



GovTech Investment Trends: An Overview

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Disclaimer

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Valeria Ionan

Advisor to the First Deputy Prime Minister — Minister of Digital Transformation of Ukraine on Innovation, Digitalization, and Global Partnerships



Ministry
of Digital Transformation
of Ukraine

The world is evolving, with artificial intelligence, quantum technologies, new energy solutions, and digital societies shaping a new reality. This transformation redefines not only how we work, but also how we understand the state, society, and the future. In Ukraine, we have proven that the state can be fast, flexible, and truly people-oriented even under the toughest conditions. At the Ministry of Digital Transformation, we are building the most convenient digital state—not for the sake of technology itself, but to strengthen the state and enable an easy and secure citizens' access to public services. Today, Ukraine ranks among the top five countries globally in terms of the development of digital public services, according to the UN EGDI rating. Moving forward with our purpose, we are building an agentic state where technology empowers both the government and citizens to be more autonomous and effective. We have launched Diia.AI, with embedded AI helping people receive public services faster. At the same time, we are implementing the WINWIN innovation strategy, finalizing the national artificial intelligence strategy and shaping Ukraine's digital agenda for 2030. Ukraine is steadily becoming a center of innovation worth investing in—this is where solutions are created, tested by reality, scaled up globally, and used to shape standards of the digital future.



Zoia Lytvyn

Head of the Global Government
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Today, GovTech is not about digital products but rather about the state's strategic investments in institutions, digital infrastructure, and data. In a new reality of overlapping crises, these investments lay the foundation of our resilience, effectiveness, and citizen-centricity. Ukraine's experience shows that a country's digital infrastructure becomes critically important in times of war and deep transformations. This report is designed to help governments and partners see the global trends behind the numbers and make informed decisions that have a scalable impact on states and societies.



Olena Boichenko

Partner, Head of Consulting,
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Deloitte.

Together makes progress

Deloitte systematically combines analytical research with the implementation of technological projects in the public sector—from developing strategies and architectures to implementing digital solutions. For us, this report is not just an analytical product. It is a guide to the GovTech market, highlighting its specifics and challenges and enabling us to move forward and further develop this area. State digitalization has evolved to the point where measurable economic impact and public value begin to count more than the scale of technology implementation. The Report demonstrates that GovTech is refocusing its logic from projects on investments, which should be aligned with the strategic development of states and communities and supported with clear economic indicators, systematic risk management, and long-term public value. As governments and institutions, international partners, and businesses increasingly need to consider digital public infrastructure, cyber resilience, and data quality—interconnected elements of modern economic policy—when making data-driven decisions, Deloitte Ukraine joined in preparing this report to help provide a comprehensive view of trends in public digitalization and highlight areas that require further attention from the professional community.



Viktor Lyakh

President of East Europe
Foundation



East
Europe
Foundation

Digital transformation is an approach that lays the foundation for a country's resilience, governance efficiency, and citizen trust. This report shifts the GovTech agenda to data, investment logic, and strategic priorities. This is especially relevant in the context of Ukraine since we have experience in rapidly deploying digital solutions in time of crisis when limited resources leave no room for error.

As the state's implementing partner and deliverer of numerous international technical assistance programs, the East Europe Foundation helps translate strategic intentions into digital services and infrastructure solutions. This is why we uphold the approach presented in this report: investing not in IT products, but rather in a well-coordinated digital public infrastructure that creates measurable value and can scale from Ukraine to the world.

Key terms and abbreviations

Terms

Digitalization	Using digital technologies to automate processes and convert existing procedures into digital workflows without significant changes in their underlying logic (e.g., electronic document management or online application submission instead of paper-based processes).
Digital modernization	Updating or replacing outdated information systems, infrastructure, and core software (legacy systems) aimed at improving reliability, security, and efficiency, while keeping management and service delivery models unchanged.
Digital transformation	A profound change in approaches to management, service delivery, and user interaction, combining technological, organizational, and institutional changes, and enabling the emergence of new digital products, services, and models of public value.
Smart city	An approach to urban governance and development, in which digital infrastructure, data (including from IoT/sensor networks), analytics, and management platforms are used to improve the efficiency of urban systems and services (transportation, energy, utilities, security, environment), optimize resource use, and improve the quality of urban living.
Smart city 2.0	A broader interpretation of the smart city concept, shifting the focus from individual infrastructure smart projects to the entire city's comprehensive digital operating model including integrated data, digital services for residents and businesses, and automation of internal municipal processes.
Agentic State / agent state	A model of public governance in which AI-powered digital agents (autonomous or semi-autonomous systems) perform some of the state's functions: initiate and support processes, make/recommend decisions within the pre-defined rules, retrieve information with registries and other systems, provide services, and monitor their delivery—all in accordance with the established policies, authorizations, and accountability mechanisms.

Abbreviations

CAIO	(Chief AI Officer) Head of Artificial Intelligence; this role is responsible for strategic AI implementation management, including policies/risks and scaling of AI solutions in the public sector.
CDTO	(Chief Digital Transformation Officer) Digital Transformation Manager; this role is responsible for strategic digital change management, coordination of digital programs and transformation initiatives in the state/organization.
CIO	(Chief Information Officer) Head of IT; this role is responsible for IT strategy, architecture, and infrastructure, as well as for the operation/modernization of information systems.

Executive summary

01

The global IT market continues to grow rapidly, shifting its focus to software, IT services, cloud platforms, and AI-enabled solutions.

In 2025, global IT spending is expected to reach \$5.54 trillion (up by 10% YoY), with Europe accounting for nearly \$1.29 trillion (+11.5%). The fastest-growing segments are software, IT services, and center infrastructure, while hardware growth remains moderate. This reflects a shift in investment flows from infrastructure, which previously dominated, to model integrating platforms, cloud services, analytics, and data protection — the technological foundation that enables GovTech solutions.

02

The public sector is becoming a major driver of the global IT market.

In 2025, worldwide government IT spending will exceed \$606 billion, with the largest share of 39% attributed to services: consulting, application/infrastructure implementation and management, IaaS, and business process. This indicates that governments are increasingly investing in integrated services and partnerships, alongside their more traditional purchasing of servers, related equipment and licenses.

03

Cloud solutions and artificial intelligence are evolving into the underlying infrastructure of the digital state.

Over just four years, spending on public cloud services has grown more than twice—from \$332 billion in 2021 to USD 723.4 billion in 2025—with total cloud spending (including private and hybrid clouds) projected to reach USD 1.3 trillion in 2025. Even stronger growth rate is observed in AI investments: from ≈\$342 billion in 2021 to ≈\$1.48 trillion in 2025, with projections exceeding \$2 trillion in 2026. According to Gartner's survey in the spring of 2025, 62% of executives view AI as the key competitive differentiator over the next decade. The study also reveals that the public sector is among the fastest-growing adopters of AI and cloud technologies.

04

GovTech is funded at multiple levels—from supranational instruments to municipal smart-city investments.

The Recovery and Resilience Facility/NextGenerationEU—an instrument that offers grants and loans to support reforms and investments in the EU Member States—allocates €650 billion in grants and loans, with a mandatory minimum of 20% earmarked for digital objectives; in practice, nearly 26% (≈€150 billion of digital investments across 27 EU countries). The Ukraine Facility provides up to €50 billion for 2024–2027, with digital transformation among its key focus areas.

At the city level, the global smart-cities market (estimated at ≈\$1.42 trillion in 2024) is forecast to grow to approximately \$4.91 trillion by 2033 (≈14.8% CAGR). The 112 cities covered by the EU Mission on Climate-neutral and smart cities are expected to require around €650 billion of investments by 2030. Taken together, these factors create a sustainable multi-level demand for GovTech solutions.

05

Institutional architecture—CDTOs, digital teams, governance standards—is increasingly seen as a key enabler of digital investments.

