This is a summary of the World Bank report, “GovTech Maturity Index: The State of Public Sector Digital Transformation”. A product of the Governance Global Practice, this report provides a snapshot of GovTech maturity in 198 economies, along with a diverse set of good practice examples to assist practitioners in the design of new digital transformation projects. This report was financed by the GovTech Global Partnership trust fund, supported by the governments of Austria, the Republic of Korea, and Switzerland.

The full report is available for download at:

GovTech is a whole-of-government approach to public sector modernization that promotes simple, efficient, and transparent government, with citizens at the center of reforms. GovTech has great potential to deliver on the promises of the digital age by improving core government systems and enhancing citizen-centric services and citizen engagement. However, turning the promises of digital solutions into tangible, measurable, and consistent outcomes remains challenging in most countries. Governments must ensure that the appropriate enabling environment exists to facilitate digital transformation, while also adapting to changing societal demands that stem from digital advancements and phenomena such as the coronavirus pandemic (COVID-19).

Although existing digital government surveys and indexes are useful for monitoring progress in digital government initiatives and good practices in general, until now no single index had captured progress in all key GovTech areas based on a reliable global data set. The GovTech Maturity Index (GTMI) was developed to address this gap.

The GTMI measures the key aspects of four GovTech focus areas—supporting core government systems, enhancing service delivery, mainstreaming citizen engagement, and fostering GovTech enablers—and assists practitioners in the design of new digital transformation projects.

The development of the GTMI was guided by the following key questions:

• Which key indicators can be used to measure the important characteristics of the four GovTech focus areas?
• Do reliable data exist for measuring specific aspects of the four GovTech focus areas?
• How does the GTMI correlate with relevant digital government and GovTech indexes?
• Do any good-practice examples demonstrate the maturity of GovTech focus areas?
• How can the conclusions and recommendations based on the GTMI assist practitioners and policy makers involved in designing and implementing GovTech solutions?
The target audience of the GTMI report consists of government officials (policy makers and technical specialists), World Bank task teams, and other practitioners involved in the design and implementation of GovTech solutions.

This study is informed by the following:

- Several decades of experience in the development of digital government solutions globally
- Availability of reliable global data sets (developed and expanded since 2014) to present the state of digital government in 198 economies
- Growing demand from citizens for improved online service delivery, transparency, accountability, and participation
- Widespread use of the internet and new or disruptive technologies for transforming the public sector.

**METHODOLOGY**

The GTMI is a composite index based on 48 key indicators defined to collect data from 198 economies in four categories: the Core Government Systems Index (CGSI), based on 15 indicators; the Public Service Delivery Index (PSDI), based on 6 composite indicators; the Citizen Engagement Index (CEI), based on 12 indicators; and the GovTech Enablers Index (GTEI), based on 15 indicators. The GTEI measures the presence of several cross-cutting enablers relevant to advancing GovTech; however, it does not quantify their effectiveness or performance. The key GTMI indicators are explained in table 2.1 in chapter 2 and in appendix A.

In order to find the best fit for calculating the key component indexes, four options were examined: no weights, weights based on expert opinion, weights based on correlation analysis, and weights based on factor analysis. The GTMI scores were calculated using weights based on expert opinion to reflect the relative degrees of importance of the selected indicators, as determined by the extant literature, observations during the data collection process, and World Bank operational experience. All 198 economies were grouped from A (GovTech leaders) to D (minimal focus on GovTech) based on their GTMI score.

Based on analyses comparing the GTMI with relevant indexes, the GTMI indicators were found to produce consistent results and to measure less-known dimensions related to GovTech foundations appropriately.

