



EXECUTIVE SUMMARY REPORT

Digital Government Plan
For Excise Department



1. Introduction

According to the Excise Department, an Excise Department has developed a digital development plan. Chulalongkorn University is a consultant. Conduct an overview review of the preparation of digital government development plans. Conduct studies and analyze the overall status of the Excise Department, which includes vision, mission, strategy, structure of the division of government. And the study and analysis of digital technology status of the Excise Department, both central and regional. To use the results of the study to prepare the Digital Excise Plan, which is based on swot analysis of weaknesses, strengths, opportunities, and threats. And with the Digital Services and Services Act B.E. 2562 (2019).

Thailand's digital government development plan has been set up to support implementing the government's service processes and work by the national strategy. National Reform Plan National Economic and Social Development Plan. and digital plan for the economy and society. For government agencies to support current socioeconomic changes and reshape the model for government agencies includes providing services and workflows to digital transformation. To Support the behavior and situation in need of services through the online channels of the public and the business sector, the implementation of the digital development plan of the Excise Department to achieve its objectives and scope of work. The consultant conducted interview activities with excise department officials at operational and executive levels. Central and regional areas are involved at various levels to develop the six aspects of the Excise Department's digital development plan, including computer equipment (hardware), software, and data architecture. Data integration and interoperability in information technology and personnel systems and questionnaires to explore satisfaction and feedback, which makes it known about the obstacles to operating the Excise Department's information systems in various areas. The consultant gathered the information issues in question and current status analysis results. According to the report, the results of the study will be introduced into the analytical process to prepare the Excise Department's Digital Development Plan 2022-2025, which is to ensure the digital development of the Excise Department effectively and follow the organization's mission. The agency must receive support in terms of the budget framework from the Ministry of Finance and the determination of roles and authorities, overseeing, managing, and supervising all projects related to information and digital technology. Along with this, we encourage officers at all levels of the Excise Department to have knowledge and expertise in applying information and digital technology in operation. To support the service to the public and entrepreneurs quickly and accurately Reduce the time of the process of the officer further.

2. Excise Department Digital Development Plan 2022-2025

The Thai government recognizes the importance of transforming government agencies into digital governments. To support work in a world where technology is changing rapidly. Therefore, the Digital Government Administration and Services Act B.E. 2562 (2019) was enacted as a key mechanism for driving the digitalization of public sector management. And to enhance public service. The Act requires the preparation of a digital government development plan to establish the framework and direction of public administration and the provision of public services in digital technology. The Digital Government Development Agency (Public Organization) has launched (draft) Thailand's Digital Government Development Plan 2023 – 2027, covering the capabilities of digital government in six key areas (Focus areas). This plan includes education, public health, agriculture, people's welfare, transparency and participation, and the promotion of small and medium-sized enterprises (SMEs). With such a basic framework, the agency will follow the original strategic framework in the study and review of the strategy. To comply with practical guidelines. It is appropriate for current guidelines.

2.1 Framework for the preparation of the Excise Department's digital development plan

To achieve the objectives, the team consultants established a framework for preparing the Excise Department's digital development plan by establishing a framework for the implementation of the procedure, as shown in Figure 1.

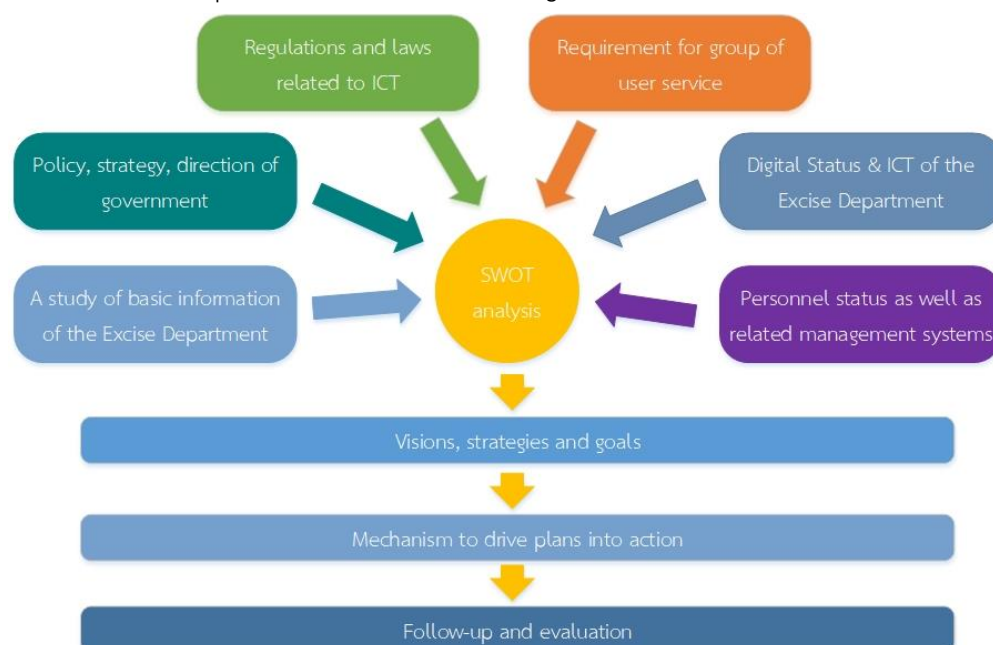


Figure 1 Framework for the preparation of the Excise Department's digital development plan

