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Open and Connected Government Review of Thailand



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Foreword

The outbreak of the COVID-19 pandemic and its global spread since 2019 have highlighted and aggravated deep-rooted inequalities worldwide and tested the capacity of governments to respond to health emergencies in a co-ordinated fashion. In this context, public sector digitalisation has gained political traction as a means of securing the continuity of government operations and the sustainable delivery of public services, increasing openness and stakeholder participation through digital means and supporting the accountability and integrity of policies in response to the pandemic.

This *Open and Connected Government Review of Thailand*, the first of its kind, assesses Thailand's efforts to build a government that is closer and more responsive to its citizens and draws upon digitalisation, data and stakeholder participation as drivers for national development. The review provides an in-depth analysis of the state of digital and open government in Thailand in line with OECD good practices, the provisions of the OECD *Recommendation of the Council on Digital Government Strategies* (2014) and *Recommendation of the Council on Open Government* (2017) as well as and the OECD Digital Government Policy Framework. Its purpose is to support the Thai government in advancing towards digital government maturity, building an open state and unlocking the mutually reinforcing benefits of digitalisation and openness for broader policy goals.

Thailand recognises the potential of open and digital government policies as a catalyst for improving public services, fostering socio-economic development, as well as engaging and collaborating with citizens. When appropriately designed and implemented, ambitious open government policies can also contribute to rebuilding trust between citizens and government and reinvigorating democracy. Instruments such as the 20-Year National Strategy (2018-2037), the National Economic and Social Development Plan, and the Thailand 4.0 economic model set the medium- and long-term development vision, including the creation of public value for citizens and businesses through digital and open government initiatives.

For this purpose, the Thai government has established initiatives, policies and institutional responsibilities for designing and delivering citizen-centric digital services and for engaging stakeholders in policy making. However, achieving such ambitious long-term goals will require further efforts to implement coherent and consistent policies and to strengthen the foundations for an open and connected government. These include: pursuing a proactive open government culture; stronger control, oversight and coherence in the financing of digital projects; developing and aligning digital standards; and establishing stronger data governance arrangements in the public sector.

This *Open and Connected Government Review of Thailand* forms an integral part of Phase I of the OECD-Thailand Country Programme. It builds on the close collaboration between the OECD and the Thai government, including in the context of the OECD Working Party on Open Government, the OECD Working Party of Senior Digital Government Officials (E-Leaders) and the OECD Network on Open and Innovative Government in Southeast Asia. It also contributes to the OECD Public Governance Directorate's broader engagement with Thailand, which currently includes policy reviews in the areas of regulatory policy and public integrity.

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The review was drafted under the strategic direction of Barbara-Chiara Ubaldi, Acting Head of the Open and Innovative Government Division and Head of the Digital Government and Data Unit in OIG, and Alessandro Bellantoni, Head of the Open Government and Civic Space Unit in OIG, who provided comments on all chapters.

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- United Kingdom: Liz Lutgendorff, Lead Insights and Analysis Advisor, International Team, Government Digital Service, Cabinet Office, Government of the United Kingdom.

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Executive summary

Thailand has demonstrated ambition and commitment to developing an open and connected government. The Digital Government Development Plan (2017-2020) and the introduction of legal instruments related to digital government, stakeholder participation and access to information demonstrate Thailand's willingness to strengthen governance arrangements for open and digital government maturity. The assignment of institutional responsibilities to the Office of the Public Sector Development Commission (OPDC) and relevant line ministries places co-ordination of the open and connected agenda at the highest political level. However, achieving sustainable policy impact in Thailand implies mobilising resources efficiently and using governance structures to steer and co-ordinate policy actions and deliver user-driven services.

Thailand lacks an agreed-upon national open government strategy. As the appointed co-ordinator for Thailand's stakeholder participation initiatives, the OPDC is well placed to take the lead in designing such a policy document. Yet, the successful design and implementation of a national open government strategy also require building a culture of openness and participation in the public sector that is proactive, inclusive and uses digitalisation as a driver of open government.

Thailand has developed key enablers such as the National Digital ID to facilitate the digital access to and delivery of public services. Nevertheless, the implementation of these initiatives has been limited at the operational level. Thailand has to build its public sector preparedness and competency in several areas, including improving the use of policy levers, planning and monitoring information and communication technology (ICT) expenditures, and promoting the adoption of key enablers and stronger data governance for a digitally mature government.

Prioritising these elements could help the government of Thailand promote a more coherent open and digital transition across policy areas, levels of government and project lifecycles.

Key policy recommendations

A citizen-driven policy framework for open and connected government

- Design and implement a national open government strategy and link existing open government initiatives with a monitoring and reporting system to track progress.
- Engage relevant stakeholders in the development of the proposed strategy and the next Digital Government Development Plan.

Clear institutional governance for implementing open and digital government

- Develop sectoral and institutional digital government agendas and reinforce digital and data leadership across line ministries and relevant government agencies.

- Provide the OPDC with a legal mandate to co-ordinate all initiatives related to Thailand's open government agenda across government and clarify institutional responsibilities for open government for greater coherence in the implementation of related reforms.
- Make use of the OPDC's Government Innovation Lab and establish an Open Government Steering Committee (OGSC) to support collaboration around open and digital government initiatives.

Using legislation and regulations to promote open and connected government

- Build awareness of the Official Information Act, B.E. 2540 (1997), urge public entities to comply with the access to information and public information disclosure provisions therein and continue promoting access to public information through simple request procedures that are uniform across all public institutions.
- Strengthen the independence of the Office of the Official Information Commission (OIC) and its governing commission.
- Consider revising the Official Information Act, B.E. 2540 (1997), which is the key legal instrument for disclosing public information, to include provisions on open government data in line with the Digitalisation of Public Administration and Services Delivery Act, B.E. 2542 (2019).
- Consider creating a national council for citizen participation, guidelines and manuals on the implementation of the Act on Legislative Drafting and the Outcome of Law, B.E. 2562 (2019), and enable broader public consultation on draft legislation.
- Explore agile regulatory practices along with more traditional approaches, such as regulatory impact analysis, with relevant stakeholders working on the intersections of digitalisation, regulatory policy and innovation.

Reinforcing public sector coherence

- Promote inclusiveness and openness by applying gender budgeting approaches to public funding mechanisms and include earmarked funds for open government in the budget plan.
- Involve the Digital Government Development Agency (DGA) in planning and approving ICT/digital projects in the context of Ministry of Digital Economy and Society (MDES) and Bureau of the Budget (BB) funds and budgetary processes.
- Develop common project business cases and management tools, and framework agreements for the acquisition of ICT/digital products and services.
- Use Integrity Pacts to promote the publication of open data for projects funded with public resources as part of anti-corruption efforts.

Building talent and competencies for open and connected government

- Scale up efforts and programmes targeting skills development, mobility, talent recruitment and procurement to build stronger digital competency and leadership in the public sector.

Improving the design and delivery of public services

- Define and implement an integrated approach to digital identity to address legacy challenges, facilitate technical implementation and simplify the access to services.
- Promote a Data as a Service (DaaS) approach for public sector data, such as the identification of priority information for its generation as digital data, for greater interoperability, standardisation and exchange through shared data infrastructures.

- Implement user engagement exercises, promote the adoption of user experience (UX) service design and technology principles and standards, and promote the consolidation of services and the integration of available portals for services and formalities.

Enabling a data-driven public sector

- Consider granting the DGA greater authority in co-ordinating digital and data standards under the oversight of the MDES and OPDC.
- Develop an action plan for public sector data as a sub-element of the National Big Data Policy and the Digital Government Policy that includes the Digital Government Development Plans, which the DGA could lead.
- Strengthen the operationalisation of Thailand's Data Governance Framework 1.0 by providing and promoting practical measures, guidelines and good practices on data management.
- Clarify the synergies between the OGSC Skill Development Framework and the DGA Data Governance Framework 1.0.
- Scale up the DGA's efforts to deploy a data governance structure and network of data leaders across the public sector.
- Building on a Data as a Service (DaaS) approach, promote and monitor the development of digital data registers, data catalogues and implementation of data standards for high-value datasets.
- Promote a trustworthy environment for data management and use through the design and implementation of data ethical principles for the public sector.

Promoting open government data

- Promote user-driven and purpose-driven open government data availability, identify high-value datasets for publication accessibility and re-use, including through application programming interfaces (APIs).
- Embed open data in the proposed action plan for public sector data to ensure data governance coherence across the data value cycle.
- Enhance policy coherence across the public sector through communication, prioritising stakeholder engagement and collaboration, and promoting the use of open key performance indicators for monitoring the sharing of open data by public sector organisations.

Assessment and recommendations

Background

Upon request from the government of Thailand and in accordance with the country's reform priorities, the *Open and Connected Government Review of Thailand* aims to promote the successful design and implementation of open and digital government policies in the country, and leverage synergies between these two areas of public sector reform.

The review provides an external and peer-driven assessment and highlights the country's progress in creating a Government 4.0 more prepared to engage with citizens and drive decisions based on their needs. It provides an overview of Thailand's legal and policy frameworks, key institutional actors and their roles, the main ongoing policies and initiatives on open government and digital government, and of observed challenges.

These Assessment and Recommendations propose a set of strategic policy recommendations for the Thai government, based on the evidence collected by the OECD during the peer review mission to Bangkok. These recommendations align to OECD standards and good practices of its members and reflect on the OECD's longstanding work in the areas of open and digital government, the principles enshrined in the OECD *Recommendation of the Council on Digital Government Strategies* (2014[1]), the *Recommendation of the Council on Open Government* (2017[2]), and the OECD Digital Government Policy Framework (see Chapter 1).

Creating a citizen-centred policy framework for an open and connected government

High-level national development policies

The Thai government is promoting a new economic model called Thailand 4.0 (Royal Thai Embassy, n.d.[3]), which describes a model driven by public sector innovation and co-operation with the public and private sectors. The model draws upon an open and connected, smart and high performing, and citizen-centric governance, and aims at moving towards a knowledge-based Thai economy (Jones and Pimdee, 2017[4]).

Also, Thailand has sought greater coherence in terms of how different strategies contribute to national development in the long run. For such a purpose, the government created the National Strategy Act, B.E. 2560 (2017) and issued the 20-Year National Strategy (2018-2037) (Government of Thailand, 2018[5]) with the aim of transforming Thailand into a developed country by 2037. The 20-Year National Strategy (2018-2037) breaks down long-term policy goals into actionable and measurable objectives defined in five-year mid-term plans known as the National Economic and Social Development Plans (NESDP).

In line with the above, the aim of Thailand's 12th NESDP (2017-2021) is to transform the Thai economy into "one that is based on services and digital technologies" and – accordingly – to modernise and

decentralise the public sector, capitalise on the opportunities of public-private collaboration, increase the provision of digital services and reinforce public sector workforce digital capability (NESDC, 2017[6]).

Developing an integrated policy framework for open government in Thailand

In order to achieve the shift to Government 4.0 as foreseen by Thailand's new economic model, relevant principles and values of openness need to be identified, discussed and reinforced at every possible opportunity (OECD, 2016[7]). In this regard, the inclusion and prioritisation of open government principles in government agendas and the mainstreamed application of those principles across the public sector are needed to promote reforms and cultural change.

Thailand's line ministries are already implementing a number of open government initiatives and have included references to open government principles in some sectoral policy documents but in a limited and siloed fashion. A co-ordinated approach that would allow for an increase in the number of initiatives, greater coherence and synergies between the individual efforts could thus positively contribute to the open government agenda and to how the latter can contribute to the achievement of Thailand's wider policy goals. In practice, most existing open government initiatives are implemented on an ad hoc basis and without an overarching policy framework. As Thailand is not a member of the Open Government Partnership, the government does not elaborate national action plans that select key open government initiatives. In most cases, public institutions implement open government initiatives related to stakeholder participation by fulfilling legal requirements and without following a whole-of-government and co-ordinated approach.

Defining an official concept of open government is a pivotal first step for a holistic and coherent approach to open government reforms. A single definition that is fully recognised and acknowledged by the whole public sector can facilitate the prioritisation and implementation of open government initiatives. In order to clearly define open government and move towards a more structured approach, the Office of the Public Sector Development Commission (OPDC), as the appointed co-ordinator for the open government agenda, could take the lead in creating a single definition that is accepted by the whole public sector and external stakeholders alike.

Evidence collected during the OECD's peer review mission to Bangkok in April 2019 also showed big disparities in terms of how the Thai government is moving towards an open and connected government that advance both the open and digital government agendas in that regard. Interviews consolidated the understanding that the open and connected government agenda in Thailand is highly driven by digitalisation, while open government considerations for national development (e.g. transparency and participation) remain secondary and often subordinate to aspects of the digital government agenda.

In the long term, the government could develop a strategic document that outlines shared objectives that go beyond the different initiatives and an overall vision of what Thailand intends to achieve with open government reforms. Such a document could help Thailand take full advantage of the benefits of open government. For a more strategic approach in the long run, the OECD suggests that countries develop an independent National Open Government Strategy (NOGS). According to OECD research, such a strategy can provide the missing link between high-level commitments (e.g. the open government principles included in the National Strategy on Public Sector Rebalancing and Development) and isolated practices to ensure policy coherence across public sector organisations.

An NOGS has the potential to consolidate initiatives across government, provide strategic direction, facilitate a focus on long-term and cross-cutting goals, and ultimately change the way government and society relate. Instead of driving individual initiatives, an NOGS can enable a country to set joint priorities and lead to a whole-of-government approach in which public institutions advance towards a common vision and shared strategic objectives. Ideally, the potential strategy would also be linked to the existing 20-Year Digital Economy and Society Development Plan (2017-2036).

In particular, in light of the challenges for open government, the Thai government identified in the OECD Survey on Open and Connected Government in Thailand (2019[8]), an NOGS could have a positive impact on the consolidation of open government initiatives and the development of an open government agenda. The survey found that a "lack of or insufficient co-ordination among main public stakeholders" and "insufficient communication/awareness of the benefits of open government reforms among public officials" are viewed to be among the five most significant obstacles for open government in Thailand. Besides promoting open government and raising awareness to generate new initiatives, an NOGS should aim at rendering existing policies and initiatives more coherent and better co-ordinated by providing a common narrative and methodological setting.

Driving national development and innovation through digital government

Thailand has put in place an ambitious group of policy instruments on digitalisation, covering the digital economy, digital government and data, to support Thailand's 12th National Economic and Social Development Plan (2017-2021) and the evolution towards Thailand 4.0.

The 20-Year Digital Economy and Society Development Plan (2017-2036) or Digital Thailand stands as the underlying long-term vision for digitalisation of the 20-Year National Strategy (2018-2037), with a focus on six core strategies: infrastructure, digital economy, inclusion and equality, digital government, skills and the future of work, and trust (including investments, security, and legal and regulatory frameworks) (MICT, 2017[9]). The responsibilities for implementation of the specific goals and strategies lie with different government agencies (e.g. Digital Government Development Agency, DGA), under the co-ordination of the Ministry of Digital Economy and Society (MDES). In response to the related goals on digital government of the aforementioned policy instruments, the former E-Government Agency (EGA, which in 2018 became the DGA) developed the Digital Government Development Plan, which so far has been structured in three different stages: 2016-2018, 2017-2020 and 2020-2022.

The results of the survey administered across public sector organisations in Thailand for the purpose of this review confirmed a high level of awareness in terms of the existent policy instruments meant to support the digitalisation of the public sector and further development of digital government in the country.

Challenges remain, however, in terms of engaging actors beyond the usual ones within the public sector (i.e. DGA, MDES and OPDC) and also among those outside the public sector in the development of the digital government plans. Evidence from the OECD peer review mission to Bangkok pointed to the fact that the development of these instruments was not done in collaboration with a broader range of internal and external actors in the country. Public officials expressed the narrow engagement approach in the development of the Digital Government Development Plans, which left aside the views of other relevant public bodies such as the National Innovation Agency (NIA) and those from specific line ministries and other public sector organisations in charge of delivering sectoral policies (e.g. education). Also, the OECD did not find substantial evidence indicating the involvement of external actors such as citizens, civil society organisations (CSOs), businesses and academia in the development process of the Digital Government Development Plans.

Monitoring the implementation of the open and connected agenda

In Thailand, the vision for the digital government (both medium- and long-term) is clear but ensuring delivery of results will require flexibility to adjust policy measures when needed in the course of implementing the vision, reconsider government interventions if needed to target organisational efforts and drive them in a coherent fashion.

The DGA has a specific unit in charge of evaluating and monitoring digital government projects. The Digital Government Development Commission was set up in 2019 under the Digitalisation of Public Administration

and Services Delivery Act, B.E. 2562 (2019) to monitor and evaluate the Digital Government Development Plan and related digital government projects.

The Digital Government Development Plan is ambitious for it covers five sub-strategies (i.e. quality of life, competitiveness, national security and safety, government efficiency, and government services) and a group of eight international indicators (e.g. the United Nations E-Government Development Index, the Open Data Index and the United Nations E-Participation Index), all in which the Thai government aims to improve its ranking as a result of the Digital Government Development Plan (Thiratitayangkul, 2019[10]).

Yet, measurements are highly driven by international indicators which, on the one hand, can help in driving a national digital government agenda that follows international best practices and benchmarks, such as OECD countries in the OURdata Index. However, on the other hand, this leaves aside the iterative monitoring controls that can help the Thai government take action or redefine the course of action, even before the end date of each Digital Government Development Plan.

Also, in terms of open government, collecting data on different open government initiatives can help to oversee results and monitor the implementation of the open government agenda. The OPDC could be charged with creating an overarching monitoring and evaluation (M&E) framework for Thailand's open government agenda. Moreover, due to its role as the co-ordinating entity for open government, the OPDC could promote the development of other public sector organisations' own frameworks that are linked to the national framework. Following the guidance provided by the OECD *Recommendation of the Council on Open Government* (2017[2]), such an M&E framework with different indicators (e.g. process, outputs, outcomes or impact indicators) could be developed in collaboration with a broad array of stakeholders.

Recommendation 1. Foster the adoption and use of a single definition of open government throughout the whole public sector.

- Delineate, adopt and mainstream a single official definition of open government. The OPDC could take the lead in developing this single definition so that it is fully recognised, acknowledged and accepted by the whole public sector and external stakeholders alike.
- To make sure the new definition reflects a joint understanding of open government across all public institutions and beyond (e.g. with citizens, civil society, academia and the private sector), the government could consider launching a consultative and collaborative process for its development that would ensure greater ownership and better diffusion of the definition.

Recommendation 2. Link and reinforce the strategic value of existing open government initiatives.

- To make sure that open government considerations do not remain secondary or subordinate to the digital government agenda, the OPDC could consider upgrading the next National Economic and Social Development Plan, which will enter into force in 2022, by including specific and well-defined open government objectives that go beyond stakeholder participation in the medium term.
- Moreover, Thailand may want to explore the development of a National Open Government Plan that codifies goals related to integrity, accountability, digitalisation, transparency and stakeholder participation, which can be achieved over a medium-term timeframe. This instrument could either expand the scope of the proposed Action Plan for Participatory Governance Promotion, B.E.2561-2564, which was developed by the OPDC's Sub-Committee on Participation, or take a similar form.
- Establish appropriate co-ordination and oversight mechanisms with the participation of all institutions who pursue the same goals and implement initiatives related to open government.

Recommendation 3. Design and implement a whole-of-government NOGS.

- In the long term, consider developing a strategic document that outlines shared objectives and the overall vision of what Thailand intends to achieve with open government reforms. Such an independent NOGS can provide the missing link between high-level commitments (e.g. the open government principles included in the Strategy on Public Sector Rebalancing and Development) and isolated practices to ensure policy coherence across public institutions. Thailand could consider involving the legislature, judiciary and independent public institutions as well as subnational levels of government in the design and implementation process of the strategy.
- As the OPDC was assigned the responsibility for acquiring Open Government Partnership (OGP) membership and given its role as the co-ordinating entity for open government, the OPDC could lead the process of developing a possible NOGS. The NOGS could be co-created with key stakeholders, including civil society organisations, academia and the private sector to ensure a common vision and even better buy-in and ownership. The strategy could provide strategic guidance on all commitments included in a potential future open government action plan.

Recommendation 4. Expand the involvement of additional internal and external actors in the development process of the next National Digital Government Development Plan.

- Engagement can help, for instance, to identify those formalities and public services that should be prioritised for delivery and access through digital and mobile channels, increase policy ownership and clarify roles and responsibilities at the implementation level. This also supports the case for further embedding open government approaches and principles in the conception of digitalisation efforts in Thailand.

Recommendation 5. Reinforce the monitoring and reporting system to track the implementation of the Digital Government Development Plan at the organisational level.

- The DGA's efforts to monitor digital government and data-related actions should be sustained along with the Digital Government Development Commission. However, the development of specific measurements such as key performance indicators (KPIs) and the resulting reporting to the DGA from public sector organisations would benefit from following a short-term span (yearly reporting) so that they can help in informing policy measures and the rechannelling of resources before the expiration of the Digital Government Development Plan. This would contribute to grant greater agility to the plan's implementation so that policy interventions can take place in an iterative fashion whenever needed.
- These monitoring efforts should also take into consideration the insights of the user, for instance in relation to Thai citizens and businesses satisfaction with public services, including through omnichannel approaches.

Recommendation 6. Create an overarching M&E framework for Thailand's open government agenda.

- Thailand may consider monitoring the implementation of its open government agenda in a strategic way. The OPDC could be charged with creating an overarching M&E framework for Thailand's open government agenda. Moreover, due to their role as the co-ordinating entity for open government, they could promote the development of other institutions' own frameworks that are linked to the national framework.
- Following the guidance provided by the OECD *Recommendation of the Council on Open Government*, such an M&E framework with different indicators (e.g. process, outputs, outcomes or impact indicators) could be developed in collaboration with a broad array of relevant stakeholders.

Fostering clearer institutional governance for the effective implementation of the open and digital government agendas

As a result of the restructuring of the Thai government following the elections in March 2019, the OPDC was appointed co-ordinator for public governance. Based on the National Strategy on Public Sector Rebalancing and Development, the OPDC is encouraging public sector organisations to steer public digital innovation and involve the public and other stakeholders in developing a more open and participatory government.

In addition to the OPDC, other key leading actors in relation to digitalisation and digital government include the MDES (and specific internal MDES bodies such as the Office of the National Digital Economy and Society Commission [ONDE], the Electronic Transactions Development Agency [ETDA] and the Digital Economy Promotion Agency [DEPA]) and the DGA. Among these, the DGA, once under the MDES but currently under the Office of the Prime Minister (PMO), provides technical advice and support to public sector organisations in the design and implementation of their digital government initiatives. This includes the development of digital and data tools and infrastructure as explained in the sections that follow.

The responsibilities and roles in relation to the open government are not as clear due to the absence of an overarching policy framework.

Thailand's institutional arrangements for the implementation of an open and digital government

Thailand's institutional governance for open and digital government is complex. Responsibilities are clear but the real challenges are at the implementation level, as expressed by public officials during the OECD's peer review mission to Bangkok.

It is unclear how institutional plans (when available) are aligned – or will be aligned – with central development plans in the short term. This is a result of insufficient clarity and horizontal co-ordination among public sector organisations, in relation to what the 20-Year Digital Economy and Society Development Plan (2017-2036) and the Digital Government Development Plans mean in terms of implementation at the operational level. Notably, some public sector organisations with strong sectoral responsibilities did not self-identify as having a role in the digital government agenda given that they are not directly in charge of providing services to citizens and businesses.

There are some cases where ministries or other public sector organisations have taken immediate action to align their institutional agendas to the central open and connected government agenda but this approach is not widespread. This illustrates how leadership and commitment at the administrative and institutional levels are fundamental to apply digital and open connected approaches to sectoral and state policies. Yet, these cases are the exception and not the rule, as evidence from the OECD peer review mission to Bangkok and from the survey pointed to limited digital leadership at the institutional level, beyond those agencies directly involved in the digitalisation and digital government agendas.

In the case of open government, an effective institutional framework is still under development. While the OPDC is responsible for promoting the establishment of policies and mechanisms that ensure citizen participation in government, it does not yet have a clearly defined mandate for open government reforms beyond citizen participation, which is rooted in a firm legal basis.

Co-ordination and collaboration

In terms of digital government, it seems that the Thai government does not experience significant challenges in the high-level co-ordination of relevant actors within specific policy areas. In general, the survey data indicates that public sector organisations agree on the relatively good co-ordination achieved

so far to advance the digital policy in Thailand at the high level and within specific sectors. For instance, the MDES has a solid management mechanism to steer the 20-Year Digital Economy and Society Development Plan (2017-2036) structured in three different work chapters: i) commissioning; ii) policy funding; and iii) co-ordination. Another example is that the National Science Technology and Innovation Policy Committee (NSTIC) chaired by the prime minister and under the supervision of the National Science Technology and Innovation Policy Office (NSTIP).

On the contrary, collaboration issues among public sector organisations in general appear to be a significant concern in Thailand. It was difficult to assess how these leading public sector organisations collaborated and worked together in practice once co-ordination is achieved at a higher level. Public officials underlined overlaps in terms of implementation and the lack of integration across different digital plans at the institutional level (OECD, 2019[8]). For instance, the Office of the National Digital Economy and Society Commission (ONDE)'s remit included digital transformation at a national level as well as an intelligence and policy design unit. However, it was unclear how they interacted with other government agencies or how they influenced them.

Also, similar to the experience of other countries, the OECD survey for this review found that the three main challenges the OPDC experiences in the co-ordination of open government policies and initiatives related to a "lack of or insufficient incentives to collaborate (career, financial, etc.) among other government institutions", a "lack of or inadequate strategic direction" and a "lack of or insufficient political will/leadership" (OECD, 2019[8]).

Recommendation 10. Leverage the value of the OPDC's Government Innovation Lab (GIL) as a collaboration hub for the public sector.

- This would imply stressing the role of the GIL in the implementation of government-wide sectoral and institutional digital transformation plans, such as Thailand's Digital Economy and Society Development Plan, the Digital Government Development Plans, the National Big Data Policy and other sectoral plans.
- For this purpose, the GIL should be acknowledged as a government-wide initiative to be leveraged across the public sector rather than a siloed practice within the responsibility of the OPDC. The GIL should also underline opportunities for collaboration through policy synergies and reduce overlaps and fragmentation at the implementation stage.

Recommendation 11. Establish an Open Government Steering Committee (OGSC).

- The creation of a mechanism such as an institutionalised OGSC can support the co-ordination of open government initiatives across levels of government, can generate additional visibility and can help foster continuity of initiatives and strategies. A steering committee could thus help the government to meet the challenges of a lack of co-ordination among main public stakeholders and insufficient communication/awareness of the benefits of open government reforms among public officials.
- A permanent OGSC could also function as a space to co-design the suggested National Open Government Strategy. The OGSC could follow up on the high-level commitments included in a national strategy and help translate the vision into concrete actions both in general as well as for thematic areas (e.g. access to public information, stakeholder participation or United Nations Sustainable Development Goals, etc.).
- Organise regular open state meetings within the framework of the OGSC, in order to create a space that allows for the permanent exchange of good practices and experience between branches of power and levels of government.

Leveraging legislation and regulations as drivers of the open and connected government agenda in Thailand

Building a solid legal basis for an open and connected government in Thailand

As in most OECD countries, the National Constitution of the Kingdom of Thailand, which was revised in 2017, does not make a specific reference to the concept of open government. However, it contains specific provisions, notably Sections 41, 58, 59 and 77 that support the principles of transparency, accountability, integrity, stakeholder participation and access to public sector information and data. These constitutional provisions provide the political and administrative leaders of the national open (and digital) government agenda legal leverage to promote (and intervene to enforce them if needed) open government principles across the public sector. Having these principles enshrined at the highest possible legal level creates a solid legal basis and legitimates all subsequent primary and secondary legislation. Moreover, it ensures the necessary impetus for launching open government strategies and related initiatives.

Access to Information as a cornerstone of open and connected government

In terms of access to information (ATI), Thailand has made significant progress over the past years. The right to information was first recognised by the 1997 People's Constitution and later included in the 2007 Constitution. Following the 2014 Interim Constitution, which did not contain any specific provision on access to information, today's version of the constitution that entered into force in 2017, includes three key provisions (respectively Sections 41, 59, and 77) guaranteeing citizens' right of information. Preceded by calls of civil society for greater transparency, the government substantiated the constitutionally protected right to access government information and adopted the Official Information Act, B.E. 2540 in 1997, which reinforced the rights of citizens in this respect. However, 23 years after its adoption, the act shows some limitations.

Thailand's Official Information Act applies not only to the executive branch but also to the legislative (both the House of Representatives and the Senate, and institutions related to them). The judiciary is also liable under the act, with the exception of the affairs related to the trial and adjudication of cases (Government of Thailand, 1997[11]). Within the executive, the act's scope includes state enterprises, professional supervisory organisations, independent agencies of the state and other agencies. Due to Thailand's unitary system with a strong tradition of centralisation, the law also applies vertically to the central, provincial and local administrations.

As in 71% of OECD countries (OECD, 2011[12]), Thailand's Official Information Act does not include any legal restrictions regarding the status of applicants. The act allows all Thai citizens to request official information from public sector organisations and information seekers are not required to provide reasons for their requests. With regard to the range of information that can be shared for public access, the law defines information extensively as all material held by or on behalf of public authorities, which is recorded in any format, regardless of who produced it. It is noteworthy that applicants do not need to provide their identity but are only required to provide contact details that are necessary for identifying and delivering the requested information.

It is crucial, however, to provide citizens with clear information on how and where to request government information. The act does not provide detailed information regarding the specific procedure concerning how to request information. Section 11 of the Official Information Act only stipulates that information seekers may request information that is not already published by making a "reasonably apprehensible mention on the intended information". The act does not include a description of the form the request should take nor what type of requests are permitted (e.g. paper copy, electronic reproduction or inspection of files). Moreover, the law does not specify the exact place or channels to submit information requests. While the Office of the Official Information Commission (OIC) provides a downloadable form on their website, it

remains unclear if this document constitutes an official form or rather represents a template form that helps requesters to file their requests (OIC, n.d.[13]). It is not specified whether entities bound by the law are required to provide online portals, service phone lines or contact persons where information can be requested. As requesters are not provided with a receipt of the request procedure, citizens seeking information will be left unclear if their request is currently dealt with. Also, responses collected as part of the OECD survey for this review showed that one of the main challenges in implementing the ATI law is citizens' lack of awareness of the existence of the act and the benefits it can bring (OECD, 2019[8]).

In the case that an institution does not possess the requested information, it shall refer the requester to another institution. However, Section 12 of the Official Information Act does not establish an obligation for the institution to transfer the request itself. Besides this obligation to inform citizens that the information is not available, the act does not include other provisions that institutions should provide assistance to information seekers to correctly lodge their requests. In particular, in the case of requesters with special needs (e.g. illiteracy or disability), assistance to file a request could be needed. If the requested information is available but was created by another institution, the request may be transferred.

With regard to the creation of concrete timelines for the provision of information, Section 11 of the ATI law only determines that information requests shall be answered: "within a reasonable period of time" (Government of Thailand, 1997[11]). The law does not set any other fixed timeframes, which left room for public officials' discretion and could lead to delays. To fill in this gap, the Royal Decree on Criteria and Procedures for Good Governance obliges public institutions to respond within 15 days (Government of Thailand, 2003[14]). An extension of the deadline is possible upon notice but requires an explanation of the reasons. Despite the establishment of deadlines through the Royal Decree, it has been noted that these timeframes are not always respected (Article 19, 2015[15]).

Pursuant to Section 9 of Thailand's ATI law, the request for information is free but fees may be charged to inspect or reproduce documents. The Office of the OIC determines costs of reproduction associated with the request of information. Each institution may charge different rates but needs prior approval of the OIC.

For the case when an information request is refused, the person requesting information must be informed of the reasons for refusal. Thailand's Official Information Act does not allow for internal appeals and differentiates between complaints and external appeals. Citizens can issue a complaint with the Official Information Board (OIB) in case the institution the request is directed to fails to act and does not comply with the law. The Official Information Board is located within the institutional entity of the Prime Minister's Office. Due to its institutional affiliation, the board does not enjoy full independence and its respective oversight competencies are limited. For complaints, it does not therefore issue binding decisions but merely gives opinions on the complaints (Section 28). Citizens can also submit appeals against refusals to disclose information (Section 18) to the Office of the OIC, which also forms part of the PMO. The OIC will then transfer the appeal to Information Disclosure Tribunals (IDTs). Established in accordance with specialised fields of information, the IDTs make binding decisions, which are final, unless the appeal is referred to an administrative court.

Established by the 1997 ATI law, the Office of the OIC serves as a secretariat to both the OIB as well as to the IDTs. In addition to its secretariat functions, the commission functions as a supervisory and advisory body for the implementation of the law, which does not enjoy authority over other agencies. It issues recommendations on the implementation of the ATI law and submits regular reports on compliance with the Official Information Act to the cabinet. The head of the commission is a cabinet minister, who is appointed by the prime minister. Its mandate and location in the PMO do raise questions about its functional independence and objectivity in fulfilling the assigned mandate. Based on the 2017 annual report published by the Office of the OIC, challenges faced by the OIC include inadequate numbers of staff and a lack of funding.

Recommendation 12. Raise awareness of the Official Information Act, B.E. 2540 (1997) and continue promoting access to public information.

- One of the main challenges in implementing the ATI law is citizens' lack of awareness of the existence of the act and the benefits it can bring. Thailand could thus consider actively promoting access to information. The government could publish uniform guidelines and manuals that explain in easily understandable language how to request information and make them widely available to citizens. Specific manuals are also needed to describe complaint and appeal procedures. Moreover, service phone lines and dedicated contact persons that provide support could ease the process for citizens.
- To improve officials' knowledge and understanding of the access to information law and the related procedures, the Office of the OIC could share its internal guidance documents across all public institutions for the proper interpretation and implementation of the ATI law. These guidelines should be regularly analysed and updated to include lessons learned from the practice of handling requests, complaints and appeals by citizens. The OIC could also consider expanding its mobile training programmes, offering courses for officials working with ATI requests to promote guiding criteria and indicators of best practice.

Recommendation 13. Ensure the availability of clear, coherent and simple request procedures to make the access to information more citizen-friendly and foster the effective implementation of the Official Information Act, B.E. 2540 (1997).

- Consider the introduction of a standardised request procedure for all public institutions to improve and ease Thailand's access to information process for citizens. To ensure consistency between institutions, it is important that standards for the process for obtaining information and making complaints are set centrally and remain the same for each public entity providing information. To this end, Thailand could consider amending the Official Information Act by including a description of the form requests should take and where to submit them.
- One way to start harmonising the request procedures could be the development of a single online request form and the publication of supporting uniform guidelines on how to request information. As the current ATI portal of the Office of the OIC was reported to be not very user friendly, the creation of a new online request form for all public institutions will have to consider the ease of access for stakeholders.
- To ensure consistency of request fees between institutions, the fees for the reproduction as well as the potential delivery of information must be set by the OIC. Given the lack of mention of costs in the ATI law, citizens should be adequately informed about potential costs when requesting information. A distinction should be made between access to documents that are already available and access to information that involves research, elaboration or processing on the part of the administration. In case institutions charge their own rates, they must be justifiable and appropriate for citizens. The OIC could also consider providing the first 20 pages free of charge for all requests.
- Consider providing information seekers with a receipt of their request procedure to enable follow-up.
- To reduce room for public officials' discretion and create concrete timelines for the provision of public information that are respected across the government, Thailand could consider amending Section 11 of the Official Information Act to set fixed timeframes. The government could enshrine the 15 days stipulated in the Royal Decree on Criteria and Procedures for Good Governance.

Recommendation 14. Ensure effective and independent institutional oversight as a guarantor for the right to access information.

- Consider amending Section 28 of the Official Information Act to expand the mandate and oversight competencies of the OIB by enabling it to issue binding decisions on the merit of information request complaints.
- To strengthen independent oversight, the government may consider strengthening the independence of the OIB and the Office of the OIC. Their institutional autonomy could be guaranteed by granting the OIC legal personality, making it report only to parliament, which could also approve the institution's independent budget.
- Thailand should consider equipping the Office of the OIC with additional financial resources and provide the institution with adequate human capacities to ensure the effective implementation of its mandate.

From the proactive publication of information to open government data

In Thailand, the Official Information Act, B.E. 2540 (1997) and the Royal Decree on Criteria and Procedures for Good Governance, B.E. 2546 (2003), requires all government agencies to proactively publish information on a central website. Public institutions are obliged to proactively publish information and documents regarding their structure, powers, bylaws, regulations, orders, policies and interpretations. However, it is noted that in practice, not all government information is made available through the Government Service Centre (GovChannel) portal. The OECD's survey for this review found that agencies often resist fulfilling their responsibilities in sending information to the Office of the OIC (OECD, 2019[8]).

Proactive publication is also a key aspect that can help in facilitating access to open government data so that it can be obtained and re-used by actors from all sectors as a means to promote social, business and public sector innovation. This is based on the premise that the creation of social, economic and good governance value for society, businesses and governments results from data use and re-use, and from the understanding that data publication is only a means to an end (OECD, 2018[16]).

Hard law instruments (such as the current ATI law) can help to build a solid basis for the proactive publication of valuable and re-usable public sector datasets. Thailand's Official Information Act creates a legal framework for the disclosure of public information in that regard. However, the ATI law is not fully used as a policy lever that can help to advance open government data initiatives in the country. The Thai government could learn from the experience of OECD countries that have reinforced the governance for open data by including specific definitions on open data or the principle of "open by default" in the transparency and/or ATI legislation. This would help to ensure that the right foundations are in place first to move towards a data-driven society and public sector.

Recommendation 15. Consider the revision of the Official Information Act, B.E. 2540 (1997) to include specific provisions on open government data.

- This could help in reinforcing the general publication of open data at a broader scale in line with the provisions of the Digitalisation of Public Administration and Services Delivery Act, B.E. 2542 (2019) and define the requirement for openness and data by default for priority release of specific public sector information.
- These revisions can also support Thailand open data efforts in public procurement and public sector infrastructure, in line with the provisions of the Public Procurement and Supplies Administration Act (2017), Thailand's membership of the Infrastructure Transparency Initiative (CoST) and its willingness to implement the CoST Infrastructure Data Standard.

A clear legal framework to consult stakeholders on draft legislation

A first step in creating a legal basis for the consultation of stakeholders in regulatory processes took place in the period from 2003 to 2005 with the enactment of the Regulations of the Office of the Prime Minister on Public Consultation, B.E. 2548 (2005). The law obliges relevant government institutions to conduct credible consultations with the public prior to any major regulatory project. This law was further reinforced by the new Section 77 of the 2017 Constitution, which requires government agencies to "conduct consultation with stakeholders [prior to the enactment of every law]". It also obliges institutions to "analyse any impacts that may occur from the law thoroughly and systematically, and should also disclose the results of the consultation and analysis to the public, and take them into consideration at every stage of the legislative process" (Office of the Council of State, 2017[17]). Pursuant to Section 77 of the constitution, all draft acts are subject to public consultation before they are submitted to the cabinet for approval. To effectuate the requirement of consultation, the cabinet issued a resolution in 2017 stipulating that all draft legislation be published on a central consultation website (lawamendment.go.th) for at least 15 days before the agency may send the draft act together with the summarised consultation report and the impact assessment report to the secretariat of the cabinet.

Most recently, the Act on Legislative Drafting and the Outcome of Law, B.E. 2562 (2019), revises the system of regulatory policy making in Thailand, in accordance with Section 77 of the constitution. Amongst other reforms, it introduces more detailed instructions for conducting obligatory consultations at every stage of legislative drafting process, including impact assessments, holding consultation of the law and carrying out an *ex post* evaluation after the law has been passed (Government of Thailand, 2019[18]). Stemming from Section 13, government agencies shall consult with the public through online consultations and, in addition, may use public meetings, questionnaires and interviews. For each consultation, agencies need to publish accompanying information such as a description of the problem the draft legislation is supposed to solve, an explanation of the main ideas and principles of the draft legislation presented in simple and comprehensible language as well as a list of persons who are or may be affected by the legislation (Section 14). According to Section 15 of the act, all stakeholders participating in public consultations shall register with their corresponding address and email via a central registration system. While registration provides useful information regarding the origin of each contribution and allows for further inquiries and notification regarding the progress of the file, the lack of an opportunity to provide anonymous input may also raise data protection concerns and prevent some stakeholders from commenting.

Aside from conducting formal public consultations on draft legislation and regulations, the law does not refer to stakeholder participation in the development of strategic documents. Such consultations to improve strategic planning are currently only voluntary. Regarding the inclusion of specific provisions relating to stakeholder participation in other sectoral laws, laws for environmental and town planning contain such

references. Sections 48 to 51 of the Enhancement and Conservation of the National Environmental Quality Act, B.E. 2535 (1992) (amended by the Enhancement and Conservation of the National Environmental Quality Act, B.E. 2561 [No. 2] in 2018) refer to the consultation of experts for environmental impact assessments. With Section 9, the new Town Planning Act (2019) also contains a provision on stakeholder participation.

Thailand's set of legislation to enable stakeholder consultation in legislative processes provides a solid legal framework for all public agencies. In particular, the Act on Legislative Drafting and the Outcome of Law opens a way to yield the benefit that stakeholders can bring to policy making. From a legal point of view, it is in line with the OECD *Recommendation of the Council on Open Government*. Efforts from all public sector organisations are now needed to ensure the successful and coherent implementation of the legal framework for public consultation. While all government agencies are obliged to comply with the provisions of the laws, only a move towards a more participatory governance culture will guarantee effective implementation in the future. The success in applying this legal framework will to a large extent also depend on providing adequate guidance to all public institutions conducting public consultations. In order to avoid consultation fatigue and ensure that consultations are meaningful, the government should further improve the sustainability of stakeholder participation.

Besides the consultation of citizens on already formulated pieces of draft legislation, other forms of participation to interact and engage with stakeholders in the policy-making cycle could broaden Thailand's participatory approach. Practices that go beyond mere consultation and focus on the active engagement of stakeholders during co-design processes could bring further value. Similarly, the participation of stakeholders in budget processes represents an open government practice in many OECD countries. However, currently, such practices are not covered by any existing legislation.

Recommendation 16. Ensure the successful, inclusive and coherent implementation of the legal framework for public consultation.

- Consider supplementing all online consultations with in-person meetings, questionnaires and interviews. This would i) help to increase inclusiveness and digital democracy by enabling citizens with limited or no access to information and communications technology (ICT) to participate in consultations; and ii) follow a digital-by-design and multi-channel approach to public consultations, in addition to online consultation requirements as discussed in Section 13 of the Act on Legislative Drafting and the Outcome of Law, B.E.2562 (2019).
- Following Section 15 of the Act on Legislative Drafting and the Outcome of Law, B.E.2562 (2019), introduce the possibility of providing anonymous input for public consultation to remove registration barriers, dissipate data protection concerns and encourage a broad array of stakeholders to comment.
- Elaborate implementation guidance for public consultation (e.g. guidelines and handbooks) for public officials and disseminate them widely across the government. The Law Reform Division of the Council of State could be tasked with developing these guidance materials to support the implementation of public consultations. In addition, Thailand may consider establishing training courses for civil servants in charge of conducting public consultations to develop capacities and increase open government literacy.
- Monitor the implementation of the legal framework on stakeholder consultation and consider an evaluation of the Act on Legislative Drafting and the Outcome of Law, B.E.2562 (2019) according to a set timeline with the aim to revise and adapt the regulation. In order to collect input for this evaluation, the Office of the Council of State could draw from the feedback of a large variety of relevant governmental and non-governmental actors. In particular, the expertise

and knowledge of civil society organisations, which, for instance, closely follow environmental impact assessments in public construction and urban development projects, could be valuable.

- Consider the creation of a National Council for Citizen Participation that advises the national government on the definition, development, design, M&E of a public policy on citizen participation.

Recommendation 17. Expand the use of stakeholder engagement practices beyond the consultation of citizens on draft legislation.

- Besides the consultation of citizens on pieces of draft legislation, the government of Thailand may consider other forms of participation to interact and engage with stakeholders in the policy-making cycle to broaden the country's participatory approach. Practices that go beyond mere consultation and focus on the active engagement of stakeholders during co-design processes could bring further value. Similarly, the participation of stakeholders in budget processes is an open government practice Thailand could consider.

Building the legal foundations for a digital government

Thailand has put in place different instruments covering different aspects related to public sector digitalisation including cyber security and digital transactions. These include: the 2002 and 2019 revised version of the Electronic Transactions Act, B.E. 2544 and No. 3, B.E. 2544 respectively; the Computer Crime Act, B.E. 2550 (2007); the Cyber Security Act, B.E. 2562 (2019); the Licensing Facilitation Act, B.E. 2558 (2015); the Personal Data Protection Act, B.E. 2562 (2019); and Cabinet Resolution 187/2558 (2015) establishing common data platform for the public sector and an integrated database on citizen information and public services. In 2019, the publication of the Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019) provided stronger legal support for the development of a digital government in Thailand. The act, commonly known as the digital government law, is intended to accelerate digital transformation in the public sector. It is therefore ambitious and complements previous legal and regulatory instruments on digital government and will provide a more solid legal basis to deliver the medium- and long-term goals for digitalisation in Thailand.

Agility and regulation

Thailand does have a history of introducing reforms to update its system of regulatory policy making in accordance with international good practices as explored in the previous sections and in the OECD report *Thailand: Regulatory Management and Oversight Reforms: A Diagnostic Scan 2020* (2020[19]). Yet, technology and citizens' expectations change rapidly and governments (including the Thai government) should be able to adapt and meet the needs of citizens and businesses in this fast-paced context in order to stay relevant. Thai public officials were quite vocal in this respect, as they indicated considering the legal and regulatory framework both an opportunity and an obstacle for the open and connected agenda, stressing the need to ensure the right balance between issuing new regulations and the need for adapting existing ones. They also raised concerns in relation to the capacity of the Thai government and its regulatory bodies to keep up with technological developments to avoid perpetuating or creating bottlenecks blocking the agility and capacity of the public sector to adapt and leverage technology and data in the pursue of value for society.

Applying an agile approach to regulatory activities can help the Thai government to make more informed decisions and tackle the challenges of the digital era in a more efficient fashion. In Thailand, the Office of the Public Sector Development Commission (OPDC) is aware of how bureaucracy, the lack of collaboration (including with external actors and within the public sector) and the passive cultural approach to engagement and innovation constrain the delivery of the open and connected agenda. For this reason, the

OPDC self-identifies as a “mentor” that can help in driving organisational and cultural change and explore new ways of public management. Initiatives such as its Innovation Lab could be further leveraged to enable safe spaces to explore the implementation of agile regulatory initiatives in Thailand.

Recommendation 18. Explore the implementation of agile regulatory practices in balance with more traditional approaches such as *ex ante* and *ex post* regulatory impact analyses.

- This would require bringing on board all relevant stakeholders within the public sector working on the intersections of digitalisation, regulatory policy and innovation – including the OPDC, the Office of the Council of State, the Digital Government Agency and the National Innovation Agency (NIA). Scaling up the value of the OPDC’s Innovation Lab can help in this regard.
- Allocate funds (such as the MDES Digital Economy and Society Development Fund and the NIA Innovation Fund, see next section) to promote the implementation of specific projects on innovative regulation at the national level.

Reinforcing public sector coherence through an open and connected government

Funding to leverage inclusion, equality and better services

In Thailand, the Bureau of the Budget (BB) plans and allocates government expenditure to secure that line ministries, such as the MDES, count with the needed financial resources to implement the 20-Year Digital Economy and Society Development Plan (2017-2036) or Digital Thailand. The BB also has a strong political lever given its location in the PMO and the fact that the deputy prime minister chairs it.

Proposed projects are also assessed drawing upon their contribution to an integrated budget plan prepared by the BB, which covers: i) connectivity and Internet access; ii) digital government; iii) data sharing within the public sector; and iv) public officials’ digital skills. Yet, the integrated budget plan does not contemplate any specific policy elements relevant for open government. Adequate funding is crucial for efficient and sustainable implementation of open government reforms and for supporting open government priorities. Beyond the total amounts spent to support open government initiatives, it is important that funding sources are as clear and consistent as possible, appropriate recipients are identified to support the government’s open government reform goals and that funds are spent on both implementation and co-ordination. In that regard, earmarking funds for open government in the integrated budget plan could help to advance the open government agenda in Thailand.

In Thailand, open government initiatives are funded through a mixed system. The OPDC that is in charge of the open government agenda centrally co-ordinates funding of initiatives across public sector institutions, while ministries and agencies also fund their own policies and initiatives themselves. The allocation of funds through a central institution such as the OPDC may facilitate coherence and consistency of reforms and can help to ensure that all initiatives follow a national open government strategy (NOGS). Endowing the institutions responsible for implementation with their own funds can however also reduce overdependence on a single actor and may help to improve the efficiency and effectiveness of the allocation of funds.

Recommendation 19. Promote inclusiveness and openness.

- Applying gender-based schemas to the public funding mechanisms. This can help in using the budgetary process to secure the development of women's digital skills, including their increased participation and role as digital leaders within and outside the public sector in the medium and long terms.
- Perform and sustain the implementation of open and participatory practices at the national and local levels. This would however imply the definition of ring-fenced funds exclusively devoted to implementing those initiatives and projects identified as a priority by citizens.

Recommendation 20. Include earmarked funds for open government in the budget plan.

- Include adequate funding for open government in the integrated budget plan to facilitate the efficient and sustainable implementation of open government reforms and to support open government priorities.
- Ensure that funding sources are as clear and consistent as possible and that appropriate recipients are identified to support the government's open government reform goals.
- Ensure that funds are provided for both implementation and co-ordination of Thailand's open government agenda.
- Endow the institutions responsible for implementation with their own funds to improve the efficiency and effectiveness of the allocation of funds.

Commissioning of digital government projects: A focus on user value

ICT/digital project planning and approval

In Thailand, evidence collected during the OECD peer review mission to Bangkok and the survey (OECD, 2019[8]) administered for the purpose of this review point to two different processes for ICT/digital project planning and approval running in parallel rather than in a structured way underpinning their synergies.

On the one hand, the MDES manages the Digital Economy and Society Development Fund, which is resourced with financial resources from the Thai central government and the Office of the National Broadcasting and Telecommunications Commission with a threshold of THB 5 000 million per year. Public sector organisations can apply for funding with a budget threshold of THB 100 million (USD 3 million) without the need for ministerial approval. However, projects above that threshold require approval from the Government Computer Procurement Committee within the MDES, and of which the DGA is a member. For those projects over THB 1 000 million (USD 30 million), approval takes place at the cabinet level. This process is in line with the provisions of the Government Procurement and Supplies Management Act, B.E. 2560 (2017). MDES funding for public sector organisations is highly devoted to ICT/digital infrastructure projects.

Other funding mechanisms include that of the Ministry of Telecommunications' NIA, which manages the National Innovation Fund (NIF). The NIF aims at promoting social and business innovation in Thailand; thus, its focus is to a lesser extent on ICT/digital projects within the public sector. Through the NIF, the NIA provides funding for business and social innovation from THB 500 000 to THB 1 million (roughly USD 15 000 to USD 30 000).

On the other hand, the second process is directly related to the BB budget allocation process for digital government projects discussed in the previous section. This process has not been fully capitalised on by the Thai government due to the lack of a more solid governance structure for ICT/digital project management and approval. For instance, similarly to the MDES project funding process, the DGA, which

like the BB also comes under the PMO – is not actively involved in the BB financial process. This limits the DGA's capacity to advise the BB in terms of which digitalisation projects would require (or not) priority budget allocation. But separately, in the fiscal year of 2019, the DGA set up the Annual Digital Government Integration Programme, with the official appointment of the programme committee signed by the prime minister. The programme's concept focuses on digital government transformation within three project spheres: i) to enhance digital government capacity building and formulate digital data; ii) to focus on digital government platforms in potentially competitive sectors; and iii) to support the development of digital services in line with the Digital Government Development Plan. The Thai government allocated a budget of THB 1.903 billion for the 2021 fiscal year and THB 2.409 billion for 2022.

In this respect, the DGA plays a key role as primary secretariat in digital government budget allocation and monitoring processes of the project outputs and outcomes, along with the MDES as vice-chairperson, the ONDE as co-secretariat and committee member and the BB as a committee member of the programme. Together, the committee members. i) set the objectives and key performance indicators for participating public sector organisations; ii) co-ordinate on the programming planning, execution and budgeting; iii) oversee the initial allocation process; iv) ensure that plans and budget proposals are in line with the programme objectives and goals; and v) compile all the plans and budget proposals for compliance with budgetary procedures.

In all these planning and approval processes of digital government projects, while the MDES, DGA and BB are involved in the budgetary process, the budget is only approved by the Parliamentary Budget Committee and the cabinet. As the primary secretariat of the programme, the DGA is required to know all of the details related to the programme execution and proposals from participating public sector organisations as it defends the budget proposals in front of the Parliamentary Budget Committee.

Fundamentally, the Annual Digital Government Integration Programme and the Digital Economy and Society Development Fund do not overlap. The programme is specifically dedicated to advancing the digital government agenda while the fund has a broader scope that includes digital security, infrastructure, workforce and application in addition to digital government. More active participation of the DGA in the budgetary process at a higher level (namely, across the MDES and BB budget planning process where relevant) would help in building greater coherence among ICT/digital projects. For example, as suggested by peers during the OECD mission to Thailand, there are clear opportunities to tie the budget allocation for these projects with the precondition of meeting digital and data standards – if available.

The participation of the DGA could also help in reducing duplication of efforts among different project proposals so that synergies could be scaled up and resources better utilised. This could help in avoiding duplication and higher expenditure when procuring ICT/digital services and solutions. For instance, the Working Group of the Information and Communication Technology Centre within the Thai Ministry of Justice's Office of the Permanent Secretary conduct a redundant project analysis when analysing departments' ICT/digital project proposals. If duplications are found, owner agencies are recommended to integrate the different projects into a single proposal. These practices could be scaled up in relation to the DGA's involvement in the budgetary process.

Thailand also lacks a common business case model to standardise the preparation and analysis of ICT/digital project proposals across public sector organisations. Evidence from the OECD mission to Bangkok indicates that these efforts are ad hoc and – if done – take place at the sectoral or ministerial level.

Moreover, the absence of core elements for the design of digital services (e.g. digital services and technology standards) also opens the window for asymmetries in relation to the development of new digital services. Without guidance and standards, the quality of digital services across government can vary. Setting enforceable tools would be one way to create, share and use standardised technology and services across government (including for internal software and services for the civil service). This could become

part of the budget process, where the budget would only be allocated if the relevant body complies with these standards.

Recommendation 21. Whenever relevant, secure the participation of the DGA in the approval of ICT/digital projects in the public sector in the context of the MDES' and the BB's ICT/digital project planning and approval mechanisms.

- Although the government had launched the Annual Digital Government Integration Programme in 2019 in which the DGA plays a key role in the planning, execution and budgetary processes, the DGA should also take on a key and extensive role in MDES and BB ICT/digital project planning and approval mechanisms. This is to secure alignment and synergies between the Annual Digital Government Integration Programme and the Digital Economy and Society Development Fund, the National Innovation Fund and the BB's budget allocation process.
- The DGA's involvement could be triggered by two preconditions, namely the focus of the ICT/digital projects (e.g. with an impact on public service design and delivery, data and tech infrastructures) and above a specific budget threshold.
- The potential involvement of the DGA (e.g. as an advisory body) could help to: i) use the budget allocation process as a digital government policy lever; ii) align ICT/digital projects with digital government and data policy priorities; iii) increase the DGA's awareness of the project pipeline to reduce duplications; and iv) enforce the compliance of ICT/digital projects with the digital services and data standards.

Recommendation 23. Develop a common ICT/digital project business case model for the public sector.

- The development of a standardised business case model should aim at reducing the availability of these instruments across the public sector, secure alignment with digital and data standards and reinforce the synergies between the budget allocation schemes of the MDES and BB.

Procurement: Openness by default as a precondition for trust

Key players involved in public procurement include the Public Procurement Management Office (PPMO), which comes under the Comptroller-General's Department (CGD) within the Ministry of Finance (MoF). The procurement of digital products and services does not benefit from any specific arrangements; thus, it follows and adheres to the same regulations and guides developed mainly by the CGD (ADB/OECD, n.d.[20]) and the MoF (including the 2017 Procurement Act and its secondary regulations).

As expressed by public officials during the OECD mission to Bangkok, public procurement in Thailand – including that of ICT/digital products and services – can be improved in terms of speed and coherence. Also, while the 2017 Procurement Act is itself an achievement for the Thai government as it aims at reducing corruption and paved the way for the use of integrity tools such as Integrity Pacts and greater external monitoring, the procurement of digital products and services could be better structured in the pursuit of more efficient government expenditure.

Results from the survey (OECD, 2019[8]) administered for the purpose of this review indicate that most procurement activity for digital products and services takes place in the form of open public tenders. Yet, the process does not take into consideration the implementation of framework agreements that could help in consolidating government expenditure and reduce the risk of multiple agencies procuring similar technology products at a higher cost.

There are also great opportunities to sustain the implementation of "open-by-default" and data-driven approaches across the ICT/digital procurement process. For instance, the CGD collects and uses data from different public sector organisations to assess procurement requests from different ministries. It also

created a government spending website[1] in collaboration with the DGA, where public bodies publish information and datasets on government expenditure and procurement. Yet, the Comptroller-General has struggled to make the case for the funding of open governance initiatives at the BB level as its benefits are hard to prove. This would also require securing top leadership support so that open and data-driven approaches in public procurement (including those of digital products and services) are the rule and not the exception.

Second, trust-based and collaborative instruments like the Integrity Pacts could integrate specific arrangements on the mandatory publication of procurement information as open data from both public bodies and private providers. This would follow the premise that those projects funded with public resources should comply with open, digital and data standards so that watchdogs from inside and outside government (including the Comptroller-General and Audit Offices) can monitor these practices drawing on the value of digital technologies.

These efforts would also benefit from implementing a broader approach that comprises the publication of additional categories as open data (e.g. declarations of interest, beneficial ownership). By doing so, watchdogs could cross-match data linkages and obtain more insights at hand to prevent, identify and prosecute corruption based on their capacity to create relationships (e.g. public officials' interests or links with private companies) that otherwise would go unnoticed.

ICT/digital project management and monitoring

Thailand lacks a common ICT/digital project management mechanism and monitoring actions take place mostly at the ministerial or sectoral level. Bodies like the Securities and Exchange Commission (SEC) and the National Science and Technology Development Agency report involving external actors such as project managers and other relevant stakeholders to conduct joint evaluations of digital projects. Yet, this is not a common practice.

Evidence collected during the OECD mission to Bangkok indicates that the assessment or monitoring of ICT/digital projects does not take place in an active, iterative and agile fashion beyond the audit process at the end of the year. This lengthy process increases the risks of over expenditure (particularly in large-scale digital projects like those of the MDES) and reduces the capacity of the government to deliver as expected, intervene earlier during the project implementation phase and take corrective measures (including the cancellation of projects) when needed. It is also not clear how bodies such as the OPDC, the DGA, the MDES and the NIA are taking proactive action to promote more innovative approaches in the management of digital projects.

Recommendation 24. Consider the development of framework agreements for the acquisition of digital products and services.

- This approach would also benefit from creating a curated pool of providers, including small providers (e.g. SMEs and GovTech actors) to level the field in terms of their participation in procurement processes, which are often overtaken by major players and suppliers.

Recommendation 25. Use integrity pacts as tools to promote the publication of open data for projects funded with public resources.

- The Thai government could also consider expanding the publication of open data for anti-corruption to broader areas including declarations of interest and beneficial ownership.

Recommendation 26. Develop and implement a common ICT/digital project management tool.

- An efficient management and monitoring tool for ICT/digital projects would focus on reducing their complexity (e.g. disaggregate projects into smaller components to facilitate intervention

whenever needed) and increase the capacity of the Thai government to deliver as expected and reduce vendor lock-in.

Building talent and competencies for implementing the open and connected government agenda

Thailand's central government recognises that greater public sector capability for the digital era requires building, upskilling and attracting the right talent to the public sector. The OCSC, under the PMO, plays a key role in building a public sector workforce that is skilled enough to face societal change and address citizens' growing expectations and changing behaviours.

The 2017 Cabinet Resolution on Digital Transformation and the Skill Development Framework for the civil service and public sector human resources have played a central role in how the OCSC has structured its approach for building greater digital capability within the public sector. As a result of the 2017 resolution, the OCSC developed a Skill Development Framework for Digital Capability within the public sector. The framework covers different skill levels applied to specific public official roles (from executives to managers and technicians) as a measure to assess the digital maturity of the public sector workforce. The OCSC also conducted an internal assessment (which covered 15 000 samples collected across the public sector) to identify skills needs and implement development programmes drawing upon identified capacity gaps.

Thailand, however, has no specific skills development framework to enhance the capability of public officials with regard to open government. In order to advance a culture change towards more openness, the principles and values of open government need to be identified, discussed and reinforced at every possible opportunity (OECD, 2016[7]). They should therefore not only be included in policy documents and aspirational statements but directly incorporated in people management systems by enshrining them in public sector values statements and civil servant competency frameworks. The OCSC could thus consider updating the Skill Development Framework for Digital Capability to ensure that it includes all of the skills needed (e.g. skills related to engaging with citizens or the co-creation of services) to advance the open and connected government agenda. Alternatively, the government could also explore developing a separate skills framework for open government. Moreover, Thailand could also consider specifying the competencies needed to enhance open government reforms in job descriptions and recruitment criteria.

In terms of implementation, results from the OECD mission to Bangkok and the survey (OECD, 2019[8]) administered for the purpose of this review, show that the development of public sector digital capability follows two main approaches. The first focuses on upskilling the public sector workforce through digital leadership development, continuous learning and capacity-building programmes, whereas the second focuses on attracting new talent to the public sector. By April 2019, the OCSC was working on a skill development strategy for the Thai public sector, which would aim at further clarifying the goals and actions to be implemented for this purpose. Other bodies such as the DGA, the Thailand Digital Government Academy (TDGA), the MDES and the NIA are taking action to develop digital talent within the public sector.

In terms of digital capability, capacity-building programmes should remain a priority in Thailand as evidence collected during the OECD mission to Thailand showed that the current lack of digital talent in the public sector has led to a situation where most digital projects are outsourced. Putting aside the specific implications of this context in terms of ICT/digital commissioning (see the previous section), peers clearly expressed the dangers of this approach. Experience at the international level has shown that outsourcing can lead to technology-driven solutions, rather than on developing projects that focus on the needs of users of both public organisations and citizens.

In terms of attracting and retaining new digital talent to the public sector, examinations are held for entry into the civil service, including assessments on digital skills. This helps not only in assessing the abilities

of applicants but also in ensuring the possibility of long-term professional development, in line with the digital skills framework of the OCSC. The latter has a huge Digital Literacy Project that aims to enhance digital literacy among public officials by equipping them with skills needed in the digital era and for them to integrate technology into their work for better efficiency and productivity. However, while a key aspect of the process is to secure long-term employment, including for those hired for digital core competencies, the recruitment process is cumbersome and long. Public officials expressed that the process can last 5 to 12 months on average, which underlines the need for balancing long-term policy goals in terms of digital capacity with the need for delivering in the short and medium terms, particularly given the current digital skills gap in the public sector.

There are two approaches that could help in this regard. First, the creation of a pre-approved digital talent pool, integrating external service providers and talent, could help in streamlining the hiring process. Indeed, during the OECD mission to Bangkok, public officials expressed their preference for collaborating with external suppliers and outsourcing digital projects as they were unable to recruit the relevant talent (e.g. data scientists, engineers) given cumbersome hiring processes and the challenge of catching up with more competitive salaries in the private sector (as evidence from the OECD survey also confirmed).

Second, talent mobility could help in securing continuous learning and tap the valuable digital talent available across the public sector so that skilled officials can apply and share their knowledge in other areas outside their organisation. The OCSC is already taking steps in this sense. For instance, the OCSC's High Performance and Potential System (HiPPS) Administration Program, established in 2003, focuses on hiring, retaining and securing the mobility of highly performant officials so they can become senior leaders in the future. The programme includes an intensive applicant selection process plus one-year policy work in different areas within the public sector. The OCSC has a Strategist Development Programme under the Policy Study/Work Team Project, which is a talent mobility programme that allows top-notch public officials in different public sector organisations to work on assigned projects that have high impact at the national level. Yet, the HiPPS Administration Program and the Strategist Development Program are limited to management positions, therefore opening a window of opportunity to expand its scope to other levels including those defined in the digital leadership and skills framework of the OCSC. Also, greater mobility could help develop informal knowledge-based networks and promote self-learning opportunities for public officials and build a better base of expertise to reinforce Thailand's public sector capacity and digital maturity to develop new digital services at the institutional level whenever needed.

Similarly to the development of digital capacity, it is also important to keep enhancing capacities related to open government. Capacity building in the form of courses for public officials can help to advance their understanding of the benefits of the open government principles of transparency, accountability, integrity and stakeholder participation in their respective areas of work.

In October 2020, the OPDC launched a seminar to provide background knowledge on open government to representatives from 42 public sector organisations that have work related to the open and connected government agenda. The seminar aimed to provide an understanding of open government to public officials, address the role of central government agencies in promoting open and innovative government and the various resulting direct and indirect benefits. Going forward, the OPDC is planning to host more events related to open government for public officials to increase their understanding of open government and drive transformative changes within their organisations.

To support the development of a culture of openness, Thailand could thus consider further integrating open government principles into existing courses or introducing a government-wide training programme focusing specifically on open government. The programme's courses could be tailored to the needs of public officials and their respective areas. Needs-based courses, which for instance focus on the engagement with citizens, the private sector and CSOs, could help to raise awareness among officials of the economic, political and social benefits of open government. Concretely, the courses could make the case for the economic, political and social benefits of mainstreaming open government in policy making in all policy

areas, including the environment, health and education, among others. As the designated institution in charge of co-ordinating open government, the OPDC could support the conceptualisation and implementation of the training programme.

In addition to training courses, the collection and communication of good open government practices within the whole administration could help to advance Thailand's open government agenda. To that end, the OPDC could consider identifying ministries and agencies that lead with reforms and promote these open government champions within the government. The OPDC has already begun to identify relevant stakeholders within public sector organisations with which to co-operate in advancing Thailand's open government agenda. These stakeholders have been categorised into central government agencies, local administrations, law enforcement agencies and public service entities.

Recommendation 27. Enhance capacity building related to open and digital government.

- Consider offering government-wide training courses with a special focus on open government to advance public officials' skills and understanding of the benefits of the open government principles of transparency, accountability, integrity and stakeholder participation in their respective areas of work. As the designated institution in charge of co-ordinating open government, the OPDC could support the conceptualisation and implementation of the training programme.
- Amend the skill development framework for digital capability to ensure that it includes all of the skills needed to advance the open and connected government agenda. Alternatively, the government could also explore developing a separate but complementary skills framework for open government.
- Specify the competencies needed to enhance open government reforms in job descriptions and recruitment criteria.
- Collect and communicate good open government practices within the whole public sector to advance Thailand's open government agenda. To that end, the OPDC could consider identifying ministries and agencies that lead with reforms and promote these open government champions within the government.

Recommendation 28. Sustain and scale up skill development, mobility and talent procurement programmes for digital talent and leadership in the public sector.

- Digital capacity and capability programmes could help in building greater digital and data maturity in the medium and long terms and finding the right balance between outsourcing and insourcing projects in line with the government's plans for digital transformation and the strategic relevance of specific projects for such a purpose.
- Programmes such as the OCSC's HiPPS would benefit from specific leadership clusters focused on the procurement, development and mobility of senior digital leaders. This would help in building digital capacity across the broad public sector in the long run in line with the goals of the Digital Economy and Society Development Plan, particularly those related to the development of the public sector workforce.
- Create a pool of pre-approved external talent could help to address immediate needs while streamlining talent procurement processes.