The GTMI was constructed based primarily on the World Bank’s GovTech data set. The data set presents comprehensive information collected from the government websites of 198 economies about the maturity of GovTech focus areas from two perspectives: (a) an international outlook, based on the data available on 198 economies, and (b) a regional outlook, based on a subset of data for 168 World Bank client countries benefiting from financial and technical assistance. Other data sets were also used to construct the GTMI: the 2020 United Nations e-Government Survey, the 2018 Identification for Development (ID4D) data set, and the 2019 Worldwide Governance Indicators (WGI). The GovTech data set contains the evidence collected for 42 GovTech key indicators defined by the Bank team and 6 additional indicators from other relevant data sets.
MAIN FINDINGS

Interest in GovTech initiatives is growing around the world. Government entities leading the GovTech agenda exist in 80 economies out of 198 reviewed, and mature digital government and good practices are highly visible in 43 economies.

Focus on GovTech

Despite increasing investments in information and communication technology (ICT) infrastructure and the availability of digital government or GovTech institutions and strategy or policy documents, the maturity of GovTech foundations is lower than expected in most countries.

Visibility of Results

Few governments document and report transparently their investments in GovTech initiatives, results achieved, or challenges faced.

Core Government Systems

Most countries already have developed core government systems such as back- and front-office solutions, online service portals, and open-data platforms, but these systems are often fragmented and disconnected. There is room to improve interconnectivity, data exchange, and interoperability in most countries.

Shared Platforms and Standards

Many countries have shown an interest in developing shared GovTech platforms, such as cloud-based solutions, unified mobile apps, and a government service bus, to support the operational and service delivery requirements of public entities and satisfy the preferences of citizens.

Online Services

Integrated national portals are available in many countries to enable online service delivery. However, only a few countries—mainly in Groups A and B—have visible two-way information flow between government and citizens or businesses, universally accessible user-centric transactional services supported by mobile apps, and quality of service metrics.

Digital Citizen Engagement

Governments and civil society organizations have launched various technology solutions to improve digital citizen engagement, but it is difficult to find information about the impact of these tools, and government disclosure of service quality standards is not readily available. Only a relatively small group of countries have multifunctional citizen participation portals that provide capabilities for citizens to submit a petition, have their inputs published, and provide anonymous feedback, or for government to post its response.
GovTech Enablers

Most of the digital government strategies and action plans approved within the last five years include the establishment of enabling and safeguarding institutions to support the GovTech agenda, with more focus on a whole-of-government approach, data-driven public sector, digital skills development, and innovation labs.

Disruptive Technologies

Some high- and middle-income countries have recognized and harnessed the potential of new and disruptive technologies. They have national strategies and plans for artificial intelligence, blockchain, and other emerging technologies, and some GovTech leaders are already using these solutions in various sectors.

The findings and good-practice cases presented in this study demonstrate that the GovTech focus areas identified by the World Bank are highly relevant to the digital transformation agenda in most countries.

KEY MESSAGES

• Commitment at high levels of government and the allocation of necessary resources are crucial for the sustainability of GovTech initiatives.
• Large-scale GovTech challenges are more evident in Sub-Saharan Africa and South Asia than in other regions, and more substantial resources are needed to address issues related to the digital divide, infrastructure, and governance in these regions.
• Countries could focus more on improving the interconnectivity and interoperability of existing systems and portals, and on the benefits of having a government cloud, service bus, and application programming interfaces (APIs) as cost-effective shared platforms in future GovTech initiatives.
• Next-generation online service portals could expand transactional services, saving substantial time, reducing costs, and improving the quality of services for citizens and businesses.
• GovTech initiatives could focus more on multifunctional citizen participation platforms to deepen the citizen-government relationship through effective CivicTech solutions, improve accountability, and build public trust in government.
• Further investments in digital skills development and innovation in the public sector are crucial to supporting the transition to a data-driven culture and building strong technical skills.
• Governments could promote the use of open data to create added economic value by establishing public data platforms that individuals and firms can access. Government and other players in the public policy making process could also harness the data for better evidence-based policies and program adaptation.
The World Development Report 2021: Data for Better Lives highlights the importance of data governance, which is highly relevant to the GovTech agenda (World Bank 2021b). The report offers five high-level recommendations: (a) forge a new social contract for data that (b) increases data use and reuse to realize greater value, (c) creates more equitable access to the benefits of data, (d) fosters trust through safeguards that protect people from the harm of data misuse, and (e) paves the way for an integrated national data system.