Figure 1 shows the framework for the preparation of the Excise Department's digital development plan, which the consultant has determined the procedures for the operation, which can be summarized as follows:

1) Conduct studies and analyze the overall status of the Excise Department, including vision, mission, the overall strategy of the Excise Department, and the current divisional structure of the Department and vision and mission in digital technology.

2) Conduct a study of Thailand's digital government development trends and Thailand's digital government situation on the world stage. Study key trends and directions in the future of developing and adopting digital technologies for government agencies. (Public sector) and analytical studies of the preparation of digital development plans internationally.

3) Explore and analyze health The various areas include Computer Equipment (Hardware), Software, Data Architecture, Information Technology, Integration, and Interoperability

4) Explore and analyze the needs of users of different groups of services, including External user groups under the excise department, users under the excise department in regional areas, the needs of stakeholders.

5) Analysis of environmental factors to prepare the Excise Department's digital development plan strategies using the data surveyed. Study and analyze summarize to determine external and internal environment factors, and then apply the data into the SWOT analysis process to lead to strength, weakness, opportunity, threat, and then apply SWOT analysis results to strategy analysis and determination. Strategic

6) Review the excise department's vision, strategy, and digital development goals by implementing interview-based analysis and random questionnaires.

7) Define the Excise Department's digital development guidelines, including details, plans or project names, consistency or support for digital technology strategies, principles and reasons for necessity, objectives, benefits, activities/scope of operations, duration of the process, budget, economic value for money, achievement indicators, responsible agencies.

8) Set up monitoring and evaluation guidelines to ensure the implementation of the plan. The consultant will determine the guidelines for monitoring and evaluating the operation's success. Appropriate guidelines