Many countries have established dedicated centers of responsibility. In 2020, Ukraine embedded CDTOs in all government bodies. Similar roles exist in Singapore, the UK, Estonia, and others. At the same time, governments are building internal delivery teams (GDS, USDS, DTA, Canadian Digital Service, DigitalService4Germany, etc.; in Ukraine — SE “Diia”) that operate more flexibly than traditional IT departments and focus on user needs. In this model, the CAIO (AI) complements the CIO (IT), strengthening the state’s ability to quickly and responsibly scale digital services and AI solutions. The OECD notes that leading countries combine strong political and technical leadership with coordinated governance of digital infrastructure, investment, and talent.

06

The risk of duplicated investment and isolated IT solutions drives a shift toward digital public infrastructure and reuse of existing resources.

Governments often develop parallel registries, payment platforms, and e-service portals without coordination—leading to resource dilution, higher maintenance costs, data incompatibility, and scaling challenges. In response, international institutions, including the World Bank, promote the Digital Public Infrastructure (DPI) approach: the use of shared, reusable “digital building blocks” (eID, payments, basic registries, and data exchange layers), with their application across sectors. At the same time, the transition to DPI—being primarily a political and institutional decision—requires clearly defined roles, mandates, and an appropriate organizational structure, in addition to technical implementation. Reports by the UNDP and other organizations urge governments not to build new platforms from scratch. Instead, they recommend using existing open-source or modular solutions, especially in the context of the rapid developments in artificial intelligence, which make a fully DPI-built state unlikely in the near future.

07

Digital infrastructure—without matching investments in cybersecurity—may turn into a source of systemic risk rather than an asset.

Global losses from cybercrime are estimated at ≈\$9.5 trillion in 2024 and expected to rise to approximately \$10.5 trillion in 2025. Yet audits in the US and UK reveal a “modernization gap”: many critical legacy systems lack funded upgrade plans, leading to increased vulnerability despite growing cyber budgets. The spread of AI creates additional pressure: attacks are becoming cheaper and larger in size and impact (phishing generation, deepfake social engineering, automated vulnerability scanning), and new risk surfaces are resulting from the use of models, data, and supply chains. For GovTech, this means the urgent need to invest in the in-depth modernization of core systems, cyber resilience, and systematic risk management, including AI risks, alongside launching new services.

08

Assessing public value and economic impact is gradually climbing up GovTech investment agendas.

The report analyzes the impact of digital solutions on productivity, resource efficiency, service quality, resilience, and trust. Emphasizing both pre-implementation (expected effects, scenarios, benchmarks) and post-implementation assessments (actual changes, before/after comparisons, public value), the report draws attention of governments, donors, and partners to this approach which is shaping a new standard: invest where the impact may be reliably measured—that is where there is a data-proven cause-and-effect impact of digitalization on outcomes important for the society and the state, including the quality and accessibility of services, efficient use of budget resources, system resilience, and public trust.

Introduction

THE 2022–2025 CONTEXT

In 2022–2025, governments faced pressure from a series of interconnected shocks: the COVID-19 pandemic, full-scale wars and geopolitical tensions, a sharp rise in cyber threats, and disruptions in global supply chains. Together, these factors exposed the vulnerability of traditional institutions and paper-based processes, accelerating the shift toward digital solutions as a prerequisite for the state's resilience.

In response, governments began to systematically increase public investments in GovTech—from the selective digitalization of services to the development of digital public infrastructure, cyber-resilient platforms, and data- and AI-driven solutions. GovTech is now central to the state's security, economic adaptability, and ability to keep services running in a time of crisis, in addition to driving efficiency.

For example, according to data from GGTC Kyiv's GovTech Ocean, Ukraine witnessed a major wave of GovTech project launches between 2020 and 2024, during which more than 80% of all recorded initiatives took off the ground (GovTech Ocean, n.d.). This growth was largely associated with the emergence of political leadership and the establishment of an institutional digital transformation framework, in particular, the introduction of the role of Deputy Prime Minister for Digital Transformation and the strengthening of the capacities of the Ministry of Digital Transformation of Ukraine. Prioritization of this area, updates to the regulatory framework, and new standards and implementation practices also played an important role. The surge occurred in 2022, when digital solutions became critical for the resilience of government processes and for ensuring citizens' access to public services amid the full-scale war, with activity peaking in 2024.

PURPOSE OF THE REPORT

The purpose of this report is to systematize open data on global GovTech trends and public investments in 2022–2025 to provide governments, donors, and partners with a comprehensive understanding of where resources are directed, which areas are already oversaturated, and where strategic gaps remain. The report aims to ensure more informed investment decisions, reduce the risk of duplicating digital initiatives, and strengthen the focus on cybersecurity and digital resilience as key prerequisites for effective, long-term GovTech investments.

KEY QUESTIONS OF THE REPORT

- What is the size of the global and European market for IT, cloud, and AI spending in 2025, and what role do public budgets, both national and municipal, play in this landscape?
- Who are the main investors in digital transformation and GovTech (supranational instruments, IFIs, national governments, cities) and how are their roles distributed?
- Which GovTech domains receive funding and what public value does this investment create?
- Which new technological and institutional trends are shaping the GovTech agenda for governments and investors toward 2030?

WHAT WE DEFINE AS "INVESTMENTS IN GOVTECH"

In this study, the term "GovTech investment" is used in a broad analytical sense—as an umbrella category encompassing all forms of targeted funding of digital solutions in the public sector. According to this definition, "investments" are not limited to expenditures with a direct economic return, but also include budgetary and donor resources, as well as financial instruments provided by international and supranational institutions for the creation, development, or modernization of public digital services, infrastructure, data, and related management processes. In particular, these sources of funding include:

- Funds from national budgets (state, regional, and municipal)
- Funds from international financial institutions (loans, grants, guarantees, and other instruments)
- Grant support from international and national donors
- Resources of supranational foundations and programs (e.g., EU instruments)



Our methodology and sources

OUR APPROACH AND SOURCES

This report is an analytical study based on a significant volume of information consolidated from publicly available reports, open datasets, and specialized analytical databases: global overviews by international institutions and IFIs; EU analytics on RRF/NextGenerationEU/Ukraine Facility; market research on IT/Cloud/AI/Smart Cities, national budgets and audit reports; as publicly documented cases of digital public infrastructure, GovTech solutions, etc. Where specifically noted, charts were prepared by Deloitte and GGTC Kyiv, using data from the sources specified in the report. Priority was given to official sources of government bodies and international institutions.

The analysis draws on data from publications covering the period 2021–2025. This time frame allows for capturing the most recent changes and the current state of the market, while also enabling the tracking of medium-term dynamics and the identification of enduring trends rather than one-off fluctuations.

The report uses a sample of countries for which comparable data is available from Gartner and the EIU. The full list of countries is given in **Annex A**.

LIMITATIONS AND ASSUMPTIONS

The report was prepared in 2025, prior to the release of full annual data; therefore, some indicators are presented as estimates and forecasts, with appropriate references to the sources used. The analysis relies on data from a wide

range of open sources, which may vary in completeness and quality across regions, institutions, and sources, and may be affected by time lags between decision-making, project implementation, and the publication of reporting.

Given these limitations, the report provides aggregated benchmarks to identify key trends, approximate volumes, and typical funding patterns.

Core assumptions of the data analysis are that all data sources referenced in the report are publicly available and publish reliable and complete information collected in accordance with their stated methodologies.

The report is based on a selective analysis of publicly available and reliable primary sources and provides only partial coverage of the relevant topic. The authors do not assume responsibility for incompleteness, irrelevance, or inaccuracy of all data taken from these sources and analyzed, nor for any inaccuracies, omissions, or discrepancies that may arise due to limited data availability, differences in data collection methodologies, time lags between policy or project implementation and the publication of related reports, or subsequent changes or updates occurring after the report's preparation. The authors accept no responsibility for any misinterpretation, misuse, or unintended application of the information contained in the Report, by third parties. The content of this report is analytical and overview in nature and is intended to provide a general understanding of key trends, approximate scales, and typical financing patterns.

