Evidence-Based Decision-Making: Practices in Thailand

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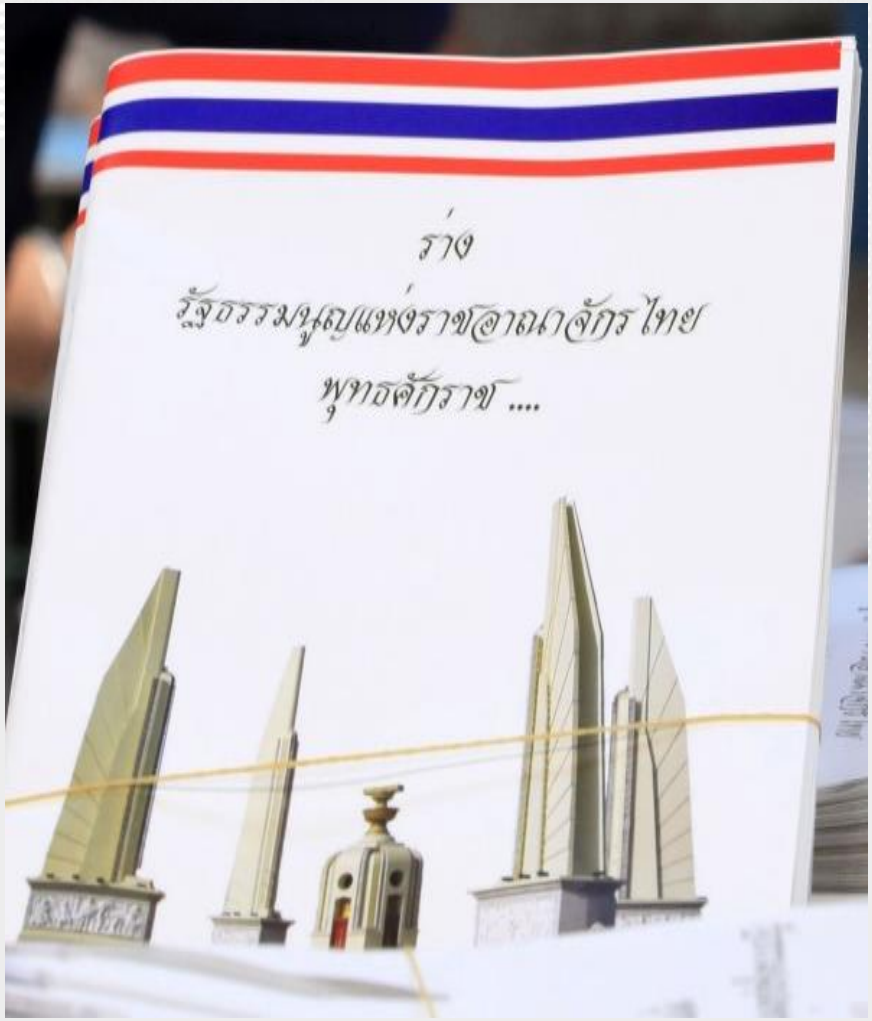
President & CEO
Electronic Government Agency (Public Organization)
14 September 2016

Topics

- Digital Economy and Digital Government in Thailand
- Data Sharing and Integration
- Big Data
- Open Data

Digital Economy and Digital Government in Thailand

Draft Constitution of Thailand Approved at the referendum on 7 August 2016



Section 258 B (2) requires the Thai government to reform the country's public administration by **integrating databases of all government agencies for public administration and providing services to people**

Thailand Digital Economy and Society Development Plan

Approved by the Cabinet on 5 April 2016

VISION

Transformation towards Digital Thailand

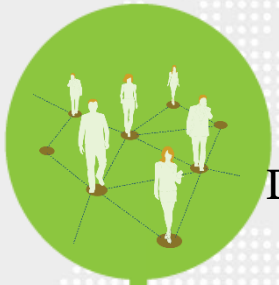
Digital Thailand

is defined as a transformed Thailand that utilises digital technologies to their full potential in all socio-economic activities in order to develop infrastructure, innovation, data, human capital, and other resources that will ultimately drive the country's economy and society towards stability, prosperity and sustainability.

Twenty-Year Thailand Digital Landscape

Phase 1
Digital Foundation
Investing and building digital foundation

1 Year 6 Months



Phase 2
Digital Thailand I:
Inclusion
Ensuring everyone can reap the benefits of digital technology

5 Years

Phase 3
Digital Thailand II:
Full Transformation
Driving the country with digital technology and innovation

10 Years

Phase 4
Global Digital Leadership
Leading with digital technology and innovation
(Becoming a developed country)

10-20 Years

Fourth Strategy: Digital Government

6. Build trust and confidence in the use of digital technology

Updating laws and regulations,
Encouraging investments
Ensuring security

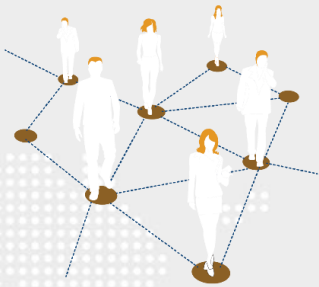
1. Build country-wide high-capacity digital infrastructure

Ensuring accessibility, availability, and affordability

5. Develop workforce for the digital era

Developing skilled workforce,
Creating jobs
Building strength from within

Strategies



2. Boost the economy with digital technology

Driving New S-Curve,
Raising Competitiveness,
Building new businesses,
Creating values

4. Transform into digital government

Creating open government,
Facilitating people and businesses, Integrating into One Government

3. Create a quality and equitable society through digital technology

Ensuring inclusive and equal access to digital technology

Strategy 4
Transform into digital government

Creating open government, Facilitating people and businesses, Integrating into One Government

Goals

- Government services will meet the demands of people and businesses with respect to convenience, speed, and accuracy.
- People will be able to easily access governmental data to ensure transparency and civic participation.
- Governmental infrastructure and data will be integrated to link governmental functions and provide effective services to the people.

Actions

4.1 Migrate to citizen-centric smart services

4.2 Increase efficiency and good governance with digital technology

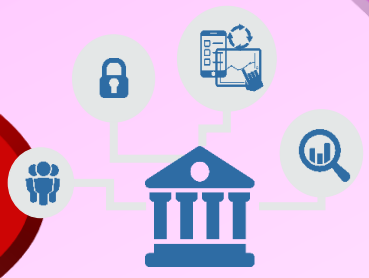
4.3 Promote open data and civic participation

4.4 Develop government service platforms to encourage new services

Digital Government

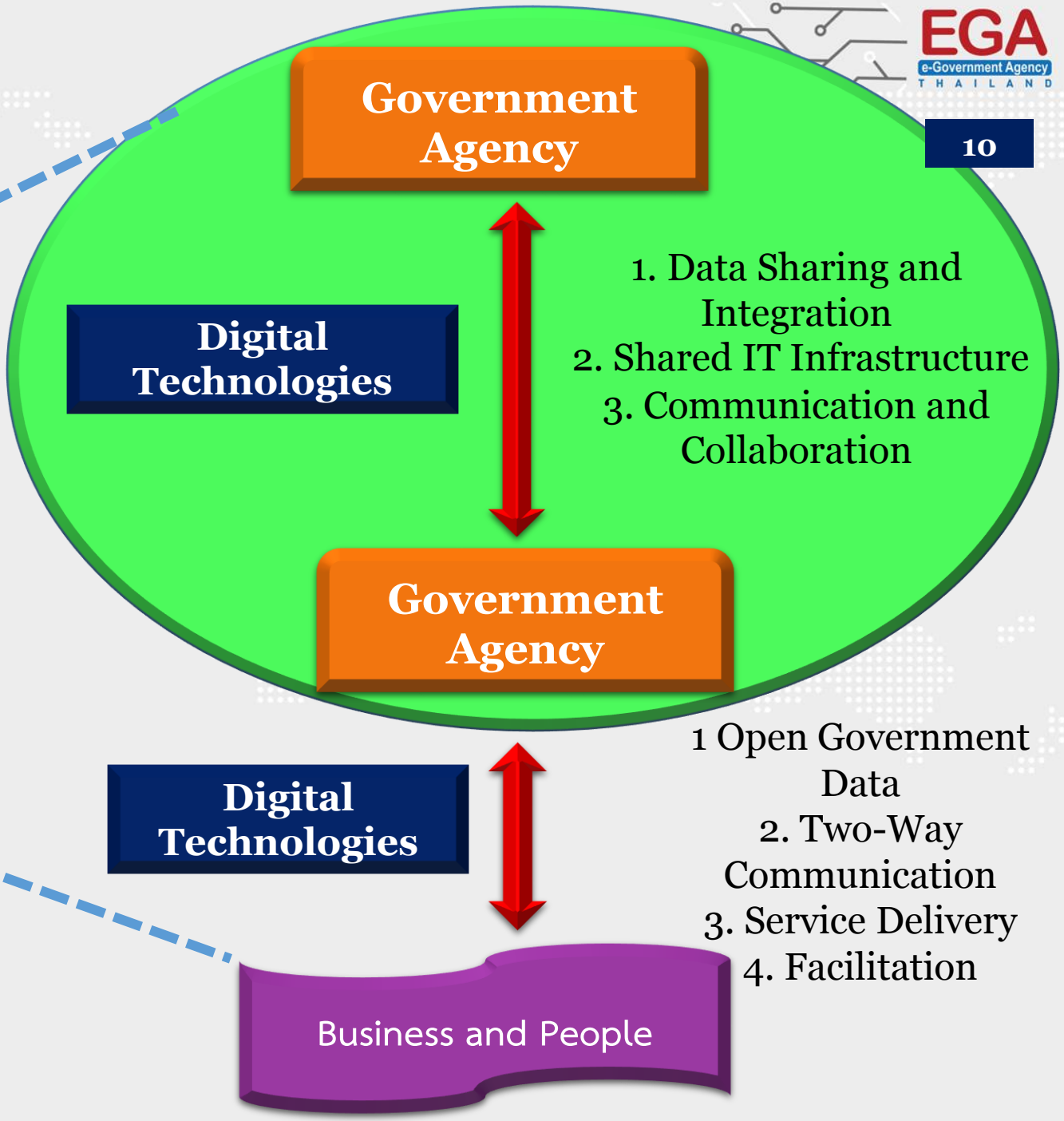
Technologies

Open and Connected Government



Management, Human Resources and Regulations

Open and Connected Government



Thailand Digital Economy and Society Development Plan

Three-Year Thailand Digital Government Development Plan (2016-2018)

A Digital Government Master Plan is required in order to provide clarity in the direction of development across all agencies

Current Thai Government

Digital Government Project Initiative

Digital Government

5 challenges in developing digital capabilities...

1. Different government agencies **lack a shared vision** in the development of the Digital Government
2. Various systems were developed separately, which results in a **lack of standard** and an **inability for these systems to work together**
3. Budget allocation is not **continuously supported**, leading to **ineffective outcomes**
4. **Lack of personnel with appropriate IT expertise**
5. **Laws** which support the current electronics operations have **not been put to practical use**

which is why it is necessary to develop the Master Plan which consists of...