2.2 The Organizational structure of Excise Department

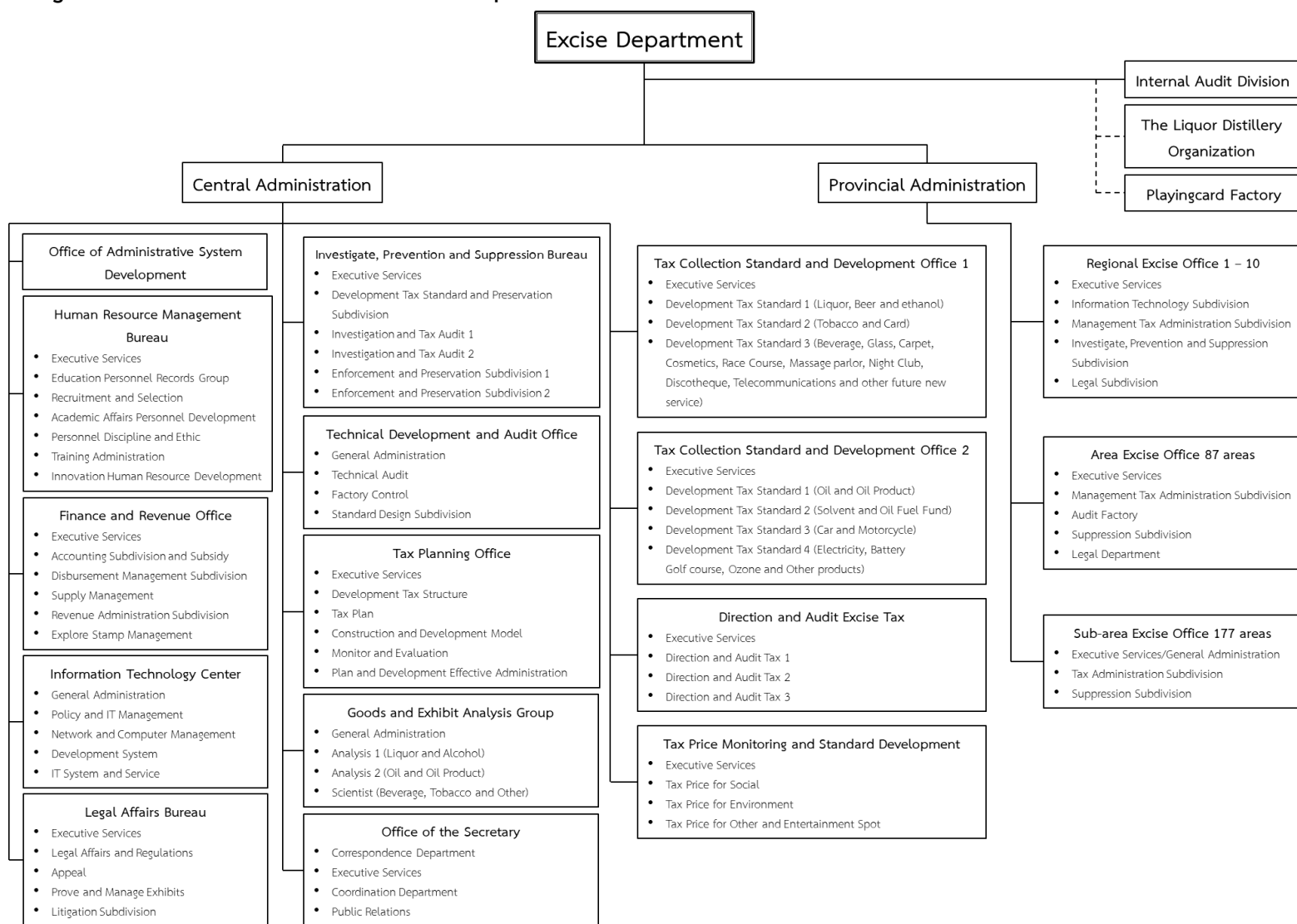
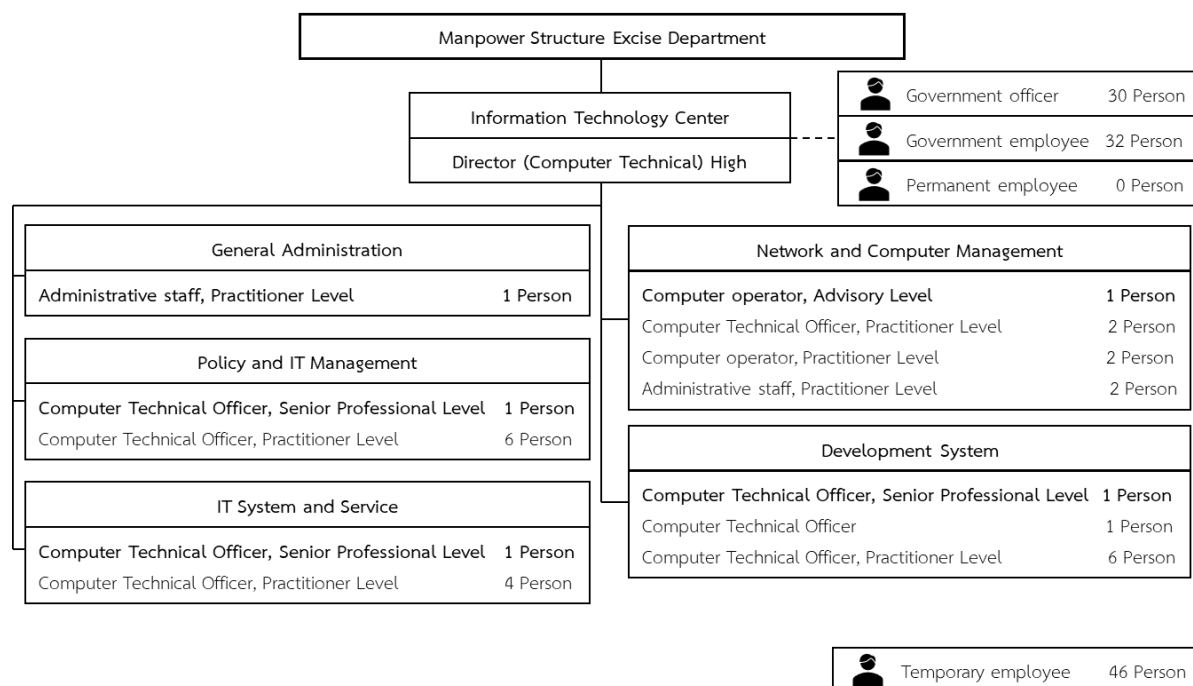


Figure 2 The Organizational structure of Excise Department

2.3 The manpower structure of the Information Technology Center, the Excise Department



2.4 Digital Technology Vision and Strategy

1) **Vision** is a leading government agency. To create innovation in services to benefit the public in general (Being a leading government agency by creating innovations in service for the benefit of general public)

2) Digital Technology Mission

2.1) Create innovations in digital services and standardized management. for fast service effective secure and worth the budget.

2.2) Link services and information with relevant agencies with large databases (Big Data), including disclosing information in the form of Open Government Data for maximum benefit to service recipients.