Global context: digital market and the role of government

GLOBAL AND EUROPEAN IT SPENDING (INCLUDING CLOUD SOLUTIONS AND AI)

Total IT spending

In 2025, the world's digital transformation is gaining new momentum. IT spending continues to increase and evolve in its structure. Previously dominated by hardware and underlying infrastructure, IT spending has now refocused on software development, IT services, the expansion of AI-supporting data centers, and data-protection solutions.

Gartner estimates that, as of 3Q 2025, global IT spending amounts to approximately \$5.54 trillion, a 10% increase from 2024 (Gartner, 2025a). Forecasts for 2026 indicate spending of \$6.1 trillion, reflecting a further +10% growth. These dynamics are presented in **Figure 1**.

In Europe, IT spending in 2025 is projected to reach approximately \$1.29 trillion, up by 11.5% compared to 2024.

(Gartner, 2025a). The primary driver of this growth is spending on software, IT services, and data center infrastructure. The 2026 forecast also projects continued growth (+11.1%), with particularly strong expansion in the software and IT services segments (Gartner, 2025a; see **Figure 1**).

Examining changes in the structure of global IT spending in annual budgets from 2023 to 2029 (**Figure 2**), several trends emerge: IT services consistently account for the largest share, at around one-third of budgets; software spending is steadily increasing (from ≈21% to ≈27%); the share of communication services and devices is gradually declining; and data centers expenditures are growing moderately.

Cloud solutions

Businesses and governments continue to expand their digital budgets. Amid rising turbulence in today's world and a growing need to optimize expenditure, IT spending is increasingly redirected toward cloud solutions—largely transferring

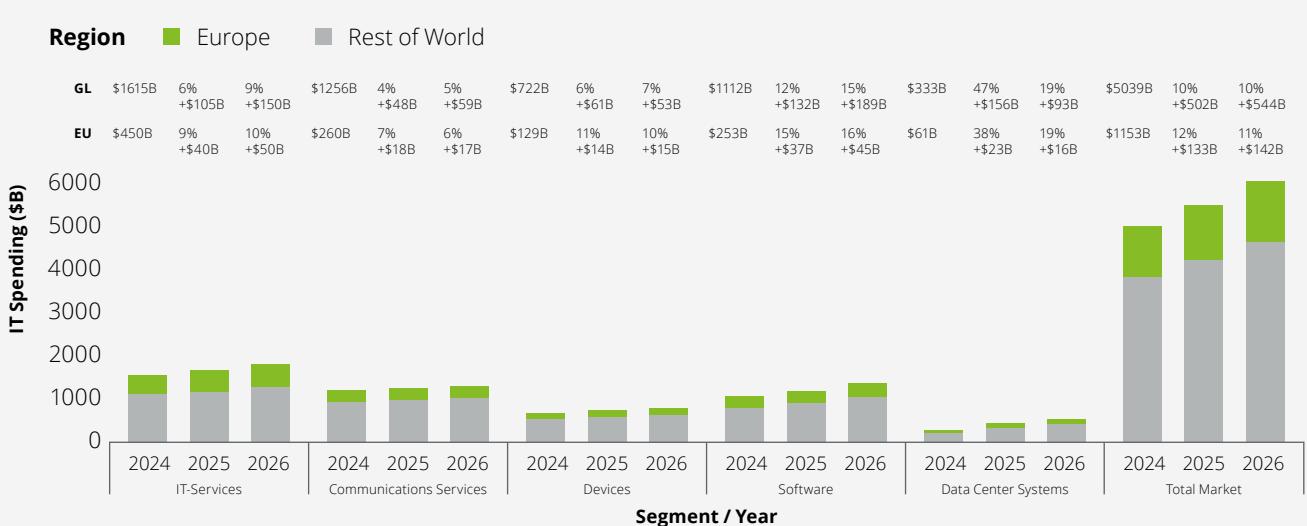


Fig. 1. Global and European IT spending forecast (\$ million). Source: Gartner. (2025a).

End-user spendings on IT (Gartner Market Databook 3Q25).

Note: The chart was created by Deloitte and GGTC Kyiv, using data from the sources specified in the report.

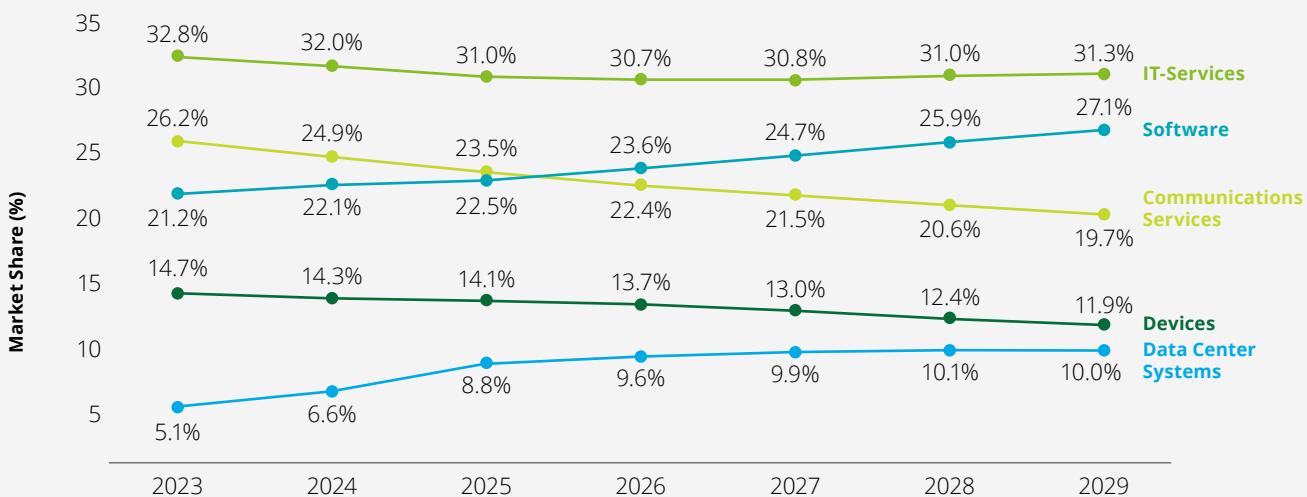


Fig. 2. Trend: investment in different types of IT spending as a percentage of annual budgets.

Source: Gartner. (2025a). End-user spendings on IT (Gartner Market Databook 3Q25).

Note: The chart was created by Deloitte and GGTC Kyiv, using data from the sources specified in the report.

responsibility for infrastructure resilience and cybersecurity to cloud service providers.

Cloud solutions are currently experiencing explosive growth. According to Gartner, spending on public cloud services increased from \$332 billion in 2021 (Gartner, 2021) to \$723.4 billion in 2025. For comparison, in 2024 alone, the cloud market grew by approximately 21%, from \$595.7 billion to \$723.4 billion (Gartner, 2024a). Among the key drivers are the massive migration of data and workloads to cloud infrastructure across various industries, as well as the accelerated adoption of artificial intelligence. In addition, AI increases demand for computing resources and specialized capabilities (in particular, for model training and deployment in real-world services). According to IDC, total spending on cloud services, including private and hybrid clouds, could reach \$1.3 trillion in 2025 (IDC, 2021a).

Artificial Intelligence

A Gartner survey conducted between March and May 2025 among 252 senior executives from North America and Western Europe, representing companies from various industries, each with annual revenue of \$500 million or more, reveals that 62% of respondents view AI as the key competitive differentiator over the next decade (Gartner, 2025b).

Investments in AI are growing even more rapidly. According to Gartner, global spending on AI solutions (software, hardware, and services) amounted to roughly \$342 billion in 2021 (Gartner, 2021b). The AI market accelerated further, surpassing \$500 billion by 2023. Gartner expects spending on artificial intelligence to reach approximately \$1.48 trillion in 2025. This growth is driven by large-scale integration of AI solutions into business processes, soaring demand for optimized infrastructure (servers, chips, cloud AI services), and the competitive investment race among major technology

corporations. Forecasts suggest that global spending will exceed \$2 trillion in 2026 (Gartner, 2025c).