Improving the design and delivery of public services in Digital Thailand

The governance for a paperless government and services

As discussed in the section “Driving national development and innovation through digital government”, the OPDC, DGA, ETDA and MDES play a fundamental role in taking Thailand to the next level in terms of its digital transformation, including in building a digital government. Also, Thailand’s tradition of using legal instruments as a lever for digital transformation is reflected in how the country drew upon these mechanisms to build a paperless government.

For instance, in 2019, the OPDC, revised the Royal Decree on Criteria and Procedures for Good Governance, B.E. 2562 (2019) as a means of improving the governance for service delivery. Specifically, Section 6 of the Royal Decree requires that the provision of services and co-ordination among government agencies must be done through a central digital platform for data exchange, the Government Data Exchange Centre (GDX) – and Section 10 appoints the DGA as the body in charge of developing the GDX. For this purpose, the decree sets a two-year transitional window (subject to an extension to be requested to the OPDC) so that the heads of public agencies can move towards the full use of this platform for public service delivery and collaborative purposes.

Decree 2562 adds to the extensive list of legal and regulatory instruments for digital government and digitalisation (e.g. the Acts on Electronic Transactions, Cyber Security, and Data Protection) developed by the Thai government as presented in the section “Building the legal foundations for a digital government”.

Key enablers for digital services

The DGA is the main provider of infrastructure and the required technical support to build a paperless e-government. It promotes information sharing within the public sector and secures the delivery of public services, information and data to citizens and businesses through government platforms, among others. For this purpose, the DGA has developed different technical solutions and platforms in its pursuit to improve government-to-government (G2G) services (DGA, 2018[21]). These include the Government Information Network (GIN), as an integrated network for information sharing within the public sector, and the Government Cloud Service (G-Cloud), offering a secured government-owned tool for data storage and the hosting of cloud-based services and digital solutions.

Digital identification and authentication

Three different approaches for digital identity are presently being taken in Thailand. First, the basis for identity in Thailand is the longstanding National Identification Card (ID Card) that was first introduced in 1943 and is issued, for free, to all Thai nationals from the age of seven. This card provides the physical identity infrastructure and is managed by the Department of Provincial Administration (DOPA), within the Ministry of the Interior (MOI). In 2005, DOPA first introduced a smart version of the citizen’s card, the fifth generation ID card, by integrating a chip containing relevant public and private citizens’ information. Nevertheless, the ID Card and its associated systems provide an opportunity on which to build efforts to move ahead with government ambitions to dematerialise official documents. However, this needs to form part of a strategic approach to digital identity that would include establishing the right legal and regulatory framework for the ID Card to be a valid digital document and require investment in the necessary enabling tools for members of the public and the necessary back-end technical support and data infrastructure for implementation in government services.

Second, the DGA has taken steps to standardise digital authentication for accessing services with the Single Sign-On system, based on the OpenID Standard, as a one-time login system that allows users to access online formalities and services from different government agencies. The Single Sign-On is designed such that users only need to log in once to access multiple government systems without re-login.

Users either access the services aggregated on egov.go.th or via a single login on openid.egov.go.th. While the use of this tool by public bodies and users is not mandatory, by October 2020, nine public sector organisations have agreed to integrate the digital authentication system into their services: the OPDC, the Thai Bankers' Association, the Government Financial Institutions Association (GFA), the National Digital ID Co., Ltd., the Revenue Department, the Department of Business Development, the Department of Lands, the National Health Security Office and the Student Loan Fund.

Third, the ETDA sets the authentication standards and rules for digital ID and digital signature for businesses and supports public sector organisations to adopt these tools in order to prepare, improve and transform for the digital economy. For this purpose, the ETDA has issued a set of guidelines and standards for the use of digital identification, electronic communication and digital signature tools adopters should comply with when deploying these solutions to their services.[2] Security is ensured in line with the U.S. National Institute of Standards and Technology (NIST) standards and it has three different security layers: single-factor authentication (i.e. password, SMS one-time password, one-time password device, crypto software, crypto device), multi-factor authentication (the former including biometric) and multi-factor authentication with a cryptographic key.

The aforementioned activities of the ETDA are framed in the context of the National Digital ID (NDID) project launched in 2017 by the MoF and the MDES. The NDID is a collaborative effort between the public and private sectors to mainstream the use of a single digital identification tool in the country and simplify citizens' and businesses' day-to-day activities, with a strong focus on preventing and reducing fraud and promote a safer environment for e-commerce. Subsequently, a group of private companies created the National Digital ID Co., Ltd. (NDID Co., Ltd.) to connect the relying party, the identity provider and authoritative sources. The NDID Co., Ltd.'s shareholders comprise public and private banks (i.e. Stock Exchange of Thailand, Government Saving Bank, Thailand Post, insurance companies, fund management firms, mutual funds, financial technology (FinTech) companies). None of the governing board members are a government agency. This initial phase involving the banks will involve the provision of services using the digital identity for opening bank accounts and applying for credit online. The scope will then expand to cover various other public services across sectors including opening investment accounts and insurance policies on line or conducting doctor appointments on line. For this purpose, the NDID Co., Ltd. relies on the use of application programming interfaces (APIs) and other technologies such as blockchain for decentralised, secured and federated data exchange. Data sharing functions come under the principle of "privacy by design", therefore citizens' consent is needed before any data are shared among different organisations, without the intervention of the NDID Co., Ltd. Broadly, the ETDA is leading the process of sandboxing and testing digital ID solutions to build their efficiency and align them with data governance according to the Amendment to the Electronic Transactions Act No. 4, B.E. 2562 (2019), on Digital Identification, formerly known as the (draft) Digital ID Act.

In the future, the intention is to embed biometric identification functionalities to these tools (such as face recognition) and to develop a cross-border digital ID based on the NDID (e.g. following the interoperability approach promoted by European Union eIDAS Regulations). The goal to have interoperable, mutually recognised, secure, reliable and user-friendly e-identification and authorisation schemes are addressed in the Association of Southeast Asian Nations (ASEAN) Community Vision 2025 (ASEAN, n.d.[22]) under the section for e-commerce. The intention is to strengthen co-operation in the facilitation of cross-border e-commerce transactions towards regional economic integration.

In February 2020, the Bank of Thailand launched a pilot initiative to deploy the NDID Co., Ltd. under a regulatory sandbox in collaboration with six private banks in Thailand. This approach is not new and mirrors the approach taken in other countries like Sweden where digital identity solutions are provided not only by the central government but also by other actors such as banks. At the start, the MoF and MDES played key roles in the National Digital Identity Committee (NDID Committee), along with experts from relevant sectors to oversee the initial establishment of the NDID Co., Ltd.

During the OECD mission to Bangkok, peers expressed their support to the MDES and ETDA focus on building a safe ecosystem for digital identity to secure e-payments and e-commerce. Nevertheless, there is a need for increasing the understanding and sustaining the support provided to these initiatives at the policy-making level, so that a sufficient budget for its implementation is secured in the medium and long terms.

Moreover, co-ordination between the ETDA and DGA will remain key in relation to the development and/or application of digital ID solutions. The ETDA is working with the DGA and other government agencies to explore and co-create the most practical digital ID solution. Presently, the DGA is expanding its Single Sign-On system to integrate with the NDID as well as with D.Dopa, a digital ID system piloted by DOPA. This enables the use of private digital ID in the government sector (via the NDID), allowing citizens to use any secured digital ID to access public services in the future. The expanded service shall be available within 2021.

The evidence presented in the previous paragraph indicates that, to date, Thailand is following a path towards an electronic identification (eID) approach where user choice will play a key role when deciding which digital identity tool to use. Other eID solutions are already in place, such as those of the Ministry of Commerce and the Tax Agency. In either scenario, securing the deployment of coherent solutions or a common infrastructure for eID from the start will play a key role in reducing the risk for legacy challenges in the long term.

Also, beyond the development and deployment – or not – of whole-of-government digital identity solutions, challenges would remain in terms of the adoption of these tools by citizens and businesses. From a public sector service perspective, this would require making sure that current or future digital services and the underlying digital infrastructure are up to the innovation and technological development level required by tools such as the NDID. Additionally, Thailand also lacks other tools such as citizen mailboxes and folders, which could help in streamlining communication with citizens and also reinforcing transparency and integrity in terms of how and which public agencies in Thailand access, share and use citizens' private data. This would help in further building citizens' trust in Thai public agencies and the Thai government as a whole.

Recommendation 29. Define and implement an integrated approach for digital identity "as a service" to address and prevent legacy challenges, simplify the access to services and facilitate technical implementation by teams within the public sector.

- Secure the deployment of a common infrastructure for digital ID can help in reducing the risk for legacy challenges in the long term while promoting citizens' choice and agency in terms of the specific identity tool (government-owned or not) they would like to use.
- Promote take-up within the public sector of innovative digital identity solutions will require stressing the supporting and guiding role of the DGA and ETDA to facilitate the adoption and implementation of these tools by public sector organisations, particularly those providing services to citizens and businesses. This would require the constant communication, interaction and engagement of the digital government ecosystem within the public sector (e.g. service owners) and the supportive units within the ETDA and DGA as a means to reinforce the business case for the adoption, implementation and impact measurement of common digital ID solutions.
- Consider the development of a citizens' mailbox and folder, accessed through digital ID tools. This could help in streamlining the communication with citizens and also reinforce transparency and integrity in terms of how and which public agencies in Thailand access, share and use citizens' private data, thus further building citizens' trust in Thai public agencies and the Thai government as a whole.

Data as the foundation for digital services

The use of data for public services in Thailand is still under development and faces significant challenges from legacy overheads with some key public bodies managing data registers on the basis of paper records. For instance, during the OECD mission to Bangkok, the Department of Business Development (DBD) (a body under the Ministry of Commerce [MoC] in charge of managing the business register in the country) explained that business registration takes place either on paper or on line. Information provided by the Thai government indicates that paper-based registration takes up 96% of the share while online takes only 4%. This results in an additional administrative effort to include that data in the business register. However, the DBD is making improvements in streamlining business processes and data sharing to abide by the once-only principle (currently citizens can use their business registration number for tax procedures as well). Before the introduction of this simplification measure, citizens had to follow different processes to get a tax ID number and a business registration ID number.

In addition, the transition from paper-based to digital data registers and the development of tools such as high-value data catalogues will remain key to enable the exchange of core data within the public sector through common interoperability and data infrastructures. The DGA is piloting different projects as a means to promote greater data exchange within the public sector and connect available data registers and relevant data sources. These projects include an API system that, by April 2019, provided access to data registers from four government agencies including the National Health Security Office (NHSO), the Department of Business Development, the Department of Provincial Administration (DOPA) and the Ministry of Public Health (DGA, 2018[21]). Other examples include the Government Data Exchange (GDX)[3] platform, which responds to the DGA's mandate to develop a tool for information and data exchange for the public sector as stated in the Royal Decree on Criteria and Procedures for Good Governance 2019, B.E. 2562. By April 2019, the GDX platform was still under development. The DGA is also exploring the use of the G-cloud tool (the Thai government's cloud service) to facilitate the management of government-wide content (e-CMS).

Yet, while the application of specific technologies and tools such as APIs or the cloud helps in reducing data fragmentation, building resilient and scalable data infrastructures and promoting the integration of data, this also requires making sure that data itself is created as the infrastructure those tools are built upon. In other words, this means that while the right data should be available for access and sharing, those data should be generated with a focus on their re-use either inside or outside the public sector.

Recommendation 30. Promote a Data as a Service (DaaS) approach for public sector data.

- Develop data governance tools such as digital data catalogues for public services. The DGA and ETDA should play a significant role in creating, guiding and enforcing the creation of these data governance tools to secure data discoverability and map data assets in the public sector.
- Identify priority data sets which interoperability and standardisation are needed to facilitate automated data exchange between government agencies, relying on the cross-cutting value of those data, e.g. in terms of their frequent use by different public sector entities, their contribution to digitalise internal and external services and their horizontality across different policy areas.
- Run a consultation exercise with relevant actors within the public sector so that high-value datasets are identified, prioritised and generated with a focus on their re-use. These activities could be performed in the context of the tasks performed by the committees under the Steering Committee for Big Data, Data Centres and Cloud Computing (see the section "Capacity for coherent implementation"). This, in order to promote collaboration between different policy areas including commerce, education, health, finance, justice and transport, e.g. in line with

previous or current efforts, such as the MoC, Ministry of Agriculture and Cooperatives (MOAC) and Rice Department web service data pilot project (see following sections).

- Develop and communicate data standards (including updates) for the generation of high-value datasets for access and exchange within the public sector, supported by tools for data exchange such as public sector APIs, web services and the Cloud.
- Grant enforcement powers to relevant agencies (e.g. the DGA and ETDA) to promote compliance with data standards whenever needed. This would require exploring the use of policy levers (e.g. such as conditional funding) in line with the recommendations on budget allocation presented in the section "Funding to leverage inclusion, equality and better services".

Service design: End-to-end services that focus on users

Thailand's government and its leading agencies are in the midst of a transitional period where legacy e-government aspects and the eagerness to move fast collide and create tension and resistance to change from different government bodies. Thai agencies comply with government regulations but fail to understand that delivering on governments' digitalisation and digital government goals would require self-acknowledging that things should be done differently from the start.

For instance, during the OECD mission to Bangkok, public officials expressed that, in practice, the 2015 Licensing Facilitation Act, B.E. 2558, is more of a mapping exercise that identifies the availability of services rather than identifying service overlaps or opportunities to redesign underlying processes as a priority for greater service consolidation. Public officials also expressed that there is a significant regulatory burden while regulators are failing to take real action to decrease it, leading to strenuous formalities and below-optimal services provided to citizens and start-ups. This top-down approach is a legacy challenge by itself as decisions on what services should be prioritised for improvement are left to those agencies who own them, ignoring the insights and needs of the final users.

Also, results from the OECD mission to Bangkok indicate the lack of any formal principles or guidance for service owners (e.g. government agencies providing services to citizens) in relation to assessing, embedding and taking into consideration the opinions of users in an iterative fashion (e.g. when kicking off new projects or assessing ongoing delivery). Moreover, current initiatives focus on the interoperability of data systems within government but there is little indication that there were any overall standards set for technology in government, even though government agencies mentioned service interoperability and integration as key policy priorities during the OECD mission to Bangkok. This is surprising given the DGA's strong focus on technology and data (e.g. development of platforms and technical tools). In this line, although focusing on the design stage of digital services is not currently a priority, it might be in Thailand's interest to start with small pilot projects, built by multi-disciplinary teams. This would allow agencies, led by the DGA, to experiment with service design, based on data and user research before having to commit to a national roll-out of digital services.

One key aspect in this regard is related to the lack of capacity within the public sector to build services and other tools such as (open) software, which has led to most government projects being outsourced to third parties, often in a fragmented fashion in terms of both procurement and standards. By starting "small" with a focus on scalability, the DGA could help in building a greater understanding of the frameworks for digital services, their connection with budgetary innovation and the application of service and data standards needed to deliver full digital transformation.

The DGA could also start on building a better understanding of the capability gaps that should be addressed to meet user expectations for digital services and build a more mature digital government where service owners (agencies) are able to cope with digital transformation challenges on their own.

Delivery and access to public services: Inclusion and digital by design

The DGA provides one-stop services following a multi-channel approach through physical kiosks, mobile and web-based channels.

For this purpose, the DGA has deployed a system of Government Smart Kiosks (GSKs) across the Thai territory to address the digital divide for those citizens without access to the Internet or the required connected devices such as personal computers and smartphones. The GSKs offer the possibility for citizens to: access basic and useful information; register, apply or transact for some services such as identification verification, document delivery, data entry or issues reporting; and payment. These kiosks are available in 119 locations, including hospitals, government complexes and service points, one-stop service centres, shopping malls, provincial halls, bus terminals and schools. The GSKs have a strong focus on access to information, namely information on citizens' financial situation, civil registers and public sector health systems. To date, the lack of a more advanced eID system in the country requires citizens to hold a smart version of the citizen's ID card to use the GSKs network.

Adding to the accessibility focus of the GSKs, the MDES is deploying connectivity infrastructure across the national territory. For instance, the MDES is working on improving digital inclusion through the Village Broadband Infrastructure Program "Smart Thailand". This is due to the fact that 90.1% of the population surveyed use the Internet via mobile devices and 65.6% do so through a home-based Internet, according to the 2019 "Survey of the use of information technology and communication in households" conducted by the National Statistical Office (2019[23]). In early January 2021, the MDES deployed 20 000 free Wi-Fi hotspots in public areas as the first phase of the Smart Thailand scheme. An additional 20 000 hotspots to provide coverage of 88% of districts in all 77 provinces will be rolled out as part of the programme's second phase.

In addition, the government of Thailand launched Village Broadband Internet (Net Pracharat) as a way to bridge the rural-urban digital divide and increase Internet accessibility. The project involved strengthening the national broadband network by expanding the high-speed Internet network to reach every village in the country, such that people living in remote areas will be able to access high-speed Internet like those in the cities.

In relation to web-based access, there are approximately 2 574 government websites from 454 government agencies, and no fewer than 299 online applications that are administered by public sector organisations. All of these websites and online applications are owned, administered, updated and monitored independently. Additionally, the Thai government offers a set of government-owned mobile applications developed by different agencies accessible through the Government Application Centre (GAC) apps.go.th.

In 2015, the DGA launched govchannel.go.th as a means to provide a single window for citizens to access government information, open data, statistics, formalities and services, and relevant mobile applications (more extensive than GSKs for services). However, the GovChannel follows a more e-government approach where the platform works more as an alternative "search engine" to browse among the different available government websites (e.g. services are hosted on separate websites therefore accessible through different government domains).

The next steps would consider the underlying assimilation and integration of the different sparse website platforms providing access to such topics in view of simplifying access to public sector information, data, formalities and services. However, this will require facing the potential organisational resistance of those agencies that own the specific available domains available for access through GovChannel, and that of line ministries and other bodies administering their own government websites. Yet, the case and rationale for this reform should not be merely understood from a look-and-feel or a technical angle, but from the intricate user journey resulting from multiple available government websites.

This would also require securing a consolidated and consistent user experience through the different channels (omnichannel) rather than simply offering online access points (multi-channel) for scattered and often fragmented government websites, services and applications. For instance, both the GovChannel and Government Applications Centre (GAC) function as catalogues of websites and applications rather than single platforms for greater public services' integration and consolidation.

Recommendation 32. Work towards omnichannel public service delivery.

- Promote a consistent user experience across different access points for public services offered to date, including the Government Smart Kiosks, GovChannel and the Government Application Centre.
- Explore the reduction and consequent integration of dispersed government websites into one single platform for government services. This would imply securing a co-ordinated communication policy, supported by the highest political sponsorship, so that the business proposition for a single government platform, including its focus and benefits in terms of cost reductions resulting from the integration of multiple websites, is well understood by public sector officials.
- Use the National Register of Services that is undergoing development, or a similar exercise, to inform the transition towards the development of a single government platform for digital services. This would require mapping the existent formalities and services offered through online channels, the number of government websites and their owners, and the underlying maintenance costs of each of the different available websites.
- Promote business innovation and co-creation by making available open government data, in line with international principles of machine-readability and accessibility, so that services can be developed by external innovators.
- Explore the escalation of the GovChannel brand to the mobile sphere could help in securing the same user experience across different channels. However, this would require increasing the number of available services to a potential GovChannel dedicated application and granting secure access to those services through digital identity tools.

Enabling a data-driven public sector

The government of Thailand is not oblivious to the importance of data governance in the public sector. The DGA developed the Data Governance Framework 1.0 in 2018, which emphasises the importance of governing data to support the development of Thailand's digital economy and society but also highlights the challenges it faces, namely data duplication, data quality, data security and information disclosure (DGA, 2018, p. 10[24]). In this context, the DGA defines data governance as a mechanism for determining the direction, control and verification of the management of data, such that the data are secure, of quality, cost-effective and economically and socially valuable, and the acquisition and use of government information are accurate, complete, current, safe and private (DGA, 2018, p. 10[24]) It establishes the right, duties and responsibilities of every stakeholder, and defines the policies and standards for creating, using and managing data such as the data value cycle, quality of information and metadata (DGA, 2018, pp. 13-14[24]). Yet, while there is ambition in Thailand to build a digitally-enabled and data-driven public sector, the digital foundations built from 2018 are still not sufficiently robust and need to be further strengthened.

Leadership

The MDES is the public sector organisation with the highest political and administrative leadership for the national data agenda, Thailand's National Big Data Policy. Both the MDES and the DGA led the development of the data governance framework.

The DGA delivers policy recommendations on digital government transformation and data governance backed by political support too, with its government-to-government (G2G), government-to-citizen (G2C) and government-to-business (G2B) initiatives issued either as prime minister's orders or cabinet resolutions (DGA, 2018, p. 33[25]). The DGA's leadership and role in building a data-driven public sector are set out in B.E. 2561 (2018), a Royal Decree that established the DGA under the supervision of the prime minister and the PMO. However, the DGA should play a stronger co-ordination and enforcement role in the implementation of data governance actions at the national, regional and local levels. This again opens the discussion in relation to the role the DGA plays in the budget allocation process (as discussed in the previous sections) so that the opportunities brought by financial management mechanisms could be further levered on.

Also, public sector co-ordination and capability limitations do not only bring data governance challenges at the central level but translate into multi-level data governance issues, in particular when specific data is generated by local bodies but consumed by central authorities as an input for policy and decision making. For instance, as reported by some interviewees during the OECD mission to Bangkok, previous efforts to build bottom-up and multi-level data governance arrangements to use development data for effective policy making did not move forward. The latter happened due to the disparities in terms of data capacities, protective data management practices at the local level and the complex multi-level governance arrangements and accountability mechanisms between local, provincial and central authorities. In this light, the DGA's devising, executing and enforcing the implementation of its G2G (including central-local data exchange), G2C and G2B initiatives at the operational level for national, department and provincial public sector organisations require imparting greater authority to the DGA to attain better co-ordination on and the coherent implementation of digital standards, digital infrastructure and digital services.

The leading role of the MDES, while inclusive and relevant, risks that public sector data initiatives under the National Big Data Policy will not be granted enough political support *vis-à-vis* other digital economy policy goals. clarity on leadership and accountability in an institutional governance model is a core element of good data governance. In this light, the government of Thailand should clearly identify the key public sector organisations that will officially lead public sector data governance efforts. This would require the political leadership to confer a higher degree of power to the DGA, such that the DGA has greater oversight beyond its advisory role in the context of the National Big Data Policy. This is to secure good data governance as the first step towards data access and sharing, with the publication of good quality open data.

Recommendation 33. Clearly identify the public sector organisations that will officially lead public sector data efforts.

- Consider granting the DGA greater authority for better co-ordination on digital and data standards, digital infrastructure and digital services. The location of the DGA under the PMO should be levered for this purpose. As discussed in the section "Commissioning of digital government projects: A focus on user value", the DGA can consider using the budget allocation process to enforce compliance with data standards to help move towards a more integrated data-driven public sector.

- The MDES and OPDC should continue to maintain oversight in the background, provide an overarching direction and play a wider co-ordinating role for the National Big Data Policy. Yet, the leading role of the DGA in relation to public sector data governance should be confirmed beyond its current operational focus and de facto role as a provider of technology and data solutions and platforms for the public sector.
- While the DGA's leadership implies a stronger co-ordination and enforcement role on the implementation of data governance actions at the national, regional and local levels, the DGA would benefit from implementing an open and collaborative governance model. Thus, bringing central and local authorities closer to designing, planning and implementing a potential Action Plan for Public Sector Data (see next section) and make the strengthening of central and local data capacity (including at the departmental and provincial levels) a priority in the short, medium and long terms.

Towards an action plan for public sector data

Thailand's national data strategy is contained in its National Big Data Policy, which is placed within the broader national digitalisation plans for the government. The National Big Data Policy is led by the MDES and the DGA Steering Committee for Big Data, Data Centres and Cloud Computing.

Under the MDES, the ONDE has the mandate for drafting national policies on digital economy and society for the Office of the National Digital Economy and Society Commission (ONDE) and co-ordinating with DEPA (ONDE, 2020[26]) (see next section). During the OECD peer review mission to Bangkok, the ONDE shared that one of its main objectives is for big data to generate economic and social value by improving operational efficiency in production and services (ONDE/MDES, 2019[27]). As such, the National Big Data Policy is framed in the context of the larger 20-Year Digital Economy and Society Development Plan (2017-2036) or Digital Thailand. Furthermore, big data is treated as the architectural foundation on which other data initiatives and innovations are built, such as open government data, digital government services and more broadly, digital businesses and innovations (ONDE/MDES, 2019[27]).

However, Thailand's National Big Data Policy can be made more coherent and sustainable by further clarifying its role, positioning and scope as a metadata governance instrument (i.e. a policy governing policies) that addresses data policy issues related to different sectors. The demarcation of the purposes, corresponding actions and intended outcomes for specific public sector organisations or segments need to be clear. This implies reinforcing the relevance of those areas that fall directly under the government sphere. Additionally, the government of Thailand fairs well in providing strong political support and will to create and see through its National Big Data Policy – but falls short on the operational aspect for its execution and implementation, in particular, addressing data access, sharing and re-use in the public sector.

From the outset, the government of Thailand should focus on developing a comprehensive yet specific policy instrument addressing public sector data issues at the central, subnational and local levels (i.e. open government data, data ethics in the public sector). Therefore, the Action Plan for Public Sector Data should also set the right accountability and enforcement mechanisms supported by a stronger leading role of the DGA as proposed earlier. As such, it will need to specify targets, monitoring mechanisms and impact assessments for each key stakeholder and milestone. A way to move forward in the short term could involve an inclusive approach for the development of the Action Plan for Public Sector Data in consultation with the wider ecosystem of public and private sector stakeholders.

Recommendation 34. Underline the relevance of public sector data governance by developing an Action Plan for Public Sector Data as a sub-element of the National Big Data Policy and the Digital Government Policy (including under the 20-Year National Strategy [2018-2037], the 12th National Economic and Social Development Plan [2017-2021] and the Digital Government Development Plans).

- The DGA could take the lead in developing an Action Plan for Public Sector Data that aligns with future National Economic and Social Development Plans and National Digital Government Development Plans, and connects with other data policy aspects such as open government data, data ethics and data sharing within the public sector.
- The Action Plan for Public Sector Data should be acknowledged as a core element of the National Big Data Policy and define the right accountability and enforcement mechanisms, supported by a stronger role by the DGA, with clearly defined objectives, timelines and milestones.
- The development of the Action Plan for Public Sector Data would benefit from an open, inclusive and collective approach thus done in consultation with the wider ecosystem of public, social and private sector stakeholders. This is necessary for the government of Thailand to integrate the systems, data and information from over 400 government agencies. This approach can also help to build policy ownership in the public sector and identify policy priorities that could be otherwise ignored by public sector leaders based on the contribution of the data ecosystem.

Capacity for coherent implementation

Co-ordination

The MDES co-ordinates the National Big Data Policy through the Steering Committee for Big Data, Data Centres and Cloud Computing, with the former acting as secretary. The composition of the steering committee involves 20 line ministries that carry out projects in diverse line and horizontal policy areas like agriculture, tourism, taxation, mobility and natural resources (NSO, 2019[28]). The committee members are the permanent secretaries of the 20 ministries, the Office of the National Economic and Social Development Board (NESDB) and the DGA.

The steering committee aims to steward the management of all of the data generated by the state agencies and inform policy and decision making for the digital transformation journey – by consolidating data from all ministries involved into a centralised big data management system. This process involves the conversion, identification and structuring of the data for public value to be generated across different policy areas: citizens' quality of life, smart operations, citizen-centric services, resource sharing and budgetary savings. The committees under the Steering Committee for Big Data, Data Centres and Cloud Computing are currently charged with fundamental tasks such as discovering, naming and verifying datasets, and identifying areas to generate public value – with the objective of creating an ecosystem to facilitate policy and business decisions (Tortermvasana, 2018[29]).

In this context, collaborative data governance across the public sector is pivotal and the MDES and DGA are at the helm of fortifying good data management practices across the public sector towards greater integration. The signing of memoranda of understanding (MoUs) is still used for linking data among government agencies. As covered in Chapter 5, the DGA is piloting various projects such as the Government Data Exchange Centre (GDX), the Linkage Centre and the G-Cloud computing tool. At the same time, the Steering Committee for Big Data, Data Centres and Cloud Computing is overseeing the formation of a centralised big data management system and a central cloud computing centre but still has not defined which government agency will be responsible for them due to the complexity and variety of datasets (Tortermvasana, 2018[29]). However, these nascent digital government initiatives may fail if co-

ordination and the enforcement of centralised data standards are weak. The DGA, as the leading public sector organisation responsible for ensuring that government agencies properly determine the purpose, control and verification of the management of their data, could provide greater assistance by providing more practical measures, guidelines and good practices on top of the Data Governance Framework.

In addition to the high ambitions and long-term goals set out in the broad 20-Year Digital Economy and Society Development Plan (2017-2036) or Digital Thailand, the government of Thailand needs to pay keen attention to developing the essential capacities for coherent implementation – particularly in involving and co-ordinating different policy areas and levels of government for coherent implementation. This area was identified to be a weakness in the governance of Thailand's open and connected government (OECD/ADB, 2019, p. 90[30]). This is to ensure that there is government-wide policy coherence and a common approach to data governance and implementation.

Institutional data leadership and skills

The DGA pointed out through the 2018 Thailand Digital Government Readiness Survey Project that central, departmental and provincial chief information officers (CIOs) lack the digital capability and have not been able to perform what the role requires (DGA, 2018, p. 50[25]). In this respect, more training was offered as the solution such that the government agency CIOs can fulfil their roles and responsibilities (DGA, 2018, p. 50[25]). Another instance is the Government Big Data Institute (GBDI) that was established as a subsidiary of the MDES and DEPA to train public officials in big data skills. As presented in Chapter 4, this mandate is also undertaken by the DGA and OPDC (through the Thailand Digital Government Academy [TDGA]) and connects to Thailand's Skill Development Framework developed by the Office of the Civil Service Commission (OCSC). The OCSC's framework would however benefit from further clarifying its connections to the DGA Data Governance Framework, for instance, by including data leadership and other related data competencies and skills as a subset of the digital roles described in the framework.

Still, for the level of data capacity to be translated into effective co-ordination and implementation, the government of Thailand would need to define a clear network of data leaders at the institutional level to promote better administrative co-ordination across the country, departments and provinces. Institutional networks are a growing priority for countries, as they enable the design and achievement of strategic goals with a problem-solving and citizen-centric approach more than just the technical perspective (OECD, 2019, p. 40[31]). The proposed Action Plan for Public Sector Data should have a proper institutional setup and co-ordination mechanism that identifies specific stakeholders for leadership and accountability.

For instance, the Data Governance Framework 1.0 had underscored that successful governance means that the person with the oversight role should have the responsibility for defining the scope, rules and policies around data (DGA, 2018, p. 10[25]). It also proposes a data governance structure for government agency personnel to carry out data supervision in their departments: i) a data governance council comprising the chief executive officer (CEO), chief data officer (CDO), chief information officer (CIO) and chief strategy officer (CSO); ii) a data steward team comprising the lead data steward and other data stewards covering the business, data and quality; and iii) wider data stakeholders comprising the data creators, users, managers and owners (DGA, 2018, pp. 52-56[24]) – which can be further enriched.

The DGA should support national, department and provincial government agencies to carry out the proposed data governance structures but in line with the agreed competency and skills frameworks for data to be decided by the OCSC. The DGA could oversee the specification of the roles, responsibilities and key performance indicators according to the operational context of different agencies such as the missions and budgets, and in line with the Data Governance Framework 1.0.

Also, a good strategy goes beyond setting up new government agencies, commissions and committees, or designing new frameworks, plans and roadmaps. The details in the actual governance arrangements matter significantly to ensure successful sustainable execution, for instance in light of the change of political

administrations – a common risk several OECD countries face in terms of securing the data capability achieved so far in the long run. Therefore, the government of Thailand could also consider formalising more non-political and non-technical data leadership roles by attaching them to current administrative structures, an important precondition to achieve and materialise policy goals in the long term.

Recommendation 35. Strengthen the operationalisation of Thailand's Data Governance Framework 1.0.

- Provide more practical measures, guidelines and good practices on good data management and further stress the relevance of the Steering Committee for Big Data, Data Centres and Cloud Computing and its committees as the government-wide forum for the co-ordination of the proposed Action Plan for Public Sector Data at the strategic and operational levels.
- Underline the role of the DGA as the co-ordinator of public sector data governance efforts in the context of the activities of the Steering Committee for Big Data, Data Centres and Cloud Computing, including its role as a provider of standards for data management across the data value cycle (from data generation, interoperability to its publication, when feasible, as open data).

Recommendation 36. Further clarify the synergies of the OCSC Skill Development Framework and the DGA Data Governance Framework 1.0.

- Include data leadership and other related data competencies and skills as a subset of the digital roles described in the OCSC's framework.
- Support national, department and provincial government agencies to carry out the proposed data governance structures but in line with the agreed competency and skills frameworks for data to be jointly decided by the OCSC and the DGA.

Recommendation 37. Sustain and scale up the DGA's efforts to deploy a data governance structure and network of data leaders and practitioners across the public sector in line with the job roles and descriptions defined in the DGA Data Governance Framework.

- These activities would also benefit from: i) clarifying the roles and responsibilities related to data protection and data ethics in the public sector; and ii) formalising non-political data leadership roles by attaching them to current administrative structures in order to advance the implementation of a potential Action Plan for Public Sector Data.

Regulation

Regulation plays an important role in defining the set of rules around the use and treatment of data (OECD, 2019, p. 42[31]). As discussed in Chapter 3, the government of Thailand has risen to the act of solidifying and reinforcing the legislative support and guidance for its policies to build a data-driven public sector in recent years. In 2019, the National Legislative Assembly of Thailand (NLA) passed six technology-related legislations to improve and clarify the regulatory environment for public and private digital services:

- Electronic Transactions Act No. 3, B.E. 2562 (2019), and No. 4, B.E. 2562 (2019).
- Electronic Transactions Development Agency Act, B.E. 2562 (2019).
- Digital Economy and Society Council Act, B.E. 2562 (2019).
- Personal Data Protection Act, B.E. 2562 (2019).
- Cyber Security Act, B.E. 2562 (2019).
- Digitalisation of Public Administration and Service Delivery Act, B.E. 2562 (2019).

These efforts in digital reform are notable. Yet, legislation is a first step but it does not guarantee effective and sustained implementation. During the OECD peer review mission in Bangkok, the Office of the Council of State under the PMO in charge of drafting the Digitalisation of Public Administration and Service Delivery Bill shared that the legislation is intended to change the public sector culture, enforce data sharing and facilitate the operations of the Government Data Exchange Centre (GDX) and Open Government Data Centre. The prime minister of Thailand actively supports this but still faces resistance from various government agencies due to the lack of readiness and capability.

Hard and soft regulatory instruments (e.g. regulations, standards, guidelines) need to be enforced actively with strong co-ordinated efforts across the public sector. This process requires structural support such as human resources, digital infrastructure and public trust. It also calls for softer regulatory instruments that address culture and behaviour such as understanding the potential of data, growing interest and aptitude in data, and practising data ethics.

One area is the regulatory tension between data protection and data sharing. The ONDE highlighted during the OECD peer review mission in Bangkok that it has not embarked on open data or data-sharing initiatives due to restrictions and legislative burden from the data protection law. This balance between a flexible and structured approach can help to foster common understanding, alignment and coherence of data initiatives. It creates greater support for concerted actions when addressing challenges and delivering results (OECD, 2019, p. 33[31]).

Recommendation 38. Use agile regulation initiatives to:

- Carry out a regulatory guillotine exercise to identify legal and regulatory barriers blocking data generation, sharing and access within the public sector and the publication of open data by public sector organisations. These exercises would benefit by stating on a smaller scale (within specific policy areas such as environment and development) in order to help in the definition of sectoral data strategies addressing data access and sharing within and outside the public sector.
- Use fora such as the OPDC Innovation Lab and the DGA Digital Academy to perform capacity-building exercises to develop further awareness in relation to the implications of data protection, ethics and open data in order to promote data-driven innovation while safeguarding citizens' digital rights.

Leveraging data access and sharing to deliver public value

While a strong focus on technical issues for data governance can be a weakness and mislead data policy decisions (OECD, 2019, p. 27[31]), underpinning the transition to a data-driven public sector calls for the definition of a complex set of data access and sharing arrangements, including standards and guidelines, to support the delivery of value, as explored in the technical layer of data governance.

A key working principle of the DGA's G2G, G2C and G2B infrastructure, platforms and enablers is to link and exchange data and unlock greater public value. The DGA aims to create "an effective data management system [that is] accurate, complete, updated, and connectable promptly and securely" (DGA, 2018, p. 12[25]) to be used for developing new platforms, tools and services, such as the Government Information Network (GIN) for connecting government agencies at all levels to facilitate a wide range of applications, the Government Data Exchange Centre (GDX) for digitally transferring documents among agencies and the one-stop service for citizens to access public services.

Most initiatives for data integration are oriented around identifiable data on citizens and businesses and data related to national security and critical infrastructures, following the first phase of integrating government databases directed by the Prime Minister Operations Centre (PMOC) and the Steering

Committee for the Integration of Government Databases (EGA/MICT, 2016[32]). While the central government is prioritising data, information and systems integration as the foundation for a data-driven public sector at a strategic level (EGA/MICT, 2016[32]), there is a considerable lack of operational expertise and understanding to deal with the heterogeneity of the data and the complexity of data integration at the executional level.

As identified in the previous subsections, a key challenge faced by the government of Thailand is the execution of the data plans and especially at the departmental and provincial levels. There needs to be a stronger understanding of what data are available or not, and if those data are valuable, compatible and interoperable to be used and re-used, this together with the experiences and capabilities related to data management and analytics that need to be consolidated – such that data governance can be carried out effectively. These were the challenges for the use of national data registries that are often cited in the surveys conducted by the OECD for the purpose of this review.

There are different types of data with widely different economic and social value and data value cycles. On the technical front and delivery layer for a data-driven public sector, the government of Thailand needs to have a comprehensive and coherent approach towards organising, categorising and integrating government data. Doing this step correctly can provide the leverage to achieve developments in data sharing and public trust in the government's use of data – together with open government data as explored later in this chapter.

Data integration: Infrastructures, standards and guidelines

Government data are not naturally harmonised because government agencies of different responsibilities and policy areas have different datasets and formats (Ubaldi, 2013, p. 31[33]). During the OECD mission to Bangkok, various public sector organisations expressed their aspiration and plans in the use of big data and data analytics but the main barrier that constantly resurfaced was the lack of standards and guidelines, in addition to flawed human resource capability, which made the process of data management and analysis challenging. The government of Thailand currently has policies, standards and guidelines on data security and stability, data disclosure, data link and exchange, data confidentiality, open data, personally identifiable information, data innovation design and data governance assessment (DGA, 2018, p. 45[25]). But it would need to focus on the data generation stage to secure integration in the later stages of the data value cycle. So far, the guidelines and standards available address data access and sharing once the data has been already generated or assume data assets are discoverable and accessible.

A good case in point is the National Information Committee, which was under the Ministry of Information and Communication Technology (MICT) and now the MDES. The National Information Committee drives information policy, manages the geographical information system (GIS) and geospatial datasets from 30 public sector organisations. Still, it faces difficulty in data discoverability and data ownership for a large number of datasets under its purview. In response to such a challenge, different countries have had different responses. Another example is the Ministry of Commerce (MoC) that expresses strong support for digital integration and greater alignment and co-ordination in the development of digital policies and initiatives. It has a pilot project to share web service data with the Ministry of Agriculture and Cooperatives (MOAC) and the Rice Department, in view of real-time data-sharing projects for maize, palm oil and sugar in the future. However, as shared during the OECD peer review mission in Bangkok and the OECD survey, the MoC has not yet been able to complete the basics such as mapping the business ecosystem and datasets or harmonising operating models and metadata standards.

Data value cycle: Gaps, challenges and solutions

The data value cycle presents the crossroads and synergies of the most strategic, tactical aspects of data governance (e.g. regulations and policies) with the technical aspects (e.g. architecture and infrastructure for data management, open data and sharing). It is a continuum of inter-related stages where different

stakeholders add value and contribute to data re-use (OECD, 2019, pp. 46-47[31]). Looking at the data value cycle, the government of Thailand is still held back in the first two phases of collection, generation, storing, securing and processing.

This explains why multiple public sector organisations in Thailand are still struggling with the heterogeneity of government data and the complexity of data integration. They are unable to progress to the third and fourth stages of creating value from data and data-driven processes. Oftentimes, governments get stuck in the first two stages of understanding what kind of government data exists, what form and how they can be used – in order to organise, categorise and integrate the data after.

In sum, the government of Thailand is progressing well by creating new digital tools, platforms and services that accelerate data integration, open data and data sharing. More resources should be devoted to ensuring that these data architectures and infrastructures are replicable and scalable across sectors of the digital economy and society to allow smooth and trustworthy access and sharing of data within and outside the public sector. For this to happen, data policies, standards and guidelines in legislation and executive decrees that make up the backbone should be strengthened centrally and harmonised at all levels of the government.

Recommendation 39. In line with the Data as a Service (DaaS) approach presented in the section "Data as the foundation for digital services":

- Promote and monitor the development of data catalogues at the institutional level to identify data assets availability in order to promote data discoverability, access and sharing.
- Pursue the design and implementation of standards for data generation, including metadata standards, towards data integration. In line with the previous recommendation, this would benefit from addressing challenges at a sectoral level, first towards their scalability, including that of data sharing tools, in the medium and long terms.
- Explore data federation approaches for data exchange within the public sector to avoid the centralisation and reliance on centralised data management platforms. Such an approach would also help in deconstructing complex data management systems into smaller pieces so that issues in specific hubs can be addressed in a simplified and more agile fashion.
- Based on the budget for the Annual Digital Government Integration Programme, the flagship project Agency Data Catalogue and Services Catalogue must follow through in its implementation.

Establishing the role of data for public trust

The government of Thailand understands the importance of governing and managing data with trust as the backbone to improve citizens' well-being. Its digital government services have qualified for international standards, such as the Cloud Security Alliance (CSA) Security, Trust and Assurance Registry that enhances transparency in cloud computing services and the Business Continuity Management Systems (BCMS) that enable holistic management of threats to business operations (DGA, 2018, p. 30[25]). Trust is also a major component of the 20-Year Digital Economy and Society Development Plan (2017-2036) or Digital Thailand. The sixth strategy in this plan is focused on building trust and confidence in the use of digital technologies by updating laws and regulations, encouraging investments and ensuring security (Segkhoonthod, 2017[34]). This also ties tightly into the 6th strategy of the 12th National Economic and Social Development Plan (2017-2021) that aims to root out corruption and achieve good governance in the public administration (Segkhoonthod, 2017[34]). Measures taken under this strategy towards data ethics and the use of digital technology and tools are most critical in determining public outcomes.

Ethics

Handling data ethically can balance innovation with data protection while placing data subjects and users at the centre of the public service design process. A discussion of data ethics should also involve a discussion of digital rights, which have become increasingly important due to the emergence of new technologies such as artificial intelligence (AI): the right to the transparent use of data, the right to access open algorithms and the right to data ownership and management to name but a few. Also, ethical approaches play a pivotal and significant role to guide the behaviours of the public administrators and public officials in the public sector. They ensure that data will be managed in ways that do not harm or undermine the utility of others, even when done in a lawful way.

The government of Thailand has not yet designed ethical principles, frameworks or guidelines on data management and use in the public and private sectors. This presents an opportunity to consider various paths to achieving the goal of shaping behaviour that is conducive to a healthy data-driven public sector that centres on the human aspects of data management and respects the rights of individuals.

Data ethical frameworks or guidelines should contain principles, information and approaches to conduct value-driven practices and decision making that aim to increase understanding of what it means to manage and use data in a way that places human rights at the core of government practice when using data.

In a later stage, enforcement and compliance with ethical practices can be executed via an independent government agency, with a lead role in supporting other public sector organisations in capacity building and data management. The DGA has a strong fit for this role with its anti-corruption policy and mandate in "supporting and promoting personnel at all levels to be aware of the importance of behaving in compliance with morals, ethics and anti-corruption awareness" (DGA, 2018, p. 83[25]). For this to be achieved effectively, the DGA should be given the power and authority across the public sector and country in supervising and monitoring the practices in accordance with the laws and regulations around data management and use. While the Personal Data Protection Committee (PDPC) is the supervising authority for data protection, the DGA should be the main steward for the government's trustworthy and ethical data management and use. Both bodies will need to co-ordinate closely, set strategies and exchange information.

This approach could suit the government of Thailand too, with strategic co-ordination between the DGA and PDPC. To strengthen the DGA's efforts in data ethics, it could create a data ethics advisory group to assist the government to understand, advise and comment on issues around new and emerging uses of data. Seven independent experts from different fields like privacy, human rights law and innovation, which are relevant to data use and ethics, were appointed as members. Diversity of perspectives is ensured too, with one position reserved for a member of the Te Ao Māori Co-Design Group to support Māori data governance (Stats NZ, 2019[35]). Such a data ethics advisory group can support the DGA by looking into new initiatives in the early stage of development, such as exploring the idea of using data trusts to facilitate ethical and trustworthy data sharing. Similarly, in this area, ensuring the success of establishing an ethical environment will require consistent communication and engagement over these ethical frameworks, guidelines and principles in the data access and sharing ecosystem that include actors from the private sector and civil society.

Privacy

In the effort to design and offer more citizen-centric services, the government of Thailand has committed to balancing the security of lives, assets and public data with the need to address constant changes of public needs and facilitating public service delivery. To protect privacy and allow users to give consent with explicit knowledge of how the data is collected, processed and used, the government of Thailand passed the Personal Data Protection Act, B.E. 2562, in May 2019 that came into full force in May 2020. The Personal Data Protection Act established the PDPC, with the vice-chairperson as the Permanent Secretary

of the MDES and directors as the Permanent Secretary of the PMO, the Secretary-General of the Consumer Protection Board, the Director-General of the Rights and Liberties Protection Department and the Attorney General (ETDA, 2019[36]). This follows from the Official Information Act, B.E. 2540 (1997) that had specific provisions to prevent the misuse of personal data by public officials and the right for citizens to know how their data are being used by public sector organisations.

The Electronic Transactions Development Agency (ETDA) said during the OECD peer review mission to Bangkok that it aims to build awareness in the public sector and among citizens and businesses on privacy and how to protect their data in using digital tools. It was involved in the drafting of the Personal Data Protection Act. In May 2018, the MDES set up a Data Protection Knowledge Centre (DPKC) as the centralised unit to create awareness about data protection in the public and private sectors, with the ETDA as the operator and lead.

Transparency

Transparency is about creating an open and trustworthy environment where policy and government information, decisions, processes, frameworks and rationales are made known to the public in a timely, accessible and comprehensible manner, which has an effect of increasing public officials' accountability to each other and the public (OECD, 2019, p. 115[31]). This approach has direct applications on how personal or sensitive data is used by public sector actors, by whom, for what purpose and with what outcomes. With emerging technologies, transparency about how data is used and processed is fundamental for public trust and the good use and scaling of machine learning.

As the DGA of Thailand continues to create data policies, standards and guidelines on open data, data sharing and the re-use of data in the public sector, it could consider opening its actions, sharing data informing decisions processes and performance to public scrutiny as a way of gaining public trust. This often serves as a powerful and practical tool to gain the support and trust of citizens and businesses in the complex process of digitalising the government and public sector, since it allows them to see, understand, know how various data subjects' data are used and therefore participate in the best possible way to create value for the economy and society.

Citizens can have the chance to contest should the data seem biased or wrong, which can help to augment the quality of data, fairness and value creation. Finally, the policies, standards and guidelines centred on openness also serve as the foundation for when the government starts to incorporate more AI, to make the data processing sustainable and trustworthy. In Thailand, transparency in a data-driven public sector can be increased with the exposure of the data and algorithms in the pursuit of data subjects' self-determination and agency over the handling of their data.

Security

In line with plans for building Digital Thailand, the government of Thailand is ramping up efforts to secure the digital architecture and infrastructure in the public sector by consolidating the legislation, regulations and institutions. It plans to improve Thailand's ranking in the International Telecommunication Union (ITU) Global Cybersecurity Index with the development of national security policy, critical information infrastructure and standard operating procedures (Boonnoon, 2018[37]).

Thailand's Computer Crime Act, B.E. 2550 (2007) provided a definition of computer-related crimes and authorised government officials to investigate them. Amendments in the Computer Crime Act No. 2, B.E. 2560 (2017) further clarified the ambiguity of illegal content and defamation and improved the efficiency and integrity of the law enforcement process. It also aimed to prevent hacking data and information that could be wrongfully exploited. But in the past years, the government has done a minimal amount operationally to respond to the thousands of cyberthreat incidents and government agencies still have a poor capacity to respond to cyberthreats (Leesa-Nguansuk, 2019[38]). The Cyber Security Act, B.E.

2562 (2019) aims to change this with the creation of a National Cyber Security Committee, the National Cyber Security Agency (NCSA) and new rules to handle cyberthreats.

Since Thailand has just begun its efforts in security, the government should now focus on developing an independent national digital security strategy with detailed policies, directions and guidelines for public sector organisations to follow. Lastly, digital security skills are a cornerstone – extensive training in cyber security capability should ensure that the country has a sustainable supply of home-grown cyber professionals that can meet the demands for a digital economy and society.

Recommendation 40. Promote a trustworthy environment for data management and use in the public sector by:

- Designing or adhering to ethical principles, frameworks or guidelines on data management and use in the public and private sectors that are conducive to a healthy data-driven public sector that centres on the human aspects of data management and respects the rights of individuals. These data ethical principles should: i) align with other broader policies (e.g. public sector integrity, open government, procurement) and the tools that derive from them; and ii) be understood as a precondition for the successful implementation of trustworthy data-driven decision making and the development of AI systems in the public sector. For this purpose, the Thai government could consider using the OECD *Good Practice Principles for Data Ethics in the Public Sector* as guidance.
- Exploring the creation of a multistakeholder data ethics advisory group to assist the government to understand, advise and comment on issues around new and emerging uses of data.
- Sustaining the ETDA's, DGA's and PDPC's active joint leadership on securing privacy for data subjects in the treatment of public sector data, thus focusing on education and building consciousness and working culture of practising data protection to build a safe environment. It could also consider fostering interoperability of privacy approaches with other privacy frameworks to enable cross-border data flows, such as the OECD Privacy Framework (2013) and the Directive 95/46/EC General Data Protection Regulation (2018).
- Sharing data-informed decisions, processes and performance to public scrutiny as a way of gaining public trust. Transparency in a data-driven public sector can also be increased with the exposure of the data and algorithms through specific digital government tools (such as citizens' folders) in order to promote the values of self-determination, contestability and agency of Thai citizens over the use of their data.
- Developing a national digital security strategy with detailed policies, directions and guidelines for public sector organisations to follow – covering digital security skills to increase cyber security capability and capacity, and strong governance and co-ordination in the execution.

Promoting open government data in Thailand

Towards sound open data policies: Data availability, accessibility and re-use

In Thailand, open government data efforts are led by the DGA and OPDC. Since 2013, the DGA has had the responsibility of managing Thailand's national centralised open data portal, the Government Open Data Centre (data.go.th). The open data portal is designed to provide open government data in easy-to-find categories and in formats that meet Thailand's national Open Government Data Standard (DGA, 2018, p. 39[25]). As of 2018, data.go.th hosted more than 2 000 open datasets. The DGA has also published the Open Data Handbook that provides guidelines for selecting high-value datasets and co-ordinating with

other government agencies, providing information and engaging with the public including inspection by the public.

In 2015, the government of Thailand released its first Open Data Strategy under the DGA with ten core principles for data publication: Open by Default, Protected where Required; Prioritised; Discoverable; Usable; Primary; Timely; Well Managed, Trusted and Authoritative; Free where Appropriate; and Subject to Public Input. These overarching requirements apply to all public sector organisations releasing open government data for public access and use.

The Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019), also known as the Digital Government Act, granted specific responsibilities to public sector organisations in relation to open government data. One of the main objectives of digital government development detailed under Section 4 of the act mentions the "disclosure of public data […] produced and possessed by State Agencies […] for the purpose of creating easy access to the public, promoting their involvement in and inspection on governmental operations, and enabling them to further use the data to develop innovations and services which would be beneficial to the Country in certain aspects".

Specifically, under Section 17, public sector organisations have a responsibility to "produce the data which must be disclosed to the public under the laws on government information as digital data" and "enable the public free access without any expense". It goes on to specify that these standards and rules on the disclosure of such data "shall be prescribed by the Digital Government Development Commission for the benefit of facilitating the people's access to the data".

Yet, despite these recent developments, the leadership and co-ordination by the DGA or the OPDC is still facing some key challenges to deliver value from open data. These gaps are analysed in further detail in the following sections based on Thailand's performance in each of the three pillars of the OECD Open, Useful and Re-usable data (OURdata) Index (OECD, 2020[39]).

Data availability

Results from Pillar 1 on "Data availability" demonstrates that while Thailand performs fairly, it still needs to greatly improve for Sub-pillar 1.1 on the "Content of the open-by-default policy" (scoring 0.19 in comparison to the Southeast Asian average of 0.12 and the OECD average of 0.22), better for Sub-pillar 1.2 on "Stakeholder engagement for data release" (scoring 0.21 in comparison to the Southeast Asian average of 0.11 and the OECD average of 0.20) and has much to improve for Sub-pillar 1.3 on "Implementation" (scoring 0.12 in comparison to the Southeast Asian average of 0.13 and the OECD average of 0.18). Overall, the results for each of the aforementioned sub-pillars contribute to Thailand's ranking (scoring 0.52) to be slightly below the OECD average (scoring 0.59) and higher than the Southeast Asian average (scoring 0.36).

Sub-pillar 1.1 on "Content on the open-by-default policy" looks at the extent to which there are formal requirements supporting openness by default through instruments such as laws, regulations or guidelines. These foundational arrangements help to promote a public sector culture that encourages the release of open government data (OECD, 2020, p. 28[39]), which is key for Thailand. The Thai government understands the value inherent in opening up the access and use of government data to a broader ecosystem of the public sector, private sector and civil society stakeholders, as reflected in its landmark Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019). However, the DGA and supporting bodies should now focus on comprehensive communication and implementation across the whole public sector, since formal requirements are not enough to secure actual implementation, as measured in Sub-pillar 1.3 and discussed later. Advancing implementation would also require further deepening the use of KPIs to monitor and promote greater capacities and capabilities of its public sector organisations in working with open government data.

Sub-pillar 1.2 on “Stakeholder engagement” measures the level of engagement with stakeholders to inform open data policies and support purposeful and user-driven data publication, which is critical for value generation. Engaging stakeholders boosts the efficacy of data publication and strategic re-use as data users’ needs are better understood and addressed. This is key from a data demand point of view: open government release should not solely be based on the government’s perceived user needs or what is most requested (OECD, 2018, p. 132[40]), but also on strategic data supply (OECD, 2020, p. 30[39]).

The DGA could take a greater lead in co-ordinating efforts concerning the engagement of the open data ecosystem to understand their needs. As expressed by public officials during the OECD peer review mission in Bangkok, evidence points to minimal public interest and participation in the government’s open data and data sharing initiatives. However, this negative context is aggravated by public sector organisations strong focus on compliance – indicating, again, a cultural challenge where the publication of open data is still understood as the main outcome rather than as a means to deliver value. During the OECD peer review mission in Bangkok, public officials shared that there is still a lack of emphasis on user needs and that data demand is not being met.

This highlights the importance of involving a wide variety of stakeholders in the design process of open data policies, the identification of data needs, and the government’s key role in promoting the shift towards a user-driven open data policy. Doing so can boost the effectiveness of addressing the technical, administrative and cultural challenges during the implementation stage.

Lastly, Sub-pillar 1.3 on “Implementation” assesses the results and outputs of open-by-default policies. A key element to consider here is to make quality and value a priority when sharing open government data, as opposed to focusing too much on the quantity of data. This mandates the availability of open government data in high-value taxonomies such as business registers, transport, environmental and geographical data and their integration into the data value chains towards greater government, economic and social innovation (OECD, 2020, p. 9[39]). Results from the 2019 OURdata Index showed that OECD countries did not perform well in this aspect because creating quality open data and value requires governments to first focus on generating data that are standardised, interoperable and valuable before publication and release (OECD, 2020, p. 32[39]). The latter stage will be covered in Pillar 2 on “Data accessibility”.

Another fundamental consideration needed for the government of Thailand is how to approach the data infrastructure for open data in the implementation process. At a more technical level, a data federation model can facilitate data discoverability and reduce data fragmentation while maintaining a balance between a good level of data autonomy and ownership at the subnational levels and quality assurance at the central level (OECD, 2020, p. 9[39]). For instance, various ministries and agencies expressed during the OECD peer review mission in Bangkok that they have their own active open data initiatives but these may not be fully hosted on the central open data platform under the DGA and that they do not have knowledge of other counterparties’ initiatives. The DGA could develop data quality mechanisms and automation processes for open data and data sharing that cut across the over 400 government agencies through the Government Data Exchange Centre (GDX) and the use of the government API system. Thailand’s lower availability of data can be seen as a window of opportunity to start strengthening data governance and data quality at the source.

The DGA should take a greater lead in co-ordinating efforts for the engagement with stakeholders in the open data ecosystem early to understand their needs, invoke greater interest and participation and change the mindset and culture. It should also consider making the public consultations inclusive, innovative and encouraging of collaborations, in line with existing open government data frameworks, and strengthen stakeholder engagement with local governments and actors by providing technical-methodological support, promote good practices and strengthen capability and capacity.

Recommendation 41. Promote user-driven and purposeful open government data availability by:

- Enhancing communication of the open government data policy across the public sector and with the ecosystem, beyond formal requirements.
- Embedding open data as a cornerstone of a potential Action Plan for Public Sector Data. This would require emphasising the significant role of open data as a policy in itself.
- Promoting the inclusion of open data in sectoral and organisational policies, strategies and action plans for building a data-driven public sector as a core policy element towards openness by default and data-driven innovation.
- Deepening the use of open KPIs for monitoring (open data dashboards) of the public sector organisations working with open government data, ensuring greater compliance and adoption at an operational level. The Thai government would also benefit from including the OECD Open Government Data Index as part of the set of indicators to monitor the implementation of the Digital Government Development Plans and other broader policy instruments such as Digital Thailand.
- Mapping the most critical and "obvious groups" such as start-ups, journalists, researchers, academia, businesses, etc. towards greater user engagement. This would imply opening up the government and promote a collaborative approach from the very design of open data initiatives. The government of Thailand could research the needs of these different user groups in order to reach out to them more effectively. Public consultations should be conducted strategically and with a diverse group of stakeholders for inclusion and diversity.
- Identifying high-value datasets for publication by exploring their contribution to areas such as anti-corruption and development, business and social innovation. This would imply engaging data users in data demand identification exercises before data publication on a regular basis.
- Clarifying open data responsibilities in line with the DGA Data Governance Framework and the OCSC Skills Framework.
- Considering data harvesting as the infrastructure for the open government data portal, as it can facilitate quality data discoverability and reduce data fragmentation. The DGA should develop data quality mechanisms and automation processes for open data and data sharing among government agencies through the Government Data Exchange Centre (GDX) and with the use of the government API system.

Data accessibility

Results for Pillar 2 show that Thailand is slightly below the Southeast Asian average and has much to catch up on all three sub-pillars: Sub-pillar 2.1 on the "Content of the unrestricted access to data policy" (scoring 0.13 in comparison to the Southeast Asian average of 0.19 and the OECD average of 0.27), Sub-pillar 2.2 on "Stakeholder engagement for data quality and completeness" (scoring 0.13 in comparison to the Southeast Asian average of 0.07 and the OECD average of 0.14) and Sub-pillar 2.3 on "Implementation" (scoring 0.21 in comparison to the Southeast Asian average of 0.24 and the OECD average of 0.28). Overall, the results for each of the aforementioned sub-pillars contribute to Thailand's ranking (scoring 0.48) to be just below the Southeast Asian average (scoring 0.50) and OECD average (scoring 0.70).

Sub-pillar 2.1 on "Content of the unrestricted access to data policy" looks at increasing the production and sharing of quality data that are released proactively, timely and in understandable and re-usable formats for users and machines (OECD, 2020, p. 36[39]). It specifies that there should be the provision of

requirements and guidance on metadata, the active addressing of quality issues and biases throughout the data value cycle and the free provision of data (OECD, 2020, p. 37[39]).

During the OECD mission to Bangkok and in line with earlier assessments, the DGA underlined how most government agencies disclose data in non-machine-readable formats (DGA, 2018, p. 50[25]). This is because the government of Thailand has no formal requirements and only guidelines for its public sector organisations to provide data in machine-readable formats, with their associated metadata or that are interoperable, as shared in the Open Government Data Survey for the OECD and ADB report *Government at a Glance Southeast Asia 2019*. This poses a key challenge to derive value from data and poses a barrier to meet policy objectives in line with the Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019).

Sub-pillar 2.2 on "Stakeholder engagement for data quality and completeness" stipulates that the open government data portals should be treated as spaces for open engagement with the larger ecosystem rather than top-down approaches just to provide data supply. The larger goal should encourage innovation, collaboration, knowledge sharing and value creation towards enabling Government as a Platform (GaaP) (OECD, 2020, p. 39[39]). While the government of Thailand enforces standards for accessibility, it should also strengthen its stakeholder engagement and design of its central open government data portal to allow data communities and ecosystems to thrive. According to the Open Government Data Survey results for the OECD and ADB report *Government at a Glance Southeast Asia 2019* (2019[30]), the feedback loop and engagement with users on the Government Open Data Centre (data.go.th) is still largely one way as users are not allowed to add a dataset or create other outputs like data visualisation and are not notified about issues or the re-use of their data. In a similar fashion, the DGA can consider creating fora for discussion and notifications on chosen datasets beyond feedback sections, where users can connect, collaborate and share ideas directly with each other on the use of the open government data – a rare practice that only several OECD countries have in place (OECD, 2020, p. 38[39]).

Sub-pillar 2.3 on "Implementation" emphasises that the non-formal requirements, cultural changes, political willingness and expertise among public officials are also a necessary part of the equation to enable the release of and access to re-usable datasets on open government data portals. The Open Government Data Survey results for Thailand in the OECD and ADB report *Government at a Glance Southeast Asia 2019* (2019[30]) showed that even though there are points of contact for datasets provided on the Government Open Data Centre (data.go.th), in practice there is a very low proportion of structured data, data provided in multiple formats, data provided in machine-readable formats, the use of uniform resource identifiers, the provision of data visualisation tools and the provision of associated metadata – which is consistent with the findings that have been elaborated in-depth above.

Recommendation 42. Increase open data accessibility by:

- Redefining its central open government data portal towards a focus on data re-use and a platform for the open data community. This would require establishing a digital and analogue two-way feedback loop and engagement processes to monitor data quality. The DGA can consider creating fora for discussion and notifications on chosen datasets beyond feedback sections, such that users can connect, collaborate and share ideas directly with each other.
- Using the proposed open KPIs model (e.g. open data dashboards) to showcase good open data practices across the public sector and monitor, in collaboration with the ecosystem, the implementation and compliance with open data standards, including their publication in machine-readable and non-proprietary formats.
- Removing any registration process for open data access in order to reduce barriers for data re-use and increase users' trust and confidence in the use of the data.

- Enabling open data access and sharing through APIs in order to allow for data integration across different sectors, and contributing to the digital and data-driven economy.

Government support for data re-use

Pillar 3 on "Government support for data re-use" is increasingly seen by governments as a key requirement for value creation and builds upon the previous two pillars addressing the availability and accessibility of good quality government data (OECD, 2018, p. 88[40]).

Thailand performs well in Sub-pillar 3.1 on "Data promotion initiatives and partnerships" (scoring 0.22 in comparison to the Southeast Asian average of 0.12 and the OECD average of 0.16) but there is still a big gap especially for Sub-pillar 3.2 on "Data literacy programmes in government" (scoring 0.14 in comparison to the Southeast Asian average of 0.15 and the OECD average 0.21) and Sub-pillar 3.3. on "Monitoring impact" (scoring 0.04 in comparison to the Southeast Asian average of 0.06 and the OECD average of 0.14). Overall, the results for each of the aforementioned sub-pillars contribute to Thailand's ranking (scoring 0.40) just above the Southeast Asian average (scoring 0.33) and markedly below the OECD average (scoring 0.52).

Sub-pillar 3.1 on "Data promotion initiatives and partnerships" measures the extent to which governments regularly conduct assessments, information sessions and focus groups with citizens, businesses and other stakeholders, hold co-creation and crowdsourcing events to promote data re-use and create partnerships with business incubators and CSOs that aim at solving specific public policy challenges.

Results from the OECD Open Government Data Survey also reveal that the government of Thailand does not formally encourage its public sector organisations to raise awareness among businesses on open government data opportunities but does so with citizens and non-governmental organisations. Public sector organisations are not regularly involved in any events or activities aimed at promoting the re-use of open government data, except for a few annual hackathon events. As this is well within the current scope of the DGA, the DGA should step up its leadership and initiatives in this respect. Long-term partnerships with the open data ecosystem can sustain user engagement and data re-use.

Sub-pillar 3.2 on "Data literacy programmes in the government" are indispensable for building skills and capacity in the public sector to support open data and data sharing efforts. The government of Thailand is progressing well, in general, with the creation of the TDGA that promotes, supports and provides skills and standards training between the public and private sectors, and the definition of digital and data roles as defined in the DGA Data Governance Framework and the OCSC Skills Framework.

However, Thailand is lacking the necessary human resources to unlock the full potential of a data-driven public sector and could channel more into this area. Based on the results of the Open Government Data Survey for Thailand, much more needs to be done to conduct information sessions, focus groups and training within the public sector and with public officials on the benefits, needs and methods of promoting the re-use of open government data – at all levels of the government and leadership. These programmes should raise public officials' understanding and awareness on how data should be published and re-used within the public sector to improve internal processes, public policies and services. Finally, increasing the level of digital literacy can also help to build an organisational culture that embraces data, which the government of Thailand presently has as a programme but needs to further deploy through practical and consistent training sessions on the DGA's Open Government Data Handbook. The Open Government Data Conference as a platform for internal consultation is another good channel that should be reinforced not just for feedback collection but strengthening the awareness and effective rolling-out of open government data efforts.

Sub-pillar 3.3. on "Monitoring impact" should be done by financing or conducting research on the economic, social and public sector performance impact of open government data. Indicators can include the amount of re-use of open government data and the types of re-use carried out such as data visualisations, mobile applications and news articles – through usage cases that are documented, displayed and promoted openly.

In reference to the results of the Open Government Data Survey (2019[30]), the government has not conducted research on the economic or public sector performance impact of open government data but has done so for the social impact since 2015. While building the data architecture and infrastructure for GaaP, the DGA should continue to identify, collect and display to the public good examples of re-use on centralised and local open government data within and outside the public sector. In sum, attaining this stage of opening and sharing meaningful, accessible and re-usable data to generate value for stakeholders requires data-driven and user-centric approaches – with open government data laws that oblige public sector organisations to publish and share their data in complete, updated and appropriate formats and strong user engagement in the open government data ecosystem.