2.3) Manage digital technology. To provide services of the agency to reach more people through various service channels with Cybersecurity and Blockchain standards for safety. and reliability of information.

2.4) Adjust the structure and practice of government services to be flexible, linking between relevant agencies. To increase work efficiency and be able to respond to changes in a timely manner.

3) Strategies for the development of digital

3.1) Strategy 1 Innovation of Digital Services and Management System for the new normal

Trust and Security Services Infrastructure is an important tool to develop electronic transaction therefore, Excise department must focus on the mechanism and standard of infrastructure.

Strategy 1.1 Promote the economic and social utilization of Big Data from digital infrastructure. By focusing on utilizing technology 5G Smart Machine / AI and Blockchain to enhance the work efficiency of the Excise Department.

Strategy 1.2 Pushing and elevating the readiness of the Excise Department's infrastructure and digital technology innovation. Especially in terms of building confidence and security. to support electronic transactions efficiently

3.2) Strategy 2 Borderless of Data and Services

Improve e-Transaction Data Exchange for trust and standard acceptance then integration and manage to support electronic transaction between private company and governance for data analysis.

Strategy 2.1 Promote links exchange of information and electronic documents for seamless electronic transactions.

Strategy 2.2 Supporting the electronic service systems of the private sector to be able to be linked in the form of a Cross Digital Platform as well as being able to efficiently connect with the electronic service systems of the Excise Department.

Strategy 2.3 Encourage the use of certified electronic service systems as well as providing a process for public relations and networking among related parties throughout the value chain.

3.3) Strategy 3 Supervise and Support the Service Management System Toward Government 4.0

Set the standard for apply digital technology for electronic transactions and enhanced system processes that must stable, security and readiness with international standard. Support for develop logical Infrastructure, collaboration of regulation and stakeholder.

Strategy 3.1 Develop and promote applications electronic transaction standards Both in government agencies and private sectors to have quality that is on par with international standards and economically competitive.

Strategy 3.2 Build confidence through supervision according to international standards both in terms of mandatory standards and recommended standards.

Strategy 3.3 Develop standards and regulations related to digital technology. Both in the dimension of data governance Having a standardized consent platform and protection of personal information.

3.4) Strategy 4 ICT Knowledge and Building Resilience

The important things for develop online transaction is staff and technology education. The preparation for technology changes, support and improve knowledge of every people with is private company, governance and people should be focused to sustain and reliability on digital literacy, e-Transaction Data Management for combination of electronic transaction for Thai people to crate the better idea for education and living.

Strategy 4.1 Raising awareness and building manpower by supporting access to digital content from abroad. To develop personnel to keep up with the changing dynamics of knowledge necessary for the development of modern electronic transactions.

Strategy 4.2 Push for guidelines for the exchange of personnel between departments. both public and private

Strategy 4.3 Promote the utilization of databases and share research and development knowledge for future vision. Including the management of information from electronic transactions efficiently.

4) Technology Values

4.1) EX : Excellent and Citizen-centric Services

4.2) C : Collaboration for BCG Economy

4.3) I : Innovation and Data Driven

4.4) S : Smart People

4.5) E : Ensured Security

2.5 Overview of the Digital Technology Strategic Budget

Digital Technology Strategy	Year (Million Baht)				
	2022	2023	2024	2025	Total
Strategy 1: Innovation of Digital Services and Management System for the new normal	66.08	78.70	40.00	45.00	229.78
Strategy 2: Borderless of Data and Services	44.78	123.94	24.00	89.00	281.72
Strategy 3: Supervise and Support the Service Management System Toward Government 4.0	178.68	265.41	126.96	60.00	631.05
Strategy 4: ICT Knowledge and Building Resilience	-	-	5.00	42.00	47.00
Total (Million Baht)	289.54	468.05	195.96	236.00	1,189.55

Note: The consultant presents the project in the years 2024-2025.

2.6 Strategies of the Excise Department's Digital Development Plan

1) Strategy 1 Innovation of Digital Services and Management System for the new normal

Goal	Strategy	Indicators
Create innovations in digital services and standardized management. for fast service effective and secure.	<ul style="list-style-type: none"> Promote the utilization of Big Data to focus on the utilization of 5G Smart Machine/ AI and Blockchain technologies. To enhance the efficiency of the Excise Department Enhance the readiness of Trust and Security Services Infrastructure for supporting electronic transactions efficiently 	<ul style="list-style-type: none"> Percentage of the number of filings through electronic services Percentage of satisfaction of service recipients or entrepreneurs using digital technology services

