JOINT FOREIGN CHAMBERS of COMMERCE in THAILAND

JFCCT

e-Government Position Paper
(V8.0 - 21 August 2014)

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Author

This document was produced by Gregory M. Thomas of the Thai-Hong Kong Trade Association

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Acronyms

2nd ICT Master Plan – 2nd Thailand Information and Communication Technology Master Plan (2009-2013)

ASEAN – Association of Southeast Asian Nations

ASW – ASEAN Single Window

BOI – Board of Investment

CIO – Chief Information Officer

EGA – Electronic Government Agency

GCIO - Government CIO

GIN – Goverment Information Network

GITS - Government Information Technology Services

IAC – International Academy of CIO

ICT 2020 - National ICT Policy Framework 2011-2020

ICT - Information and Communication Technology

MICT – Ministry of Communication Technology

MiST - Ministry of Science and Technology

NECTEC – Thailand National Electronics and Computer Technology Center

NESDB - National Economic and Social Development Board

NFC – Near Field Communications

NRI - Networked Readiness Index

NSTDA - National Science and Technology Development Agency

NSW - National Single Window

OECD – Organization for Economic Development

SSO - Single Sign On

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TH e-GIF - Thailand e-Government Interoperability Framework

UN – United Nations

WEF – World Economic Forum

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Background/Issues

Definition

'e-Government' is the use of information technology to support government operations, engage citizens, and provide government services. e-Government can also include a wide range of governmental activities that are not services to users, such as intra-ministerial, inter-ministerial, and in the case of ASEAN and other external relationships, inter-Governmental; as well as the essential use of technologies other than the Internet in the provisioning of Government services[i].

This position paper, will rely on the World Bank's definition of e-Government; mainly, the use by government agencies of information technologies that have the ability to transform relations with citizens, businesses, and other arms of government'[ii]. In other words;

- Improve the delivery of government services. *(i.e services)*
- Facilitate more efficient interactions with industry (i.e. commerce)
- Increase transparency of government processes (i.e. participation)
- Allow for more effective government management. (i.e. management)

Furthermore, the benefits of a transformed Government include less corruption, increased transparency, greater convenience, revenue growth, and/or cost reduction[iii].

e-Government Transformation in Thailand

In 1997, the Government Information Technology Services (GITS) was established under the National Science and Technology Development Agency (NSTDA), and the Ministry of Science and Technology (MiST) with the objective of assisting Government agencies implement IT services and plans were drawn up to erect five pillars (*see Appendix A*) to transform Government.

- **Pillar One** *(scheduled for completion by 2010)*: c-Government or Connected Government Initiatives – linking Government agencies in providing e-services.
- **Pillar Two** *(scheduled for completion by 2011)*: m-Government or Mobile Government Initiatives – linking Government agencies through mobile phones and other mobile computing devices.
- **Pillar Three** *(scheduled for completion by 2012)*: m^2-Government or Multi-Channel Government - in conjunction with Pillar Two, linking Government agencies through multiple channels.

- **Pillar Four** *(scheduled for completion by 2013)*: u-Government or Ubiquitous Government – utilizing multiple channels to provide e-Services any time, anywhere.

- **Pillar Five** *(scheduled for completion by 2014)*: t-Government or Transformed Government as defined by the United Nations. Bringing Government closer to all stakeholders as well as linking Government agencies to provide e-Services any time, anywhere, and through any channel.

Figure 1 – Transformed Government, Five Pillars of e-Government in Thailand[iv]

Furthermore, the 2nd Thailand Information and Communication Technology [ICT] Master Plan (2009-2013) (2nd ICT Master Plan) and the National ICT Policy Framework 2011-2020 (ICT 2020) outlined the mid-term goals and objectives.

Following approval of the 2nd ICT Master Plan, the Electronic Government Agency (EGA) was established[v] in 2011 under the supervision of the Minister of Information and Communication Technology. The purpose of the EGA is to:

- Coordinate the implementation of electronic government activities for public use.

- Create equal opportunity and access to the Government Information Network (GIN).

- Establish security protocols for all electronic services offered by the Government.
- Develop common standards that are inline with international standards under the TH e-GIF (Thailand e-Government Interoperability Framework).
- Encourage the skill enhancement of all IT personnel working in supporting the e-Government services.
- Communicate the status of e-Government initiatives to stakeholders throughout the Government.[vi]

In 2011, the EGA developed a roadmap for e-Government transformation *(see below)*. According to the roadmap, Pillars Two through Four will not be completed until 2015, and there is no mention of Pillar Five (Transformed Government). While the roadmap clarifies the process of e-Government transformation; it would appear that it is not a priority as several initiatives outlined in the roadmap are well behind schedule.

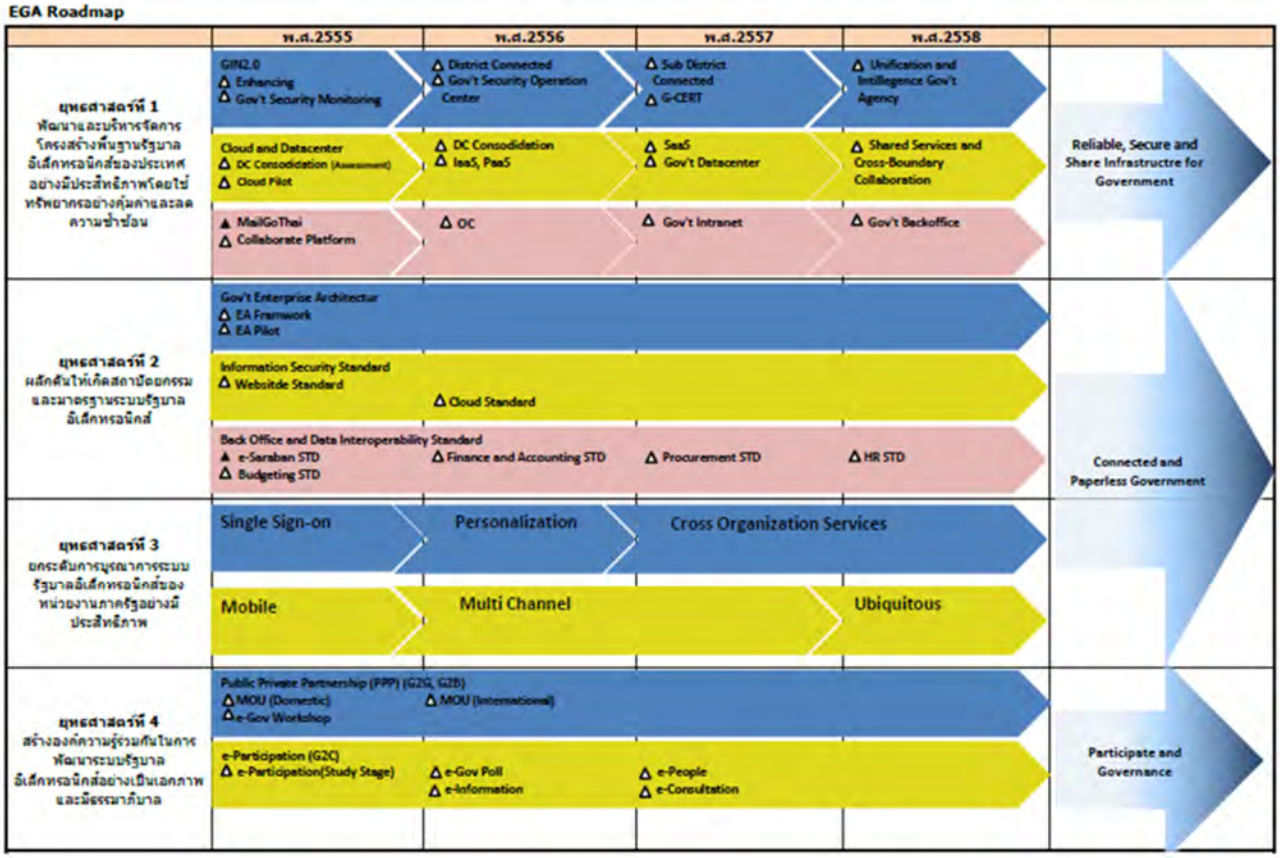

Figure 2 – e-Government Roadmap (2011)[vii]

Another advancement is the welcome introduction of an e-Goverment portal.

Figure 3 – e-Government Portal

Thailand's e-Government Ranking

Given the recent political environment, Thailand's performance in the area of e-Government implementation has been commendable. According to the **WASEDA – IAC 10th International E-Government Ranking 2014**[viii], Thailand ranked 23rd out of 61 countries, three spots ahead of Hong Kong and four spots ahead of Malaysia. Thailand ranked 8th on the Government CIO (GCIO) subindex and 7th in the Asia-Pacific region. Thailand also gained credit for the EGA's implementation of the GIN. However, the country was a distant 2nd to Singapore in ASEAN (Thailand's overal rating of 68.60, compared to Singapore's overall rating of 93.77).

