that provides a standardized approach to **security assessment, authorization, and continuous monitoring** for cloud products and services.



Option 2: United States of America

- ▶ *Department of Homeland Security (DHS) Privacy Office* is to protect all individuals by embedding and enforcing **privacy protections** and **transparency** in all DHS activities. It strives to ensure that technologies used at the Department sustain, and do not erode, privacy protections.
- ▶ *International Trade Data System (ITDS)* provides all appropriate agencies **a single point of access** to consolidated import information through a secure web portal, and will continue to expand existing public-private partnerships.

US Government awards DHS as the best achievement on Open Government Initiative.



Workshop Arrangement

- ▶ The workshop to present the study results is scheduled to take place tentatively either toward the end of July or early in August 2013*.



E-GOVERNMENT IN ASEAN





Roadmap for an ASEAN Community (2009-2015)

Table of Contents

- ▶ Cha-am Hua Hin Declaration on the Roadmap for the ASEAN Community (2009-2015)
- ▶ ASEAN Political-Security Community Blueprint
- ▶ **ASEAN Economic Community Blueprint**
- ▶ ASEAN Socio-Cultural Community Blueprint
- ▶ Initiative for ASEAN Integration (IAI) Strategic Framework and IAI Work Plan 2 (2009-2015)



Background

- ▶ ***ASEAN Community by 2020*** -- established to realize the ASEAN Vision 2020, consisting of 3 pillars:
 - ASEAN Political-Security Community (APSC)
 - ASEAN Economic Community (AEC)
 - ASEAN Socio-Cultural Community (ASCC)
- ▶ ***ASEAN Community by 2015*** was, however, accelerated for establishment to reinforce ASEAN's centrality & role in charting the evolving regional architecture
- ▶ ***ASEAN Charter*** signed to mark country members' commitment in regional cooperation & integration



ASEAN Community by 2015

Key Characteristics of Each Pillar

▶ ASEAN Political-Security Community (APSC)

- *(A) A Rules-based Community of shared values and norms; (B) A Cohesive, Peaceful, Stable and Resilient Region with shared responsibility for comprehensive security; (C) A Dynamic and Outward-looking Region in an increasingly integrated and interdependent world.*

▶ ASEAN Economic Community (AEC)

- *(A) A single market and production base; (B) A highly competitive economic region; (C) A region of equitable economic development; (D) A region fully integrated into the global economy.*

▶ ASEAN Socio-Cultural Community (ASCC)

- *(A) Human Development; (B) Social Welfare and Protection; (C) Social Justice and Rights; (D) Ensuring Environmental Sustainability; (E) Building the ASEAN Identity; (F) Narrowing the Development Gap..*

E-Government-Related Topics

ASEAN Economic Community (AEC) Blueprint

➤ A. Single Market and Production Base

A1 Free Flow of Goods

- Para 16. Trade Facilitation
- Para 17. Customs Integration
- Para 18. ASEAN Single Window

➤ B. Competitive Economic Region

B.4. Infrastructure Development

- **Para 51. Information Infrastructure.** *A secure and connected information infrastructure is important for sustaining the region's economic growth and competitiveness. Efforts have been made to facilitate **interconnectivity and technical interoperability among ICT systems, leveraging on existing national networks and evolving these into a regional information infrastructure.** Equal emphasis has been given to improving **trust and confidence in the use of the Internet and security of electronic transactions, payments and settlements.***

Priority Actions & Schedule

ASEAN Economic Community (AEC) Blueprint

B. Competitive Economic Region/B.4. Infrastructure Development

Strategic Approach: *Information Infrastructure*

Priority Actions

- Enable the **interoperability of products/services, information systems and networks** in a convergence environment.(2010-2011) --- *established TH-eGIF*
- Develop a general **framework or guidelines for coordinated ASEAN e-government programs** for efficient delivery of public services, and to facilitate regional trade, investment and other business activities.(2008-2015)
- To activate the ASEAN e-Government Forum, among others, to **identify key public services for ICT applications**, including capacity building activities (2008-2015) --- 15
key e-services & applications: registration process, permits and license process, revenue generating & social returns (www.merlinsolutions.com/q-business.html)

How to Move Forwards?