Recommendation 43. Target and increase open data re-use towards innovation and good governance by:

- Sustaining initiatives to promote the re-use of open government data on the Government Open Data Centre (data.go.th), beginning with conducting assessments and reports to understand the challenges and barriers to the re-use of open government data by external actors.
- Involving public sector actors in a rolling co-leading model where specific organisations can lead the organisation of user engagement events to address their own policy needs and challenges.
- Exploring deepening long-term partnerships in the open data ecosystem with the private sector and civil society. The Open Government Data Conference should be reinforced as a channel for feedback collection, raising awareness for effective implementation.
- Conducting practical and consistent training sessions on the DGA's Open Government Data Handbook, along with the benefits, needs and methods of promoting the re-use of open government data at all levels of the government and leadership.
- Performing or commissioning research on the economic, social and government impact of open data to sustain policy sustainability in the long term. This would include identifying, collecting and displaying good examples of re-use on centralised and local open government data portals within and outside the public sector.

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[2] For more information, see https://standard.etda.or.th/.

[3] For more information, see https://gdx.dga.or.th/.

1 Introduction

Chapter 1 presents the OECD’s approach to open and digital government and the methodology undertaken in the Open and Connected Government Review of Thailand. It also provides an overview of Thailand's open and digital government reforms.

Introduction

Governments around the world are confronted with increasingly complex policy challenges, including widening inequality gaps, rising economic and financial instability, as well as a resurgent wave of identity politics. Relations between society and the public sector are being challenged by deteriorating trust levels. At the same time, citizens have become more vocal and demanding, not only in terms of the quality of public services but also regarding the transparency, integrity and accountability of governments. This challenge is accompanied by the need to digitally transform the public sector due to pressures from the increasing digitalisation of the environment in which people live, work and interact.

In response to these demands, Thailand and other governments in the Southeast Asia (SEA) region are rethinking the way public policies and services are designed and delivered. This implies not only acknowledging that the implementation of open and connected government reforms improves the quality of public policies and services, makes the state more efficient and effective and brings it closer to its citizens, but also accepting and being ready to overcome the related policy design and implementation challenges of such reforms.

Yet, building an open and connected government is not an end in itself. While the OECD open government principles of transparency, integrity, accountability and stakeholder participation certainly have intrinsic value, as does the use of technology to enable them, the implementation of the resulting initiatives should serve as important means to deliver positive results in terms of national development across policy sectors.

The OECD approach to open and digital government

Upon request from the government of Thailand and in accordance with the country's reform priorities, this *Open and Connected Government Review of Thailand*, which forms part of the OECD-Thailand Country Programme, aims at promoting the successful design and implementation of coherent open and digital government policies and initiatives. By building on the country's current practices, it further aims to reduce policy fragmentation, address remaining policy gaps and leverage synergies between these two public sector reform areas. To this end, the review provides an external and peer-driven assessment of Thailand's ongoing open and digital government reforms to contribute to an evidence-based debate on their priorities, coherence and sustainability, and provide an overview of the country's progress in creating Government 4.0.

As part of the assessment, this review focuses on Thailand's legal and policy frameworks, key institutional actors and their roles. It provides an overview of the main ongoing policies and initiatives on open government and digital government. It provides an overview of observed challenges and proposes a set of recommendations for the way forward. It also offers indications of the government's performance in these areas as compared to OECD standards and good practices of its members.

Among others, the following key aspects guide the analysis and the recommendations included in this review as a means to bolster the effectiveness of Thailand's open and connected government agenda:

- Institutionalising efforts to strengthen the impact of the open and digital transformation agenda.
- Fostering policy co-ordination and multi-stakeholder collaboration to help in the design of a comprehensive and inclusive policy agenda and support its coherent implementation.
- Moving towards impact through solid monitoring and evaluation tools to measure performance, ensure accountability and enable learning on the reforms to foster openness and digital transformation in the society.
- Reinforcing and securing the relevance and agility of the legal and regulatory framework for open and digital government in Thailand.

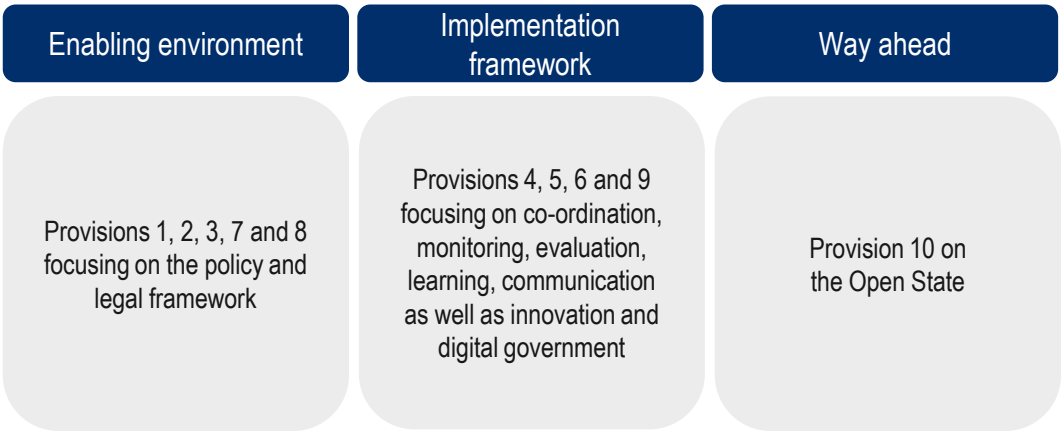
- Supporting the development of public sector capability for public service design and delivery, including digital skills and the enforcement of digital and data standards.
- Underlying the need to follow a user-driven, open, and inclusive approach in public service design and delivery.
- Building a data-driven public sector supported by the right data governance frameworks so that data can be applied for improved government operation and the streamlined relationship between government and the society, including the use of open government data.

The review supports public sector reform through an in-depth analysis of the current state of open and digital government policies and institutions at the national level, which culminates in strategic policy recommendations to the Thai government to embrace OECD principles and good practices in the day-to-day operations of the Thai public sector.

The methodology used for the elaboration of this review's recommendations reflects upon the OECD's longstanding work in the areas of open and digital government. The review follows the principles enshrined in the OECD *Recommendation of the Council on Digital Government Strategies* (OECD, 2014[1]) and *Recommendation of the Council on Open Government* (OECD, 2017[2]). Both recommendations were the first of their kind worldwide and define a set of criteria for the design and implementation of successful open and digital government agendas.

On the one hand, the OECD *Recommendation of the Council on Open Government* features ten provisions (see Figure 1.1) against which the OECD assesses open government reform agendas worldwide and forms a basis to describe Thailand's efforts in pursuing these principles in practice.

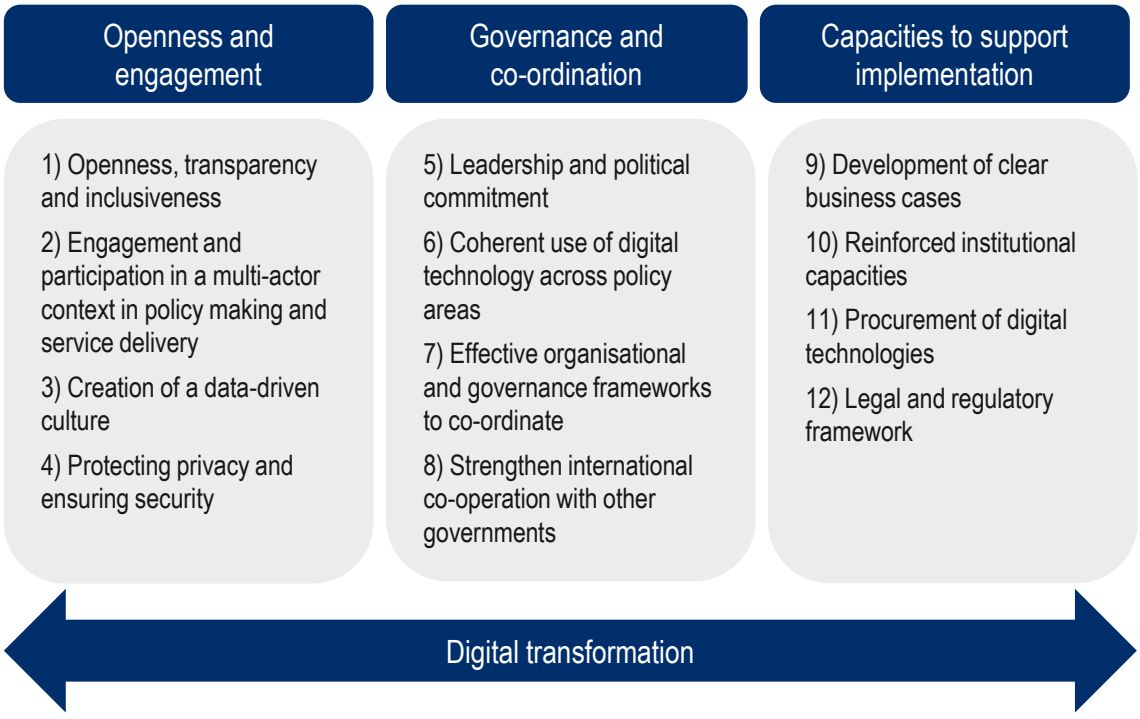
Figure 1.1. OECD Recommendation of the Council on Open Government



Note: Non-member countries: Argentina, Brazil, Morocco, Romania, Tunisia.
Source: Based on OECD (2017[2]), *Recommendation of the Council on Open Government*, https://www.oecd.org/gov/Recommendation-Open-Government-Approved-Council-141217.pdf (accessed on 30 August 2019).

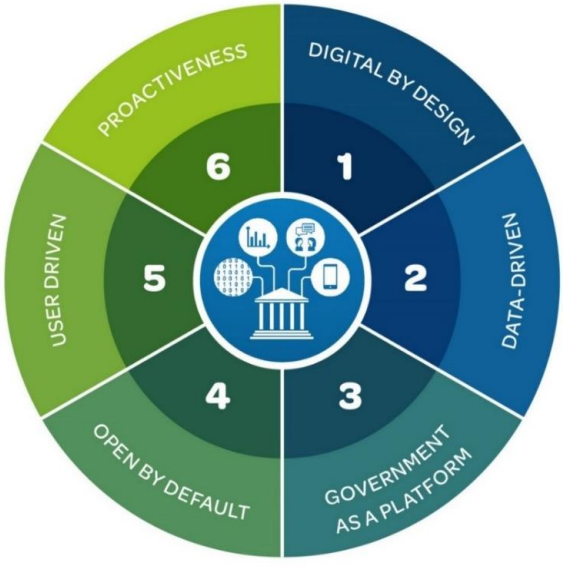
On the other hand (see Figure 1.2), the OECD *Recommendation of the Council on Digital Government Strategies* is structured around 12 principles, which aim at helping governments in achieving the shift from e-government towards a digital government. For this purpose, the OECD has developed the Digital Government Policy Framework (OECD, 2020[3]) as a means to support governments in their digital transformation journey towards a digitally mature public sector (see Figure 1.3 and Box 1.1).

Figure 1.2. OECD Recommendation of the Council on Digital Government Strategies



Note: Non-member countries: Argentina, Brazil, Egypt, Kazakhstan, Morocco, Panamá, Peru, Russia.
Source: Based on OECD (2014[1]), *Recommendation of the Council on Digital Government Strategies*, http://www.oecd.org/gov/digital-government/Recommendation-digital-government-strategies.pdf.

Figure 1.3. The OECD Digital Government Policy Framework



Source: OECD (2020[3]), "The OECD Digital Government Policy Framework: Six dimensions of a Digital Government", https://doi.org/10.1787/f64fed2a-en.

Box 1.1. The OECD Digital Government Policy Framework

Digital by design

Recognising that transforming services needs to be approached with an understanding of all the associated activities throughout the policy lifecycle rather than simply putting analogue processes online and expecting to improve outcomes. This means leveraging digital technologies to rethink and re-engineer public processes, simplify or encapsulate procedures and open new channels of communication and engagement with public stakeholders for a more efficient, sustainable and citizen-driven public sector. By adopting a digital by design approach, governments embed digital technologies into governments' efforts to modernise service delivery and adopt the strategic mechanisms to ensure their coherent design, implementation and monitoring, no matter which channel services are offered. A digital government by design establishes clear organisational, leadership and effective co-ordination and enforcement mechanisms to ensure that digital is considered not as a technical topic but as a mandatory transformative element to be embedded throughout the policy processes (OECD, 2019[4]).

Data-driven public sector

A public sector is data-driven when it generates public value through the re-use of data in planning, delivering and monitoring public policies and adopts ethical principles for trustworthy and safe re-use of data (OECD, 2019[5]). It governs and manages data as a strategic asset for the creation of public value and the agile and responsive provision of public services (OECD, 2019[6]). In a data-driven public sector, data are understood as enablers for designing policies and services. Thus, data shapes policies and services, their design and ongoing delivery, helps in understanding their impact and spotting the changes that may need to be made. Data-driven governments ensure public sector data are shared inside and outside the public sector in a trustworthy fashion and under clear protection, privacy, security rules and ethical principles for national and public interest. In order to facilitate their sharing, governments build the foundations right, thus setting clear policies that can help in joining up the government, therefore promoting public sector integration. Data-driven governments: break down policy siloes by promoting the cohesion of data-related policies, including data protection, open data and artificial intelligence; provide the leadership on data policies; and build the stewardship needed to promote co-ordination and accountability. They embed cross-sectoral data standards and replicable and scalable data infrastructures that facilitate the timely and secure access to and sharing of data.

Government as a Platform

A government as a platform approach calls for the deployment of a wide range of platforms, standards and services assisting teams to focus on user needs in public service design and delivery rather than on technology solutions. By establishing clear, common and scalable sources and tools to access guidelines, software, data and applications, others inside or outside governments can focus on innovating with service delivery by making extensive re-use of these tools, improving data accessibility and findability. The central development and availability of resources for the whole-of-government eases the access, understanding and coherence of digital and data solutions across public agencies, allowing teams to be more concentrated on understanding citizens' needs and how governments offer joined-up and effective end-to-end service experience enabled by re-usable public tools and digital services. A government acts as a platform when it provides clear and transparent sources of guidelines, tools, data and software that equip teams to deliver user-driven, coherent, integrated, consistent and cross-sectoral service delivery standards.

Open by default

A government is open by default when it unties technology and drives innovation, within the limits of available legislation and in balance with national and public interest. An open by default approach describes the extent to which an agile and proactive government uses and shared digital technologies and tools to communicate, engage, collaborate with and build bridges between all actors in order to collect insights towards a more knowledge-based public sector (OECD, 2019[7]). This comprises not only providing drivers to promote collaborations and innovation (e.g. open government data, open-source) respecting citizens' digital rights (e.g. data protection, security, confidentiality and privacy protection legislation) but also opening up and co-designing government processes (e.g. policy life cycle, public service delivery and information and communication technology/digital commissioning). The desire of governments to collaborate across organisational boundaries and involve those outside of government is critical in ensuring that service teams understand and engage with the needs of users and that government itself is able to collaborate and co-ordinate its activity to solve whole problems.

User-driven

A user-driven approach describes government actions that allow citizens and businesses to determine and communicate their own needs to help drive the design of government policies and public services (OECD, 2018[8]). Through engagement and collaborative mechanisms and policy processes, their outputs and outcomes are not just informed but shaped by the decisions, preferences and needs of citizens. Governments are user-driven when they establish new forms of partnerships with the private and third sectors or crowdsource ideas from within their administration and society at large as a means to achieve legitimacy and trust. In this process, public sector organisations make user research, usability (UX) design and human-centred design to reflect people needs and are open and collaborative so that people's voices are heard in public policy making. A government is user-driven by awarding to people a central role, thus placing their needs at the core of shaping the design and delivery cycles of processes, services and policies; and the right inclusive mechanisms for this to happen are adopted.

Proactiveness

A proactive approach represents the ability of governments and civil servants to anticipate people's needs and rapidly respond to them so they do not even notice that services are delivered. A proactive government brings the answer or solution to a citizen's need, hence limiting to the minimum the burdens of interacting with public sector organisations. Proactiveness aims to offer a seamless and convenient service delivery experience to citizens as governments are equipped to address problems from an end-to-end rather than in a fractioned approach.

Source: OECD (2020[3]), "The OECD Digital Government Policy Framework: Six dimensions of a Digital Government", https://doi.org/10.1787/f64fed2a-en; OECD (2019[4]), *Digital Government in Chile – A Strategy to Enable Digital Transformation*, https://dx.doi.org/10.1787/f77157e4-en; OECD (2019[5]), *Enhancing Access to and Sharing of Data: Reconciling Risks and Benefits for Data Re-use across Societies*, https://dx.doi.org/10.1787/276aaca8-en; OECD (2019[6]), *The Path to Becoming a Data-Driven Public Sector*, https://dx.doi.org/10.1787/059814a7-en.

The OECD's methodology for the Open and Connected Government Review of Thailand

In order to collect information and data on the Thai public sector context and on existing open government and digital government initiatives, the OECD administered two surveys that provided a solid evidence base for this review's analysis. These questionnaires were sent out to:

- the co-ordinating entities for open and digital government policies in the national government, including the Office of the Public Sector Development Commission (OPDC), the Digital

Government Development Agency (DGA), the Office of the National Digital Economy and Society Commission (ONDE), the Office of the Council of State and the Comptroller-General's Department (CGD)

- all line ministries and relevant bodies of the national government.

In addition, the OECD held interviews with the key international actors such as the United Nations Development Programme (UNDP) and met with several civil society organisations during the fact-finding mission in Bangkok.

A distinctive element of OECD reviews is the involvement of senior government officials of public administrations in OECD member and partner countries, who are called peer reviewers. The present review benefitted from the participation of peers from:

- Greece: Nancy Routzouni, former Digital and Open Government Policy Adviser, Hellenic Ministry of Digital Governance, Government of Greece.
- United Kingdom: Liz Lutgendorff, Lead Insights and Analysis Advisor, International Team, Government Digital Service, Cabinet Office, United Kingdom.

Together with the peer reviewers, the OECD Secretariat participated in a peer review mission to Bangkok, Thailand in April 2019, aimed at fact-finding by conducting extensive interviews with a wide variety of stakeholders, including public officials as well as representatives of civil society organisations and the private sector.

The Open and Connected Government Review as an integral part of OECD support for the government of Thailand in the area of public governance

This review is conducted within the framework of the OECD-Thailand Country Programme (see Box 1.2) and the overall activities of the OECD in the context of the OECD Southeast Asia Regional Programme (SEARP).[1]

Moreover, Thailand forms part of the OECD Network on Open and Innovative Government in Southeast Asia. The network promotes policy dialogue, knowledge transfer and exchange of good practices between the OECD and SEA countries in the fields of digital government, open government, public sector innovation and civic engagement in policy making.

Box 1.2. The OECD-Thailand Country Programme

Thailand is amongst the first countries worldwide and the first country in Southeast Asia to benefit from an OECD Country Programme. The Thailand Country Programme was signed on 31 May 2018 by Thailand's Minister Attached to the Office of the Prime Minister, Kobsak Pootrakool, and the OECD Secretary-General Angel Gurría during the 2018 OECD Ministerial Council Meeting in Paris, France.

The country programme has been strategically designed and targeted, providing a whole-of-government approach. Its purpose is to bring Thailand closer to the OECD by adopting OECD standards while supporting its domestic reform agenda. The contents of the programme are aligned with Thailand's 20-Year National Strategy (2018-2037), the 12th National Economic and Social Development Plan (NESDP 2017-2021) and supports Thailand's efforts to achieve more inclusive and sustainable development, including through the UN Sustainable Development Goals (SDGs).

The country programme comprises 15 projects drawing from four key strategic pillars: i) good governance and transparency; ii) business climate and competitiveness; iii) "Thailand 4.0"; and iv) inclusive growth. It comprises peer reviews, capacity-building activities, inclusion in the OECD's statistical databases, participation in eight OECD committees or their subsidiary bodies and adherence

to nine OECD legal instruments. The Thailand Country Programme will take place over a three-year period from 2018-2020.

Source: OECD (2018[9]), *The OECD and Thailand*, http://www.oecd.org/southeast-asia (accessed on 17 April 2020).

In addition to this *Open and Connected Government Review of Thailand*, the OECD Public Governance Directorate is collaborating with the Thai government on two other policy reviews.

The *Integrity Review of Thailand* (forthcoming[10]) provides strategic proposals for consideration by the government of Thailand to enhance its integrity policy frameworks, based on a comprehensive analysis of their structures, instruments and processes to promote a more effective public sector. The integrity review draws on the 2017 OECD *Recommendation of the Council on Public Integrity*, which sets out a vision for a coherent and comprehensive public integrity system (OECD, 2017[11]).

The OECD report *Thailand: Regulatory Management and Oversight Reforms* (2020[12]) provides a strategic assessment and proposals for consideration by Thailand to enhance the regulatory governance system and mainstream good regulatory practice, based on a comprehensive analysis of Thailand's structures, instruments and processes to promote a more effective regulatory ecosystem. It includes policies targeting administrative simplification, *ex ante* and *ex post* evaluation of regulations, stakeholder engagement practices and the governance of economic regulators, among others.

Together, the three reviews of the OECD Directorate for Public Governance constitute a solid framework for governance reform in Thailand.

Contextualisation of open and digital government reform efforts in Thailand

National cultural, political and socio-economic factors influence the design, implementation and evaluation of open and digital government reforms. This section contextualises the government's reform efforts by analysing a number of challenges and opportunities in these areas in Thailand.

High levels of human development can enable open and digital government reforms

The OECD experience shows that high levels of human development can enable open and digital government reforms as well-educated and skilled citizens to engage more often in their country's political life and to become more likely to request information, use open government data to tackle policy and societal challenges and hold their government accountable (OECD, 2018[13]). The OECD Trustlab's findings further suggest that high levels of education and income are associated with higher levels of trust in government (Murtin et al., 2018[14]), which is a prerequisite for stakeholder engagement.

In terms of development, "Thailand has made impressive economic and social progress over the past several decades" (OECD, 2018[15]) by moving "from a low-income to an upper-income country in less than a generation" (World Bank, 2021[16]). In 2018, the UNDP calculated Thailand's Human Development Index (HDI) value at 0.765, ranking the country at 77 out of 189 countries and territories (UNDP, 2019[17]). This value positions Thailand above the average of 0.741 for countries in East Asia and the Pacific (UNDP, 2019[17]).

While Thailand has made important socio-economic progress and aspires to become a high-income economy by 2037 enjoying "security, prosperity and sustainability", the country continues to be challenged by remaining disparities, as the number of people living in poverty is rising again. The poverty rate increased from 7.2% in 2015 to 9.8% in 2018 (World Bank, 2021[16]). Also, Thailand's Gini coefficient increased between 2015 and 2017, indicating mounting levels of inequality (World Bank, 2021[16]).

The OECD's assessment in the Multi-dimensional Review of Thailand concludes that the Thai central government "must now take further steps to transform its economy and ensure that prosperity is shared more equally across the country" (OECD, 2018[15]). To overcome past implementation challenges Thailand needs to "strengthen institutions to ensure the delivery of the critical reforms outlined in the 12th Plan (2017-2021)" (OECD, 2018[15]).

Open and digital government agendas can be important tools for policy makers to design and implement public policies that support evidence-based development and help to achieve Thailand's ambitious national goals. In that regard, participatory approaches can serve as a tool for governments to create public policies and services that reflect and respond to the needs of all societal groups. Moreover, greater transparency has the potential to positively contribute to the combat against corruption, which perpetuates inequality and poverty. Digital government can help to increase the responsiveness and agility of public institutions for service delivery, while it also promotes the creation of a competitive environment for economic activity, business and social innovation propelled by data and job creation (OECD, 2017[18]).

Open and digital government reforms increase trust in government

The challenges that some socio-economic trends represent and the related complexity for policy makers to address them can have a significant impact on citizens' trust and confidence in government. Trust in government is pivotal for policy makers to design and implement public policies, in particular in the case of more ambitious reforms (OECD, 2017[19]).

While trust levels have declined to a certain extent since 2001, Thais have comparatively high confidence in their government, with higher levels of trust than the OECD average in the 2017 Gallup World Poll (2017[20]). The findings of the survey reveal that 65% of respondents in Thailand trust the national government (Figure 1.4). The World Economic Forum's Global Competitiveness Report 2017-2018 (2017[21]) finds that in terms of public trust in politicians, Thailand ranks 102 out of 137 countries.

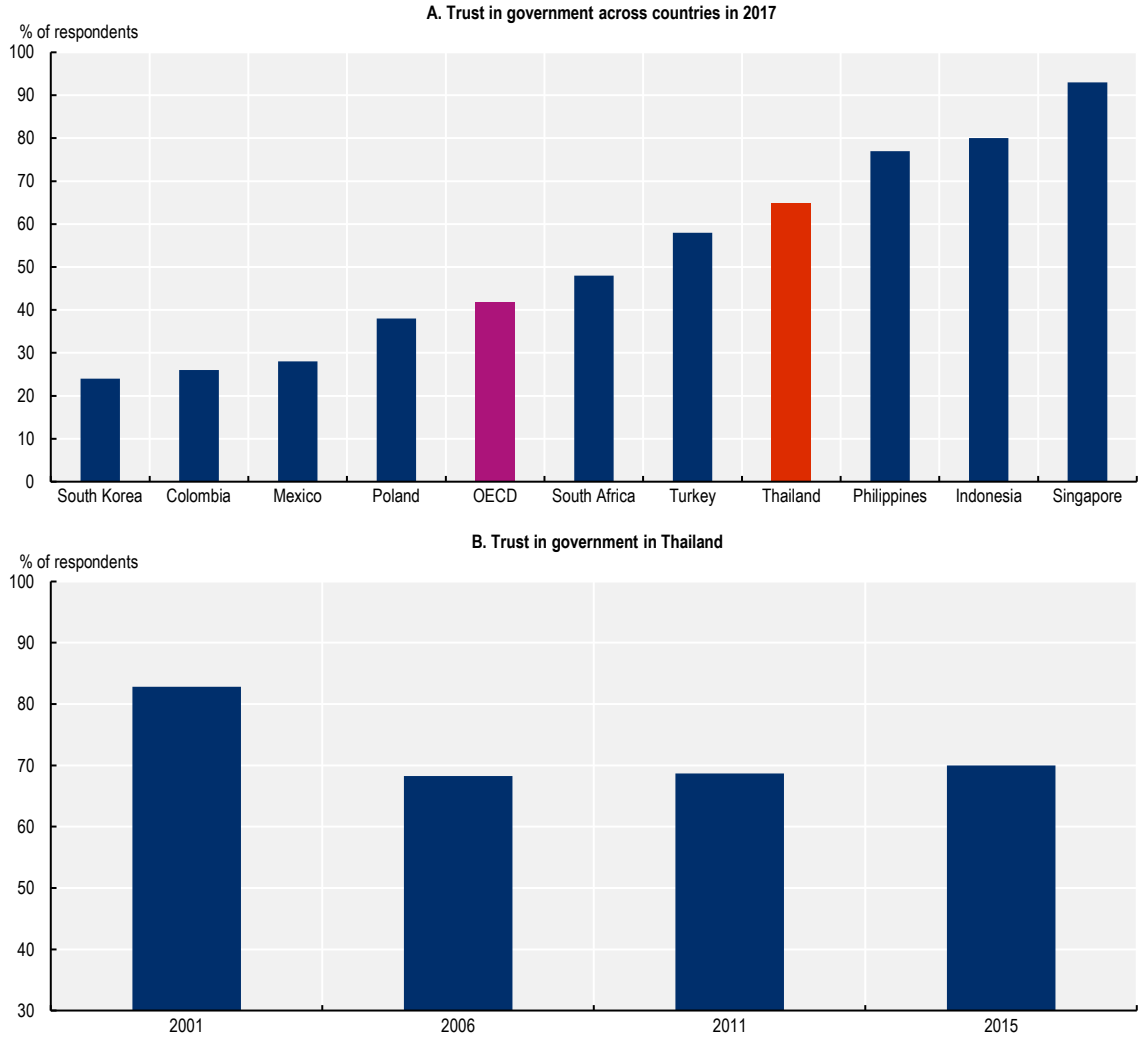
As the results of the *Government at a Glance Southeast Asia* edition (OECD/ADB, 2019[22]) reveal, for six of the SEA countries that were surveyed, the main objectives that governments expressed intent to achieve by implementing open government initiatives include improving public sector transparency as well as public sector accountability.

OECD evidence has shown that a loss of the citizen's trust in government can in part be explained by low levels of transparency and public sector integrity (OECD, 2016[23]). A value-driven approach to decision making based on transparency and participation can positively influence confidence in public institutions (OECD, 2017[19]). Assessing the transparency of government policy making, the World Economic Forum ranks Thailand 83 out of 137 countries (2017[21]). In the annual Transparency International Corruption Perception Index, the development of Thailand's score has stalled for a few years. Assigned a score of 37 (0 being highly corrupt and 100 being very clean) in 2012, Thailand currently ranks 101st worldwide with a score of 36 for perceived corruption levels (Transparency International, 2019[24]).

Despite the presence of relatively strong performance like Singapore (85) and Brunei Darussalam (60), the Association of Southeast Asian Nations (ASEAN) region contains some countries with the highest perceived corruption levels in the world. Thailand remains below the ASEAN regional average score of 42.3 and the worldwide average score of 43 (Figure 1.5). Open and digital government reforms focusing on transparency, participation, integrity and accountability can support Thailand's efforts to combat corruption, increase trust and foster sustainable development. Many elements that form part of the open and connected government reform agenda, including procurement transparency, access to information legislation, asset disclosure and open data are crucial for the fight against corruption. Open government initiatives, especially in the areas of transparency and accountability, can prevent and address corruption by clarifying and opening government processes as well as public spending procedures. With the availability of more public sector information, governments have a stronger incentive to show that policy

decisions are taken in the public interest and that funds are used in an effective manner; moreover, citizens are also able to better analyse and understand governmental decision making for higher levels of public scrutiny.

Figure 1.4. Thai citizens have confidence in their government but trust has declined over time

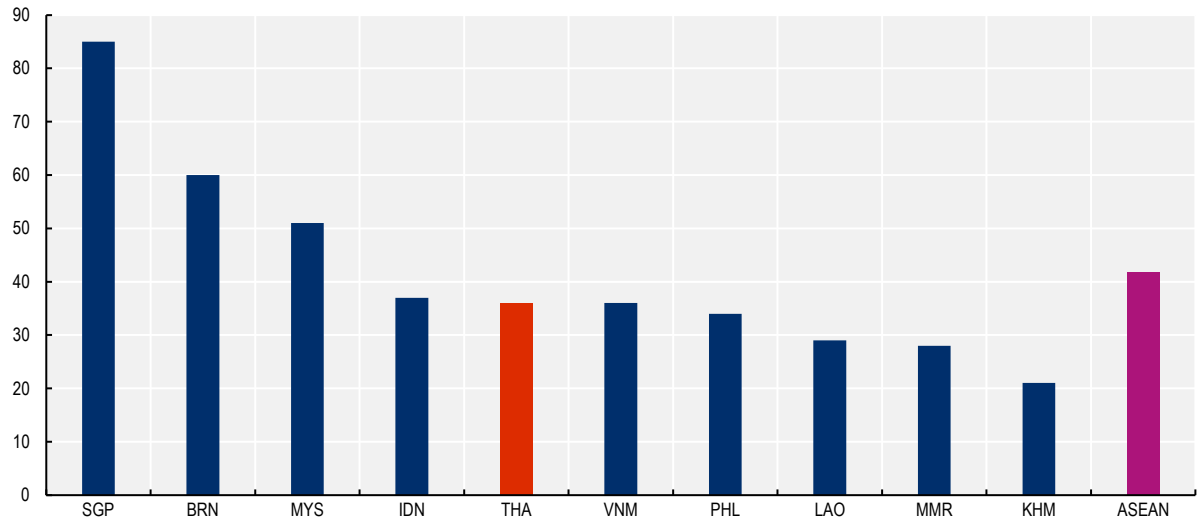


Note: Data refer to the percentage of respondents answering “Yes” to the question: "In this country, do you have confidence in the national government?".
Source: OECD (2018[15]), *Multi-dimensional Review of Thailand (Volume 1): Initial Assessment*, https://dx.doi.org/10.1787/9789264293311-en, based on Gallup (2017[20]), *Gallup World Poll*, https://news.gallup.com/poll/224375/gallup-top-world-findings-2017.aspx and Asianbarometer (2015[25]), *Data Release*, www.asianbarometer.org/data/data-release.

In line with the above, the OECD’s work on public trust (2017[19]) also stresses how improving the design, delivery and access to public services can help with reinforcing the levels of public trust in government. As explained in the following chapters, the Thai government has made progress in advancing public service delivery through digital means. However, Thailand’s evolution towards user-driven public services and engagement initiatives should pursue the creation of value for citizens rather than adopting technology platforms that replicate outdated analogue processes in the digital world.

The development of Thailand's open government agenda, which is still in its early stage, could help to overcome the above-mentioned shortcomings. Moreover, it is worth mentioning that the Thai government has not yet made any international commitments in open government. The country is not a member of the Open Government Partnership (OGP) and has not adhered to the OECD *Recommendation of the Council on Open Government* that defines a set of criteria that helps adhering countries to design and implement successful open government agendas.

Figure 1.5. Thailand's perceived level of corruption remains below the ASEAN regional average



Note: The Corruption Perception Index uses a scale from 0 (highly corrupt) to 100 (very clean).
Source: Transparency International (2019[24]), *2019 Corruption Perception Index*, https://www.transparency.org/cpi2019 (accessed 15 April 2020).

A digitally-enabled state can strategically facilitate open and digital government reforms and national and regional development

Digital technologies can allow for more direct interactions and two-way communication that provide new opportunities to rethink possibilities of collaboration between different actors of society. In this regard, reforms to foster the use of digital technology and increase connectivity can support public sector accountability, improve access to government services and facilitate decision-making processes that are more inclusive.

Yet, countries' different social, economic and technological contextual factors have an impact on the positive effects of digital and open government policies, not only at the national level but also at the regional. For instance, improving connectivity is a core element of the ASEAN Master Plan on Connectivity 2025[2] (2016[26]). The plan also foresees the development of a common digital data governance framework and a regional open data network as means to promote digital innovation in ASEAN member countries. These ambitions are proof of ASEAN countries' willingness to invest in the digital transformation wave as being done by other countries in the region and beyond. Yet, delivering on regional ambitions demand action at the national level.

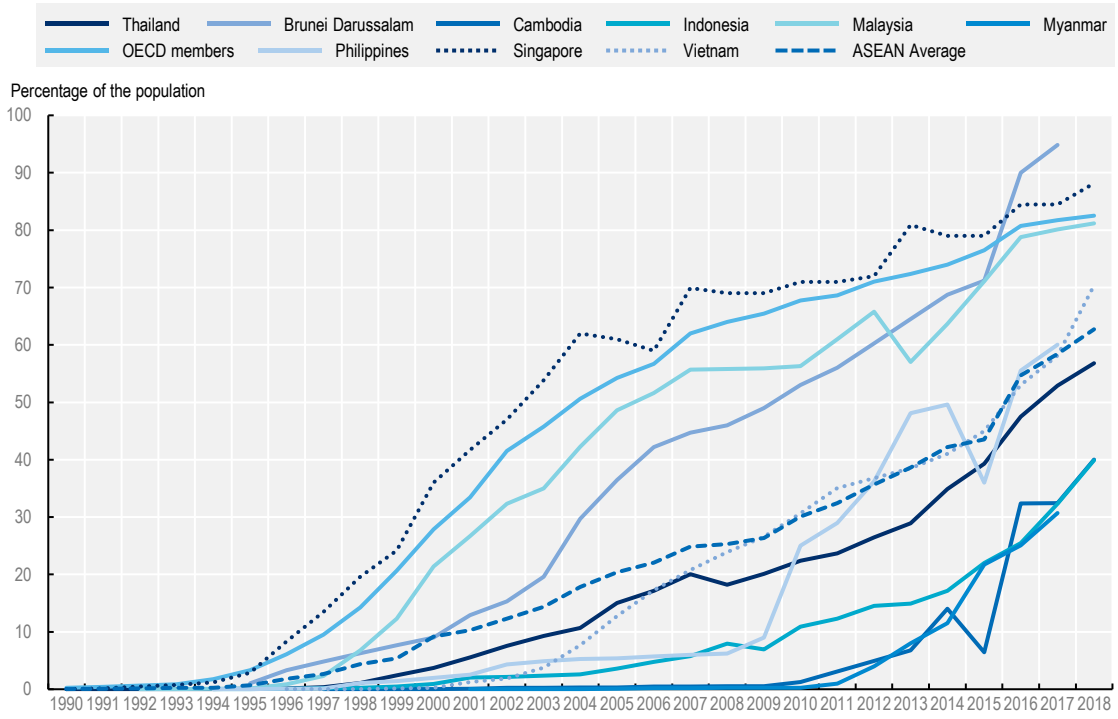
In the specific case of Thailand, increasing the access to and use of the Internet remains a policy challenge that, if not addressed, can hinder digital innovation across all sectors. Data from the 2018 Economic Outlook for Southeast Asia, China and India show that Thailand "still has room for further improvement as it is still lagging behind some of its regional neighbours, such as Singapore, Malaysia, Brunei Darussalam, Viet Nam and China" (OECD/ADB, 2019[22]). By 2018, data for Thailand on individuals using the Internet

as a percentage of total population (Figure 1.6) show that the country ranked below the average for ASEAN countries (56.82% vs. 62.74% respectively) and well below the OECD average for the same year (82.52%).

These findings are also confirmed by the results for Thailand for the 2018 edition of the UN E-government Survey (UN DESA, 2018[27]). Data for the UN E-government Survey indicates that Thailand has made good advancements in terms of delivering online services to citizens, with Thailand scoring 0.6389 (on a 0-1 scale) in the online services component of the UN E-government Index (UN DESA, 2018[27]). However, challenges remain in relation to infrastructure, with Thailand scoring 0.5338 in the Telecommunication Infrastructure component (Online Service Index, OSI) of the E-government Index.

Yet, OSI disaggregated data show a wide difference in terms of mobile and fixed broadband subscriptions per 100 habitants (92.9 vs. 10.48 respectively). This evidence shows the opportunities in terms of using mobile channels to increase the access to and use of digital services, and citizens' remote participation and engagement in the design of public policies and public services.

Figure 1.6. Individuals using the Internet, OECD and ASEAN countries, 1990-2018



Note: Internet users are individuals who have used the Internet (from any location) in the last 3 months. The Internet can be used via a computer, mobile phone, personal digital assistant, games machine, digital TV etc. Data not available for Laos.
Source: OECD with data from World Bank (n.d.[28]), *World Development Indicators: States and Markets*, http://datatopics.worldbank.org/world-development-indicators/themes/states-and-markets.html.

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Notes

[1] For more information, see http://www.oecd.org/southeast-asia/regional-programme/#d.en.433115.

[2] For more information, see http://www.oecd.org/southeast-asia/events/regional-forum/SEARPForum-Agenda-2019.pdf.

2 Governance for an open and connected government in Thailand

Chapter 2 discusses the governance elements for an open and digital government in Thailand. It identifies the efforts made by the government to date to create an institutional and policy framework for public sector openness and digitalisation, and underlines key challenges in securing a user-driven, coherent and co-ordinated approach in the design and implementation of the open and digital government initiatives *vis-à-vis* OECD good practices and principles.

Introduction

Open and digital government reforms are key enablers of good governance. Clarity in terms of responsibilities (who? which?), goals (what?) and rules (how?) creates an environment where public sector officials are able to pursue reforms and feel a sense of joint responsibility for delivering results.

The provisions of the OECD *Recommendation of the Council on Open Government* (2017[1]) and *Recommendation of the Council on Digital Government Strategies* (2014[2]) promote sound governance frameworks to advance open and digital government agendas at the national level. Both recommendations address the need for fundamental institutional, policy and regulatory arrangements, paired with the right human and financial resources and monitoring and evaluation mechanisms, as a prerequisite for a successful design and implementation of open and digital government initiatives. Moreover, both OECD instruments stress the importance of data, public communication, inter-institutional co-ordination and multi-stakeholder collaboration as tools and mechanisms that can help governments to maximise and multiply the value of the aforementioned initiatives and foster a more open and connected government.

Creating a citizen-centred policy framework for an open and connected government

High-level policy documents

The inclusion of open and digital government principles in a government's agenda provides a strong mandate to public institutions in charge of promoting them. Commitment through high-level policy documents is a *sine qua non* condition to transform these principles into the basis for the functioning of the public administration of any state. Such an effort to mainstream them across the public sector and move towards an open and connected state is reflected in several policy documents issued by the Thai government. This is an indicator that the government recognises the value and contribution of these reforms to public sector modernisation.

In recent years, Thailand has sought greater coherence in terms of how different strategies contribute to national development in the long run. For such a purpose, the central government issued the 20-Year National Strategy (2018-2037) (Government of Thailand, 2018[3]) with the aim of transforming Thailand into a developed country by 2037. The document is the country's first national long-term strategy developed pursuant to the constitution, whose Section 65 stipulates that the state should provide a national strategy. Its aims have been declared to ensure that the country achieves its vision of becoming "a developed country with security, prosperity and sustainability" (Government of Thailand, 2018[3]) in accordance with the Sufficiency Economy Philosophy that has all Thai people's happiness and well-being as its ultimate goal (NESDC, 2017[4]). The 20-Year National Strategy (2018-2037) also emphasises the importance of stakeholder participation in all sectors for balanced, efficient and sustainable development.

To attain its long-term development vision, the 20-Year National Strategy (2018-2037) sets out five broad objectives (OECD, 2019[5]):

1. Economic prosperity – to create a strong and competitive economy driven by innovation, technology and creativity.
2. Social well-being – to create an inclusive society that progresses without leaving anyone behind by realising the full potential of all members of society.
3. Human resource development and empowerment – to transform Thai citizens into "competent human beings in the 21st century" and "Thais 4.0 in the first world".
4. Environmental protection – to become a liveable, low-carbon society with an economic system capable of adjusting to climate change.

5. Public sector governance – to improve public sector administration and reduce corruption.

The 20-Year National Strategy (2018-2037) represents an effort to bring together different policy instruments under a single government strategy. For this purpose, it breaks down long-term policy goals into actionable and measurable objectives defined in five-year mid-term plans known as the National Economic and Social Development Plans (NESDPs). The NESDPs aim at increasing the government's accountability and securing policy continuity across different government administrations.

Some of the most important goals of Thailand's 12th NESDP for the period 2017-2021 are to transform the Thai economy into "one that is based on services and digital technologies", and – accordingly – to modernise and decentralise the public sector, capitalise on the opportunities of public-private collaboration, increase the provision of digital services and reinforce public sector workforce digital capability (NESDC, 2017[6]).

The 20-Year National Strategy (2018-2037) itself consists of six different core strategies (Figure 2.1) focusing on the following topics:

1. National security.
2. National competitiveness.
3. Developing and empowering human capital.
4. Broadening opportunities to improve social equality and equity.
5. Steering towards a green economy and society.
6. Reforming and improving the public administration.

Figure 2.1. 20-Year National Strategy (2018-2037)



Source: ONDE (2019[7]), "Open and connected governance in Thailand", Presentation by Dr Piyanuch Wuttisorn, Secretary General, Office of the National Digital Economy and Society Commission (ONDE), in the context of the OECD Open and Connected Review of Thailand.

Among the above (Figure 2.1), Strategy 6 on "Public sector rebalancing and development" envisions public sector reform based on good governance for more transparency and integrity in government. The strategy highlights that "government agencies should be open to intersectoral operations and participation from all relevant parties to ensure quick and transparent responses to public needs. All sectors in the society should value honesty, integrity and frugality while resisting all kinds of malfeasance" (OECD, 2019[5]). Strategy 6 reiterates the necessity of adjustment and development of the public administration, through complete digitalisation, to facilitate services for the public and private sector. Understanding this connection is critical

to ensure that the NESDPs and any specific secondary open and digital government instruments (e.g. strategies, plans, initiatives, etc.) contribute to broader national development goals.

To reach its development goals, the Thai government is promoting a new economic model called Thailand 4.0 (Royal Thai Embassy, n.d.[8]), which describes a model-driven by public sector innovation and co-operation with the public and private sectors. The model draws upon an open and connected, smart and high performing, citizen-centric governance and aims at moving towards a knowledge-based Thai economy (Jones and Pimdee, 2017[9]) (Figure 2.2). To comply with Thailand 4.0, principles of good governance have been put forward focused on the goal "Better governance, happier citizens".

The new Government 4.0 model is created in parallel with the new economic model, Thailand 4.0. Government 4.0 is built on three core principles (OPDC, 2020[10]):

- **Citizen-centric government** related to openness and transparency. Third parties can access or share public information as well as check public work processes and are open to private sector participation. On the other hand, public agencies have to be connected with and integrated among central, regional and local governments.
- **Open and connected government** related to a proactive functioning of the public sector that works for citizens. Big government data and digital technology are used to personalise public services or tailor services. The one-stop service concept is applied through connected service departments, in addition to continuous services and multi-channels such as websites, social media and mobile applications.
- **Smart and high-performance government** related to planning, risk management and innovative thinking and applied knowledge, used to respond to the rapidly changing world in order to create value, flexibility and capability to cope with situations in time. Government agencies are high-performance modern organisations with public officials committed to their work.

Figure 2.2. Thailand 4.0



	From Gov 3.0	To Gov 4.0
Citizen-Centric and Service-Oriented Government	• Standardized service delivery	• Personalized service delivery
	• Office hours only	• On-call services
	• Functional services	• Integrated service
	• On-demand services (re-active)	• Pro-active services
	• Personal visit	• Multi/ Cross channel

	From Gov 3.0	To Gov 4.0
Open and Connected Government	• Open upon request/ Limited disclosure	• Open by default/ Active disclosure/ Usability
	• Agency-based data collection	• Data sharing across public agencies
	• Public participation in information giving	• Public consultant and engagement • Open & participatory decision making • Public scrutiny

	From Gov 3.0	To Gov 4.0
Smart and High Performance Government	• Responsive /Daily work	• Operational excellence (real time capacity & quick response)
	• Expertise/ Specialist	• Trans-disciplinary/ generalist
	• Limited policy deployment	• Actionable policy solutions
	• Experience based policy and decision making	• Data driven policy and decision making
	• Cross agency co-operation	• Strategic collaboration, alignment and integration
	• Manual/ Semi electronics workflow process	• End to end digitization of workflow process
	• Office based operation	• Virtualization
	• Isolated/ Independent services	• Shared service

Source: Office of the Public Sector Development Commission (OPDC).

Developing an integrated policy framework for open government in Thailand

In order to bring about a change in the governance culture of the public administration and achieve the shift to Government 4.0 as foreseen by the new economic model discussed in the previous section, the relevant national principles and values of openness need to be identified, discussed and reinforced at every possible opportunity (OECD, 2016[11]). In this regard, the inclusion and prioritisation of open government principles in government agendas and the mainstreamed application of those principles across the public sector are needed to promote reforms.

Thailand's line ministries are already implementing a number of open government initiatives and have included references to open government principles in some sectoral policy documents but in a limited and siloed fashion. A co-ordinated approach that would allow for an increase in the number of initiatives, greater coherence and synergies between the individual efforts could thus positively contribute to the open government agenda and to how the latter can contribute to the achievement of Thailand's wider policy goals.

In practice, most existing open government initiatives are implemented on an ad hoc basis and without an overarching policy framework. As Thailand is not a member of the Open Government Partnership (OGP), the government does not elaborate national action plans that select key open government initiatives. In most cases, ministries implement open government initiatives related to stakeholder participation by fulfilling legal requirements and without following a co-ordinated approach with other institutions.

Every government pursues different objectives in the implementation of its open government agenda. Some governments focus on open government to improve the transparency, accountability, responsiveness and efficiency of the public sector, to increase trust, fight corruption, improve citizen participation or generate growth (OECD, 2016[11]). Open government can therefore mean different things to different stakeholders and policy makers. Delineating an official concept of open government and defining what it shall entail is a pivotal first step for a holistic and coherent approach to open government reforms.

A single definition that is fully recognised and acknowledged by the whole public sector can facilitate the prioritisation and implementation of open government initiatives. Evidence from OECD open government reviews shows that a definition provides the foundation for the effective and efficient implementation of a country's open government agenda when it is widely accepted and co-created with actors at all levels of government (OECD, 2016[11]). Moreover, the official definition should be co-created with external stakeholders in order to be recognised and supported not only by the whole of government but also by citizens, civil society, academia and the private sector. Box 2.1 sets forth an overview of the different benefits a good definition of open government provides.

Because of these benefits, already 49% of countries across the OECD use a single definition of open government. Of that proportion, 29% have created their own context-tailored definition while 20% of countries have a definition that was adopted from an external source such as the OECD or OGP (OECD, 2016[11]). However, none of the countries in Southeast Asia has a country-tailored definition (OECD/ADB, 2019[12]). Thailand has included open government principles in the Government 4.0 model but has not developed its own definition of open government.

In order to clearly define open government and move towards a more structured approach, the OPDC, as the appointed co-ordinator of policies and initiatives that ensure citizen participation in government, could take the lead in creating a single definition that is accepted by the whole public sector and external stakeholders alike. To make sure the new definition reflects a joint understanding of open government across all public institutions and beyond, the government could launch a consultative process for its development that would ensure greater ownership and better diffusion of the definition.

Box 2.1. Benefits of a good definition of open government

The OECD report *Open Government: The Global Context and the Way Forward* (2016[11]) sets out why having a good definition is crucial:

- It informs the public about the essential elements of open government, the extent and limitations of the term.
- It facilitates a common understanding and usage of open government, aligning all stakeholders and policy makers with the same goals.
- It facilitates a robust analysis of the impact of open government strategies and initiatives across different institutions and levels of government.
- It supports international comparisons of open government strategies and initiatives.

Source: OECD (2016[11]), *Open Government: The Global Context and the Way Forward*, https://doi.org/10.1787/9789264268104-en.

A single widely shared and recognised definition of open government could be particularly useful for the OPDC's efforts to reach out to other public institutions and encourage them to design and implement open government initiatives that are aligned with and support it. This could also help to apply an open by design approach in the development and implementation of those initiatives contributing to the Thai open and connected agenda.

Also, evidence collected during the OECD's peer review mission to Bangkok in April 2019 showed big disparities in terms of how the Thai government is moving towards an open and connected government that advance both the open and digital government agendas in that regard. Interviews consolidated the understanding that the open and connected government agenda in Thailand is highly driven by digitalisation (see next section "Driving national development and innovation through digital government"), while open government considerations for national development or transparency and participation for example remain secondary and often subordinate to aspects of the digital government agenda as discussed in the following section.

In light of the above, over the medium term, the OPDC could consider upgrading the next National Economic and Social Development Plan (NESDP), which will enter into force in 2022, by including specific and well-defined open government objectives that go beyond stakeholder participation. Moreover, Thailand may want to explore the development of a National Open Government Plan that codifies goals related to integrity, accountability, digitalisation, transparency and stakeholder participation, which can be achieved over a medium-term timeframe. This instrument could either expand the scope of the proposed Action Plan for Participatory Governance Promotion, B.E. 2561-2564, which was developed by the OPDC's Sub-Committee on Participation or take a similar form.

In the long term, the government could develop a strategic document that outlines shared objectives that go beyond the different initiatives and an overall vision of what Thailand intends to achieve with open government reforms. Such a document could help Thailand to take full advantage of the benefits of open government. For a more strategic approach in the long run, the OECD suggests that countries develop an independent National Open Government Strategy (NOGS). According to OECD research, such a strategy can provide the missing link between high-level commitments (e.g. the open government principles included in the National Strategy on Public Sector Rebalancing and Development) and isolated practices to ensure policy coherence across public institutions. The OECD *Recommendation of the Council on Open Government* defines an open government strategy as: "A document that defines the open government agenda of the central government and/or of any of its subnational levels, as well as that of a single public

institution or thematic area, and that includes key open government initiatives, together with short, medium and long-term goals and indicators" (OECD, 2017[1]).

An NOGS has the potential to consolidate initiatives across government, provide strategic direction, facilitate a focus on long-term and cross-cutting goals, and ultimately change the way government and society relate. Instead of driving individual initiatives, an NOGS can enable a country to set joint priorities and lead to a whole-of-government approach in which public sector organisations across government and at all levels advance towards a common vision and shared strategic objectives. Ideally, the potential strategy would also be linked to the existing Digital Economy and Society Development Plans (see section on "Driving national development and innovation through digital government").

In particular, in light of the challenges the Thai government identified in the OECD Survey on Open and Connected Government in Thailand (2019[5]), an NOGS could have a positive impact on the consolidation of open government initiatives and the development of an open government agenda. The survey found that a "lack of or insufficient co-ordination among main public stakeholders" and "insufficient communication/awareness of the benefits of open government reforms among public officials" are viewed to be among the five most significant obstacles for open government in Thailand (OECD, 2019[5]). Besides promoting open government and raising awareness to generate new initiatives, an NOGS should aim at rendering existing policies and initiatives more coherent and better co-ordinated by providing a common narrative and methodological setting. Box 2.2 sets out some of the benefits an NOGS could deliver.

Box 2.2. Benefits of a National Open Government Strategy (NOGS)

1. An NOGS ensures whole-of-government policy coherence

An NOGS can provide the umbrella for all open government initiatives implemented in a country and ensure that they follow similar methodological guidelines and contribute to a shared vision of openness. As such, besides putting new initiatives in place, a whole-of-government NOGS makes those policies and initiatives that are already being implemented by public institutions more coherent and stronger by working together under the same coherent (and powerful) narrative and methodological setting.

2. An NOGS ensures efficiency and intra-institutional knowledge sharing

An NOGS is a tool to save resources and reduce costs. Government institutions spend time and public resources trying to develop solutions that might already be in place or build on lessons learned by other administrations that have already successfully implemented certain reforms. An NOGS helps to intensify efforts to create collaborative solutions to shared problems. A concerted NOGS can help public institutions to elaborate a common understanding and shared standards relating to open government, thereby harmonising practices. As such, an NOGS can enable the government to achieve outcomes – at a lower cost – that would not be possible to achieve if institutions work in isolation.

3. An NOGS ensures collaboration and co-ordination

The main purpose of whole-of-government frameworks is to enable different government entities to pursue joint objectives in a co-ordinated manner. The Australian government defines whole of government as "public service agencies working across portfolio boundaries to achieve a shared goal and an integrated government response to particular issues (…)". An NOGS that includes clearly assigned responsibilities to the identified goals and objectives can be a valuable co-ordination and collaboration instrument.

4. An NOGS acts as a tool for mainstreaming

The design and implementation of an NOGS give visibility to the concept of open government and puts open government reforms on all public institutions' agendas. Hence, an NOGS mainstreams an open

culture by spreading and implementing the values and principles of open government across the entire administrations and all policy areas. In addition, it communicates to civil servants, citizens and stakeholders that the government embraces a new understanding of the way the state is run. As such, an NOGS creates a powerful, compelling and coherent narrative that inspires policy makers to champion open government reforms in their own areas of work. Lastly, an NOGS can help civil servants and citizens to better understand the added value and concrete output of open government by applying it to the policy area of their interest and expertise.

5. An NOGS is a formidable governance tool

An NOGS allows for effective management of a country's open government agenda. The development of an NOGS is usually led by a high-level official (e.g. minister, secretary-general, senior appointee, inter-ministerial delegate, etc.) and accompanied by concrete efforts to create institutional and governance mechanisms (e.g. inter-ministerial committees, monitor and evaluate mechanisms, training modules, human resources performance evaluations, budget allocations, etc.). The high-level commitment of a politician can also be a tool to foster the impact of the strategy (as per the resources, mobilisation power and symbolism). In addition, the adoption of an NOGS empowers a person or office that will present the open government agenda to the wider public, monitor the follow-up and be the point of contact for the press and the wider public.

6. An NOGS functions as a tool for public accountability

An NOGS commits the government to certain key reforms and creates pressure for institutions to deliver. At the same time, a strategy that commits the government to concrete, ambitious but feasible outcomes can be a message to the citizens emphasising that this is a serious endeavour. The identification of milestones and indicators allows stakeholders to monitor the government's implementation efforts and analyse their compliance with the strategy's objective. Hence, the strategy and commitments made in it are a tool for stakeholders to hold the government to account and avoid "open washing". In addition, civil society can channel its demands through the strategy.

7. An NOGS can give long-term sustainability to the open government agenda

The lack of a national coherent strategy can undermine the long-term sustainability of open government reforms and protects them from government instability. If designed for the long term, an NOGS can give the open government a non-political value and anchor the implementation of open government principles in internal action plans that can continue without high-level political support.

Source: OECD (2020[13]), "Taking an integrated approach to the promotion of transparency, integrity, accountability and stakeholders' participation: Towards an open government strategy", OECD Publishing, Paris.

As the OPDC was assigned the responsibility for approaching OGP membership and given its role as the co-ordinating entity for stakeholder participation initiatives and policies, the OPDC could lead the process of developing a possible NOGS. For the design and implementation of the strategy, Thailand could consider involving the legislature, judiciary and independent public institutions as well as subnational levels of government, in addition to different public institutions at the national level.

Even though the OECD proposes that Thailand could consider developing a strategy in the future, an NOGS only represents one option to move towards a whole-of-government framework for open government. The government of Thailand could also look into developing a national law or a directive on open government, as has been implemented in Canada and the United States (Box 2.3).

Box 2.3. Open Government Directives in Canada and the United States

Canada

The government of Canada's Directive on Open Government took effect on 9 October 2014. It applies to federal organisations.

The objective of the directive is to promote information management practices that enable the proactive and ongoing release of government information in order to support transparency, accountability, citizen engagement and socio-economic benefits. As part of the directive, the deputy heads of each department have designated an Information Management Senior Official, who is responsible for the following:

- Maximising the release of open data (structured data) and open information (unstructured documents and multi-media assets).
- Ensuring that information is released in accessible and re-usable formats.
- Developing and publishing a departmental Open Government Implementation Plan (OGIP).
- Maximising the removal of access restrictions on departmental information resources of enduring value prior to transfer to Library and Archives Canada.
- Ensuring that the open government requirements of the directive are integrated into any new plans for procuring, developing or modernising departmental information applications, systems or solutions.

The institution responsible for monitoring and reporting on compliance with all aspects of the directive is the Treasury Board of Canada Secretariat.

As of February 2019, the Treasury Board of Canada Secretariat is working to develop a digital policy which will consolidate a number of existing policies on information management, information technology (IT), security and so on. A number of directives will fall under this policy, including the Directive on Open Government, which is currently being reviewed for potential revision.

United States

On 8 December 2009, as per the request of the president, the Office of Management and Budget (OMB) issued an Open Government Directive, which was informed by recommendations from the Federal Chief Technology Officer, who solicited public comments through the White House Open Government Initiative.

The directive is intended to direct executive departments and agencies to take specific actions to implement the principles of transparency, public participation and collaboration. In particular, the directive requires executive departments and agencies to take the following steps:

- Publish government information on line: Each agency shall create a dedicated open government website that will allow them to publish information on line in open formats and interact with the public by receiving input to which they will respond on a regular basis. The respective annual *Freedom of Information Act* report shall be published on the website of each agency.
- Improve the quality of government information: Agencies shall follow OMB guidance on information quality and shall designate a high-level senior official who will be accountable for putting in place adequate systems and processes.
- Create and institutionalise a culture of open government: Each agency shall develop and publish an Open Government Plan that will describe how it will implement the three principles

of transparency, public participation and collaboration into its activities. The plans shall be updated every two years.

- Create an enabling policy framework for open government: Policies shall evolve to adapt to the use of emerging technologies which will open up new forms of communication between the government and the people.

Source: Government of Canada (2014[14]), *Directive on Open Government*, https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=28108 (accessed 14 April 2020); US Government (2009[15]), *Open Government Directive*, https://obamawhitehouse.archives.gov/open/documents/open-government-directive (accessed 14 April 2020).

Driving national development and innovation through digital government

Thailand has put in place an ambitious group of policy instruments on digitalisation, including the digital economy, digital government and data to support Thailand's 12th National Economic and Social Development Plan (2017-2021) and the evolution towards Thailand 4.0. This structured scenario is the opposite of that observed in relation to the availability of open government policy instruments in the country as discussed in the previous section.

First, the 20-Year Digital Economy and Society Development Plan (2017-2036) or Digital Thailand (Figure 2.2) stands as the overarching digital agenda for Thailand. The development of the plan was the responsibility of the Ministry of Digital Economy and Society (MDES) and the Ministry of Science and Technology (MOST) (see next section).

Digital Thailand stands as the underlying long-term vision for digitalisation of the 20-Year National Strategy (2018-2037), with a focus on six core strategies: infrastructure, digital economy, inclusion and equality, digital government, skills and the future of work, and trust (including investments, security, and legal and regulatory frameworks) (MICT, 2017[16]). The responsibility for implementation of the specific goals and strategies lies with different government agencies (e.g. Digital Government Development Agency, DGA), under the co-ordination of the MDES.

Second, and in response to the related goals on digital government of the aforementioned policy instruments, the former E-Government Agency (EGA, which in 2018 became the DGA) developed the Digital Government Development Plan, which so far has been structured in three different stages: 2016-2018, 2017-2020 and 2020-2022.

Altogether, the Digital Government Development Plan aims at: i) developing a more integrated government (including government as one entity, shared services and one-point single access); ii) transforming the public sector (including capacities, processes and leadership); iii) working smartly (including IT, data and analytical infrastructure; and iv) developing citizen-centric services (including user experience, citizens' needs and security) (EGA, 2016[17]).

The Digital Government Development Plan is ambitious for, in addition to the four main goals described above, it also covers five sub-strategies (quality of life, competitiveness, national security and safety, government efficiency, and government services) and a group of eight international indicators (e.g. the United Nations [UN] E-Government Development Index, the Open Data Index, and the UN E-Participation Index), all in which the Thai government aims at improving its ranking as a result of the Digital Government Development Plan (Figure 2.4) (Thiratitayangkul, 2019[18]).

Figure 2.3. Digital Thailand – Six core strategies



Source: MICT (2017[16]), *Digital Thailand: Thailand Digital Economy and Society Development Plan*, https://file.onde.go.th/assets/portals/1/ebookcategory/23_Digital_Thailand_pocket_book_EN/docs/Digital_Thailand_pocket_book_EN.pdf (accessed on 27 March 2020).

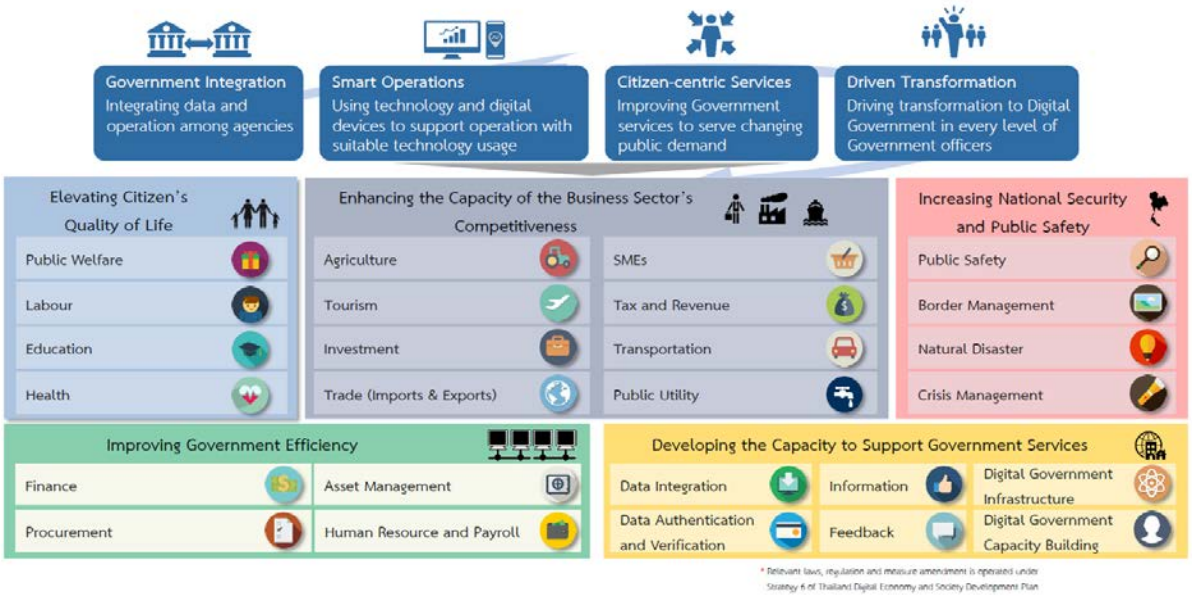
The results of the survey administered across public sector organisations in Thailand for the purpose of this review confirmed a high level of awareness in terms of the existent policy instruments meant to support the digitalisation of public sectors and further development of digital government in the country. This positive context should not be underestimated or taken for granted as high levels of support or awareness in the public sector in relation to digital government strategies is an essential condition to secure successful advancement towards higher maturity in terms of digital transformation.

Results are, however, diverse in relation to public sector organisations' view on the sustainability of digital government policies across the political cycle in Thailand, with roughly 60% of public organisations stating that is not clear if the digital government policy will be sustained after administration changes (OECD, 2019[5]).[1] Public sector organisations expressed the need for further building the case for digital government at the political level as a means to get regular policy funding, while making clear the value of adjusting policy goals in line with the fast-paced global context for digitalisation.

This evidence supports the case for delivering results on digital government in line with the iterative mid-term goals of the Digital Government Development Plans and the long-term policy ambitions set in the 20-Year National Strategy (2018-2036), and of taking advantage of the supportive legal and regulatory framework for digital government, including the Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019), also known as the Digital Government Act.

Challenges remain however in terms of engaging actors beyond the usual ones within the public sector (DGA, MDES and OPDC) and also among those outside the public sector in the development of the digital government plans. Evidence from the OECD peer review mission to Bangkok pointed to the fact that the development of these instruments was not done in collaboration with a broader range of internal and external actors in the country.

Figure 2.4. Thailand's Digital Government Development Plan 2017-2020: Key goals and strategies



Source: Thiratitayangkul, C. (2019[18]), "Open and digital government", Presentation in the context of the OECD mission to Bangkok, Thailand, 3 April 2019.

Key public sector organisations such as the Office of the Prime Minister (PMO), the DGA, the MDES, the Office of the National Digital Economy and Society Commission (ONDE), and other actors such as the Bank of Thailand, the Stock Exchange of Thailand and the Securities and Exchange Commission (SEC), participated in the elaboration of the Digital Government Development Plans (OECD, 2019[5]).

Yet, public officials expressed the narrow engagement approach in the development of the Digital Government Development Plans, which left aside the views of other public bodies such as the National Innovation Agency and those from specific line ministries and other public sector organisations in charge of delivering sectoral policies (e.g. education). This lack of involvement is a risk in relation to the creation of a shared sense of policy ownership, particularly among those agencies not directly involved or responsible for the digitalisation and digital government agendas.

Also, the OECD did not find substantial evidence indicating the involvement of external actors such as citizens, civil society organisations (CSOs), businesses and academia in the development process of the Digital Government Development Plans. This undermined the possibility of collecting the vision and insights of these actors (who are the main beneficiaries of the Digital Government Development Plans) and of increasing the plans' focus on people and society – praised and sought by the Thai government as part of its open and connected government vision.

The analysis backing this review provides the basis to state that there is an opportunity for Thailand to use the formal engagement of external groups to tap into the value of external and objective expertise as means to inform its policy decisions. In the United Kingdom (UK), the government was accompanied by external expert advice that challenged the leadership of the Government Digital Service (GDS) on its journey towards the digital transformation of the public sector.

For instance, engagement can also help to identify those formalities and public services that should be prioritised for delivery and access through digital and mobile channels and that require streamlining processes on the government side. This evidence also supports the case for further embedding open government approaches in the conception of digitalisation efforts in Thailand. The Thai government should

understand that a digital government is one that is also open to public scrutiny and welcomes external knowledge.