Waseda's ranking was based on performance in eight (8) indicators:

1. **Network Preparedness/Infrastructure** – *Thailand climbed from 74th to 67th in the Networked Readiness Index out of 148 in the 2014 Global Information Technology Report*[ix].
2. **Management Optimization/Efficiency**
3. **Online Services/Functioning Applications**
4. **National Portal/Homepage**
5. **Government CIO**
6. **e-Government Promotion**
7. **e-Participation/Digital Inclusion**
8. **Open Government**

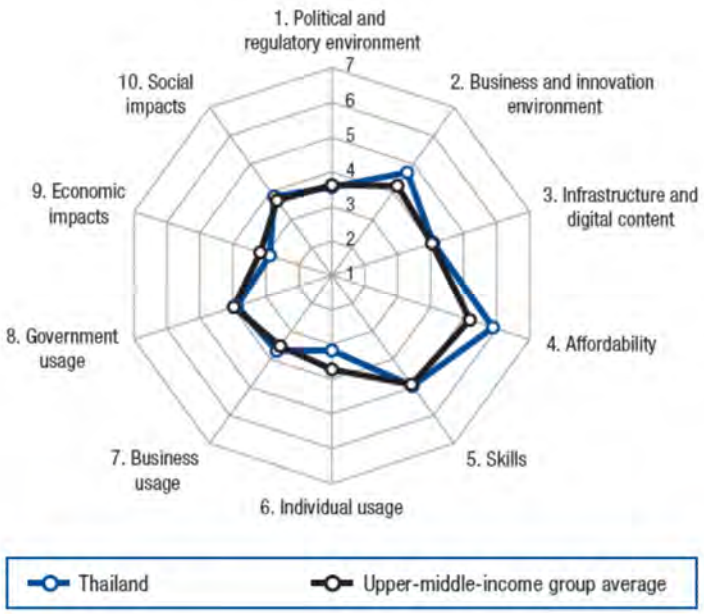

Figure 4 – NRI Country Profile (Thailand) 2014

Another aspect of the transformation to e-Government is networked readiness as measured by the World Economic Forum's annual Global Information Technology Report/Networked Readiness Index (NRI)[x]. Whilst Thailand's overall ICT performance in Thailand is on par with the average of other 'Upper-Middle' Income countries[1], the report noted:

> 'the institutional environment does not seem to be particularly conducive (79th) and the government does not appear to be particularly eager to push the digital agenda nationwide (84th). The resulting economic impact is therefore not yet satisfactory (104th), with few ICT PCT applications, few organizational models, and a low share of the workforce in knowledge-intensive activities.'[xi]

The United Nations e-Government Survey (*in 2012, Thailand ranked 92nd out of 193 countries*[xii] *and fell to 102nd out of 193 countries*[xiii] *in 2014)* and the BSA Global Cloud Computing Scorecard[2] *(in 2013, Thailand ranked 23rd out of 24 countries*[xiv]*)* also noted the need for policy makers, including the Ministry of Information and Communication Technology (MICT) and the Office of the National Economic and Social Development Board (NESDB), among others, to prioritize ICT

[1] *'Upper-Middle' Income countries include (but not limited to) Brazil, Malaysia, the Russian Federation, and Turkey.*

[2] *The BSA Global Cloud Computing Scorecard is based on seven (7) indicators including: Data Privacy, Security, Intellectual Property Rights, Support for Industry led Standards & International Harmonization of Rules, Promoting Free Trade, and ICT Readiness & Broadband Development.*

development – which along with 'Smart Government' lays the foundation to achieve the Smart Thailand vision.

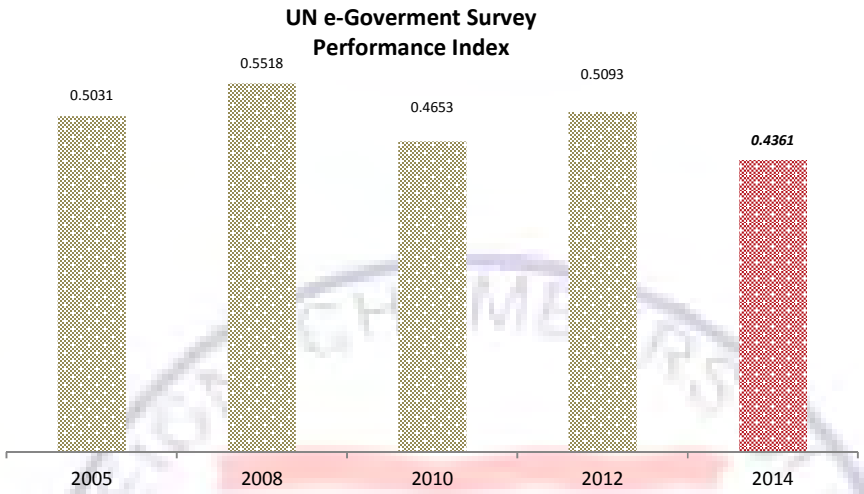

Figure 5 – Expected Improvement Did Not Materialize 2014

However, progress has been made in selected departments/ministries, including:

- **Department of Consular Affairs** - Introduction of e-Passports and expedited passport renewal – this required cooperation across multiple ministries, serving as a model of integrated Government.[xv]
- **Immigration Bureau** – introducing e-Gates for Thai citizens at Suvarnabhumi Airport; however, the adoption rate has been low.
- **Department of Land Transport** – online car tax payment and online drivers license application and testing.[xvi]
- **Department of Revenue Services** – e-Revenue service covering more than 15 types of filings[xvii].
- **The Customs Department** – e-Customs, e-Tracking, and e-Payment[xviii]
- **Ministry of the Interior** – introduction of smart ID cards in 2005. However, the full value of smart ID cards has yet to be realized due to numerous constraints including open data and e-GIF mandates.
- **Creation of the EGA** – responsible for setting the framework and standards needed for developing electronic government services as outlined in the 2nd Master Plan[xix].

Furthermore, the recent political crisis has forced the Government to speed up implementaiton of the EGA's Cloud Services Roadmap; however it is unclear if the work-arounds put into place during the occupation of Goverment offices will permanently replace prexisting ministerial workflows.