- Develop a general **framework or guidelines for coordinated ASEAN e-government programs** for efficient delivery of public services, and to facilitate regional trade, investment and other business activities.(2008-2015)



E-Government Interoperability Framework

in a regional context

(Technical Architecture Framework for ASEAN e-Government is being proposed.)



To learn from **‘European Interoperability Framework for Pan-European e-Government Services’**



European Interoperability Framework (EIF) for Pan-European e-Government Services (PEGS)

Purpose of the European Interoperability Framework

- ▶ to promote and support the delivery of European public services by **fostering cross-border and cross-sectoral interoperability**;
- ▶ to **guide public administrations** in their work to provide European public services to businesses and citizens;
- ▶ to complement and **tie together** the various **National Interoperability Frameworks (NIFs) at European level.**



European Interoperability Framework (EIF) for Pan-European e-Government Services (PEGS)

Definition of PEGS (Pan-European e-Government Services)

"Cross-border public sector services supplied by either national public administrations or EU public administrations provided to one another and to European businesses and citizens, in order to implement community legislation, by means of interoperable networks between public administrations."

Interoperability in the PEGS context

Interoperability is a complex phenomenon, involving much more than the exchange of data between IT systems.

Interoperability encompasses all the different ways that organisations, entities and processes have to work together in order to achieve common goals. The EIF is concerned with interoperability in the very specific PEGS context.

Contents of EIF v2.0

1	Introduction to EIF v 2.0	4
1.1	Objectives of the EIF	4
1.2	Audience: to whom is the EIF directed?	4
1.3	Context	4
1.3.1	Definition of interoperability, PSD2 and other key terms	4
1.3.2	Social, economic and technological drivers	5
1.3.3	Policy initiatives at EU level	7
1.3.4	National interoperability Frameworks (NIFs)	7
1.3.5	Legal framework contained in EIF	8
1.4	The role of the EIF v2.0 for Pan-European e-Government Services	9
1.5	The Benefits of Interoperability	9
1.5.1	Classification of Systems	9
1.5.2	Benefits by Interoperability Level	10
1.5.3	Categories of Benefits by Dimension	10
1.5.4	Benefits of Interoperability with respect to Privacy and Security	11
1.6	Robustness at political level	12
1.7	Governance of the EIF	12
1.7.1	Why Governance?	12
1.7.2	Why are we concerned with governance?	13
1.7.3	What are the key aspects of governance that we are concerned with?	13
1.7.4	What are the common and specific challenges with regard to governance that we are able to manage at this time?	14

EIF v2.0

4	Roadmap to the EIF	16
4.1	Scope and PEOD outcomes	16
4.1.1	Trade and Investment	16
4.1.2	Regional Science, ICA, ATR, AOT	16
4.1.3	Science 1: Close cooperation between Omani Businesses and Foreign Investment	16
4.1.4	Science 2: Exchange of best practices and projects at level of universities, research	17
4.1.5	Science 3: Exchange of best practices between national administrations and EU institutions to create possible services to small businesses	18
4.1.6	Science of Investment for Omani Government Services (IGOS)	18
4.2	Context	18
4.3	Doing the EIF in some successful Phases	22
5	EIF Underlying Principles	24
5.1	Introduction	24
5.2	Underlying Principle 1: Adhere to the subsidiarity and proportionality principles	24
5.3	Underlying Principle 2: Focus on the needs and rights of Omani and Businesses	25
5.4	Underlying Principle 3: Build in inclusiveness and accessibility for all	25
5.5	Underlying Principle 4: Ensure Security and Privacy	27
5.6	Underlying Principle 5: Design for multilingual use	28
5.7	Underlying Principle 6: Support public participation and transparency	28
5.8	Underlying Principle 7: Support standardisation and innovation and ensure consideration reciprocity	29
5.9	Underlying Principle 8: Reduce Administrative Burden	29
5.10	Underlying Principle 9: Ensure the best value for money	29
5.11	Underlying Principle 10: Preserve information over time	30