Governments could increase citizen trust in data-driven societies and promote GovTech more effectively by adopting solid legal frameworks and establishing strong agencies for data protection.

Interconnectivity between traditional and new (digital) data is necessary to advance digital transformation.

Governments could better promote the development of local GovTech ecosystems by supporting local entrepreneurs and start-ups to develop new products and services.

The use of frontier and disruptive digital technologies can greatly improve core government operations and online service delivery. For example, government agencies can use artificial intelligence and big data to mine data and offer predictive, customized services to citizens and businesses.

Future GovTech initiatives could also consider six dimensions of a fully digital government: (a) digital by design, (b) data-driven public sector, (c) government as a platform, (d) open by default, (e) user-driven, and (f) proactiveness. These important aspects are defined in detail in the Digital Government Policy Framework of the Organisation for Economic Co-operation and Development published in October 2020 (OECD 2020).

The coronavirus pandemic has shed light on how GovTech solutions can help to ensure the continuity of core government operations, secure remote access to online services, and support vulnerable people and businesses in difficult times. Governments should allocate the necessary resources to improve the maturity of digital government during the COVID-19 recovery and resilience phase and adapt to the “new normal” through effective partnerships with all stakeholders.

This study is divided into five chapters. Chapter 1 presents the rationale and aims of the study and definitions used, along with a summary of relevant digital government indexes. Chapter 2 explains the methodology used to identify the important aspects of four GovTech focus areas, including the key indicators, the weight calculations, and the scoring scheme. Chapter 3 presents the key aspects of government practices in the GovTech domain, together with key findings. Chapter 4 describes some of the good practices visible in four GovTech focus areas. Chapter 5 summarizes the conclusions. Appendices A–D present the details of key indicators, a description of the GovTech data set, results based on selected key indicators, and weight calculation options. Appendix E presents the GovTech references.
NOTES

1. The meaning of enablers in this context may be different from the use of enablers and foundations in other World Bank reports or tools, including World Development Reports and the Digital Government Readiness Assessment, and elsewhere within the GovTech context.


3. CivicTech relates broadly to ICT-based technologies that enhance engagement, participation, and the relationship between citizens and government.

REFERENCES


Governments have been using technology to modernize the public sector for decades. The World Bank Group (WBG) has been a partner in this process, providing both financing and technical assistance to facilitate countries’ digital transformation journeys since the 1980s.

The WBG launched the GovTech Initiative in 2019 to support the latest generation of these reforms. Over the past five years, developing countries have increasingly requested WBG support to design even more advanced digital transformation programs. These programs will help to increase government efficiency and improve the access to and the quality of service delivery, provide more government-to-citizen and government-to-business communications, enhance transparency and reduce corruption, improve governance and oversight, and modernize core government operations. The GovTech Initiative appropriately responds to this growing demand.

The GovTech Maturity Index (GTMI) measures the key aspects of four GovTech focus areas—supporting core government systems, enhancing service delivery, mainstreaming citizen engagement, and fostering GovTech enablers—and assists advisers and practitioners in the design of new digital transformation projects. Constructed for 198 economies using consistent data sources, the GTMI is the most comprehensive measure of digital transformation in the public sector.

Several similar indices and indicators are available in the public domain to measure aspects of digital government—including the United Nations e-Government Development Index, the WBG’s Digital Adoption Index, and the Organisation for Economic Co-operation and Development (OECD) Digital Government Index. These indices, however, do not fully capture the aspects of emphasis in the GovTech approach—the whole-of-government approach and citizen centricity—as key when assessing the use of digital solutions for public sector modernization. The GTMI is not intended to be an assessment of readiness or performance; rather, it is intended to complement the existing tools and diagnostics by providing a baseline and a benchmark for GovTech maturity and by offering insights to those areas that have room for improvement.

The GTMI is designed to be used by practitioners, policy makers, and task teams involved in the design of digital transformation strategies and individual projects, as well as by those who seek to understand their own practices and learn from those of others.