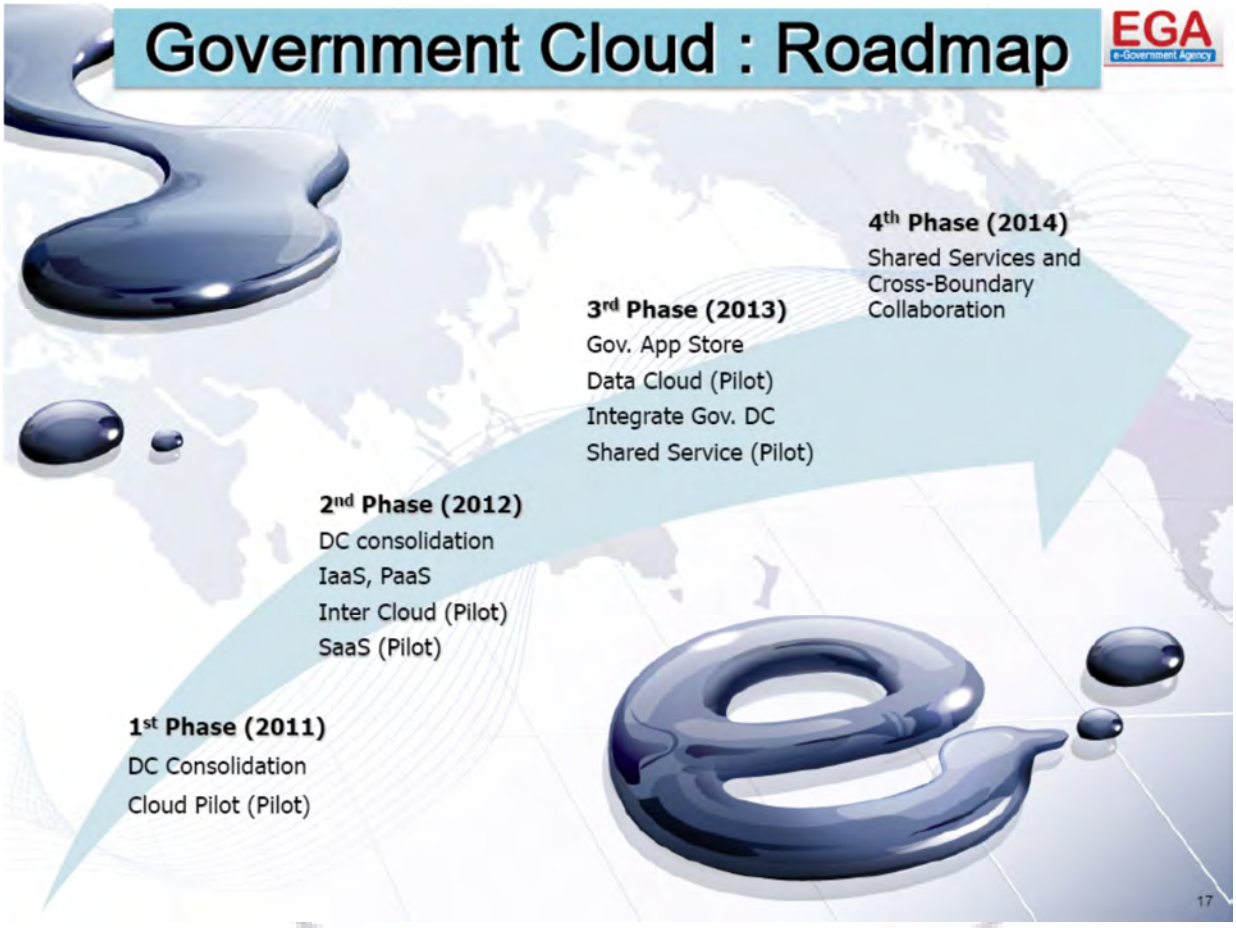

Figure 6 – From Presentation by Dr. Sak Segkhoonthod, President and CEO of the EGA, to the Internatioal Telecommunications Union (ITU)[xx]

In April 2013, MICT was appointed by ASEAN member countries to lead a panel on the development of the regional e-Government plan. This panel will oversee issues including the management of customs issues, such as the ASEAN Single Window (ASW) and the free movement of labour[xxi].

The ASW is part of the the ASEAN ICT Masterplan 2015, which includes high-level initiatives to support the development of e-Government in the region. However, for the ASW to work under the current scheme, the National Single Window (NSW) project, which is currently behind schedule, must first be completed.

We are confident that the current period of relative Government stability might provide the time required to complete projects that will have a positve effect on Thailand's ranking. However, the country has fallen from 46th [xxii] in 2005, to 92nd in 2012[xxiii], to 102nd in 2014[xxiv] in the UN e-Goverment Survey eventhough the 2nd ICT Master Plan identified the survey as a key e-Government transformation metric.

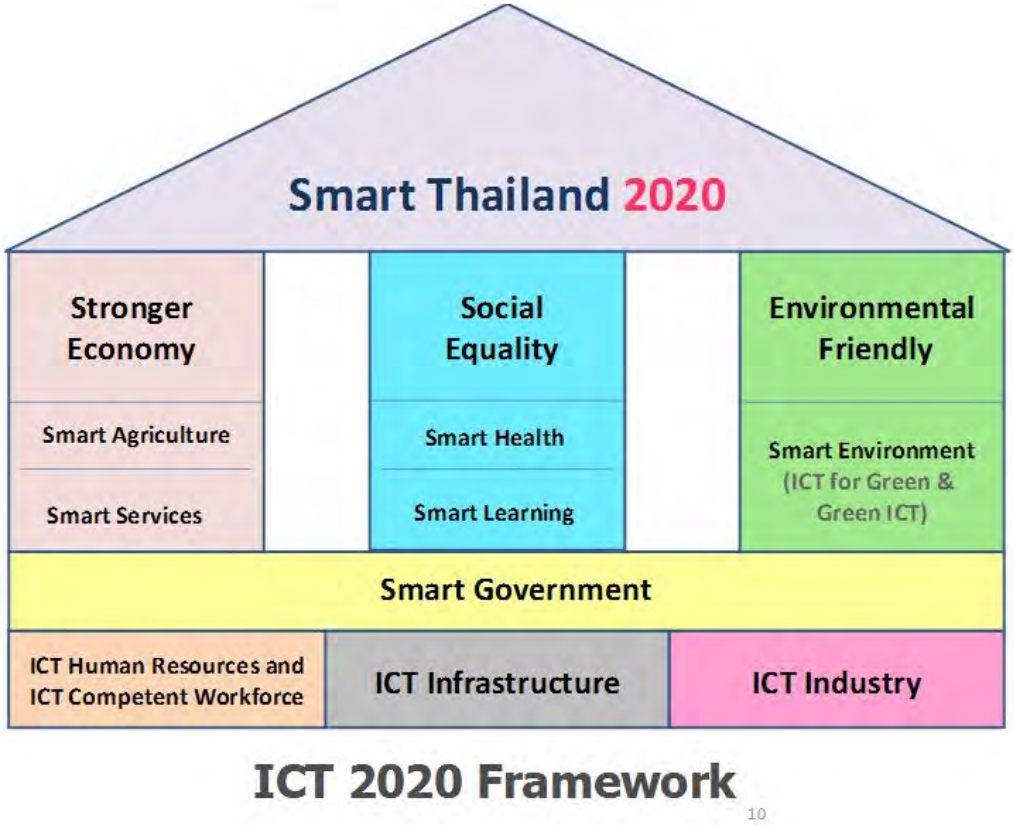

Figure 7 – ICT Development & Smart Government lay the Foundation to ICT 2020[xxv]

Areas for Further Development

The 2nd ICT Master Plan laid out the goal of utilizing ICT to promote good governance in public administration and services[xxvi], areas for further development remain:

- **Complete implementation of the TH-GIF**, as it would appear that the project has been delayed based on the 2010 deadline in the 2nd ICT Master Plan[xxvii].
- **Provide universal access to e-Government services** utilizing a multi-channel approach including the introduction of a national portal as a Single Sign On (SSO)[xxviii] gateway for all citizen services[xxix].
- **Improve Thailand's performance on the United Nations e-Government Survey**; the 2nd ICT Master Plan called for an improvement of 15 spots by the 2014 survey; however, the country slipped by 10 spots.

- **Report the results of the evaluation study on e-Government services** as outlined in the 2nd ICT Master Plan[xxx].
- **Report e-Government performance** as per key indicators outlined in the 2nd ICT Master Plan[xxxi].

Furthermore, increased coordination with industry including the sharing of best practices and developing **'Customer-Centric'**[xxxii] solutions will benefit Thailand's competitiveness in other ways such as reducing the cost of dealing with Government.

Key components of a shift towards **'Customer-Centric'** solutions include:

- **Adoption of e-Documents and e-Signatures,** including recognition as valid by all ministries[xxxiii] and the inclusion of e-Document and e-Signatures into ministerial workflows. This would allow data entries to be structured – i.e. data that can easily fit into defined fields and can be analysed by data management systems including (but not limited to) relational databases.
- **Promotion of the timely collection of accurate statistics** for better decision making and effective allocation of resources.
- **Enhanced legal protection of privacy, data, and storage** with input from stakeholders.
- **Full utilization of smart ID cards** including guidelines for authorized use by the private sector.
- **Completion of the National Single Window (NSW) project** in preparation for the launch of the ASEAN Single Window (ASW).
- **Increased stakeholder engagement** in all aspects of e-Government initiatives.

Progress in these areas of further development will allow Thailand leapfrog its competitors in global ICT rankings.

Recommendations

In keeping with the goal of the 2nd ICT Master Plan - *to improve 'the quality of life of Thai people and society through the development of a knowledge-based society'*[xxxiv], we recommend:

1. By 2016, all C2G data captured should be **digitised and in some structured format,** thus moving beyond merely paperless to ensure that all incoming data is accurate, indexed, searchable, and able to support analyses for policy research etc.

2. At the same time, the Government should allow to all citizens with appropriate authorization to access public information – this will allow the public and private sectors to utilize Government data for better decision making and effective allocation of resources.

3. By 2015, ministerial workflows should be based on the assumption of no paper; thus recognition as to the validity of e-Documents and e-Signatures as indicated in Sections, 7, 8, 9 and 26 of the Thailand Electronic Transaction Act of B.E. 2544 is required.

4. Universal acceptance of smart ID cards in the public and private sectors; as well as the issuance of smart-cards to foreign residents with valid work permits *(possibly as the replacement of)*, retirement visas, or permanent residency. This would serve as the key for citizens and residents alike to access various government agencies.

5. On the customs front, full implementation of the National Single Window system to support the development of the regional e-Government plan related to logistics including the ASEAN Single Window.

6. Perform a comprehensive review of the legal framework and protections governing privacy, data security, biometrics, and storage – this review should include stakeholders from all sectors.

7. Launch single ticket system for all public transportation services, including buses, trains, taxis, etc. This system could utilize existing smartcard/NFC technologies similar to the Rabbit Card.