EIF v2.0

4	Interoperability Levels Description	27
4.1	Introduction	27
4.2	Political Context	27
4.3	Legal Framework	27
4.3.1	Legal basis	27
4.3.2	Cooperation	27
4.3.3	Public Service Location	27
4.3.4	Transnational products and services	27
4.4	Organizational Level	27
4.4.1	Alignment of business interests	27
4.4.2	Business Process Reengineering (BPR)	27
4.4.3	Treatment of Service Level Agreements (SLA)	27
4.4.4	Business and control for users	27
4.4.5	Ways to design	27
4.4.6	Service orientation	27
4.5	Technical Level	27
4.6	Resource Level	27
4.6.1	Cloud systems	27
4.6.2	Technical Specifications	27
4.6.3	Common shared and interoperable IT infrastructure (networks, security, standards, identity)	27

EIF v2.0

I	The Generic Public Services Conceptual Model (GPsCM)	43
I.1	Introduction to the Concepts	43
I.2	The Key Concepts	43
I.2.1	The Basic Public Provision Layer	43
I.2.2	The Lowest Data Exchange Layer	48
I.2.3	The Aggregate Services Layer	47
I.3	Application of the GPsCM to National and European Public Services	48
I.3.1	The Cross-Border Case	48
I.3.2	The Cross-Border Case	48
I.3.3	The Cross-Administrative Boundary Case	50
I.3.4	Other cross-level applications of the GPsCM	51
II	Adopt Open Standards or Technical Specifications	52
II.1	Introduction	52
II.2	Definitions of standard and technical specification	53
II.3	Openness and interoperability	53
II.4	The role of open standards or technical specifications	54
II.5	Openness continuum	56
II.6	A systematic, structured assessment of standards and technical specifications	58

EIF v2.0

8.7	Establishing a common framework for standards and technical specifications activities	57
8.8	Standard and technical specification coverage	58
8.9	Laying the groundwork for an open ICT environment	59
8.10	Procurement aspects	59
8.11	Convergence mechanisms	60
8.12	Aspects of development of standards or technical specifications	61
9	Be prepared to benefit from Open Source Methods	62
9.1	Introduction	62
9.2	Open Source Software is a concept distinct from the use of Open Standards	62
9.3	Open Source Software vs. Open Source Development Model	62
9.4	Understanding the Open Source Development Model	63
9.5	Using Open Source Software	63
9.6	Adoption of Structures and Mechanisms for Collaboration, Reuse and Sharing	64
10	Making open standards and technical specifications sustainable through innovation	64



Considerations

- ▶ National eGIF vs ASEAN regional eGIF
- ▶ Governance of eGIF (national & regional)
- ▶ Open ICT environment- Open Government/
open standards/open source/Government Cloud (
prepared for cross-border scenario)
- ▶ Structures and mechanisms for collaboration,
reuse, and sharing (with the concern also on diffe
rent cultural context in ASEAN)



Proposed e-Government development aligned with the ASEAN direction

► Free flow of goods, e.g.

- **Ease of doing international trade (both intra-ASEAN and ASEAN to the rest of the world)**, particular the **cross-border e-document exchange** for trade and logistics, e.g. **electronic Customs declaration & certificate of origin** exchange between ASEAN member countries and the country from the rest of the world, through National Single Window.
- **Ease of starting a business**, e.g. interoperability of Dept of Business Development, Social Security Office and Department of Revenue for **electronic One-Stop Services on business registration**.



Recommended e-Government development aligned with the ASEAN direction

- ▶ **Free flow of people** (including internal security, and threat through the free flow of people) e.g.
 - **Connected e-government for national security**, e.g. Electronic Connectivity and information exchange between Department of Land Transport (vehicle licenses & drivers' licenses), Royal Thai Police (Stolen Case Database), Department of Provincial Administration (Citizen Database) for national security and narcotic control.
 - **Connected e-government for Justice**, e.g. interoperability and electronic information exchange among Royal Thai Police, Office of Attorney General, Justice Court and other for Justice investigation and justice procedures.