Within the overall AI spending, generative AI (GenAI) shows a distinct trend, with investments growing significantly faster than total IT spending. **Figure 3** illustrates the dynamics of investments in GenAI as a separate subcategory of overall AI investments compared with total IT spending.

At the same time, investment in GenAI is growing exponentially, far outpacing the overall increase in IT spending (**Figure 3**).

According to the Edelman Trust Barometer 2025, trust in governments remains moderate: on average, 52% of respondents express confidence in governmental institutions, only slightly below trust levels for NGOs (58%) and business (62%) (Edelman Trust Institute, 2025). In this context, responsible AI implementation is viewed primarily as a tool for strengthening transparency, accountability, and fairness in public administration, rather than as a “cure-all” for the trust deficit.

The modernization matrix (**Figure 4**) illustrates how countries allocate budgets between equipment (hardware) and services (software and cloud services). North America and Northern/Western Europe dedicate a larger share of spending to software and cloud services, with moderate investment in hardware, effectively directing resources toward modernization and new digital services. In contrast, China, India, and Turkey invest heavily in national data centers, remaining somewhat outside the global cloud-services trajectory. Several countries in Latin America and the EMEA region show limited investment in both hardware and software/cloud, indicating that existing systems receive “minimum maintenance” and face capacity constraints for thorough modernization.



Fig. 3. Investments in GenAI and total IT spending (\$ billion). Source: Gartner. (2025a).

End-user spendings on IT (Gartner Market Databook 3Q25).

Note: The chart was created by Deloitte and GGTC Kyiv, using data from the sources specified in the report.

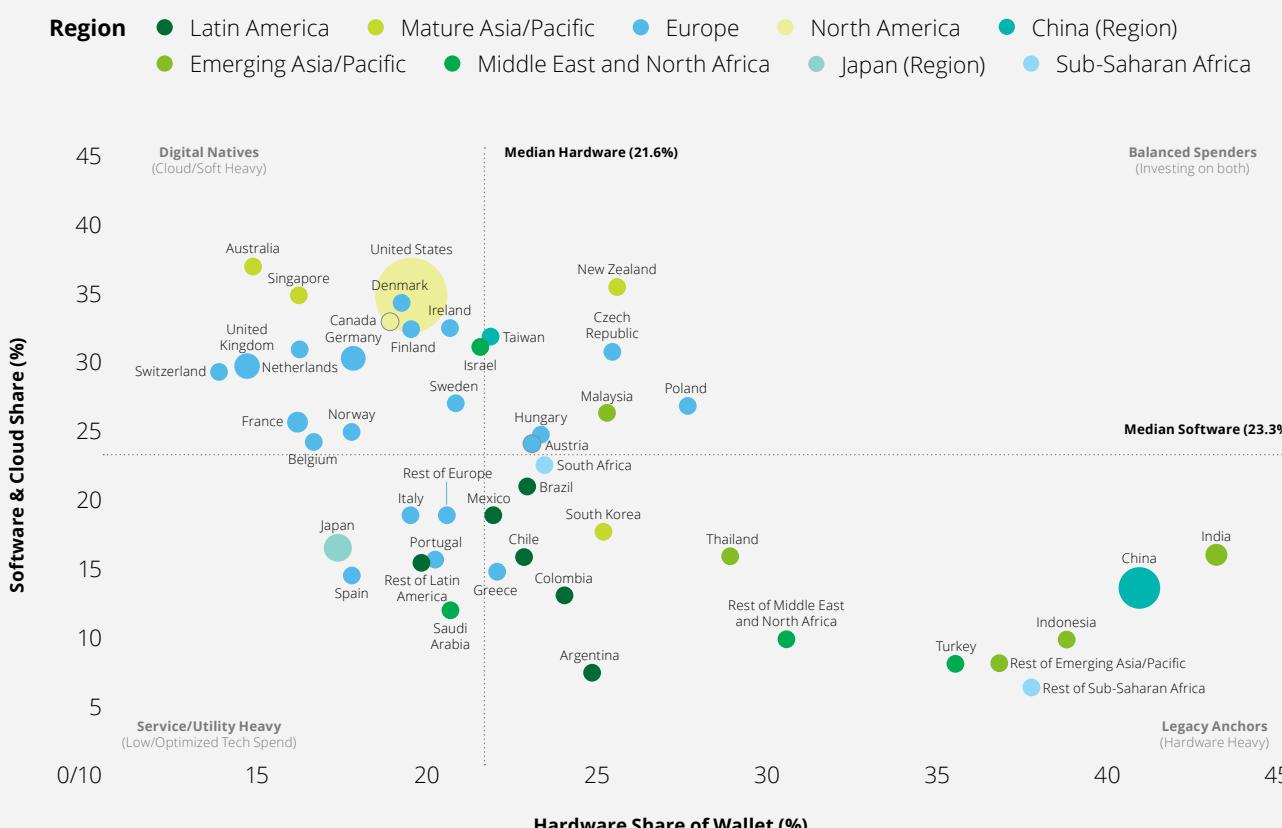


Fig. 4. Modernization Matrix: Comparison of countries by spending on technical infrastructure versus software and cloud solutions.

Source: Gartner. (2025a). End-user spendings on IT (Gartner Market Databook 3Q25).

Note: The chart was created by Deloitte and GGTC Kyiv, using data from the sources specified in the report.

THE SHARE AND ROLE OF THE PUBLIC SECTOR IN IT SPENDING GROWTH

Overall GovTech market

Digital modernization (including hardware procurement, modernization or migration of legacy systems, upgrading of networks, data centers, and core software and platforms) is increasingly funded through the national budgets of individual countries. Analysts estimate that in 2024, governmental and municipal institutions spent around \$500 billion on information technology (Verified Market Research, 2025). For reference, IT spending by U.S. state, local, and education government entities (SLED) in 2024 projected to be between

\$143 and \$144 billion is by approximately 4.5% higher than in 2023, when spending was roughly \$137–138 billion. (Knell, 2024). Additionally, the U.S. federal government annually spends more than \$100 billion on managing and updating its IT systems (GAO, U. S., 2025a).

Gartner estimates that worldwide government IT spending will exceed \$606 billion in 2025, with the largest share (39%) attributed to Services: Consulting (9,2%), Application Implementation and Managed Services (13,4%), Application/ Infrastructure Implementation and Managed Services (9,7%), Infrastructure as a Service (IaaS) (3,5%), and Business Process Services (3,2%) (Gartner, 2025d; see **Figure 5**).