- Identifying **digital capabilities** which should be **developed by the government**
- Determining the **gap between current digital capabilities** and the **capabilities required** to achieve the To-Be target
- Recommended **measures and project initiatives** required to **achieve the target goal within 3 years**

Digital Government Development Vision

"In 3 years time, the Thai Government will be elevated to a Digital Government with government integration, smart operations, citizen-centric services and driven transformation."

Government Integration

Integration between different agencies including information and operations integration in order to

- Provide a single complete view of a citizen
- Use shared services
- Provide integrated government services at a single point

Smart Operations

Utilising technology and digital equipment in supporting personnel's work tasks

- Connection between equipment
- System which supports the management of Big Data
- Analytic Tools

Driven Transformation

Transforming an organization in aspects such as human resources, work processes, technology and regulations.

Receiving full support from country leaders with determination, vision and sees the importance in utilizing technology to support development

Citizen-centric Services

Elevating the services sector so that there is experience design and provides service based on an individual's needs. This must be balanced between the people's security of life, assets, information and convenience.

A total of 26 main Digital Government Capabilities can be determined...

National Security

- Public Safety
- Crisis Management
- Border Management
- Natural Disaster

Economic and Social Development Services

- Investment
- Tax and Revenue
- Education
- Trade
- Social Development
- Public Health
- SMEs
- Labour
- Utilities
- Tourism
- Agriculture
- Transportation

Government Efficiency

- Procurement
- Asset Management
- Human Resources and Payroll
- Finance and Expenditures

Supporting Capabilities

- Data Integration
- Data Authentication and Verification
- Information
- Feedback
- Technological Infrastructure
- Public Personnel Capabilities

However, the first phase of the project will cover a total of 18 capabilities as follows:

Project Scope

National Security

- Public Safety
- Crisis Management
- Border Management
- Natural Disaster

Economic and Social Development

- Investment
- Tax and Revenue
- Trade
- Social Development
- SMEs
- Labour
- Tourism
- Agriculture

Government Services

- Education
- Public Health
- Utilities
- Transportation

Government Efficiency

- Procurement
- Asset Management
- Human Resources and Payroll
- Finance and Expenditures

Supporting Capabilities

- Data Integration
- Data Authentication and Verification
- Information
- Feedback
- Technological Infrastructure
- Public Personnel Capabilities

Digital Government Development Strategy

Four Strategies in Developing a Digital Government

Strategy 1

Developing the capacity to support government services

- **Data Integration:** Central Data Sharing Platform
- **Data Authentication and Verification:** Biometrics & Single Electronic User Account for Authentication
- **Information:** Customer Centric Information Portal
- **Feedback:** Proactive Integrated Case Management System
- **Technological Service Infrastructure**
- **Public Personnel Capabilities**

Strategy 2

Elevation of Citizen's Quality of Life

- **Social Development:** Integrated & Proactive Social Service
- **Labour:** Integrated Virtual Labour Market

Strategy 3

Enhancing the capacity of the business sector's competitiveness

- **Agriculture:** Connected Farmer with Real Time Analytics
- **Tourism:** Digital Tourism
- **Investment:** Integrated Business Licensing System
- **Trade (Imports & Exports):** Trade Single Window (B2B & B2G)
- **SMEs:** Integrated & Proactive SME Support
- **Tax and Revenue:** Integrated Tax System

Strategy 4

Increasing national security and public safety

- **Public Safety:** Proactive Public Safety
- **Border Management:** Integrated & Automated Border Management
- **Natural Disaster:** Natural Disaster Management Driven by Scenario-Based Simulations
- **Crisis Management:** Integrated Crisis Management Practices

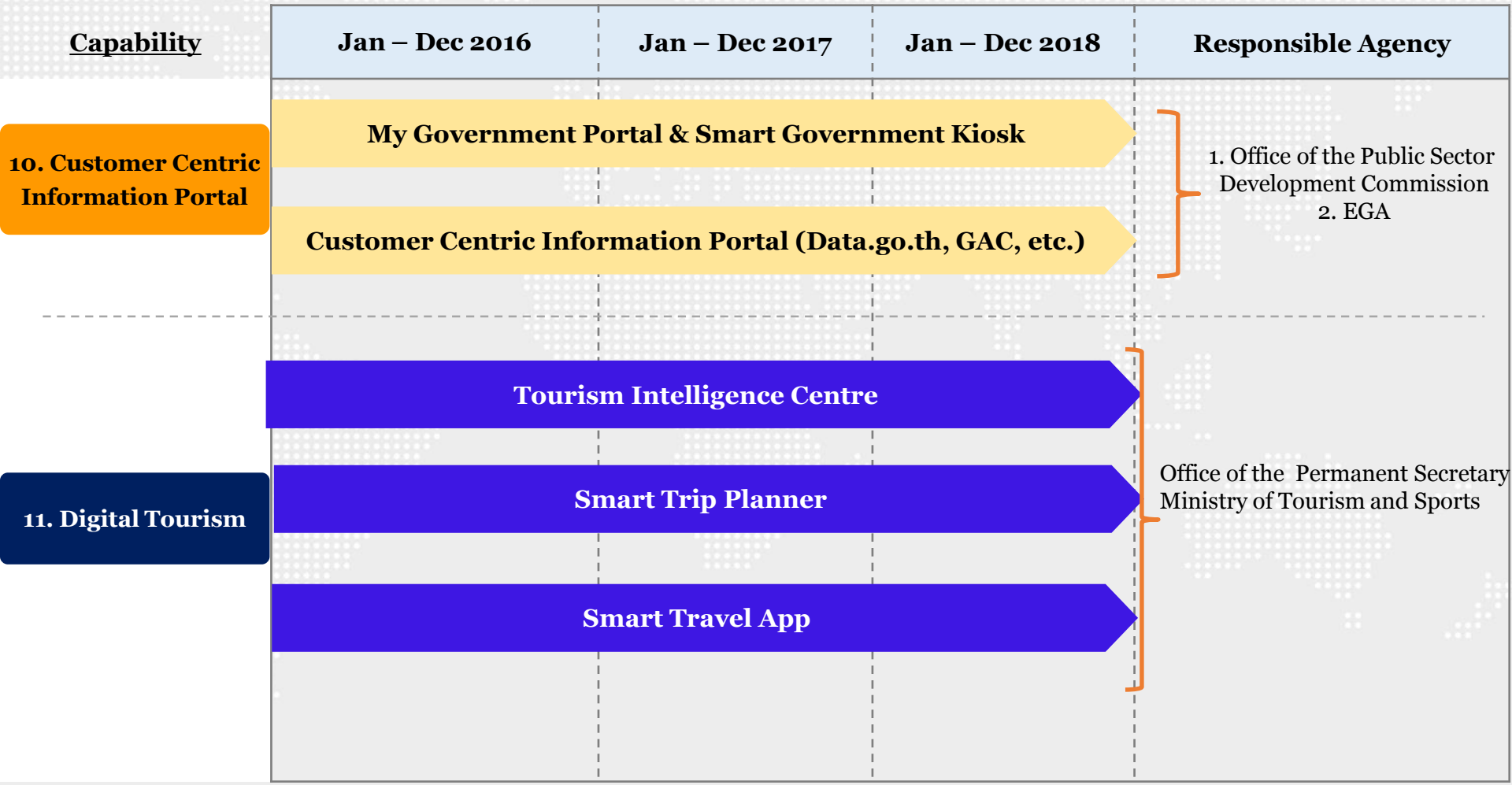
Project Development Plan for 1st Priority Capabilities (1/3)

Capability	Jan – Dec 2016	Jan – Dec 2017	Jan – Dec 2018	Responsible Agency
1. Central Data Sharing Platform	Citizen Data Integration			1. Ministry of Interior 2. EGA
	E-Government Act			EGA
	Smart Service			1. Office of the Public Sector Development Commission 2. Department of Business Development 3. EGA
	Business Data Integration			
2. Technological Service Infrastructure	Government Shared Infrastructure and Data Center			EGA
3. Public Personnel's Capabilities	Digital Government Capacity Building			EGA
4. Integrated & Proactive Social Services	Integrated Social Benefits			1. Office of the Public Sector Development Commission 2. The Comptroller General's Department
	Universal Benefits Card			1. Bank of Thailand 2. Ministry of Finance
5. Integrated Virtual Labour Market	Labour Market Intelligence Center			1. Office of the Permanent Secretary Ministry of Labour 2. The Office of Industrial Economics
	Integrated Virtual Labour Market			1. Department of Employment & 2. Department of Skill Development 3. The Office of Industrial Economics

Project Development Plan for 1st Priority Capabilities (2/3)

Capability	Jan – Dec 2016	Jan – Dec 2017	Jan – Dec 2018	Responsible Agency
6. Connected Farmer with Real Time Analytics	Agricultural Intelligence Centre			Office of Agricultural Economics
	Connected Farmer			Department of Agricultural Extension
7. Integrated Business Licensing System	Integrated Business licensing system			1 . Office of the Public Sector Development Commission 2. Board of Investment of Thailand 3 .Office of Industrial Economics
8. Integrated & Proactive SME Support	SME Information Portal			Office of Small and Medium Enterprises Promotion
	Software as a Service for SME			Office of Small and Medium Enterprises Promotion
	SME Competency Promotion			1. EGA 2. SIPA 3. Software Park
9. Integrated Tax System		Automatic Tax Filing		Office of the Permanent Secretary, Ministry of Finance
		Tax Analytics		Office of the Permanent Secretary, Ministry of Finance

Project Development Plan for 1st Priority Capabilities (3/3)



Project Development Plan for 2nd Priority Capabilities (1/2)

Capability	Project	Responsible Agency
11. Digital Tourism	Electronic Visa	Department of Consular Affairs
12. Biometrics & Single Electronic User Account for Authentication	E-Citizen and E-Business Single Sign-On	EGA
	Smart Card Reader Extension	1. Office of the Public Sector Development Commission 2. EGA
13. Proactive Integrated Case Management System	Integrated Complaint Management System	Office of the Permanent Secretary Prime Minister's Office
	Proactive Needs Analysist	
14. Trade Single Window (B2B & B2G)	Regulatory Single Window	Customs Department
15. Proactive Public Safety	Safe City	Royal Thai Police
	Digital Police	

Project Development Plan for 2nd Priority Capabilities (2/2)

Capability	Project	Responsible Agency
16. Integrated & Automated Border Management	Advance Passenger Processing	Immigration Bureau
	Automated Gate Expansion	
17. Natural Disaster Management Driven by Scenario-Based Simulations	Natural Disaster Data Integration	Department of Disaster Prevention and Mitigation
18. Integrated Crisis Management Practices	Personalized Warning System	Department of Disaster Prevention and Mitigation
	Intelligence Centre for Crisis Management	