There are some examples at the institutional level that provide good cases of broader engagement efforts that can inspire public sector organisations and the Thai government itself. For instance, the Thai SEC reported consulting both government and non-governmental organisations as part of its efforts to develop and align its institutional strategies with the Digital Government Development Plans and Digital Thailand's goals. These comprised arranging meetings with the MDES, the DGA, the Digital Economy Promotion Agency (DEPA) and the Electronic Transactions Development Agency (ETDA) but also with external actors such as King Mongkut's Institute of Technology Ladkrabang (KMITL), CMKL University, the ASEAN Chief Information Officer (CIO) Association (ACIOA), the Thailand Information Security Association (TISA) and the Bangkok Chapter of the Information Systems Audit and Control Association (ISACA). The outcomes of these discussions informed the SEC's Digital Transformation Strategic Plan, which has been approved by the SEC Board in August 2019.

Monitoring the implementation of the open and connected agenda

A concrete idea of how to implement these goals requires developing actionable objectives and the mechanisms to successfully monitor and evaluate countries' open and digital government reforms. For more comprehensive support to the implementation of the Digital Government Development Plans medium-term (two-three years) roadmap, Thailand could adopt internal and external feedback mechanisms to collect insights from all actors involved or benefitted from the open and connected government agendas. This would envisage regular evaluation of progress by a set of indicators that measure policy development in line with the deployment of mechanisms for this purpose within the public sector.

Currently, measurements are highly driven by international indicators which, on the one hand, can help in driving a national digital government agenda that follows international best practices and international benchmarks, e.g. from OECD countries such as the OURdata Index. However, on the other hand, this leaves aside the need for iterative monitoring controls that can help the Thai government take action or redefine the course of action, even before the end date of each Digital Government Development Plan. It would be convenient to implement measures to monitor developments (such as key performance indicators) in a regular fashion, beyond the three-year milestones set by the Digital Government Development Plans and those for the long term as defined in Digital Thailand.

For instance, in Colombia, the central government put in place different policy measurement instruments such as SINERGIA (a system to monitor the performance of national and territorial entities with respect to their objectives), the Single Management Progress Report Form (FURAG) and the Online Government Index (GEL) as means to monitor digital government developments at the institutional level and "monitor and evaluate the performance of national entities in regard to their progress towards policy-related targets and goals" (OECD, 2017[19]).

There are however some efforts in this regard. The DGA has a specific unit in charge of evaluating and monitoring digital government projects. The Digital Government Development Commission was set up in 2019 under the Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019) to monitor and evaluate the Digital Government Development Plan and related digital government projects. Following the new Digital Government Development Plan (2020-2022), each government agency must now review and submit an agency digitalisation plan for the commission to follow up and help the DGA in consolidating the progress of digital government. On this basis, the DGA can further recommend the adjustment, development and allocation of an integrated annual budget for digital government transformation in the following year.

In Thailand, the vision for the digital government (both medium- and long-term) is clear but ensuring delivery of results will require enabling the flexibility needed to adjust policy measures when needed in the course of the implementation of the vision, reconsider government interventions if needed to target organisational efforts and drive them in a coherent fashion. Monitoring mechanisms can help identify front-runners in terms of digitalisation within the public sector and in ensuring that institutional actions deliver targeted and tangible results for citizens.

With regard to the monitoring of open government initiatives, the OECD *Recommendation of the Council on Open Government* proposes that countries "develop and implement monitoring, evaluation and learning mechanisms for open government strategies and initiatives" for instance through "fostering a culture of monitoring, evaluation and learning among public officials by increasing their capacity to regularly conduct exercises for these purposes in collaboration with relevant stakeholders" (OECD, 2017[1]). Collecting data on different open government initiatives can help to better understand the challenges related to the implementation of the open government agenda and eventually contributes to better policies. In order to oversee the results, open government policies are delivering while they are implemented, Thailand may consider monitoring the implementation of its open government agenda in a strategic way.

The OPDC could be charged with creating an overarching monitoring and evaluation (M&E) framework for Thailand's open government agenda. Moreover, due to its role as the co-ordinating entity for open government, it could promote the development of other institutions' frameworks that are linked to the national framework. Following the guidance provided by the OECD *Recommendation of the Council on Open Government*, such an M&E framework with different indicators (e.g. process, outputs, outcomes or impact indicators) could be developed in collaboration with a broad array of stakeholders. Box 2.4 provides an overview of the OECD's work on the development of open government indicators.

Box 2.4. The OECD's work on the development of open government indicators

Following the instructions of the OECD *Recommendation of the Council on Open Government* (2017[1]), the OECD Working Party on Open Government is currently leading the development of indicators that will allow for the first-ever holistic and robust cross-country measurement of open government reforms and their impacts.

The work on open government indicators will produce three concrete outputs:

- **The Open Government Dashboards**: These dashboards will contain open government indicators related to the initial stages of open government, namely inputs and processes. Hence, they will focus on existing preconditions for open government in a country, such as laws and governance structures. At the same time, the dashboards will examine the processes that promote a culture of openness, such as a country's communication about open government reforms. The Open Government Dashboards will be available in the third quarter of 2021.
- **The OECD Openness Index**: This set of indicators sheds light on the outputs of open government, i.e. answer the question of how "open" a government effectively is. This contains aspects such as the extent to which a government makes information and data publicly available. The Openness Index will be published over the course of 2022.
- **The Results Indicators**: Lastly, results indicators will measure the results of open government reforms, i.e. both outcomes and impacts. What are the broader effects on the relationship between government and citizens? For example, has citizens' trust in government increased? This work will be released in 2023/24.

Related data collection efforts are twofold. On the one hand, they rely on existing information and data in the form of previous OECD survey results, administrative data collected by countries, survey data from national statistical institutes and other reliable sources. On the other, the work draws on the results of the 2020 OECD Survey on Open Government, a comprehensive questionnaire addressing all provisions of the OECD *Recommendation of the Council on Open Government*.

Source: OECD (2020[20]), "Framework for Assessing the Openness of Governments", OECD Working Paper, OECD Publishing, Paris; OECD (2017[1]), *Recommendation of the Council on Open Government*, http://www.oecd.org/gov/Recommendation-Open-Government-Approved-Council-141217.pdf.

Fostering clearer institutional governance for the effective implementation of the open and digital government agendas

Due to the highly transversal nature of open and digital government reforms and the need to involve a large array of different stakeholders, strong institutional arrangements with clear mandates and co-ordination mechanisms are needed (OECD, 2019[21]).

OECD experience has shown that the right institutional arrangements, understood as the existence and interaction of different stakeholders in the government that have a mandate and/or a role to play in the open or digital government agenda, can facilitate the effective and efficient horizontal and vertical co-ordination of open and digital government reforms and can ensure that implementation efforts "are aligned with and contribute to all relevant socio-economic objectives" (OECD, 2017[1]). However, the impact of open and digital government initiatives does not only rely on the establishment of an adequate institutional framework.

In order to become the drivers of broader policy agendas, institutions also need high-level political leadership. Only through political support can public sector efforts and good governance practices be effectively promoted and sustained. In Thailand, as in many OECD countries, such political commitment also needs to align with the long-term policy ambitions of the government, including those stated in the 20-Year National Strategy (2018-2036). Moreover, leadership is also needed from stakeholders such as CSOs, parliamentarians, political parties and younger generations of decision makers as a means to move towards co-responsibility in the delivery of policy results.

High-level leadership is essential to ensure that the open and connected government agenda permeates across the public sector. The restructuration of the Thai government following the elections in March 2019 provided an opportunity in this regard. The OPDC was appointed co-ordinator for good governance, which placed this body as one of the leading public sector organisations in the area of digital government and eventually in the area of open government, and as a key player overseeing the further implementation and coherence of the open and connected agenda with other policies.

The Thai government and the OPDC provide implementation support focused on how open and digital government drives the country's progress in creating Government 4.0 to line ministries and government agencies. Based on the Strategy on Public Sector Rebalancing and Development, the OPDC is encouraging public institutions to steer public digital innovation and involve the public and stakeholders in developing a more open and participatory government administration.

During the peer review mission to Bangkok, the OECD Secretariat and peer reviewers witnessed that multiple public sector agencies have a strategic role regarding digitalisation and digital government, and are responsible for addressing the underlying challenges in that regard. The responsibilities and roles in relation to open government are not as clear cut in light of the lack of an overarching policy framework, as

discussed in the previous section. Key leading public sector organisations in relation to digital government are presented in Box 2.5.

Box 2.5. Key players for open and digital government, digitalisation and innovation in Thailand

Office of the Public Sector Development Commission (OPDC)

The OPDC is one of the departments under the PMO to whom it directly reports. It is the main body for public administration development and is responsible for supporting the Public Sector Development Commission (PDO) through the provision of recommendations. Pursuant to Order No. 6/2559 (2016) of the PDO, the OPDC oversees the design and implementation of the government's policy on participatory government. This gives the OPDC the mandate and lead role for promoting open government across the government and co-ordinating with other ministries, secretariats and other public and non-public entities.

Sub-Committee on Participatory Public Administration

Formed by the OPDC, the committee consists of civil society representatives who advise the government on the open government agenda and propose open government initiatives related to stakeholder participation. The committee is tasked with assessing the status of Thailand's open government reforms and bringing the country closer to OGP membership.

Ministry of Digital Economy and Society (MDES)

The MDES is responsible for the planning and implementation of the Digital Economy and Society Development Plan. It promotes and supports e-transactions and e-commerce in Thailand, covering policy, law, standards, security and technology innovation. The MDES has as part of its structure:

- Four government agencies and supervisory bodies: the Office of the Permanent Secretary (OPS), the Office of National Digital Economy and Society Commission (ONDE), the National Statistical Office (NSO) and the Thai Meteorological Department.
- Two public sector organisations: the Electronic Transactions Development Agency (ETDA) and the Digital Economy Promotion Agency (DEPA).
- Three public companies in telecommunications and ports.

Among the above, the ONDE, established in September 2016, on the one hand manages and enhances the co-operation and integration of Thailand's Digital Economy and Society Development Plan. The MDES is the secretary of the commission with three other committees. The DEPA, on the other, was established in January 2017 to promote and support the digital and innovation industry and adoption of digital technology.

Additionally, the ETDA acts as secretary for the Electronic Transactions Commission which works on developing the strategy and implementation of tools and platforms for business digital transactions and e-commerce. It sets standards for: i) authentication; ii) electronic transactions; iii) eID; iv) e-payments in the banking sector; v) exchange of data in the financial sector; and vi) eSignature.

Digital Government Development Agency (DGA)

The DGA used to be under the MDES but, since 2018, moved to the PMO to give more leverage to facilitate digital government policies. In the same year, the DGA changed from the EGA. It answers to the prime minister and provides technical advice and support to public sector organisations in the design and implementation of their digital government initiatives. This includes the development of digital and data tools and infrastructure as explained in the chapters that will follow.

National Innovation Agency (NIA)

The NIA was created in 2003 and comes under the Ministry of Science of Technology. It is in charge of promoting digital business and social innovation in Thailand in collaboration with actors from the private, public and social sectors in the country. For this purpose, the NIA follows an "innovation diplomacy" approach which aims at increasing collaboration among government innovation offices worldwide, potential investors and the start-up ecosystem in Thailand (NIA, n.d.[22]). The agency has established a set of guidelines for the development of innovative projects with the goal of transforming supply chains into value chains and encouraging national competitiveness.

National Science and Technology Development Agency (NSTDA)

The NSTDA is a government agency established to promote the development of science and technology in Thailand under the Ministry of Higher Education, Science, Research and Innovation (MHESI). One of the NSTDA sub-agencies is the National Electronics and Computer Technology Centre (NECTEC). The NECTEC provides technical support for government agencies and private sectors in the development of big data and open data platforms in supporting digital government initiatives.

Source: Based on information collected during the OECD mission to Bangkok (April, 2019).

Thailand's institutional arrangements for the implementation an open and digital government

Box 2.5 shows that Thailand's institutional governance for open and digital government is complex and challenging, in particular in relation to the co-ordination and implementation of the digital government agenda. Responsibilities are clear but the real challenges are at the implementation level, as expressed by public officials during the OECD's peer review mission to Bangkok. Public officials also expressed concerns in terms of the highly bureaucratic government structure and the lack of collaboration among public sector organisations.

It is clear that public sector organisations are aware of the importance of developing and implementing digital government initiatives to create public services and policies that focus on the citizen but there is a lack of clarity in terms of how institutional plans (if available) are aligned – or will be aligned – with central development plans in the short term. This also responds to the lack of clarity among public sector organisations, as expressed during the OECD peer review mission to Bangkok, in relation to what the Digital Economy and Society Development Plan and the Digital Government Development Plans mean in terms of implementation, which might be evidence of the lack of horizontal collaboration at a more operational level. Also, notably, some public sector organisations with strong sectoral responsibilities but not providing services to citizens did not self-identify as having a role in the digital government agenda.

There are some cases of ministries or other public sector organisations which have taken immediate action to align their institutional agendas to the central open and connected government agenda but this approach is not widespread. For instance, the Securities and Exchange Commission (SEC) developed a memorandum of understanding (MOU) with eight public sector organisations for further co-ordination and implementation. Other examples include those of the Ministries of Justice, Health and Commerce and their digital action plans.

The abovementioned cases also illustrate how commitment and leadership at the institutional level are fundamental to apply digital and open connected approaches to sectoral and state policies. For instance, the SEC's Secretary-General appointed a Head of the Office of Digital Transformation in June 2019 and

two sub-committees supporting the SEC's digital strategy: the Capital Market Subcommittee and the Digital Strategy Steering Subcommittee (OECD, 2019[5]).

Yet, these cases are the exception and not the rule, as evidence from the OECD mission to Bangkok and from the survey pointed to limited digital leadership at the institutional level, beyond those agencies directly involved in the digitalisation and digital government agendas. For instance, the Office of the Civil Service Commission (OCSC) (in charge of public employment policies) has a CIO position which was established more than a decade ago. The responsibilities of the OCSC CIO also cover that of a Chief Technology Officer (CTO) and data stewardship (e.g. Chief Data Officer or CDO). But it is not clear however if such a role has evolved in line with global digital transformation.

As a result of the previous scenario, peers expressed that ensuring the availability of digital and open government champions in public sector organisations is fundamental to deliver citizen-centred services and policies and increase the chance of success of wider government digital transformation objectives. As discussed in Chapter 4, the OCSC is taking action in this regard as part of its efforts to modernise and upskill the public sector workforce in Thailand.

The DGA could help other departments and agencies to find and build digital leadership for their own organisations, ensuring that they have officials with the relevant digital experience in place and the necessary leadership skills to help in advancing digital government at the institutional level. In the UK, these leaders formed a network to help further digital transformation in government. Thailand could learn from this approach as, currently, internal networks for public officials to gain knowledge or learn from best practices do not exist.

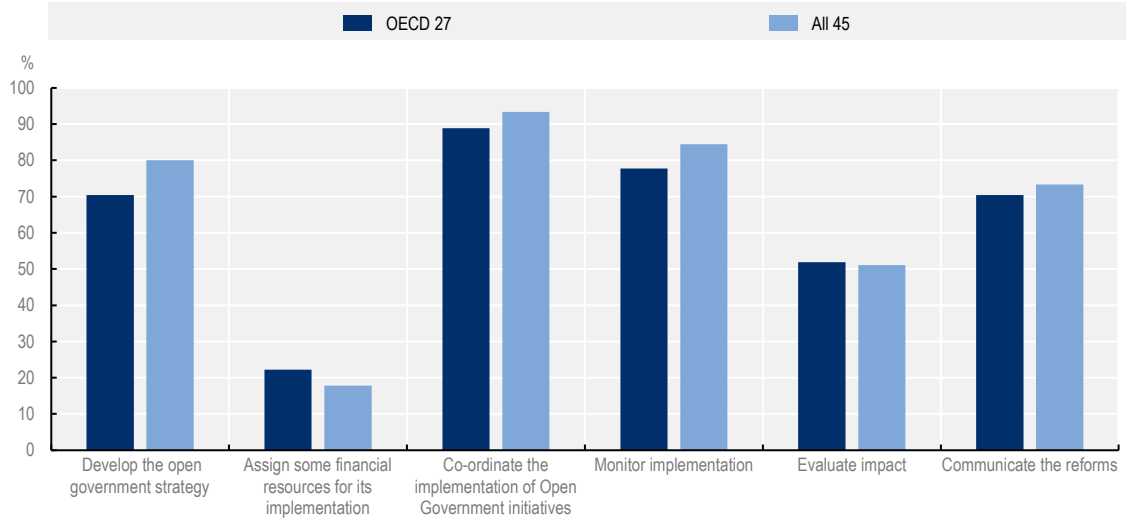
In the case of open government, an effective institutional framework is still under development. While the OPDC is responsible for promoting the establishment of policies and mechanisms that ensure citizen participation in government, it does not yet have a clearly defined mandate for open government reforms beyond citizen participation, which is rooted in a firm legal basis. In order to further streamline and clarify responsibilities for all initiatives related to open government, Thailand could consider providing the OPDC with the mandate to act as the principal institution in charge of open government while stressing its key role as a driver of the open and connected government agenda.

OECD evidence shows that the existence of a single institution in charge of open government facilitates the mainstreaming of open government reforms, contributes to establishing more coherence in their implementation and supports the evaluation of impact (Figure 2.5). Such an office can moreover support public officials in addressing challenges and ensuring accountability regarding the result and impact of the open government agenda. It can also provide advice, capacity-building support, guidance, leadership and new impetus for ministries' open government initiatives.

The majority of OECD countries (77%) have established a dedicated office that leads the open government agenda and is responsible for institutional co-ordination (Figure 2.6) (OECD, 2016[11]). As in the case of Thailand, the reforms on open government are driven by an institution that is either located in the office of the head of government like the OPDC, in the cabinet office/chancellery/council of ministers or an equivalent institution (Figure 2.6) in 62% of OECD countries (OECD, 2016[11]).

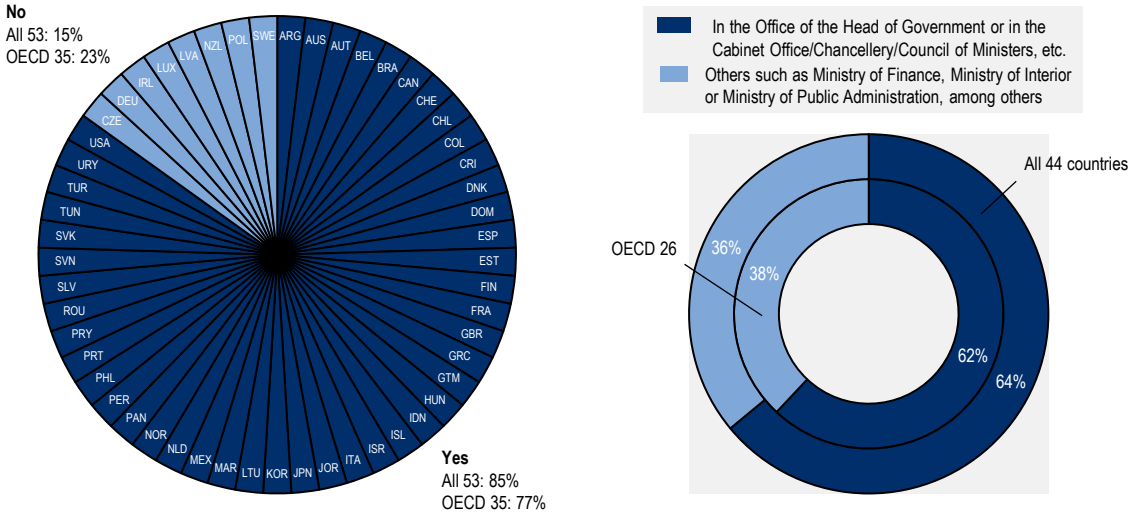
Locating the office in charge of open government in the centre of government (CoG) as in the case of the OPDC provides several benefits. The CoG can facilitate the link between open and connected government strategies and initiatives and broader national objectives, including development objectives such as the achievement of the UN Sustainable Development Goals (SDGs). The location of the DGA within the PMO also provides an ideal scenario to further capitalise on policy synergies using the institutional arrangement at hand.

Figure 2.5. Responsibilities of offices in charge of open government



Note: All 45 countries refer to the number of countries that answered this question in the 2015-2016 OECD Survey on Open Government Co-ordination (2015[23]).
Source: OECD (2016[11]), *Open Government: The Global Context and the Way Forward*, http://dx.doi.org/10.1787/9789264268104-en.

Figure 2.6. Existence and location of a dedicated office responsible for the horizontal co-ordination of open government initiatives in OECD countries



Note: All 53 countries refer to the number of participating countries in the 2015-16 OECD Survey on Open Government Co-ordination (2015[23]). Only those countries (44 of the 53) that have an office were asked about its location.
Source: OECD (2016[11]), *Open Government: The Global Context and the Way Forward*, http://dx.doi.org/10.1787/9789264268104-en.

Through their institutional anchorage in the CoG, the OPDC and DGA can:

- Connect open and digital government initiatives across government (including different sectors, levels of government and non-state actors) in order to foster a shared vision.
- Promote good practices in the area of open and digital government – as well as institutional champions – across government and among citizens.

- Strengthen the strategic use of performance data across the public sector, in order to support M&E of the impacts of open and digital government strategies and initiatives (adapted from OECD (2016[11])).

Establishing clearer co-ordination and collaboration mechanisms

Results from the survey administered for the purpose of this review confirmed that most public sector organisations acknowledge the leadership of the MDES, OPDC and DGA with regard to the digital and open government agenda (OECD, 2019[5]). However, collaboration issues among leading bodies and among public sector organisations in general were one of the most prevalent concerns during the OECD's peer review mission to Thailand. This is also reflected in the response to the OECD questionnaire.

It seems that co-ordination happens at a high level but is not systematic (beyond specific policy sectors) which would enable to ensure coherent implementation and the delivery of joint policy goals in the long term. For instance, the MDES has a solid management mechanism to steer Thailand's Digital Economy and Society Development Plan structured in three different work chapters: i) commissioning; ii) policy funding; iii) co-ordination.

- The first (commissioning) sets the policy direction and key initiatives to advance Thailand's digital economy and society development and involves the Digital Development for Economy and Society Commission, the Digital Infrastructure Committee and the Digital Economy and Society Promotion and Development Committee, with the prime minister as the chairperson.
- The second (policy funding) is directed by the Management Committee of the Digital Economy and Society Development Fund, which is chaired by the deputy prime minister and administers the funds in those areas.
- The third (co-ordination) focuses on co-ordinating the different public bodies involved in the implementation of the Digital Economy and Society Development Plan, led by the Digital Committee for National Economy and Society Development.

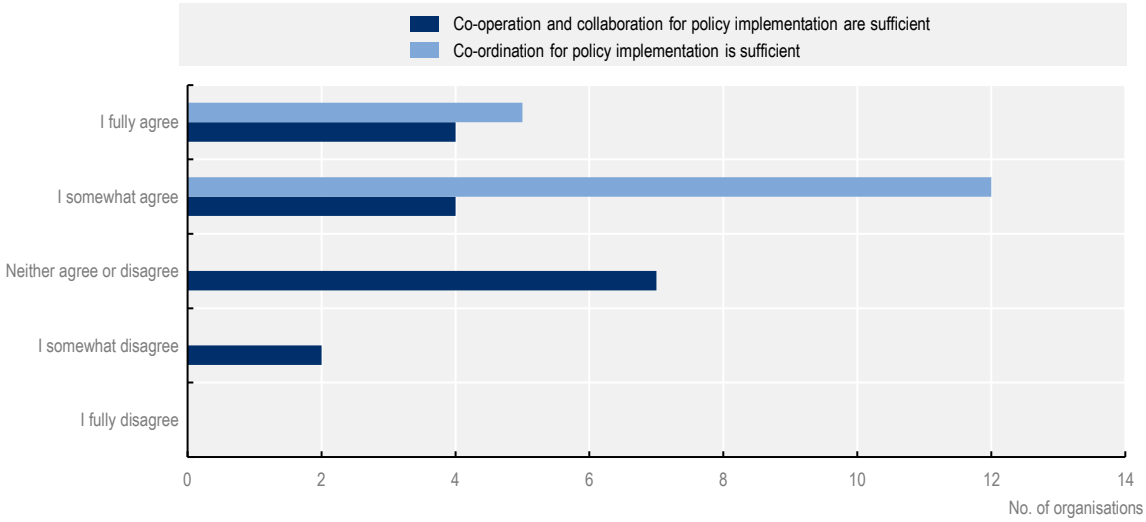
Another example is that of the National Science Technology and Innovation Policy Committee (NSTIC) chaired by the prime minister and under the supervision of the National Science Technology and Innovation Policy Office (NSTIP). The NSTIP manages the Science, Technology and Innovation Strategic Plan and issues policy recommendations to enhance Thailand's competitiveness and socio-economic sustainability. It works together with the Office of the National Economic and Social Development Council (NESDC) (the national economic planning agency of Thailand) under the PMO. The NESDC advocates for open science and adheres to the OECD Principles and Guidelines for Access to Research Data from Public Funding.

However, in Thailand, policy challenges are not as significant in terms of the co-ordination of specific policy agendas, as confirmed by results from the survey the OECD conducted for this review (2019[5]). In general terms, survey data indicates that public sector organisations agree on the relatively good co-ordination achieved so far to advance the digital government policy in Thailand. It was instead difficult to assess how these leading organisations collaborated and worked together.

Public officials also underlined overlaps in terms of implementation and the lack of integration across different digital plans at the institutional level (OECD, 2019[5]). For instance, the ONDE's remit included digital transformation at a national level as well as an intelligence and policy design unit. But it was unclear how it interacted with other government agencies or how it influenced them. Indeed, evidence from the survey was dispersed in relation to public officials' perception of the current state co-operation and collaboration among public sector organisations at a more hands-on level (Figure 2.7). During the OECD mission to Bangkok, peers clearly expressed that, alongside the civil service reform that is currently underway, the space for cross-government collaborative networks could be promoted to improve knowledge sharing across government.

Figure 2.7. Co-ordination vs. collaboration in the context of the digital government policy in Thailand

Perception from selected public sector organisations



Note: Public sector organisations responding to the following questions: "Question 21. Respond to the following statement: I believe that the current level of inter-institutional co-ordination for policy implementation is sufficient to advance the digital government policy in Thailand"; and "Question 22. Respond to the following statement: I believe that the current level of inter-institutional co-operation and collaboration for policy implementation is sufficient to advance the digital government policy in Thailand".
Source: Questionnaire for public sector organisations - Digital government: Questions 21 and 22 in OECD (2019[5]), "OECD Survey on Open and Connected Government in Thailand", OECD, Paris.

In light of the abovementioned evidence, challenges are mostly related to collaborative leadership at all levels (the sense of the lack of collaboration among leading bodies and public sector organisations) and the need to translate clustered plans and discussions into coherent action.

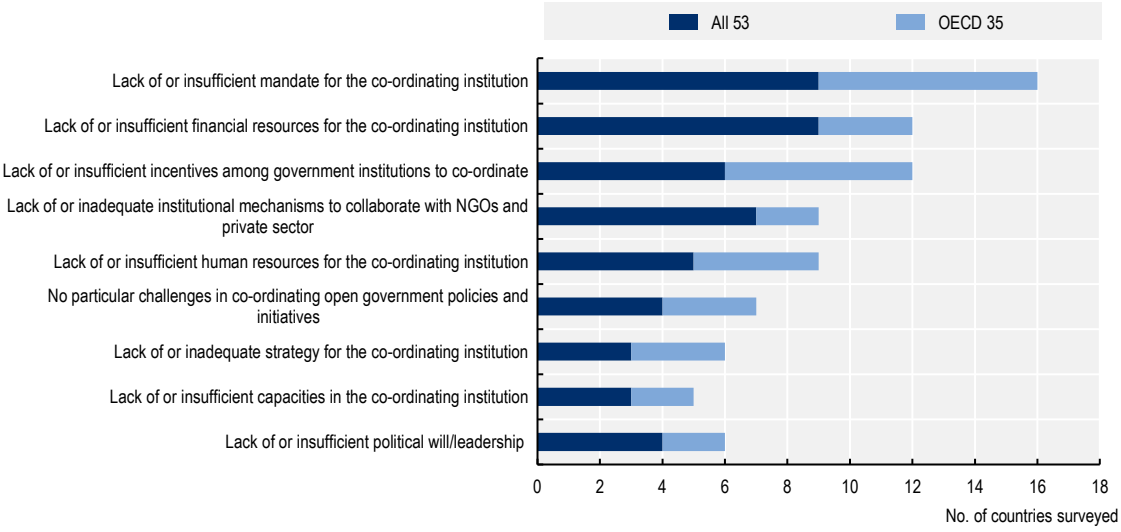
Some opportunities could be further capitalised on to help in achieving greater collaboration at the operational level. For instance, the OPDC is transiting its role from that of a rule-maker to a mentor and government laboratory for digital policies. This lies in the OPDC's willingness to overcome the siloed thinking and work culture across the public sector in order to connect actors, knowledge and initiatives. For instance, the OPDC launched the Government Innovation Lab in 2018 with the purpose of enabling a space for digital innovation and promote an open culture in the public sector. However, the potential role of the DGA as a hub for further inter-institutional collaboration in the context of digital government should also not be ignored in this regard.

In terms of open government, the OECD survey for this review finds that the three main challenges the OPDC experiences with the co-ordination of open government policies and initiatives relate to a "lack of or insufficient incentives to collaborate (career, financial, etc.) among other government institutions", a "lack of or inadequate strategic direction" and a "lack of or insufficient political will/leadership" (OECD, 2019[5]). Similar challenges (Figure 2.8) were also mentioned by open government co-ordinating bodies in countries in 2016 (OECD, 2016[11]).

The horizontal co-ordination of open government initiatives can take place at different levels and through various mechanisms such as ad hoc institutional structures and sector, project or ministerial level arrangements. Almost half of the countries (49%) surveyed for the 2016 OECD publication *Open Government – The Global Context and the Way Forward* (OECD, 2016[11]) reported the creation of an ad hoc mechanism such as an Open Government Committee, which consists of different stakeholders. In

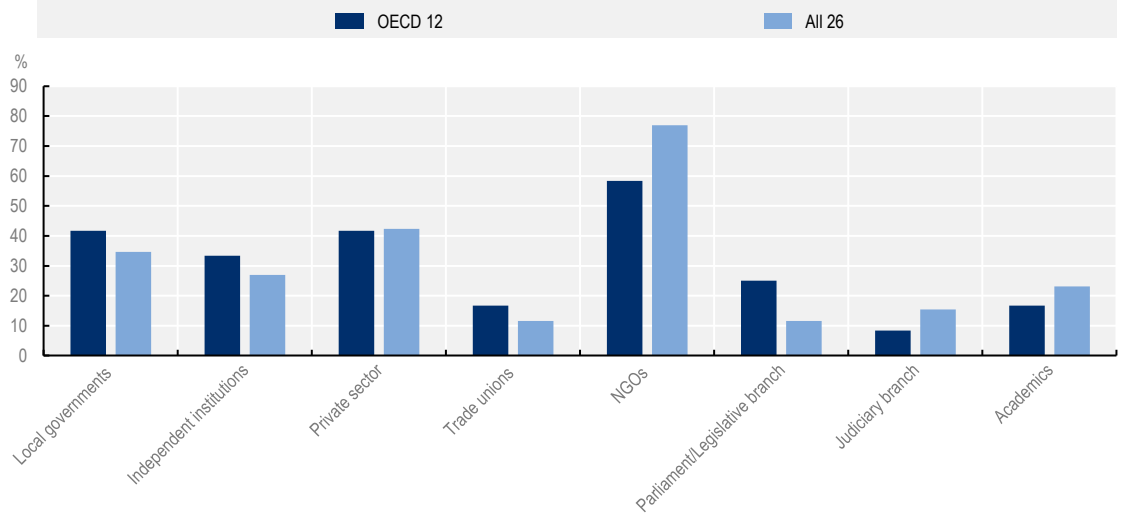
the majority of cases (77% of respondent countries and 58% in OECD countries), the committee includes NGOs, which have traditionally played a central role in advancing the open government agenda. In addition, in many countries, local governments, private sector representatives, independent institutions, academics, trade unions and the judiciary are members of such a mixed co-ordination mechanism (Figure 2.9).

Figure 2.8. Challenges in co-ordinating open government initiatives



Note: NGO: non-governmental organisation. This graph illustrates the main challenges in co-ordinating open government initiatives of countries. All 53 countries refer to the number of participating countries in the 2015-16 OECD Survey on Open Government Co-ordination (2015[23]).
Source: OECD (2016[11]), *Open Government: The Global Context and the Way Forward*, http://dx.doi.org/10.1787/9789264268104-en.

Figure 2.9. Members of the horizontal co-ordination mechanism on open government



Note: Only countries responding that co-ordination happens through the creation of an ad hoc mechanism such as an Open Government Committee were asked this question.
Source: OECD (2016[11]), *Open Government: The Global Context and the Way Forward*, https://dx.doi.org/10.1787/9789264268104-en.

OECD experience shows that the formal creation of a mechanism such as an institutionalised Open Government Steering Committee (OGSC) can support co-ordination of open government initiatives across government, can generate additional visibility and can help foster continuity of initiatives and strategies. A steering committee could thus help the government to meet the challenges of a "lack of or insufficient co-ordination among main public stakeholders" and "insufficient communication/awareness of the benefits of open government reforms among public officials", which were reported to be among the five most significant obstacles for open government in Thailand (OECD, 2019[5]). Moreover, a permanent OGSC could function as a space to co-design the suggested National Open Government Strategy (NOGS), as discussed in the section "Developing an integrated policy framework for open government in Thailand".

The OGSC could then also follow up on the high-level commitments included in a national strategy and help translate the vision into concrete actions both in general as well as for thematic areas (e.g. access to public information, stakeholder participation or the SDGs, etc.). Box 2.6 provides some examples of co-ordination mechanisms for open government in Canada, Mexico and the UK.

In order to also ensure co-ordination of open government across levels of government, the OGSC could envisage organising regular open state meetings. The OECD defines an open state as the moment "when all public institutions of the executive, parliament and the judiciary, independent public institutions and all levels of government join forces and collaborate with civil society, academia, the media and the private sector to design and implement a reform agenda to make public governance more transparent, accountable and participatory" (OECD, 2017[1]). Following the concept of an open state, some countries have progressively started to develop independent "open judiciary", "open parliament" and "open subnational government" strategies and related initiatives (OECD, 2019[24]). Regular open state meetings could thus represent a space for continued exchange of good practices and experiences (e.g. on access to information, citizen participation, etc.) between branches of power, independent public institutions and subnational levels of government.

Box 2.6. Co-ordinating mechanisms for open government in Canada, Mexico and the UK

Canada

In Canada, open government initiatives are co-ordinated through the interdepartmental OGSC. The OGSC is an Assistant Deputy Minister (ADM)-level body, chaired by a Treasury Board of Canada Secretariat (TBS), the Chief Information Officer (CIO) of Canada. The OGSC meets on an as-needed basis but as frequently as quarterly. The TBS is in the process of developing a Director-General body (one level below Assistant Deputy Minister) to support the OGSC as Directors-General would be the key executive leads for issues within the government of Canada. In addition to these two bodies, the President of the Treasury Board (the minister for the TBS) is advised by the Advisory Panel on Open Government.

This panel consists of experts from civil society, business, academia, including independent commentators from Canada and abroad. The panel advises the president on how to best harness open government opportunities for innovation and knowledge sharing and explore how federal organisations can do an even better job of consulting Canadians by making effective use of new tools like social media. The panel meets roughly once per year. Federal, provincial/territorial and municipal governments also collaborate on open data issues through the Open Data Canada Subcommittee. This working group focuses on principles, standards, licensing, and outreach and engagement issues relevant to open data in Canada and thus contributes to an enabling environment for open government in Canada.

Mexico

Mexico created a co-ordinating committee that is integrated into the Presidency of the Republic Committee, the Ministry of Foreign Affairs, the Ministry of Public Administration and the departments and agencies of the federal government that are responsible for the Open Government Partnership (OGP) Action Plan commitments. This committee is chaired by the Office of the President of the Republic and supported by the Ministry of Foreign Affairs to support the international agenda of the OGP and the Secretariat of Public Service to promote the national agenda.

On the one hand, it has an inward-looking component in which it facilitates regular meetings and constant communication among the officials involved. It also organises meetings in which officials responsible for the open government commitments as well as working meetings are held to ensure the proper implementation of the commitments. On the other, the committee has a cross-cutting component to participate in the Technical Tripartite Secretariat (*Secretariado Técnico Tripartita*), which is composed of the Co-ordinator of Civil Society, the Federal Institute for Access to Information and Data Protection (*Instituto Nacional de Transparencia, Accesso a la Información y Datos Personales*, or INAI) and the Government of the Republic and it is the highest decision-making organ of the alliance in Mexico.

United Kingdom

In the UK, the Open Government Network (the Network) is a self-formed group of civil society organisations that are interested in working with the government on OGP commitments. The Network is co-ordinated by the British think-tank Involve and meets regularly with the cabinet office to co-ordinate the development and implementation of the UK's OGP National Action Plan (NAP). At a more senior level, the Network has selected a group of individuals to act as a steering committee for the Network, meeting the minister for the cabinet office and senior cabinet office officials to raise issues and agree and drive forward priorities. In addition, the government has a number of mechanisms in place to co-ordinate input to the development of the next NAP. They have established a group of theme leads (from both civil society and government) who are working together to agree on a strategy for their theme and the desired commitments. The UK also has a network of departmental leads that are responsible for co-ordinating their respective department's input to the NAP and on the ongoing implementation process. At the level of specific commitments, there are various mechanisms in place to bring together relevant stakeholders to agree and implement commitments around a common theme as departments determine their own arrangements in consultation with interested civil society organisations.

Source: OECD (2016[11]), *Open Government: The Global Context and the Way Forward*, https://dx.doi.org/10.1787/9789264268104-en; Country responses to OECD (2015[23]), "OECD Survey on Open Government Co-ordination and Citizen Participation in the Policy Cycle", OECD, Paris.

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Note

[1] Questionnaire for public sector organisations: Digital government: Question 3.

3 Leveraging legislations and regulations as drivers of the open and connected agenda in Thailand

Chapter 3 examines Thailand's legal and regulatory frameworks and their implications for enabling the foundations of an open and connected agenda in the country. In addition, it looks into how the government of Thailand can enable greater stakeholder participation in the legislative and policy-making process and build the resilience of its regulatory environment to tackle real-world changes and developments.

Introduction

Rules and regulations set the "rules of the game" to promote the proper functioning of the economy and society while ensuring protections for stakeholders and the government (OECD, 2018[1]). It provides legal certainty to all actors and enables governments to effectively implement policies (OECD, 2018[1]).

In order to ensure public support, engagement and adherence, it is crucial that all laws and regulations are created together with relevant stakeholders, formulated in an understandable way and publicly communicated. The provisions of the OECD *Recommendation of the Council on Open Government* (2017[2]), *Recommendation of the Council on Digital Government Strategies* (2014[3]) and *Recommendation of the Council on Regulatory Policy and Governance* (2012[4]) provide guidance in this regard, stressing the need for governments to secure the existence of an adequate legal and regulatory framework. This includes the definition of oversight mechanisms and the implementation of regulatory assessments to secure up-to-date regulatory environments that help governments to cope with fast-paced digital transformation (Box 3.1).

Box 3.1. Relevant provisions in OECD recommendations

Provision 12 of the OECD *Recommendation of the Council on Digital Government Strategies*

"Ensure that general and sector-specific legal and regulatory frameworks allow digital opportunities to be seized, by: i) reviewing them as appropriate; ii) including assessment of the implications of new legislations on governments' digital needs as part of the regulatory impact assessment process".

Provision 2 of the OECD *Recommendation of the Council on Open Government*

"Ensure the existence and implementation of the necessary open government legal and regulatory framework, including through the provision of supporting documents such as guidelines and manuals, while establishing adequate oversight mechanisms to ensure compliance".

Provision 2 of the OECD *Recommendation of the Council on Regulatory Policy and Governance*

"Adhere to principles of open government, including transparency and participation in the regulatory process to ensure that regulation serves the public interest and is informed by the legitimate needs of those interested in and affected by regulation. This includes providing meaningful opportunities (including online) for the public to contribute to the process of preparing draft regulatory proposals and to the quality of the supporting analysis. Governments should ensure that regulations are comprehensible and clear and that parties can easily understand their rights and obligations".

Source: OECD (2014[3]), *Recommendation of the Council on Digital Government Strategies*, http://www.oecd.org/gov/digital-government/Recommendation-digital-government-strategies.pdf; OECD (2017[2]), *Recommendation of the Council on Open Government*, https://www.oecd.org/gov/Recommendation-Open-Government-Approved-Council-141217.pdf (accessed 15 April 2020); OECD (2012[4]), *Recommendation of the Council on Regulatory Policy and Governance*, https://www.oecd.org/governance/regulatory-policy/2012-recommendation.htm (accessed 4 June 2020).

Best practices from OECD countries can help in providing guidance to develop, update or streamline legal and regulatory frameworks in order to set the foundations for common good governance practice at the national, regional and global scale.

OECD experience shows that the underlying legal basis for an open and connected government can take various forms. It can include, amongst others: open and digital government provisions in national constitutions, regulation on stakeholder participation, anti-corruption, public sector integrity and whistle-blower protection; the protection of personal data; as well as legislation guaranteeing the right to assembly

and to safeguard civic space, freedom of the press and regulations on digital government and open data (e.g. openness by default).

While a lack of secondary legislation and policy documents (e.g. open government) may result in suboptimal policy results, evidence from the OECD peer review mission to Bangkok confirmed that most government agencies are aware of the various acts and regulations that apply to them. Yet, in some cases, government agencies might do the bare minimum to meet their obligations under the law (e.g. in terms of public consultation). To assess the legal basis that impacts the digital and open government reforms, this chapter explores the current state of the legislation for an open and connected government in Thailand and raises the challenges ahead in this regard.

Building a solid legal basis for an open and connected government in Thailand

The 2017 Constitution contains references to a number of open government principles

As in most OECD countries, the National Constitution of the Kingdom of Thailand, which was revised in 2017, does not make a specific reference to the concept of open government. However, it contains specific provisions that support the principles of transparency, accountability, integrity, stakeholder participation and access to public sector information and data. In particular:

- **Section 41** determines that "a person and a community shall have the right to […] be informed and have access to public data or information in the possession of a State agency" (Office of the Council of State, 2017[5]).
- **Section 58** stipulates that for any undertaking by the state or which the state permits to carry out, which "may severely affect the natural resources, environmental quality, health, sanitation, quality of life or any other essential interests of the people" (Office of the Council of State, 2017[5]), a prior public hearing to consult with relevant stakeholders must be arranged.
- **Section 59** provides the basis of the access to information law and recognises a fundamental right to access information. The section requires the state to "disclose any public data or information […], which is not related to the security of the State or government confidentiality […], and shall ensure that the public can conveniently access such data or information" (Office of the Council of State, 2017[5]).
- **Section 77** establishes the requirement and formalises the deployment of good regulatory practices such as regulatory impact assessments, *ex post* review as well as stakeholder engagement, including that regulations should be made for the "net social benefit" of society. It also strengthens the regulatory oversight of these processes. It obliges the government to:
  - "Ensure that the public has convenient access to the laws and are able to understand them easily in order to correctly comply with the laws".
  - "Conduct consultation with stakeholders [prior to the enactment of every law] and should also disclose the results of the consultation […] to the public, and take them into consideration at every stage of the legislative process".
  - "Undertake an evaluation of the outcomes of the law at every specified period of time, for which consultation with stakeholders shall be conducted, with a view to developing all laws to be suitable to and appropriate for the changing contexts" (Office of the Council of State, 2017[5]).

The aforementioned constitutional provisions provide the leaders of the national open and connected government agenda with legal leverage to promote (and intervene to enforce them if needed) open government principles across the public sector. Having these principles enshrined at the highest possible legal level creates a solid legal basis and legitimates all subsequent primary and secondary legislation. Moreover, it ensures the necessary impetus for launching open government strategies and related

initiatives. It is important to refer back to constitutional provisions when developing policy and strategic documents such as a potential National Open Government Strategy, as discussed in Chapter 2.

Access to Information as a cornerstone of open and connected government

The right to access government information is a *sine qua non* legal condition for transparency, accountability and citizen participation in policy making (OECD, 2014[6]). By accessing relevant public information, stakeholders can acquire a better understanding of the government's actions, in particular related to the design of public policies and delivery of services, and it allows them to monitor how public funds are spent. The right to request and access public sector information is also foundational for it enables a strong legal basis for citizens to access and share data (e.g. as open data) with no restrictions besides those regulations in place protecting personal data and privacy.

Access to information is a valuable tool to fight corruption and help citizens and civil society watchdogs to hold public officials accountable for their decisions. Moreover, access to information can increase citizens' trust in institutions and enables them to articulate informed demands and raise society's and government's awareness of the need to act. Finally, as observed in different regions across the globe such as Europe and Latin America, access to information and transparency laws are also foundational to promote the publication and sharing, in a proactive fashion, of open government data to promote social and business innovation.

In most countries, access to information (or transparency/access to administrative documents) laws do not only regulate the proactive publication of government information but also determine the mechanisms to request that information. Access to information can take different forms, including access to public records and data, the publication of official gazettes and the provision of information on government websites. While the form matters, the attributes of the information made public, for instance its relevance and usability for citizens, are equally important. Access to information is thus a necessary but insufficient condition to enable citizens to hold the government accountable and participate in policy-making and public service design (World Bank, 2016[7]).

Access to information laws is today a central element of the open government legal framework of many countries. All but one OECD country have adopted dedicated Access to Information (ATI) or Freedom of Information (FOI) laws: worldwide, more than 100 countries have passed such laws (OECD, 2016[8]). Even though each ATI law is unique due to the country-specific context, most laws are composed of the following components: objectives, principles and scope of the access to information; proactive disclosure of information; procedure to request information (how and where to request information, response to the request, denials); exemptions; and appeals procedures. The following sections benchmark Thailand's Official Information Act against these elements.

Thailand adopted its first Official Information Act in 1997

In terms of ATI, Thailand has made significant progress over the past years. The right to information was first recognised by the 1997 People's Constitution and later included in the 2007 Constitution. Following the 2014 Interim Constitution, which did not contain any specific provision on ATI, today's version of the constitution that entered into force in 2017, includes three key provisions (respectively Sections 41, 59 and 77) guaranteeing citizens' right of information.

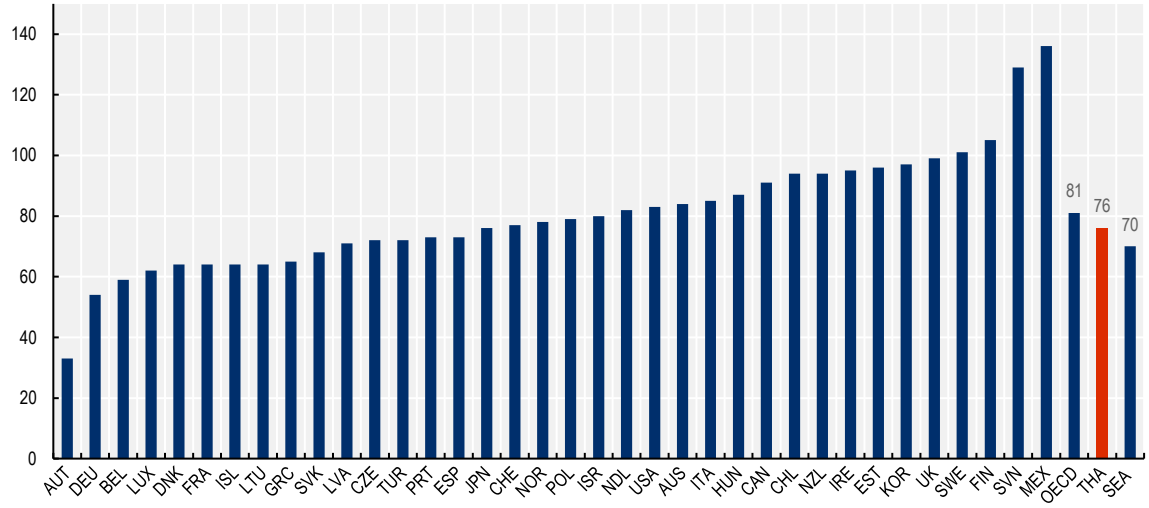
Preceded by calls of civil society for greater transparency, the government substantiated the constitutionally protected right to access government information and adopted the Official Information Act, B.E. 2540 (Government of Thailand, 1997[9]) in 1997, which reinforced the rights of citizens in this respect.

Compared to other countries in the Association of Southeast Asian Nations (ASEAN) region, Thailand was a frontrunner with the adoption of its ATI law in 1997. Indonesia adopted its Public Information Act in 2008, the Philippines issued an executive order in 2016 and Viet Nam's law on ATI entered into force in 2018

(Friedrich Naumann Foundation, 2017[10]). However, while Thailand performs considerably well compared to some other Southeast Asian countries, the legal quality of its ATI legislation lies, according to the Right to Information (RTI) Rating (AIE/CLD, n.d.[11]), slightly below the OECD average (Figure 3.1). While the rating only benchmarks the quality of the legal instruments and does not contain implementation-related components, the early adoption of the Official Information Act and its comparable legal quality shows that Thailand acknowledges the importance of the fundamental right of ATI.

To realise the full potential of the right to information, Thailand could nevertheless consider amending and updating the act to resolve some of its limitations. This is all the more important as the enactment of new legislation included some provisions that undermine the act, 23 years after its adoption (OECD, 2019[12]). The following sections, therefore, analyse existing challenges relating to how citizens' can exert their right to access public sector information and the proactive disclosure of information.

Figure 3.1. The quality of legal provisions in Thailand's Official Information Act compared to OECD countries



Note: The maximum achievable composite score is 150 and reflects a strong RTI legal framework. The global rating of RTI laws is composed of 61 indicators measuring seven dimensions: right of access, scope, requesting procedures, exceptions and refusals, appeals, sanctions and protection, and promotional measures.
Source: AIE/CLD (n.d.[11]), *Right to Information Rating*, www.rti-rating.org (accessed 15 April 2020).

Ensuring the availability of clear, coherent and simple procedures to request public information

Contrary to practices in some OECD countries, Thailand's Official Information Act, B.E. 2540 (1997), applies not only the executive branch but also to the legislative bodies (both the House of Representatives and the Senate, and institutions related to them). The judiciary is also liable under the act but courts are only obliged to take into account "affairs un-associated with the trial and adjudication of cases" (Government of Thailand, 1997[9]).

Within the executive, the act's scope includes state enterprises, professional supervisory organisations, independent agencies of the state and other agencies. The discussion regarding whether the act's scope also covers independent public agencies, such as the National Anti-Corruption Commission, the Office of the Auditor General and the Office of the Election Commission, was brought to an end by an affirmative ruling of the Supreme Administrative Court (Article 19, 2015[13]). Due to Thailand's unitary system with a

strong tradition of centralisation, the law also applies vertically to the central, provincial and local administrations.

In practice, the quality of ATI legislation is to a large extent determined by the degree of accessibility that is established by the law, in particular by the ease of filling requests and the individual protection granted to information seekers. In this light, unclear and complex request procedures, long response times or unjustifiably or inappropriately high request fees are all aspects that can limit or actively undermine the ATI for citizens.

As in 71% of OECD countries (OECD, 2011[14]), Thailand's Official Information Act, B.E. 2540 (1997), does not include any legal restrictions regarding the status of applicants and applies to all Thai citizens equally. The act allows all Thai citizens to demand official information from public institutions and information seekers are not required to provide reasons for their requests.

With regard to the range of information that can be requested, the law defines information extensively as all material held by or on behalf of public authorities, which is recorded in any format, regardless of who produced it. It is noteworthy that applicants do not need to provide their identity but are only required to provide contact details that are necessary for identifying and delivering the requested information (Section 11). Such practice that could theoretically permit anonymous information requests is in line with Article 4.2 of the Council of Europe's Convention on Access to Official Documents determines that "parties may give applicants the right to remain anonymous, except when disclosure of identity is essential in order to process the request" for instance to deliver the requested information (CoE, 2009[15]).

It is crucial to provide citizens with information on how and where to request government information to enable and guide them on their quest for public information. However, the act does not provide detailed information regarding the specific procedure concerning how to request information. Section 11 of the law only stipulates that information seekers may request information that is not already published by making a "reasonably apprehensible mention on the intended information". The act does not include a description of the form the request should follow nor what type of requests (e.g. paper copy, electronic reproduction or inspection of files) are permitted.

Moreover, the law does not specify the exact place or channels to submit information requests. While the Office of the Official Information Commission (OIC) provides a downloadable template form on their website,[1] other institutions and agencies can use their own forms to help file requests (OIC, n.d.[16]). According to the Office of the OIC, information seekers may also submit their requests without following a specific format. The OIC has made recommendations and guidelines on submitting requests available on line. It is not specified whether entities bound by the law are required to provide online portals, service phone lines or contact persons where information can be requested. As requesters are not provided with a receipt of the request procedure, citizens seeking information will be left unclear if their request is currently dealt with. It is international good practice that applicants receive a receipt or acknowledgement of their request within a reasonable timeframe. Also, responses collected as part of the OECD survey for this review showed that one of the main challenges in implementing the ATI law is citizens' lack of awareness of the existence of the act and the benefits it can bring (OECD, 2019[12]). Thailand could thus consider actively promoting ATI.

The process of requesting information could also benefit from borrowing and applying concepts from the digital government and services domain such as user experience (UX) would help in easing citizens' journey when requesting public sector information (and data) so that the experience itself is user friendly in the analogue as well as in the digital world. For instance, the introduction of a standardised request procedure for all public institutions would be a good first step to improve Thailand's access to the information process.

One way to start harmonising the request procedures could be the development of a single online request form. Similarly, a one-stop-shop-style e-government platform (central system) for consultation on

regulations is already under development by the Office of the Council of State (OCS) – hosting all information necessary to conduct engagement (see related discussion below). This is discussed in further detail in the *Regulatory Reform Review of Thailand* (OECD, 2020[17]). Such an information portal could then serve as the first access point for citizens seeking information. As the current ATI portal of the Office of the OIC was reported to be not very user friendly in the survey conducted for this review (OECD, 2019[12]), the creation of any new online request form will have to consider the ease of access for stakeholders.

The OIC also needs to continue publishing uniform guidelines and manuals that explain in an easily understandable way how to request information. Specific manuals are also needed to describe complaint and appeal procedures in simple language to citizens. These documents then need to be published on all public institution websites and paper copies should be made available everywhere government bodies interact with citizens. In this context, the Office of the OIC could explore the respective guidelines developed in Tunisia (Box 3.2).

Box 3.2. Access to Information manual in Tunisia

In order to guide and inform citizens, civil society and journalists in Tunisia about their right to access information, the OECD has developed a simplified manual in co-ordination with the Access to Information Commission and Article 19, as part of the OECD's support to Tunisia to promote open government reforms.

In easy language and Tunisian dialect, it explains, among others, how to make a request, to whom a request can be made and how to appeal a negative decision of the country's oversight institution.

Source: OECD (2018[18]), *Right to Access Information – Manual Tunisia*, www.oecd.org/mena/governance/right-toaccess-information-2018.pdf (accessed on 21 April 2020).

In the case that an institution does not possess the requested information, it shall refer the requester to another institution. However, Section 12 does not establish an obligation for the institution to transfer the request itself. This obligation only exists in the case the institution possesses the requested information but is unable to disclose it since it is labelled as non-disclosure and was provided or created by another institution. If the information is not available, institutions also need to inform citizens. The act does not include other provisions that institutions should provide assistance to information seekers to correctly lodge their requests. In particular, in the case of requesters with special needs (e.g. illiteracy or disability) assistance to file a request could be needed. If the requested information is available but was created by another institution, the request may be transferred. In the event a public institution refuses to disclose information, the person requesting information must be informed of the reasons for refusal.

With regard to the creation of concrete timelines for the provision of information, Section 11 of the ATI law only determines that information requests shall be answered "within a reasonable period of time" (Government of Thailand, 1997[9]). The law does not set any other fixed timeframes, which left room for public officials' discretion and could lead to delays. To fill in this gap, the Royal Decree on Criteria and Procedures for Good Governance obliges public institutions to respond within 15 days (Government of Thailand, 2003[19]). An extension of the deadline is possible upon notice but requires an explanation of the reasons. Despite the establishment of deadlines through the Royal Decree, it has been noted that these timeframes are not always respected (Article 19, 2015[13]).

It is generally acceptable for administrative authorities to charge a reasonable fee for a request. A distinction should be made between access to documents that are already available and information that involves research, elaboration or processing on the part of the administration. In this regard, all OECD

countries, with the exception of Iceland and Poland, apply fees at one or more stages of the information request process, most often to cover the cost of reproduction. In about half of the countries, fees are also related to the cost of sending the documents, although several countries (such as Australia and Finland) waive these fees if the information is sent electronically. Most fees are variable, meaning that they depend on the number of pages to be reproduced or the amount of time required to process the request. When a variable fee can be charged, a cap on the size of this fee is applied only in a limited number of countries (Austria, Finland, France, Italy, Norway and Portugal) (OECD, 2011[14]).

Pursuant to Section 9 of Thailand's ATI law, the information request is free but fees may be charged to inspect or reproduce documents. In case an institution decides to request a fee, the Official Information Board (OIB) determines costs of reproduction associated with the request of information. Each institution may charge different rates but needs prior approval of the OIB. To ensure consistency between institutions for citizens, it is important that the fees set for the reproduction as well as the potential delivery of information are set by the OIB. Given the lack of mention of costs in the ATI law, it is important that citizens be adequately informed about potential costs when requesting information. Should institutions charge their own rates, it is important that they are justifiable and appropriate for citizens. The OIB could also consider providing the first 20 pages free of charge.

Effective and independent oversight as a guarantor for the right to access information

For the case when an information request is refused, most countries' ATI laws allow for the possibility to appeal the decision. Some laws allow for internal appeals, while other countries give the opportunity to lodge an external appeal with an independent ombudsman or information commission. Thailand's Official Information Act does not allow for internal appeals and differentiates between complaints and external appeals.

Citizens can issue a complaint with the OIB in case the institution to which the request is directed fails to act and does not comply with the law. The OIB is located within the institutional entity of the Office of the Prime Minister (PMO). Due to its institutional affiliation, the board does not enjoy full independence and its respective oversight competencies are limited. For complaints, it therefore does not issue binding decisions but merely gives opinions on the complaints (Section 28) and provides recommendations to ensure that institutions' actions are in compliance with the ATI law.

Citizens can also submit appeals against refusals to disclose information (Section 18) to Information Disclosure Tribunals (IDTs) or the OIB. The OIB will then transfer the appeal to IDTs. There is no need to submit an appeal to the institution that the information request is directed to first. Established in accordance with specialised fields of information (e.g. foreign affairs and national security, national economy and finance, social affairs, public administration and law enforcement, etc.), the IDTs make binding decisions, which are final, unless the appeal is referred to an administrative court.

Established by the 1997 ATI law, the Office of the OIC serves as a secretariat to both the OIB as well as to the IDTs. In addition to its secretariat functions, the commission functions as an advisory body and liaises with government institutions to provide advice regarding compliance with the Official Information Act, B.E. 2540 (1997). The OIC does not, however, have any authority over other agencies. It issues recommendations on the implementation of the ATI law to individual institutions and submits regular reports on compliance with the Official Information Act to the cabinet. The head of the commission is a cabinet minister, who is appointed by the prime minister. Its mandate and location in the PMO do raise questions about its functional independence and objectivity in fulfilling the assigned mandate. In addition, the OIB supervises the implementation of the ATI law and provides official advice to the government regarding the Official Information Act.

It is critical for the proper implementation of the ATI law that fully independent oversight institutions exist. Effective oversight bodies should also be equipped with their own financial resources as well as adequate human resources. Based on the 2017 annual report published by the Office of the OIC, challenges faced

by the OIC include inadequate numbers of staff and a lack of funding. The OIC should thus be provided with additional funds and adequate human resources to meet its staffing needs.

In order to guarantee institutional independence, many countries grant their oversight institution legal personality. In many cases, ATI bodies only report back to the legislature, which can also approve the institution's independent budget. The government of Thailand may consider strengthening the independence of the Office of the OIC and of its governing commission. A country practice from the ASEAN region that could inform reforms in this regard is the composition of the Indonesian Information Commission. While the president nominates the commissioners, who are usually experts in the field, they are formally appointed by parliament. All decisions taken with regard to ATI are binding. Moreover, to guarantee the commission's independence, it is granted budgetary authority and is able to request additional funding from parliament if need be (Government of Indonesia, 2008[20]).

While the OIC issues manuals and guidelines to inform public servants on how to comply with the law, it should also make sure that these internal guidance documents are promoted across all public institutions for the proper interpretation and implementation of the ATI law. These guidelines should be regularly analysed and updated to include lessons learned from the practice of handling requests, complaints and appeals by citizens. To meet the challenge of officials' "lack of knowledge and understanding of the access to information law and procedures" (OECD, 2019[12]), the OIC could also consider expanding its mobile training programmes, offering courses for officials working with ATI requests to promote guiding criteria and indicators of best practice.

From the proactive publication of information to open data

Proactive disclosure (i.e. the availability and publication of relevant government information without prior request) is an important instrument to increase the public sector's active transparency and openness. Making government information directly available for everyone has benefits for both governments and citizens. On the one hand, it allows citizens to access information while avoiding (sometimes lengthy and costly) administrative request procedures. On the other, it can reduce the administrative burden imposed on public institutions, associated with handling and answering individual ATI requests. Proactiveness is indeed one of the key dimensions of digital governments as presented in Chapter 1 and when such an approach is applied to open government initiatives, it helps in streamlining and making the government agile and more responsive to citizens' information and data needs.

In practice, all OECD countries are making some sort of government information available without prior request. In most of cases, ATI laws include a list of documents and information categories/taxonomies that all institutions are required to publish by default. In 72% of OECD countries, ATI legislation requires proactive disclosure of specific documents and information. However, the kind of information that needs to be published proactively varies across OECD countries (OECD, 2011[14]).

In Thailand, the Official Information Act and the Royal Decree on Criteria and Procedures for Good Governance, B.E. 2546 (2003), require all government agencies to proactively publish information on a central website. A cabinet resolution also requires government institutions to publish information on their individual websites. Public institutions are obliged to proactively publish information and documents regarding their structure, powers, bylaws, regulations, orders, policies and interpretations. To contribute to archiving and preservation efforts, public institutions also need to contribute to archiving public documents and have to share and disclose historically relevant information with the National Archives. Should the OIB require additional information to be published, agencies have to comply. However, it is noted that in practice, not all government information is made available through the Government Service Centre (GovChannel) portal. The OECD's survey for this review found that agencies often resist fulfilling their responsibilities in sending information to the Office of the OIC (OECD, 2019[12]).

Proactive publication is also a key aspect that can help in facilitating access to open government data so that it can be accessed and re-used by actors from all sectors as a means to promote social, business and

public sector innovation. This is based on the premise that the creation of social, economic and good governance value for society, businesses and governments results from data use and re-use, and from the understanding that data publication is only a means to an end (OECD, 2018[21]).

The OECD *Recommendation of the Council on Digital Government Strategies* stresses how building a data-driven public sector implies fostering access to, use and re-use of data to: "(a) increase openness and transparency, and (b) incentivise public engagement in policy making, public value creation, service design and delivery" (OECD, 2014[3]). The provisions of the OECD *Recommendation of the Council on Open Government* reinforce the aforementioned message. Thus, recommending countries to "proactively make available clear, complete, timely, reliable and relevant public sector data and information that is free of cost, available in an open and non-proprietary machine-readable format, easy to find, understand, use and re-use and disseminated through a multichannel approach, to be prioritised in consultation with stakeholders" (OECD, 2017[2]).

Hard law instruments (such as the current ATI law) can help to build a solid basis for the proactive publication of valuable and re-usable public sector datasets. Thailand's Official Information Act creates a legal framework for the disclosure of public information in that regard. However, the ATI law is not fully used as a policy lever that can help to advance open government data initiatives in the country.

As discussed in Chapter 2, policy instruments such as the 20-Year Digital Economy and Society Development Plan (2017-2036) or Digital Thailand are clear in terms of how the Thai government intends to further tap on the potential value of data (including open government data) to promote digital innovation and economic development. However, the Thai government could learn from the experience of OECD countries that have reinforced the governance for open data by including specific definitions on open data or the principle of "open by default" in transparency and/or ATI legislation. This would help to ensure that the right foundations are in place first to move towards a data-driven society and public sector.

Evidence from the 2017 OECD *Open Government Data Report* (OECD, 2018[21]) shows how OECD member and partner countries have used ATI or transparency laws to support the publication of public sector information as open data. Examples of countries with specific requirements on openness by default or definitions of open data include Greece, Italy, Mexico and Slovenia.[2] This does not only help to consolidate the legal basis for open data but also contributes to the sustainability of open data policies, strategies and initiatives across different government administrations. Other countries such as France, Germany and Peru have gone further by including specific provisions on open data in digital government legislation (e.g. the E-Government Law in Germany and the respective Digital Laws in France and Peru) or by publishing dedicated legal instruments on open data as done by South Korea.

A stronger ATI legal framework could also help Thailand move towards a more digital, data-driven and accountable public procurement. For instance, the Public Procurement and Supplies Administration Act (2017) sets out standards for information disclosure concerning the procurement process. This act defines the standard criteria government agencies should follow to disclose procurement information to the public in order to be transparent and promote fair competition. Combined with other tools such as electronic procurement mechanisms, the procurement act is expected to lead to enhanced transparency and integrity in government procurement. Thailand is also a member of the Infrastructure Transparency Initiative (CoST).[3] Thailand created the Multi-Stakeholder Group (MSG), chaired by the Ministry of Finance, to promote and support transparency in the context of public sector infrastructure. The MSG is integrated by representatives from the public, private and civil sectors (CoST, n.d.[22]). It is responsible for determining guidelines and regulations related to information disclosure to enhance transparency in construction projects of state agencies. Thailand has also committed to publishing information on public sector infrastructure using the CoST Infrastructure Data Standard.[4]

In light of the above, the inclusion of specific provisions on open data in Thailand's ATI Act could help to advance open data efforts in public procurement and public sector infrastructure, while reinforcing the general publication of open data at a broader scale in line with the provisions of the Digitalisation of Public

Administration and Services Delivery Act, B.E. 2562 (2019) (see the section “Building the legal foundations for a digital government”).

A clear legal framework to consult stakeholders on draft legislation

A first step in creating a legal basis for the consultation of stakeholders in regulatory processes took place in the period from 2003 to 2005 with the enactment of the Regulations of the Office of the Prime Minister on Public Consultation, B.E. 2548 (2005). The law obliges relevant government institutions to conduct credible consultations with the public prior to any major regulatory project.

This law was further reinforced by the new Section 77 of the 2017 Constitution, which requires government agencies to “conduct consultation with stakeholders [prior to the enactment of every law]”. It also obliges institutions to “analyse any impacts that may occur from the law thoroughly and systematically, and should also disclose the results of the consultation and analysis to the public, and take them into consideration at every stage of the legislative process” (Office of the Council of State, 2017[5]). Pursuant to Section 77 of the constitution, all draft acts are subject to public consultation before they are submitted to the cabinet for approval. To effectuate the requirement of consultation, the cabinet issued a resolution in 2017 stipulating that all draft legislation be published on a central consultation website (lawamendment.go.th) for at least 15 days before the agency may send the draft act together with the summarised consultation report and the impact assessment report to the Secretariat of the Cabinet.