Projects/ Activities under Strategy 1

Projects/Activities	Year (Million Baht)			
	2022	2023	2024	2025
1.1) Data Lake and Data Analytic Model for Big Data	✓			
1.2) Control and Management taxation liquor	✓			
1.3) Electronic transaction improves for liquor tax, tobacco and playing card	✓			
1.4) Improve effective system of Excise tax return, exception, and excise tax reduction		✓		
1.5) Project to develop a new electronic documentary system and operating both on-site and off-site		✓		
1.6) Develop a data center system of consultants of the Excise Department			✓	
1.7) Improve the management of the Big Data system and the data analysis system of the			✓	✓
1.8) A Proactive Online Information Management Authorization System				✓

2) Strategy 2: Borderless of Data and Services

Goal	Strategy	Indicators
Link services and information with agencies involved in Big Data, including disclosing information in the form of Open Government Data for maximum benefit to service recipients.	<ul style="list-style-type: none"> Promote link, exchange of information and electronic documents for seamless electronic transactions Supporting the electronic service system of the private sector to be able to connect in the form of Cross Digital Platform as well as being able to effectively connect to the electronic service system of the Excise Department. Promote the use of certified electronic service systems as well as providing a public relations process and building a network between relevant parties (Value Chain). 	<ul style="list-style-type: none"> Percentage of integration to link data within the Excise Department. The amount of data published in an open data manner. Percentage in creating standardized quality data on Data Catalog.

Projects/ Activities under Strategy 2

Projects/Activities	Year (Million Baht)			
	2022	2023	2024	2025
2.1) Development and improvement of information systems of the Excise Department	✓			
2.2) Improve effective of network transfer data of import and export Excise goods by National Single Window (NSW) Phase 2	✓			
2.3) Development and improvement of information systems of the Excise Department 2022		✓		
2.4) Open Data to develop Information Distribution and data service for national		✓		
2.5) The Review of Improving Internal Work System for the Link Data Integration of Big Data		✓		
2.6) Modify website management system of the Excise Department		✓		
2.7) Design and development project of management systems according to support electric vehicles of cars and motorcycles		✓		
2.8) Blockchain Pilot Project for Information Distribution			✓	
2.9) Chat Bot Service on Line Official Application System			✓	✓
2.10) Developing a Blockchain system to enhance the organizational quality of the Excise Department				✓
2.11) Open API Information Distribution Study and Development Project				✓

3) Strategy 3: Supervise and Support the Service Management System Toward Government 4.0

Goal	Strategy	Indicators
Digital technology management to allow people to access information through a variety of service channels with Cyber Security and Blockchain standards for security and the reliability of the information	<ul style="list-style-type: none"> - Develop and promote the use of (Volume) standards for electronic transactions. For government and private sectors to be of equal quality internationally and economically competitive. - Build confidence with international standard supervision both in terms of mandatory standards and recommended standards - Develop standards and regulations related to digital technology related to Data Governance, Consent Platform, and Data Privacy. 	<ul style="list-style-type: none"> - Percentage of satisfaction of information system officers of the Excise Department - Percentage of success in implementing policies and Cyber Security Plan - Accredited with international standards for digital technology security

Projects/ Activities under Strategy 3

Projects/Activities	Year (Million Baht)			
	2022	2023	2024	2025
3.1) Increase and provision of network computer and database system for Excise information technology center	✓			
3.2) Information Security Management System Development Cyber security and information technology personal data protection to serve excise taxpayers	✓			
3.3) Electronic mail system improvement project	✓			
3.4) Optimizing the management of the prevention and maintenance of information security systems of the Excise Department	✓			
3.5) Computer Rental Procurement Project to increase efficiency in government service (1,200 units)	✓	✓	✓	
3.6) Purchasing to optimize network system Data Center of the Excise Department		✓		
3.7) Purchasing to optimize Application Server		✓		

Projects/Activities	Year (Million Baht)			
	2022	2023	2024	2025
3.8) Backup for the excise tax collection system and excise stamp, and the VPN security system.		✓		
3.9) Cybersecurity Provision Project		✓		
3.10) The Excise Department's Data Governance Project		✓		
3.11) Purchasing notebooks to increase efficiency of government operations (200 units)		✓		
3.12) Provision and installation system for Data Loss Prevention			✓	
3.13) Review the Enterprise Architecture of the Excise Department			✓	
3.14) Purchasing tablets to support off-site operations			✓	
3.15) Application Performance Monitoring phase 2 for monitoring effective Excise system (APM 2)			✓	
3.16) Improving the efficiency of the computer support system (Data Center), Information Technology Building, Excise Department			✓	
3.17) Purchasing computers to increase efficiency of government operations (1,000 units)				✓

4) Strategy 4: ICT Knowledge and Building Resilience

Goal	Strategy	Indicators
Adjusting the operational structure of the government to be flexible and linked to the relevant departments. To increase work efficiency and be able to respond to changes quickly.	<ul style="list-style-type: none"> - Build manpower by supporting access to digital content from abroad. To develop personnel to keep up with the changes of knowledge necessary for the development of modern electronic transactions. - Pushing for the exchange of personnel between departments both government and private sectors, including collaborating with relevant agencies to promote benefits measures for attracting experts from abroad. 	<ul style="list-style-type: none"> - Amount academic seminar on digital technology within the Excise Department - Percentage of Digital Technology Personnel tested through internationally recognized professional standards. - Percentage of fundamental problems in digital technology reduced from the help desk notification

Goal	Strategy	Indicators
	- Promoting the utilization of the database and exchanging knowledge on research and development for foresight, as well as managing the data from the Efficient e-Transaction Data Management.	