3, 6 and 12 months operation plan and outcome (1/2)

3 Months (Within March)	6 Months (Within June)	12 Months (Within December)
E-Government Act		
• Preparation of education and training	• Draft of the E-Gov bill • Public Hearing and bringing the draft e-Gov to the cabinet	
Enhancing public services by linking information (Smart Service)		
Reducing the amount of physical document requests (i.e. copy of house and marriage registration) in receiving government services		
• Standardization of the Technical Solution approach for agencies which are ready	Transform 5 government services into Smart Services (pilot phase) (Depending on Agencies' Readiness)	Transform 87 government services into Smart Services (pilot phase) (Depending on Agencies Readniess)
Customer Centric Information Portal (GovChannel)		
1. Via Computers devices through websites (govchannel.co.th, egov.go.th,data.go.th, info.go.th)		
• Egov.go.th currently has 845 government services websites • Data.go.th currently has 486 sets of data • Info.go.th portal currently has 10,049 sets of Citizen handbook and 635,439 more in process • Delay Notification system • Feedback management system	Data.go.th has 550 sets of data System which analyzes work procedures	Data.go.th has 600 sets of data
2. Via Communications devices (smartphones, tablets etc.)		
• e-Service: 116 services from 84 agencies • e-Service: Launch of the KasetQRCode (Ver.2) application Launch of the job-search application, G-News, Thailand Government Spending, G-Chat		Data collection for the Queens' birthday 12 August 2016 and the King's birthday celebration on 5 Dec 2016 application
3. Via other devices (My Government Portal)		
• Installation of 4 Smart Government Kiosks • e-Service: Allowance Monitoring System, Health Information, Track Water Usage, G-News, G-Chat, Thailand Government Spending	• Installation of Smart Government Kiosks in • every province • e-Service: Track Electricity Usage, Rights and Benefits check, Reservation/appointment system	

3, 6 and 12 months operation plan and outcome (2/2)

3 Months (Within March)	6 Months (Within June)	12 Months (Within December)
Government Shared Infrastructure and Data Centre		
• 3,500 government agencies under the GIN network • 780 systems on the G-Cloud network • Launch MailGoThai; E-mail system for citizens to communicate with the government	• 3,600 government agencies under the GIN network • 810 systems on the G-Cloud network	• 3,700 government agencies under the GIN network • 850 systems on the G-Cloud network
Government Data and Shared Service Center (Data Center)		
• Assess the constituent needs for shared service center	Set the standards of the shared service center and G-Cloud	Launch Government shared service center
Digital Government Capacity Building		
• 500 government personnel receives training	1,000 government personnel receives training	1,500 government personnel receives training
Integrated Business licensing system		
Ease of Doing Business Promotion		
System to facilitate investors when starting a business		System to facilitate investors in other areas of the business cycle e.g. operating, growing, and terminating
SME Competency Promotion		
Government Mobile Application Development Contest, then develop the high potential ones to help improve government service delivery		
Tourism Intelligence Centre		
		Phase 1: Integrate all existing tourism data from all internal and external agencies
Smart Trip Planner		
		Phase 1: Smart trip planner application for information-ready destinations in main provinces.
Smart Travel Application		
		Phase 1: Smart Travel application for information-ready destinations in main provinces.

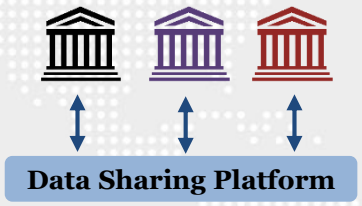
Data Sharing and Integration

Example of the implementation of the strategies of the Three-Year Thailand Digital Government Development Plan

Strategy 1: Developing the capacity to support government services

1.1 Data Integration :
Central Data Sharing Platform

Central Data Sharing Platform Development Goal



3 **Central Data Sharing Platform**

Central data sharing platform facilitating data sharing between numerous government agencies with appropriate measures with regard to security and privacy protection

2 **Agency-to-Agency Data Integration**

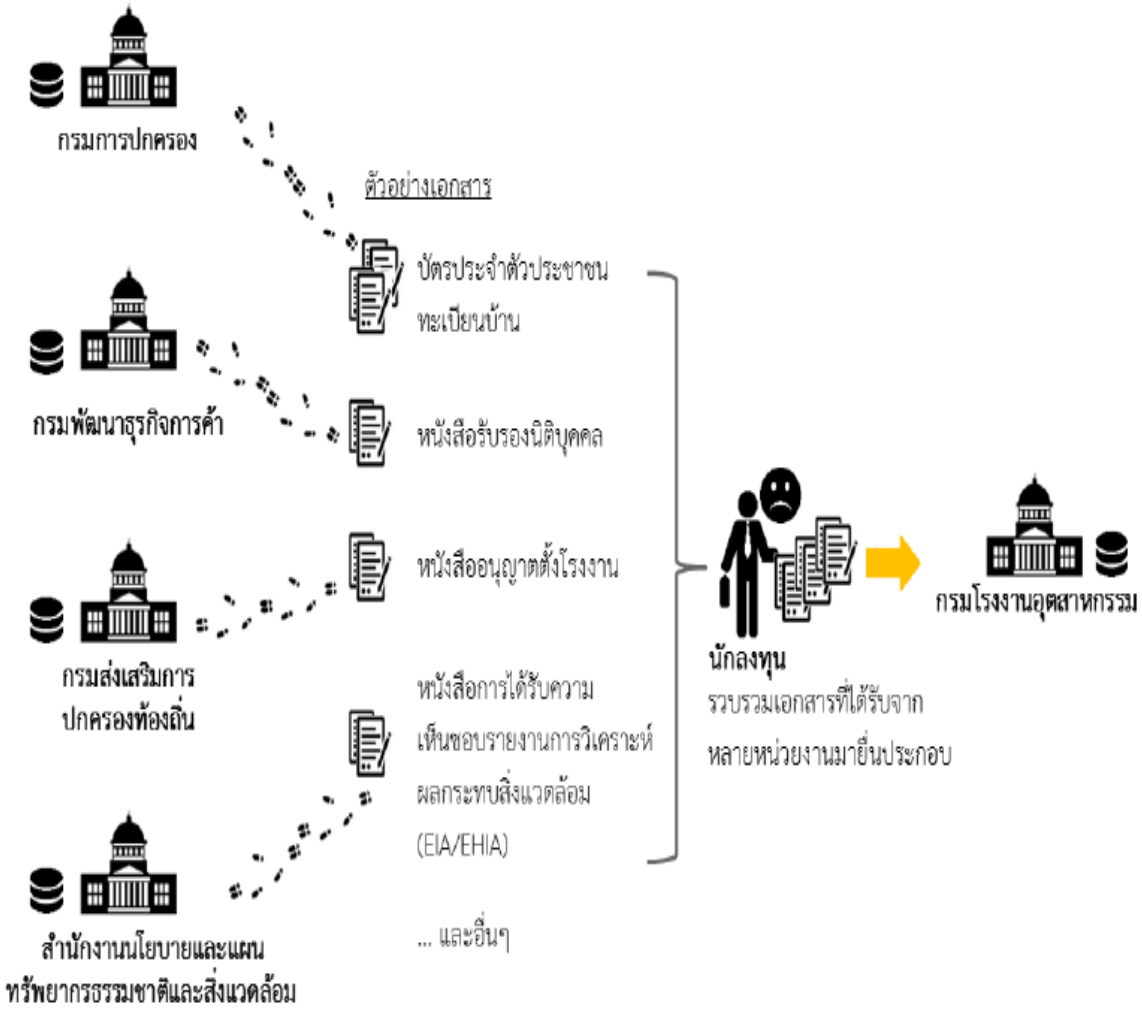
Data sharing between agencies via electronic means with based on agreements and protocols

1 **Citizen as Data Sharing Agents**

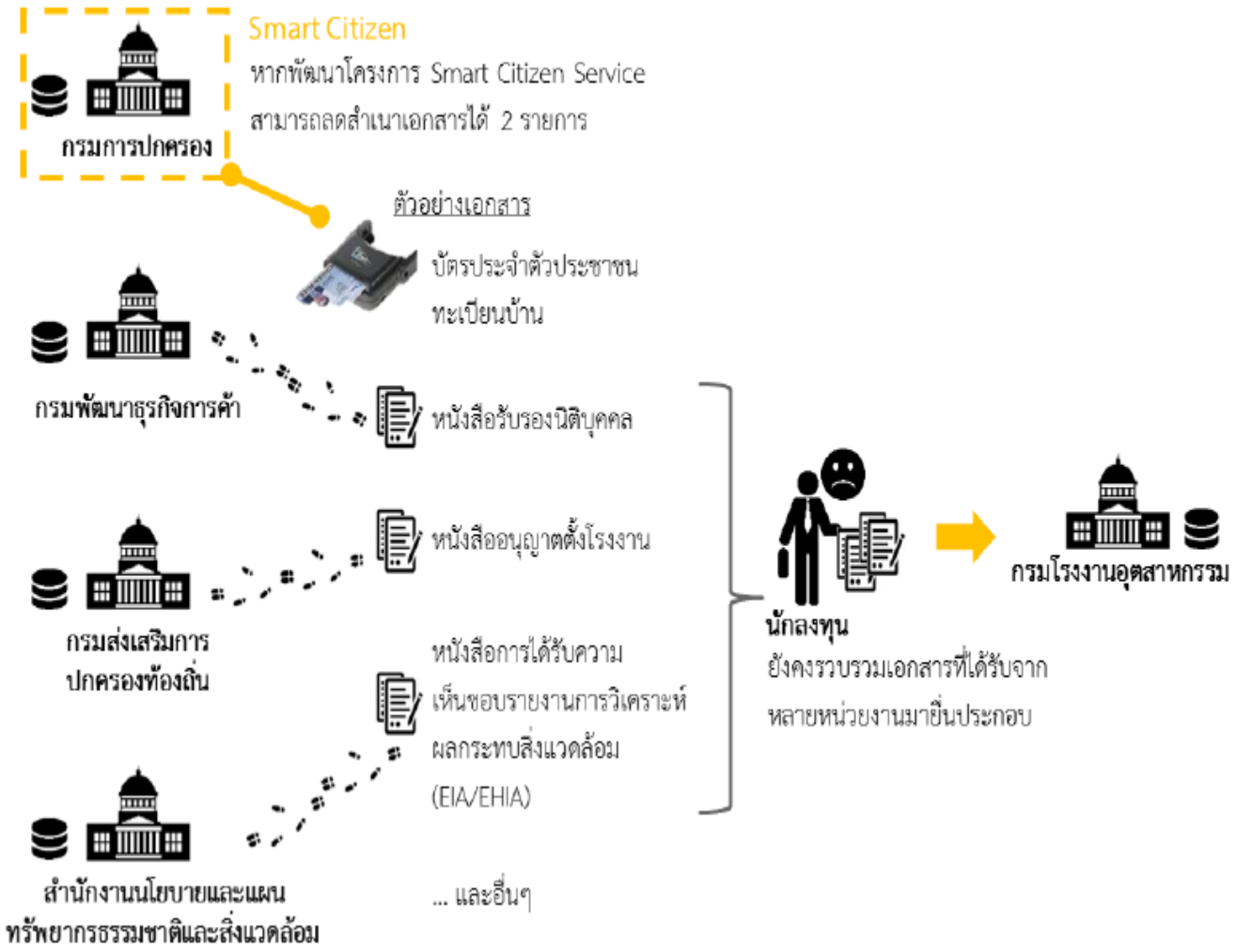
No Data sharing between government agencies