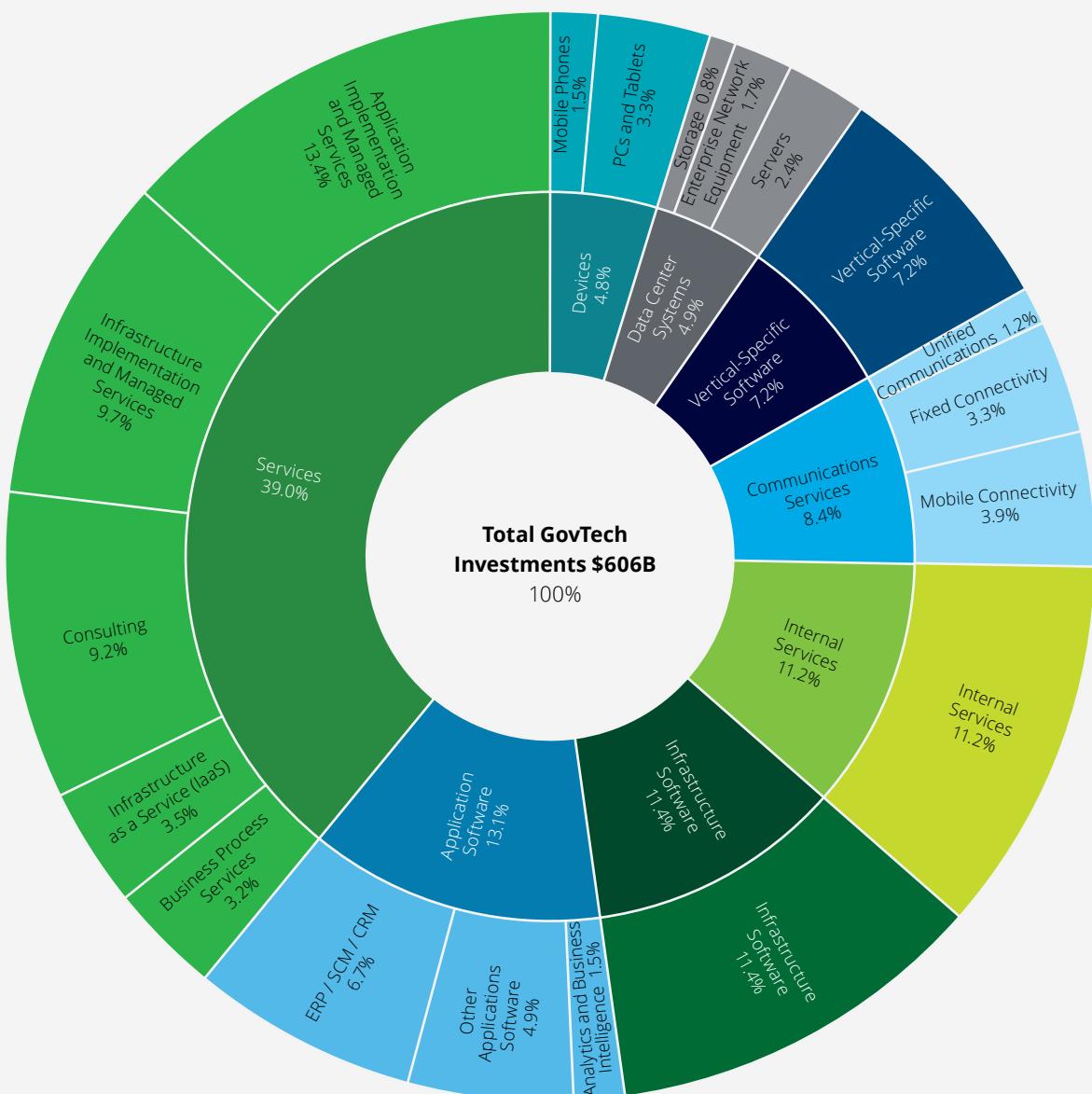


Fig. 5. Global distribution of expenditures on Governance IT sector by segment. Source: Gartner. (2025d).

IT spending for the government (Gartner Enterprise IT Spending for the Government and Education Markets 3Q25).

Note: The chart was created by Deloitte and GGTC Kyiv, using data from the sources specified in the report.

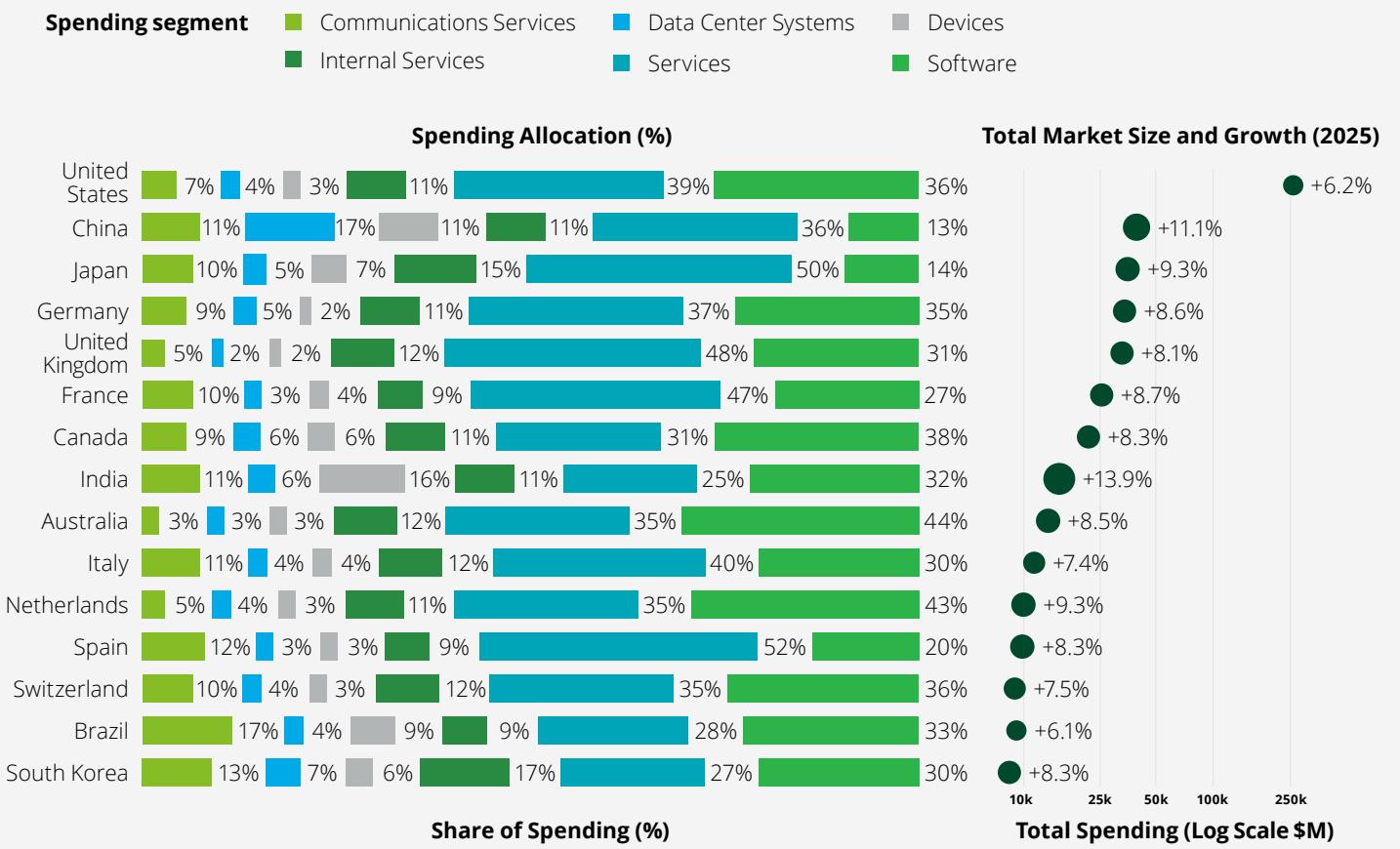


Fig. 6. Top countries worldwide by the structure of government IT spending across segments. Source: Gartner. (2025d).

IT spending for the government (Gartner Enterprise IT Spending for the Government and Education Markets 3Q25).

Note: The chart was created by Deloitte and GGTC Kyiv, using data from the sources specified in the report.

Comparing countries, **Figure 6** shows that the most GovTech budgets are concentrated in software, services, and internal service units, with significantly smaller shares allocated to hardware and communications.

Cloud solutions and AI

Government spending on cloud services is growing by 16.9% annually (IDC, 2021a). According to Gartner (2025e), by 2025 the public sector may leave all industries behind in terms of AI spending, with a CAGR of 19%.

Figure 7 illustrates the shift from in-house infrastructure to cloud services. Government IT budgets are increasingly directed toward IaaS and PaaS, thus reducing costs of maintaining in-house data centers and related systems.