8. Through cooperation with industry, choose the appropriate actions needed to move e-Government initiatives, such as TH-GIF, NSW, and universal access via SSO Gateway, to completion.

9. Increase stakeholder engagement by gaining feedback from citizens through e-Government polls as outlined in the EGA Roadmap (*see Figure 2 – p. 4*). The results of

the polls should be reviewed by public/private working groups to implement actions that will improve performance.

These recommendations outline an approach to widen the gap between Thailand and its peers by leveraging the key enablers of e-Government[xxxv] whilst providing the flexibility to develop solutions that foster an environment for commerce, participation, management, and services. Ultimately transforming Government and strengthening the evolution towards a knowledge-based economy.

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Why it's Important / Benefits to Thailand

The integration and automation of Government services will directly impact stakeholder satisfaction. Furthermore, the aggregate economic impact has the potential to add a minimum of **USD $ 2 BILLION**[3] to the nation's economy[xxxvi] annually. While time savings would translate into a reduction in the cost of Government interactions. An estimated reduction of 1 hour per year per citizen would net a combined savings in the order of **USD $ 150 MILLION**[4] annually[xxxvii].

Further benefits include:

- Reduced cost of Government (management)
- Increased effectiveness of services through improved resource allocation. (services)
- EGA partnership with private enterprises to offer e-Government consultancy to other Governments in ASEAN or as a lower cost alternative to Governments in high cost countries; providing another opportunity to increase Government revenues. (services)
- Improved convenience and communications (participation)
- Opportunities for industry to gain a competitive advantage through access to higher quality data (commerce)
- Maintaining Thailand's position as a preferred investment target: (commerce)
    - By creating unique opportunities for revenue capture in the public and private sector.
    - By reducing administrative and other costs associated with Government interactions.

The combined benefits would have a profound benefit on industry in Thailand accelerating growth throughout the economy.

[3] *Based on the impact of improved e-Government services proportional to the size of Thailand's economy.*

[4] *Proportional to Purchasing Power Parity*

Next Steps

1. Review position paper with key constituencies including JFCCT members and other industry groups with the goal of identifying areas of specific interest and support.

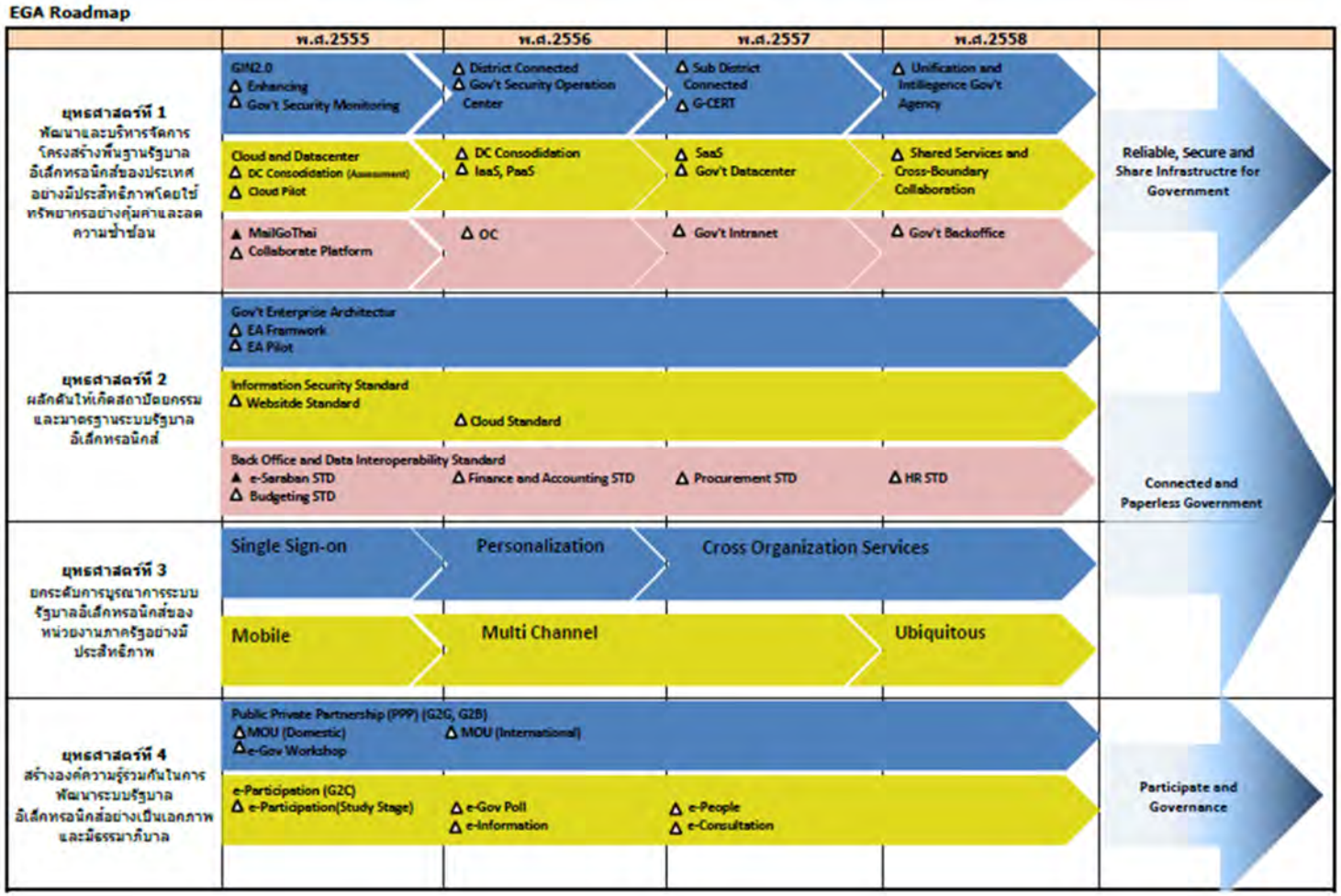
2. Undertake additional informal discussions with pertinent Government representatives to present issues and gather additional feedback.

3. Identify key ministries, agencies, and/or departments in all branches of Government where structured data implementation would have the biggest impact for the business community. This would include MICT, NECTEC, EGA, Ministry of Finance, Ministry of Commerce, the Customs Department, BOI, Ministry of Labour (Employment Department), the Bank of Thailand, Ministry of Justice, and the Immigration Bureau among others.

Appendix A: Transformed Government, Five Pillars of e-Government in Thailand

Source - Wongkachonkitti, Nantawan. Thailand E-Government Roadmap. PowerPoint Presentation. Created 5 May 2011. Slide 29.

Appendix B: e-Government Roadmap (2011)



Source - Thitikorn. การพัฒนา e-Government. PowerPoint Presentation. Created 2 September 2011. Slide 13.

Appendix C: Waseda University Institute of e-Government Rankings 2013

No	Final Rankings	Score
1	Singapore	94.00
2	Finland	93.18
3	USA	93.12
4	Korea	92.29
5	UK	88.76
6	Japan	88.30
7	Sweden	87.80
8	Denmark	83.52
8	Taiwan	83.52
10	Netherlands	82.54
11	Australia	82.10
12	Canada	81.78
13	Switzerland	81.33
14	Germany	80.08
15	Italy	79.11
16	New Zealand	77.29
17	Norway	75.53
18	Belgium	72.01
19	Estonia	71.76

No	Final Rankings	Score
20	France	69.49
20	Thailand	69.49
22	Portugal	69.11
23	Turkey	67.10
24	Malaysia	66.26
25	Hong Kong	66.12
26	Spain	65.89
27	China	65.69
28	Mexico	64.24
29	UAE	63.34
30	India	62.77
31	Brunei	60.89
32	Israel	60.25
33	Brazil	59.88
34	Russia	59.32
35	Macau	58.65
36	South Africa	57.77
37	Vietnam	55.42
38	Czech	55.06

No	Final Rankings	Score
39	Chile	54.87
40	Indonesia	53.05
41	Philippines	50.88
42	Romania	49.72
43	Argentina	49.23
44	Pakistan	47.25
45	Venezuela	47.20
46	Peru	46.56
47	Nigeria	45.20
48	Egypt	44.11
49	Kazakhstan	37.27
50	Georgia	34.98
51	Cambodia	33.52
52	Fuji	32.65
53	Tunisia	31.33
54	Iran	30.77
55	Uzbekistan	30.35

Source - Institute of e-Government, Waseda University. Retrieved 5 June 2013. Press Release - Waseda University International e-Government Ranking 2013. Released 25 March 2013