Citizens as data sharing agents carrying documents from one agency to another

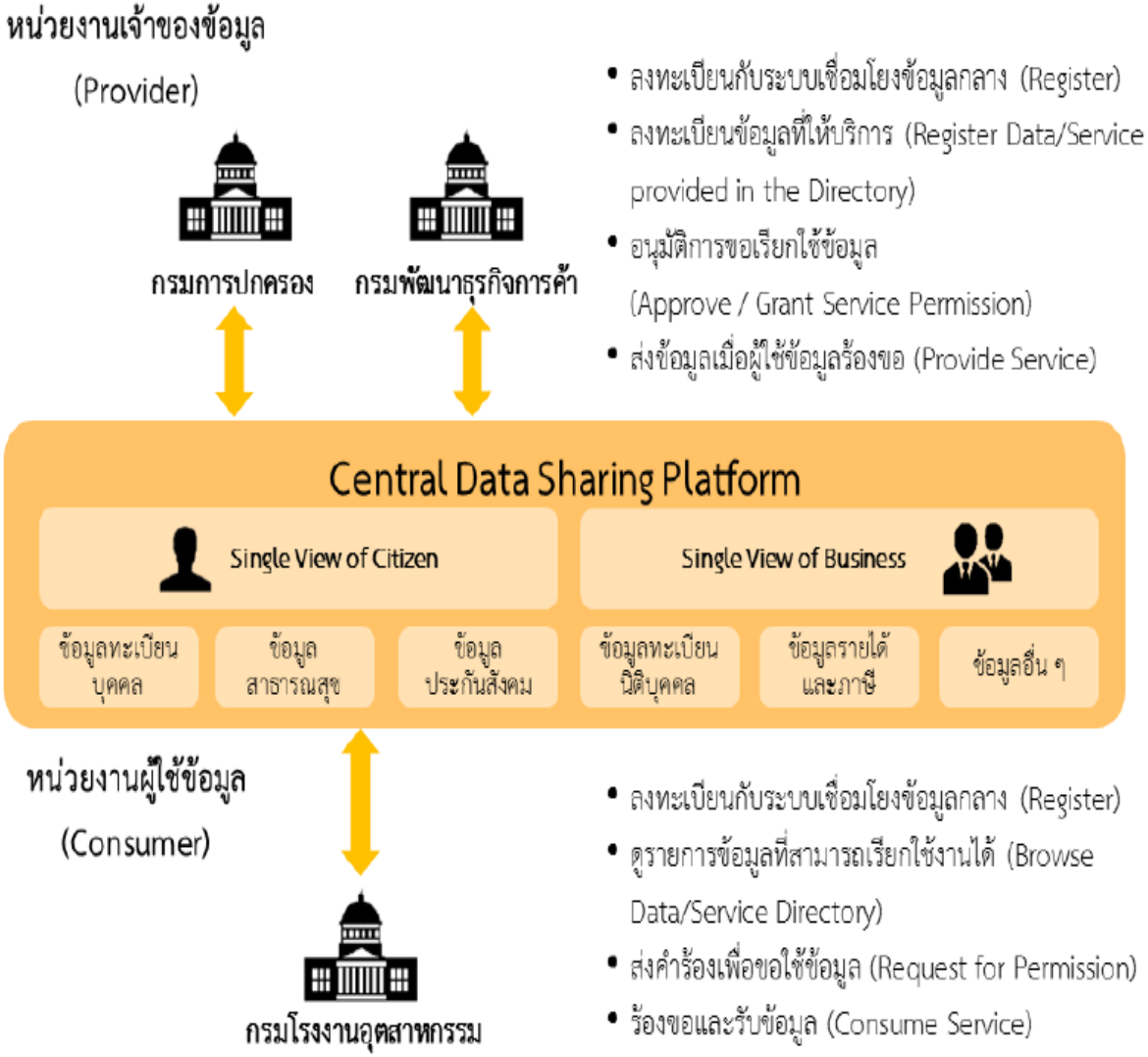
Citizens as Data Sharing Agents via Documents



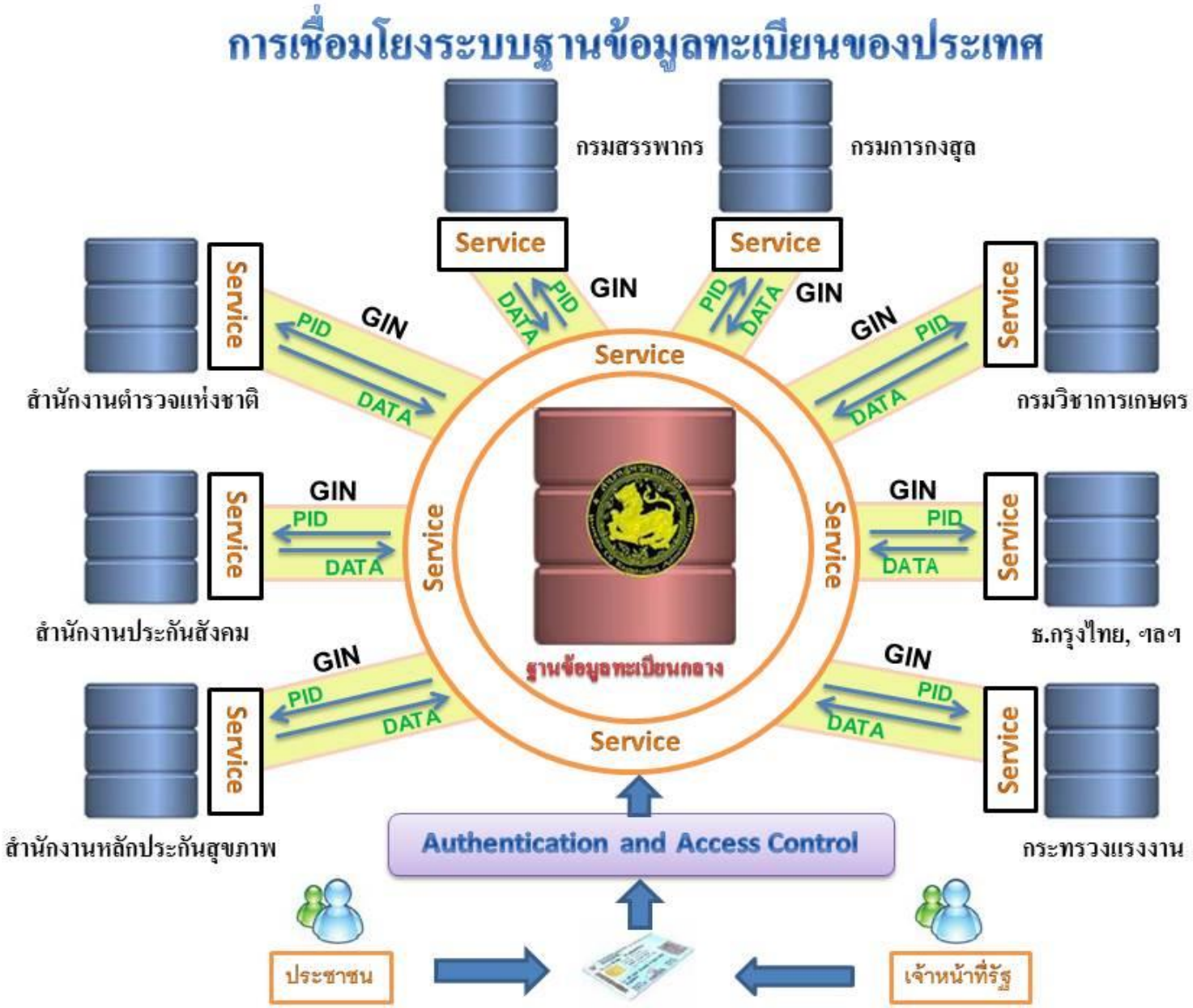
Data Sharing via Electronic Means (Agency to Agency)