According to the Economist Impact survey (2025), 52% of public servants expect AI to significantly enhance productivity over the next three years. The greatest anticipated impacts are in predictive analytics (66%) and cybersecurity/anti-fraud (54%) one enables proactive planning and cost cutting while the other reduces incidents and losses (Economist Impact, 2025). Achieving these outcomes requires high-quality data, robust integrations, MLOps, and underlying access and ethics policies to enable measurement of 1) the time from model activation to

managerial decision as an indicator of AI effectiveness; 2) cost savings validated through before/after benchmarks or control groups. At the same time, the focus is gradually shifting from the use of AI as an auxiliary tool to the concept of an agentive state—a state in which AI-driven systems and digital agents are used to autonomously perform certain administrative actions within defined policies and powers.

Case studies confirming the trends

United Kingdom: During the first eight months of 2025, the government awarded AI-related contracts worth £573 million (Open Contracting Partnership, 2025), covering analytical systems, back-office automation, pilot applications of generative AI in healthcare and justice, and AI modules for tax administration. A sizable portion went to local contractors specializing in the implementation of ethical AI for the public sector.

United States the largest expenditures are in the Department of Defense, the Department of Health, and the Internal Revenue Service. Contracts included big-data analytics, automation of benefits administration, recommendation systems, and GenAI pilots for internal government services. Some solutions focused on enhancing cyber resilience and network anomaly detection. **Figure 8** shows the distribution of AI application domains

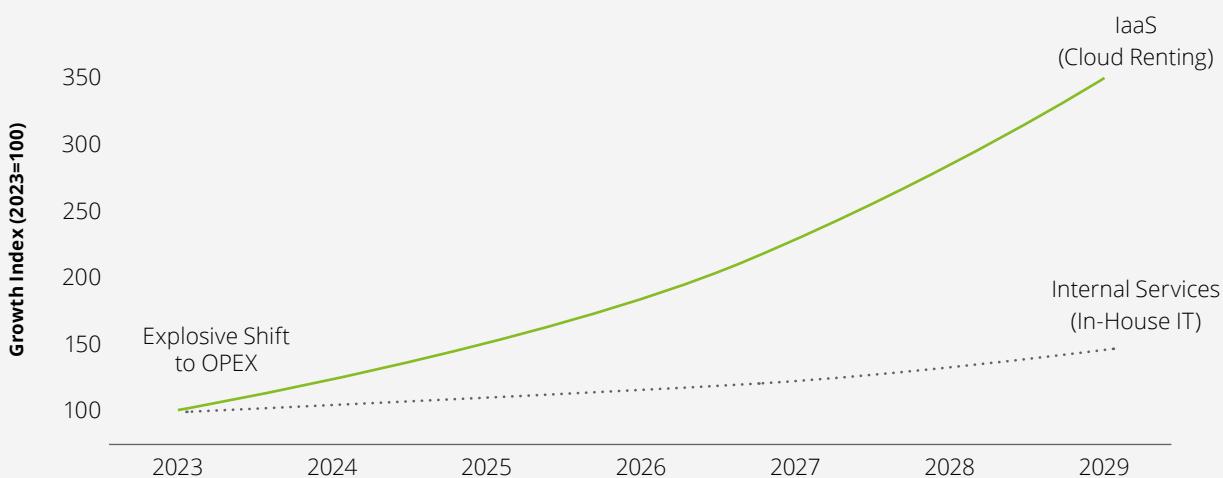


Fig. 7. Comparison of in-house IT spending before cloud spending. Source: Gartner. (2025d). GenAI investments and Cloud Spending (Gartner Enterprise IT Spending for the Government and Education Markets 3Q25).

Note: The chart was created by Deloitte and GGTC Kyiv, using data from the sources specified in the report.

across U.S. governance documents. Military & Safety have the largest share of AI application (26.8%), with key Public Services accounting for 18.5%. Commercial and Industrial represent 16.1% of regulatory attention (AGORA Dataset, 2025).

Cybersecurity

Figure 9 illustrates the gap between digital adoption and cybersecurity maturity. Countries with high levels of digital activity but low security readiness fall into a risk zone, requiring their public sectors to increase investment in cyber resilience. In particular, EU countries are experiencing increased rates of internet usage and the digitization of public services, while showing a declining cybersecurity preparedness in 2025 (compared to 2022).

GovTech development forecasts

Gartner (2024) also offers the following predictions:

- By 2028, 70% of cybersecurity services will use compound AI solutions (currently (≈5%)).
- By 2026, at least 500 million people will use digital wallets with DLT-based IDs.
- By 2026, more than 70% of government agencies will use AI to enhance administrative decision-making.
- Low-code and industry cloud solutions will be widely adopted to enable rapid modernization.
- By 2026, more than 60% of governments will invest in automated business process services.

Limited internal IT talent is driving governments to rely more heavily on external providers. Small and medium-sized businesses (including GovTech) have become critical suppliers of automated services, no-code/low-code platforms, cloud infrastructure, and IT consulting.

Governments are increasingly partnering with global technology corporations (AWS, Microsoft, Google, SAP, Oracle, and others) to scale digital public services. At the

same time, the concentration of critical government data in global cloud environments intensifies concerns around digital sovereignty—the ability to retain jurisdictional control over data, services, and infrastructure even when they are provided by commercial providers (European Commission, 2021, 2025).

In response, two key approaches are emerging: digital embassies and sovereign clouds. Digital embassies are secure digital environments for cross-border storage of government data, operating under the jurisdiction of the data owner's country. This approach ensures digital continuity and strengthens trust in cross-border data flows, particularly in the context of AI scaling. The second, more comprehensive approach—capable of supporting not only data storage but also the functioning of government structures—is the development of sovereign clouds, with resources located within the EU jurisdiction and compliant with Gaia-X, CIGREF Trusted Cloud Referential v2, European Cybersecurity Certification Framework, as well as ENISA, NIS2, and DORA. In addition, there exist national sovereign cloud models, including France's Cloud de Confiance and Germany's Souveräner Cloud.

In response to these requirements, global hyperscalers are adapting their offerings by creating dedicated sovereign segments on their cloud platforms (e.g., AWS EU Sovereign Cloud, Oracle EU Sovereign Cloud). In parallel, governments are leveraging public-sector demand not only to collaborate with global players but also to foster the development of local GovTech ecosystems.

WINDOW OF OPPORTUNITY FOR GOVTECH INVESTMENTS

Competition for talent and technology

Competition between the public and private sectors for talent and technology is only growing fiercer. Major tech