Appendix D: WASEDA – IAC 10th International E-Government Ranking 2014

No	Final Rankings	Score
1	USA	94.00
2	Singapore	93.77
3	Korea	92.39
4	UK	90.40
5	Japan	88.00
6	Canada	85.30
7	Estonia	84.41
8	Finland	82.69
9	Australia	82.37
10	Sweden	81.93
11	Denmark	79.06
12	New Zealand	79.04
13	Norway	77.97
14	Switzerland	77.30
15	Austria	76.66
16	Germany	75.97
17	Netherlands	75.80
18	Taiwan	74.51
19	France	74.48
20	Italy	72.80
21	Belgium	69.97

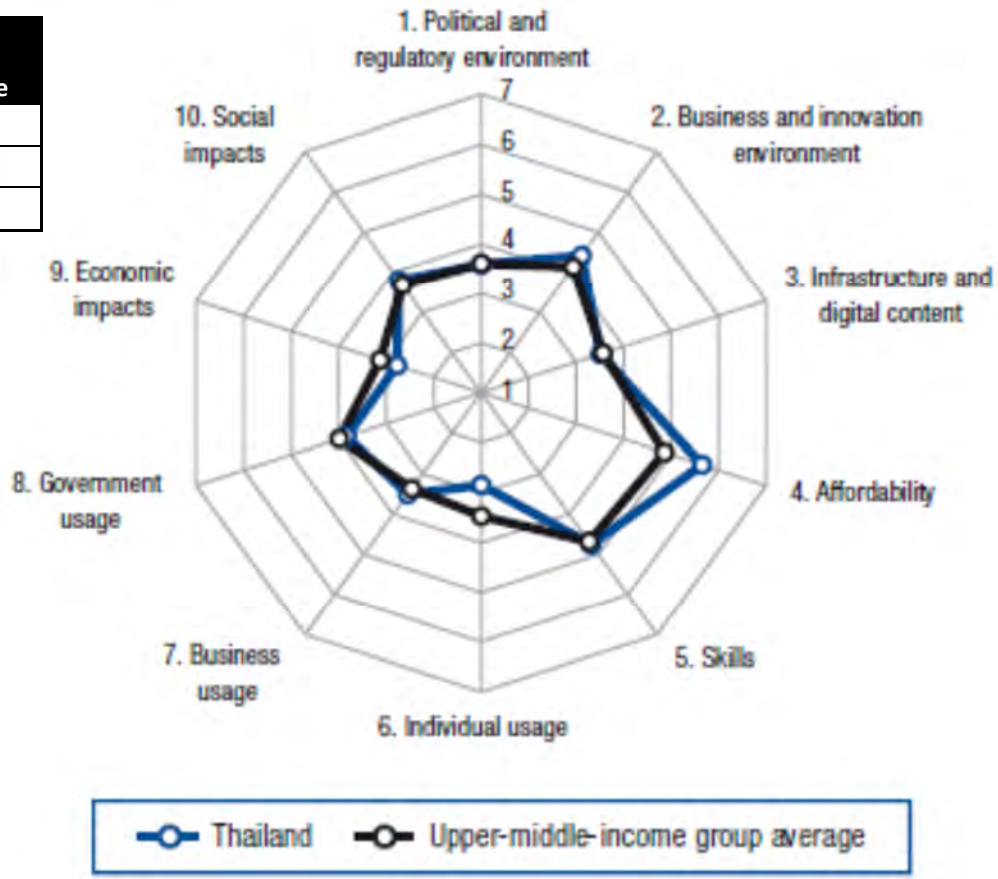
No	Final Rankings	Score
22	Spain	69.66
23	Thailand	68.60
24	Israel	68.18
25	Portugal	66.84
26	Hong Kong	64.83
27	Malaysia	63.71
28	Turkey	62.65
29	India	61.49
30	Czech Republic	61.18
31	Macau	61.15
32	Indonesia	60.98
33	UAE	60.84
34	Vietnam	59.93
35	Russia	59.83
36	Mexico	59.51
37	Saudi Arabia	56.18
38	South Africa	55.22
39	China	54.62
40	Brazil	54.40
41	Brunei	53.84
42	Poland	52.06

No	Final Rankings	Score
43	Philippines	51.83
44	Romania	50.66
45	Nigeria	50.62
46	Kazakhstan	49.08
47	Chile	46.94
48	Argentina	46.56
49	Tunisia	46.51
50	Venezuela	46.05
51	Pakistan	45.19
52	Georgia	44.15
53	Colombia	43.88
54	Peru	43.60
55	Uruguay	43.52
56	Egypt	41.37
57	Fiji	40.73
58	Kenya	40.72
59	Uzbekistan	32.59
60	Cambodia	32.45
61	Iran	29.02

Source - Institute of e-Government, Waseda University. Retrieved 9 August 2014. WASEDA – IAC 10th International E-Government Ranking 2014. May 2014. P. 3.

Appendix E: 2013 Global Information Technology Report – Country Profile and NRI (Thailand)

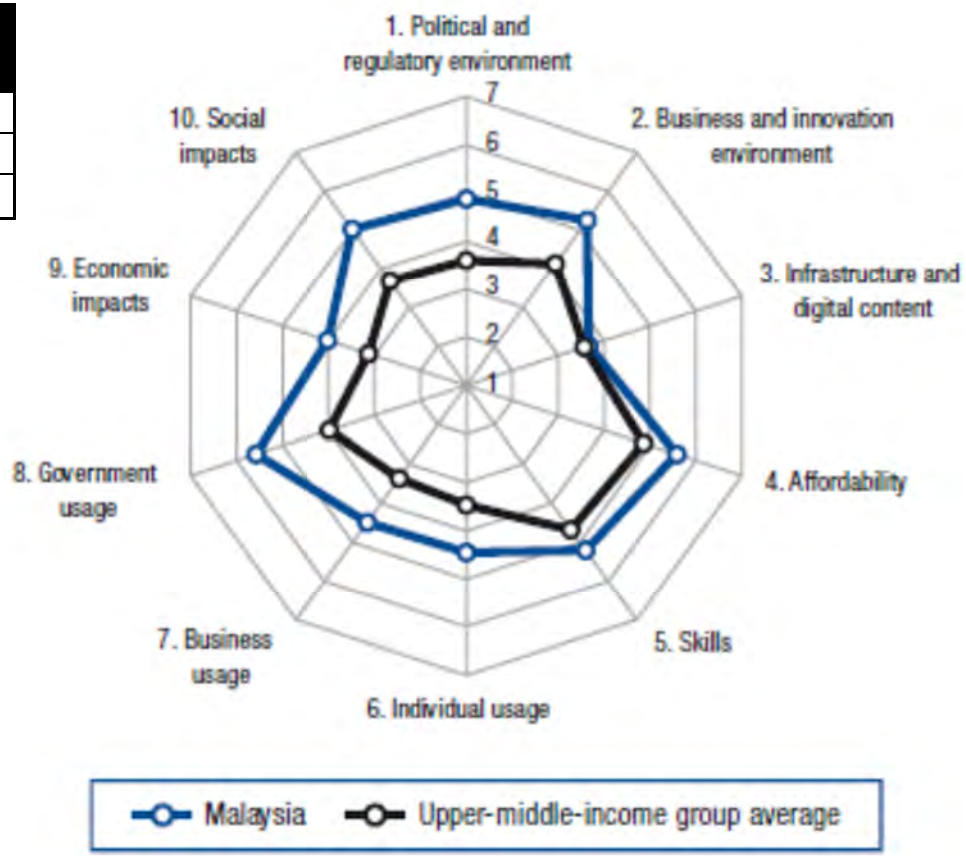
2013 NRI 8th pillar: Government usage	Rank/142	Value
8.01 Importance of ICTs to gov't vision	104	3.5
8.02 Government Online Service Index, 0–1 (best)	64	0.51
8.03 Gov't success in ICT promotion	95	4



Source - Bilbao-Osorio, Beñat; Dutta, Soumitra; Lanvin, Bruno. The Global Information Technology Report 2013. P. 271. ISBN-13: 978-92-95044-77-7

Appendix F: 2013 Global Information Technology Report – Country Profile and NRI (Malaysia)