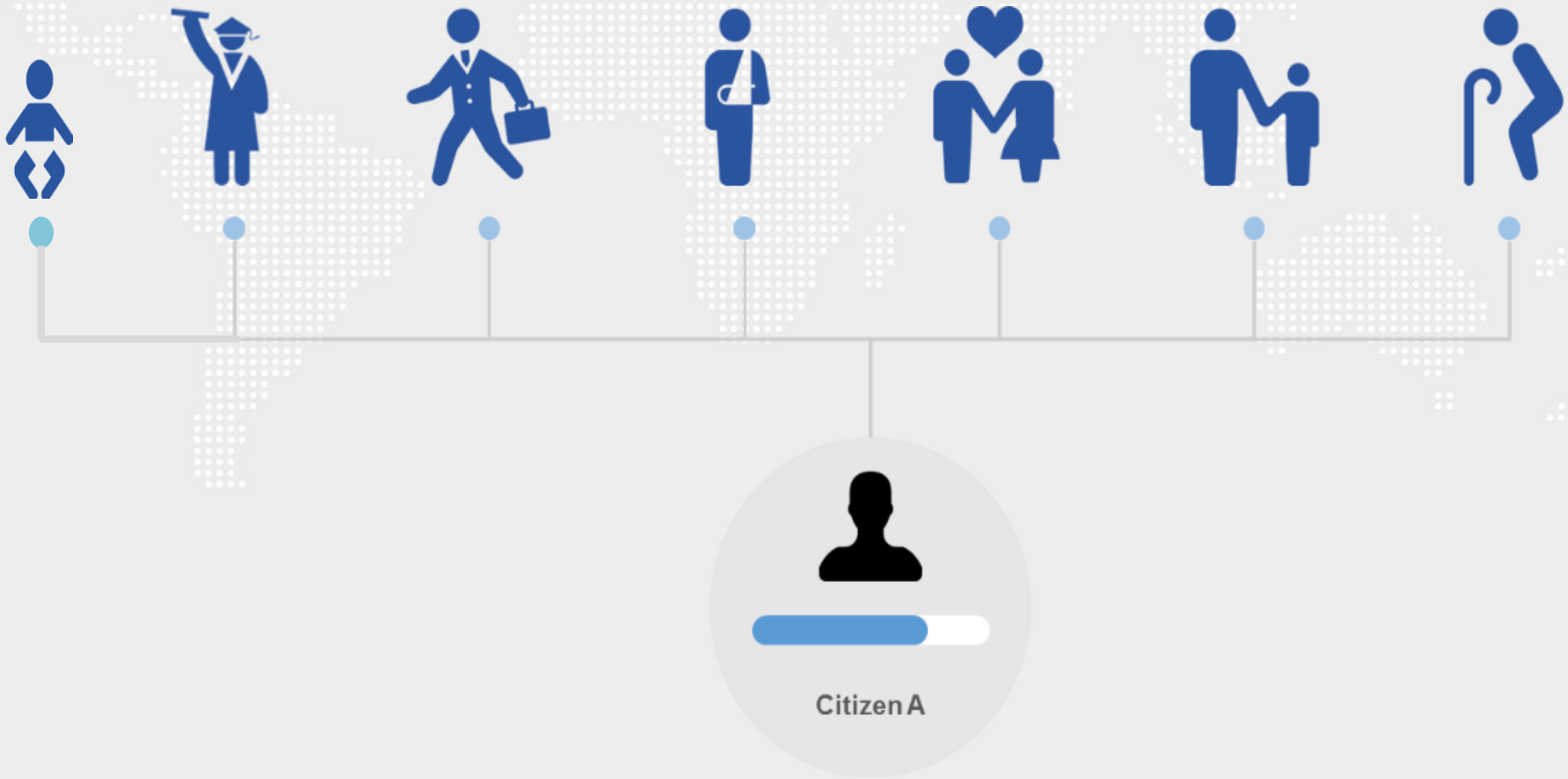
Central Data Sharing Platform



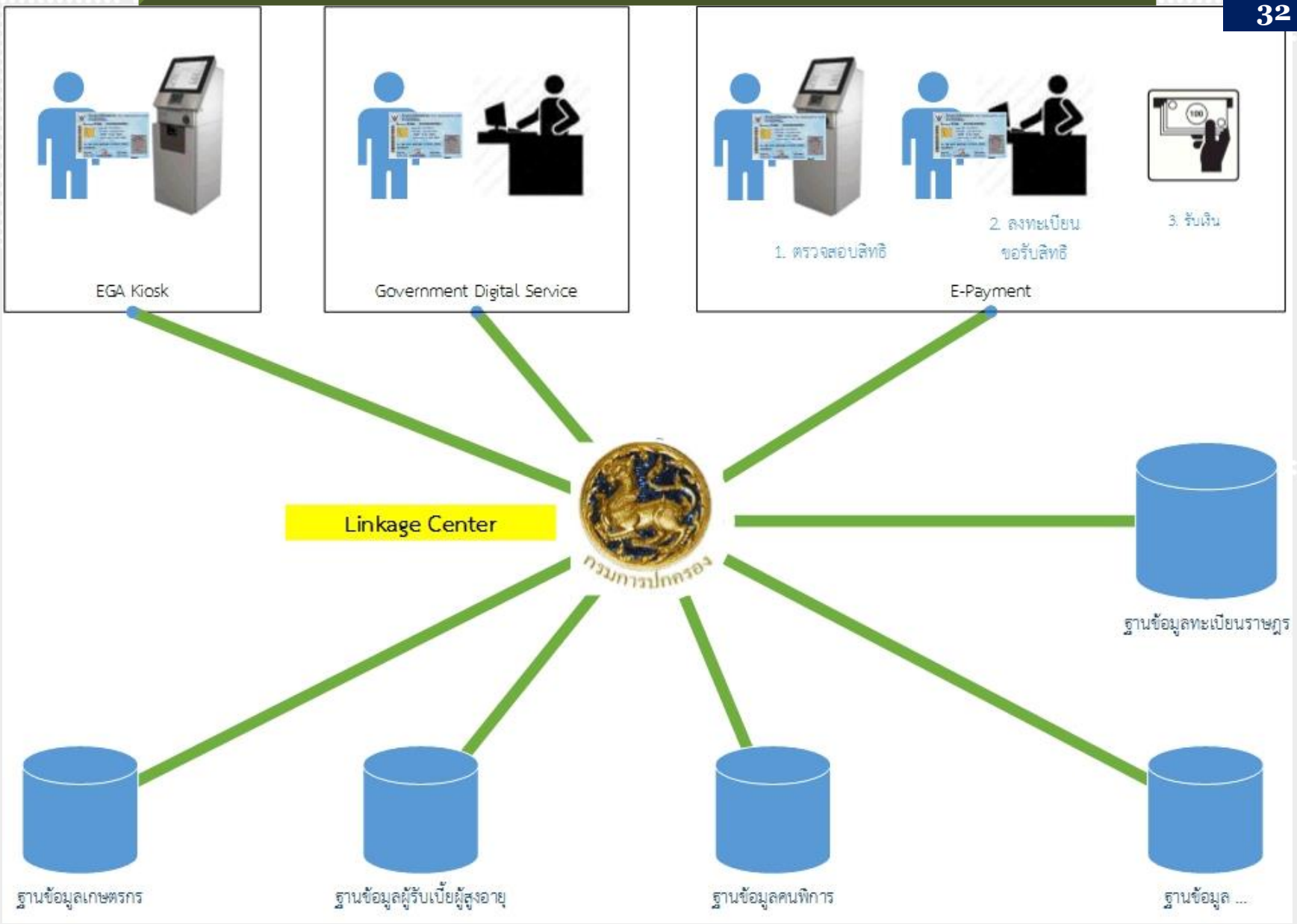
Citizen Data Integration



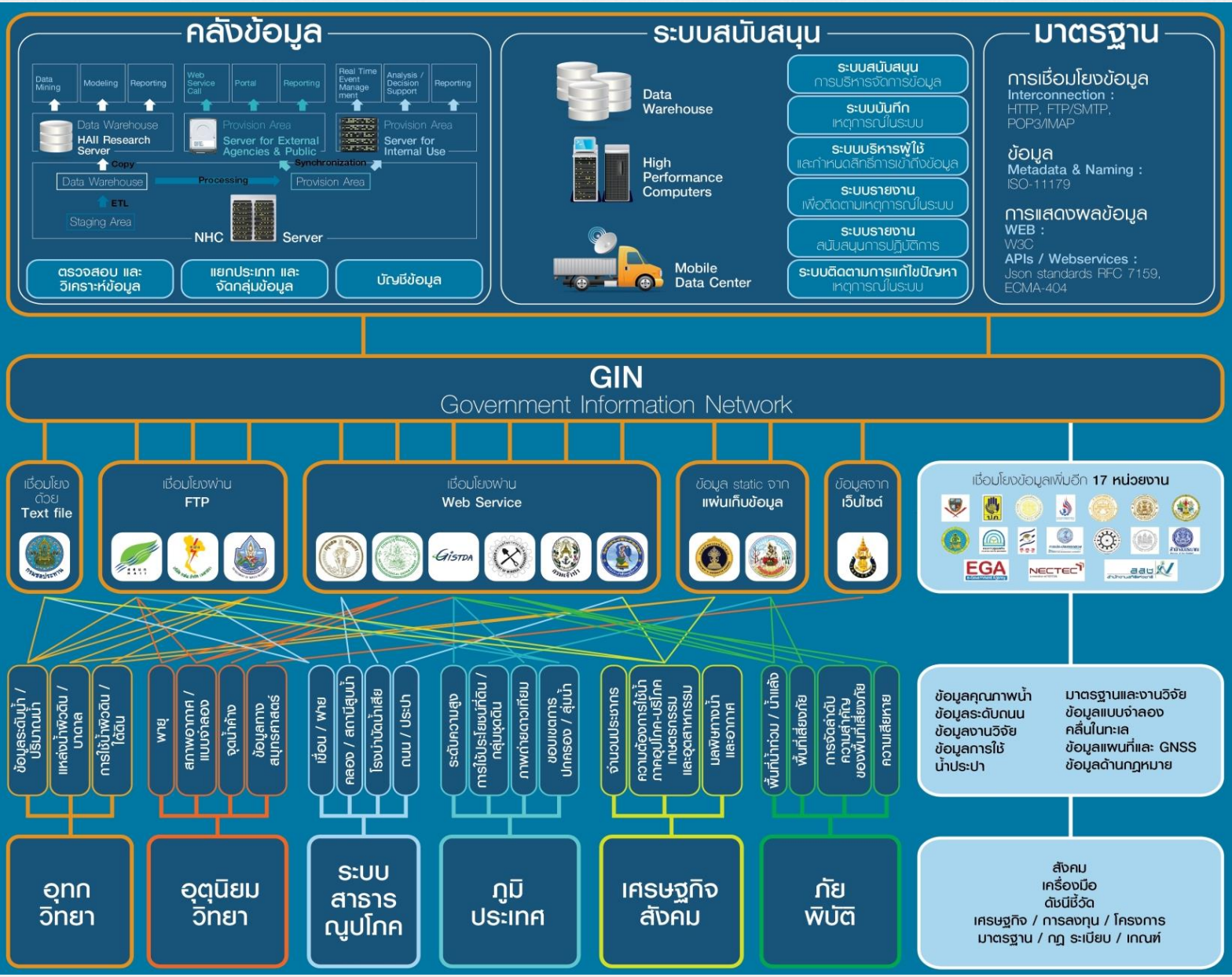
Single View of Citizen



People's Data Integration for the development of digital services



Water and Climate Data Warehouse



National e-Payment Overview

1. Prompt Pay (Any ID)

- Money transfer with different IDs including ID card number, mobile phone numbers, e-mail address, e-Wallet ID and bank account ID
- Facilitate payment and enhance transparency in government payment system

2. Expansion of the use of electronic cards and EDC machines

- Reduce the costs of cash handling and make it easier to do business
- Expand transactions which accept electronic cards

3. E-Tax

- Receive information on tax and electronic payment
- Expand the tax base
- Facilitate e-document and submission of documents via electronic means

4. Government Payment to people

- Welfare payment
- Integration of low-income earners' information

5. Campaigns and Incentives

- Provide incentives for people to use electronic payment instead of cash
- Publicise the National e-Payment and educate people about this scheme