Projects/ Activities under Strategy 4

Projects/Activities	Year (Million Baht)			
	2022	2023	2024	2025
4.1) Continue to develop innovations to solve problems			✓	
4.2) Upgrading the capability and building the readiness of personnel to promote the digital government of the Excise Department			✓	✓
4.3) Continue to develop innovations to solve problems and be able to put them into practice.				✓
4.4) The Clinic of Digital Information Supporting				✓
4.5) IT Knowledge Distribution to Entrepreneurs 4.0				✓

2.7 Implementing plans and monitoring and evaluating

To implement the Excise Department's Digital Development Plan into action, it is necessary for executives and personnel at all levels to focus. Be committed and contribute to the push to coordinate the preparation of the action plan—the planned implementation of projects and activities. As well as developing mechanisms and systems to monitor performance systematically, this system is for tangible, practical results. The excise department can be implemented to achieve the success goals in accordance with the excise department's vision. This can be performed. as follows

- 1) They are establishing policies or regulations for information technology centers to be relevant in the pre-inspection of projects according to the known requirements.
- 2) To build understanding for executives at all levels and all personnel to be aware of the importance and to participate in the strategic push into action.
- 3) Creating an environment conducive to driving the information and communication technology development strategy
- 4) To develop the planning/project process of the relevant authorities to be clear, as well as to establish a scorecard for the success of the plan/project in accordance with the development guidelines in each strategy of both the Ministry of Transport and nationally.

Development of systems and evaluation mechanisms, such as providing continuous monitoring of progress and assessing strategic performance on a quarterly basis. Pushing for results Monitoring is used as a guide to improve the preparation of the following plan/project to achieve continuous organization development, etc.

3. Recommended

3.1 Good Governance Operations

To secure, transparency, obvious and connect to data. The key point for management data for Personal Data Protection Act or PDPA in The Thailand Data Protection Guidelines 2019 recommend that the organization for working in Data governance team as shown in Figure 3 and there are reasons for the necessity to establish a working group in information technology management as following:

- 1) To establish methods for managing and supervising information in accordance with the Administration Act and providing government services through digital systems, 2019
- 2) To proceed with the preparation of the description of the data set including determining the rights and duties of the data subject or controlling the data at every step.
- 3) To set up the measurement to control and develop the quality of information.
- 4) To establish policies or rules for accessing information and clearly using information, including setting up measures and guarantees to protect the information in the possession to be safe and secure and prevent personal information from being violated.
- 5) To define the roles and duties of the data subject by defining how the data administrator or data subject can manage, change, or transmit information clearly, to avoid problems in the case of certain datasets or databases there are many administrators, users, or data subjects or entities.
- 6) To define a description of the data set (Metadata) of the data, help users understand, what this data is all about? How can it be used? and what are the limitations? which has a standard of description of the data set suitable for use.
- 7) To create datasets for exchanging information or provide information services to outside agencies.
- 8) To prepare for supporting the audit, preparation process for complying with the law
- 9) To support the implementation of the government policy in managing the organization in the form of an electronic office, encourage the use of technology to its fullest potential. Support the regulations of the Prime Minister's Office/ Digital Government Development Agency (public organization) on administration and government services through digital systems.