Most recently, the Act on Legislative Drafting and Evaluation of Law, B.E.2562 (2019), revises the system of regulatory policy making in Thailand, in accordance with Section 77 of the constitution. Amongst other reforms, it introduces more detailed instructions for conducting obligatory consultations at every stage of legislative drafting process, including impact assessments, holding consultation of the law and carrying out an *ex post* evaluation after the law has been passed (Government of Thailand, 2019[23]). Stemming from Section 13, government agencies shall consult with the public through online consultations and, in addition, may use public meetings, questionnaires and interviews. For each consultation, agencies need to publish accompanying information such as a description of the problem the draft legislation is supposed to solve, an explanation of the main ideas and principles of the draft legislation presented in simple and comprehensible language as well as a list of persons who are or may be affected by the legislation (Section 14). According to Section 15 of the act, all stakeholders participating in public consultations shall register with their corresponding address and email via a central registration system. While registration provides useful information regarding the origin of each contribution and allows for further inquiries and notification regarding the progress of the file, the lack of an opportunity to provide anonymous input may also raise data protection concerns and prevent some stakeholders from commenting. Registration barriers can thus lead to a situation where only the most committed and organised groups with vested interest share their input, while individual citizens and marginal groups refrain from doing so.

Following the consultation with the public, public sector organisations need to submit an analysis of the consultation to the Secretariat of the Cabinet, which will conduct procedural scrutiny to see whether the consultation was done according to specifications. Moreover, the results of the consultation and analysis should be disclosed to the public and need to be taken into consideration at every stage of the subsequent legislative process. All draft laws are then submitted to the Office of the Council of State, which is granted oversight responsibilities over proposals to the Council of State, including scrutiny over regulatory impact assessments (which detail the impact to stakeholders) and stakeholder engagements. It conducts substantive scrutiny and examines if further consultations should be conducted, e.g. in the case of a lack of quality in terms of who was consulted and how their comments were taken on board.

Aside from conducting formal public consultations on draft legislation and regulations, the law does not refer to stakeholder participation in the development of strategic documents. Such consultations to improve strategic planning are currently only voluntary. Regarding the inclusion of specific provisions relating to stakeholder participation in other sectoral laws, laws for environmental and town planning contain such

references. Sections 48 to 51 of the Enhancement and Conservation of the National Environmental Quality Act, B.E. 2535 (1992) (amended by the Enhancement and Conservation of the National Environmental Quality Act, B.E. 2561 [No. 2] in 2018) refer to the consultation of experts for environmental impact assessments. With Section 9, the new Town Planning Act (2019) also contains a provision on stakeholder participation.

Thailand's set of legislation to enable stakeholder consultation in legislative processes provides a solid legal framework for all public agencies. In particular, the Act on Legislative Drafting and Evaluation of Law opens a way to yield the benefit that stakeholders can bring to policy making. From a legal point of view, it is in line with the OECD *Recommendation of the Council on Open Government*, which stipulates that governments should "grant all stakeholders equal and fair opportunities to be informed and consulted (…) and actively engage them in all phases of the policy cycle" (OECD, 2017[2]).

Efforts from all public sector organisations are now needed to ensure the successful and coherent implementation of the legal framework for public consultation. While all government agencies are obliged to comply with the provisions of the laws, only a move towards a more participatory governance culture will guarantee effective implementation in the future. The success in applying this legal framework will, to a large extent, also depend on providing adequate guidance to all public institutions conducting public consultations. In that regard, the guidelines and manuals that are currently drafted by the Law Reform Division of the Council of State have the potential to support the implementation. Moreover, the OECD Handbook on Open Government for Peruvian Public Officials (2021[24]) could serve as an example.

In order to avoid consultation fatigue and ensure that consultations are meaningful, the government should further improve the sustainability of stakeholder participation. To that end, the government may consider an evaluation of the law according to a set timeline, with the aim to revise and adapt the regulation. In order to collect input for this evaluation, the OCS could draw from the feedback of a large variety of relevant governmental and non-governmental actors. In particular, the expertise and knowledge of civil society organisations, which for instance are closely following environmental impact assessments in public construction and urban development projects, could be valuable. The practice of Colombia to create a National Council for Citizen Participation that advises the national government on the definition, development, design, monitoring and evaluation of public policy on citizen participation could be interesting in this regard (Box 3.3).

Box 3.3. The Colombian law for the promotion and protection of the right to democratic participation

The objective of Law 1757 from 2015 is to promote, protect and ensure the different modalities and mechanisms of the citizens' right to participate in the political, administrative, economic, social and cultural spheres in Colombia. Article 2 stipulates that any development plan must include specific measures aimed at promoting the participation of all people in decisions that affect them and support the different forms of organisation of society. Similarly, the management plans of public institutions should make explicit the ways in which they will facilitate and promote the participation of citizens in their areas of responsibility.

The law also created the National Council for Citizen Participation, which will advise the national government on the definition, development, design, monitoring and evaluation of public policy on citizen participation in Colombia. The council is made up of the following representatives: the Minister of the Interior and the National Planning Department from the national government, an elected governor from the Federation of Departments (states or provinces), an elected mayor from the Municipal Federation, members of victims' associations, a representative of the National Council of Columbia Associations or Territorial Planning Councils, the community confederation, the Colombian Association of Universities,

the Colombian Confederation of Civil Society Organisations, citizen oversight associations, trade associations, trade unions, peasant associations, ethnic groups, women's organisations, the National Youth Council, college students, disability organisations and local administrative bodies. The heterogeneous composition of the council ensures that several groups of society are represented and guarantees that all voices are heard.

This same law on citizen participation in Colombia defines participatory budget practices as a process to ensure equitable, rational, efficient, effective and transparent allocation of public resources, in order to strengthen the relationship between the state and civil society. It also acts as a mechanism by which regional and local governments promote the development of programmes and plans for citizen participation in the definition of their budget, as well as in the monitoring and control of public resource management.

Source: Government of Colombia (2015[25]), *Ley 1757 de 2015 (Law 1757 from 2015)*, https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=65335 (accessed 21 April 2020).

Besides the consultation of citizens on already formulated pieces of draft legislation, other forms of participation to interact and engage with stakeholders in the policy-making cycle could broaden Thailand's participatory approach. Practices that go beyond mere consultation and focus on the active engagement of stakeholders during co-design processes could bring further value. Box 3.4 gives an overview of the different steps of the OECD approach to stakeholder participation. Similarly, the participation of stakeholders in budget processes (Box 3.3) represents an open government practice in many OECD countries. However, currently, such practices are not covered by any existing legislation.

Box 3.4. The OECD model of stakeholder participation

The OECD uses a tripartite model that distinguishes between three different levels of stakeholder participation to assess the scope and depth of stakeholder initiatives:

- Information refers to an initial level of participation characterised by a one-way relationship in which the government produces and delivers information to stakeholders. It covers both the on-demand provision of information and "proactive" measures by the government to disseminate information.
- Consultation refers to a more advanced level of participation that entails a two-way relationship in which stakeholders provide feedback to the government and vice versa. It is based on a prior definition of the issue for which views are being sought and requires the provision of relevant information, in addition to feedback on the outcomes of the process.
- Engagement refers to instances where stakeholders are given the opportunity and the necessary resources (e.g. information, data and digital tools) to collaborate during all phases of the policy cycle and in service design and delivery.

Source: OECD (2016[8]), *Open Government: The Global Context and the Way Forward*, https://dx.doi.org/10.1787/9789264265189-en.

Building the legal foundations for a digital government

The 20-Year Digital Economy and Society Development Plan (2017-2036) is clear in terms of how a more streamlined and modern legal and regulatory framework can help in delivering better public services to the Thai population. The plan identifies, where appropriate, the introduction of new regulations and public sector reform as preconditions to "create trust and confidence in online transactions" (MICT, 2017[26]).

In line with the above, Thailand has made advancements to develop a legal and regulatory framework that can support the expected evolution from e-government to a digital government. For this purpose, the country has put in place different instruments touching on different aspects related to public sector digitalisation, including cyber security and digital transactions (Box 3.5).

Box 3.5. Key legal and regulatory instruments for digital government in Thailand

- **Electronic transactions:** In 2001, the Electronic Transactions Act, B.E. 2544 first legalised electronic data messages and e-signatures. In 2019, a revised version of the act (Electronic Transactions Act No. 3, B.E. 2562) harmonised this law with the United Nations Convention on the Use of Electronic Communication in International Contracts and appointed the Electronic Transactions Development Agency (ETDA) as the body in charge of supporting the Electronic Transactions Commission in setting standards for electronic transactions (including digital identity tools).
- **Cyber Security:** In 2007, the Computer Crime Act, B.E. 2550, defined the concept of "computer-related crime". In 2017, the revised version of the act, B.E. 2560, clarified ambiguous concepts, such as illegal content and defamation, and improved the efficiency of the law enforcement process. In 2019, the Cyber Security Act, B.E. 2562, established the National Cyber Security Commission and set the rules to handle threats in cyberspace.
- **Paperless government:** In 2008, the Electronic Transactions Act, B.E. 2551 legalised the transformation of paper-based into electronic forms. In 2015, the Licensing Facilitation Act, B.E. 2558, required government authorities to work towards a paperless system to reduce excessive bureaucratic procedures and the burden on citizens in the context of their interaction with the public sector (e.g. for obtaining registrations or licences).
- **Data protection:** In 2019, the Personal Data Protection Act, B.E. 2562, created the Privacy Enforcement Commission and Agency and imposed the regulation of information privacy. The 1997 Public Information Act also included specific provisions to prevent the misuse of personal data by public officials and the right of citizens to know how their data is being used by public sector organisations.
- **Data sharing:** Cabinet Resolution 187/2558 (2015) created four different committees in charge of: i) establishing a common data platform for the public sector; ii) developing an integrated database on citizen information and public services; iii) a database on water resources and weather data; and iv) a database on security and safety.

Other relevant instruments include:

- **Public sector structure – *Digital economy*:** Act No. 17, B.E. 2559 (2016), reorganised the government structure by creating the Ministry of Digital Economy and Society (MDES) and the Office of the National Digital Economy and Society Commission (ONDE). In 2017, the Digital Development for Economy and Society Act, B.E. 2560, created the Digital Development for Economy and Society Commission, the Digital Economy Fund and the Digital Economy Promotion Agency (DEPA). Earlier, in 2003 the Thai government approved the establishment of the National Innovation Agency (NIA) under the supervision and management of the Ministry of Science and Technology. Later the same year, the ministry appointed the National Innovation Committee as the body in charge of monitoring the activities of the NIA (Ministerial Command No. 91/2003).
- **Public sector structure – *Digital government*:** In 2011, Royal Decree B.E. 2554 created the Electronic Government Agency (EGA), which after 2016, was placed under the MDES. In 2018, Decree B.E 2561 created the Digital Government Development Agency (DGA), replacing the

EGA and moving from the MDES to the PMO. In 2019, Act B.E. 2562 created the Digital Council of Thailand.

Source: OECD with information from Bukht, R. and R. Heeks (2018[27]), "Digital economy policy: The case example of Thailand", in *Development Implications of Digital Economies*, Centre for Development Informatics, Global Development Institute SEED, University of Manchester, EGA (2016[28]), *Thailand e-Government Status Report*, Electronic Government Agency, Bangkok, Thailand, and Thiratitayangkul, C. (2019[29]), "Open and digital government", Presentation in the context of the OECD mission to Bangkok, Thailand, 3 April 2019; and with information provided by the Thai government for the purpose of this review.

For instance, the Thai government has worked on updating the regulatory framework on electronic transactions. The Electronic Transactions Act, B.E. 2562 (2019) aims at addressing information asymmetries between users, public and private service providers, and securing the integrity of the system itself (e.g. by ensuring that users provide valid legal identification when submitting an application for the use of e-signature tools). The revised version of the act also aims at streamlining data sharing among public sector organisations and avoiding asking citizens the same information twice (once-only principle).

Also, in 2019, the publication of the Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019), provided stronger legal support for the development of a digital government in Thailand. The act, commonly known as the Digital Government Law, is intended to accelerate digital transformation in the public sector with a focus on:

1. The digitalisation of processes and services using a citizen-centric approach.
2. Data integration between government agencies to provide comprehensive digital services for citizens and businesses.
3. The publication of open government data in machine-readable formats to enable citizens and businesses to re-use and develop innovations.

The plans, rules and standards to elaborate on these legal provisions are still underway (Rohaidi, 2019[30]). As a continuation of the previous two plans, the DGA released a new Digital Government Development Plan (2020-2022) that targets the publication of two standards on the data governance framework and open data on the Thai Royal Gazette in 2020 to facilitate the digitalisation of all public sector organisations. Furthermore, the draft of the standard on digital ID for government services is under review by the Thai cabinet as of June 2021 before its effective date is set by the Digital Government Development Commission. Based on the Digital Government Development Plan (2020-2022), standards on data integration and data exchange are also underway.

The Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019) has created high expectations among public officials given its strong focus on the digital transformation of the public sector and the creation of a data-driven government. Information shared by public officials during the OECD mission to Bangkok indicate that the Digital Government Law is expected to provide a major boost to the application of data for the creation of public value, including (ONDE, 2019[31]):

- The development of the Digital Government Development Plan and the Data Governance Framework.
- The promotion of citizens' digital rights and public officials' duties and responsibilities when handling sensitive data.
- The digitalisation of government services, tapping into the value of data for this purpose.
- The integration of data and services across government agencies.
- The promotion of open government data as a tool for economic and social value and more innovative products and services.

- The creation of a government platform for information exchange for greater service integration and access to public services.

The Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019) is therefore ambitious and complements previous legal and regulatory instruments on digital government. It will provide a more solid legal basis to deliver the mid-term and long-term goals for digitalisation in Thailand.

Agility and regulation

The challenge ahead is however not only related to the need for new legislation (which could follow a lengthy development and approval process) but to ensure that legal and regulatory activities meet the velocity of fast-paced technological progress and other socio-economic challenges as exemplified by the COVID-19 global emergency (Box 3.6).

Box 3.6. Regulating in the era of digitalisation

Regulatory effectiveness in the era of digitalisation

Digital technologies present opportunities and challenges to the way governments regulate because of how digitalisation fundamentally transforms the way people live, work and interact.

The main issue lies in how regulators can leverage regulation with agility and anticipation to spur digital innovation and unlock the benefits of technologies for the economy and society or let regulation stand in the way and impeded enforcement. The challenges present themselves as the following:

- **Pacing problem**: Digitalisation happens at a faster pace than regulatory development aimed at governing digital technologies.
- **Designing "fit for purpose" frameworks**: Digitalisation and the emergence of digital platforms obfuscates the traditional delineation of markets and sectors, the distinction between consumers and producers, and price formation in the digital economy.
- **Regulatory enforcement**: Digitalisation questions the traditional notion of liability by making it difficult to attribute and apportion responsibility for damage or harm caused by technology.
- **Institutional and transboundary**: Digitalisation creates transversal challenges that span across regulatory regimes and jurisdictional boundaries, as businesses are able to avoid compliance based on physical presence.

Solutions need to be grounded in rethinking and adapting regulatory approaches with comprehensive international and domestic regulatory co-operation to fit the digital context. Traditional regulation may not serve the purpose of encouraging innovation while mitigating risks. However, creating dynamic fixed-term regulatory exemptions such as regulatory sandboxes or waiting and seeing with continuous assessment could be more appropriate. A "whole-of-government" approach to engage with relevant stakeholders would be critical at a national level to overcome the transversal challenges of digital technologies.

Regulatory quality and COVID-19: Managing the risks and supporting the recovery

Regulations and enforcement have been vital to manage and recover from the health pandemic and economic crisis. Even as countries moved to adopt "fast-track" procedures and easing non-critical administrative barriers to expedite the decision-making and delivery processes, it is important to:

- Ensure that regulatory measures are proportionate to the level of risk in question.
- Undertake transparent consultation with advisory groups and experts.

- Conduct a careful review after implementation or put in place sunset clauses.

International regulatory co-operation has also proved to be crucial to align government responses to overcome these global challenges. Countries can work together on gathering and sharing evidence, exchanging on the design of emergency rules, aligning regulations or using mutual recognition to expedite the trade of essential products.

Good governance and innovative approaches to regulation can make a difference. In the move to use digital technologies, artificial intelligence and big data to improve regulatory insights, governments need to ensure that regulatory outcomes are for the people and are in the protection of their fundamental rights.

Source: OECD (2019[32]), "Regulatory effectiveness in the era of digitalisation (brochure)", https://www.oecd.org/gov/regulatory-policy/Regulatory-effectiveness-in-the-era-of-digitalisation.pdf; OECD (2020[33]), "Regulatory quality and COVID-19: Managing the risks and supporting the recovery", http://www.oecd.org/regreform/regulatory-policy/Regulatory-Quality-and-Coronavirus%20-(COVID-19)-web.pdf.

Existing and future legal instruments would provide a good baseline to advance the open and connected government agenda. Yet, technology and citizens' expectations change rapidly and governments (including the Thai government) should be able to adapt and meet the needs of citizens and businesses in this fast-paced context in order to stay relevant. Public officials were also quite vocal in this respect, as they indicated considering the legal and regulatory framework both an opportunity and an obstacle for the open and connected agenda, stressing the need to ensure the right balance between issuing new regulations and the need for adapting existing ones. They also raised concerns in relation to the capacity of the Thai government and its regulatory bodies to keep up with technological developments to avoid perpetuating or creating bottlenecks blocking the agility and capacity of the public sector to adapt and leverage technology and data in the pursuit of value for society.

Bodies such as the Office of the Council of State (OCS) and the Office of the Public Sector Development Commission (OPDC), in collaboration with all relevant bodies, will play a key role in ensuring that Thailand is capable of coping with the challenge. This would mean applying agile and innovative approaches to balance more traditional regulatory policy tools such as regulatory impact assessments (RIAs), various administrative burden reduction methods and *ex post* review of regulations.

Thailand does have a history of introducing reforms to update its system of regulatory policy making in accordance with international good practices. In 2003, a cabinet resolution was passed that introduced the OECD Reference Checklist for Regulatory Decision-Making into Thailand. In 2015, Royal Decree on Revision of Law, B.E. 2558 (2015, the "Sunset Law"), and the Licensing Facilitation Act, B.E. 2558 (2015), were introduced to reduce the administrative burden on licensing procedures and require ex post review of regulations after five years. More recently the Thai government launched a regulatory guillotine project in 2017 and published the Act on Legislative Drafting and Evaluation of Law (2019) which introduces wide-reaching reforms to the system of good regulatory practices and governance in accordance with Section 77 of the constitution, including RIA, stakeholder engagement and ex post review. The 2019 act also established the OCS as the oversight body responsible for both promoting the use of good regulatory practices across the Thai government as well as scrutinising RIAs and stakeholder engagement efforts before a law can receive final approval from the Council of Ministers. These efforts were further analysed as part of the OECD report *Thailand: Regulatory Management and Oversight Reforms* (OECD, 2020[17]).

Thailand is not the only country facing the above-mentioned challenges. The OECD is actively working with member and partner countries in exploring the intersection of innovative, agile and iterative approaches in the context of digital and data governance. For instance, as discussed in the OECD report *The Path to Becoming a Data-Driven Public Sector*, "regulation can be an obstacle for good data governance for the proliferation of fragmented instruments and unco-ordinated efforts can hinder cross-institutional data integration and sharing. Taking an anticipatory approach can help to identify risks and

trends in order to implement the needed regulatory action to foster public sector readiness to change" (OECD, 2019[34]).

In this context, some countries are exploring how the intersection between agility and regulatory activity could help not only in reducing and preventing regulatory barriers but also in improving the activities of the government in order to regulate better.

Applying an agile approach to regulatory activities can help the Thai government to make more informed decisions and tackle the challenges of the digital era in a more efficient fashion. By bringing together innovation, openness, regulatory and digitalisation approaches, the Thai government could:

- Engage stakeholders in a more proactive, dynamic and iterative fashion. This implies however increasing governments' and regulators' understanding that agile regulation goes beyond the traditional public consultation process (e.g. publishing draft regulations on online platforms to collect feedback from interested parties) either *ex ante* or *ex post*.
- Get prompt feedback on current regulations and the *real* need for new ones, with all relevant parties, actively involved. This requires government agencies to be active players rather than passive and compliance-driven organisations that follow a tick-the-box approach to public consultation (as the case in Thailand).
- Make the best use of digital technologies and data to collect, share and access data to inform the regulatory process.
- Provide insights to public, private and social stakeholders in relation to what actions they should take to comply with regulatory provisions.

In line with the above, the Thai government, under the leadership of the OPDC, the DGA and the involvement of other bodies such as the OCS, could further explore the implementation of practices such as regulatory sandboxes, future-proofing regulation and Rules as Code (RaC).[5] Yet, these practices imply revamping the way the public sector works and a "fundamental transformation of the rule-making process itself and of the application, interpretation, review and revision of the rules it generates" (Mohun and Roberts, 2020[35]).

Also, In Thailand, the OPDC is aware of how bureaucracy, the lack of collaboration (including with external actors and within the public sector) and the passive cultural approach to engagement and innovation constrain the delivery of the open and connected agenda. For this reason, the OPDC self-identifies as a "mentor" that can help in driving organisational and cultural change and explore new ways of public management. Indeed, results from the survey administered for the purpose of this review confirmed that public sector organisations identify the OPDC and the DGA as the main bodies in charge of public sector innovation.[6] Therefore, initiatives such as the OPDC Innovation Lab could be further leveraged to enable safe spaces to explore the implementation of agile regulatory initiatives in Thailand.

However, this would require not only enabling hubs where regulators, interested parties and innovators from all sectors can come together to discuss and explore regulatory actions but also providing funding and incentives when needed. For instance, in 2018, the UK Department for Business, Energy and Industrial Strategy (BEIS) launched the Regulators' Pioneer Fund to allocate up to GBP 10 million in order to fund and "promote cutting-edge regulatory practices" – led by UK regulators – "to help make the UK the world's most innovative economy, whilst protecting citizens and the environment" (UK Government, 2018[36]).

Also, innovation in regulatory policy is an area that calls for collective action. Bodies such as the OCS (responsible for both promoting and training Thai officials on the new regulatory practices as well as scrutinising efforts), the NIA and other regulatory bodies in Thailand would also need to fully embrace an approach that explores and exploits the synergies between regulation and innovation and put it into action and get actively involved on the OPDC's and the DGA's efforts working in the intersection between regulation and innovation.

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[2] For more information, see https://www.oecd.org/gov/open-government-data-report-9789264305847-en.htm.

[3] For more information, see http://infrastructuretransparency.org/.

[4] For more information, see http://infrastructuretransparency.org/resource/cost-infrastructure-data-standard/.

[5] For more information, see https://joinup.ec.europa.eu/collection/better-legislation-smoother-implementation/discussion/better-rules-and-rules-code-references-australia-nz-mainly.

[6] Questionnaire for public sector organisations: Digital government: Question 58.

4 Reinforcing public sector coherence through an open and connected government

Chapter 4 discusses public sector coherence and capability for an open and connected government in Thailand. It looks at the use of the funding allocation and information and communication technology (ICT)/digital commissioning models as policy levers for digital government coherence and provides an overview and assessment of Thailand's efforts to build a digital and "open by default" public sector.

Introduction

Building open and connected governments that are capable of delivering value to their citizens is not an easy task. Whereas high-level political commitment to the digital and open government agendas and clear policy goals are fundamental for good governance (see Chapter 2), successful policy implementation requires strong policy levers to secure coherent practices and the alignment of digital and open government initiatives to central policy guidelines and standards.

Among those policy levers, regulation (presented in Chapter 3) sets the institutional responsibilities and accountability mechanisms to help governments track policy developments and monitor outcomes *vis-à-vis* the expected goals described in digital and open government agendas. However, steering policy in practice also calls for using other policy levers at hand such as the budget allocation process so that compliance with digital and open standards and guidelines is secured whenever needed.

In addition, the deployment of public policies and services that deliver value for citizens and businesses require equipping the public sector with the right skills, talent and culture so that public bodies can tap on these capabilities to meet citizens' needs and expectations. This implies taking a coherent approach towards a coherent public sector workforce: from developing common job descriptions, promoting talent mobility and scanning the current available skills and capacities to informing public employment strategies and tapping on external talent as means to build a collaborative, open and connected government. As such, skills and institutional capacity are core elements of the OECD *Recommendation of the Council on Digital Government Strategies* (2014[1]) and *Recommendation of the Council on Open Government* (2017[2]) (Box 4.1).

In terms of digital government, building the right digital talent within the public sector is cross-cutting to all six dimensions of the OECD Digital Government Policy Framework (Figure 4.1). As such, building digital capacity "requires a strong commitment to improving the skillset of public officers, attracting and maintaining IT professionals in the public sector, and upskilling and spreading a digital mindset throughout the public sector workforce" (OECD, 2020[3]).

Box 4.1. Relevant provisions in OECD recommendations

Provision 10 of the OECD *Recommendation of the Council on Digital Government Strategies*

> *"Reinforce institutional capacities to manage and monitor projects' implementation, by:*
>
> *i) adopting structured approaches systematically, also for the management of risks, that include an increase in the amount of evidence and data captured in the course of project implementation and provision of incentives to augment data use to monitor projects performance;*
>
> *ii) ensuring the availability at any time of a comprehensive picture of ongoing digital initiatives to avoid duplication of systems and datasets;*
>
> *iii) establishing evaluation and measurement frameworks for projects' performance at all levels of government, and adopting and uniformly applying standards, guidelines, codes for procurement and compliance with interoperability frameworks, for regular reporting and conditional release of funding;*
>
> *iv) reinforcing their public sector's digital and project management skills, mobilising collaborations and/or partnerships with private and non-governmental sector actors as necessary.".*

Provision 3 of the OECD *Recommendation of the Council on Open Government*

> *"(i) Providing public officials with the mandate to design and implement successful open government strategies and initiatives, as well as the adequate human, financial and technical resources, while promoting a supportive organisational culture;*
>
> *(ii) Promoting open government literacy in the administration, at all levels of government, and among stakeholders.".*

Source: OECD (2014[1]), *Recommendation of the Council on Digital Government Strategies*, http://www.oecd.org/gov/digital-government/Recommendation-digital-government-strategies.pdf; OECD (2017[2]), *Recommendation of the Council on Open Government*, https://www.oecd.org/gov/Recommendation-Open-Government-Approved-Council-141217.pdf (accessed on 30 August 2019).

Figure 4.1. The OECD Digital Government Policy Framework



Source: OECD (2020[3]), "The OECD Digital Government Policy Framework: Six dimensions of a Digital Government", https://doi.org/10.1787/f64fed2a-en.

Funding to leverage inclusion, equality and better services

Together with legal and regulatory instruments (discussed in Chapter 3), funding is a strong policy lever that can help to steer improved policy implementation. In Thailand, the Bureau of the Budget (BB) plans and allocates government expenditure to secure that line ministries, such as the Ministry of Digital Economy and Society (MDES), count with the needed financial resources to implement the 20-Year Digital Economy and Society Development Plan (2017-2036) or Digital Thailand. The BB also has a strong political lever given its location at the Office of the Prime Minister (PMO) and the fact that the deputy prime minister chairs it.

It is noteworthy that pursuant to Section 77 of the 2017 Constitution, the BB organises a public consultation on the Draft Annual Budget Expenditure Bill that allows stakeholders to provide comments online as well as in person during public meetings. The results of the public consultation are then reported to the cabinet and the legislative power together with the draft bill. Such a public consultation of the budget can not only

help to ensure that the allocated funds reflect citizens' spending priorities but can also positively impact accountability. Moreover, through participation, stakeholders can gain a better understanding of and can become more actively involved in public policy making. The OECD *Recommendation of the Council on Budgetary Governance* explicitly calls on governments to "ensure that budget documents and data are open, transparent and accessible" and to "provide for an inclusive, participative and realistic debate on budgetary choices" (OECD, 2015[4]).

Proposed projects are also assessed drawing upon their contribution to an integrated budget plan prepared by the BB, which covers: i) connectivity and Internet access; ii) digital government; iii) data sharing within the public sector; and iv) public officials' digital skills. Yet, the integrated budget plan does not contemplate any specific policy elements relevant for open government, inclusion and diversity (e.g. such as open, gender-based and participatory budgeting practices). This approach could help in advancing open and inclusive governance practices in Thailand while promoting greater policy coherence across different policy areas that might not be taken into consideration in the traditional sense when developing government budget plans, including those on digitalisation (Box 4.2).

Box 4.2. Canada and the city of Paris: Gender-based and participatory budgeting

Canada

In Canada, initiatives such as the Gender-based Analysis Plus (GBA+) have helped in applying a gender equality approach in the development of government policies and programmes. The GBA+ framework has been applied to budget plan and allocation practices in Canada since 2018.

In 2019, Canada's government budget plans included the "collection and development of better gender and diversity data with an aim to improve the improve capacity to better measure, monitor and address gender disparity […]" and "ensuring that skills development programs are forward looking […] to meet challenges head on through the Future Skills Initiative […]" (Government of Canada, 2019[5]).

Such an approach would help to reverse or prevent the increase of the digital gender gap in Thailand (including within the public sector) and to ensure that women and less represented groups are well equipped to play a key role and benefit from the digitalisation of the economy and society.

City of Paris

The city of Paris conducts participatory budgeting by ring-fencing a specific part of its budget for citizen-initiated projects through a participatory process. Called "Le Budget participatif", it offers Parisians a fair and equal opportunity to decide on the use of 5% of the investment budget between 2014 and 2020 that makes up EUR 0.5 billion. The proposed projects will be evaluated on the feasibility of their proposal and then they will be voted on by Parisians. As of 1 July 2020, 2 375 projects have been successfully realised. They cover over 12 themes: living environment; culture and heritage; economy, employment and attractiveness; education and youth; environment; prevention and safety; cleanliness; health; solidarity and social cohesion; sport; transport and mobility; and a smart and digital city. Every project is listed on an open platform detailing the amount of funding, the number of votes, the progress of the project and its outcomes.

Such an approach could help the departments, provinces and cities engage with citizens and civil society organisations, tap onto their creativity and resourcefulness and enable greater openness and connectivity in designing better products and services to deliver greater value to them.

Source: City of Paris (2020[6]), *Paris Budget Participatif*, https://budgetparticipatif.paris.fr/bp/; Government of Canada (2019[5]), *Budget 2019: Gender Equality Statement*, https://www.budget.gc.ca/2019/docs/plan/chap-05-en.html (accessed on 10 April 2020).

Also, adequate funding is crucial for efficient and sustainable implementation of open government reforms and for supporting open government priorities. Beyond the total amounts spent to support open government initiatives, countries must ensure that funding sources are as clear and consistent as possible, appropriate recipients are identified to support the government's open government reform goals and that funds are spent on both implementation and co-ordination (OECD, 2016[7]). In that regard, earmarking funds for open government in the integrated budget plan could help to advance the open government agenda in Thailand.

Funds designated for open government initiatives are allocated in different ways across OECD countries. While the allocation of funds from a combination of sources is most common, in some countries such as Jordan, Korea and the Slovak Republic, all or most open government initiatives are funded by a single central institution. However, a large majority of countries (89% of all countries surveyed for OECD (2016[7]) have set up a system where the different institutions responsible for implementing initiatives are in charge of allocating funds. In some cases, external stakeholders, such as the private sector or international organisations, may also play a role. Allocating funds from a combination of sources is most common, though in 48% of countries, funds are allocated by a single source (OECD, 2016[7]). A large majority of countries (89% of OECD countries) allocate funds at least in part by the institutions responsible for implementing open government initiatives (OECD, 2016[7]).

In Thailand, open government initiatives are funded through a mixed system. The Office of the Public Sector Development Commission (OPDC) that is in charge of the open government agenda centrally co-ordinates funding of initiatives across public sector institutions, while ministries and agencies also fund their own policies and initiatives themselves. The allocation of funds through a central institution such as the OPDC may facilitate coherence and consistency of reforms and can help to ensure that all initiatives follow a national open government strategy. Endowing the institutions responsible for implementation with their own funds can, however, also reduce overdependence on a single actor and may help to improve the efficiency and effectiveness of the allocation of funds.

Commissioning of digital government projects: A focus on user value

ICT/digital project planning and approval

In Thailand, evidence collected during the OECD peer review mission to Bangkok and the survey (OECD, 2019[8]) administered for the purpose of this review point to two different processes for ICT/digital project planning and approval, running in parallel rather than in a structured way underpinning their synergies.

On the one hand, the MDES manages the Digital Economy and Society Development Fund, which is resourced with financial resources from the Thai central government and the Office of the National Broadcasting and Telecommunications Commission with a threshold of THB 5 000 million per year. Public sector organisations can apply for funding with a budget threshold of THB 100 million (USD 3 million) without the need for ministerial approval. However, projects above that threshold require approval from the Government Computer Procurement Committee within the MDES, of which the Digital Government Development Agency (DGA) is a member. For those projects over THB 1 000 million (USD 30 million), approval takes place at the cabinet level. This process is in line with the provisions of the Government Procurement and Supplies Management Act, B.E. 2560 (2017). MDES funding for public sector organisations is highly devoted to ICT/digital infrastructure projects.

Other funding mechanisms include that of the Ministry of Telecommunications' National Innovation Agency (NIA), which manages the National Innovation Fund (NIF). The NIF aims at promoting social and business innovation in Thailand; thus, its focus is to a lesser extent on ICT/digital projects within the public sector. Through the NIF, the NIA provides funding for business and social innovation from THB 500 000 to THB 1 million (roughly USD 15 000 to USD 30 000).

On the other hand, the second process is directly related to the BB budget allocation process for digital government projects discussed in the previous section. This process has not been fully capitalised on by the Thai government due to the lack of a more solid governance structure for ICT/digital project management and approval. For instance, similarly to the MDES project funding process, the DGA, which, as the BB also comes under the PMO, is not actively involved in the BB financial process. This limits the DGA's capacity to advise the BB in terms of which digitalisation projects would require (or not) priority budget allocation. But separately, in the fiscal year of 2019, the DGA set up the Annual Digital Government Integration Programme, with the official appointment of the programme committee signed off by the prime minister. The programme's concept focuses on the digital government transformation within three project spheres: i) to enhance the digital government capacity building and formulate digital data; ii) to focus on digital government platforms in potentially competitive sectors; and iii) to support the development of digital services in line with the Digital Government Development Plan. The Thai government allocated a budget of THB 1.903 billion for the 2021 fiscal year and THB 2.409 billion for 2022.

In this respect, the DGA plays a key role as primary secretariat in digital government budget allocation and monitoring processes of the project outputs and outcomes, along with the MDES as vice-chairperson, the Office of the National Digital Economy and Society Commission (ONDE) as co-secretariat and committee member, and the BB as a committee member of the programme. Together, the committee members: i) set the objectives and key performance indicators for participating public sector organisations; ii) co-ordinate on the programming planning, execution and budgeting; iii) oversee the initial allocation process; iv) ensure that plans and budget proposals are in line with the programme objectives and goals; and v) compile all plans and budget proposals for compliance with budgetary procedures.

In all these planning and approval processes of digital government projects, while the MDES, DGA and BB are involved in the budgetary process, the budget is only approved by the Parliamentary Budget Committee and the cabinet. As the primary secretariat of the programme, the DGA is required to know all the details related to the programme execution and proposals from participating public sector organisations as it defends the budget proposals in front of the Parliamentary Budget Committee.

Fundamentally, the Annual Digital Government Integration Programme and the Digital Economy and Society Development Fund do not overlap. The programme is specifically dedicated to advancing the digital government agenda while the fund has a broader scope that includes digital security, infrastructure, workforce and application in addition to digital government. More active participation of the DGA in the budgetary process at a higher level (namely, across the MDES and BB budget planning process where relevant) would help in building greater coherence among ICT/digital projects. For example, as suggested by peers during the OECD mission to Thailand, there are clear opportunities to tie the budget allocation for these projects with the precondition of meeting digital and data standards – if available.

The participation of the DGA could also help in reducing duplication of efforts among different project proposals so that synergies could be scaled up and resources better utilised. This could help in avoiding duplication and higher expenditure when procuring ICT/digital services and solutions. For instance, the Working Group of the Information and Communication Technology Centre within the Thai Ministry of Justice's Office of the Permanent Secretary conduct a redundant project analysis when analysing departments' ICT/digital project proposals. If duplications are found, owner agencies are recommended to integrate the different projects into a single proposal. These practices could be scaled up in relation to the DGA's involvement in the budgetary process.

In addition, the Digital Government Development Commission was set up in 2019 under the Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019), for the purposes of formulating the Digital Government Development Plans and monitoring government agencies' compliance with them to name but a few. Yet, it seems that the focus of this commission is more on recommending, formulating plans and tracking progress rather than on taking an active role during the approval process of digital projects. This is a missed opportunity as evidence from OECD countries has shown that advisory bodies

can play a key role in relation to allocating resources that were really needed. For instance, in the United States (US), a data council advises the White House Office of Management and Budget (OMB) on budget priorities for data management and use in line with the objectives of the US Federal Data Strategy (OECD, 2019[9]).

The advisory role of this commission could help in informing the DGA in terms of priority projects with a focus on value for citizens. This advice could then help the DGA in informing higher decision-making bodies such as the BB, and the MDES where appropriate, and embedding an outcome-oriented approach by design once projects are approved and enter the procurement stage (see next section). Yet, the focus on the public value of this body would depend on its membership, namely on the participation of actors from outside government. As discussed in Chapter 2, the objectives of the Digital Government Development Plans are ambitious but, in light of the reduced participation of the DGA in the budget process, there is great risk of fragmentation and duplication in the planning and implementation stage.

Thailand also lacks a common ICT/digital business case model to standardise the preparation and analysis of ICT/digital project proposals across public sector organisations. Evidence from the OECD mission to Bangkok indicates that these efforts are ad hoc and – if done – take place at the sectoral or ministerial level.

For instance, the Securities and Exchange Commission (SEC) calculates business' benefits using both qualitative and quantitative factors, e.g. return on investment (ROI) resulting from more efficient SEC services and reduction of using papers. While in itself this is a good practice at the organisational level, the development of a common model would also help to ensure greater coherence among the different funding schemes available for public sector digitalisation projects (including MDES funding models) and also across the different initiatives taking place within specific sectors.

The importance of developing these project management instruments is highlighted in Principle 9 of the OECD *Recommendation of the Council on Digital Government Strategies* (2014[1]). For this purpose, the OECD, in collaboration with delegates from the OECD Working Party of Senior Digital Government Officials has developed the OECD Business Case Playbook to provide hands-on guidance to public sector organisations to support the development of their business cases. The playbook highlights ten actions (called plays) which "describe the essential processes, components and actions of developing a business case to support investment in digital transformation and new ICT/digital capability" (UK GDS, 2018[10]). These actions aim at scaling up the focus of business cases from mere technology-oriented tools to comprehensive instruments that help in assessing digital projects' feasibility with a multi-faceted approach (Box 4.3).

Box 4.3. Developing better business cases: The OECD Business Case Playbook

A business case is a formal framework used to explain the need to start an initiative. It gives decision makers a clear understanding of the problems to be solved, offers practical solutions and explains to decision makers the purpose, risks and intent of a proposed ICT/digital investment. All good business cases share common qualities: they are clear and easy to understand, succinct (privilege quality vs. quantity) and persuasive (they present a robust and compelling argument). Business cases focus on delivering measurable outcomes and consider realistic and feasible alternatives to assess options and make decisions on how to move forward.

In light of the above, the OECD Business Case Playbook's ten plays aim at helping public officials describe the value that the project proposal brings to the final users and its broader economic, social and policy benefits. These include:

- Establishing a team, engaging with sponsors and scoping the preliminary work to set the foundations for the business case preparation.
- Understanding the problem, engaging stakeholders early and often and exploring options to undertake discovery, define the problem in context and understand what change would look like for users and stakeholders.
- Defining options and selecting preferred solutions to develop and test practicable solutions to the problem.
- Drafting the business case to make a convincing argument and plan for change.
- Reviewing and refreshing to stay on track after the business case is approved.

Source: OECD/Australian Digital Transformation Agency (forthcoming[11]), *Developing Better Business Cases: A Business Case Playbook*.

Examples from OECD countries in the use of common and coherent business cases include the Danish Business Case Model[1] and New Zealand's Business Case Options Framework.[2] Other examples include that of Argentina where the National Office of Information Technologies (ONTI) developed two standardised ICT/digital project models which public bodies use for submitting project proposals for funding. While these two models - known as Standardised/Complex Technical Requirements – vary in terms of complexity based on their focus, they seek to ensure projects' compliance with technology standards defined by the central government (including the use of open, cloud-based and shared solutions) (OECD, 2018[12]).

Moreover, the absence of core elements for the design of digital services (e.g. digital standards) also opens the window for asymmetries in relation to the development of new digital services. Without guidance and standards, the quality of digital services across government can vary. Setting enforceable tools would be one way to create, share and use standardised technology and services across government (including for internal software and services for the civil service). This could become part of the budget process, where the budget would only be allocated if the relevant body complies with these standards.

In the United Kingdom (UK), the Government Digital Service found spend control levels extremely effective for digital transformation. Combining the budget allocation with a provision to adhere to digital standards and assurance could allow Thailand to have an effective method of ensuring quality digital services. As expressed by the UK peer during the OECD mission to Bangkok, the UK government has also found it very useful to be aware of the technology pipeline in departments (as part of the spend control process) so it is aware of the technology landscape and can make more useful recommendations and challenges.

Procurement: Openness by default as a precondition for trust

As expressed by public officials during the OECD mission to Bangkok, public procurement in Thailand – including that of digital products and services – can be improved in terms of efficiency and coherence.

Key players involved in public procurement include the Public Procurement Management Office (PPMO), which comes under the Comptroller-General's Department (CGD) within the Ministry of Finance (MoF). The procurement of digital products and services does not benefit from any specific arrangements; thus, it follows and adheres to the same regulations and guides developed mainly by the CGD (ADB/OECD, n.d.[13]) and the MoF (including the 2017 Procurement Act and its secondary regulations).

While the 2017 Procurement Act is itself an achievement for the Thai government, as it aims at reducing corruption and paved the way for the use of integrity tools such as Integrity Pacts and greater external monitoring, the procurement of digital products and services could be better structured in the pursuit of more efficient and strategic government expenditure in this area.

Results from the survey (OECD, 2019[8]) administered for the purpose of this review indicate that most procurement activity for digital products and services takes place in the form of open public tenders. Yet, the process does not take into consideration the implementation of framework agreements that could help in consolidating government expenditure and reduce the risk of multiple agencies procuring similar technology products at a higher cost.

For instance, in Mexico, the 2012-18 government administration set up the "Framework Agreement for Software Licencing (*Contrato Marco en Materia de Software*, CMMS) which led to agreements with 31 software providers,[3] and had the value of making procurement simpler and more agile" (OECD, 2020[14]) As its name implies, the purpose of the framework was to reduce burdensome processes in the procurement of software solutions for the public sector. While the change of administration in 2018 brought changes to digital governance in Mexico (including the cancellation of this tool due to the transfer of responsibilities among different public bodies), its implementation also helped in curating a pool of service providers that could provide solutions to the Mexican government under specific conditions and in respect of whole-of-government standards. The framework however had a strong focus on the participation of major technology players and ignored the inclusion of smaller service providers (e.g. Govtech community) which are often left aside due to their capacity to deal with cumbersome and highly restrictive procurement processes.

Also, there are great opportunities to further implement "open by default" and data-driven approaches across the ICT/digital procurement process. The CGD is an active player in this respect.

For instance, the CGD collects and uses data from different public sector organisations to assess procurement requests from different ministries. This data-driven approach helps in preventing, spotting and correcting corruption and flagging those cases that would require the intervention of the Thai National Anti-Corruption Commission (NACC). The CG created a government spending website[4] in collaboration with the DGA, where public bodies publish information and datasets on government expenditure and procurement. The platform allows users to visualise data and to geolocate government expenditure by level of government. The DGA also developed a data standard to make the site interoperable with other agency websites and provides the option of accessing data through application programming interfaces (APIs), once users register on the Thai central open data portal.[5] These efforts are generally in line with other initiatives such as Thailand's work on the implementation of the CoST Infrastructure Data Standard, as discussed in Chapter 3.

Yet, there are some challenges the Thai government faces at this stage. One is related to maintaining adequate funding so that initiatives like the government spending website and related data initiatives can continue. The Comptroller-General has encountered difficulties in making the case for the funding of open government initiatives at the BB level. This would also require securing top leadership support so that open and data-driven approaches in public procurement (including those of digital products and services) are the rule and not the exception.

Second, trust-based and collaborative instruments like the Integrity Pacts could integrate specific arrangements on the mandatory publication of procurement information as open data from both public bodies and private providers. This would follow the premise that those projects funded with public resources should comply with open, digital and data standards so that watchdogs from inside and outside government (including the Comptroller-General and Audit Offices) can monitor these practices drawing on the value of digital technologies.

Non-governmental organisations such as the Anti-Corruption Organization of Thailand (ACT) have been quite vocal on how digital technologies and data analytics can help non-governmental actors in the fight against corruption in the country.[6] Yet, while the 2017 Procurement Act is clear in relation to the value of civil society monitoring the procurement process, this requires making information and data open, discoverable, available, interoperable and re-usable by default.

In line with the above, these efforts would also benefit from implementing a broader approach that comprises the publication of additional categories as open data (e.g. declarations of interest, beneficial ownership). By doing so, watchdogs could cross-match data linkages and obtain more insights at hand to prevent, identify and prosecute corruption based on their capacity to create relationships (e.g. public officials' interests or links with private companies) that otherwise would go unnoticed.

ICT/digital project management and monitoring

Thailand lacks a common ICT/digital project management approach, mechanism and tools and monitoring actions take place mostly at the ministerial or sectoral level. Bodies like the SEC and the National Science and Technology Development Agency report involving external actors such as project managers and other relevant stakeholders to conduct joint evaluations of digital projects. Yet, this is not a common practice.

Evidence collected during the OECD mission to Bangkok indicates that assessment or monitoring does not take place in an active, iterative and agile fashion beyond the audit process at the end of the year. This lengthy process increases the risks of over expenditure (particularly in large-scale digital projects like those of the MDES) and reduces the capacity of the government to deliver as expected, intervene earlier during the project implementation phase and take corrective measures (including the cancellation of projects) when needed. It is also not clear how bodies such as the OPDC, the DGA, the MDES and the NIA are taking proactive action to promote more innovative approaches in the management of digital projects.

The work on the application of agile methodologies such a DevOps in the US provides a valuable example in this regard. The 18F (an office within the US General Services Administration or GSA) "collaborates with other agencies to fix technical problems, build products, and improve how government serves the public through technology" (GSA, n.d.[15]). Parts of 18F have focused on mainstreaming the use of Modular Contracting – an approach that helps public sector organisations in reducing the complexity and increasing the flexibility of digital projects by breaking down single projects into smaller-scale elements. By doing so, failure of one link of the procurement chain can be better addressed and fixed whenever needed. This model also aims at reducing vendor lock-in as suppliers work following specific standards with shared knowledge on how the system as a whole works. Another example is that of the UK, where the Service Manual provides guidance for public servants to apply an agile approach when designing and managing digital projects and services.[7]

Building talent and competencies for implementing the open and connected government agenda

Digital government

Thailand's central government recognises that greater public sector capability for the digital era requires building, upskilling and attracting the right talent to the public sector. The Office of the Civil Service Commission (OCSC), under the PMO, plays a key role in leading the way in this regard, so that the public sector workforce is skilled enough to face societal change, citizens' growing expectations and changing behaviours, including the demand for more user-friendly services and greater participation in government decision making. This leading role of the OCSC is fully acknowledged by public officials in Thailand, as expressed during the OECD mission to Bangkok (April 2019) and confirmed by the results of the survey that was administered for this review (OECD, 2019[8]).

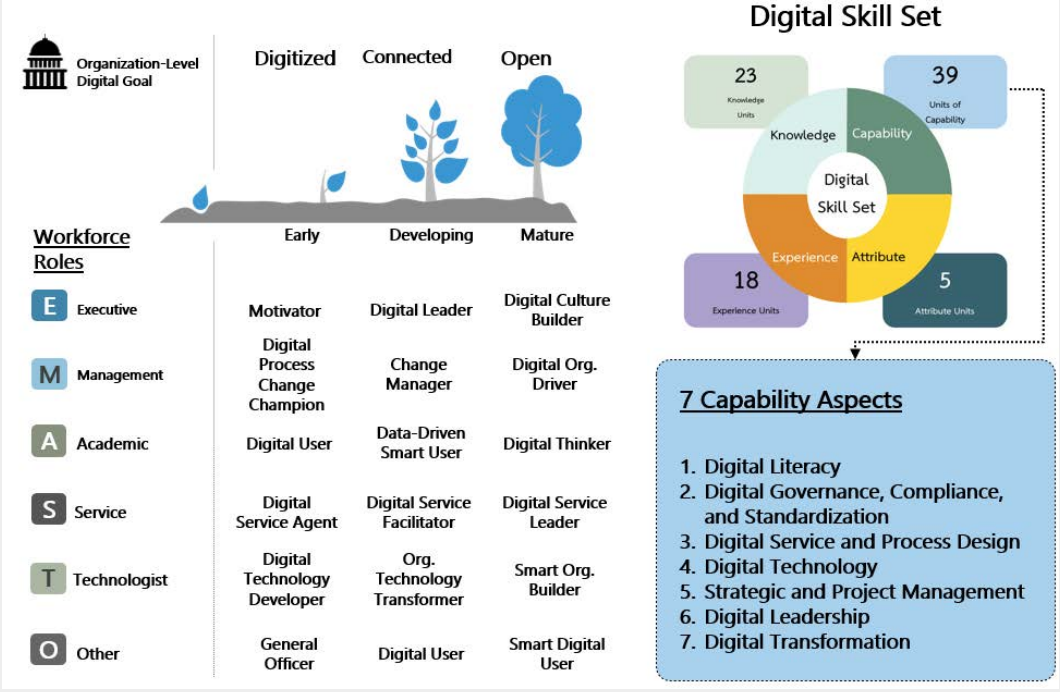
The OCSC's initiatives connect to the goals of the Digital Economy and Society Development Plan (or Digital Thailand) which, as discussed in Chapter 2, includes a specific strategy covering the development of a public sector workforce capable of coping with the challenges of the digital era. These efforts also respond to different government resolutions published since 2017. Among those, the 2017 Cabinet

Resolution on Digital Transformation and the Skill Development Framework for the Civil Service and Public Sector Human Resources have played a central role in how the OCSC has structured its approach for building greater digital capability within the public sector.

As a result of the 2017 resolution, the OCSC developed a Skill Development Framework for Digital Capability within the public sector. As shown in Figure 4.2, the framework covers different skill levels applied to specific public official roles (from executives to managers and technicians) as a measure to assess the digital maturity of the public sector workforce.

The framework was developed collaboratively with the participation of the MDES, the Thailand Professional Qualification Institute (TPQI) and universities in Thailand. The OCSC also conducted an internal assessment (which covered 15 000 samples collected across the public sector) to identify skills needs and implement skill development programmes drawing on identified capacity gaps.

Figure 4.2. OCSC – Thailand's Skill Development Framework



Source: OCSC (2019[16]), "Civil service and public sector HRD achieving Royal Thai Government's digital transformation", Presentation by the OCSC in the context of the OECD mission to Bangkok, April 2019.

However, currently, Thailand has no specific skills development framework to enhance the capability of public officials with regard to open government. In order to advance a culture change towards more openness, the principles and values of open government need to be identified, discussed and reinforced at every possible opportunity (OECD, 2016[7]). They should therefore not only be included in policy documents and aspirational statements but directly incorporated in people management systems by enshrining them in public sector values statements and civil servant competency frameworks. A majority (57%) of OECD countries lists open government principles in values frameworks (OECD, 2016[7]) and one-quarter (23%) of OECD members include principles in competency frameworks, performance agreements and/or accountability frameworks (OECD, 2016[7]). Many countries also specify the competency needed to enhance open government reforms in job descriptions and recruitment criteria.

For instance, with regard to the open government principle of participation, civil servants require a framework for skills. Accordingly, the OECD report *Skills for a High Performing Civil Service* finds that "civil servants work directly with citizens and users of government services. New skills are required for civil servants to effectively engage citizens, crowdsource ideas and co-create better services" (OECD, 2017[17]). One of the four pillars of the report's framework focuses on the new skills needed for citizen engagement and service delivery (Box 4.4).

The OCSC could thus consider amending the Skill Development Framework for Digital Capability to ensure that it includes all of the skills needed to advance the open and connected government agenda. Alternatively, the government could also explore developing a separate but complementary skills framework for open government.

Box 4.4. Skills needed for citizen engagement and service delivery

Employees involved in service management, design and/or policy making require skillsets that encourage input from citizens to these processes. While service delivery, communication, consultation and engagement have long been recognised as desired competencies for public officials, three trends are altering the demand for skills:

- Many countries now have an increasingly complex service delivery landscape.
- Technological change is resulting in new channels and tools for engagement.
- The push for a more open and innovative government means that civil services are expected to incorporate meaningful input and participation at a greater number of stages of the policy/service design process.

The 2017 OECD report *Skills for a High Performing Civil Service* (2017[17]) summarises the skills needed as:

- **Professional**: Traditional building blocks of service and engagement skills including professionals with expertise in public relations, communications, marketing, consultation, facilitation, service delivery, conflict resolution, community development, outreach, etc.
- **Strategic**: The use of engagement skills to achieve specific outcomes to inform better-targeted interventions, for example, or nudge public behaviour towards desirable outcomes, such as healthier eating habits or smoking reduction.
- **Innovative**: The application of innovation skills to engagement to expand and redesign the tools themselves through, for example, co-creation, prototyping, social media, crowdsourcing, challenge prizes, ethnography, opinion research and data, branding, behavioural insights/nudging, digital service environments and user data analytics.

Source: OECD (2017[17]), *Skills for a High Performing Civil Service*, https://doi.org/10.1787/9789264280724-en.

In terms of implementation, results from the OECD mission to Bangkok and the survey (OECD, 2019[8]) administered for the purpose of this review show that the development of public sector digital capability follows two main approaches. The first focuses on upskilling the public sector workforce through digital leadership development, continuous learning and capacity-building programmes, whereas the second focuses on attracting new talent to the public sector. By April 2019, the OCSC was working on a skill development strategy for the Thai public sector, which would aim at further clarifying the goals and actions to be implemented for this purpose (Figure 4.3).

Other bodies such as the DGA, the Thailand Digital Government Academy (TDGA), the MDES and the NIA are taking action to develop digital talent within the public sector. For instance, the NIA holds capacity

building programmes and technical skills development courses with the participation of actors such as the National Information Committee under the Ministry of Information and Communication Technology (MICT), the Royal Thai Armed Forces and the Royal Thai Navy. The Thailand Digital Government Academy on the other hand provides physical and online training courses for public officials in areas such as digital security, digital transformation and data governance.[8] The MDES has also put on one-year and three-year human resource development programmes for public officials, including the development of digital skills.

Additional practices include the Career for the Future Academy (CFA) of the National Science and Technology Development Agency (NSTDA), which provides training services for digital skill development. Yet, CFA activities are mostly focused on building capacities within the private sector (e.g. manufacturing sector).

Figure 4.3. Thailand: OCSC's Draft Development Strategy for achieving Government's Digital Transformation



Source: OCSC (2019[16]), "Civil service and public sector HRD achieving Royal Thai Government's digital transformation", Presentation by the OCSC in the context of the OECD mission to Bangkok, April 2019.

In terms of digital capability, capacity-building programmes should remain a priority in Thailand as evidence collected during the OECD mission to Thailand showed that the current lack of digital talent in the public sector has led to a situation where most digital projects are outsourced. Putting aside the specific implications of this context in terms of ICT/digital commissioning (see the previous section), peers clearly expressed the dangers of this approach. Experience at the international level has shown that outsourcing can lead to technology-driven solutions, rather than developing projects that focus on the needs of users of both public organisations and citizens. Therefore, digital capacity and capability programmes could help to reverse this trend and find the right balance between outsourcing and insourcing projects in line with the government's plans for digital transformation and the strategic relevance of specific projects for this purpose.

In terms of attracting and retaining new digital talent to the public sector, examinations are held for entry into the civil service, including assessments on digital skills. This helps not only in assessing the abilities of applicants but also in ensuring the possibility of long-term professional development, in line with the digital skills framework of the OCSC. The latter has a huge Digital Literacy Project that aims to enhance digital literacy among public officials by equipping them with skills needed in the digital era and for them to

integrate technology into their work for better efficiency and productivity. Under this project, the OCSC has hosted a significant number of workshops and capacity-building activities. The Digital Literacy Self-Assessment was also developed for public officials. Alongside this self-assessment, the Individual Development Plan for Digital Literacy and the Digital Literacy Development Space has been adopted to encourage public officials to improve and change on an individual basis and at their own capacity. Overall, the OCSC encourages all government agencies to mobilise a long-term plan for their public officials' career development.

However, while a key aspect of the process is to secure long-term employment, including for those hired for digital core competencies, the recruitment process is cumbersome and long. Public officials expressed that the process can last 5 to 12 months on average, which underlines the need for balancing long-term policy goals in terms of digital capacity with the need for delivering in the short and medium terms, particularly given the current digital skills gap in the public sector.

There are two approaches that could help in this regard. First, the creation of a preapproved digital talent pool, integrating external service providers and talent, could help in streamlining the hiring process. Indeed, during the OECD mission to Bangkok, public officials expressed their preference for collaborating with external suppliers and outsourcing digital projects as they were unable to recruit the relevant talent (e.g. data scientists, engineers) given cumbersome hiring processes and the challenge of catching up with more competitive salaries in the private sector (as evidence from the OECD survey also confirmed). Addressing this challenge would imply putting in place the right policy arrangements so that external talent can collaborate with public officials in the co-design of public sector solutions on an ad hoc, project-focused and more agile basis while ensuring that digital solutions remain owned by public sector organisations.

Second, talent mobility could help in securing continuous learning and tap the valuable digital talent available across the public sector so that skilled officials can apply and share their knowledge in other areas outside their organisation. The OCSC is already taking steps in this sense.

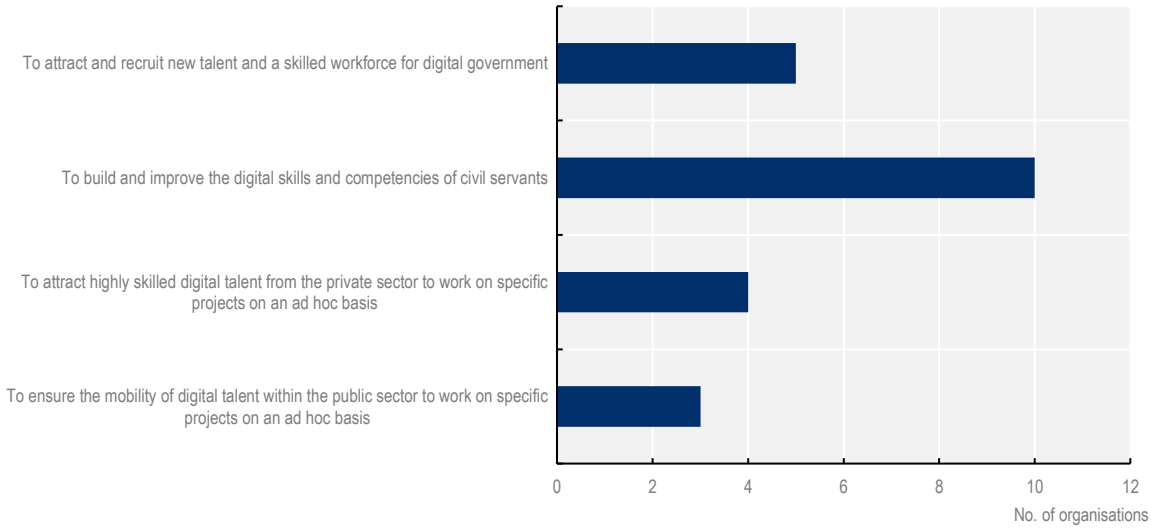
For instance, the OCSC's High Performance and Potential System (HiPPS) Administration Program, established in 2003, focuses on hiring, retaining and securing the mobility of high performing officials so they can become senior leaders in the future. The programme includes an intensive applicant selection process plus one-year policy work in different areas within the public sector. The OCSC has a Strategist Development Program under the Policy Study/Work Team Project, which is a talent mobility programme that allows top-level public officials in different public sector organisations to work on assigned projects that have high impact at the national level. The intention is to create space for creativity and exchange of perspectives to tackle the issue at hand. The assigned projects are typically around policy formulation, implementation, monitoring and special assignments by the cabinet office. Participants in the Strategist Development Program can receive incentive packages and special personalised training that aim to further cultivate a team player culture. These top talents are acquired from participating public sector organisations through a memorandum of understanding with the OCSC and the progression of the programme will be under the supervision of a mentor and monitored by the OCSC and participating public sector organisations.

Yet, the HiPPS Administration Program and the Strategist Development Program are limited to management positions, therefore opening a window of opportunity to expand its scope to other levels including those defined in the digital leadership and skills framework of the OCSC. Also, such an approach would help in building digital capacity across the broad public sector in the long run, in line with the goals of the Digital Economy and Society Development Plan, particularly those related to the development of the public sector workforce. Also, as expressed by country peers, greater mobility could help develop informal knowledge-based networks and promote self-learning opportunities for public officials and build a better base of expertise to reinforce Thailand's public sector capacity and digital maturity to develop new digital services at the institutional level whenever needed.

Results from the survey administered for the purpose of this review confirmed the urgency of taking action in relation to both of the aforementioned aspects. As shown in Figure 4.4, responses collected from public sector organisations in Thailand show the strong focus on building digital skills and upskilling the public sector workforce, followed by a focus on the acquisition of new talent. However, results also show that the mobility of digital talent within the public sector and ad hoc approaches to public-private collaboration remain third and fourth level priorities for both the central government and public sector organisations.

Figure 4.4. Level of priority for actions as part of the central/institutional digital government agenda

Results for high priority category



Note: Answers to the question: "How would you classify the level of priority given to the following actions as part of the central digital government agenda/institutional digital government agenda?".
Source: Questionnaire for public sector organisations: Digital government: Questions 50 and 54 in OECD (2019[8]), "OECD Survey on Open and Connected Government in Thailand", OECD, Paris.

Open government

Similar to the development of digital capacity, it is also important to enhance capacities related to open government principles, which are currently not subject to any programme or course. Capacity building in the form of courses for public officials can help to advance their understanding of the benefits of the open government principles of transparency, accountability, integrity and stakeholder participation in their respective areas of work. To that end, 51% of schools of public administration in OECD countries offer courses with a special focus on open government, designed for staff working in the field of public administration (OECD, 2016[7]).

To support the development of a culture of openness, Thailand could thus consider integrating open government principles into existing courses or introducing a government-wide training programme focusing specifically on open government. The programme's courses could be tailored to the needs of public officials and their respective areas. Needs-based courses, which for instance focus on the engagement with citizens, the private sector and civil society organisations (CSOs), could help to raise awareness among officials of the economic, political and social benefits of open government. Concretely, the courses could make the case for the economic, political and social benefits of mainstreaming open government in policy making in all policy areas, including environment, health and education, among others. As the designated institution in charge of co-ordinating open government, the OPDC could support the conceptualisation and implementation of the training programme.

In October 2020, the OPDC launched a seminar to provide background knowledge on open government to representatives from 42 public sector organisations that have work related to the open and connected government agenda. The seminar aimed to provide an understanding of open government to public officials, address the role of central government agencies in promoting open and innovative government and the various direct and indirect benefits that result. Going forward, the OPDC is planning to host more events related to open government for public officials to increase their understanding of open government and drive transformative changes within their organisations.

In addition to training courses, the collection and communication of good open government practices within the whole public administration could help to advance Thailand's open government agenda. To that end, the OPDC could consider identifying ministries and government agencies that lead with reforms and promote these open government champions within the government. The OPDC has already begun to identify relevant stakeholders within public sector organisations with which to co-operate in advancing Thailand's open government agenda. These stakeholders have been categorised into central government agencies, local administrations, law enforcement agencies and public service entities.

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5 Improving the design and delivery of public services in Digital Thailand

Chapter 5 assesses the efforts taken by the government of Thailand to enable an inclusive, omnichannel and user-driven design and delivery of public services in a digital Thailand, in line with the OECD Digital Government Policy Framework. It looks at the necessary governance and the availability of key enablers and tools such as the National Digital Identity (NDID), data standards and integrated service portals to assess the country's digital maturity in public service design, delivery and access.

Introduction

Designing, delivering and enabling access to public services through digital tools and channels are at the forefront of the digital government agendas in most OECD countries. In the early e-government era, the gradual adoption of the Internet allowed for the transition from fully analogue government-citizen relationships to the deployment of government websites where governments made available information on governmental activities as well as formalities and services users could access whenever needed without time and location boundaries.

This also supported the case for greater public sector transparency as citizens could now use Internet-based communication platforms to request public sector information that was not necessarily publicly available or released by governments in a proactive fashion. However, this also led to the proliferation of government websites, with a resulting fragmentation of information and user experience that in some cases meant finding conflicting information about the same topic in different places.[1]

As the population's access to Internet connectivity increased, web-based channels offered a more efficient alternative to other traditional communication means such as the telephone, traditional post services and even direct physical interaction. These electronic channels reduced government costs, which, as a result, drove greater government enthusiasm to shift away from telephone, post and face-to-face provision, therefore placing efficiency at the core of the business case for e-government efforts in terms of service delivery channels rather than the prompt being a response to changing societal habits. Yet, the possibility of using these electronic mechanisms was – and still is – preconditioned by citizens' access to the Internet, either home-based, mobile-based[2] or thorough public Internet hotspots resulting from government efforts to promote digital inclusion.

As e-government matured and increased digitisation resulted in moving from paper-based public administrations to web-based versions of previously analogue processes and greater use and exchange of electronic documents. For this purpose, governments developed a variety of technical solutions to not simply replicate existing administrative processes but to simplify cumbersome processes either internally within the public sector or in the interaction between users and public sector organisations. This placed administrative simplification at the core of the e-government era. In some countries, governments went further and developed registers (e.g. population, addresses, business registers) to facilitate the exchange of information within the public sector, and tools and protocols for citizens' authentication and electronic identification.

The fast-paced arrival of the digital transformation era has also challenged the capacity of governments to adapt to a new context where citizens and businesses have replaced the use of personal computers with smartphones and citizens shift from mere information consumers to data producers, therefore leading to exponential information and data generation.

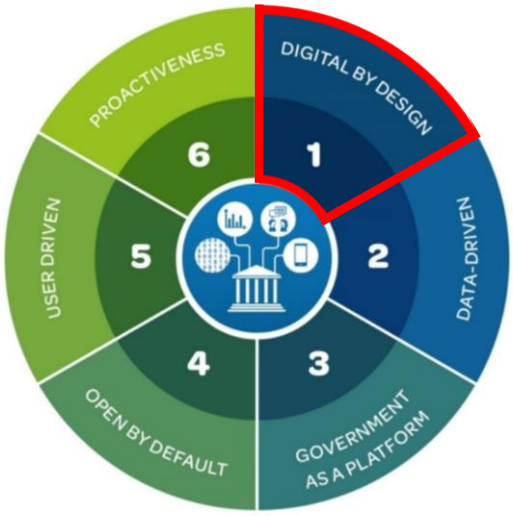
In the digital era, governments' technology-led interventions to meet top-down assumptions of citizen needs are no longer sufficient to fulfil citizens' increasing expectations. Transforming how the public sector works is now at the core of digitalisation efforts. In this context, the capacity of governments to design and deliver public services that focus on citizen demands taking a multi-faceted approach. This approach is not driven by the adoption of technology but focuses on overhauling and revamping how the public sector works so that governments can be prepared to cope with emerging or unexpected policy challenges at the local, national and global levels whenever needed.