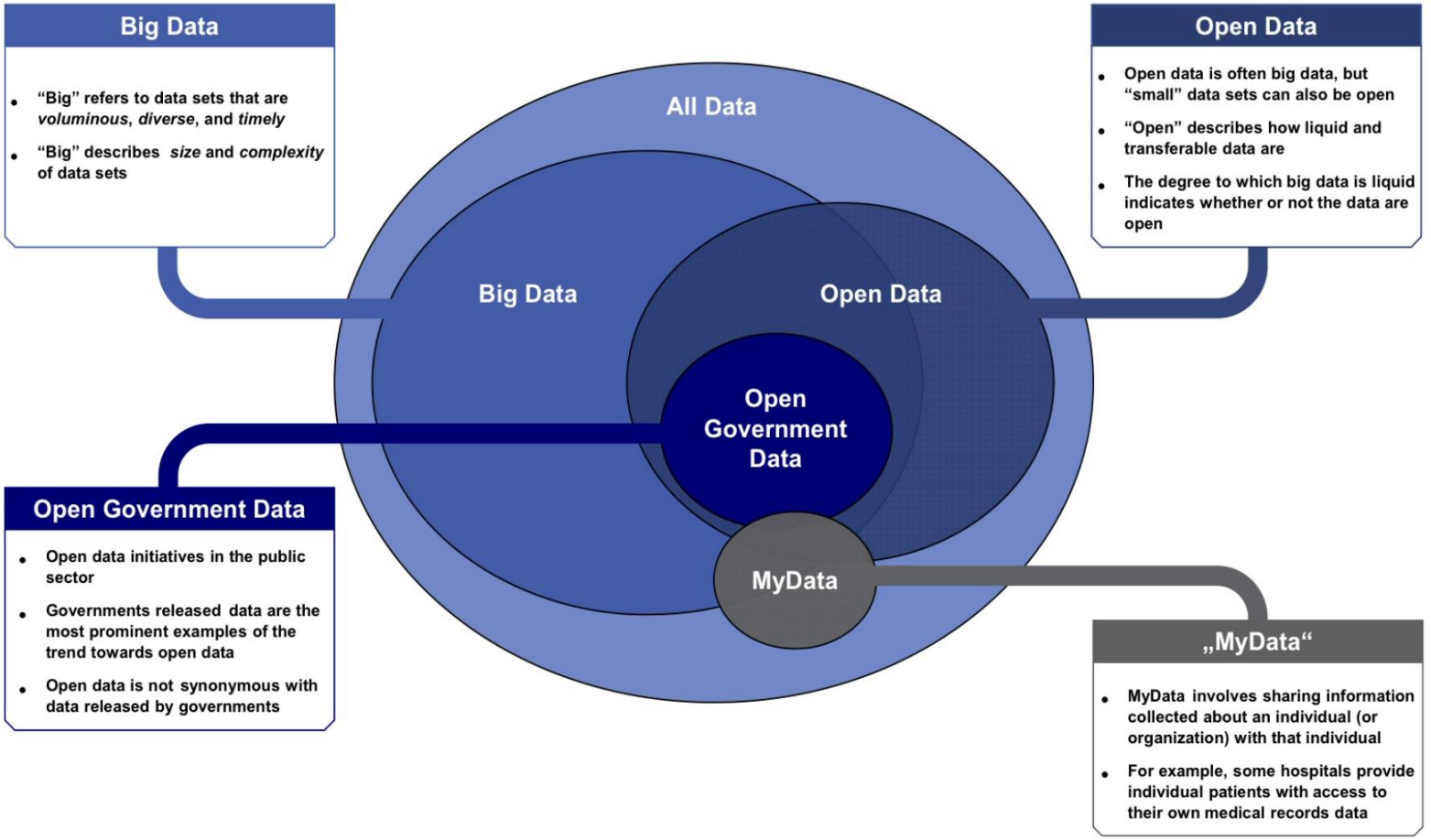
Source: http://www.epayment.go.th/home/app/home
http://www.bangkokbank.com/BangkokBank/PersonalBanking/SpecialServices/NationalEpayment/Pages/index.aspx#

Big Data

Data is a national asset.

The Relationship between Big Data and other types of data

How Big Data and Open Data relates to other types of data

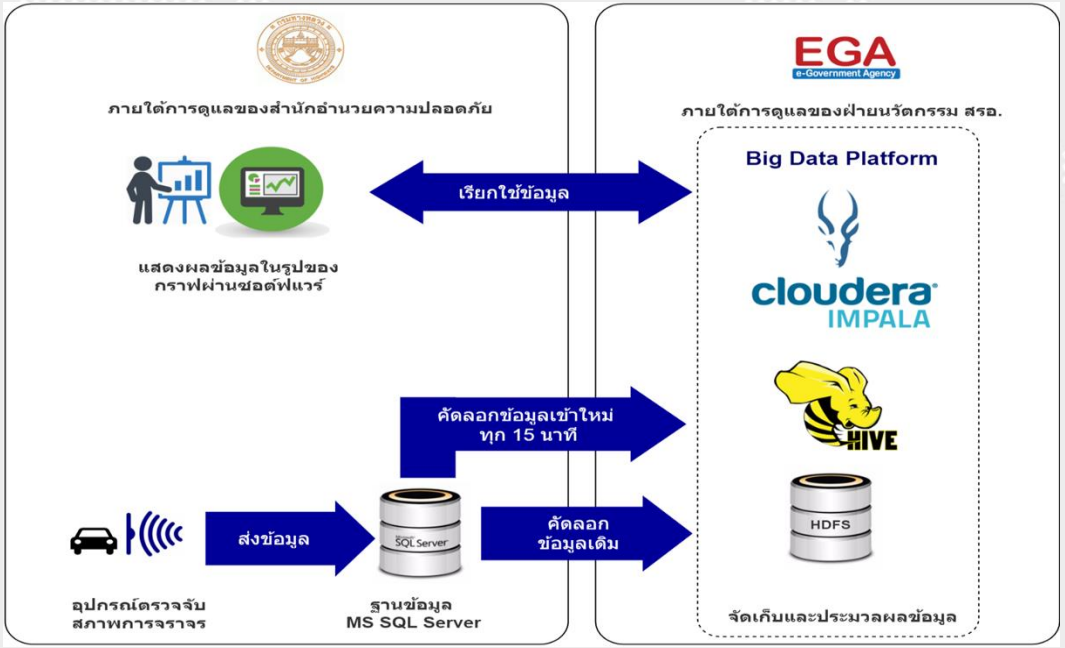


Source: McKinsey Global Institute analysis (2013)

Big Data in Thailand

Prototype Development from Big Data Analytics Platform is co-operation between the Electronic Government Agency (Public Organization) and the Department of Highways to report the prediction of traffic condition during Songkran Festival from 9 survey points.

1. Northern and Central Routes	2 points
2. North Eastern Routes	4 points
3. Eastern Routes	1 point
4. Southern Routes	2 points



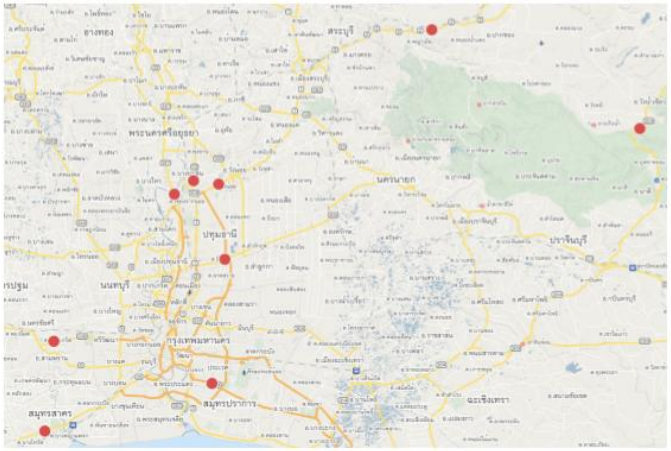
Big Data from the Department of Highways (Ministry of Transport)

สำนักอำนวยความปลอดภัย
กรมทางหลวง

การคาดการณ์ข้อมูลการจราจรในช่วงเทศกาล
สงกรานต์ ๒๕๕๘

แผนที่จุดสำรวจปริมาณจราจรในช่วงเทศกาล

ในรายงานฉบับนี้แสดงข้อมูลการพยากรณ์ปริมาณจราจรในช่วงเทศกาลสงกรานต์จากจุดสำรวจปริมาณจราจรชนิดติดตั้งถาวร 9 จุด จากจุดสำรวจปริมาณจราจรทั้งหมดในความรับผิดชอบของกรมทางหลวง ซึ่งติดตั้งทั่วประเทศไทยทั้งสิ้น 210 จุดซึ่งประชาชนทั่วไปสามารถเข้าถึงข้อมูลปริมาณจราจร ความเร็วในการเคลื่อนตัวและภาพจากกล้องวงจรปิดแบบ Real-time ผ่าน Application บนมือถือ สำหรับจุดสำรวจทั้ง 9 จุดนี้เป็นจุด screen line เพื่อใช้เฝ้าระวังและรายงานสภาพการจราจรต่อผู้บริหารและผู้ปฏิบัติงานด้านการจราจรที่เกี่ยวข้อง โดยเริ่มตั้งแต่ ปี 2555 จนถึงปัจจุบัน จุดสำรวจในช่วงเทศกาลที่ถูกคัดเลือกนั้นแบ่งออกเป็นสี่ส่วน โดยแบ่งตามลักษณะการเดินทางจากกรุงเทพมหานครสู่ภูมิภาคในช่วงเทศกาลดังนี้



1.) เส้นทางสายภาคเหนือและภาคกลาง 2 จุด

2.) เส้นทางสายภาคอีสาน 4 จุด

3.) เส้นทางสายภาคตะวันออก 1 จุด

4) เส้นทางสายภาคใต้ 2 จุด

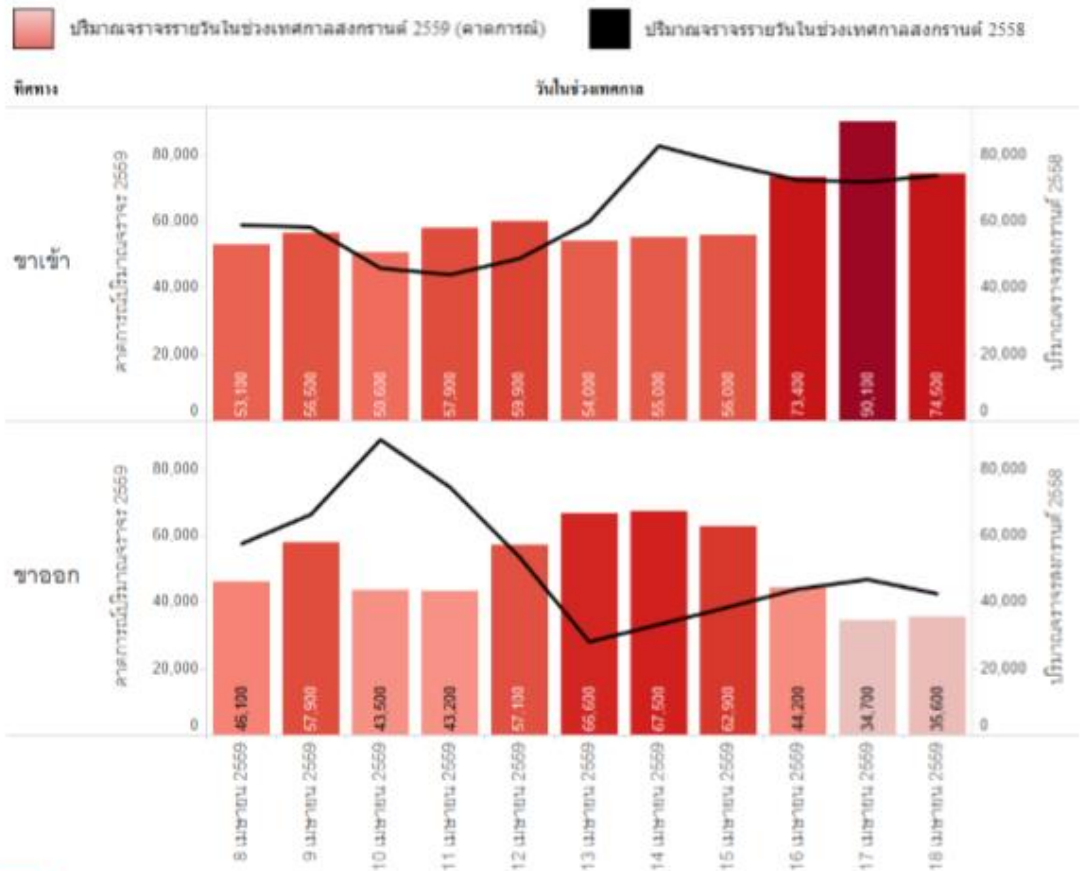
โดยรายละเอียดของจุดสำรวจฯ จะถูกอธิบายในส่วนถัดไป