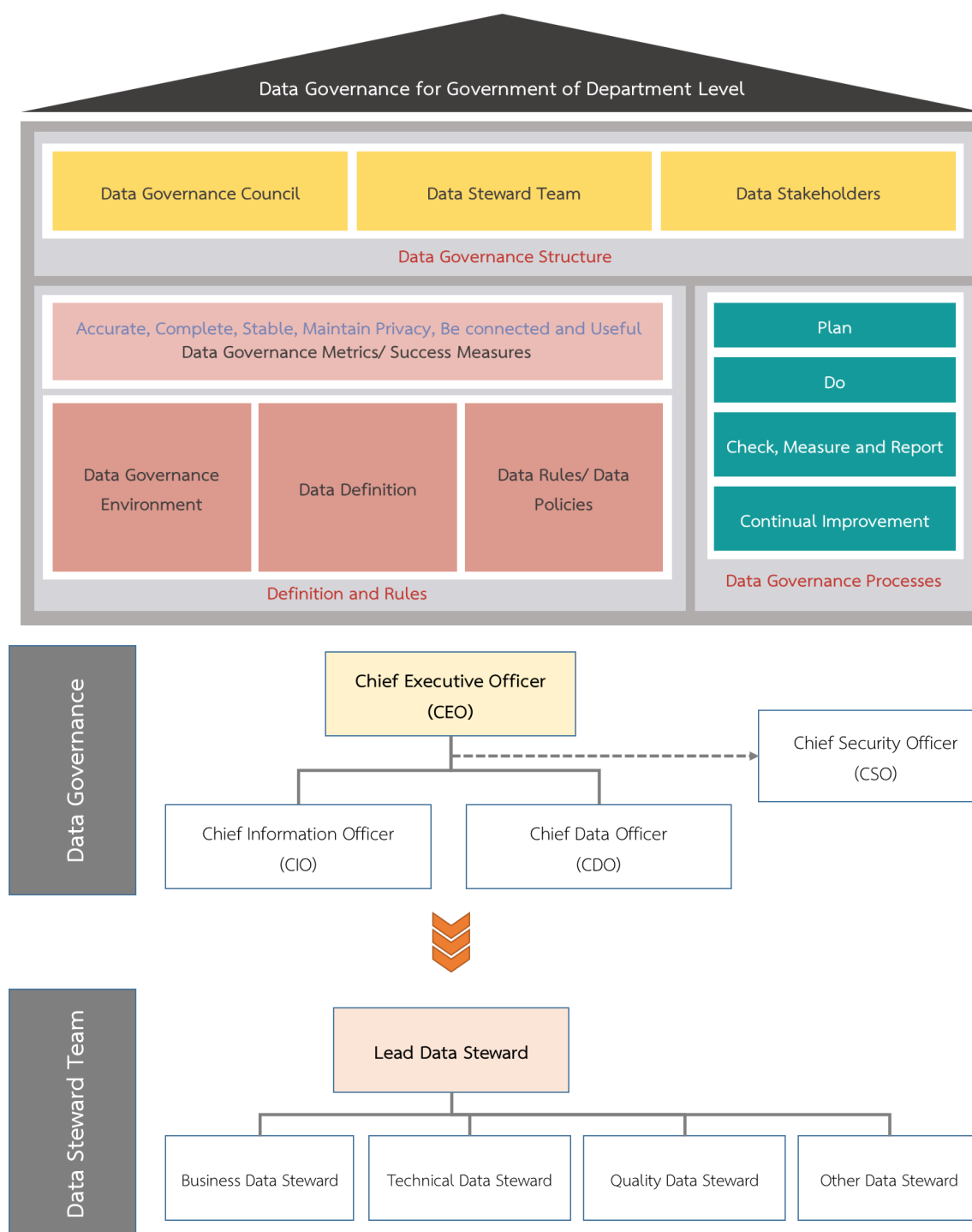


Figure 3 The structure of Data Governance Working Team

3.2 Digital Literacy

The study of digital literacy for improve skill of officer to prepare the technology transformation that rapidly change by time. The plan for improve people in organization of technology by Reskill or Upskill should be consideration. The important skill of digital technology that they should understand is planning, create and developing system, manage and support user, digital technology management, and consultant for open issues.

The position in organization should set the standard skill or certification of knowledge for effective working in organization. Therefore, the recommendation of digital technology course for consideration. These courses are from The Digital Government Development Agency (DGA) and the proficiency exam courses are certified according to national and international standards that was public organization for support and improve skill in any position.

1) Courses for developing digital technology skills

Type	Course	Position					
		Executive	Management	Academics	Technologist	Service	Working
Cyber Security	1.1) Cybersecurity Fundamentals	✓	✓	✓	✓	✓	✓
	1.2) Digital Security for Executives	✓	✓	-	-	-	-
	1.3) Cybersecurity for Technologists	-	-	-	-	✓	-
PDPA / DGF	1.4) The Principle of PDPA for Government Executives	✓	✓	-	-	-	-
	1.5) Personal Data Protection Act for Government Officers	-	-	✓	✓	✓	✓
	1.6) Government Data Governance in Practice	-	-	✓	✓	✓	-
	1.7) Business Process Design for Digital Transformation	-	-	✓	✓	✓	✓
Digital Transformation	1.8) Data Analysis and Utilization for Executive Decision Making	✓	✓	-	-	-	-
	1.9) Digital transformation of government organizations through a design thinking process	✓	✓	✓	✓	✓	-
Data Analytic	1.10) Data analysis and visualization	-	-	✓	✓	-	-
	1.11) Data Analytics Techniques	-	-	-	✓	-	-
	1.12) Software Development for Digital Government Services	-	-	-	✓	-	-
PM	1.13) Strategic Program Management for Digital Organization	✓	✓	-	-	-	-
	1.14) Digital Project Management	-	-	✓	-	✓	-