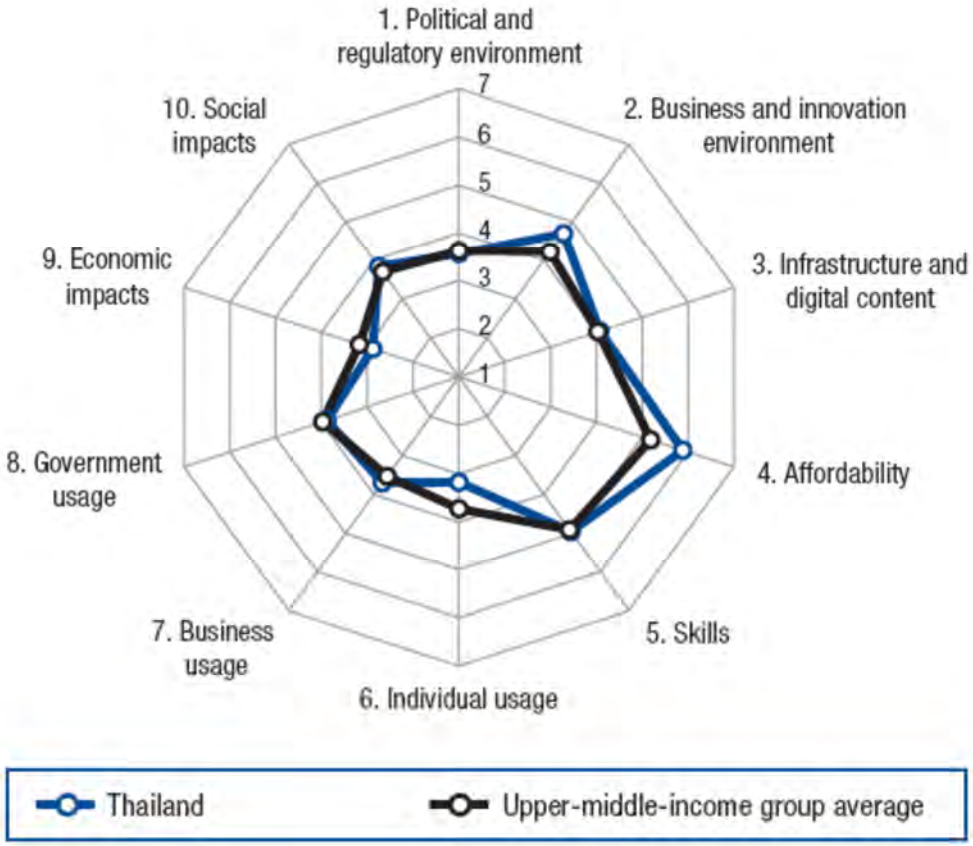
2013 NRI 8th pillar: Government usage	Rank/142	Value
8.01 Importance of ICTs to gov't vision	6	5.4
8.02 Government Online Service Index, 0–1 (best)	20	0.79
8.03 Gov't success in ICT promotion	10	5.5



Source - Bilbao-Osorio, Beñat; Dutta, Soumitra; Lanvin, Bruno. The Global Information Technology Report 2013. P. 222. ISBN-13: 978-92-95044-77-7

Appendix G: 2014 Global Information Technology Report – Country Profile and NRI (Thailand)

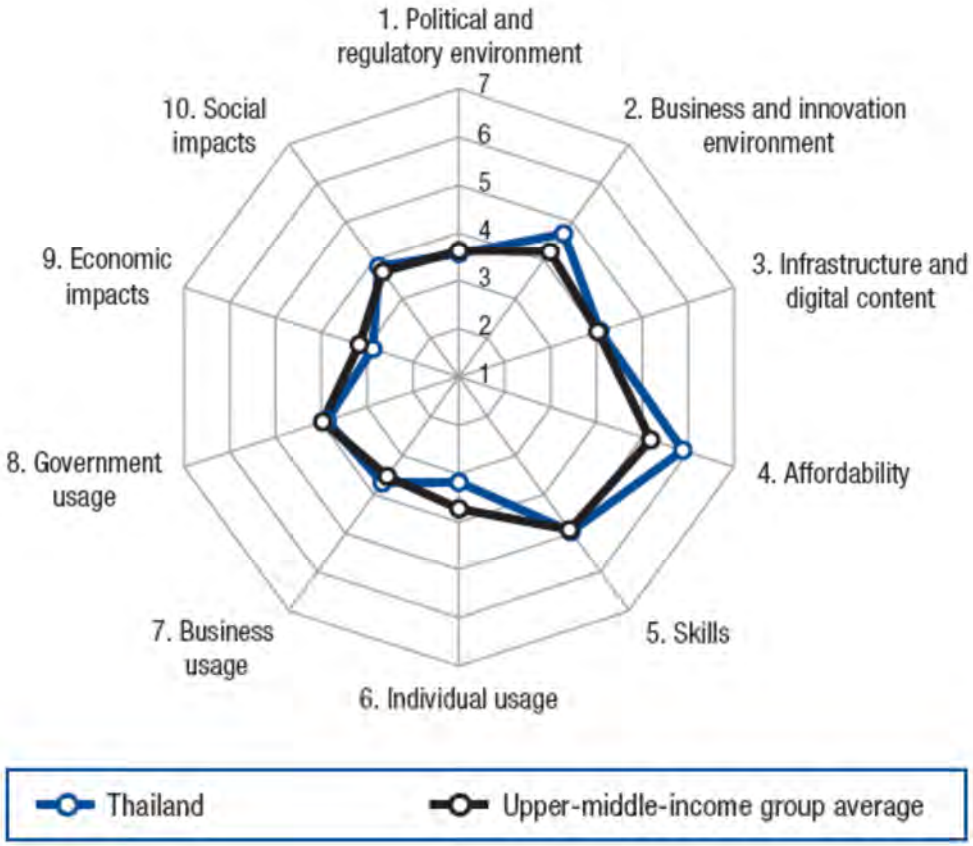
2014 NRI		
8th pillar: Government usage	**Rank/142**	**Value**
8.01 Importance of ICTs to gov't vision	99	3.6
8.02 Government Online Service Index, 0–1 (best)	64	0.51
8.03 Gov't success in ICT promotion	94	4



Source - Bilbao-Osorio, Beñat; Dutta, Soumitra; Lanvin, Bruno. The Global Information Technology Report 2014. P. 233. ISBN-13: 978-92-95044-63-0

Appendix H: 2014 Global Information Technology Report – Country Profile and NRI (Malaysia)

2014 NRI		
8th pillar: Government usage	**Rank/142**	**Value**
8.01 Importance of ICTs to gov't vision	9	5.4
8.02 Government Online Service Index, 0–1 (best)	20	0.79
8.03 Gov't success in ICT promotion	9	5.6



Source - Bilbao-Osorio, Beñat; Dutta, Soumitra; Lanvin, Bruno. The Global Information Technology Report 2014. P. 183. ISBN-13: 978-92-95044-63-0

Appendix I: 2013 BSA Global Cloud Computing Scorecard Rankings

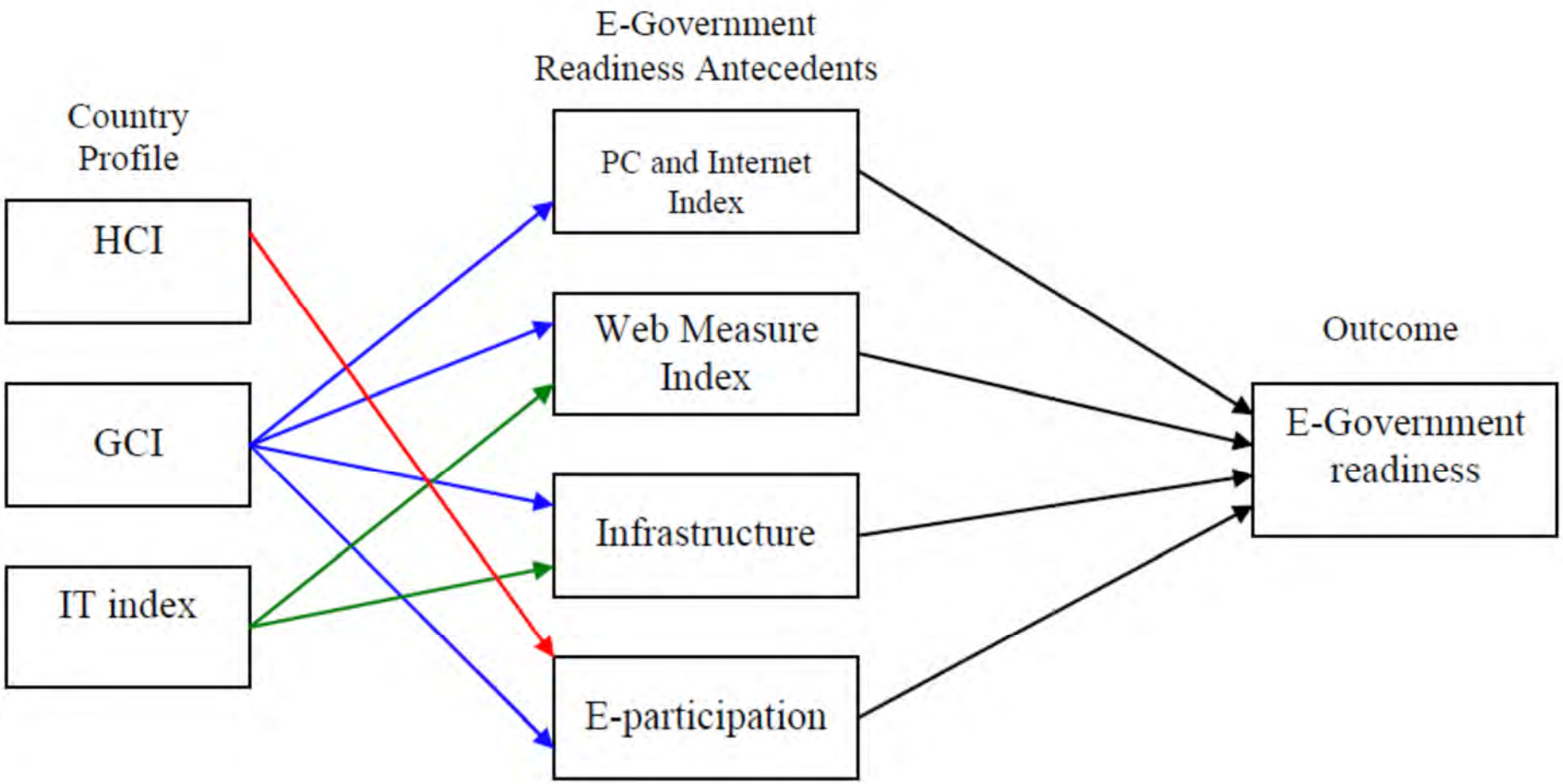
These findings are based on the BSA's examination and ranking of 24 countries representing 80 percent of the global ICT market.