The COVID-19 pandemic has tested governments' readiness to act with agility and responsiveness, including their capacity to use digital solutions to deliver new services in response to emergency and subsequent new needs. Now, more than ever, digital technologies and data have emerged as valuable tools to support economic and social stability and public trust in governments. As highlighted in the provisions of the OECD *Recommendation of the Council on Digital Government Strategies* (2014[1]), technology is one of several elements that help government become more agile and resilient, and increase

public trust through responsive services and policies (OECD, 2014[1]). Building a digitally-enabled state is no longer an option for politicians and policy makers but an obligation and precondition to secure the continuity of public services and government operations in either a stable scenario or the midst of a challenging context.

This chapter discusses the journey, key achievements of and challenges faced by the Thai government in transforming service design and delivery in the country. The analysis presented in this chapter follows the OECD Digital Government Policy Framework (OECD, 2020[2]) (Figure 5.1), as presented in Chapter 1. For this purpose, whenever needed, the analysis applies the dimensions of a digital government to public services' design and delivery (Figure 5.2).

Figure 5.1. The OECD Digital Government Policy Framework



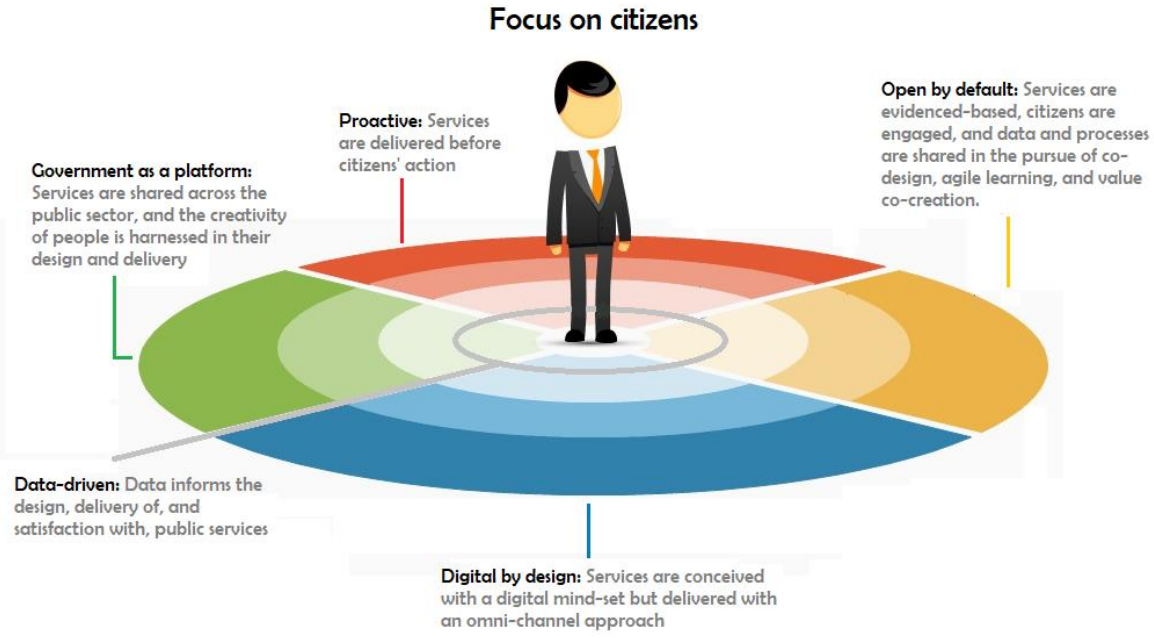
Source: OECD (2020[2]), "The OECD Digital Government Policy Framework: Six dimensions of a Digital Government", https://doi.org/10.1787/f64fed2a-en.

The governance for a paperless government and services

In 2018, the Digital Government Development Agency (DGA) administered a survey across the public sector to identify gaps in terms of digital capacities, practices and technological/data infrastructures, which indicated that, in practice, most government agencies still rely on paper-based procedures in their interactions with citizens (DGA, 2018[3]). This underlines how despite the numerous legal and policy instruments in place addressing digital government, as presented in Chapter 3, the work towards the digital transformation of the Thai public sector is, at the very least, challenging in terms of implementation.

Thailand's tradition of using legal instruments as a lever for digital transformation is reflected in how the country drew upon these mechanisms to build a paperless government. In 2019, the Office of the Public Sector Development Commission (OPDC) revised the Royal Decree on Criteria and Procedures for Good Governance, B.E. 2562 (2019), as a means of improving the governance for service delivery. Specifically, Section 6 of the Royal Decree requires that the provision of services and co-ordination among government agencies must be done through a central digital platform for data exchange, the Government Data Exchange Centre (GDX) – and Section 10 appoints the DGA as the body in charge of developing the GDX. For this purpose, the decree sets a two-year transitional window (subject to an extension to be requested from the OPDC) so that the heads of public agencies can move towards the full use of this platform for public service delivery and collaborative purposes (Thai Government, 2019[4]).

Figure 5.2. Public services and the OECD Six Dimensions of a Digital Government



Source: OECD (2018[5]), *Digital Government Review of Colombia: Towards a Citizen-Driven Public Sector*, https://doi.org/10.1787/9789264291867-en (accessed on 24 June 2019).

Decree 2562 adds to the extensive list of legal and regulatory instruments for digital government and digitalisation (e.g. the Acts on Electronic Transactions, Cyber Security and Data Protection) developed by the Thai government as presented in Chapter 3. Among those instruments, the Licensing Facilitation Act, B.E. 2558 (2015), aims at boosting Thailand's competitiveness and investors' confidence in doing business. It gives government agencies a more active role to facilitate the licensing process with citizens and businesses, also making it easier, faster and cheaper.

Also in 2019, the Thai cabinet office passed a resolution to further promote the development of a paperless government at the recommendation of the OPDC. Information provided by the Thai government to the OECD indicates that the cabinet resolution is focused on four major pillars:

- All official documents are required to be produced in electronic form.
- All government agencies are encouraged to implement e-services and go paperless by 2020.
- The OPDC, the DGA, the Electronic Transactions Development Agency (ETDA) and the Ministry of Digital Economy and Society (MDES) co-ordinate all major activities and decisions. These include: i) supporting government agencies in establishing the needed systems for electronic documentation and connectivity; ii) enhancing data governance around the management of big data and data linkage; and iii) ensuring the application of cyber security measures as a high priority for any further development.
- The OPDC and ETDA are assigned to act as co-ordinator and key actors in building awareness of all government agencies and offering the Thai government guidelines on how digital government and e-services can be initiated and developed to improve the business environment and people's lives – an area in which the Thai government seeks to improve.

As discussed in Chapter 2, the OPDC, DGA, ETDA and MDES play a fundamental role in taking Thailand to the next level in terms of its digital transformation, including in building a digital government.

Key enablers for digital services

Sharing services and building scalable digital solutions are preconditions for greater government integration and to foster higher digital maturity consistently across the public sector. In this sense, the development of common tools for the design and delivery of public services enables "governments as platforms" and helps to create a "joined up, effective experience of government for citizens when interacting with the state" (OECD, 2020[2]). By developing shared tools for public sector organisations to use and apply in the delivery of services to citizens and businesses, governments can reduce the proliferation of disconnected digital government practices. This fragmentation, in the long run, can lead to new legacy infrastructure challenges undermining the possibility of moving towards a digital state that places operational, legal, technical and organisational cohesion at the core of its digital transformation.

The DGA is the main provider of infrastructure and the required technical support to build a paperless e-government. It promotes information sharing within the public sector; and secures the delivery of public services, information and data to citizens and businesses through government platforms, among others (Box 5.1). The activities of the DGA respond to the specific goals of the 20-Year Digital Economy and Society Development Plan (2017-2036) or Digital Thailand and the underlying Digital Government Development Plan, as presented in Chapter 2. For this purpose, the DGA has developed different technical solutions and platforms in its pursuit to improve government-to-government (G2G) services (DGA, 2018[3]), including:

- The **Government Information Network (GIN)**, as an integrated network for information sharing within the public sector.
- A **Government Cloud Service (G-Cloud),** offering a secured government-owned tool for data storage and the hosting of cloud-based services and digital solutions.
- The **e-Saraban Platform**, as the secured solution for document exchange within the public sector.
- Internal communication tools for public officials such as **MailGoThai**, a government email system which can be also used to log in to government platforms such as the **Government Data Exchange Platform** (GDX) and other tools for internal chat (**G-Chat**) and secured video conferencing (**GIN Conference**).

Box 5.1. Thailand's Digital Government Development Agency (DGA): Key objectives

1. Reinforce, administrate and provide digital technology infrastructure services and service systems or fundamental applications engaging with digital government.
2. Implement standards, models, measures, principles and approaches in the form of digital technology as well as the transaction process in order to bridge information and work systems among government agencies legitimately and concordantly.
3. Promote and endorse the integration and exchange of information among government agencies, the disclosure of government information through digital technology and appoint as an exchange centre of government's digital information records in order to facilitate services to people and government agencies' transactions.
4. Enhance and ratify government agencies to provide digital services to concerned parties.
5. Reinforce a one-stop government digital service which people can access conveniently, promptly and securely.
6. Advocate and promote government agencies in terms of project management and administration of digital technology as well as endorse, sponsor and impart academic services and training in order to optimise government officers' digital competencies.

7. Study, research, experiment, endorse and sponsor academic works, research and innovations to enhance digital government development.
8. Promote governmental transactions that are accountable for the annual budget allocation framework involving digital government as well as fortify the monitoring and evaluation of digital government's transactions and plans.
9. Proceed with other matters with regard to digital government developments as per the law and the cabinet's orders.

Source: DGA (2018[3]), *Transform Government to the Digital Age: Annual Report 2018*, Digital Government Development Agency.

Digital identification and authentication

The ability for an individual to prove that they are who they claim to be is a vital component of everyday life. Having a valid means of identification is a prerequisite for participating in many aspects of society and particularly interactions with the government. Historically, societies have relied on physical proof of identity and handwritten signatures as a security guarantee. Over time, countries have explored how digital identity can facilitate the necessary assurance without someone being physically present. Nevertheless, there is no single approach countries can use, with the OECD defining seven possible models for issuing, managing and using digital identity (Box 5.2) (OECD, 2019[6]).

Box 5.2. The OECD seven models for issuing, managing and using digital identity (DI)

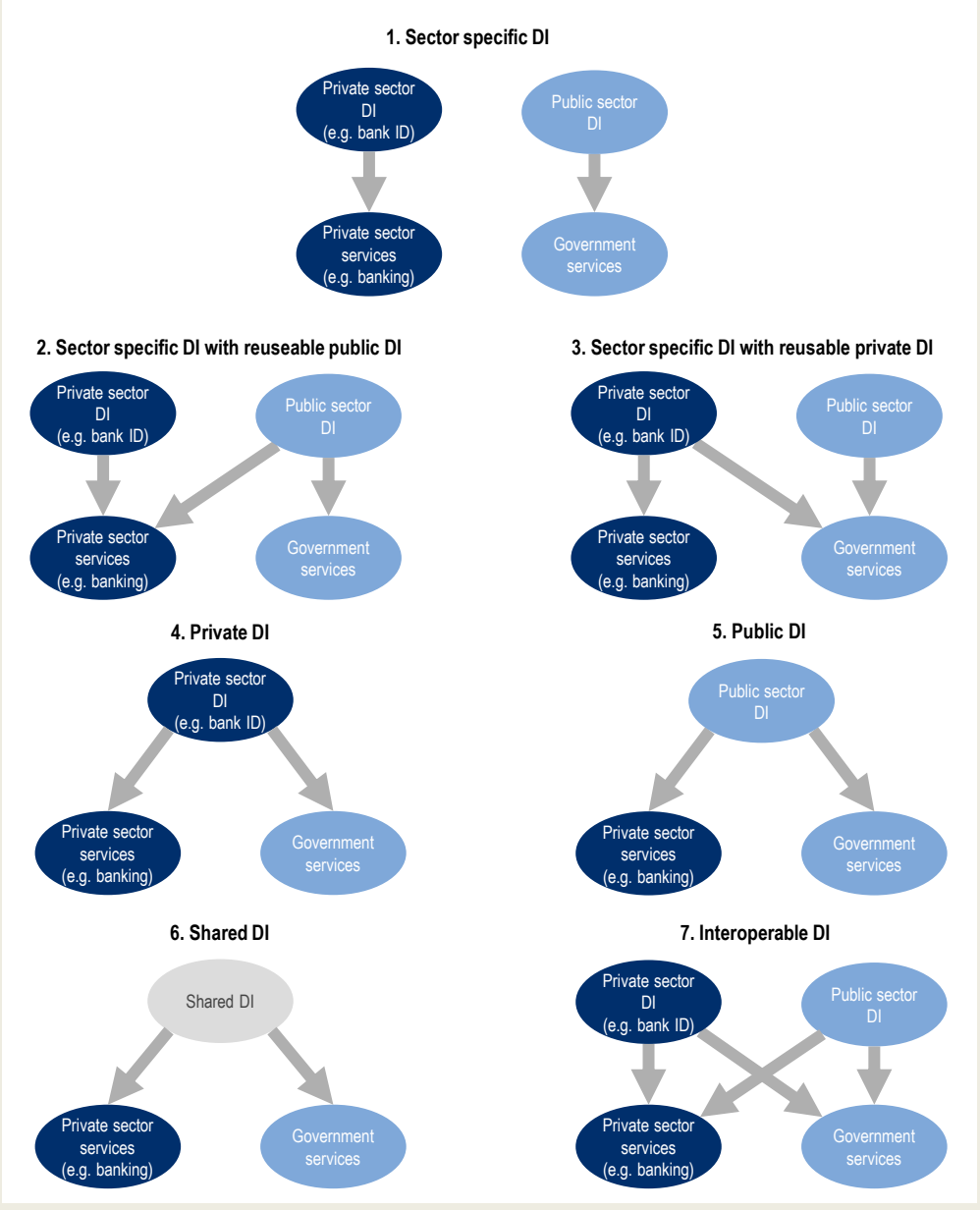
National approaches to DI may be developed by the public sector (often from scratch) or based on the re-use of existing solutions already provided by a country's private sector. The relationship between private and public sources and the application of identity is important in shaping the effective use of any DI.

The following 7 theoretical models were developed by the OECD for exploring the relationship between public and private sector DI solutions and their re-use in accessing services.

- In Model 1 ("Sector specific DI"), private and public entities remain separate with private DI used in private sector services and public DI used for government services. This model is seen in Uruguay.
- Model 2 ("Sector specific DI with re-usable public DI") has a clear separation between private and public DI but enables the re-use of public DI to access certain private sector services. This model is seen in New Zealand, Portugal and Spain.
- Model 3 ("Sector specific DI with re-usable private DI") is not evidenced in the OECD countries selected for comparison.
- In Model 4 ("Private DI"), users can access both private sector and government services using a single, re-usable DI, provided and managed by the private sector. This model is found in Norway.
- India and Italy demonstrate Model 5 ("Public DI"), where a single, re-usable DI provided and managed by the public sector is available to access both private sector and government services.
- Users in Austria, Denmark and the United Kingdom can access both private sector and government services via Model 6 ("Shared DI"), with a single, re-usable DI where responsibility for its issuance and management is shared between government and the private sector.

- Model 7 (“Interoperable DI”) allows for the creation of identity by both private sector and public sector entities but with interoperability that allows for its re-use to access services of any type. This model is found in Canada, Estonia and Korea where the National Public Key Infrastructure (NPKI) is the only digital certification for citizen authentication and can be used for both government services and private sector services such as banking. The NPKI is managed by KISA, an affiliate agency of the Ministry of the Interior and Safety, and issued by preauthorised financial entities. It is therefore regarded as public DI.

Figure 5.3 Models for issuing, managing and using Digital Identity



Note: Based on the information provided by Austria, Canada, Denmark, Estonia, India, Italy, Korea, New Zealand, Norway, Portugal, Spain, United Kingdom (UK) and Uruguay in response to OECD (n.d.[7]).
Source: OECD (2019[6]), *Digital Government in Chile – Digital Identity*, https://doi.org/10.1787/9ecba35e-en.

To deliver effective digital identity requires addressing: the foundations in terms of identity infrastructure, policy and leadership; the design of the identity service; the policy levers to encourage adoption; and provisions for transparency around data, performance and impact. Three different approaches for digital identity are presently taking place in Thailand.

First, the basis for identity in Thailand is the longstanding National Identification Card (ID Card) that was first introduced in 1943 and is issued, for free, to all Thai nationals from the age of seven. This card provides the physical identity infrastructure and is managed by the Department of Provincial Administration (DOPA), within the Ministry of the Interior (MOI). In 2005, DOPA launched a new version of the Thai national ID card, known as the first smart card. As the fifth generation ID card, it integrates a chip containing relevant public and private citizens' information. The public information is printed on the card and comprises information collected from four public sector organisations: the National Health Security Office (NHSO) on the citizen's medical treatment rights; the War Veterans Organisation of Thailand (WVO) on war veteran's background and achievements; the Territorial Defense Command on reserve personnel's records; and the Office of Agricultural Economics on farmer's identification and registration. The private information includes personal data and confidential personal information that is encrypted in the smart chip and accessible via a pin code or fingerprint.

This smart card was designed to double up the memory of a typical automated teller machine (ATM) card and a driving licence. To access the information within the card, public and private sector organisations are required to have a smart card reader and must be authorised through a memorandum of understanding with DOPA. Nevertheless, the ID card and its associated systems provide an opportunity on which to build efforts to move ahead with government ambitions to enhance the use of the ID card. With the government's commitment to reduce the use of paper (i.e. paperless policy) and embrace "no-copy policy", the government, therefore, needs to take a strategic approach to create a reliable system of digital identity authentication, including the establishment of the right legal and regulatory frameworks for the use of the ID card as a valid digital document. The government must also invest in tools necessary for enhancing public services both in terms of technicality and infrastructure (Box 5.3).

Box 5.3. The National Digital Driver's License and Digital Identity System: Integrating public service delivery

In Argentina, citizens can access a digital version of their driver's licence through the Mi Argentina mobile application. The digital driver's licence has the same legal validity as the hard copy equivalent. It allows for improved controls and reduces the possibility of fraud.

Launched in February 2019 by the Government Secretariat of Modernisation and the Ministry of Transport, and approved by the National Road Safety Agency, the licence is at no additional cost and is automatically generated if the citizen already has a valid driver's licence.

The National Digital Driver's License marks a turning point in the ecosystem of digital services in Argentina and a crucial step in the way the country is moving towards a digital, closer and agile state. The National Digital Driver's Licence is the first public service that uses the Digital Identity System (SID).

The SID platform is a joint development of the National Population Register (RENAPER) and the Government Secretariat of Modernisation to provide remote validation of a citizen's identity using the biometric data captured for every citizen at the time of enrolment in RENAPER (fingerprints and face photography).

The SID service can be used by private or public sector entities, for different purposes, such as for remote onboarding of new clients or products. These formalities used to require the physical presence of the citizens, with long waiting lines. Currently, 27 entities are using this solution at least in one of the

different available modalities, providing service to almost 150 000 people per month. The SID platform is a fundamental piece in the digital maturity curve of services in Argentina. Besides providing citizens with a more agile experience, it also increases the offer of public and private digital services.

Source: Text from OECD (2019[8]), *Digital Government Review of Argentina: Accelerating the Digitalisation of the Public Sector*, https://doi.org/10.1787/354732cc-en.

Second, the DGA has taken steps to standardise digital authentication for accessing services with the Single Sign-On system, based on the OpenID Standard, as a one-time login system that allows users to access online formalities and services from different government agencies. The Single Sign-On is designed such that users only need to log in once to access multiple government systems without re-login. Users either access the services aggregated on egov.go.th or via a single login on openid.egov.go.th. While the use of this tool by public bodies and users is not mandatory, by October 2020, nine public sector organisations have agreed to integrate the digital authentication system into their services: the OPDC, the Thai Bankers' Association, the Government Financial Institutions Association (GFA), the National Digital ID Co., Ltd., the Revenue Department, the Department of Business Development, the Department of Lands, the NHSO and the Student Loan Fund.

Third, the ETDA sets the authentication standards and guidelines for digital ID and digital signature for businesses and supports public sector organisations in adopting these tools in order to prepare, improve and transform the digital economy. For this purpose, the ETDA has issued a set of guidelines and standards for the use of digital identification, electronic communication and digital signature tools adopters should comply with when deploying these solutions to their services.[3] Security is ensured to be in line with international standards. It allows different levels of assurance utilising single-factor authentication (i.e. password, SMS one-time password, one-time password device, crypto software, crypto device), multi-factor authentication (the former including biometric) and multi-factor authentication with a cryptographic key.

The aforementioned activities of the ETDA are framed in the context of the National Digital ID (NDID) project launched in 2017 by the Ministry of Finance (MoF) and the MDES. The NDID is a collaborative effort between the public and private sectors to simplify citizens' and businesses' day-to-day activities, with a strong focus on preventing and reducing fraud and promoting a safer environment for electronic transactions (Figure 5.4). Subsequently, a group of private companies created the National Digital ID Co., Ltd. (NDID Co., Ltd.) to connect the relying party, the identity provider and authoritative sources. NDID Co., Ltd. shareholders comprise public and private banks (i.e. Stock Exchange of Thailand, Government Savings Bank, Thailand Post, insurance companies, fund management firms, mutual funds, financial technology (fintech) companies). None of the governing board members are a government agency. This initial phase involving the banks will involve the provision of services using the digital identity for opening bank accounts and applying for credit online. The scope will then expand to cover various other public services across sectors including opening investment accounts and insurance policies online or conducting doctor's appointments online. For this purpose, the NDID Co., Ltd. relies on the use of application programming interfaces (APIs) and other technologies such as blockchain for decentralised, secured and federated data exchange. Data sharing functions come under the principle of "privacy by design", therefore citizens' consent is needed before any data are shared among different organisations, without the intervention of the NDID Co., Ltd. Broadly, the ETDA is leading the process of sandboxing and testing digital ID solutions to build their efficiency and align them with data governance according to the Amendment to the Electronic Transactions Act No. 4, B.E. 2562 (2019), on Digital Identification formerly known as the (draft) Digital ID Act.

In the future, the intention is to embed biometric identification functionalities into these tools (such as face recognition) and to develop a cross-border digital ID based on the NDID (e.g. following the interoperability approach promoted by European Union eIDAS Regulations). The goal to have interoperable, mutually

recognised, secure, reliable and user-friendly e-identification and authorisation schemes are addressed in the Association of Southeast Asian Nations (ASEAN) Community Vision 2025 (n.d.[9]) under the section for e-commerce. The intention is to strengthen co-operation in the facilitation of cross-border e-commerce transactions towards regional economic integration.

In February 2020, the Bank of Thailand launched a pilot initiative to deploy the NDID Co., Ltd. under a regulatory sandbox in collaboration with six private banks in Thailand.[4] This approach is not new and mirrors the approach taken in other countries like Sweden where digital identity solutions are provided not only by the central government but also by other actors such as banks. At the start, the MoF and MDES played key roles in the National Digital Identity Committee (NDID Committee), along with experts from relevant sectors to oversee the initial establishment of the NDID Co., Ltd.

Figure 5.4. National Digital ID (NDID): Main objectives



Source: Screenshot from NDID (n.d.[10]), *Digital Identity for All*, https://www.ndid.co.th/ (accessed on 8 May 2020).

During the OECD peer review mission to Bangkok, peers expressed their support for the MDES' and ETDA's focus on building a safe ecosystem for digital identity to secure e-payments and e-commerce. Nevertheless, there is a need for increasing the understanding and sustaining the support provided to these initiatives at the policy-making level, so that a sufficient budget for its implementation is secured in the medium and long terms.

Moreover, co-ordination between the ETDA and DGA will remain key in relation to the development and/or application of joint digital ID solutions. The ETDA is working with the DGA and other government agencies to explore and co-create the most practical digital ID solution. Presently, the DGA is expanding its Single Sign-On System to integrate with the NDID as well as with D.Dopa, a digital ID system piloted by DOPA. This enables the use of private digital ID in the government sector (via the NDID), allowing citizens to use any secured digital ID to access public services in the future. The expanded service shall be available within 2021.

The evidence presented in the previous paragraphs indicates that, to date, Thailand is following a path towards an electronic identification (eID) approach where user choice will play a key role when deciding which digital identity tool to use. Other eID solutions are already in place, such as those of the Ministry of Commerce and the Tax Agency. In either scenario, securing the deployment of coherent solutions or a common infrastructure for eID from the start will play a key role in reducing the risk for legacy challenges in the long term.

For instance, in Norway, citizens can use up to five different eID tools with different levels of security to access digital services (including BankID and government-owned solutions). However, as a means to secure integration, the former Agency for Public Management and eGovernment (Difi) developed the ID-porten tool to provide citizens with a co-ordinated/common login solution to public services and reduce the burden that different eID systems impose on them (OECD, 2017[11]).

Also, beyond the development and deployment – or not – of whole-of-government digital identity solutions, challenges would remain in terms of the adoption of these tools by citizens and businesses. From a public sector service perspective, this would require making sure that current or future digital services and the underlying digital infrastructure are up to the innovation and technological development level required by tools such as the NDID. Additionally, Thailand also lacks other tools such as citizens' mailboxes and folders, which could help in streamlining communication with citizens and also reinforcing transparency and integrity in terms of how and which public agencies in Thailand access, share and use citizens' private data. This would help in further building citizens' trust in Thai public agencies and the Thai government as a whole.

Data as the foundation for digital services

Adopting and applying data-driven approaches for policy and services design and delivery is one of six dimensions of digital government maturity as presented in the OECD Digital Government Policy Framework (OECD, 2020[2]). Delivering user-friendly services to citizens and businesses requires emphasising the foundational value of data, including the importance of streamlining data sharing practices within the public sector. As discussed in Chapter 6, applying data for enhanced public service delivery calls for the implementation of the right data governance arrangements (e.g. stewardship, reduction of regulatory barriers, data security, interoperability and tools for machine-to-machine data exchange and federation), so that data siloes are broken down and data flows are simplified, controlled and secured whenever needed.

The mapping, discoverability of and government-to-government (G2G) accessibility to essential datasets, such as data registers, is fundamental in reducing the burden on citizens of a fragmented public sector that functions in line with its own bureaucratic structures rather than adapting or evolving to better respond to the needs and life journeys of citizens.

A focus meant to reinforce the strategic use of data for public services in Thailand is still under development and faces significant challenges from legacy overheads with some key public bodies managing data registers on the basis of paper records.

For instance, during the OECD mission to Bangkok, the Department of Business Development (DBD) (a body under the Ministry of Commerce [MoC] in charge of managing the business register in the country) explained that business registration takes place either on paper or on line. Information provided by the Thai government indicates that paper-based registration takes up 96% of the share while online takes only 4%. This results in an additional administrative effort to include that data in the business register. However, the DBD is making improvements in streamlining business processes and data sharing to abide by the once-only principle (currently citizens can use their business registration number for tax procedures as well). Before the introduction of this simplification measure, citizens had to follow different processes to get a tax ID number and a business registration ID number.

Another example is that of the civil register administered by DOPA, which includes name, family, birth and death registers and other details in the national ID card. This database is managed electronically and citizens that request a change in civil registration must submit paper documents in person to the relevant government authorities for verification purposes. The digital part of the civil register is enabled by linking all registered data through 13 digits on the ID card. Other government agencies that want to link these data for work missions, policy purposes or public service usage, have to submit a letter of intention and data governance plan to the MOI for authorisation.

In terms of data infrastructure, the DGA is piloting different projects as a means to promote greater data exchange within the public sector and connect available data registers and relevant data sources. These projects include an API system that presently, at the time of publishing this review, provides access to data

registers from various government agencies including the DBD, DOPA, the Revenue Department (RD), the Office of the Board of Investment and the Cooperative Promotion Department (DGA, 2018[3]).

Other examples include the GDX[5] platform, which responds to the DGA's mandate to develop a tool for information and data exchange for the public sector as stated in the Royal Decree on Criteria and Procedures for Good Governance, B.E. 2562 (2019). The platform has been in operation since 2016 and, at the time of publishing this review, allows more than 150 government departments to connect and exchange more than 39 million records of data.

Opportunities are vast. As detailed above, the application of specific technologies and tools such as APIs or the cloud can help in reducing data fragmentation and building resilient and scalable data infrastructures. However, moving towards greater data integration also requires making sure that the right data is available for access and sharing, and those data should be generated with a focus on their re-use either inside or outside the public sector.

First, it would be necessary to focus on the value of data. This implies identifying those key data sets of high priority, based on the value of those data to digitalise internal and external services. For instance, in Argentina, the central government followed a Data-as-a-Service (DaaS) approach where specific datasets were prioritised for standardisation and interoperability given their relevance for public services (Box 5.4). In addition, the transition from paper-based to digital data registers and the development of tools such as high-value data catalogues will remain key to enable the exchange of core data within the public sectors through common interoperability and data infrastructures.

Second, this would require also making sure that standards are available so that data holders can adopt them (e.g. those agencies producing specific datasets). These data governance tools might include hard-law instruments such as regulations or mechanisms such as recommendations, data standards and guidelines for data generation and co-ordination across agencies.

Third, the DGA's clear role and mandate in relation to digital and data standards will play a key role in ensuring that the DGA has the ability to enforce the application of those standards across the government. This would help maintain consistency in digital delivery across government as well as establish best practices and standards for technology. Neither the DGA nor the ETDA has regulatory or enforcement powers, which raises again the challenge of the governance instruments at the disposal of these agencies to enforce the alignment with data standards and the use of common components in a coherent fashion across the public sector (e.g. the budget allocation process as discussed in Chapter 3).

Box 5.4. Argentina: The Data as a Service (DaaS) approach

In Argentina, the so-called DaaS approach emerged as an informal policy initiative of the National Direction of Public Data and Public Information (DPDI) within the Secretariat of Government Administration at the Cabinet Office.

At the first stage, the purpose of the DaaS approach was to ensure the implementation of Presidential Decree 117/2016, which established the normative and policy underpinnings for an open data by default approach to public sector information. After setting up the basic technological and operational infrastructure for open data, by mid-2017, it was clear that the easy mile of the open data implementation efforts was well on track. Yet additional efforts had to be made in order to secure the DPDI's DaaS vision towards the development of data infrastructure, focused on users' needs and geared towards data re-use scenarios, including for those users within the public sector.

In terms of open data, the DaaS approach aimed at bulk data releases, facilitating data publishing and data consumption through the development of a suite of APIs (web services) based on 100% open data, designed in the open and to be easily deployed by third-party organisations.

For internal data users, the DaaS approach and the development of the Data Interoperability Platform for the public sector (INTEROPER.AR) responded to the need for improving and bringing order in public sector data management and sharing practices. The goal was to focus first on technical matters that could be later scaled up to enable better service delivery and public value co-creation.

For this purpose, the DPDI developed the *Guide for the Identification and Use of Inter-operable [data] Entities* to move towards greater data interoperability and exchange within the public sector. The guide is an ongoing effort to ensure both public and private sector organisations can follow simple methods to generate, share and/or consume good-quality government data, therefore putting the DaaS vision in practice. The guide provides guidance on how to create simple identifiers for data that are produced by different public sector organisations but that at the same time are regularly shared among them (e.g. country > country_id). Consistent and increasing efforts have been underway since 2017 to make sure the core DaaS reference framework for public sector data is available through APIs.

Source: Text adapted from OECD (2019[8]), *Digital Government Review of Argentina: Accelerating the Digitalisation of the Public Sector*, https://doi.org/10.1787/354732cc-en.

Service design: End-to-end services that focus on users

In terms of digital government, Thailand's government and its leading agencies are in the midst of a transitional period where legacy e-government aspects and the eagerness to move fast collide and create tension and resistance to change from different government bodies. Thai agencies comply with government regulations but fail to understand that delivering on governments' digitalisation and digital government goals would require self-acknowledging that things should be done differently from the start.

For instance, the Licensing Facilitation Act, B.E. 2558 (2015), has a big focus on administrative simplification and on building a paperless government. For this purpose, this law mandates public agencies to review their own processes every five years or to identify better alternatives, methods and channels to streamline service delivery. Moreover, the act authorises the OPDC to make recommendations to the cabinet office aiming at developing or improving the public service delivery process. It provides the basis to ensure consistency in the information collected and shared across the public sector, including the quality of forms and documentation, standardised processes and guidance on interactions such as the timeliness of government responses to businesses.

However, during the OECD mission to Bangkok, public officials expressed that, in practice, the Licensing Facilitation Act, B.E. 2558 (2015), is more of a mapping exercise that identifies the availability of services rather than identifying service overlaps or opportunities to redesign underlying processes as a priority for greater service consolidation. Nevertheless, such a mapping could provide a valuable springboard for understanding the service landscape and supporting the move towards more streamlined processes within the government and the development of integrated end-to-end services that focus on citizens (see Box 5.5 for Chile's example of creating a National Register of Services).

Box 5.5. Chile: The National Register of Services

The need for a more strategic understanding of the services landscape in Chile benefits from the recent development of the National Register of Services (*Registro Nacional de Trámites*). This catalogue can help in developing a strategic approach to the migration, rationalisation or consolidation of those services that share similar characteristics. In the past, the Digital Government Division (DGD) within the Chilean Ministry General Secretariat of the Presidency (*Ministerio Secretaría General de la Presidencia*,

MINSEGPRES) has attempted to maintain a limited record for only a fraction of the services. Keeping it up to date has proven highly challenging while different definitions of services, transactions and processes throughout the public sector, in addition to the law introducing its own definitions, mean no two "services" are alike.

Consolidating the catalogue or register of services paves the way for the possibility for the simplification and rationalisation of government by bringing together the various parts involved in administering the end-to-end experience of a user. A citizen may find themselves needing to complete one transaction with "Department A" before having to tackle a further interaction with "Department B" and possibly then returning to "Department A".

An index of services, therefore, provides a tool with which to understand and map user journeys. It is positive that the Digital Transformation of the State Law (MINSEGPRES, 2019[12]) and its related regulatory framework mandate public agencies to register all their services in this catalogue. However, further efforts and institutional capacities are needed to ensure the strategic use of these catalogues in the rationalisation of services and the overall expansion strategy of multi-channel service delivery programmes for public services (such as *ChileAtiende* in Chile or *GovChannel* in Thailand).

Source: OECD (2020[13]), *Digital Government in Chile – Improving Public Service Design and Delivery*, https://doi.org/10.1787/b94582e8-en.

As discussed in Chapter 3, public officials indicated that there is a significant regulatory burden while regulators are failing to take real action to decrease it, leading to strenuous formalities and below-optimal services provided to citizens and start-ups. This top-down approach is a legacy challenge in itself as decisions on what services should be prioritised for improvement are left to those agencies who own them, ignoring the insights and needs of the final users.

Results from the OECD mission to Bangkok indicate that any formal principle or guidance for service owners (e.g. government agencies providing services to citizens) in relation to assessing, embedding and taking into consideration the opinions of users in an iterative fashion (e.g. when kicking-off new projects or assessing ongoing delivery) are simply not available. Developing these soft governance instruments will play a key role in building a culture within the public sector that makes open, user-driven and agile approaches the priority when designing and delivering digital services (Box 5.6). Such an approach is a precondition for the efficient application of user-driven and open-by-default methods to service design and delivery and, consequently, to digital government maturity, as highlighted in the OECD Digital Government Policy Framework (2020[2]).

Also, current initiatives focus on the interoperability of data systems within government but there is little indication that there were any overall standards set for technology in government, even though government agencies mentioned service interoperability and integration as key policy priorities during the OECD mission to Bangkok. This is surprising given the DGA's strong focus on technology and data (e.g. development of platforms and technical tools).

During the OECD mission to Bangkok, it came clear that following a single technology-centred approach might not be the best way to design and deliver services in government. Rather, the Thai government should focus on developing technology and service standards that are able to cope with fast-paced technological development (e.g. as technology moves quickly, having a single integrated system can become expensive to maintain and quickly obsolete).

Box 5.6. OECD proposed general principles for digital service delivery

Under the auspices of the OECD Working Party of Senior Digital Government Officials (E-Leaders), OECD member countries have been considering what constitutes best practice in this area for several years. At the 2017 meeting in Lisbon, Portugal, the Thematic Group on Digital Service Delivery presented a set of general principles that both member countries and other governments could follow. These principles emerged from the experiences of member countries in implementing their digital agendas.

- **User-driven** – Optimise the service around how users can, want or need to use it, including cultural aspects, rather than forcing the users to change their behaviour to accommodate the service.
- **Security- and privacy-focused** – Uphold the principles of user security and privacy to every digital service offered.
- **Open standards** – Freely adopted, implemented and extended standards.
- **Agile methods** – Build your service using agile, iterative and user-centred methods.
- **Government as a Platform** – Build modular, API-enabled data, content, transaction services and business rules for re-use across government and 3rd party service providers.
- **Accessibility** – Support social inclusion for people with disabilities as well as others, such as older people, people in rural areas and people in developing countries.
- **Consistent and responsive design** – Build the service with responsive design methods using common design patterns within a style guide.
- **Participatory process updating** – Design a platform to take into account civic participation in the services updates.
- **Performance measurements** – Measure performance such as digital take-up, user satisfaction, digital service completion rate and cost per transaction for a better decision-making process.
- **Encourage use** – Promote the use of digital services across a range of channels, including emerging opportunities such as social media.

Source: OECD (2020[13]), *Digital Government in Chile – Improving Public Service Design and Delivery*, https://doi.org/10.1787/b94582e8-en.

Thailand can benefit from adopting a Technology Code of Practice and Service Standards, or a similar approach, as done by countries like the UK (Box 5.7). This can become an important policy lever to promote service design approaches that focus on users and that makes interoperability, scalability and agility a priority (e.g. by using open source and open standards) rather than on the development of rigid systems that could lead to new monolithic legacy structures for digital services in the near future. This can also allow the Thai government to be more flexible in what technology it can use and upgrade when it is useful to do so.

Box 5.7. The UK's Service Standards and Technology Code of Practice

The UK's Service Standard and Technology Code of Practice are unique and efficient frameworks that foster collaboration and standardisation across the public sector. They ensure cross-government conformity and unity in-service performance and the utilisation of digital technologies. These resources

mandate government teams to undertake specified tasks when engaging in the design of public services or the application of technology in their operations.

The **Service Standard** is a service manual that guides public sector officials in designing and operating public services covering the following 14 aspects:

1. Understand users and their needs.
2. Solve a whole problem for users.
3. Provide a joined-up experience across all channels.
4. Make the service simple to use.
5. Make sure everyone can use the service.
6. Have a multidisciplinary team.
7. Use agile ways of working.
8. Iterate and improve frequently.
9. Create a secure service that protects users' privacy.
10. Define what success looks like and publish performance data.
11. Choose the right tools and technology.
12. Make new source code open.
13. Use and contribute to open standards, common components and patterns.
14. Operate a reliable service.

The **Technology Code of Practice** (TCP) is a cross-government agreed standard with criteria to streamline and standardise technology designing, building and buying processes in the public sector. The TCP is expected to be applied to all technology projects and programmes to ensure that the technology: i) meets user needs based on user research; ii) is easier to share across government; iii) is easy to maintain; iv) scales for future use; v) is less dependent on single third-party suppliers; and vi) provides better value for money. The TCP also contain case studies and guidance to digitalise the legacy e-infrastructure and manage the whole lifecycle of the technology.

During the COVID-19 pandemic, these policy tools enabled local governments in the UK to respond swiftly and effectively to their local constituents in delivering the necessary services digitally.

Source: GOV.UK (2020[14]), *Service Standard*, https://www.gov.uk/service-manual/service-standard; GOV.UK (2019[15]), *The Technology Code of Practice*, https://www.gov.uk/government/publications/technology-code-of-practice/technology-code-of-practice.

In line with the above, although focusing on the design stage of digital services is not currently a priority, it might be in Thailand's interest to start creating such a paradigm shift to public services provision across the public sector starting with small pilot projects, built by multidisciplinary teams. This would allow agencies, led by the DGA, to experiment with service design, based on data and user research before having to commit to a national roll-out of digital services. One key aspect in this regard, previously discussed in Chapter 4, is also related to the lack of capacity within the public sector to build services and other tools such as (open) software, which has led to most government projects being outsourced to third parties, often in a fragmented fashion in terms of both procurement and standards. By starting "small" with a focus on scalability, the DGA could help in building a greater understanding of the frameworks for digital services, their connection with budgetary innovation (e.g. such as spend controls in the UK and information and communication technology/digital commissioning as discussed in Chapter 4) and the application of service and data standards needed to deliver full digital transformation.

The DGA could also start by building a better understanding of the capability gaps that should be addressed to meet user expectations for digital services and build a more mature digital government where

service owners (agencies) are able to cope with digital transformation challenges on their own. This could help inform the work of the Office of the Civil Service Commission (OCSC), which has been key to move towards a whole-of-government digital leadership and capability, including for design of user-driven services (Box 5.8).

Yet, in addition to building these skills, the DGA, OPDC and OCSC should also place building communities of practice within government as a priority, so that these partnerships promote knowledge exchange on user-driven services in a more agile fashion rather than waiting for formal plans indicating the need to "go big" and deliver digital services at scale.

Results from the interviews held with government officials during the OECD mission to Bangkok indicate that there are no communities of practice within the public sector, resulting from the extremely vertical and top-down governance model coming from the ministerial level. By promoting informal networks of practice, the DGA and OCSC could crowdsource collective knowledge and build further the much-needed relevant standards and design components for digital services with a focus on understanding and responding to user needs. These initiatives would greatly contribute to the much-needed paradigm shift mentioned earlier.

Box 5.8. 18F Methods in the United States: A focus on human-centred design

The 18F Methods is a collection of research and design practices provided by the government of the United States to build a greater understanding of the problem to be solved for targeted users. There are lists of methodological tools for different stages of the design process:

- **Discover**: cognitive walkthrough, contextual inquiry, design studio, dot voting, five whys, heuristic evaluation, hopes and fears, KJ method, lean coffee, stakeholder and user interviews.
- **Decide**: affinity mapping, comparative analysis, content audit, design hypothesis, design principles, interface audit, journey mapping, mental modelling, personas, site mapping, storyboarding, style tiles, task flow analysis, user scenarios.
- **Make**: design patterns library, prototyping, wireframing.
- **Validate**: card sorting, multivariate testing, usability testing, visual preference testing.
- **Fundamentals**: incentives, privacy, recruiting.

The 18F Methods are being used by partners and clients within the federal government and by state-level agencies, start-ups and businesses in order to create shared vocabulary across designers in the public sector and allow designers to do quick, low-cost user research and testing in line with regulations. With this guidance, the process of design to practice is made efficient and streamlined.

Source: 18F Methods (2015[16]), *A Collection of Tools to Bring Human-centered Design into Your Project*, https://methods.18f.gov/ (accessed on 21 July 2021).

Delivery and access to public services: Inclusive and digital by design

Digital by design, as one of the six dimensions of the OECD Digital Government Policy Framework, implies fully "embedding digital technologies in policy making and service design processes from the outset, and mobilising existing and emerging technologies and data to rethink and re-engineer business processes and internal operations" (OECD, 2020[2]). A digital by design government also follows "an omnichannel approach to enable a more inclusive digital transformation, allowing online and mobile services to co-exist with face-to-face or over-the-phone service delivery, ensuring that underlying processes are digitally

coherent and integrated. This implies digitally assisted delivery of public services across all channels, in order to secure the same level of quality regardless of the chosen means of access" (OECD, 2020[2]).

In Thailand, the DGA provides one-stop and digital services following a multichannel approach through physical kiosks, mobile and web-based channels.

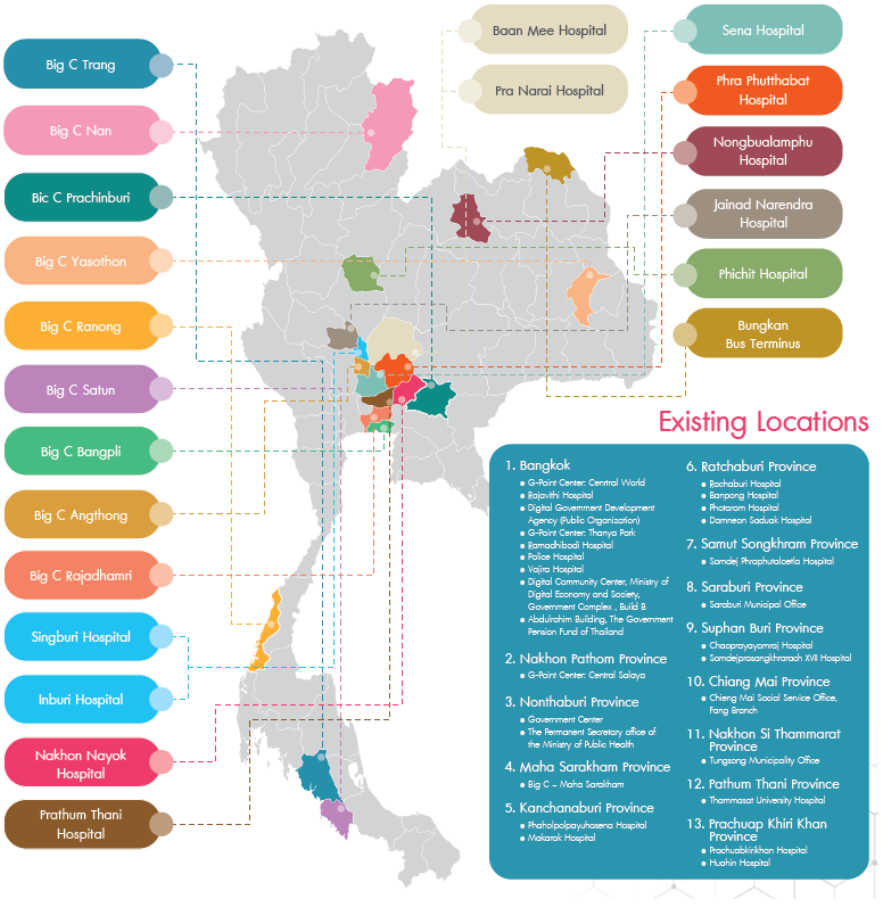
The DGA has deployed a system of Government Smart Kiosks (GSKs) across the Thai territory to address the digital divide for those citizens without access to the Internet or the required connected devices such as personal computers and smartphones (Figure 5.5). The GSKs offer the possibility for citizens to: access basic and useful information; register, apply or transact for some services such as identification verification, document delivery, data entry or issues reporting; and payment. These kiosks are available in 119 locations, including hospitals, government complexes and service points, one-stop service centres, shopping malls, provincial halls, bus terminals and schools. Twenty-one services are available on the GSK including civil registration (by DOPA), water usage and bill payment (by the Metropolitan Waterworks Authority), doctor's appointment booking (by hospitals), credit information (by the National Credit Bureau), service monitoring system (by the DGA), central identity authentication for citizens (by the DGA), medical check-up information in public hospitals (by the MPH), healthcare rights information (by the NHSO), pension account information (by the Government Pension Fund), traffic fines information (by the Royal Thai Police), social security eligibility and pension fund information (by the Social Security Office), medical rights eligibility check (by hospitals), complaint tracking system (by the Ministry of Justice and Office of the Ombudsman) and student loan system (by the Student Loan Fund). The GSKs have a strong focus on access to information, namely information on citizens' financial situation, civil registers and public sector health systems. The DGA has recently developed and released a mobile application Thang Rut (Path to Government) that allows citizens to access public services, including those previously available on GSKs via this application. The Thang Rut application uses biometric and artificial intelligence.

Adding to the accessibility focus of the GSKs, the MDES is deploying connectivity infrastructure across the national territory. For instance, the MDES is working on improving digital inclusion through the Village Broadband Internet Project "Smart Thailand". This is due to the fact that 90.1% of the population surveyed use the Internet via mobile devices and 65.6% do so through home-based Internet, according to the 2019 "Survey of the use of information technology and communication in households" conducted by the National Statistical Office (2019[17]). In early January 2021, the MDES deployed 20 000 free Wi-Fi hotspots in public areas as the first phase of the Smart Thailand scheme. An additional 20 000 hotspots to provide coverage of 88% of districts in all 77 provinces will be rolled out as part of the programme's second phase.

In addition, the government of Thailand launched Village Broadband Internet (Net Pracharat) as a way to bridge the rural-urban digital divide and increase Internet accessibility. The project involved strengthening the national broadband network by expanding the high-speed Internet network to reach every village in the country such that people living in remote areas will be able to access high-speed Internet like those in the cities. In December 2017, the MDES and Telephone of Thailand Public Co., Ltd. (TOT) completed the installation of a fibre optic network to 24 700 target rural villages in the country and an additional 9.8 million users had high-speed Internet access nationwide at no cost. This was a key initiative that truly ensured no one would be left behind and enabled everyone to be able to access public services. Spill-over effects include the creation of job opportunities, generation of income, fostering education, advancement of public healthcare services, supporting agriculture and boosting online trading.

Figure 5.5. Thailand: Government Smart Kiosks

Network across the Thai territory



Source: DGA (2018[3]), *Transform Government to the Digital Age: Annual Report 2018*, Digital Government Development Agency.

On the front of digital skills, the Digital Economy Promotion Agency (DEPA) developed capacity-building training for students, workers and labourers in some industries, senior citizens and disadvantaged groups to ensure that these groups are sufficiently equipped with digital literacy to thrive in the country's digital ecosystems. The MDES and DEPA co-trained over 500 public and private executives, over 3 000 public big data specialists and 60 000 from the digital workforce. One hundred schools were established to be Coding School Champions and, to date, 17 000 students and 4 000 educational personnel have benefitted from them. Overall, more than 3 million students and citizens have been able to improve their digital literacy through online platforms created by the MDES and DEPA.

In relation to web-based access, in 2015, the DGA launched govchannel.go.th as a gateway providing a single window for citizens to access government information, open data, statistics, formalities and services, and relevant mobile applications (more extensive than GSKs for services). This central website is embedded with links and connects with e-servers from partner public sector organisations. Yet, the GovChannel follows a more e-government approach where the platform works more as an alternative "search engine" to browse among the different available government websites (e.g. services are not integrated into one single platform and are hosted in separate websites, therefore accessible through different government domains). There are approximately 2 574 government websites from 454 government agencies, and no fewer than 299 online applications that are administered by public sector organisations.

All of these websites and online applications are owned, administered, updated and monitored independently.

The next steps would consider the underlying assimilation of the different sparse website platforms providing access to such topics in view of simplifying access to public sector information, data, formalities and services. However, this will require facing the potential organisational resistance of those agencies that own the specific available domains available for access through GovChannel, and that of line ministries and other bodies administering their own government websites. Yet, the case and rationale for this reform should not be merely understood from a look-and-feel or a technical angle, but from the intricate user journey resulting from multiple available government websites.

This would also require securing a consolidated and consistent user experience through the different channels (omnichannel) rather than simply offering online access points (multichannel) for scattered and often fragmented government websites, services and applications. For instance, both the GovChannel and Government Applications Centre (GAC) function as catalogues of websites and applications rather than single platforms for greater public services integration and consolidation.

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Notes

[1] See for instance OECD (2005[18]) and (2020[13]).

[2] See for instance: OECD/ITU (2011[19]).

[3] For more information, see https://standard.etda.or.th/.

[4] For more information, see https://www.ndid.co.th/news/4.html.

[5] For more information, see https://gdx.dga.or.th/.

6 Enabling a data-driven public sector

Chapter 6 presents and analyses the efforts of the government of Thailand to enable and govern a data-driven public sector. It reviews its data governance arrangements as a structural foundation and considers Thailand's current experience in leveraging data availability, access and sharing to unlock greater value in its service design and delivery. Finally, it explores how better data governance from the perspective of ethics, privacy, transparency and security could help in reinforcing citizens' trust in relation to the use of data by the government.

Introduction

A data-driven public sector transforms the design and delivery of public policies and services through the strategic management, sharing and use of data (OECD, 2019[1]). To build a data-driven public sector, governments should recognise and demonstrate the potential of data to generate enormous insights to improve policy making, service design and delivery, and public sector outcomes for the ultimate benefit of citizens and businesses (OECD, 2019, p. 17[1]). With the COVID-19 pandemic, the need for governments to be digitally enabled and data-driven has become more urgent as it proved to boost the country's resilience, management of the crisis and social and economic continuity.

Pivotal to achieving this is strong data governance, which, as a core system of the public administration, enables coherent decision making and implementation, accountability and transparency. It ensures that the tools, measures and mechanisms used to generate public value from the data are framed by elements of trust and integrity, such as ethics, privacy, transparency and security.

As the level of understanding and acknowledgement by governments of data as vital resources for public value increases, efforts have been directed towards bridging legacy systems, organisational, operational and infrastructure silos to enable the establishment of a data-driven public sector. The path to becoming a data-driven public sector is not evident and easy. It involves creating an enabling environment for the access, sharing and use of data to spark innovation and opportunities for public sector, economic and social development, while raising transparency and accountability from the government. Converting data into tangible, measurable and consistent public value outcomes remains elusive, especially when facing risks of data misuse and abuse by businesses and governments.

Building blocks for a data-driven public sector

In the drive towards fostering more open, digital and innovative governments, the OECD has identified the creation of a data-driven public sector as a chief condition for successful digital transformation. Principle 3 of the OECD *Recommendation of the Council on Digital Government Strategies* (2014, p. 7[2]) informs of the need to create a data-driven culture in the public sector by developing frameworks that guide the access and re-use of data and deliver trustworthy official data in open formats (Box 6.1).

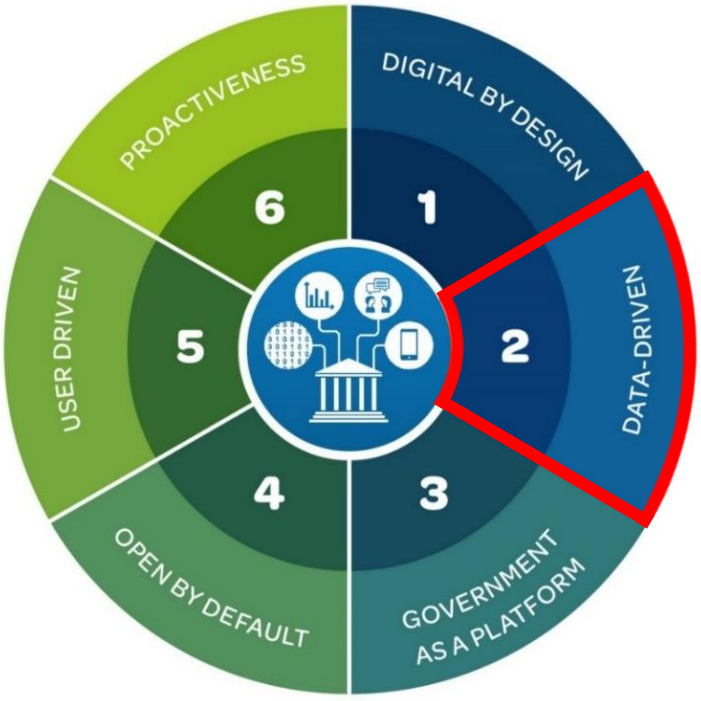
Box 6.1. OECD *Recommendation of the Council on Digital Government Strategies*: Principles 3

> *"The [OECD] Council [...] on the proposal of the Public Governance Committee [...] recommends that governments develop and implement digital government strategies which:*
>
> *Create a data-driven culture in the public sector, by:*
>
> *Developing frameworks to enable, guide and foster access to, use and re-use of the increasing amount of evidence, statistics and data concerning operations, processes and results to: (a) increase openness and transparency; and (b) incentivise public engagement in policy making, public value creation, service design and delivery.*
>
> *Balancing the need to provide timely official data with the need to deliver trustworthy data, managing risks of data misuse related to the increased availability of data in open formats (i.e. allowing use and re-use, and the possibility for non-governmental actors to re-use and supplement data with a view to maximise public economic and social value)."*

Source: OECD (2014[2]), *Recommendation of the Council on Digital Government Strategies*, https://www.oecd.org/gov/digital-government/Recommendation-digital-government-strategies.pdf.

In line with the above, the OECD Digital Government Policy Framework highlights the data-driven public sector as one of its core six dimensions (Figure 6.1). In a data-driven public sector, governments are able to apply data for designing policies, public services and long-term plans, generating public value to meet the changing needs and higher expectations of citizens and businesses (OECD, 2019[1]). It implies engaging in active efforts to remove barriers to the use of data, publishing public sector data freely and openly, encouraging the use or sharing of data among public sector organisations while protecting the data rights of citizens and businesses (OECD, 2019, p. 17[1]).

Figure 6.1. The OECD Digital Government Policy Framework: Data-driven public sector dimension



Source: OECD (2020[3]), "The OECD Digital Government Policy Framework: Six dimensions of a Digital Government", https://doi.org/10.1787/f64fed2a-en.

The opportunities of a data-driven public sector can be classified into three main pillars where data-driven initiatives can support the decision-making process across different policy areas and levels of government (Table 6.1):

- **Anticipatory governance**: Use data to strengthen a data-driven public sector's anticipatory capacities and future-oriented approaches.
- **Design and delivery**: Engage stakeholders in policy making and the development of public services that respond to the needs of the users at any given point in time.
- **Performance management**: Enhance the monitoring, management and improvement of performance.

Table 6.1. Opportunities of a data-driven public sector

Anticipatory governance	Design and delivery	Performance management
Forecasting to proactively identify developments and future needs.	Engaging with citizens and businesses and co-value creators.	Acquiring resources effectively and using resources efficiently.
Foresight to prepare for multiple plausible alternative outcomes.	Predicting and responding better to citizens' and businesses' needs.	Attaining a higher quality and evaluation of performance.

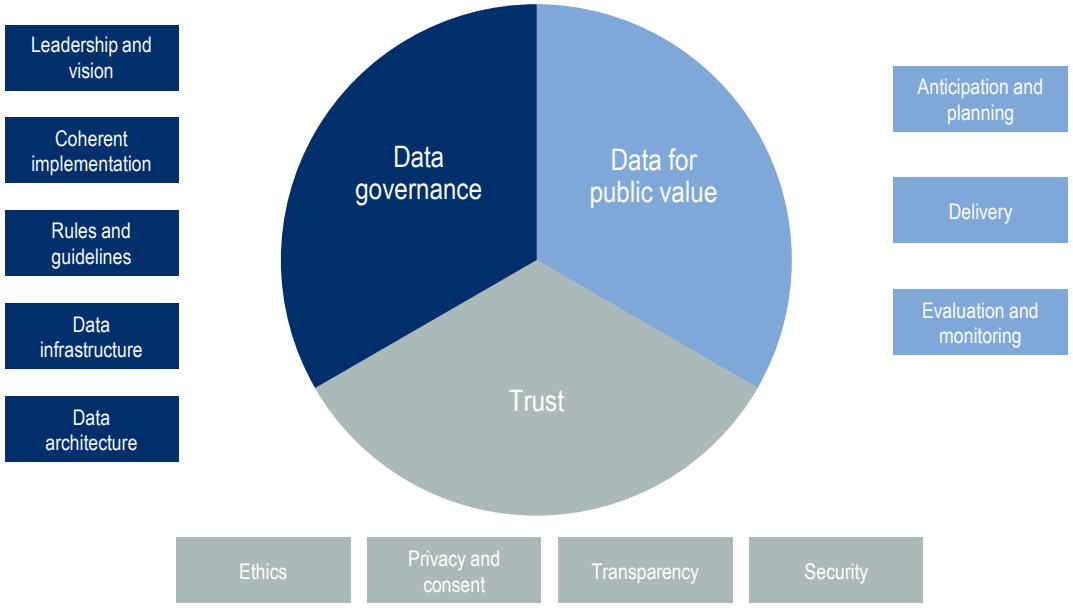
Source: Adapted from van Ooijen, C., B. Ubaldi and B. Welby (2019[4]), "A data-driven public sector: Enabling the strategic use of data for productive, inclusive and trustworthy governance", https://dx.doi.org/10.1787/09ab162c-en.

Analysing Thailand's efforts to enable a data-driven public sector

Building a data-driven public sector is not an easy task. Indeed, results from the OECD Digital Government Index show how the data-driven public sector is the second-lowest dimension of all of the six dimensions assessed in the OECD Digital Government Policy Framework. These results show that "governments are not yet fully exploiting the potential of data as a foundation for digital government and should foster the creation of a skilled public sector that relies on data as a core component to effectively design and deliver projects" (OECD, 2020[5]).

For the government of Thailand to reach digital government maturity and build a data-driven public sector with a whole-of-government approach, there are three key areas for discussion and consideration that will be covered in the three sections of this chapter: i) strengthening **data governance** arrangements as the structural foundation, which establishes how authority, control and decision making over data assets are carried out (Ladley, 2012[6]); ii) leveraging data access and sharing to increase **public value** in service design and delivery; and iii) establishing the role of data governance for **trust** in governments. The structure is also based on the OECD's analytical framework that holistically accounts for a data-driven public sector, featuring 12 facets with 3 areas of focus needed to successfully unlock the value of data (Figure 6.2).

Figure 6.2. The OECD analytical framework for a data-driven public sector



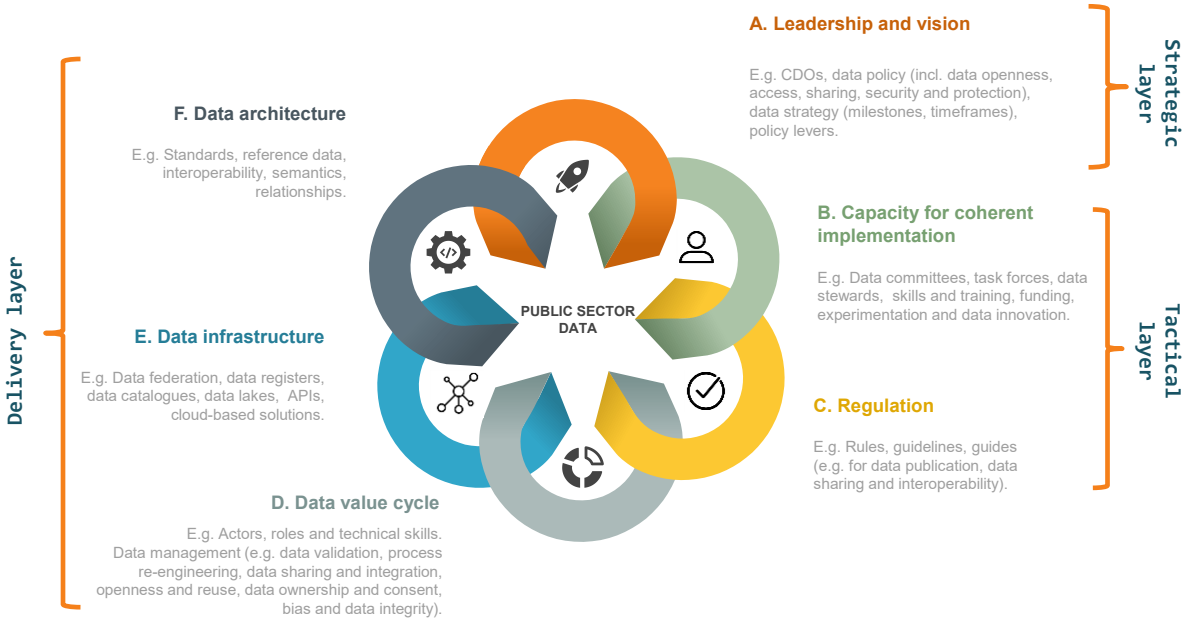
Source: OECD (2019[1]), *The Path to Becoming a Data-Driven Public Sector*, https://doi.org/10.17878/059814a7-en.

Strengthening public sector data governance in Thailand

Building a data-driven public sector implies strengthening the leadership, co-ordination, and regulatory, institutional and technical facets of data governance (Figure 6.3). These facets are structural and therefore fundamental to build the basis for the trustworthy and enhanced access to sharing and use of data by public entities. The six facets are organised into three different layers: the strategic layer (leadership and vision), the tactical layer (capacity for coherent implementation and regulation) and the delivery layer (data value cycle, data architecture, data infrastructure).

As such, this first section on "Strengthening public sector data governance" will focus on the aspects of leadership, power and capacity for co-ordination, strategy, management and regulation, in line with the data governance strategic and tactical layers presented in Figure 6.3.

Figure 6.3. The OECD model for data governance in the public sector



Source: OECD (2019[1]), *The Path to Becoming a Data-Driven Public Sector*, https://doi.org/10.1787/059814a7-en.

The government of Thailand is not oblivious to the importance of data governance in the public sector – a vision which is shared by leading OECD member countries in this field such as Estonia, New Zealand and Norway (OECD, 2019, p. 30[1]).

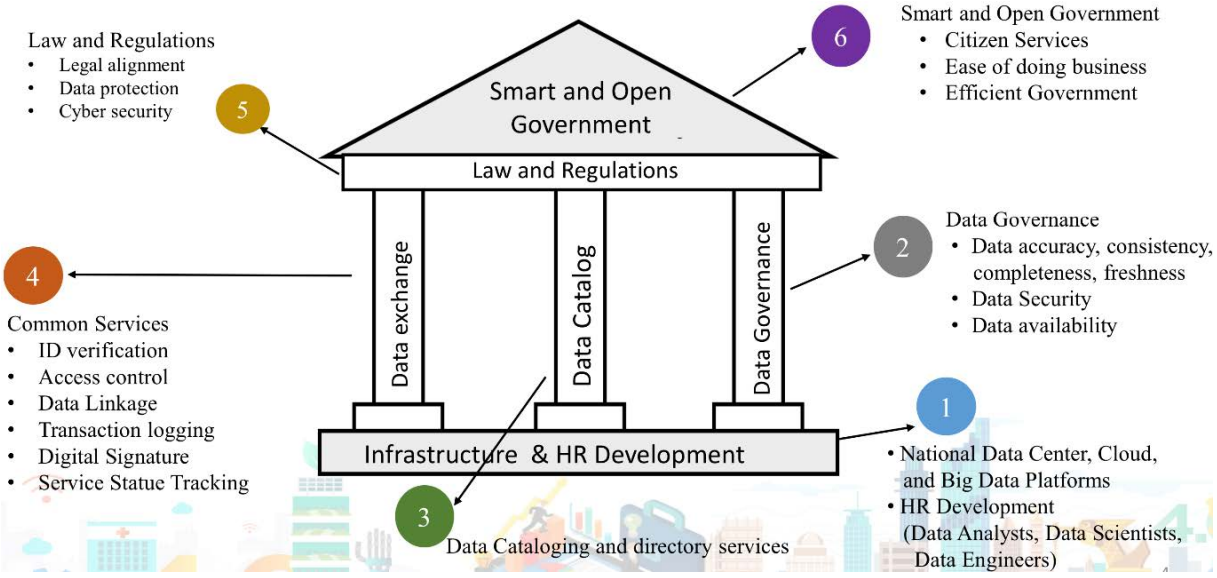
In the past few years, the government of Thailand has made efforts to provide formal ministerial support and establish governance structures for Thailand's initial phase of the transition to a data-driven public sector. The Digital Government Development Agency (DGA) developed the Data Governance Framework 1.0 in 2018, which emphasises the importance of governing data to support the development of Thailand's digital economy and society but also highlights the challenges it faces, namely data duplication, data quality, data security and information disclosure (DGA, 2018, p. 10[7]).

Yet, while there is ambition in Thailand to build a digitally enabled and data-driven public sector, the digital foundations built from 2018 are still not sufficiently robust and need to be further strengthened. For instance, as part of its research work, the DGA has expressed a lack of clear direction and comprehensive measures and guidelines on the management and supervision of public data (DGA, 2018, p. 10[7]).

Under the Data Governance Framework, the DGA defines data governance as a mechanism for determining the direction, control and verification of the management of data, such that the data are secure, of quality, cost-effective and economically and socially valuable, and the acquisition and use of government information are accurate, complete, current, safe and private (DGA, 2018, p. 10[7]). It establishes the rights, duties and responsibilities of every stakeholder and defines the policies and standards for creating, using and managing data such as the data value cycle, quality of information and metadata (DGA, 2018, pp. 13-14[7]). The standards within the Data Governance Framework 1.0 aim to support every government agency in building the foundations to work towards digitalisation from the processing to the collection, distribution and exchange of data.