2) Digital Technology Knowledge Test Course

Type	Knowledge Test Course	Position					
		Executive	Management	Academics	Technologist	Service	Working
NSTDA ¹	2.1) Information Technology Professional Examination (ITPE) IT Fundamentals Test	✓	✓	✓	✓	✓	✓
Microsoft ²	2.2) Microsoft Technology Associate (MTA) IT Fundamentals Test About IT Auditors Network Administrators security	-	-	-	-	✓	-
	2.3) Microsoft Office Specialist (MOS) Test about Microsoft Office	✓	✓	✓	✓	✓	✓
ISC ³	2.4) Certified Information Systems Security Professional (CISSP) For information security experts	-	-	-	-	✓	-
ITIL ³	2.5) ITIL4 Foundation Fundamentals of Information Technology Service Management	-	✓	✓	✓	✓	-
CompTIA ³	2.6) CompTIA Fundamental	-	-	-	-	✓	-
	2.7) CompTIA A+	-	-	-	-	✓	-
	2.8) CompTIA Network+	-	-	-	-	✓	-
	2.9) CompTIA Security+	-	-	-	-	✓	-
	2.10) CompTIA Server+	-	-	-	-	✓	-

Note: ¹National Science and Technology Development Agency (NSTDA) Refer

<https://www.career4future.com/itpe/>

²Refer <https://www.arit.co.th/index>

³Refer <https://www.trainingcenter.co.th/certifications/>

3.3 Blockchain Technology

Blockchain was technology for security and, reliable without mediator. it similar with database that allow every people to have stake and prove the truth

Blockchain can define in 3 types with the policy of member in the network that is Public Blockchain, Private Blockchain and Consortium Blockchain

1) Public Blockchain is one where anyone is free to join and participate in the core activities of the blockchain network.

2) Private Blockchain participants can join a private blockchain network only through an invitation where their identity or other required information is authentic and verified.

3) Consortium Blockchain is a combination of the concept between Public Blockchain and Private Blockchain, which is mostly a combination of organizations with the same business

characteristics. And there must be a regular exchange of information with each other, such as the interbank network used to exchange transactional information.

The Excise department was properly with Private Blockchain because it was use for confidential data or private data that using in only organization. However, the department that developing own Blockchain need to invest in system structure and network system for connect knowledge of Blockchain also with maintenance Blockchain system. The example of Private Blockchain is Hyperledger, Corda and Tender mint.

The study of Blockchain pilot project that called “e-Referral” that using Private Blockchain in Hyperledger with concept to develop network connection of Thai Health data for every department of healthcare such as Hospital, Clinic, National Health Security office and Research center for example. The target was connecting all the network about health data within Realtime sharing data in same standard. The Hyperledger can create Smart Contract (Contract that keep in Blockchain) for working with condition by creating condition step such as patient data view, medical history data, next appointment of patient and important data for transform patient to other hospital.

The publish information of bureaucracy for general public people to know and using that information was a main target of digital plan of Thai government. The important information that should clarify and tracking revise the information with reliable. Blockchain technology was using for these issues therefore, The Excise department have to study and developing the pilot project of Blockchain for managing data in system especially transaction of entrepreneur that connect to Excise department.

For the good benefit of publish information, user have to understand and be able to use Blockchain technology therefore, The Excise department have to initiative to pilot Blockchain project for enhance publish and service information with Blockchain.

3.4 Office computer rental

In 2020, the excise department have 6,276 of officer and temporary employee on total but, the computer for working that get from allocated budget on year 2020 at 500 units and the other computer in department was used more than 7 years on average. This is the critical issues for working and adaption for the new operation system also with low prevention for malware attacking. Currently, the digital technology was rapidly developed, and computer was improved efficiency for support the new developing program therefore the rental office computer should be highly consideration for any sub-department that short of computer for working. It also effective with many projects that excise department developed as Big Data, BI, Data Lake and Blockchain for example. In case of officer using the old computer to work in these projects, they must take much time to get in program and, also for processing step in program. The recommendation of rental computer was proper for excise department that

could get effective working with new project and don't need any maintenance because the vendor must support when computer get some issues. The operating guidelines are as follows:

Set a time period for contracts and distribute computer to various departments to support their work. For the agreement, it have to specify the terms and conditions clearly that computer has to install License Software and in the case that the computer is damaged, must proceed the new computer replacement within 24 hours in order not to affect the work.

Renting a portable computer cost about 30% of the cost of purchasing a computer to reduce maintenance costs and license software installation fees. The portable computer can support Anywhere work in the new normal form without the need to work at the office only, which can connect to work online and still work efficiently. There must be a storage policy in the Cloud Drive format to be able to access information online and to prevent data loss.