ข้อมูลสภาพจราจร Application : Highway Traffic

สำนักอำนวยความปลอดภัย
กรมทางหลวง

Prediction about the traffic condition Highway Number 32 KM 5 Phra Nakhon Si Ayutthaya Province

การคาดการณ์ข้อมูลจราจร ทางหลวงหมายเลข 32 กม.5 อ.บางปะอิน จังหวัดพระนครศรีอยุธยา (PER-6-013)



หน่วย : คันต่อวัน

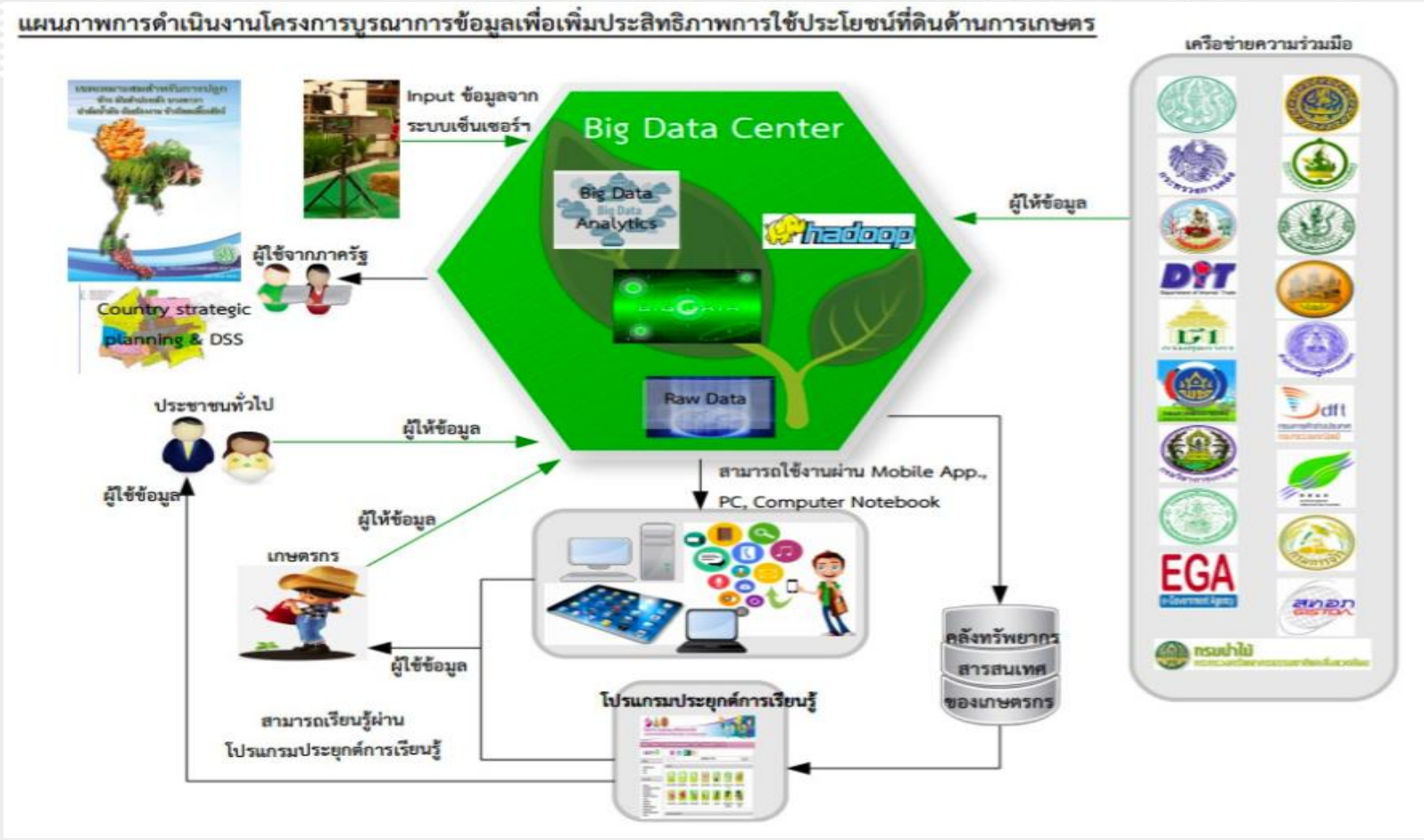
MOU between the Department of Highways and the EGA

Signing of MOU on the prototype development from Big Data Analytics between the Department of Highways and the EGA on 7 July 2016

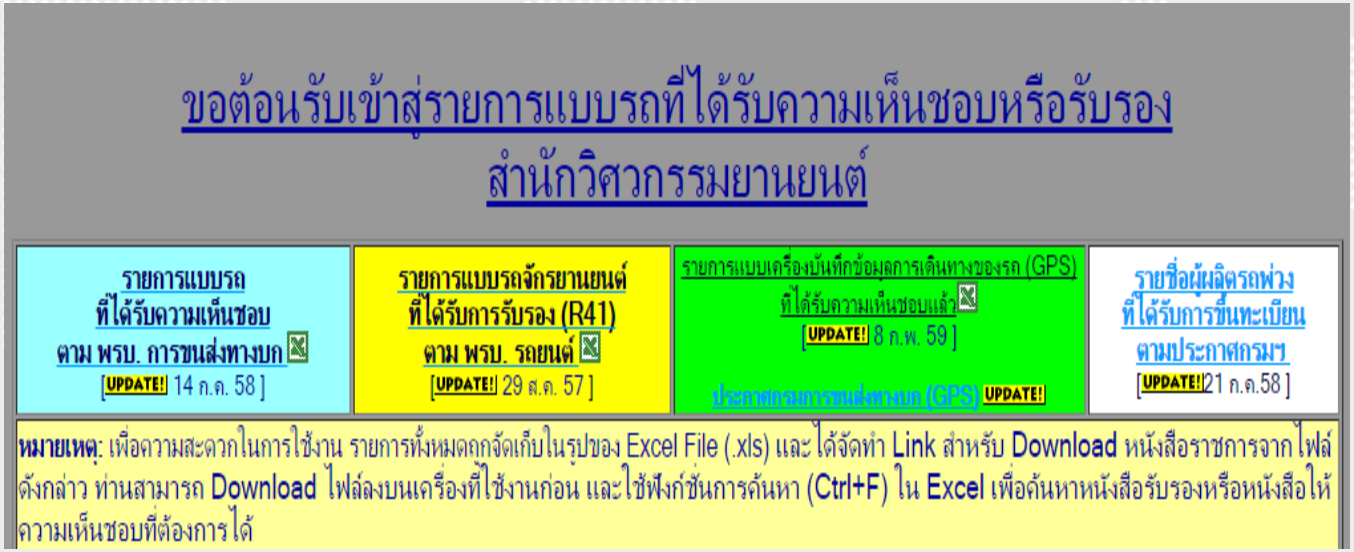
The EGA will provide Government Cloud service to store big data from the Department of Highways and open it to the general public.

Big Data What2Grow

Developing a tool for Agricultural Data integration to help the government and farmers to plan their agricultural activities which are appropriate for the environment in their areas and markets.



Public buses, trailers and trucks with over 10 wheels from 25 January 2016 need to install the GPS navigation system approved by the Department of Land Transport (DLT) to track driving behavior and prevent accidents. It provides real time information to DLT service centers on the vehicles coordinates, travel speed and driving time.

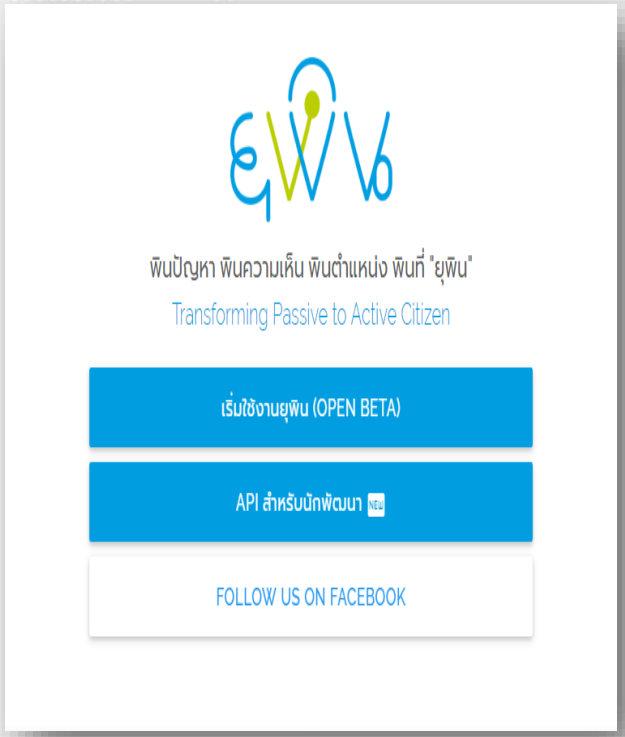


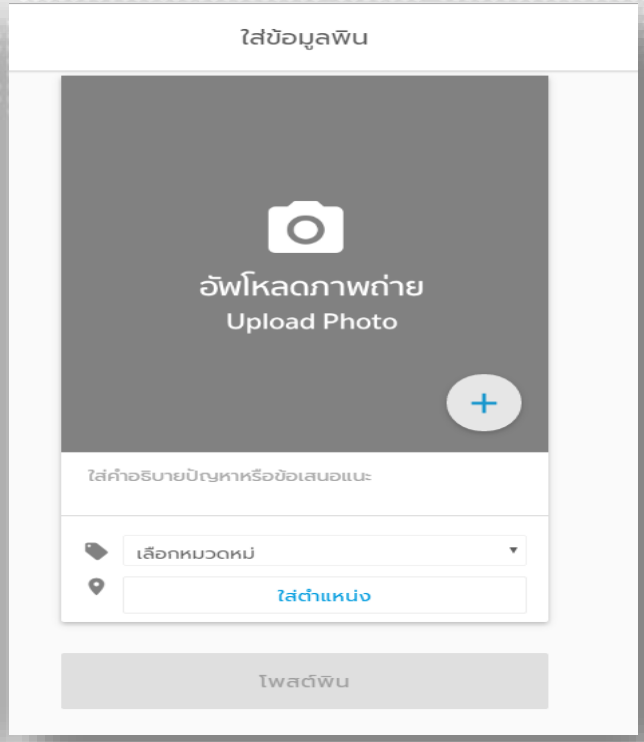
http://nwnt.prd.go.th/centerweb/newsen/NewsDetail?NT01_NewsID=WNOHT5901220010002

http://apps.dlt.go.th/esb/approve.html

Website “You Pin”

https://youpin.city/
https://www.facebook.com/youpin.city/?fref=ts





- A platform for citizens to report problems in their areas to the government and track the progress of fixing them.
- It also provides records for the government.