	Country Ranking	2013	2012	Δ
1	Japan	84.1	83.3	0.8
2	Australia	79.9	79.2	0.7
3	US	79.7	78.6	1.1
4	Germany	79.1	79.0	0.1
5	Singapore	78.5	72.2	6.3
6	France	78.3	78.4	(0.1)
7	United Kingdom	76.9	76.6	0.3
8	Korea	76.2	76.0	0.2
9	Canada	75.8	70.4	5.4
10	Italy	75.5	76.6	(1.1)
11	Spain	73.7	73.9	(0.2)
12	Poland	72.0	70.7	1.3
13	Malaysia	69.5	59.2	10.3
14	Russia	59.1	52.3	6.8
15	Mexico	56.9	56.4	0.5
16	Argentina	56.5	55.1	1.4
17	India	53.1	50.0	3.1
18	Turkey	52.4	52.1	0.3
19	China	51.5	47.5	4.0
20	South Africa	51.3	50.4	0.9
21	Indonesia	48.4	49.7	(1.3)
22	Brazil	44.1	35.1	9.0
23	Thailand	44.0	42.6	1.4
24	Vietnam	40.1	39.5	0.6

Change from 2012 to 2013	
Bottom 10%	
Top 10%	

Source The Software Alliance and Galexia Consulting. 2013 BSA Global Cloud Computing Scorecard

Appendix J: e-Government Readiness – Anticipated Relationships



Source – Yunis, Manal and Sun, Jun. Determinants of E-government Readiness: An Application of Canonical Correlation and SEM Analysis Techniques. P. 575. Department of Computer Information Systems, College of Business Administration, University of Texas – Pan American.

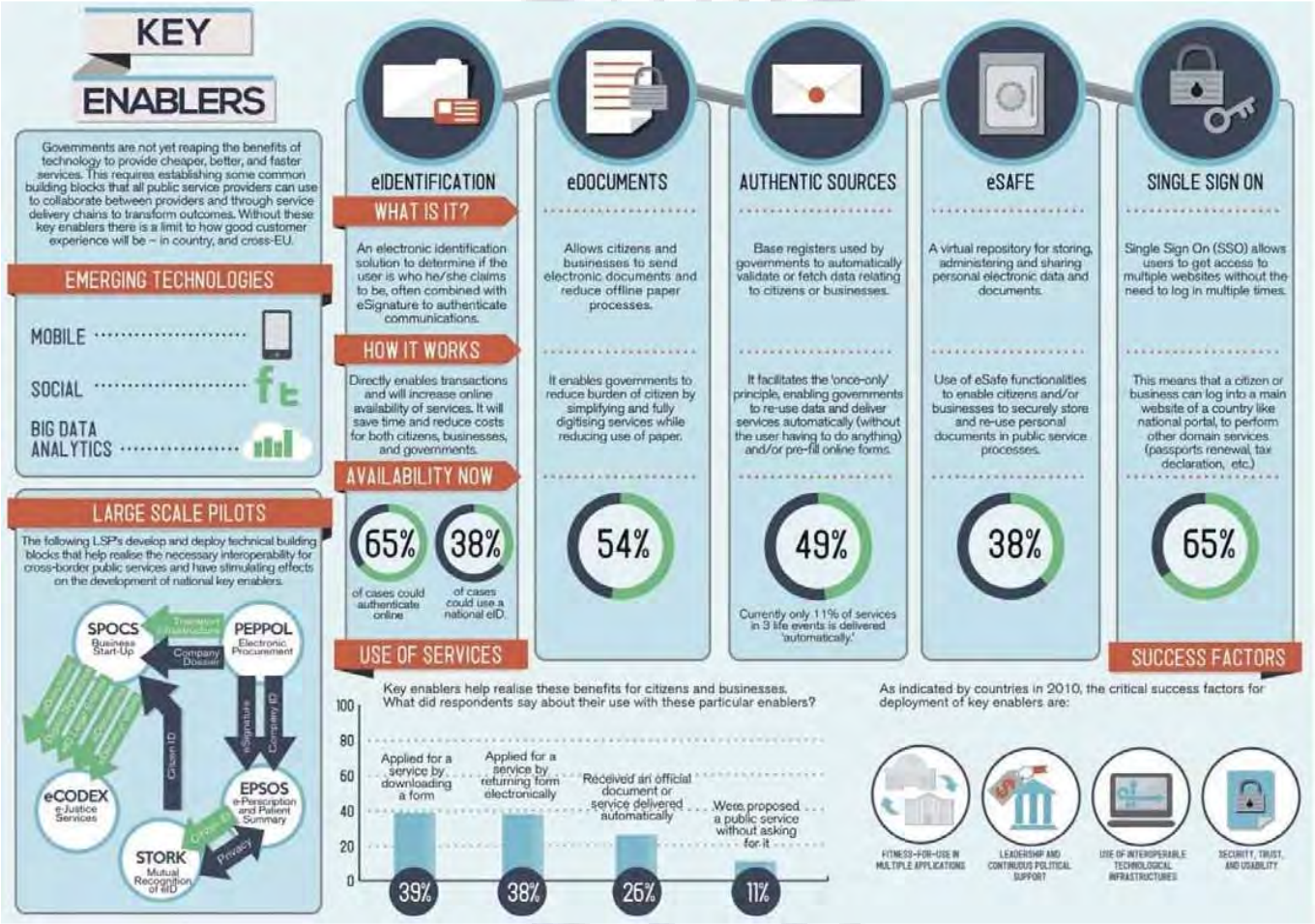
Appendix K: e-Government Development in South-East Asia

According to the 2nd ICT Master Plan, the UN Survey is one of the Government's KPIs. Thailand has fallen from 46th in 2005 to 92nd in 2012.

	E-gov. development index		World e-gov. development ranking	
Country	**2012**	**2010**	**2012**	**2010**
Singapore	0.8474	0.7476	10	11
Malaysia	0.6703	0.6101	40	32
Brunei Darussalam	0.6250	0.4796	54	68
Viet Nam	0.5217	0.4454	83	90
Philippines	0.5130	0.4637	88	78
Thailand	0.5093	0.4653	92	76
Indonesia	0.4949	0.4026	97	109
Lao People's Dem. Rep.	0.2935	0.2637	153	151
Cambodia	0.2902	0.2878	155	140
Myanmar	0.2703	0.2818	160	141
Timor-Leste	0.2365	0.2273	170	162
Sub Regional Average	**0.4793**	**0.4250**		
World Average	**0.4882**	**0.4406**		

Source – Department of Economic and Social Affairs. United Nations e-Government Survey 2012. P. 27.