When compared to the OECD data governance model for the public sector presented in Figure 6.3, most of these elements fit in the delivery aspects of data governance (e.g. data quality, metadata) while others are more tactical (e.g. roles and responsibilities). Additionally, the Thai Government Data Service Framework (Figure 6.4) expresses clearly how the most technical and delivery aspects of data governance are foundational pillars for the construction of a smart and open government.

Figure 6.4. Thailand's Government Data Service Framework



Source: NSO (2019[8]), "Big data application in Thailand's government", https://unstats.un.org/bigdata/events/2019/hangzhou/presentations/day3/5.%20Big%20Data%20Application%20in%20Thailand%E2%80%99s%20Government.pdf.

Leadership

Political and administrative leadership are crucial to secure the success of Thailand's willingness to use data both in the design and implementation of public policies and services. Political leadership involves high-level support from ministers to advance the policy agenda, while administrative leadership are of top management positions in the public sector that focus on steering policy design and implementation, which helps to ensure continuity across political terms (OECD, 2019, p. 39[1]). Power derives from this leadership to a large extent but is also dependent on a host of other factors, such as the institutional position in the hierarchy, defined roles and responsibilities and their legal basis, and the policy levers that leaders and public sector organisations use to steer policy and enforce compliance (e.g. of data standards).

As discussed in Chapter 2, the Ministry of Digital Economy and Society (MDES) is the public sector organisation that takes the greatest lead on the national digital (government) and data agenda: Thailand's

National Big Data Policy and Digital Government Development Plans (further elaborated in the next sub-section “Towards an action plan for public sector data”).

The MDES, together with the Digital Government Development Commission and the DGA, leads the development of data governance and policies as part of the National Big Data Policy and Digital Government Development Plans.

On the one hand, the Digital Government Development Commission was created in 2019 under the promulgation of the Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019). It has significant political and administrative power, as it brings together the prime minister of Thailand as the chairperson, and the Minister of Digital Economy and Society, the Permanent Secretary of the MDES, the Permanent Secretary of the Office of the Prime Minister (PMO), the Permanent Secretary of the Ministry of Higher Education, Science, Research and Innovation (MHESI), the Secretary-General of the Office of the Civil Service Commission (OCSC), the Secretary-General of the Office of the Public Sector Development Commission (OPDC), the Secretary-General of the Office of the National Economic and Social Development Council (NESDC) and the Director of the Budget Bureau as the members. Other members are selected from the National Digital Economy and Society Commission, the Electronics Transactions Commission, the Office of the Official Information Commission, the Personal Data Protection Commission and the National Cyber Security Commission.

The Digital Government Development Commission has powers and duties to provide guidance and recommend policies to government agencies and formulate the Digital Government Development Plans and its roadmaps, principles, standards, rules, regulations and guidelines, especially in data governance. The commission is required to track and monitor the progress of digital government in Thailand (Box 6.2). Additionally, the DGA and the commission also provide policy recommendations to the cabinet on digital government development. In that regard, the Office of the Permanent Secretary and the PMO have been keen in co-operating with the DGA and its governing commission to support the implementation of the Digital Government Development Plan.

Box 6.2. Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019) – Specific provisions on data governance

> *“**Section 7***
>
> *The Digital Government Development Commission shall have the following duties and powers:*
>
> *[…]*
>
> *(2) To specify the principle of governmental data governance as a foundation and guideline to ensure compliance with this Act; […].*
>
> ***Section 8***
>
> *The governmental data governance under Section 7(2) shall, at least, consist of the following:*
>
> *(1) The determination of rights, duties and responsibilities in the management of data of State Agencies, including the right and duties of the person possessing or controlling the data in every step throughout the procedure;*
>
> *(2) There being an administration system and a comprehensive procedure for data management and protection which covers the production, storage, categorisation, processing or use, classification or disclosure, inspection, and destruction;*
>
> *(3) There being a measure to control and improve data quality for the purpose of ensuring that the data is correct, comprehensive, readily available, up-to-date, integrable and can be shared, including there being*

an evaluation on the data management in order for State Agencies to have quality data, and to be able to develop their innovation using such data;

(4) The determination of clear and systematised policies or rules on access and utilisation of data, including measures and guarantees for the protection of possessed data to ensure security and prevent privacy violation;

(5) The production of the data catalogue on the government's digital metadata in order to expound on the data structure, content, form of storage, sources and right to access the data."

Source: Information provided to the OECD by the Thai government.

On the other hand, the DGA delivers policy recommendations on digital government transformation, data governance and digitalisation of public services backed by political support. The DGA's role in building a data-driven public sector is set out in B.E. 2561 (2018), a royal decree that established the DGA under the supervision of the prime minister and the PMO. The government-to-government (G2G), government-to-citizen (G2C) and government-to-business (G2B) initiatives of the DGA are issued either as prime minister's orders or cabinet resolutions (DGA, 2018, p. 33[9]). Moreover, the Digitalisation of Public Administration and Services Delivery Act, BE. 2562 (2019), specifically states that the DGA has "the duty of directing and facilitating the operations as assigned by the Digital Government Development Commission, including its secretarial and academic works". In this sense, the DGA has a similar scope to the Digital Government Development Commission.

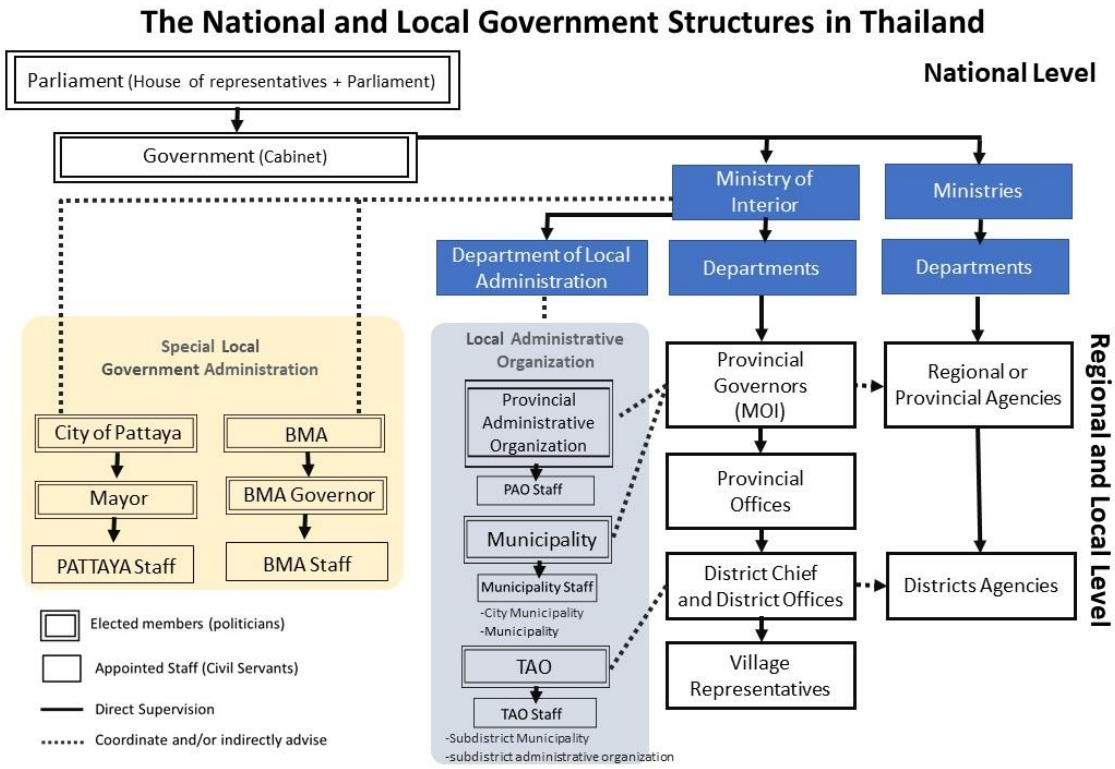
However, the DGA fares less on administrative power in the implementation of the digital government and data agenda. The DGA, as the key public sector organisation that promotes and supports the rolling out of digital government services, does not play a strong co-ordination and compliance role for data governance across the public sector. Broadly, the MDES and DGA co-ordinate with other ministries and government agencies on different mandates under the 20-Year Digital Economy and Society Development Plan (2017-2036) or Digital Thailand, one of which includes the move to big data as discussed in Chapter 2.

The DGA's limited administrative power is evident in the less-than-optimal results in data management and integration at an operational level. In 2018, the DGA conducted a "Survey Project on the Readiness of Digital Government Development of Government Agencies in Thailand" in line with the Digital Government Readiness Assessment Framework, B.E. 2561 (2018). Two dimensions, "Policies/practices" and "Secure and efficient infrastructure", measured the development readiness of government agencies on data governance and data management respectively.

On a scale of 0 to 100 points (with 100 being the most prepared), the survey revealed that the average readiness of 287 public sector organisations at the department level surveyed was 52.7 points for "Policies/practices" and 75.2 for "Secure and efficient infrastructure"; 1 237 public sector organisations at the provincial level surveyed had 33.9 points for "Policies/practices" and 54.6 points for "Secure and efficient infrastructure" (DGA, 2018, pp. 47-49[9]). These capacity and capability limitations do not only bring data governance challenges at the central level, they translate into multi-level data governance issues, in particular when specific data is generated by local public sector organisations but consumed by central authorities as an input for policy and decision making.

Previous efforts to build multi-level data governance arrangements for effective policy making have not been entirely successful in moving forward due to the disparities in terms of data capacities, protective data management practices at the local levels and the complex multi-level governance arrangements and accountability mechanisms among local, provincial and central authorities (Figure 6.5).

Figure 6.5. Thailand's national and local government structure



Source: Information provided to the OECD by the Thai government.

In reference to the DGA's organisational key objectives (Box 6.3), the DGA should strengthen the first and second key objectives as top priorities: in devising, executing and enforcing the implementation of its G2G (including central-local data exchange), G2C and G2B initiatives at the operational level for national, department and provincial public sector organisations. The other key objectives are oriented more towards having DGA play a supporting role in promoting digital government transformation. Imparting greater authority to the DGA as the leading public sector organisation that reports directly to the Digital Government Development Commission could help to attain better co-ordination on digital and data standards, digital and data infrastructure and digital services that rely on data as an important input.

Box 6.3 Thailand's Digital Government Development Agency (DGA): Key objectives

- Reinforce, administrate and provide digital technology infrastructure services and service systems or fundamental applications engaging with digital government.
- Implement standards, models, measures, principles and approaches in the form of digital technology as well as the transactional process in order to bridge information and work systems among government agencies legitimately and concordantly.
- Promote and endorse the integration and exchange of information among government agencies, the disclosure of government information through digital technology and set out government information sharing centres to facilitate the provision of services to people and government agencies' transactional processes.
- Enhance and ratify government agencies to provide digital services to concerned parties.

- Reinforce a one-stop government digital service which people can access conveniently, promptly and securely.
- Advocate and promote government agencies in terms of the project management and administration of digital technology as well as endorse, sponsor and impart academic services and training in order to optimise government officers' digital competencies.
- Study, research, experiment, endorse and sponsor academic works, research and innovations to enhance digital government development.
- Promote government transactions that are accountable for the annual budget allocation framework involving digital government as well as fortify the monitoring and evaluation of digital government transactions and plans.
- Proceed with other matters with regard to digital government developments as per the law and cabinet orders.

Source: DGA (2018[9]), *Annual Report 2018*, https://www.dga.or.th/upload/editor-pic/files/AR_ENG_DGA-2018.pdf.

This would require the political and administrative leadership at the MDES, PMO, MHESI, OCSC, OPDC, NESDC, etc. to confer a higher degree of power and authority to the DGA, such that the DGA has greater oversight beyond its advisory role in the context of the National Big Data Policy and data policies under the Digital Government Development Plans. This is to secure good data governance as the foundation towards data integration and sharing, with the publication of good quality open government data – and how this can be done will be covered in the following sub-sections on "Towards an action plan for public sector data" and "Capacity for coherent implementation".

A positive development to illustrate this point is that the DGA currently supports the new Digital Government Development Plan (2020-2022) in drafting more standards and guidelines. Based on this plan, the Data Catalogue Guidelines on Mandatory Metadata for Agency Data Catalogues will be defined in 2021, which will lead to the development of the Thailand Government Data Catalogue that assimilates all government agency data catalogues, under the supervision of the MDES National Statistical Office of Thailand (NSO). In 2020, the DGA identified the flagship project on the Agency Data Catalogue and worked with the OPDC to encourage a pilot project on government data.

Clear identification of the DGA as the key public sector organisation that will officially lead, co-ordinate, implement and ensure compliance with data governance by decree would be helpful to increase its power and authority. While the current leading role of the MDES is inclusive and relevant, there is a risk that public sector data initiatives under the National Big Data Policy and Digital Government Development Plans will not be granted enough political and administrative support *vis-à-vis* other digital economy policy goals (see next sub-section on "Towards an action plan for public sector data").

While the MDES could continue to maintain oversight, provide an overarching direction and play a wider advisory and co-ordination role for the National Big Data Policy and Digital Government Development Plans, it would be critical for the leading role of the DGA to be confirmed beyond its current operational focus and de facto role as a provider of technology solutions for the public sector.

On top of institutional leadership, the identification of personal leadership is another core element of good data governance. Well-defined roles and responsibilities of key positions help to cement the power and authority of the leading public sector organisation for the national data agenda. The President and Chief Executive Officer (CEO) of the DGA could formally be the National Chief Data Officer (CDO) or Chief Information Officer (CIO) of Thailand, who administratively leads the digital government and data policy in the country.

This is done in New Zealand, where the government's Chief Data Steward is also the Chief Executive of Statistics and is in charge of providing direction on the national data policy. There are clear quarterly key

deliverables for this data leadership role (OECD, 2019, p. 39[1]). Similarly, in France, the General Data Administrator is attached to the Head of Etalab, the taskforce within the PMO in charge of co-ordinating open data and artificial intelligence (AI) policy (OECD, 2019, p. 39[1]). The actual title can differ from country to country but what the government of Thailand most needs is a formal leadership position and role with enough political support and administrative power, supported by well-defined performance indicators and a vision in terms of outcomes for the national data agenda and data governance policy.

Towards an action plan for public sector data

A comprehensive and sustainable strategy that is aligned with policy objectives and priorities is a crucial policy instrument to achieving the desired data-driven public sector. National data strategies and action plans require a high-level, deliberate approach and political commitment towards the role of data as a strategic resource, to unlock economic and social value in line with other policy goals while managing and mitigating risks associated with data use (OECD, 2019, p. 1[10]). Based on front-running countries' practices in this area, the OECD has found that national data strategies and action plans are often placed within broader digitalisation plans.

Thailand's national data strategy is contained in its National Big Data Policy, which is led by the MDES and the DGA (Box 6.4). Under the MDES, the Office of the National Digital Economy and Society Commission (ONDE) has the mandate for drafting national policies on digital economy and society for the National Digital Economy and Society Committee and co-ordinating with the Digital Economy Promotion Agency (DEPA) (ONDE, 2020[11]). According to the ONDE, one of its main objectives is to ensure that big data generates economic and social value by improving operational efficiency in production and services (ONDE/MDES, 2019[12]). As such, the National Big Data Policy is placed within the broader national digitalisation plans for the government, economy and society and framed in the context of the larger 20-Year Digital Economy and Society Development Plan (2017-2036) or Digital Thailand. Furthermore, big data is treated as the architectural foundation on which other data initiatives and innovations are built such as open government data, digital government services and more broadly, digital businesses and innovations (ONDE/MDES, 2019[12]).

Box 6.4. Thailand's National Big Data Policy

In mid-2017, Thailand's prime minister General Prayuth Chan-o-cha and the cabinet started work on the National Big Data Policy. The key public sector institutions driving this policy are the MDES and the DGA. The initial goals were to manage big data within the public sector and enhance the efficiency of the government's one-stop service. In this initial stage, the Government Data Centre and Cloud Service (GDCC) was established to enable the centralisation of a secured computer network service for the public sector and promote basic knowledge on cloud computing among public officials.

Recently in 2019, the Government Big Data Institute (GBDi) was established under the DEPA to respond to the needs of promoting the effective use of big data and enable public officials to develop skills in big data analytics for their respective government agencies. The ultimate objective of setting up the GBDi is to foster data-driven decision making and operational insights for public sector organisations, such that they can respond to the needs of citizens through public services delivery effectively.

In line with the establishment of the GBDi and DEPA, the prime minister and the cabinet also set a target for all public sector organisations to massively integrate data for use by the end of 2017. The MDES and DGA were tasked to collect data and insights on how to maximise the use of big data from different public sector organisations and become data-driven.

The initial projects related to the utilisation of government big data include:

1. Data integration from the National Statistics Office, Ministry of Public Health, Ministry of Justice and Ministry of Social Development and Human Security to analyse schemes to help low-income individuals.
2. Data integration from the Hydroinformatics Institute to develop a Water Situation Map to forecast and monitor potential droughts and floods.
3. Data integration from the Ministry of Public Health to create a Health Data Centre that analyses trends and offers statistics on hospital traffic throughout the country.

Source: Information provided to the OECD by the Thai government.

Thailand's National Big Data Policy can be made more coherent and sustainable by further clarifying its role, positioning and scope as a meta data governance instrument (i.e. a policy governing policies) that addresses data policy issues related to different sectors. It would be helpful for the National Big Data Policy to have specific and dedicated data strategies and actions plans addressed to each sector. The demarcation of the purposes, corresponding actions and intended outcomes for specific public sector organisations or segments need to be clear. This implies reinforcing the relevance of those areas that fall directly under the government sphere (i.e. open government data, data ethics in the public sector).

Ireland, the Netherlands and the United States (US) have done this comprehensively in their national data strategies and action plans. Ireland's Public Service Data Strategy (2019-2023) is clear in linking its overall national data strategy with other data initiatives and policy instruments such as the National Data Infrastructure and Open Data Strategy, thereby establishing a unified and cohesive approach to implementing public sector data initiatives with shared principles, objectives and actions (OECD, 2019, p. 38[1]). The Netherlands' Government Data Agenda, which focuses on unlocking the value of data as a tool to address policy challenges, integrates the country's policy goals with improved management of data in the public sector, and publication and re-use of open government data. Moreover, the implementation of this agenda is the shared responsibility of the Dutch Ministry of the Interior and Kingdom Relations, central and local governments (OECD, 2019, p. 37[1]). The US Federal Data Strategy and 2020 Action Plan consists of detailed principles, practices and steps to take to leverage the value of data for the whole federal government data asset portfolio (Box 6.5).

Box 6.5. The US Federal Data Strategy and 2020 Action Plan

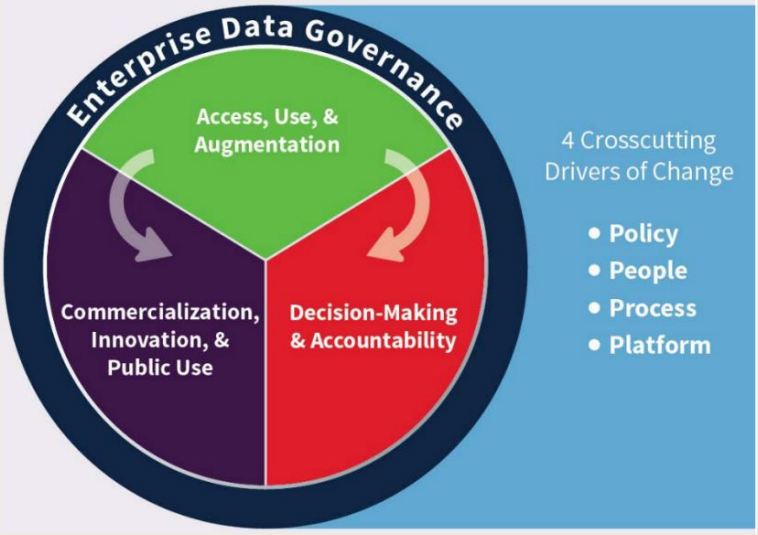
The US Federal Data Strategy

In June 2019, the US government issued its Federal Data Strategy, which presents a ten-year vision to unlock the full potential of the country's federal data assets while safeguarding security, privacy and confidentiality. It adds to several existing initiatives, policies, executive orders and laws that over the past few decades have helped make the US a front-runner in terms of strategic management and re-use of government data. The Federal Data Strategy is based on three core principles: ethical governance, conscious design and learning culture.

In order to capture the linkage between user needs and appropriate management of data resources, the data strategy covers 40 practices that guide agencies throughout their adoption of the strategy. To further ensure coherent implementation of the strategy in the early phase, federal agencies are required to adhere to annual government action plans that include prioritised steps, time frames and responsible entities. The Federal Data Strategy focuses on four areas:

- **Enterprise data governance**: Focuses on the management of government data. Establishes data policies and specifies the roles and responsibilities for public sector organisations regarding data privacy, security and confidentiality protection. Defines the roles and responsibilities for monitoring compliance with data standards and policies.
- **Access, use and augmentation**: Focus on the development of policies and procedures to ensure public sector organisations and external stakeholders can easily access and re-use government data – through improving data dissemination, increasing the amount of non-sensitive data available on line and leveraging new technologies and best practices to promote access to sensitive or restricted data while protecting the rights of citizens.
- **Decision making and accountability**: Aim to improve the use of data for decision making and accountability purposes and promote the use of data for policy monitoring and evaluation purposes to inform future policy decisions. Focus on the provision of high-quality and timely data for evidence-based decision making or on providing specific datasets such as spending data to foster public sector accountability and transparency.
- **Commercialisation, innovation and public use**: Focus on facilitating the use of government data by external stakeholders, making the data more accessible and relevant for commercial purposes, innovation or other public uses. Foster the use of government data to promote economic, good governance and social value, targeting different groups such as private firms, researchers or citizens.

Figure 6.6. Four focus areas of the US Federal Data Strategy



US 2020 Action Plan

The 2020 Action Plan establishes a solid foundation that will support the implementation of the Federal Data Strategy over the next decade until 2030. It identifies initial actions for agencies that are essential for establishing processes, building capacity and aligning existing efforts to better leverage data as strategic assets. It also covers 16 critical steps to launch the first phase of the data strategy vision, including the development of data ethics frameworks and data science training for federal employees. Furthermore, it encompasses a series of pilot projects underway at various government agencies and a set of government-wide efforts designed to support all agencies through the development of tools and resources. Finally, Annual Action Plans are developed iteratively and incorporate stakeholder feedback and input.

Source: US Government (2020[13]), *2020 Action Plan*, https://strategy.data.gov/action-plan/.

Developing a comprehensive national data plan covering the central, subnational and local levels would be critical for enabling an extensive data-driven public sector for Thailand. As with the Digital Government Development Plans, the DGA, together with the Digital Government Development Commission, could take the lead in developing an Action Plan for Public Sector Data or a similar policy document, which not only aligns to future National Economic and Social Development Plans and Digital Government Development Plans but also connects and underlines the different data policy aspects discussed earlier (e.g. open government data, data ethics). Moreover, this Action Plan for Public Sector Data should be acknowledged as a core element of the National Big Data Policy to further clarify the value of the latter as a metadata governance instrument as mentioned earlier.

In addition, the government of Thailand fares well in providing strong political support and will to create and see through its National Big Data Policy but falls short on the operational aspect for the execution and implementation of the National Big Data Policy, in particular addressing data access, sharing and re-use in the public sector. Therefore, the Action Plan for Public Sector Data should also set the right accountability and enforcement mechanisms supported by a stronger lead role of the DGA as proposed earlier. As such, it will need to specify targets, monitoring mechanisms and impact assessments for each key stakeholder and milestone.

A way to move forward in the short term could involve an inclusive approach for the development of the Action Plan for Public Sector Data in consultation with the wider digital government ecosystem of the public sector, private sector and civil society stakeholders. For instance, the United Kingdom (UK) had employed an open consultation process for its National Data Strategy, with the Department for Digital, Culture, Media and Sport collecting evidence from the public that could inform the development of the strategy and conducting a series of roundtables and testing exercises in view of the final document in 2020 (OECD, 2019, p. 38[1]). Another example is that of Germany, which conducted several public consultation rounds with an expert committee and a broad-based online process with citizens and specialists on a draft paper for a national data strategy promoting data provision, access, sharing and responsible data use before the final Data Strategy of the Federal Government was presented in mid-2020 (Die Bundesregierung, 2020[14]).

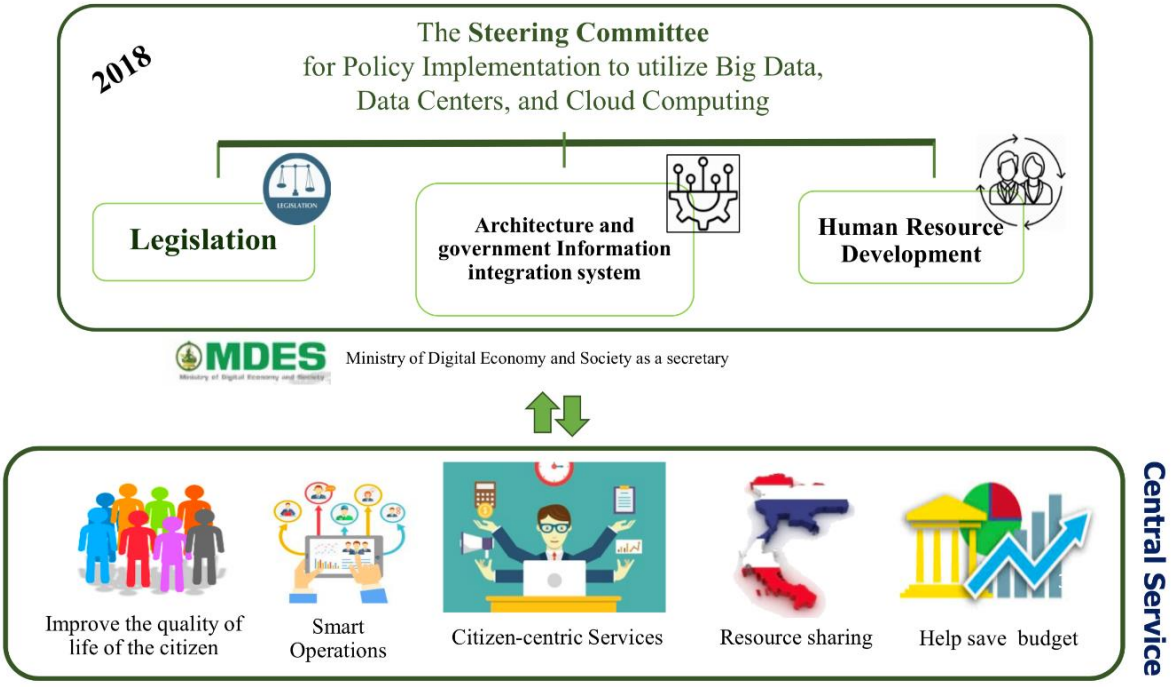
Such an open, inclusive and collective approach is especially important with the government of Thailand's vision to integrate systems, data and information from over 400 government agencies and consolidate their public services into a one-stop digital government platform for citizens and businesses to access conveniently, promptly and securely, as shared during the OECD peer review mission in Bangkok. Moreover, this approach could help in building ownership within the public sector – beyond the identification of those gaps as done by the DGA through the Survey Project on the Readiness of Digital Government Development of Government Agencies in Thailand.

Capacity for coherent implementation

Institutional co-ordination and compliance

The MDES co-ordinates the National Big Data Policy through the Steering Committee for Big Data, Data Centres and Cloud Computing (Figure 6.7), with the former acting as secretary. This secures the MDES' leadership, decision-making and co-ordinating role, with the political backing of the deputy prime minister as chairperson and the Minister of Digital Economy and Society as vice-chairperson (Tortermvasana, 2018[15]). The composition of the steering committee involves 20 line ministries that carry out projects in diverse line and horizontal policy areas like agriculture, tourism, taxation, mobility and natural resources (NSO, 2019[8]). The committee members are the permanent secretaries of the 20 ministries, the NESDC and the DGA.

Figure 6.7. Thailand's Steering Committee for Big Data, Data Centres and Cloud Computing



Source: NSO (2019[8]), "Big data application in Thailand's government", https://unstats.un.org/bigdata/events/2019/hangzhou/presentations/day3/5.%20Big%20Data%20Application%20in%20Thailand%E2%80%99s%20Government.pdf.

The Steering Committee for Big Data, Data Centres and Cloud Computing aims to steward the management of all of the data generated by the state agencies and inform policy and decision making for the digital transformation journey – by consolidating data from all ministries involved into a centralised big data management system. This process involves the conversion, identification and structuring of public value data to be generated across different policy areas: citizens' quality of life, smart operations, citizen-centric services, resource sharing and budgetary savings.

The committees under the steering committee undertake specific tasks such as data structuring and management in parallel with extracting knowledge and insights from the datasets and designing targeted strategies to improve public processes and service delivery. For this purpose, the committees are charged with fundamental tasks such as discovering, naming and verifying datasets, and identifying areas to

generate public value – with the objective of creating an ecosystem to facilitate policy and business decisions (Tortermvasana, 2018[15]).

The process of data governance covered in the Data Governance Framework 1.0 is meticulous in setting forth basic principles for the implementation capacity, such that: i) data must be selected for regulatory outcomes; ii) compliance, security and privacy must be ensured; iii) standards and guidelines must be defined; and iv) human management and organisational culture must be involved. In this context, collaborative and cohesive data governance across the public sector is pivotal. The MDES and DGA are at the helm of fortifying good data management practices across the public sector towards greater integration. Yet, due to the decentralisation of power, responsibilities and information (covered in the previous sub-section "Leadership") and the lack of mature data governance standards, the public sector generally experiences low efficiency and effectiveness in implementation.

While data governance tools such as the Data Governance Framework 1.0 are sound conceptually, the government of Thailand still faces challenges in the implementation process at an operational level. Public sector organisations still struggle to implement good data management. For instance, the Department of Provincial Administration (DOPA) sits on the board of the DGA and is responsible for the citizen data registry and a data-sharing platform with the Ministry of Interior (MOI). The MOI, together with other line ministries managing data registers, still faces obstacles in data governance, standards, discoverability and quality for data sharing at an operational level with the public sector organisations it works directly with.

The signing of memoranda of understanding (MOUs) has been used for linking data among government agencies. As covered in Chapter 5, the DGA is piloting various projects such as the Government Data Exchange Centre (GDX), the Linkage Centre and the G-Cloud cloud computing tool. At the same time, the Steering Committee for Big Data, Data Centres and Cloud Computing is overseeing the formation of a centralised big data management system and a central cloud computing centre but still has not defined which government agency will be responsible for them due to the complexity and variety of datasets (Tortermvasana, 2018[15]). These nascent digital government initiatives may fail if co-ordination and the enforcement of centralised data standards are weak.

The DGA, as the leading public sector organisation responsible for ensuring that government agencies properly determine the purpose, control and verification of the management of their data, could provide greater assistance by providing more practical measures, guidelines and good practices on top of the Data Governance Framework. The DGA, the ONDE, the Digital Government Development Commission and the Steering Committee for Big Data, Data Centres and Cloud Computing could be the four government bodies through which co-ordination, implementation and compliance are secured for the proposed Action Plan for Public Sector Data across the public sector – with the latter two serving more of an advisory role.

In addition to the high ambitions and long-term goals set out in the broad 20-Year Digital Economy and Society Development Plan (2017-2036) or Digital Thailand, the government of Thailand needs to pay keen attention to developing the essential capacities for coherent implementation – particularly in involving and co-ordinating different policy areas and levels of government for coherent implementation. This area was identified to be a weakness in the governance of Thailand's open and connected government (OECD/ADB, 2019, p. 90[16]).

Apparently, the MDES intends to involve the academia in the Steering Committee for Big Data, Data Centres and Cloud Computing, since policies on data governance and metadata catalogues are led by both the minister and stakeholders from academia. Suan Dusit University (SDU) has collaborated in the creation of the Government Big Data and Data Analytics Centre to increase use cases. The DGA should also be involved in leading and co-ordinating this initiative since this task comes under its mandate of studying, researching, experimenting, endorsing and sponsoring academic works, research and innovation to enhance digital government development (see Key Objective 7 of Box 6.3).

Institutional data leadership and skills

Given the complex cross-cutting nature of the efforts and actions needed to build a data-driven public sector, the right management and organisational structures need to be put in place through institutional management frameworks that specify formal co-ordination processes and mechanisms for smooth and sustained project implementation among units in the ecosystem (Ubaldi, 2013, p. 34[17]). The results of the surveys conducted by the OECD for the purpose of this review show that government agencies in Thailand largely co-ordinate their own data management and initiatives – determining the roles, responsibilities, rights and duties for data operations from creation, storage, processing to use and dissemination. This results in a siloed approach that severely impedes the integration of databases and systems.

For instance, the Government Big Data Institute (GBDi) was established as a subsidiary of the MDES and DEPA to train public officials in big data skills. As presented in Chapter 4, this mandate is also undertaken by the DGA and OPDC (through the Thailand Digital Government Academy [TDGA]) and connects to Thailand's Skill Development Framework developed by the OCSC. The OCSC's framework would benefit from further clarifying its connections to the DGA Data Governance Framework, for instance by including data leadership and other related data competencies and skills as a subset of the digital roles described in the framework.

Still, for the level of data capacity to be translated into effective co-ordination and implementation, the government of Thailand would need to define a clear network of data leaders at the institutional level to promote better administrative co-ordination across the country, departments and provinces. Institutional networks are a growing priority for countries, as they enable stronger strategic co-ordination on the design and achievement of goals with a citizen-centric approach, more than just technical co-ordination (OECD, 2019, p. 40[1]). For instance, at the beginning of 2021, the UK announced the appointment of three senior Digital, Data and Technology (DDaT) leaders concurrently to strengthen the government's digital leadership strategically and enabler better co-ordination of the development and delivery of digital standards, controls, products and services leveraging data and emerging technologies. These three leadership appointments were the chair of a new Central Digital and Data Office (CDDO), the executive director of the CDDO and the new chief executive officer (CEO) of the Government Digital Service (GDS) – which have also received political backing from the prime minister (GOV.UK, 2021[18]).

The proposed Action Plan for Public Sector Data should have a proper institutional setup and co-ordination mechanism that identifies specific stakeholders for leadership and accountability. For instance, the Data Governance Framework 1.0 underscored that successful governance means that the person with the oversight role should have the responsibility for defining the scope, rules and policies around data (DGA, 2018, p. 10[9]). It also proposes a data governance structure for government agency personnel to carry out data supervision in their departments: i) a data governance council comprising the CEO, CDO, CIO and chief strategy officer (CSO); ii) a data steward team comprising the lead data steward and other data stewards covering the business, data and quality; and iii) wider data stakeholders comprising the data creators, users, managers and owners (DGA, 2018, pp. 52-56[7]) – which can be further enriched.

The DGA should support national, department and provincial government agencies to carry out the proposed data governance structures but in line with the agreed competency and skills frameworks for data to be decided by the OCSC. The DGA could oversee the specification of the roles, responsibilities and key performance indicators according to the operational context of different government agencies such as the missions and budgets, and in line with the Data Governance Framework.

Finally, a good strategy goes beyond setting up new government agencies, commissions and committees or designing new frameworks, plans and roadmaps. The details in the actual governance arrangements matter significantly to ensure successful sustainable execution. They should be lean, effective and clear to public officials. Most importantly, these governance arrangements should withstand changes in the

political and administrative context and secure the sustainability of data leadership, capacity and capability in the long run, which is a common risk that several OECD member countries face.

Therefore, the government of Thailand could consider formalising more non-political and non-technical data leadership roles and embedding them under the leading public sector organisation on the Action Plan for Public Sector Data. Given Thailand's political context in recent years, the formal appointment of a top position in the DGA (i.e. National CDO or CIO) would be very helpful in reinforcing the leadership and capability of the DGA to design and implement data-driven policies and programmes across the public sector. As discussed in the previous sub-section "Leadership", this would constitute a critical asset for Thailand to materialising policy goals for a data-driven public sector in the long term.

Regulation

Regulation plays an important role in defining the set of rules around the use and treatment of data (OECD, 2019, p. 42[1]). As discussed in Chapter 3, the government of Thailand has risen to the act of solidifying and reinforcing the legislative support and guidance for its policies to build a data-driven public sector in recent years. In 2019, the National Legislative Assembly of Thailand (NLA) passed six technology-related legislations to improve and clarify the regulatory environment for public and private digital services:

- Electronic Transactions Act No. 3, B.E. 2562 (2019), and No. 4, B.E. 2562 (2019).
- Electronic Transactions Development Agency Act, B.E. 2562 (2019).
- Digital Economy and Society Council Act, B.E. 2562 (2019).
- Personal Data Protection Act, B.E. 2562 (2019).
- Cyber Security Act, B.E. 2562 (2019).
- Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019).

These efforts in digitalisation reform are notable. As discussed in Chapter 3, the Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019), was highlighted widely as the first digital government law in Thailand. It is intended to accelerate digital transformation in the public sector with a solid legal framework. Three focus areas are: i) digitalisation of processes and services using a citizen-centric approach; ii) data integration between government agencies to provide comprehensive digital services for citizens and businesses; iii) open government data in machine-readable formats to enable citizens and businesses to re-use and develop innovations – and the plans, rules and standards to elaborate on these legal provisions are still underway (Rohaidi, 2019[19]).

Yet, legislation is a first step but it does not guarantee effective and sustained implementation. During the OECD peer review mission in Bangkok, the Office of the Council of State under the PMO in charge of drafting the Digitalisation of Public Administration and Services Delivery Bill shared that the legislation is intended to change the public sector culture, enforce data sharing and facilitate the operations of the Government Data Exchange Centre (GDX) and Open Government Data Centre.

The prime minister of Thailand actively supports the Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019) but still faces resistance from various government agencies due to the lack of readiness and capability. As discussed in the previous chapters, both hard and soft regulatory instruments need to be enforced actively with strong co-ordinated efforts across the public sector. This process requires marked changes in the organisational structure and culture including human resources, digital infrastructure and public trust. This proves the point that legislation and regulation need to be accompanied by agile, innovative institutional approaches that enable strategic and anticipatory change according to the circumstances.

As discussed in Chapter 3, regulations may slow or hinder the process of data integration. There needs to be a balance between flexibility and scalability on one end, and preserving the complexity of control and compliance for data integration on the other that prevents fragmentation (OECD, 2019, p. 33[1]).

Regulations around data governance should allow for purposeful and organic changes in the environment and among actors. Such a balance also provides experimental freedom for new initiatives that are focused on solving problems for better public outcomes and free from policy delivery constraints (OECD, 2019, p. 78[1]).

One area of regulatory tension has been identified to be between data protection and data sharing. The ONDE, responsible for designing digital economy and society policies, highlighted that it has not embarked on open data or data-sharing initiatives due to legislative restrictions and the administrative burden emerging from the Personal Data Protection Act. The balance between a flexible and structured approach can help to foster common understanding, alignment and coherence of data initiatives. It creates greater support for concerted actions when addressing challenges and delivering results (OECD, 2019, p. 33[1]).

The government of Thailand could, for instance, elaborate on soft legal and regulatory instruments such as codes of practice, recommendations, standards and guidelines that specify data integration and sharing, aimed at fostering these cultural changes, developing the understanding and skills to unlock the potential of accessing, sharing and using data ethically.

Leveraging data access and sharing to deliver public value

This second section looks at what the government of Thailand needs to improve the technical delivery layer of data architecture, data infrastructure and data value cycle to increase the availability, accessibility and use of data in data sharing and open data practices in the public sector.

While a strong focus on technical issues concerning data governance can be misleading and weaken the approach towards the adoption of relevant policy decisions on data (OECD, 2019, p. 27[1]), underpinning the transition to a data-driven public sector calls for the definition of a complex set of data access, collection and sharing arrangements across sectors, including standards and guidelines, to support the delivery of public value.

A key working principle of the DGA's G2G, G2C and G2B infrastructure, platforms and enablers is to link and exchange data and unlock greater public value. As explored in Chapter 5, the DGA aims to create "an effective data management system [that is] accurate, complete, updated and connectable promptly and securely" (DGA, 2018, p. 12[9]) to be used for developing new platforms, tools and services such as the Government Information Network (GIN) for connecting government agencies at all levels to facilitate a wide range of applications, the Government Data Exchange Centre (GDX) for digitally transferring documents among agencies and the One-Stop Service for citizens to access public services.

Most initiatives for data integration are oriented around identifiable data on citizens and businesses and data related to national security and critical infrastructures, following the first phase of integrating government databases directed by the Prime Minister Operations Centre (PMOC) and the Steering Committee for the Integration of Government Databases (EGA/MICT, 2016[20]). While the central government is prioritising data, information and systems integration as the foundation for a data-driven public sector at a strategic level (EGA/MICT, 2016[20]), there is a considerable lack of operational expertise and understanding to deal with the heterogeneity of the data and the complexity of data integration at the executional level. This is reflected in a missing Action Plan for Public Sector Data for implementation as described in the previous section.

As identified in the previous sub-sections, a key challenge faced by the government of Thailand is the execution of the data plans and especially at the departmental and provincial levels. There needs to be a stronger understanding of what data are available or not, and if those data are valuable, compatible and interoperable to be used and re-used, this together with the experiences and capabilities related to data management and analytics that need to be consolidated – such that data governance can be carried out

effectively. These were the challenges for the use of national data registries that were often cited in the surveys conducted by the OECD for the purpose of this review.

There are different types of data with widely different data value cycles and economic and social value. It would be advisable for the government of Thailand to have a comprehensive and coherent approach towards organising, categorising and integrating government data. Doing this step correctly can provide the leverage to achieve developments in data sharing and reinforce public trust in the government's use of data – together with open government data as explored in Chapter 7. In this light, this section will reveal the overlooked areas and explore opportunities to establish a solid data architecture (design) and infrastructure (technical) that will reap the double-sided benefits of data sharing and strengthening the accountability and trust among stakeholders in the ecosystem.

Data integration: Infrastructures, standards and guidelines

The government of Thailand has set policy milestones for establishing several one-stop services such as PromptPay, Biz Portal, Farmer ONE, the Linkage Centre, e-Social Welfare, GIN, the Government Application Centre (apps.go.th), the Open Government Data Centre (data.go.th) and the Government Data Exchange Centre (GDX) (Thiratitayangkul, 2019[21]). This has culminated into the launch of a mobile application CITIZENinfo in late 2019, a one-stop service that has a citizen and a business portal, offering information on public services from government agencies nationwide. It functions like a government kiosk and an integrated e-services platform that uses digital documentation like the digital ID and runs on integrated big data and analytics (Thiratitayangkul, 2019[21]). However, the OECD found that these one-stop services are driven more by an e-government approach and a one-way provision that is not fully digital, as discussed in Chapter 5. The leap to being truly data-driven will require stronger efforts to build and strengthen a holistic, coherent, scalable and agile data architecture and infrastructure.

Government data are not naturally harmonised because government agencies with different responsibilities from various policy areas have different datasets and formats (Ubaldi, 2013, p. 31[17]). Several public sector organisations express their aspiration and plans in the use of big data and data analytics. Nevertheless, the main barrier that constantly resurfaced through the interviews conducted and the data collected within the framework of this review is the lack of standards and guidelines, in addition to flawed human resource capability, which made the process of data management and analysis challenging. The government of Thailand currently has policies, standards and guidelines on data security and stability, data disclosure, data link and exchange, data confidentiality, open data, personally identifiable information, data innovation design and data governance assessment (DGA, 2018, p. 45[9]). However, focusing also on the data generation stage would help to secure integration in the later stages of the data value cycle. So far, the guidelines and standards available address data access and sharing once the data has been already generated or assume data assets are discoverable and accessible.

A good example is the National Information Committee, which was under the Ministry of Information and Communication Technology (MICT) and now the MDES. The National Information Committee drives information policy, manages the geographical information system (GIS) and geospatial datasets from 30 public sector organisations. Still, it faces difficulty in data discoverability and data ownership for a large number of datasets under its purview. In response to such a challenge, different countries have had different responses. Korea and the UK have developed a single data inventory for the government to provide ease of internal data discoverability and data re-use. Korea has especially taken practical steps to put the needs and structure of base data registries into legal records to simplify the sourcing and curation of datasets (OECD, 2019, p. 64[1]). Most relevant is Italy, which developed technical regulations on the territorial data of public administrations and a national metadata catalogue to guarantee the discoverability and clarity of spatial data and related public services (OECD, 2019, p. 44[1]).

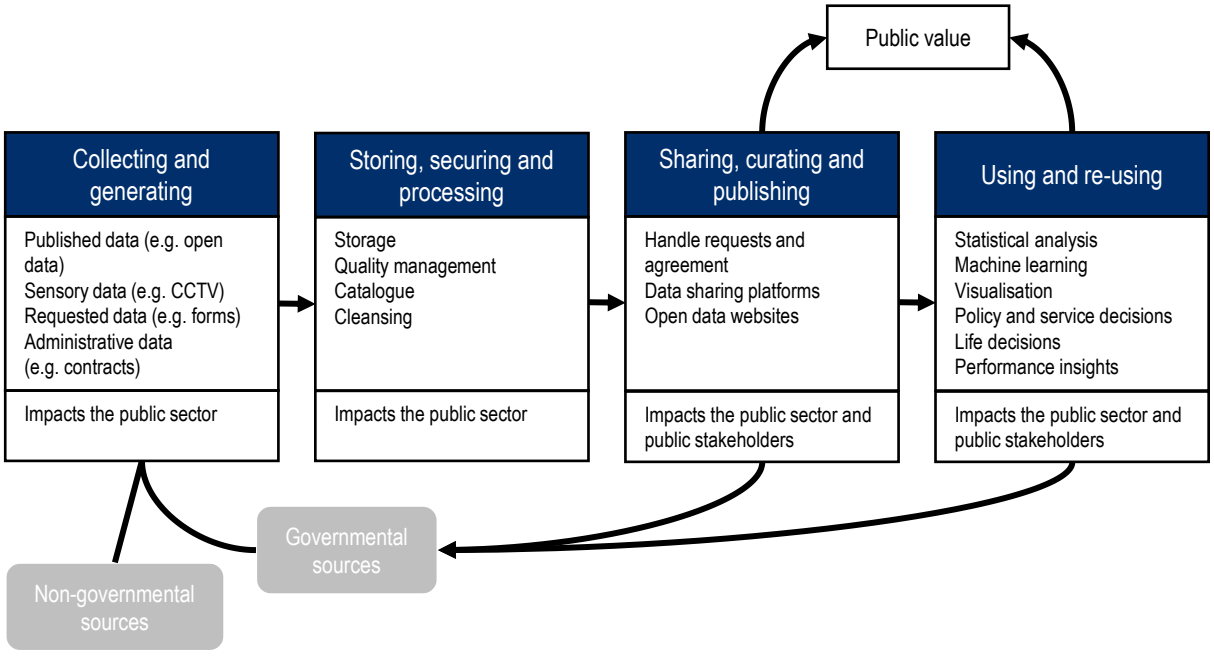
Another example is the Ministry of Commerce (MoC) that expresses strong support for digital integration and greater alignment and co-ordination in the development of digital policies and initiatives. It has a pilot

project to share web service data with the Ministry of Agriculture and Cooperatives (MOAC) and the Rice Department, in view of real-time data-sharing projects for maize, palm oil and sugar in the future. However, as shared during the OECD peer review mission in Bangkok and the OECD survey, the MoC has not yet been able to complete the basics such as mapping the business ecosystem and datasets or harmonising operating models and metadata standards. This reinforces the message that the government of Thailand needs stronger data policies, standards and guidelines with compliance for the implementation of its high ambitions for a data-driven public sector to come to fruition.

Data value cycle: Gaps, challenges and solutions

The data value cycle presents the crossroads and synergies of the most strategic, tactical aspects of data governance (e.g. policies and regulations) with the technical aspects (e.g. architecture and infrastructure for data management, open data and sharing). It is a continuum of inter-related stages where different stakeholders add value and contribute to data re-use (OECD, 2019, pp. 46-47[1]). Looking at the data value cycle, the government of Thailand is still held back in the first two phases of collection, generation, storing, securing and processing (Figure 6.8).

Figure 6.8. The data value cycle



Source: van Ooijen, C., B. Ubaldi and B. Welby (2019[4]), "A data-driven public sector: Enabling the strategic use of data for productive, inclusive and trustworthy governance", https://dx.doi.org/10.1787/09ab162c-en.

This explains why several public sector organisations in Thailand are still struggling with the heterogeneity of government data and the complexity of data integration. They are unable to progress to the third and fourth stages of creating value from data and data-driven processes. Oftentimes, governments get stuck in the first two stages of understanding what kind of government data exists, what form and how they can be used – in order to organise, categorise and integrate the data after. They also need to address issues regarding the interoperability of systems and standards and quality of data. The role of leading bodies such as the DGA, the Digital Government Development Commission, the MDES and committees such as the Steering Committee for Big Data, Data Centres and Cloud Computing will remain key for this purpose.

The DGA is charged with the mandate and task of increasing internal connectivity and integration for interoperability via secured networks or platforms. In addition to the aforementioned GIN and Government Data Exchange Centre (GDX), several more open data and data-sharing projects include: the Digital Government Platform to link important public sector data among more than 620 government agencies through the Single Sign-On system, the e-CMS Version 2.0 on G-Cloud and the government application programming interface (API) system; the government information infrastructure that hosts more than 2 895 open datasets on the Open Government Data Centre (data.go.th); the Government Information Centre (info.go.th) for citizens to access government services datasets and comprehensive service manuals (DGA, 2018, pp. 33-39[9]).

To strengthen the efficacy and efficiency of the Data as a Service (DaaS) approach presented in Chapter 5, reinforcing the role of the DGA as the leading public sector organisation to set, co-ordinate, align and enforce the data policies and standards in the early stages of the data value cycle (e.g. data generation) would serve well to propel data integration and re-usability towards value creation across the public sector. It would also be helpful to attribute greater accountability to the DGA for this process, as leadership and accountability are mutually reinforcing. More formal requirements through legal and regulatory frameworks are needed to secure responsibility, integrity and consistency in contributing government data to the data-sharing platforms developed by the DGA, including the open government data portal. Emphasising data stewardship and ownership by the hundreds of government agencies or private sector organisations that are involved is also important for consistency and compliance.

While the government of Thailand is progressing well by creating new digital tools, platforms and services that accelerate data integration, open data and data sharing, dedicating more resources to replicate and scale standardised data architectures and infrastructures across the digital economy and society will unlock smoother and more trustworthy access and sharing of data within and outside the public sector. Having in mind Thailand's regulatory momentum on digitalisation, designing data policies, standards and guidelines in legislation and executive decrees that unlock better harmonisation and co-ordination at all levels of the government would be a boon in strengthening a data-driven public sector. Priorities to be addressed include data accessibility, data ownership, data sharing, data use, data interoperability, metadata, data skills for public officials and engagement with the wider ecosystem of the public sector, private sector and civil society stakeholders.

Establishing the role of data for public trust

The previous sections explored the role and importance of data governance in leveraging data access and sharing and establishing a data-driven public sector. These are crucial foundations and layers for the government of Thailand's digital transition. Yet, in order for the country to truly reap sustainable benefits in economic and social development, the government of Thailand also needs to prioritise the creation of a trustworthy environment to promote integrity and accountability in the use of data for policy making and the delivery of public services. This is even more critical in times of crisis, such as the COVID-19 pandemic, where governments are faced with the intense burden to ensure a functioning state, the continuous delivery of public services and a resilient and equitable economic recovery. With social distancing becoming the new norm, the digital space is taking up a bigger share in the economy and society.

The trustworthy use of data to understand citizens and businesses' needs, adjust and improve processes with the intent to meet these needs, is fundamental. Furthermore, the role of data governance in securing and reinforcing public trust in times of crisis has become an increasingly important case since incidents of data misuse and abuse by governments and businesses in different parts of the world have emerged and catalysed regulations on data protection and their ethical, transparent and secure data use.

Public trust in the management and treatment of data is a crucial precondition for maximising the gains of digital transformation through effective and efficient policy implementation. A trustworthy government that

is open and connected requires a solid data framework for government processes and public services that can be carried out with the highest level of confidence. According to the OECD report *Trust and Public Policy* (Table 6.2), five determinants of institutional trust are responsiveness, reliability, integrity, openness and fairness. Increasing these outcomes can help governments to restore, maintain and increase the level of trust in them (OECD, 2019, p. 104[1]). Furthermore, an OECD working paper highlighted that citizens' well-being can be improved when digital governments use data to become more responsive, protective and trustworthy – which covers aspects of ethics, privacy, transparency and security (Welby, 2019, p. 43[22]) (Box 6.6).

Table 6.2. Determinants of citizens' trust in public institutions: Competencies and values

Trust component	Government mandate	Key elements	Objective
Competency – Governments' ability to deliver to citizens the public services they need at the level of quality they expect	Provide public services	• Access to public services regardless of the social and economic situation • Quality and timeliness of public services • Respect in public service provision, including response to citizen feedback	Responsiveness
	Anticipate change, protect citizens	• Anticipation and adequate assessment of evolving citizen needs and challenges • Consistent and predictable behaviour • Effective management of social, economic and political uncertainty	Reliability
Values – Drivers and principles that inform and guide government action	Exercise power and use public resources ethically	• High standards of behaviour • Commitment against corruption • Accountability	Integrity
	Inform, consult and listen to citizens	• Ability to know and understand what government is up to • Engagement opportunities that lead to tangible results	Openness
	Improve socio-economic conditions inclusively	• Pursuit of socio-economic progress for society at large • Consistent treatment of citizens and businesses over the fear of capture	Fairness

Source: OECD (2017[23]), *Trust and Public Policy: How Better Governance Can Help Rebuild Public Trust*, https://doi.org/10.1787/9789264268920-en.

Box 6.6. Policy recommendations for improving citizens' well-being

Governments that commit to a digital government agenda can improve the well-being of their citizens by using digital technology and data to be responsive, protective and trustworthy.

Responsive governments:

- Involve citizens throughout the design and delivery lifecycle to understand their needs.
- Proactively reach out to citizens and involve them in the design and delivery of services.
- Design the end-to-end experience of services, not just the implementation of technology.

Protective governments:

- Prioritise the protection of the public from external digital security threats.

- Ensure that provided services are reliable and secure.
- Rethink regulation to focus on outcomes rather than specific technologies.

Trustworthy governments:

- Find a balance between online safety and democratic freedoms to build public trust and confidence.
- Deliver high-quality, reliable services that understand citizens and are open to feedback.
- Show citizens what the government is doing and empower citizens to manage their data.

Source: Adapted from Welby, B. (2019[22]), "The impact of digital government on citizen well-being", https://dx.doi.org/10.1787/24bac82f-en.

The government of Thailand understands the importance of governing and managing data with trust as the backbone to improve citizens' well-being. The DGA's goal of digital government is "upgrading the work process and public services with appropriate digital technologies [while] taking benefits, needs and convenience of the people as key priorities" and this "also includes the disclosure of government data in digital form for transparency, public participation promotion, innovation development on all levels" (DGA, 2018, p. 12[9]). Its digital government services have qualified for international standards, such as the Cloud Security Alliance (CSA) Security, Trust and Assurance Registry that enhances transparency in cloud computing services and the Business Continuity Management Systems (BCMS) that enable holistic management of threats to business operations (DGA, 2018, p. 30[9]).

Trust is also a major component of the 20-Year Digital Economy and Society Development Plan (2017-2036) or Digital Thailand. The sixth strategy in this plan is focused on building trust and confidence in the use of digital technologies by updating laws and regulations, encouraging investments and ensuring security (Segkhoonthod, 2017[24]). This also ties tightly into the 6th strategy of the 12th National Economic and Social Development Plan (2017-2021) that aims to root out corruption and achieve good governance in the public administration (Segkhoonthod, 2017[24]). Measures taken under this strategy towards data ethics and the use of digital technology and tools are most critical in determining public outcomes.

Enabling a trustworthy environment for data access, sharing and re-use of data through formal legislation and self-regulation are two key reinforcing mechanisms to securing public trust – keeping in mind the determinants of trust in public institutions are responsiveness, reliability, integrity, openness and fairness, and are maintained through regulations and practices in the use of data (OECD, 2019, p. 102[1]). In the following four sub-sections on ethics, privacy, transparency and security, country examples and policy recommendations on using data for public trust will be elaborated in the context of Thailand.

Ethics

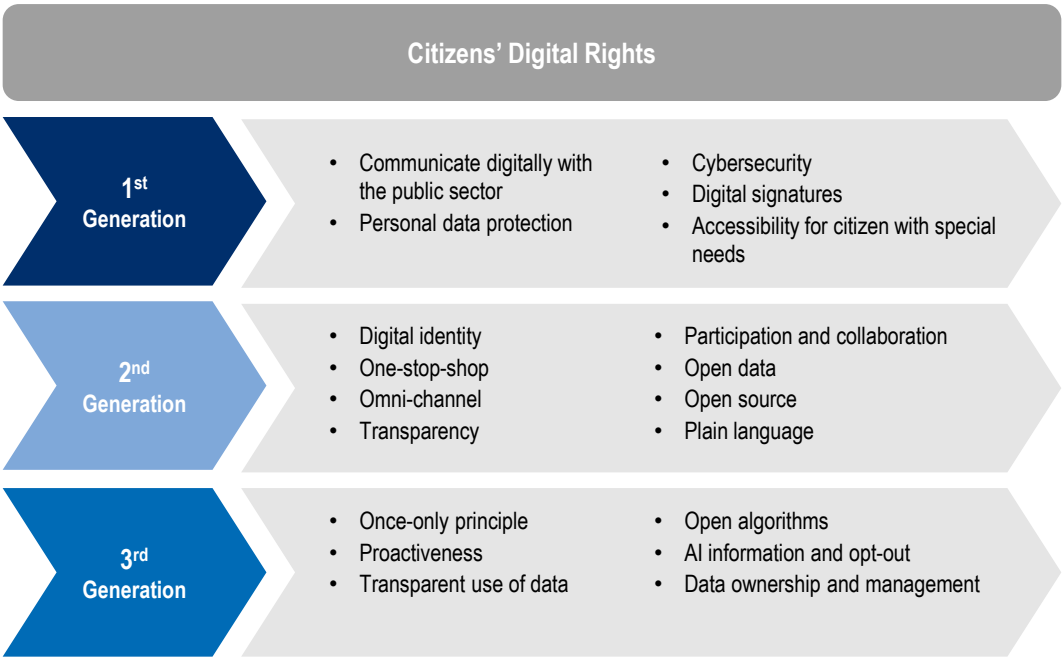
As discussed in the OECD report *The Path to Becoming a Data-Driven Public Sector*, data ethics is a branch of ethics that "studies and evaluates moral problems related to data (including generation, recording, curation, processing, dissemination, sharing and use), algorithms (including AI, artificial agents, machine learning and robots) and corresponding practices (including responsible innovation, programming, hacking and professional codes), in order to formulate and support morally good solutions (such as right conduct or right values)" (Floridi and Taddeo, 2016[25]; OECD, 2019, p. 109[1]).

Globally, citizens' attitudes towards data practices in the public and private sectors are changing quickly and the interest in ethical approaches to data management is growing due to the advancement of digital technology and collection of a massive amount of data, leading to its extensive use and the emergence of cases of data misuse and abuse. These circumstances call for public leadership that can establish and ensure a culture of ethical and responsible use of data. Handling data ethically can balance innovation with data protection while placing data subjects and users at the centre of the public service design process.

This circles back to the importance of involving the public, private sector and civil society stakeholders to engage in the process to build trust (OECD, 2016, pp. 157-158[26]). Public communication and participation with these stakeholders to agree and align on a set of behaviours and practices around data ethics can encourage transparency and ownership to abide by the ethical management of data.

A discussion of data ethics should also involve a discussion of digital rights. Inspired by the evolution of human rights and fundamental freedoms in relation to the digital age, the OECD designed a tentative framework that classifies digital rights roughly into the first, second and third generations (Figure 6.9) (OECD, 2019, p. 107[1]).

Figure 6.9. Digital rights towards a citizen-driven digital transformation



Source: OECD (2019[1]), *The Path to Becoming a Data-Driven Public Sector*, https://doi.org/10.1787/059814a7-en.

The first generation of digital rights falls under the civil and political category and should be regarded as fundamental: the right to communicate digitally with the public sector, the right to personal data protection and the right to cyber security to name but a few. The second generation of digital rights falls under the socio-economic category and emerged from the rapid advancement of digital technologies in platforms and portals: the right to a digital identity, the right to access one-stop-shops and open data to name but a few. The third generation of digital rights falls under the collective developmental category that has become important due to the emergence of new technologies like AI: the right to the transparent use of data, the right to access open algorithms and the right to data ownership and management to name but a few.

Most OECD member countries have legislative provisions that cover up to the second generation of digital rights. Finding ways to protect these digital rights is crucial but not enough to create a safe operational environment of trust that not only complies with regulatory provisions but also adheres to values such as fairness, transparency, agency in the use of data at the more operational level. Therefore, a formal legalistic approach through "hard" regulations is best paired with "soft" frameworks and guidelines that are embedded deeply in the working culture and encourage self-regulation spontaneously.

Ethical approaches play a pivotal and significant role to guide the behaviours of public administrators and public officials in the public sector. They ensure that data will be managed in ways that do not harm or

undermine the utility of others, even when done in a lawful way. For instance, collecting data from COVID-19 patients such as their age, occupation, affiliations and addresses may help with contact tracing but this could be unethical if their personal safety is compromised. Governments, therefore, play a fundamental role in determining ethical practices in government processes that manage data and should aim at guiding decision making and informing on ethical behaviour around data (OECD, 2019, p. 109[1]).

The government of Thailand has begun building the legal foundations in recent years to explore, define and guarantee the first and second generations of digital rights with some incorporation of the third generation. However, it has not yet designed ethical principles, frameworks or guidelines on data management and use in the public and private sectors. This presents an opportunity to consider various paths to achieving the goal of shaping behaviour that is conducive to a healthy data-driven public sector that centres on the human aspects of data management and respects the rights of citizens.

These data ethical frameworks and guidelines should contain principles, information and approaches to conduct value-driven practices and decision making that aim to increase understanding of what it means to manage and use data in a way that places fundamental rights and freedoms at the core of government practice and how this translates to specific actions.

In light of the above, the OECD launched the *Good Practice Principles for Data Ethics in the Public Sector* in 2021 as a means to provide a common values-based ground for the trustworthy management of data by public entities (Box 6.7).

Box 6.7. The Good Practice Principles for Data Ethics in the Public Sector

The Good Practice Principles for Data Ethics in the Public Sector support the ethical use of data in digital government projects, products and services to ensure they are worthy of citizens' trust. The Good Practice Principles provide a set of specific actions which can support their implementation.

1. Manage data with integrity.
2. Be aware of and observe relevant government-wide arrangements for trustworthy data access, sharing and use.
3. Incorporate data ethical considerations into governmental, organisational and public sector decision-making processes.
4. Monitor and retain control over data inputs, in particular those used to inform the development and training of AI systems, and adopt a risk-based approach to the automation of decisions.
5. Be specific about the purpose of data use, especially in the case of personal data.
6. Define boundaries for data access, sharing and use.
7. Be clear, inclusive and open.
8. Publish open data and source code.
9. Broaden individuals' and collectives' control over their data.
10. Be accountable and proactive in managing risks.

Governments that commit to a digital government agenda can improve the well-being of their citizens by using digital technology and data to be responsive, protective and trustworthy.

Source: OECD (2021[27]), *Good Practice Principles for Data Ethics in the Public Sector*, https://www.oecd.org/gov/digital-government/good-practice-principles-for-data-ethics-in-the-public-sector.htm.

At the national level, the UK Data Ethics Framework specifically sets out principles on the appropriate use of data in the public sector and continues to be iterated through detailed guidance, a workbook to be used for new data projects and workstreams (GOV.UK, 2018[28]).

In a later stage, enforcement and compliance with ethical practices can be executed via an independent government agency, with a lead role in supporting other public sector organisations in capacity building and data management. The DGA has a strong fit for this role with its anti-corruption policy and mandate in "supporting and promoting personnel at all levels to be aware of the importance of behaving in compliance with morals, ethics and anti-corruption awareness" (DGA, 2018, p. 83[9]). For this to be achieved effectively, the DGA could be given the power and authority across the public sector and country in supervising and monitoring the practices in accordance with the laws and regulations around data management and use. While the Personal Data Protection Committee (PDPC) is the supervising authority for data protection, the DGA could be the main steward for the government's trustworthy data management and use. Both bodies will need to co-ordinate strategically and closely, set strategies and exchange information. They should test ideas, design principles and measure risks continually as data are used and new technologies such as AI are applied on top of them.

To strengthen the DGA's efforts in data ethics, it could create a data ethics advisory group like New Zealand. New Zealand's Data Ethics Advisory Group is headed by the Government Chief Data Steward (GCDS) (i.e. a position non-existent in Thailand by law) and the group's purpose is to assist the government to understand, advise and comment on issues around new and emerging uses of data. Seven independent experts from different fields like privacy, human rights law and innovation, which are relevant to data use and ethics, were appointed as members. Diversity of perspectives is ensured too, with one position reserved for a member of the Te Ao Māori Co-Design Group to support Māori data governance (Stats NZ, 2019[29]).

Such a data ethics advisory group can support the DGA by looking into new initiatives in the early stage of development, such as exploring the idea of using data trusts to facilitate ethical and trustworthy data sharing. Similarly, in this area, ensuring the success of establishing an ethical environment will require consistent communication and engagement over these ethical frameworks, guidelines and principles in the data access and sharing ecosystem that include actors from the private sector and civil society.

Privacy

Privacy refers to the protection of rights of data subjects and a central part of this is consent to the collection, processing and use of data from these data subjects. This is a huge area of concern for data subjects, especially on the treatment of sensitive and personally identifiable data. A reasonable and balanced approach to data protection can secure the value of data sharing, such as the delivery of cross-border public services (OECD, 2019, p. 25[1]).

As such, it is important to address the following issues when it comes to publishing and using data in an open data and data-sharing ecosystem: which public sector organisations hold the data, have the right to access the data, have made an enquiry about the data, use the data and for what purposes; the right to provide data once only to the government; and the right to agree or refuse permission for data provided to be shared and re-used by other public sector organisations (OECD, 2019, p. 113[1]).

Many governments have begun to create formal legislation and accompanying frameworks and guidelines to protect data subjects' privacy for both citizens and businesses across the data value cycle. The European Union General Data Protection Regulation (GDPR) was landmark legislation that created a global upwards convergence towards high standards of data regulation protection after its implementation in 2018. In the implementation of the GDPR, the UK ensured that the provisions of the Data Protection Act 2018 are in line with the privacy safeguards and code of practice for data sharing in the Digital Economy

Act 2017 (Chapter 5: “Sharing for research purposes”) to ensure that data will not be misused or shared indiscriminately (GOV.UK, 2020[30]).

In the effort to design and offer more citizen-centric services, the government of Thailand has committed to balancing the security of lives, assets and public data with the need to address constant changes of public needs and facilitating public service delivery. To protect privacy and allow users to give consent with explicit knowledge of how the data is collected, processed and used, the government of Thailand passed the Personal Data Protection Act, B.E. 2562, in May 2019 and that came into full force in May 2020.

The Personal Data Protection Act, B.E. 2562 (2019), established the PDPC, with the vice-chairperson as the Permanent Secretary of the MDES and the directors as the Permanent Secretary of the PMO, the Secretary-General of the Consumer Protection Board, the Director-General of the Rights and Liberties Protection Department and the Attorney General (ETDA, 2019[31]). This follows from the Official Information Act, B.E. 2540 (1997), that had specific provisions to prevent the misuse of personal data by public officials and the right for citizens to know how their data are being used by public sector organisations.

The Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019), also stipulates under Section 14 that government agencies receiving data from another public sector organisation for the purpose of improving public administration and services should keep the data securely and that there should be no disclosure or transfer of such data to persons without the right to access it.

The Electronic Transactions Development Agency (ETDA) said during the OECD peer review mission to Bangkok that while promoting the National Digital ID (NDID) project, it also plans to raise awareness in the public sector and among citizens and businesses on privacy and how to protect their data in using digital tools. It was involved in the drafting of the Personal Data Protection Act. In May 2018, the MDES set up a Data Protection Knowledge Centre (DPKC) as the centralised unit to create awareness of data protection in the public and private sectors, with the ETDA as the operator and lead. In this respect, it would be ideal for the ETDA to continue in its leadership on securing privacy for data subjects in the treatment of public sector data, focus on education and building an awareness and working culture of practising data protection to build a safe environment until the office of the national PDPC is fully operational.

It could also consider fostering interoperability with other privacy frameworks to enable cross-border data flows, such as the OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data (OECD, 2013[32]) and Regulation (EU) 2016/679 GDPR (van Ooijen, Ubaldi and Welby, 2019[4]).

Transparency

Transparency is about creating an open and trustworthy environment where policy and government information, decisions, processes, frameworks and rationales are made known to the public in a timely, accessible and comprehensible manner, which has an effect of increasing public officials’ accountability to each other and the public (OECD, 2019, p. 115[1]). This approach has direct applications on how personal or sensitive data is used by public sector actors, by whom, for what purpose and with what outcomes. With emerging technologies, transparency about how data is used and processed is fundamental for public trust and the good use and scaling of machine learning.

As the DGA of Thailand continues to create data policies, standards and guidelines on open data, data sharing and the re-use of data in the public sector, it could consider opening its actions, sharing data informing decisions processes and performance to public scrutiny as a way of gaining public trust. This often serves as a powerful and practical tool to gain the support and trust of citizens and businesses in the complex process of digitalising the government and public sector, since it allows them to see, understand, know how various data subjects’ data are used and therefore participate in the best possible way to create value for the economy and society.

Citizens can have the chance to contest should the data seem biased or wrong, which can help to augment the quality of data, fairness and value creation. Finally, the policies, standards and guidelines centred on openness also serve as one of the key pillars for when the government starts to incorporate more AI, to make the data processing sustainable and trustworthy – as agreed on by 20 countries of the OECD Thematic Group on Emerging Technologies (Ubaldi et al., 2019, p. 21[33]).

In Thailand, transparency in a data-driven public sector can be increased with the exposure of the data and algorithms. This is in line with a provision in the GDPR on the right to be informed about the existence of automated decision making. Principle 6 of the UK Data Ethics Framework also specifies that all activity in data science should be done "as open and accountable as possible" (GOV.UK, 2018[28]). France's Digital Republic Law no. 2016-1321 of 7 October 2016 aims to build a trustworthy and transparent digital and data-driven public sector through a legal framework that protects people's personal data and guarantees transparency of local and municipal government data (Dreyfus, 2019[34]).

Security

Security involves the management of risks around the treatment of public sector data by the government, to prevent any unauthorised access and use (OECD, 2019, p. 116[1]). To strengthen the foundation of public trust in how the public sector manages and uses data, citizens and businesses should know that the government is protecting the data from potential risks. Furthermore, cyberattacks can be costly for the country in terms of financial, economic, social, geopolitical and national security – damaging or impairing government processes and public services.

In line with plans for building Digital Thailand, the government of Thailand is ramping up efforts to secure the digital architecture and infrastructure in the public sector by consolidating the legislation, regulations and institutions. It plans to improve Thailand's ranking in the International Telecommunication Union (ITU) Global Cybersecurity Index with the development of national security policy, critical information infrastructure and standard operating procedures (Boonnoon, 2018[35]).

Thailand's Computer Crime Act, B.E. 2550 (2007), provided a definition of computer-related crimes and authorised government officials to investigate them. Amendments in the Computer Crime Act No. 2, B.E. 2560 (2017), further clarified the ambiguity of illegal content and defamation and improved the efficiency and integrity of the law enforcement process. It also aimed to prevent hacking data and information that could be wrongfully exploited. But in the past years, the government has done a minimal amount operationally to respond to the thousands of cyberthreat incidents and government agencies still have a poor capacity to respond to cyberthreats (Leesa-Nguansuk, 2019[36]). The Cyber Security Act, B.E. 2562 (2019), aims to change this with the creation of a National Cyber Security Committee, the National Cyber Security Agency (NCSA) and new rules to handle cyber threats.

The NCSA is chaired by the deputy prime minister and joined by the Minister of Digital Economy and Society, and has appointed seven cyber security expert commissioners. The NCSA will serve as Thailand's key communication centre and data hub for cyber security, to fight illegal data piracy and cyber security breaches in its digital infrastructure. It will be receiving a budget of BHT 500 million to BHT 1 billion for this purpose, co-operating with Cisco Thailand to train 1 000 security personnel and oversee the Thailand Computer Emergency Response Team (ThaiCERT) that used to be under the jurisdiction of the ETDA (Boonnoon, 2018[35]). The ETDA will then play a supporting role, continuing to provide licenses for digital identities and signatures and define security standards for data exchange (Boonnoon, 2018[35]).

Since Thailand has just begun its efforts in security, focusing on the development of an independent national digital security strategy with detailed policies, directions and guidelines for public sector organisations would be a strategic next step. Many OECD member countries have also identified digital security as a high priority and developed standalone strategies (OECD, 2019, p. 116[1]). Korea's strategy imparts authority to the National Information Resources Services for centralised co-ordination and focuses

on best practices. The UK has a specific chapter on digital security in its national digital strategy and another separate National Cyber Security Strategy (2016-2021). Its National Cyber Security Centre is charged with building cyber security partnerships across the public and private sectors, providing cyber incident response and liaising with the national security services.

Lastly, digital security skills are a cornerstone – extensive training in cyber security capability should ensure that the country has a sustainable supply of home-grown cyber professionals that can meet the demands for a digital economy and society. Thailand will need to do the same and proceed in the execution phase with strong governance and co-ordination.

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7 Promoting open government data in Thailand

Chapter 7 assesses the efforts of the government of Thailand to promote the enhanced access to and sharing of government data through open government data and related policies. It explores the Thai government's policies open data availability, accessibility and support for re-usability in line with the analytical framework of the OECD Open, Useful and Re-usable data (OURdata) Index, which aims at promoting sound open data policies that generate good governance, economic and social value.

Introduction

Government data contain a wealth of untapped value that can help to enhance business and civic innovation and contribute to the digital economy given data's role as an input for data-driven emerging technologies, such as artificial intelligence (AI) systems. Open data empowers stakeholders, including individuals and actors from the private sector, civil society and academia, to participate in the innovation, collaboration and co-creation of public policies and services – towards enabling inclusive and sustainable development (Ubaldi, 2013, pp. 14-15[1]).

Open government data also contributes to good governance as it promotes active transparency, integrity and accountability in public sector organisations and reinforces public trust. Open government data draws upon overall public sector data efforts, including the foundational aspects of data governance, as discussed in Chapter 6, and calls for long-term strategies and action plans that are targeted, embedded and co-ordinated across the different levels of government and policy areas (OECD, 2020, p. 49[2]).

As also presented in Chapter 6, Principle 3 of the OECD *Recommendation of the Council on Digital Government Strategies* informs of the need to create a data-driven culture in the public sector by developing frameworks that guide the access and re-use of data and deliver trustworthy official data in open formats (OECD, 2014[3]). Since the approval of the aforementioned recommendation in 2014, open data has grown in relevance and value for other policy areas beyond the digital government sphere. This is reflected by the inclusion of open data principles in subsequent or revised OECD legal instruments, such as the OECD *Recommendations of the Council on Budgetary Governance* (2015[4]), *Recommendation of the Council on Open Government* (2017[5]) and *Recommendation on Public Integrity* (2017[6]) (Box 7.1).

Box 7.1. OECD Recommendations of the Council addressing open data

OECD *Recommendation of the Council on Digital Government Strategies* (2014): Principle 3

> *"The [OECD] Council [...] on the proposal of the Public Governance Committee [...] recommends that governments develop and implement digital government strategies which: […]*
>
> *3. Create a data-driven culture in the public sector, by:*
>
> *i) developing frameworks to enable, guide and foster access to, use and re-use of the increasing amount of evidence, statistics and data concerning operations, processes and results to: (a) increase openness and transparency; and (b) incentivise public engagement in policy making, public value creation, service design and delivery.*
>
> *ii) balancing the need to provide timely official data with the need to deliver trustworthy data, managing risks of data misuse related to the increased availability of data in open formats (i.e. allowing use and re-use, and the possibility for non-governmental actors to re-use and supplement data with a view to maximise public economic and social value)."*

OECD *Recommendation of the Council on Budgetary Governance* (2015): Principle 4e

> *"Ensure that budget documents and data are open, transparent and accessible through: […]*
>
> *4e. The design and use of budget data to facilitate and support other important government objectives such as open government, integrity, programme evaluation and policy co-ordination across national and sub-national levels of government."*

OECD *Recommendation of the Council on Open Government* (2017): Principles 5(i), 7 and 9

> *"The [OECD] Council [...] on the proposal of the Public Governance Committee [...] recommends that Adherents […]:*
>
> *5. Develop and implement monitoring, evaluation and learning mechanisms for open government strategies and initiatives by: (i) Identifying institutional actors to be in charge of collecting and disseminating up-to-date and reliable information and data in an open format. […]*
>
> *7. Proactively make available clear, complete, timely, reliable and relevant public sector data and information that is free of cost, available in an open and non-proprietary machine-readable format, easy to find, understand, use and re-use, and disseminated through a multi-channel approach, to be prioritised in consultation with stakeholders. […]*
>
> *9. Promote innovative ways to effectively engage stakeholders to source ideas and co-create solutions and seize the opportunities provided by digital government tools, including through the use of open government data, to support the achievement of the objectives of open government strategies and initiatives."*

OECD *Recommendation of the Council on Public Integrity* (2017): Principle 13a

> *"The [OECD] Council [...] on the proposal of the Public Governance Committee [...] recommends that Adherents […]:*
>
> *13. Encourage transparency and stakeholders' engagement at all stages of the political process and policy cycle to promote accountability and the public interest, in particular through a) Promoting transparency and an open government, including ensuring access to information and open data, along with timely responses to requests for information."*

Source: OECD (2014[3]), *Recommendation of the Council on Digital Government Strategies*, http://www.oecd.org/gov/digital-government/Recommendation-digital-government-strategies.pdf; OECD (2015[4]), *Recommendation of the Council on Budgetary Governance*, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0410; OECD (2017[5]), *Recommendation of the Council on Open Government*, http://www.oecd.org/gov/Recommendation-Open-Government-Approved-Council-141217.pdf; OECD (2017[6]), *Recommendation of the Council on Public Integrity*, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0435 (accessed on 17 April 2020).

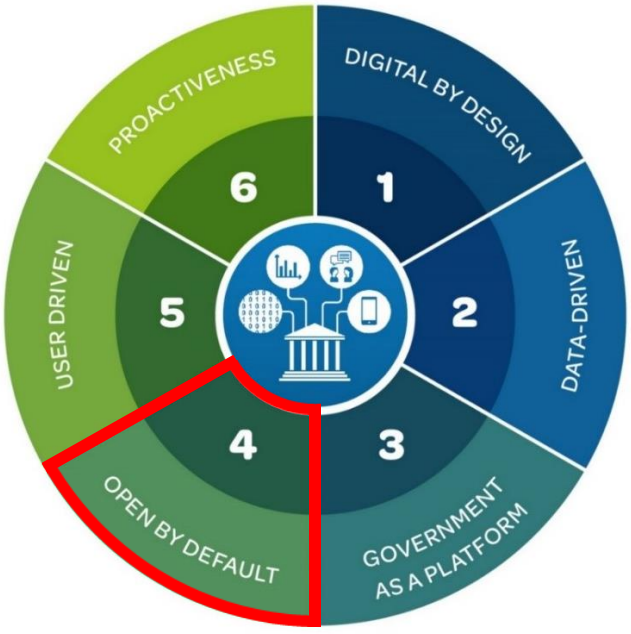
Open government data is a key policy area of work for OECD countries as it has been strategic for the development of public sector digital government maturity, open and connected governments and, more broadly, the digital economy and society. As a driver of economic, social and government innovation, open data also contributes to the advancement of data-driven decision-making models (e.g. artificial intelligence) and increased the enhanced access to and sharing of data among the public, private and social sectors. As such, it is a fundamental element of the open by default dimension of the OECD Digital Government Policy Framework, which provides the underlying analytical framework for the Digital Government Index (Figure 7.1).

Also, since 2013, the OECD developed the Open Government Data Survey as an analytical framework and methodology to measure the availability, accessibility and support to the re-use of government data. Based on this methodology, the OECD designed the Open, Useful and Re-usable data (OURdata) Index to assess central or federal governments' efforts to implement open government data in the aforementioned three critical areas. The OURdata Index (see next section) has three main pillars, each which three sub-pillars (Figure 7.2) (OECD, 2020, p. 17[2]):

- **Pillar 1**: "Data availability" measures the extent to which governments have adopted and implemented formal requirements to promote open government data, such as the scope of datasets available on central open government data portals. It assesses how users are involved early on in the policy process as a means to inform data publication and identify policy needs.

- **Pillar 2**: "Data accessibility" measures the availability of formal requirements aimed at promoting the unrestricted access (e.g. open database license) to understandable data (e.g. metadata), the role of the ecosystem and the portal in ensuring data quality and completeness (e.g. feedback mechanisms), and the implementation of data accessibility requirements.
- **Pillar 3**: "Government support for data re-use" measures the extent to which governments play a proactive role in promoting the re-use of government data inside and outside the government, covering the design and implementation of value co-creation initiatives and partnerships, capacity-building exercises and governments' efforts to monitor and evaluate policy impact.

Figure 7.1. The OECD Digital Government Policy Framework: Open by default dimension



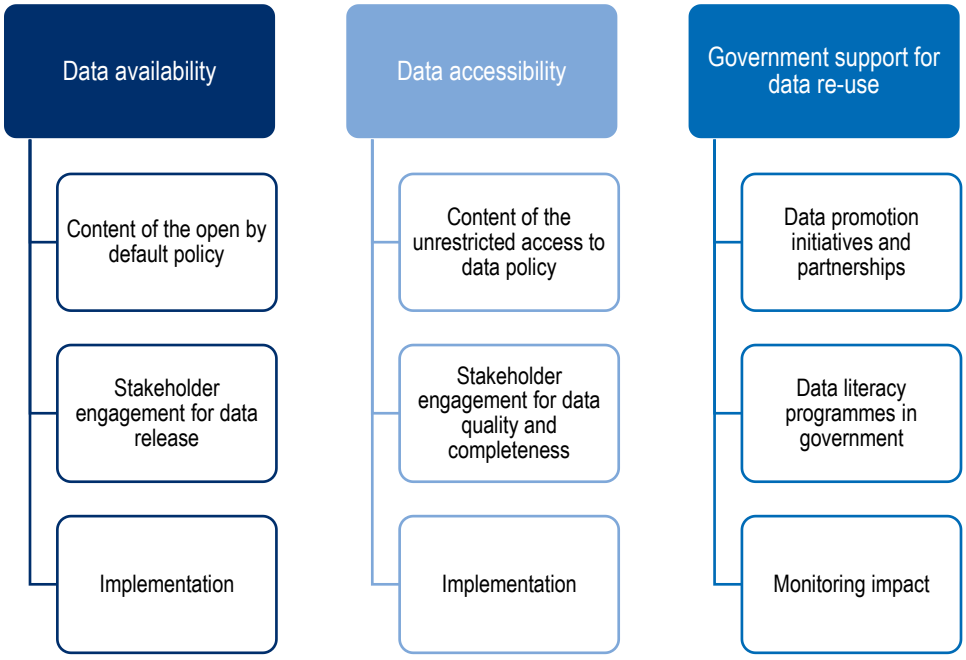
Source: OECD (2020[7]), "The OECD Digital Government Policy Framework: Six dimensions of a Digital Government", https://doi.org/10.1787/f64fed2a-en.

The three pillars of the OURdata Index measure and assess the open government data value cycle, which has four main phases (Ubaldi, 2013, p. 13[1]):

1. **Data generation**: The generation of public data, which is usually undertaken by public sector organisations and, in some instances, may be done by publicly funded data sources.
2. **Data collection, aggregation and processing**: The collection, clustering and treatment of these public data to enable access, sharing and re-use. It is an important step that allows users to use the data and create value from them once they are made open.
3. **Data distribution and delivery**: The distribution of open government data to potential and targeted users to enable access and re-use.
4. **Data use**: The re-use of open government data by a variety of users to sustain and innovate public value creation.

Sustainable approaches throughout the whole data value cycle from the supply side to the demand side are key to fostering innovative and collaborative practices that generate value from the data, as demonstrated in the results of the 2019 edition of the OURdata Index (OECD, 2020, pp. 4-8[2]).

Figure 7.2. The OECD Open, Useful and Re-usable data (OURdata) Index analytical framework



Source: OECD (2020[2]), "OECD Open, Useful and Re-usable data (OURdata) Index: 2019", https://doi.org/10.1787/45f6de2d-en.

Towards sound open data policies: Data availability, accessibility and re-use

In Thailand, open government data efforts are led by the Digital Government Development Agency (DGA) and the Office of the Public Sector Development Commission (OPDC).

Since 2013, the DGA (or previously known as the Electronic Government Agency or EGA) has had the responsibility of managing Thailand's national centralised open data portal: the Open Government Data Centre (data.go.th). The open data portal is designed to provide open government data in easy-to-find categories and in formats that meet Thailand's national Open Government Data Standard (DGA, 2018, p. 39[8]). As of 2018, data.go.th hosted more than 2 000 open datasets. The DGA has also published the Open Data Handbook that provides guidelines for selecting high-value datasets and co-ordinating with other government agencies, providing information and engaging with the public including inspection by the public.

In 2015, the government of Thailand released its first Open Data Strategy under the leadership of the DGA with ten core principles for data publication: "Open by Default", "Protected where Required", "Prioritised", "Discoverable", "Usable", "Primary", "Timely", "Well Managed, Trusted and Authoritative", "Free where Appropriate" and "Subject to Public Input". These overarching requirements apply to all public sector organisations releasing open government data for public access and use.

Open government data is supported by different legal frameworks and regulations, as covered in Chapter 3. Government agencies are required to publicly disclose their data for public inspection in accordance with earlier instruments such as the Official Information Act, B.E. 2540 (1997), based on the fundamental principles of Thailand's open government data policies and efforts that "non-disclosure is an exception" (DGA, 2018, pp. 36, 39[8]). The Thai Cabinet resolution of 20 April 2011 further reiterates Sections 7 and 9 of the Official Information Act, B.E. 2540 (1997), which state that government agencies must publish their data. In parallel, citizens' right to receive and access information is enshrined in the

constitution of Thailand. Open government data has, therefore, been made into a key performance indicator for government agencies.

The Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019), also known as the Digital Government Act, granted specific responsibilities to public sector organisations in relation to open government data. One of the main objectives of digital government development detailed under Section 4 of the act mentions the "disclosure of public data […] produced and possessed by State Agencies […] for the purpose of creating easy access to the public, promoting their involvement in and inspection on governmental operations, and enabling them to further use the data to develop innovations and services which would be beneficial to the Country in certain aspects".

Specifically, under Section 17, public sector organisations have a responsibility to "produce the data which must be disclosed to the public under the laws on government information as digital data" and "enable the public free access without any expense". It goes on to specify that these standards and rules on the disclosure of such data "shall be prescribed by the Digital Government Development Commission for the benefit of facilitating the people's access to the data".

Yet, despite these recent developments, the leadership and co-ordination by the DGA and the OPDC face key challenges in delivering public value from open data at its fullest potential. For instance, the survey conducted by the OECD for the purpose of this review showed the lack of or insufficient communication or awareness of open government reforms among public officials is a key barrier blocking the definition and implementation of open government data initiatives. This has resulted in many government agencies' lack of clarity in relation to data protection and open government data policies in spite of the national mandates (DGA, 2018, p. 50[8]).

Also, as discussed in Chapter 6 and shared in the results of the "Survey Project on the Readiness of Digital Government Development of Government Agencies in Thailand", the DGA still faces technical and administrative challenges. By 2018, only 33.1% and 22.7% of government agencies at the department and provincial levels respectively have published their data on the centralised Open Government Data Centre (https://data.go.th/) in comparison with that of 94.0% and 94.7% that report publishing open data on their agency's website. Furthermore, a staggering 86.3% and 98.0% of government agencies at the department and provincial levels respectively publish in non-machine-readable formats such as Portable Document Format (PDF), Microsoft Word document (DOC), text file (TXT) and Joint Photographic Experts Group (JPEG) (DGA, 2018, p. 54[8]). These fundamental delivery challenges restrict the creation of public value from open government data for they hinder data discoverability, standardisation and interoperability and go against core open data principles (e.g. the publication of open data in machine-readable formats).

The political will and support of the government of Thailand for open government data include several initiatives:

- The Open Government Data Working Group overseen by the DGA to select datasets for the Open Government Data Centre (data.go.th).
- The Open Government Data Committee joined by the National Electronics and Computer Technology Centre (NECTEC), the Electronic Transactions Development Agency (ETDA) and professors from leading Thai universities.
- Thailand's involvement in the Open Government Partnership (OGP) overseen by the Ministry of Finance (MOF) and the OPDC in 2018 to create an ecosystem of public, private and civil society stakeholders.
- The Open Government Data Conference, International Open Data Day and Data Community Engagement projects hosted by the EGA/DGA to promote open government data awareness across the open data ecosystem.

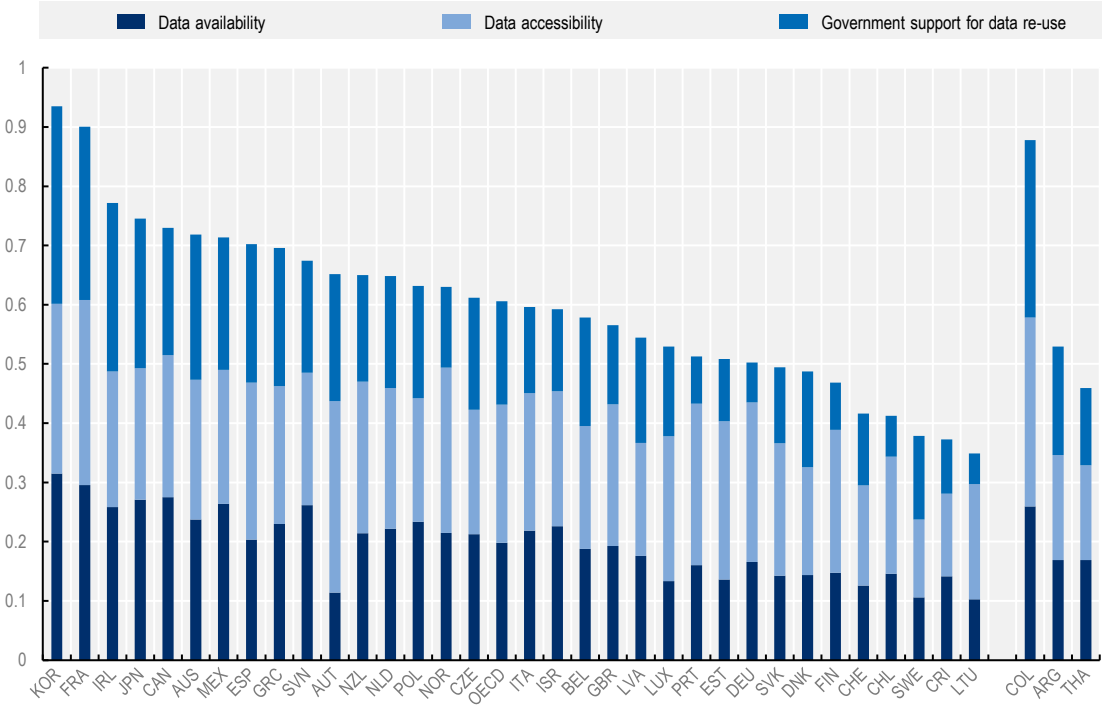
Still, the government of Thailand needs to further build the capability, capacity and culture for public sector organisations to participate in these initiatives, comply with open data standards and move away from a

focus on data publication to leveraging data as an asset to improve economic and social outcomes. These gaps are analysed in further detail in the following sections based on Thailand's performance in the OECD OURdata Index.

The 2019 OECD report *Government at a Glance Southeast Asia* contains insights on Thailand's performance in the OURdata Index at the central government level in 2018, drawn from data collected from February 2017 to June 2018 through the OECD Open Government Data Survey 4.0 (OECD, 2018[9]) from high-level government officials such as national chief information officers (CIOs) (OECD/ADB, 2019, pp. 122-123[10]). To better understand Thailand's performance and standing regionally and globally, the following assessments feature Thailand's score in the OURdata Index *vis-à-vis* OECD member countries (Figure 7.3) and other Southeast Asian countries (Figure 7.4).

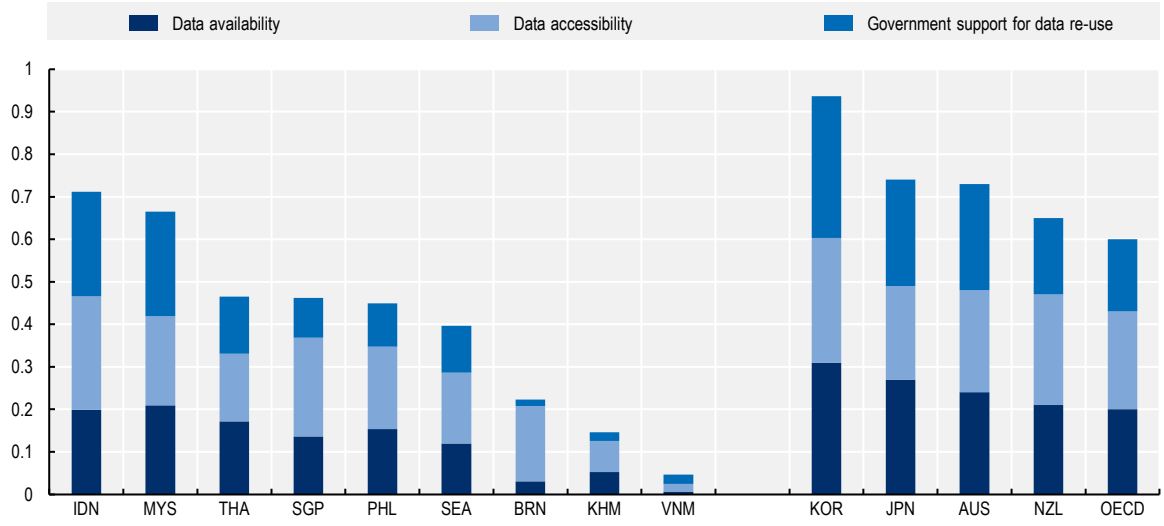
Overall, Thailand has performed above the average for Southeast Asian countries (scoring 0.47 in comparison to the Southeast Asian average of 0.40), while being slightly behind the average for OECD member countries (0.60) (Figure 7.4). The next three subsections will discuss Thailand's current policies and approaches towards leveraging open government data for public value creation according to the respective pillar and sub-pillar of the OURdata Index.

Figure 7.3. The OECD OURdata Index: OECD member countries and Thailand



Note: The OECD average is from the OURdata Index 2019 (OECD, 2020[2]) and based on 33 OECD member countries (at which time Colombia was not). Data is not available for Hungary, Iceland, Turkey and the United States (US). Thailand's score is based on the OECD Open Government Data Survey 4.0 (2018).
Source: OECD (2020[2]), "OECD Open, Useful and Re-usable data (OURdata) Index: 2019", https://doi.org/10.1787/45f6de2d-en; OECD/ADB (2019[10]), *Government at a Glance Southeast Asia 2019*, https://doi.org/10.1787/9789264305915-en.

Figure 7.4. The OURdata Index for Southeast Asia



Note: The OECD average is from the OURdata Index 2019 (OECD, 2020[2]) and based on 33 OECD member countries (at which time Colombia was not). Data is not available for Hungary, Iceland, Turkey and the US.
Source: OECD/ADB (2019[10]), *Government at a Glance Southeast Asia 2019*, https://doi.org/10.1787/9789264305915-en; OECD (2020[2]), "OECD Open, Useful and Re-usable data (OURdata) Index: 2019", https://doi.org/10.1787/45f6de2d-en.

Data availability

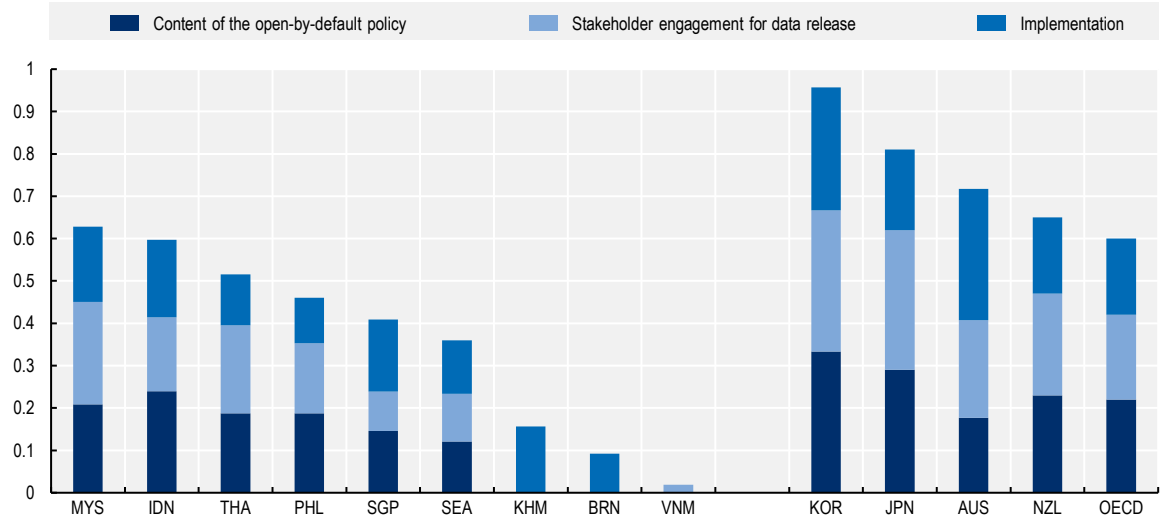
From the OECD perspective, data availability is strategic as it: i) relies on the availability of formal open by default requirements towards data publication and re-use; ii) underlines the value of early user engagement to identify data needs; and iii) explores the publication of datasets that can encourage greater collaboration and innovation that deliver public value to citizens and businesses.

Opening data across policy areas can increase the potential for value generation as a result of increased data access and subsequent sharing and use. Data availability reduces information asymmetries, data monopolies and empowers stakeholders to participate in the co-design and co-delivery of public policies and services, while also helping them to make more optimal decisions once open data is integrated into decision-making models and value chains.

In light of the above, Pillar 1 on "Data availability" measures the availability of high-value datasets as open government data through Sub-pillar 1.1 on "Content of the open by default policy", Sub-pillar 1.2 on "Stakeholder engagement for data release" and Sub-pillar 1.3 on "Implementation". These factors go well beyond the mere publication of open government data on a central platform.

Results from Pillar 1 on "Data availability" (Figure 7.5) demonstrates that while Thailand performs fairly, it still needs to greatly improve for Sub-pillar 1.1 on the "Content of the open by default policy" (scoring 0.19 in comparison to the Southeast Asian average of 0.12 and the OECD average of 0.22), better for Sub-pillar 1.2 on "Stakeholder engagement for data release" (scoring 0.21 in comparison to the Southeast Asian average of 0.11 and the OECD average of 0.20) and has much to improve for Sub-pillar 1.3 on "Implementation" (scoring 0.12 in comparison to the Southeast Asian average of 0.13 and the OECD average of 0.18). Overall, the results for each of the aforementioned sub-pillars contribute to Thailand's ranking (scoring 0.52) to be slightly below the OECD average (scoring 0.59) and higher than the Southeast Asian average (scoring 0.36).

Figure 7.5. The OURdata Index for Southeast Asia: Data availability (Pillar 1)



Note: The OECD average is from the OURdata Index 2019 (OECD, 2020[2]) and based on 33 OECD member countries (at which time Colombia was not). Data is not available for Hungary, Iceland, Turkey and the US.
Source: OECD/ADB (2019[10]), *Government at a Glance Southeast Asia 2019*, https://doi.org/10.1787/9789264305915-en; OECD (2020[2]), "OECD Open, Useful and Re-usable data (OURdata) Index: 2019", https://doi.org/10.1787/45f6de2d-en.

Sub-pillar 1.1 on "Content on the open by default policy" looks at the extent to which there are formal requirements supporting openness by default through instruments such as laws, regulations or standards. These foundational arrangements help to promote a public sector culture that encourages the release of open government data (OECD, 2020, p. 28[2]), which is key for Thailand. As discussed in Chapter 3, the Thai government understands the value inherent in increasing access and use of government data opening up to a broader ecosystem of the public and private sector as well as to civil society stakeholders, as reflected in its landmark Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019). However, the DGA and supporting bodies should now focus on comprehensive communication and implementation of open data policies across the whole public sector, since formal requirements are not enough to secure actual implementation, as measured in Sub-pillar 1.3 (discussed later). With the leading role of the DGA, more can be done to invite external contribution, create convergence and build on the expertise of existing open data initiatives to catalyse and guide tangible change.

Ireland presents an example of a strong "open by default" policy. It advanced in the implementation process after releasing its Open Data Strategy (2017-2022), with a clear alignment to its Public Service Data Strategy (2019-2023), which positions open data at the centre of its public sector data management and data governance, and details clear objectives, roles and responsibilities for delivery (OECD, 2020, p. 28[2]; Government of Ireland, 2019[11]). As proposed in Chapter 6, the potential development of a Thai Action Plan for Public Sector Data should integrate open government data as a core element of a data-driven public sector and set specific leadership and accountability mechanisms based on clear positions, roles, timelines and goals. By doing so, the government of Thailand can help in advancing the implementation of the open by default data policies included in the Digitalisation of Public Administration and Services Delivery Act, B.E. 2562 (2019). Open government data should still retain its centrality and importance with respect to the broader public sector strategies and plans.

Advancing implementation would also require further deepening the use of key performance indicators (KPIs) to monitor and promote greater capacities and capabilities of its public sector organisations in working with open government data. KPIs on such practices and compliance with requirements on open

data policies could help expedite the process from theory to practice, increase the adoption of common open data standards and foster organisational change across the public sector (OECD, 2020, p. 20[2]).

Sub-pillar 1.2 on "Stakeholder engagement" measures the level of engagement with stakeholders to inform open data policies and support purposeful, data- and user-driven data publication, which is critical for value generation. Engaging stakeholders boosts the efficacy of data publication and strategic re-use as data users' needs are better understood and addressed. This is key from a data demand point of view: open government release should not solely be based on the government's perceived user needs or what is most requested (OECD, 2018, p. 132[12]) but also on strategic data supply (OECD, 2020, p. 30[2]).

The DGA could take a greater lead in co-ordinating efforts concerning the engagement of the open data ecosystem to understand their needs. As expressed by public officials during the OECD peer review mission in Bangkok, evidence points to a minimal public interest and participation in the government's open data and data sharing initiatives and programmes. This is aggravated by the cultural challenge where the publication of open data is still taken as the main outcome rather than as a means to deliver public value. During the OECD peer review mission in Bangkok, public officials shared that there is a lack of emphasis on user needs in the open data context and that data demand is not being met.

This highlights the importance of involving a wide variety of stakeholders in the design process of open data policies, the identification of data needs and the government's role in promoting the shift towards a data- and user-driven open data policy. Doing so can boost the effectiveness of addressing the technical, administrative and cultural challenges during the implementation stage.

The OECD has observed from countries' practices that late or low stakeholder engagement affects policy awareness, clarity, accountability and ownership (OECD, 2019, p. 38[13]) while the converse can build ownership and trust towards open government data (OECD, 2020, p. 31[2]). The former may be the case for Thailand if the government does not bring other stakeholders on board early. In fact, the government of Thailand has overarching requirements for public sector organisations to regularly conduct consultations with users such as citizens, associations, journalists, academics and thinktanks to inform them of open data plans, even organising frequent focus groups or information sessions with civil society organisations (OECD/ADB, 2019, p. 104[10]). Yet, as discussed in Chapter 3, these requirements are mostly in line with public consultation exercises in the context of new regulations. They are not focused on identifying data demand beyond a tick-the-box approach for the purpose of complying with legal requirements.

While public consultation requirements should be actively practised, it is important to be clear from the outset and communicate the purpose of stakeholder engagement. To go one step further, the government of Thailand could research the needs of these different user groups in order to reach out to them more effectively. Public consultations should be conducted strategically and inclusively with a diverse group of stakeholders. Good communication, engagement in addition to the improved access to government data creates opportunities for various stakeholders to create new ways to tackle problems (OECD, 2018, p. 16[12]). Different approaches and steps can be considered such as: understanding the user communities; establishing partnerships with data users and subnational governments; designing events with a problem-solving mindset to stimulate data generation, accessibility and re-use; and encouraging user-led events and external initiatives (OECD, 2018, p. 205[12]). Actively sharing information on open data developments, and organising these open data initiatives and programmes on a regular basis will help to greatly advance data governance with internal and external stakeholders and maturity of the open data ecosystem.

Canada and the United Kingdom (UK) provide good examples for public consultation from policy to the realisation of data availability. Over six months, the government of Canada conducted extensive public consultations on the 4th OGP National Action Plan 2018-2020 and the process resulted in commitments on stronger collaboration with the Indigenous people and on applying the First Nation principles of "ownership", "control", "access" and "possession" to open government data (OECD, 2020, p. 31[2]; Government of Canada, 2018[14]). In doing so, Canada managed to increase undertaking in data ownership, ethics, inclusion and trust. The UK had also held several physical and online public

consultations over the years to inform and iterate its open government data plans such as the National Information Infrastructure, which lists high-value and important datasets that should strategically generate the greatest economic impact (OECD, 2018, p. 38[12]; GOV.UK, 2015[15]).

Beyond public consultations, stakeholder engagement should also move towards collaborations, as a reflection on the maturity of open data policies (OECD, 2020, p. 48[2]). This involves developing the capacities and capabilities in the ecosystem for open data. Mexico's central government established the Open Mexico Network as part of the implementation of one of the pillars of its national open data policy, which aimed to create an open data ecosystem of collaboration with the local governments. It is a multi-stakeholder platform that promotes good practices, provides technical-methodological support, strengthens capabilities and enables the publication of open data from the local level on the central open government data portal (OECD, 2018, p. 216[12]). This is key for the government of Thailand to adopt too since it faces technical and administrative capacity and capability challenges at a local level.

Lastly, Sub-pillar 1.3 on "Implementation" assesses the results and outputs of open by default policies. A key element to consider here is to make quality and value a priority when sharing open government data, as opposed to focusing on the quantity of data. This mandates the availability of open government data in high-value taxonomies such as business registers, transport, environmental and geographical data and their integration into the data value chains towards greater government, economic and social innovation (OECD, 2020, p. 9[2]). Results from the 2019 OURdata Index showed that OECD member countries did not perform well in this aspect because creating quality open data and value requires governments to first focus on generating data that are standardised and interoperable before publication and release (OECD, 2020, p. 32[2]). The latter stage will be covered in Pillar 2 on "Data accessibility".

Another fundamental consideration needed for the government of Thailand is how to approach the data infrastructure for open data in the implementation process. At a more technical level, a data federation model can facilitate data discoverability and reduce data fragmentation while maintaining a balance between a good level of data autonomy and ownership at the subnational levels and quality assurance at the central level (OECD, 2020, p. 9[2]). For instance, it appears that various ministries and agencies have their own open data initiatives but these may not be fully hosted on the central open data platform under the DGA and that they do not have knowledge of other counterparts' initiatives.

Australia, Canada and Sweden are OECD member countries that have adopted a data federation model for their open data release – by harvesting data from subnational open data portals to the central/federal portal. This approach helps in smoothing the standardisation and quality of government data across the different levels of government while simultaneously facilitating access (OECD, 2020[2]). Data harvesting is made possible through multiple interconnected government data sources that have adopted the right standards and with digital government or open data bodies that can carry out data curation – at least in the early stage – to ensure compliance with standards.

The DGA could develop data quality mechanisms and automation processes for open data and data sharing that cut across the over 400 government agencies through the Government Data Exchange Centre (GDX) and the use of the government application programming interface (API) system. Thailand's lower availability of data can be seen as a window of opportunity to start strengthening data governance and data quality at the source. High-quality and standardised data serves as the indispensable foundation for open data and data sharing.

The DGA could seek to provide closer support to the people in charge in each government agency of data production and collection. For Thailand, capacity building, instilling leadership and accountability for data quality and data integration is most pertinent. Recalling the Thai Data Governance Framework 1.0 presented in Chapter 6, each government agency should be charged with the responsibility of ensuring quality data production and collection within their agency supported with the right institutional frameworks towards greater data integration. Reinforcing the "open by default" mandate and Data as a Service (DaaS) presented in Chapters 5 and 6 would also contribute to better open data implementation in the public

sector. This could be possible by further stressing the interconnection between the data governance roles part of the Data Governance Framework (relating to data generation, management, protection and integration) with the publication of good quality open data in a later stage of the data value chain.

The US description of an institutional chief data officer (CDO)'s roles, as described in the Open, Public, The US description of an institutional chief data officer (CDO)'s roles, as described in the Open, Public, Electronic and Necessary (OPEN) Government Data Act (Box 7.2), puts forward this interconnection in a clear way. The act makes institutional CDOs responsible for the "publication of data assets in accordance with applicable law" and "identify points of contact for roles and responsibilities related to open data use and implementation" (OECD, 2019, pp. 41-42[13]; US Congress, 2019[16]).

Box 7.2. US Chief Data Officers (CDOs)

> *The provisions of the Open, Public, Electronic, and Necessary (OPEN) Government Data Act describe the activities and role of institutional CDOs as follows:*
>
> *Be responsible for life cycle data management.*
>
> *Co-ordinate with any official in the agency responsible for using, protecting, disseminating and generating data to ensure that the data needs of the agency are met.*
>
> *Manage data assets of the agency, including the standardisation of data formats, sharing of data assets and publication of data assets in accordance with applicable law.*
>
> *[…]*
>
> *Ensure that, to the extent practicable, agency data conform with data management best practices.*
>
> *Encourage agency employees, the public and contractors in using public data assets and encourage collaborative approaches on improving data use.*
>
> *Support the performance improvement officer of the agency in identifying and using data to carry out functions described in Section 1124(a)(2) of Title 31.*
>
> *Support the evaluation officer of the agency in obtaining data to carry out the functions described in Section 313(d) of Title 5.*
>
> *Review the impact of the infrastructure of the agency on data asset accessibility and co-ordinate with the CIO of the agency to improve such infrastructure to reduce barriers that inhibit data asset accessibility.*
>
> *Ensure that, to the extent practicable, the agency maximises the use of data in the agency, including for the production of evidence (as defined in Section 3561), cyber security and the improvement of agency operations.*
>
> *Identify points of contact for roles and responsibilities related to open data use and implementation (as required by the director).*
>
> *Serve as the agency liaison to other agencies and the Office of Management and Budget on the best way to use existing agency data for statistical purposes (as defined in Section 3561).*
>
> *Comply with any regulation and guidance issued under Sub-Chapter III, including the acquisition and maintenance of any required certification and training.*

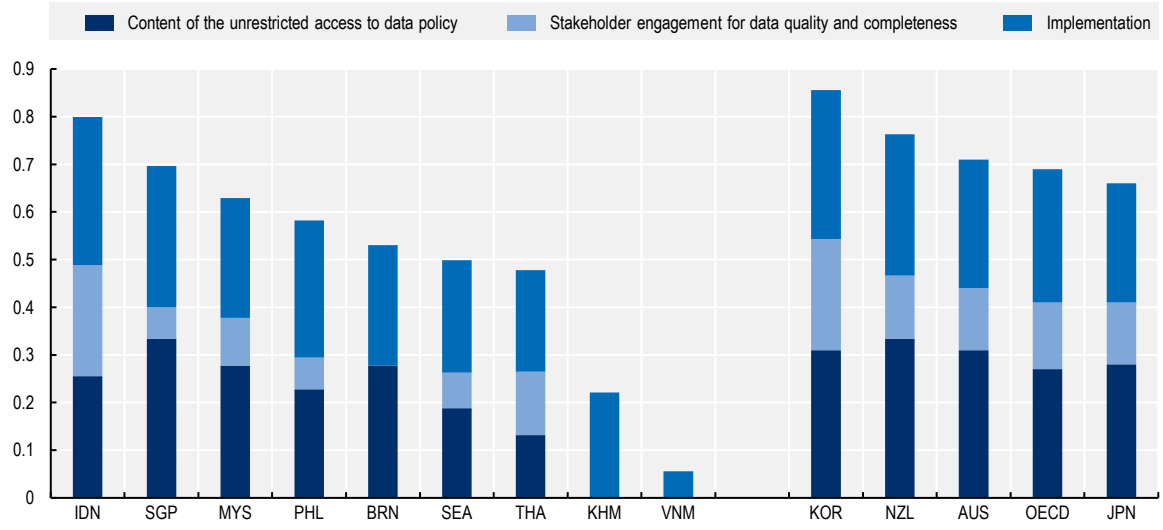
Source: Adapted from OECD (2019[13]), *The Path to Becoming a Data-Driven Public Sector*, https://dx.doi.org/10.1787/059814a7-en, with information from US Congress (2019[16]), *H.R.4174 – Foundations for Evidence-Based Policymaking Act of 2018*, https://www.congress.gov/bill/115th-congress/house-bill/4174/text (accessed on 15 June 2020).

Data accessibility

Pillar 2 on “Data accessibility” is about “refining the user experience of [accessing and using] government data [through the appropriate file formats, publication procedures and entry points]” (OECD, 2020, p. 34[2]). Creating value out of open data first requires a focus on generating quality data that are standardised, interoperable and usable prior to their publication. OECD member countries have been focused on progressing data accessibility in the past few years by introducing robust policies for unrestricted access to data and publishing data on central open government data portals.

Results for Pillar 2 (Figure 7.6) show that Thailand is slightly below the Southeast Asian average and has much to catch up on all three sub-pillars: Sub-pillar 2.1 on the ”Content of the unrestricted access to data policy“ (scoring 0.13 in comparison to the Southeast Asian average of 0.19 and the OECD average of 0.27), Sub-pillar 2.2 on ”Stakeholder engagement for data quality and completeness“ (scoring 0.13 in comparison to the Southeast Asian average of 0.07 and the OECD average of 0.14) and Sub-pillar 2.3 on ”Implementation“ (scoring 0.21 in comparison to the Southeast Asian average of 0.24 and the OECD average of 0.28). Overall, the results for each of the aforementioned sub-pillars contribute to Thailand’s ranking (scoring 0.48) to be just below the Southeast Asian average (scoring 0.50) and OECD average (scoring 0.70).

Figure 7.6. The OURdata Index for Southeast Asia: Data accessibility (Pillar 2)



Note: The OECD average is from the OURdata Index 2019 (OECD, 2020[2]) and based on 33 OECD member countries (at which time Colombia was not). Data is not available for Hungary, Iceland, Turkey and the US.
Source: OECD/ADB (2019[10]), *Government at a Glance Southeast Asia 2019*, https://doi.org/10.1787/9789264305915-en; OECD (2020[2]), “OECD Open, Useful and Re-usable data (OURdata) Index: 2019”, https://doi.org/10.1787/45f6de2d-en.

The underlying idea of making data accessible is to go from mere data provision on Data as a Platform (DaaP) to data-driven collaboration that propels Government as a Platform (GaaP) (Table 7.1). This process requires governments to recognise that a critical mass of high-quality and valuable open data for value creation with stakeholder engagement and collaboration for the co-development of public services make up a stronger data-driven public sector. Once the government of Thailand has mastered DaaP, the path to GaaP should revolve around purposefully increasing the production, release and sharing of high-quality data in appropriate structure and formats with a wider ecosystem such that users are able to create value and meet specific needs.

Table 7.1. From Data as a Platform (DaaP) to Government as a Platform (GaaP)

DaaP	GaaP
Data as an infrastructure: Data are used as a basis for the development of products and services.	DaaP approach and...: • Data-driven: Portals are built for open data, data crowdsourcing. • User-driven: Portals are collaborative online spaces for the open data ecosystem, collective knowledge.
Data supply and demand are balanced: Strategic data publication that meets users' needs.	
Data flows are of quality, timely and regular: Using enablers like APIs.	
Data access are streamlined: Portals are data-centred.	

Source: Adapted from OECD (2018[12]), *Open Government Data Report: Enhancing Policy Maturity for Sustainable Impact*, https://doi.org/10.1787/9789264305847-en.

Sub-pillar 2.1 on "Content of the unrestricted access to data policy" looks at the increasing the production and sharing of quality data that are released proactively, timely and in understandable and re-usable formats for users and machines (OECD, 2020, p. 36[2]). It specifies that there should be the provision of requirements and guidance on metadata, the active addressing of quality issues and biases throughout the data value cycle and the free provision of data (OECD, 2020, p. 37[2]).

During the OECD mission to Bangkok and in line with earlier assessments, the DGA underlined how most government agencies disclose data in non-machine-readable formats (DGA, 2018, p. 50[8]). This is because the government of Thailand has no formal requirements but only guidelines for its government agencies to publish data in machine-readable formats, with their associated metadata or that are interoperable, as shared in the Open Government Data Survey for the OECD and Asian Development Bank (ADB) report *Government at a Glance Southeast Asia 2019* (2019[10]). This poses a key challenge to derive value from data and poses a barrier to meet policy objectives in line with the Digitalisation of Public Administration and Service Delivery Act (2019).

A large majority of OECD member countries are now putting in place requirements to publish government data free of charge with open licenses and in appropriate machine-readable formats like comma-separated values (CSV) and JavaScript Object Notation (JSON) (OECD, 2020, p. 36[2]) but some like Australia, Japan and Lithuania still provide datasets in non-machine-readable formats like PDF and proprietary formats like Excel (OECD, 2020, p. 39[2]). Germany has made the most noteworthy policy advancements to encourage unrestricted access to government data for federal authorities, placing data processing for archiving purposes for the public interest as a priority. Section 28(4) of the Federal Data Protection Act enumerates this right to access data in structured, machine-readable and interoperable formats that enable data portability and does not compromise the public interest (Bundesamt für Justiz, 2019[17]). This confirms that building an open data culture and architecture before the data integration and publication stages takes time and effort.

To further promote the publication of open data in machine-readable formats with metadata descriptions and APIs, the government of Thailand could also consider further developing KPIs in the implementation of open government data requirements. Performance indicators and metrics are important policy tools to encourage public sector organisations to follow standards and guidelines for open government data. They assist in the cohesive dissemination and application of open data policies across the public sector and allow space for adaptation at an organisational level where necessary.

The US had developed the Open Data Dashboard early on in its journey towards increasing data availability and accessibility, which aims to hold government agencies accountable in terms of project implementation and data publication (Box 7.3).

Box 7.3. US Open Data Dashboard

The Open Data Dashboard is an online government tool that seeks to monitor the progress of Federal agencies in the implementation of the M-13-13 Open Data Policy that requires the collection or creation of information such that it supports downstream information processing and dissemination, interoperability and information accessibility, data management and release practices, privacy and confidentiality and new interoperability and openness requirements. It is also informed by the Open Data Implementation Guide along with other performance assessment frameworks.

The Open Data Dashboard is based on quarterly milestones to assess public sector organisations' performance for each indicator at different stages in time. Automated metrics are also added in the measurement of the performance. They focus on analysing different characteristics of machine-readable files such as JSON and their associated metadata to check their validity. A range of indicators are used for assigning a particular score on the status of implementation:

- **Enterprise Data Inventory**: A collection of qualitative and quantitative measures with an objective assessment of: meeting the milestone for whether the inventory was updated by milestone deadlines; the total number of datasets in comparison to the public data listing; the delivery of a schedule of deliverables; the number of bureaus represented in the datasets; the number of programmes represented; the number of datasets that are publicly available; the number of datasets available under use restrictions; the number of non-public datasets.
- **Public Data Listing**: A collection of qualitative and quantitative measures focusing on: the release of open government data in terms of the number of datasets that are publicly listed; the number of downloadable publicly listed datasets; the number of access and download links; the number of working, redirected, broken, error or unreachable links; the validity of metadata; the growth in datasets since the last quarter; the publication of open data activities containing links to their data catalogue, open data-related documents and strategy; the publication of a JSON file that contains the whole public data listing.
- **Public Engagement:** A collection of qualitative and quantitative measures assessing the efforts to engage open data users such as providing a description of and the link to feedback mechanism; the prioritisation of data release through free information mechanisms or formal request mechanisms; the quality of the feedback loop and communication with the public.
- **Privacy and Security:** A collection of qualitative and quantitative measures assessing the privacy and security of the data by the process of data publication; the information that should not have been made public and is documented with the Office of the General Counsel.
- **Human Capital:** A collection of qualitative and quantitative measures assessing the availability of information on the primary point of contact for the government agency's open data initiatives and activities; and the required responsibilities.

All these elements enable both governmental and non-governmental actors to assess the performance of different public sector organisations openly and make comparisons among them while increasing their accountability on the front of open government data policies and actions.

Source: Adapted from OECD (2018[12]), *Open Government Data Report: Enhancing Policy Maturity for Sustainable Impact*, https://doi.org/10.1787/9789264305847-en, with information from US Federal Government (n.d.[18]), *Project Open Data Dashboard*, https://labs.data.gov/dashboard/docs/about (accessed on 15 June 2020).

Sub-pillar 2.2 on "Stakeholder engagement for data quality and completeness" stipulates that the open government data portals should be treated as spaces for open engagement with the larger ecosystem rather than top-down approaches just to provide data supply. The larger goal should encourage innovation,

collaboration, knowledge sharing and value creation towards enabling GaaP (OECD, 2020, p. 39[2]). According to the Open Government Data Survey results for the OECD and ADB report *Government at a Glance Southeast Asia 2019* (2019[10]), the feedback loop and engagement with users on the Open Government Data Centre (data.go.th) is still largely one-way as users are not allowed to add a dataset or create other outputs like data visualisation and are not notified about issues or the re-use of their data. While the government of Thailand enforces standards for accessibility, strengthening stakeholder engagement on the design and use of the Open Government Data Centre (data.go.th) would serve well to allow data communities to better access, benefit from and contribute to the ecosystem.

France is an early adopter of open government data policies and has one of the most highly developed centralised open government data portals (data.gouv.fr). On this portal, users are able to add datasets that are of public interest with virtual stamps – differentiated from the certified datasets that are published by public sector organisations. Estonia allows users to add data through a GitHub account. Finland let its users join with a profile and contribute datasets and data visualisations collaboratively (OECD, 2020, p. 38[2]). In the transformation for the open government data portals to be more user-driven, it is paramount to allow users to participate freely and actively so that the portal act as a platform for the open data communities.

In a similar fashion, the DGA can consider creating fora for discussion and notifications on chosen datasets beyond feedback sections, where users can connect, collaborate and share ideas directly with each other on the use of the open government data – a rare practice that only several OECD member countries have in place (OECD, 2020, p. 38[2]).

Sub-pillar 2.3 on "Implementation" emphasises that the non-formal requirements, cultural changes, political willingness and expertise among public officials are also a necessary part of the equation to enable the release of and access to re-usable datasets on open government data portals. The Open Government Data Survey results for Thailand in the OECD and ADB report *Government at a Glance Southeast Asia 2019* (2019[10]) showed that even though there are points of contact for datasets provided on the Open Government Data Centre (data.go.th), in practice there is a very low proportion of data that are structured, provided in multiple formats and machine-readable formats. The use of uniform resource identifiers, the provision of data visualisation tools and the provision of associated metadata were also minimal – which is consistent with the findings that have been elaborated in-depth above.

Thailand can learn from the progress and experiences of OECD member countries, where a majority of them have already removed barriers to access and re-use open government data without a registration process. At the same time, there is still much to be done across OECD member countries to put in place standards and guidelines on the release of high-quality, timely, disaggregated data in machine-readable, structured and non-proprietary formats (OECD, 2020, p. 39[2]).

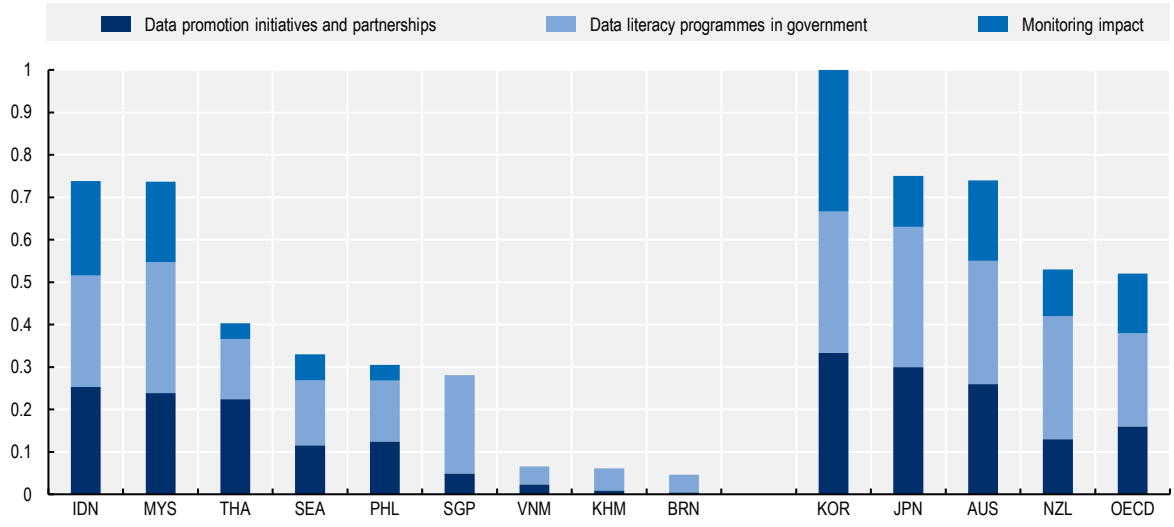
Government support for data re-use

Pillar 3 on "Government support for data re-use" is increasingly seen by governments as a key requirement for value creation and builds upon the previous two pillars addressing the availability and accessibility of good quality government data (OECD, 2018, p. 88[12]). In the last stage of the data value cycle, governments play a vital role in enabling and incentivising data re-use and democratising its value for all user segments: from non-technical experts, who extract value from data dashboards, to data professionals that aim at feeding the data into innovative services and applications.

Governments are central in the open data ecosystem: raising awareness, building capacity and capability, monitoring outcomes and engaging with stakeholders from the public and private sectors and civil society to promote data re-use. The discovery, interest and use of open data by the communities are essential for the long-term continuity of open data policies and practices – because evidence of value creation can help to legitimise and strengthen efforts to become fully data-driven (OECD, 2020, p. 40[2]).

From the results (Figure 7.7), it is apparent that Thailand has strong government support for data re-use in comparison to the Southeast Asian average and is almost on par with the OECD average. Thailand performs well in Sub-pillar 3.1 on "Data promotion initiatives and partnerships" (scoring 0.22 in comparison to the Southeast Asian average of 0.12 and the OECD average of 0.16) but there is still a big gap especially for Sub-pillar 3.2 on "Data literacy programmes in government" (scoring 0.14 in comparison to the Southeast Asian average of 0.15 and the OECD average 0.21) and Sub-pillar 3.3. on "Monitoring impact" (scoring 0.04 in comparison to the Southeast Asian average of 0.06 and the OECD average of 0.14). Overall, the results for each of the aforementioned sub-pillars contribute to Thailand's ranking (scoring 0.40) just above the Southeast Asian average (scoring 0.33) and markedly below the OECD average (scoring 0.52).

Figure 7.7. The OURdata Index for Southeast Asia: Government support for data re-use (Pillar 3)



Note: The OECD average is from the OURdata Index 2019 (OECD, 2020[2]) and based on 33 OECD member countries (at which time Colombia was not). Data is not available for Hungary, Iceland, Turkey and the US.
Source: OECD/ADB (2019[10]), *Government at a Glance Southeast Asia 2019*, https://doi.org/10.1787/9789264305915-en; OECD (2020[2]), "OECD Open, Useful and Re-usable data (OURdata) Index: 2019", https://doi.org/10.1787/45f6de2d-en.

Sub-pillar 3.1 on "Data promotion initiatives and partnerships" measures the extent to which governments regularly conduct assessments, information sessions and focus groups with citizens, businesses and other stakeholders, hold co-creation and crowdsourcing events to promote data re-use, and create partnerships with business incubators and civil society organisations that aim at solving specific public policy challenges. Results from the 2019 OURdata Index (OECD, 2020[2]) indicates that OECD member countries are no longer as active in user engagement to promote the re-use of open government data as compared to 2017. This suggests that formal requirements do not guarantee sustained implementation. Sustainable long-term approaches are needed to promote open government data re-use outside the public sector, notwithstanding contextual changes (OECD, 2020, p. 42[2]).

Results from the OECD Open Government Data Survey also reveal that the government of Thailand does not formally encourage its public sector organisations to raise awareness among businesses on open government data opportunities but does so with citizens and non-governmental organisations. Public sector organisations are not regularly involved in the events or activities aimed at promoting the re-use of open government data, except for a few annual hackathon events. As this is well within the current scope of the DGA (see Box 6.3 in Chapter 6), the DGA should step up its leadership and initiative here.

The government of Thailand has also not been actively conducting assessments and reports to understand the challenges and barriers to the re-use of open government data. Since Thailand is still at a relatively early stage of developing its open government data policies, it can still get a head start by including strong data re-use promotion as another high priority in addition to increasing quality data availability in the appropriate formats and access. One good area is the effort to organise hackathons and develop partnerships with business incubators to support the re-use of open government data by the private sector and civil society, headed by the Open Government Data Committee.

Long-term partnerships with the open data ecosystem can also sustain user engagement and data reuse. The US Government Accountability Office organises several multi-stakeholder fora and communities of practices with the public sector, private sector and civil society to explore how the government can maximise the benefits of data and limit the possible drawbacks – giving a holistic and clear view on their work (OECD, 2019, p. 139[13]). Across the national and subnational levels in Ireland, local authorities co-operate with the national Open Data Initiative by linking their data to the national open data portal and encourage the use of open data among their stakeholders – and this resulted in stronger collaboration and a government hackathon (OECD, 2018, p. 217[12]). France's Etalab or the Taskforce for Open Data has established partnerships with several private sector and civil society organisations on specific issues relating to government data (OECD, 2018, p. 211[12]). The Swedish government mission Hack for Sweden involves over 95 government agencies and businesses to drive innovative citizen-centred solutions – with a focus on open data – to meet economic and societal needs (OECD, 2020, p. 42[2]; Hack for Sweden, 2019[19]).

Yet, targeted partnerships and collaboration will play a key role in the roadmap towards value creation. Korea's start-up hub Open Square-D serves as a community and one-stop centre for open government data start-ups to receive funding and share ideas with open data public officials, experts and investors (OECD, 2020, p. 42[2]; Yeon, 2016[20]). In this instance, in Thailand, the National Innovation Agency (NIA) and the Department of Business Development (DBD) could explore greater synergistic opportunities with the private sector to promote data-driven innovation and entrepreneurship in the technology business ecosystem of Thailand and the widespread use of the G2B services like digital registration, e-licensing and the use of government data.

Sub-pillar 3.2 on "Data literacy programmes in the government" is indispensable for building skills and capacity in the public sector to support open data and data sharing efforts. The government of Thailand is progressing well, in general, with the creation of the Thailand Digital Government Academy (TDGA) that promotes, supports and provides skills and standards training between the public and private sectors, and the definition of digital and data roles as defined in the DGA's Data Governance Framework (covered in Chapter 6) and the Office of the Civil Service Commission (OCSC) Skills Framework (covered in Chapter 4).

However, as also discussed in Chapter 4, Thailand is lacking the necessary human resources to unlock the full potential of a data-driven public sector and could channel more into this area. Based on the results of the Open Government Data Survey for Thailand, much more needs to be done to conduct information sessions, focus groups and training within the public sector and with public officials on the benefits, needs and methods of promoting the re-use of open government data – at all levels of the government and leadership. These programmes should raise public officials' understanding and awareness on how data should be published and reused within the public sector to improve internal processes, public policies and services. This involves invoking the interest of public officials by providing guidelines and performance incentives to re-use open government data within the public sector too – something that still only eight OECD member countries do. Finally, increasing the level of digital literacy can also help to build an organisational culture that embraces data, which the government of Thailand presently has as a programme but needs to further deploy through practical and consistent training sessions on the DGA's Open Government Data Handbook. The Open Government Data Conference as a platform for internal

consultation is another good channel to be exploited not just for feedback collection but for strengthening the awareness and effective rolling-out of open government data efforts.

Sub-pillar 3.3. on "Monitoring impact" should be done by financing or conducting research on the economic, social and public sector performance impact of open government data. Indicators can include the amount of re-use of open government data and the types of re-use carried out such as data visualisations, mobile applications and news articles – through usage cases that are documented, displayed and promoted openly. Testimonies from OECD member countries in 2019 demonstrate that governments that proactively attempt to log evidence and the impact of open government data initiatives also increase the sustainability of releasing, funding and creating valuable impact (OECD, 2020, p. 44[2]).

The Danish Agency for Data Supply and Efficiency collaborated with PricewaterhouseCoopers to assess the impact of its open geographical government data in 2017 as part of the common public digitalisation strategy (2011-15) and its new digital strategy (2016-20). The aim was to understand the potential and increase the efficiency of implementation and drive new business opportunities – and finally, build a positive business case illustrating the benefits for the public and private sectors (OECD, 2020, p. 44[2]; SDFE, 2017[21]). Spain's Multisectoral Information Association publishes an annual report on the infomediary sector of over 630 companies. This report analyses market behaviour, growth and revenues to understand how businesses re-use open government and private sector data to develop products and services for society across 11 different policy areas: infomediation technology, technical consulting, market research, economic and financial, culture, publishing, geographical information, directory services, tourism, meteorological and others. Results reveal that information and data are important resources for socio-economic growth in Spain overall and in specific sectors (datos.gob.es, 2017[22])

In reference to the results of the Open Government Data Survey for Thailand in the OECD and ADB report *Government at a Glance Southeast Asia 2019* (2019[10]), the government has not conducted research on the economic or public sector performance impact of open government data but has done so for the social impact since 2015. While building the data architecture and infrastructure for GaaP, the DGA could continue to identify, collect and display to the public good examples of re-use on centralised and local open government data within and outside the public sector. In sum, attaining this stage of opening and sharing meaningful, accessible and re-usable data to generate value for stakeholders requires data-driven and user-driven approaches – with open government data laws and regulations that oblige public sector organisations to publish and share their data in complete, updated and appropriate formats and strong user engagement in the open data ecosystem.

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Open and Connected Government Review of Thailand

This *Open and Connected Government Review of Thailand*, the first of its kind, assesses Thailand's efforts to build a government that is closer and more responsive to its citizens by using digitalisation, data and stakeholder participation to drive national development. In line with OECD good practices, the Recommendations of the Council on Digital Government Strategies (2014) and on Open Government (2017), and the OECD Digital Government Policy Framework, the review looks at institutional and legal governance, digital talent and skills, public service provision and the strategic use of technologies and data in the Thai government. The review provides policy recommendations to help the government of Thailand fully benefit from openness and digitalisation to build an inclusive, responsive, citizen- and data-driven public administration.

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