Examples of citizen's reports of urban problems and photos on "You Pin"

@youpin #ท่อ ร้อยสาย โผล่ตามทางเท้า เดินสะดุดได้ #อันตราย #footpath

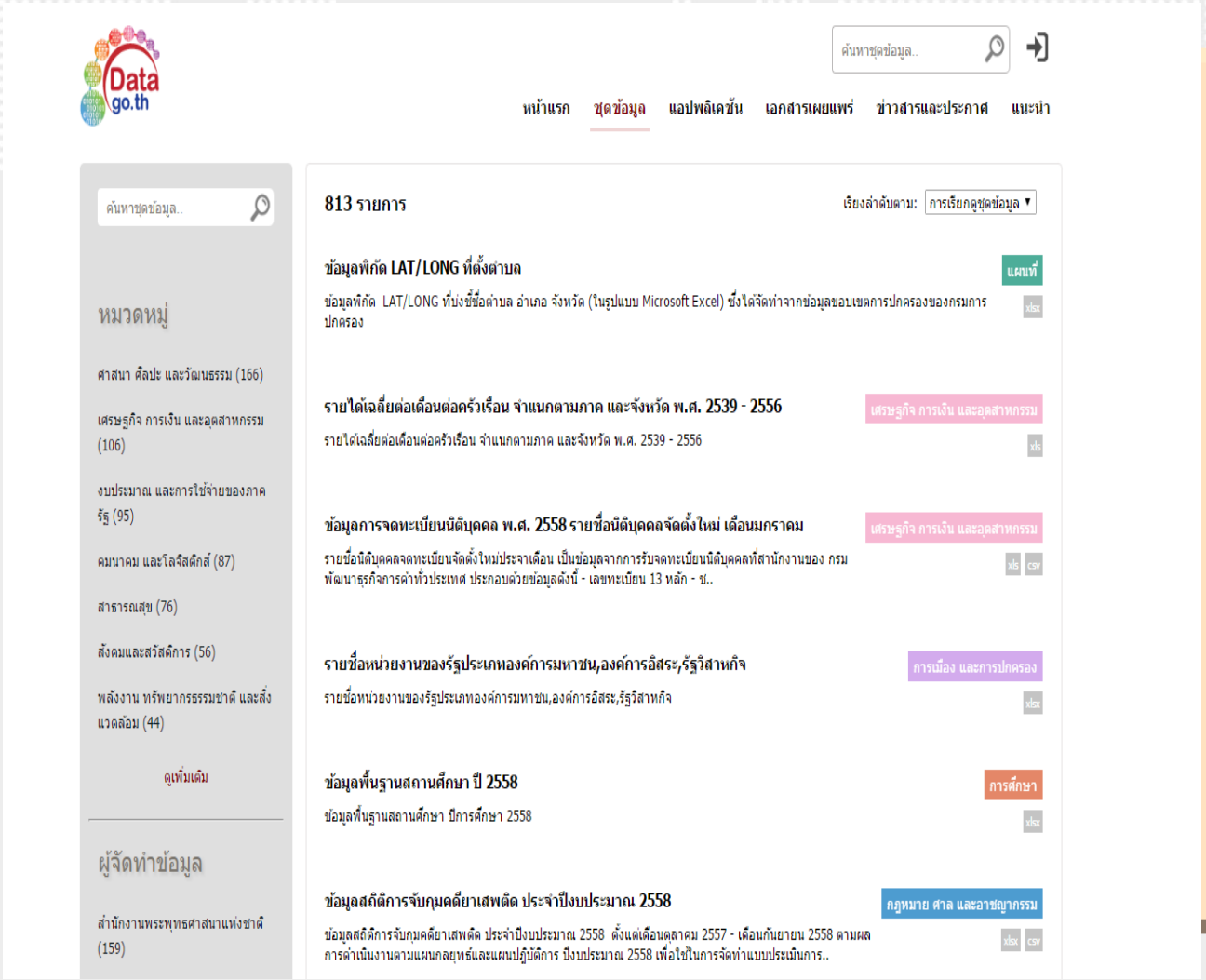
VERIFIED 12 วันที่แล้ว

@youpin #สายไฟ ของเสาไฟส่องสว่างน่าจะ #ชำรุด ซ่อมชั่วคราวด้วยการต่อสายด้านนอกแล้วพันด้วยเทป พบ 24 ส.ค. 2559 #safety

VERIFIED 14 ชั่วโมงที่แล้ว

Open Data

www.data.go.th



Open government data which is considered useful for stimulating innovation in a format which is machine-readable

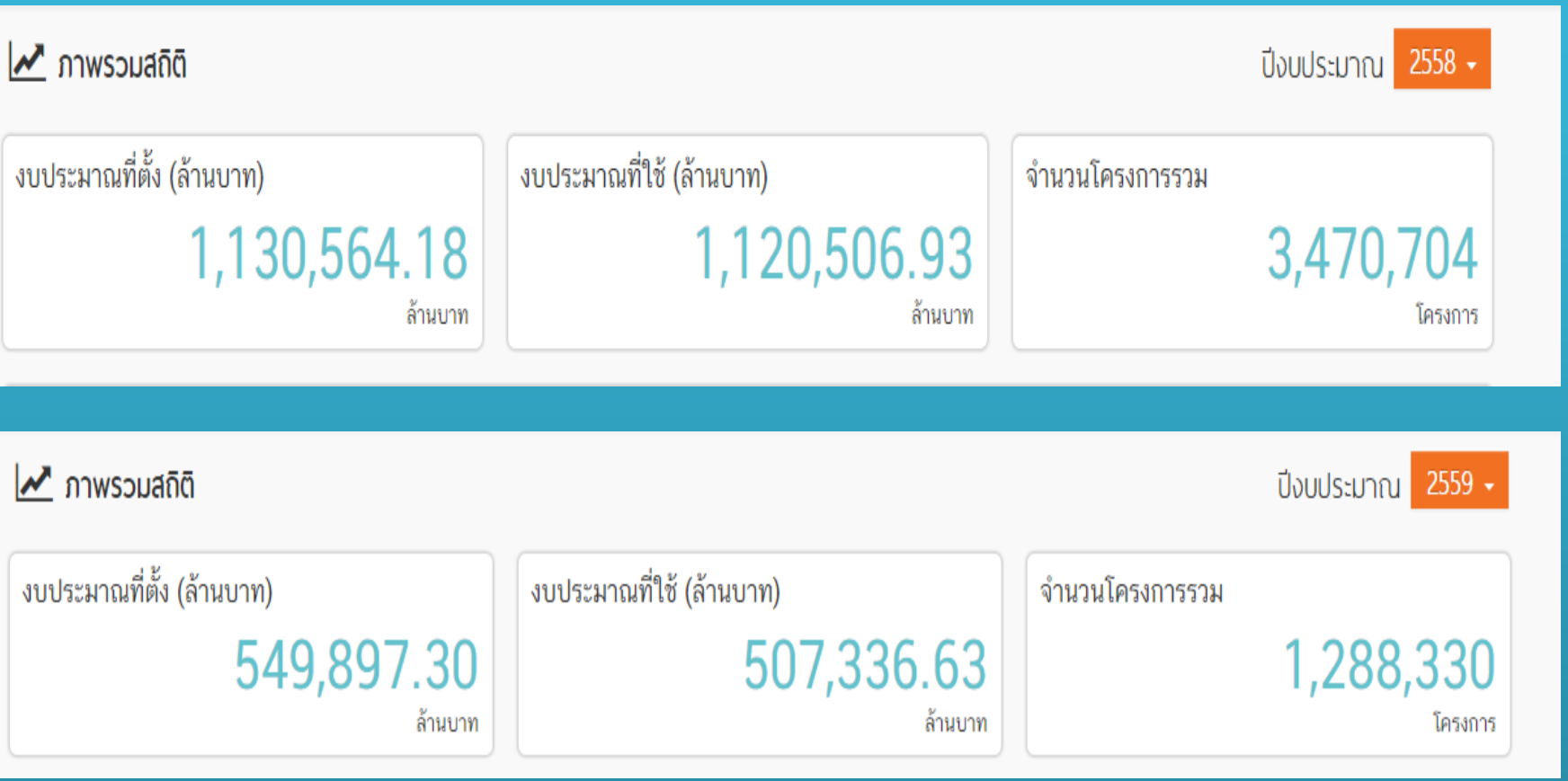
813 datasets

(2 September 2016)

Thailand Government Spending

- Details of government procurement, especially construction projects around the country
- Enhance transparency and public participation

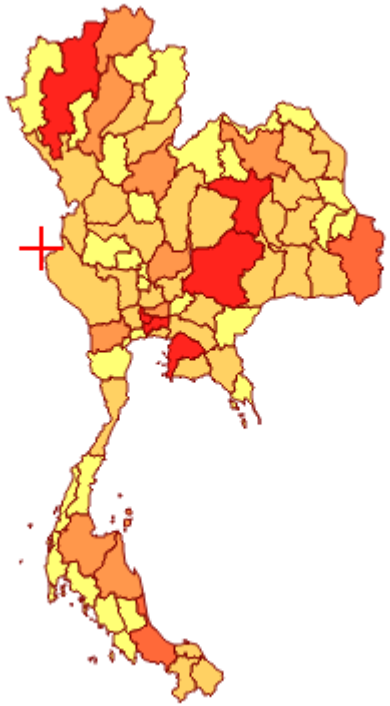
Thailand Government Spending (Where does my money go?)



As of 2 September 2016

Map of budget allocation Financial Year 2015

แผนที่การจัดสรรงบประมา



งบประมาณที่ใช้

- < 5,000 ล้าน
- 5,000 ล้าน - 10,000 ล้าน
- 10,000 ล้าน - 15,000 ล้าน
- 15,000 ล้าน - 20,000 ล้าน
- > 20,000 ล้าน

Thank you

www.ega.or.th

contact@ega.or.th

https://twitter.com/EGANews

https://www.facebook.com/EGAThailand

https://www.youtube.com/user/eGovernmentAgency