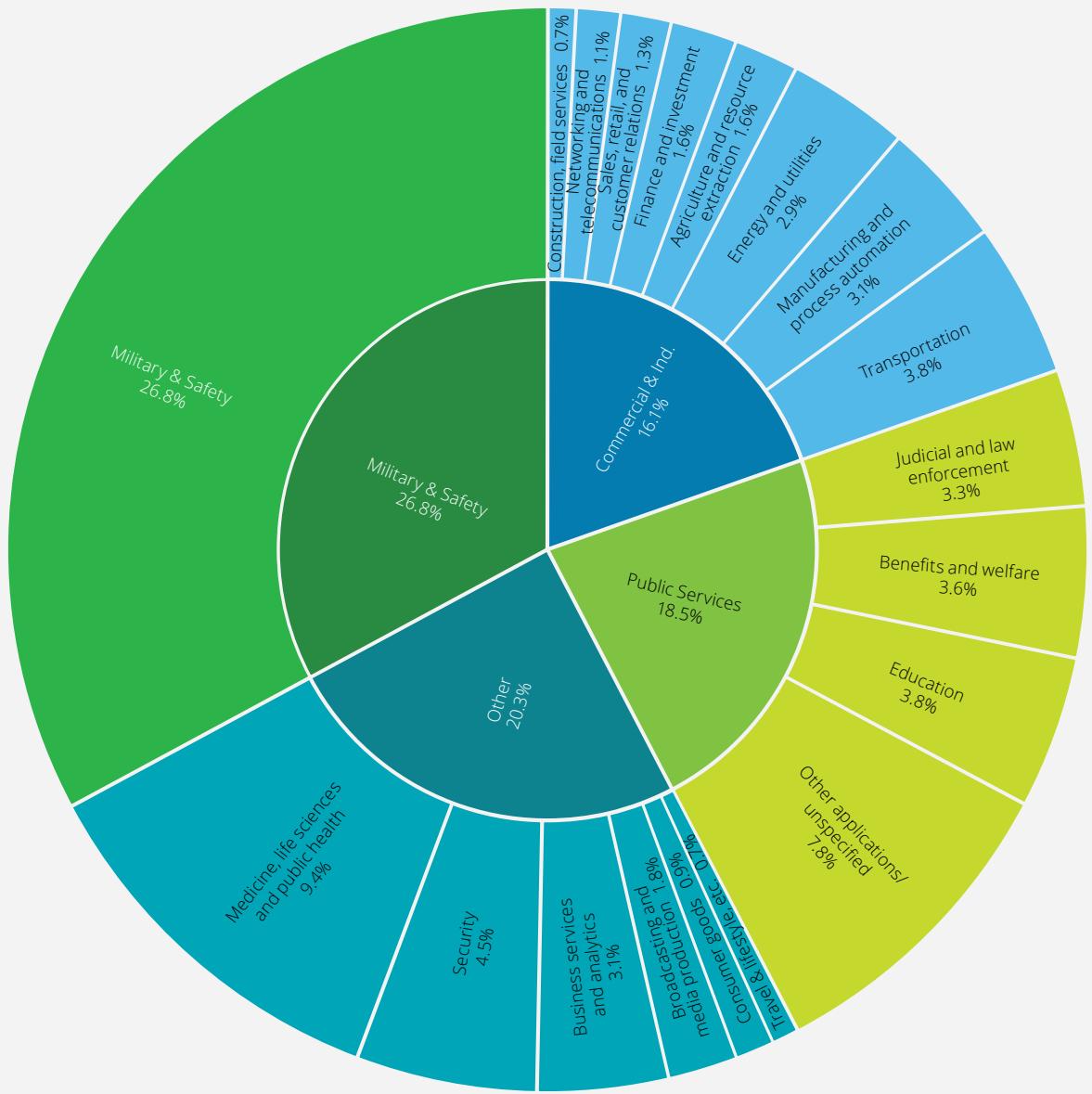


Fig. 8. Distribution of AI application domains in U.S. governance documents. Source: AGORA Dataset. (2025).

Distribution of AI Applications in U.S. Governance Documents.

Note: The chart was created by Deloitte and GGTC Kyiv, based on data from AGORA (2025).

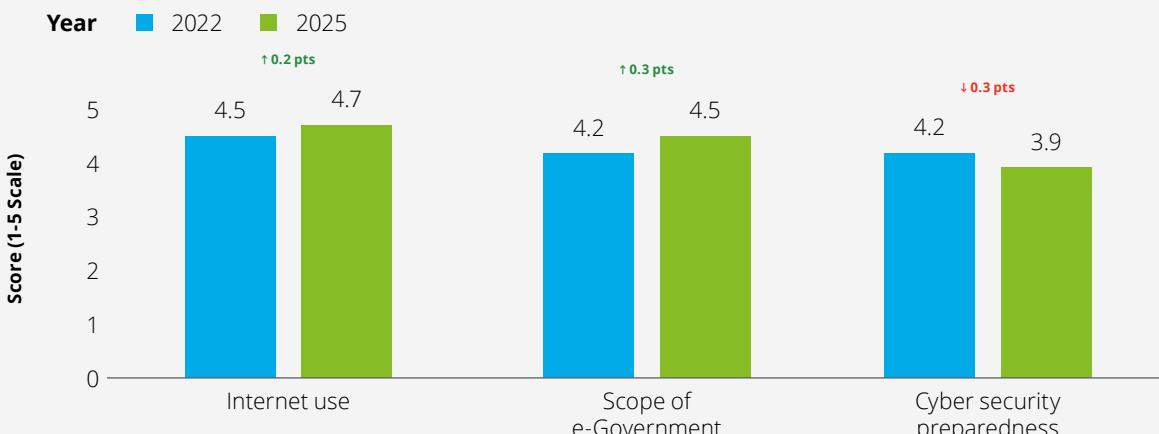


Fig. 9. The gap between digitalization and cybersecurity preparedness. Source: EIU Index data. (2025).

Cyber security preparedness, Internet use and Scope of e-government (all scored 1-5).

Note: The chart was created by Deloitte and GGTC Kyiv, using data from the sources specified in the report.

giants are investing hundreds of billions of dollars in R&D: the four largest U.S. corporations—Meta, Microsoft, Amazon, Google—alone plan to spend over \$400 billion in capital investments in 2024–2025, largely on AI infrastructure (The Guardian, 2025). The private sector offers high salaries, stock options, and dynamic projects—advantages that governments find difficult to match. At the same time, this imbalance opens a window of opportunity for GovTech. Due to internal talent shortages, public institutions are increasingly outsourcing research, design, and implementation of AI solutions and low-code/no-code platforms and opting to purchase ready-made products rather than developing everything in-house. Governments are becoming more aware of the strategic importance of digital solutions and are beginning to compete for innovation by launching grant programs, incubators, and pilot projects. As a result, governments are shifting from being primarily clients to becoming partners in innovation. Large projects at the intersection of the public and private sectors—from electronic IDs to smart cities—are evolving in both scale and complexity, receiving high-level political support, and attracting investment and technology providers. This allows GovTech companies to secure a position at the core of the public sector's new digital infrastructure.

New tools: low-code, AI, industry cloud

To compensate for talent shortages, government agencies are increasingly relying on low-code/no-code platforms to gain greater agility when rapid system upgrades or development are required and to reduce dependence on proprietary solutions. At the same time, these approaches do not replace the development and modernization of critical core systems (in particular, registries and transaction platforms); rather, they are used as “add-ins” to, for example, enable electronic forms, user accounts, workflow-based application processing, support chat interfaces, and analytical dashboards. Similarly, governments are experimenting with AI to boost the productivity and quality of existing solutions

they use, especially where it comes to document search and summarization, request classification, anomaly or fraud detection, and case management recommendations. However, AI does not replace the core of government information systems.

In its GovTech Trends 2026 report, Deloitte notes that the key technology trends for the next 18–24 months will be the implementation of AI technologies for physical robot units; the widespread adoption of AI agents alongside the transformation of workflows and organizational architectures; the rethinking of AI infrastructure, including the use of AI to manage this infrastructure; and new cybersecurity challenges, as new capabilities give rise to new threats (Deloitte, 2025).

INSTITUTIONAL TRENDS: CDTO, GOVERNANCE, AND INTERNAL DIGITAL TEAMS

Digital transformation is increasingly viewed by government as an institutional challenge rather than a purely technological project. Countries with high levels of digital adoption are building robust institutional models; in pursuing this goal, they introduce centralized digital leadership roles (CDTO, Chief Digital Transformation Officer), formalize the responsibility for artificial intelligence at the level of Chief AI Officer as a new standard for AI governance, and evolve the role of Chief Information Officer (CIO) from operational IT management toward architecture, security, and core systems integration management.