Appendix L: Key Enablers



Source - Tinholt, Dinald and van der Linden, Niels. Public Services Online 'Digital by Default or by Detour?' Assessing User Centric e-Government performance in Europe – eGovernment Benchmark 2012. P. 55. ISBN 978-92-79-29949-0

Appendix M: Evolution of ID Cards in Thailand

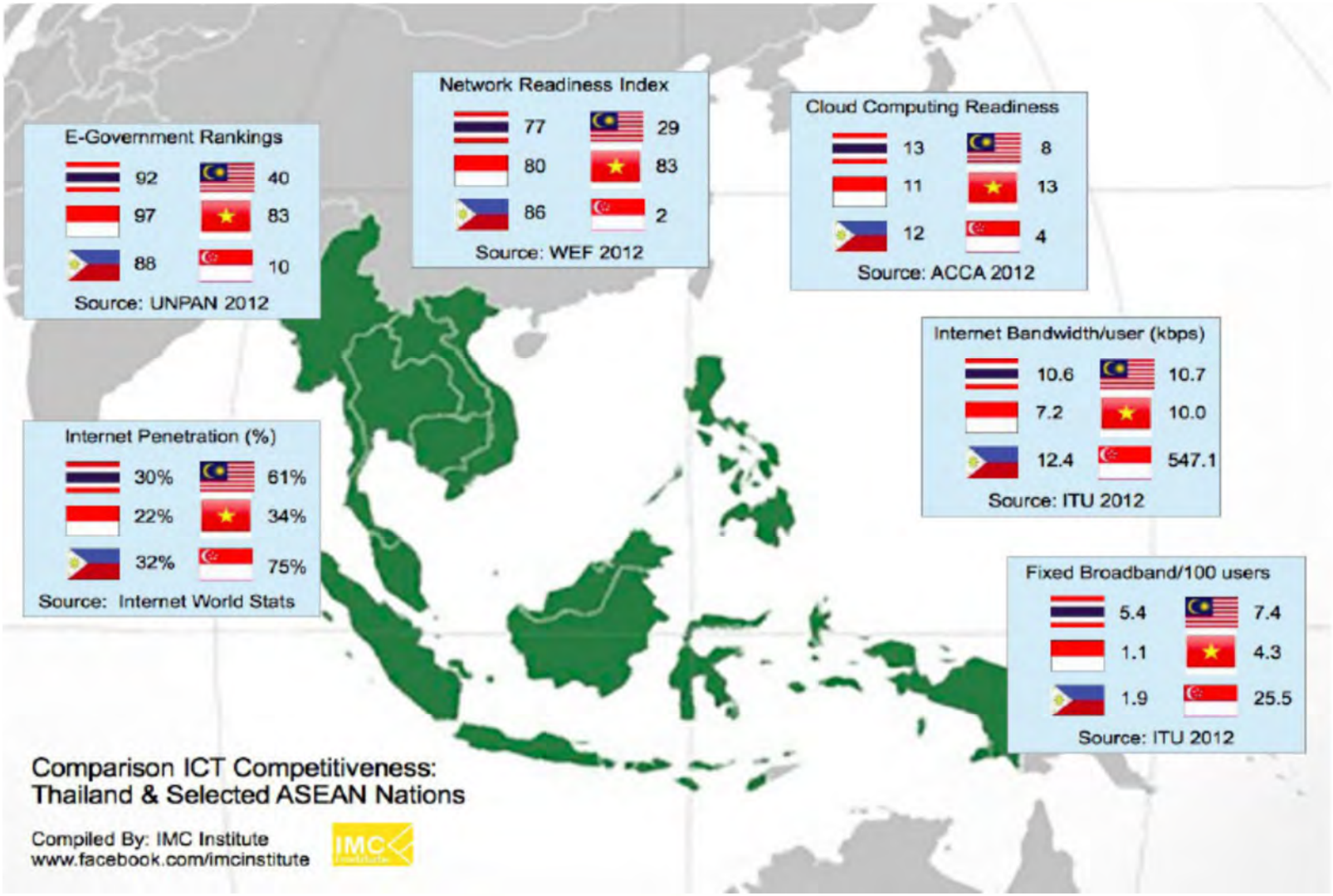
THE HISTORY OF THAI IDENTITY CARDS

- Since 1943, five generations of citizen's identity cards have been used. The first were paper cards, folded in sections with eight pages, similar to library cards. They were only issued to residents living in Bangkok in the former Thon Buri province, from 1943 to 1962.
- The second was a rectangular paper card laminated with plastic. This was the first to carry the holder's black-and-white photo, with typed text. It was introduced on January 1, 1963.
- The third type was similar the second, only the holder's photo was in colour and the text was keyed in through a computerised database. It was laminated to try to prevent it being forged. This was first used in January 1988.
- The fourth generation cards are still in use, as are fifth and current ID cards, although the latest has never been fully issued to all holders. The fourth card has a magnetic bar and is like a plastic credit card. The database and issuing process were completely computerised to ensure holders could get one within 15-minutes. It was first used on December 5, 1996, in Bangkok districts and Pathum Thani's Muang district.
- A nationwide database by March 1, 2004 enabled people to apply for ID cards at any district office across the country, regardless where their house was registered. The new details added to these cards were people's blood group and individuals were able to exclude their religion if they wanted. These cards expire every six years on the holder's birthday.
- The latest generation, the fifth and never-completed "Smart Card", aimed to include all personal and household details on one card. It was designed to also serve as an ATM card and a driver's licence, as well as an ID card issued by any government agency to save costs. These were introduced on October 7, 2005.

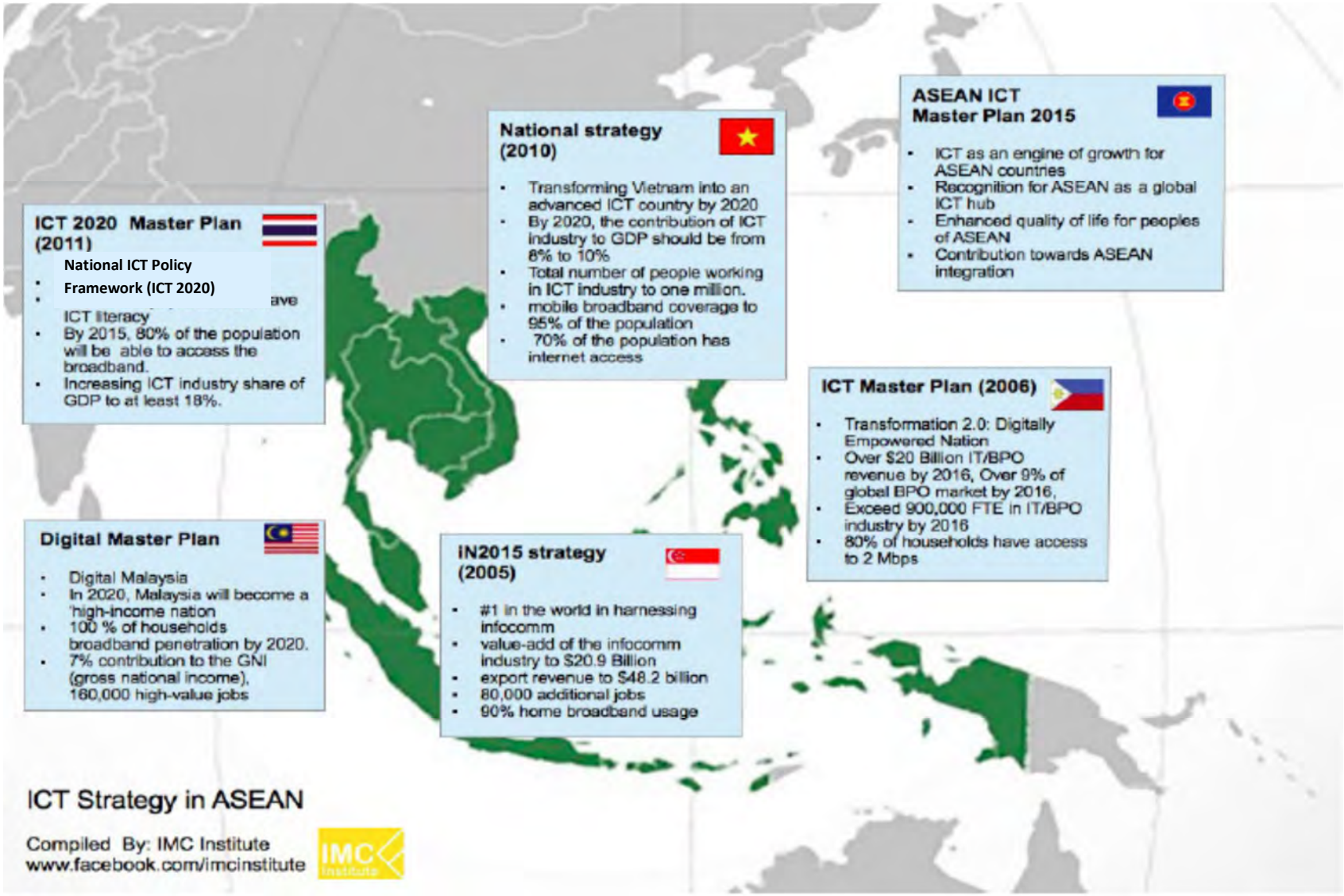
Source: The Nation

NATION GRAPHICS

Appendix N: ICT Competitiveness – ASEAN



Appendix O: ICT Strategy in ASEAN



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