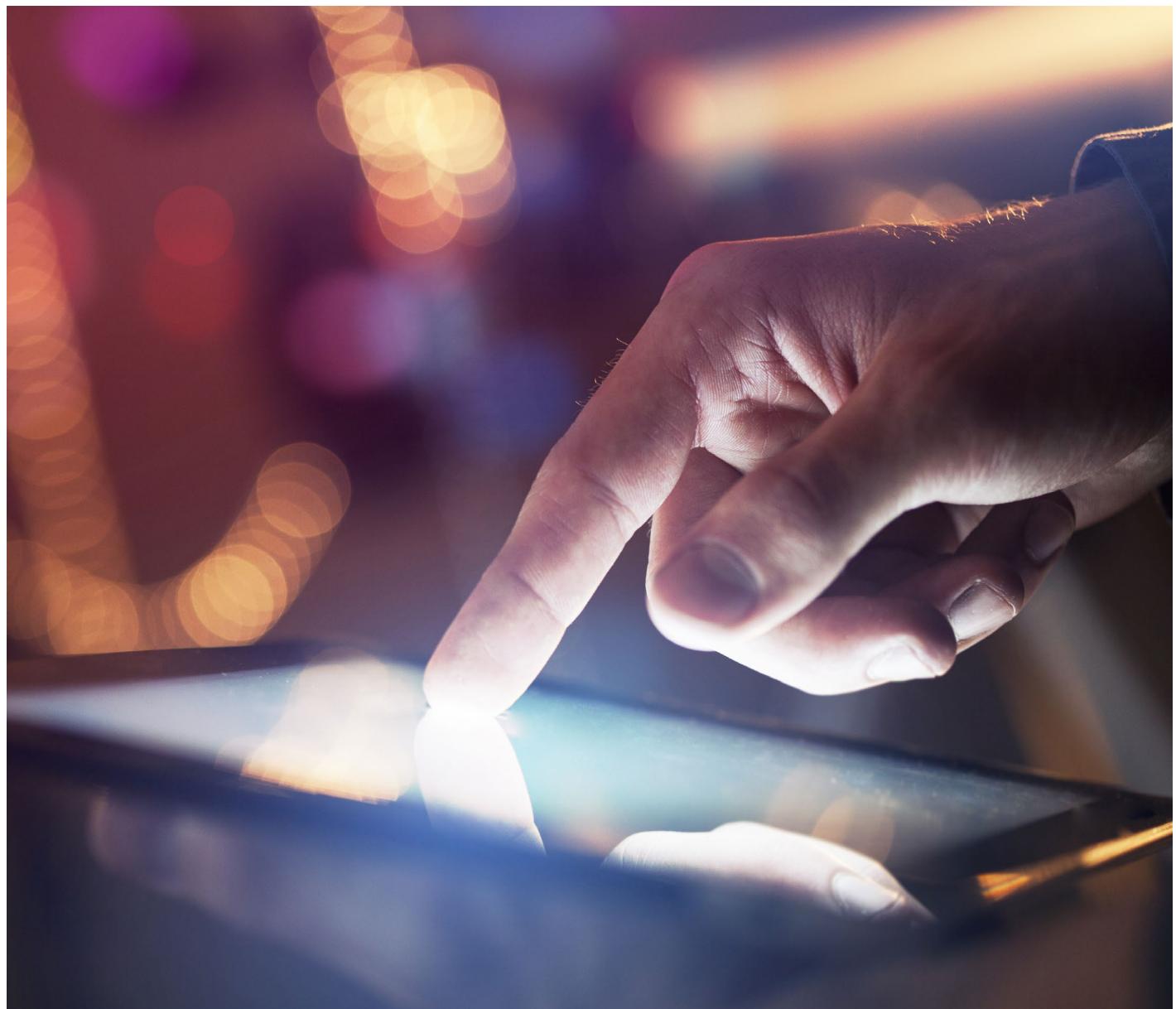
In parallel, governments are investing in internal delivery teams and product-based approaches that are more flexible than traditional IT departments, deliver end-to-end service development, and enable digital solutions to scale in line with growing citizen demand. The growing use of digital services in EU countries is increasingly correlating not only with the level of investment in technology, but also with the presence of a mature institutional architecture—clear mandates, standards, processes, and accountability for results.

Emergence and role of CDTO / CDO / CIAO / Chief Data & Digital Officers

In many countries, digital transformation is accompanied by the creation of dedicated centers of responsibility and new leadership roles. In Ukraine, in 2020, ministries formally introduced the position of Chief Digital Transformation Officer (CDTO)—a deputy head responsible for the institution's digital transformation. The CDTO network, coordinated by the Ministry of Digital Transformation, enables more efficient implementation of national projects, helps reduce inter-agency barriers and avoid both duplication of GovTech initiatives and inefficient spending. Similar roles exist in other countries, including the Government CDTO in Singapore (Smart Nation), the Government CDO in the United Kingdom, the Government CIO in Estonia, among others. As noted by the OECD, leading countries—such as South Korea, the United Kingdom, Denmark—combine strong institutional

leadership with coordinated management of digital infrastructure, investment, and talent (OECD, 2025a).

Leadership capacity is further strengthened by internal delivery teams that drive digital change. Since the 2010s, governments have been establishing digital units that operate with greater agility than traditional IT departments, and focus on user needs: the Government Digital Service in the UK, the Danish Agency for Digital Government, the U.S. Digital Service and 18F, the Digital Transformation Agency in Australia, the Canadian Digital Service, DigitalService4Germany, Team Digitale in Italy and others (see Table A1 in Annex A for more details). These structures often operate as “startups within government” and adopt new hiring models—similar to the U.S. Presidential Innovation Fellows program—that bring private-sector talent into temporary public-service roles.



GovTech investment trends by governance level

SUPRANATIONAL LEVEL

The NextGenerationEU (NGEU) program is the EU's largest recovery package, with the Recovery and Resilience Facility (RRF) at its core. The RRF offers a total of €650 billion in grants and loans to support reforms and investments during 2021–2026. The requirement for EU Member States to allocate at least 20% of funding to digital transformation has made the RRF the world's largest joint digitalization financing instrument (European Court of Auditors, 2025).

According to the European Court of Auditors, the actual average share of digital investments in national plans exceeds this minimum threshold, standing at around 26%—equivalent to roughly €150 billion in digital investments across the 27 EU Member States (European Court of Auditors, 2025; see **Figure 10**).

Although **Ukraine** is not a participant in the RRF mechanism, the European Union has established a separate financial instrument—the Ukraine Facility—designed to support macro-financial stability, reconstruction, and structural reforms (European Commission, 2024a). This instrument provides up to €50 billion for 2024–2027, with digital transformation as one of its key pillars. In the current Plan's logic, this is more of an investment in foundations and capabilities (reforms, infrastructure prerequisites, standards, security) than in a large portfolio of standalone digital products with detailed projects and budgets. The EU coordinated Ukraine Facility Plan focuses on modernizing public services, developing digital infrastructure, and strengthening cyber resilience, conceptually aligning this instrument with the RRF investment logic in EU Member States.

Among the declared priorities are fast and secure communications, creating conditions for the development of a startup ecosystem, integration into the EU digital market, and the development of a “government in a smartphone” model. The expected effect of implementing these priorities is to strengthen Ukraine's integration into the EU's Single Digital Market and increase investment potential; however,

the scale of these changes will depend on the further specification of measures and their implementation (European Commission, 2024b).

MULTILATERAL DEVELOPMENT BANKS

According to the World Bank, as of October 2022, the portfolio of digital government projects included 1,449 initiatives, with total disbursements of approximately \$75.9 billion and active commitments of \$40.5 billion. Of these, \$11.6 billion (57%) was allocated to digital government/GovTech solutions (World Bank, 2022).

Regionally, Africa accounted for the largest share of projects and commitments—around a third of all projects and nearly 45% of active and planned commitments—followed by Europe, Central Asia, and Latin America (World Bank, 2022).

The positive outcomes of implementing Digital Public Infrastructure (DPI) solutions are driving new waves of targeted funding. For instance, multilateral development banks strongly support this transition, as demonstrated by the African Development Bank's (AfDB) commitment to allocate \$1 billion to DPI initiatives across the continent in 2024 (DPI Africa, 2025).

In its reimagined approach, the World Bank explicitly highlights a shift from funding siloed IT projects toward investing in shared building blocks of digital infrastructure—such as digital identity, electronic payments, underlying registries, and data exchange layers—that can be reused across agencies and countries (Clark et al., 2025).

NATIONAL BUDGETS

In the **United States**, the federal government spends over \$100 billion annually on IT and digital infrastructure, with roughly 80% of these funds dedicated to maintaining existing—often outdated—systems rather than upgrading them. The latest GAO report (2025) identifies 11 critical legacy systems across 10 agencies and points at a persistent modernization gap: politically visible front-end services are being enhanced, while core public IT systems still rely on

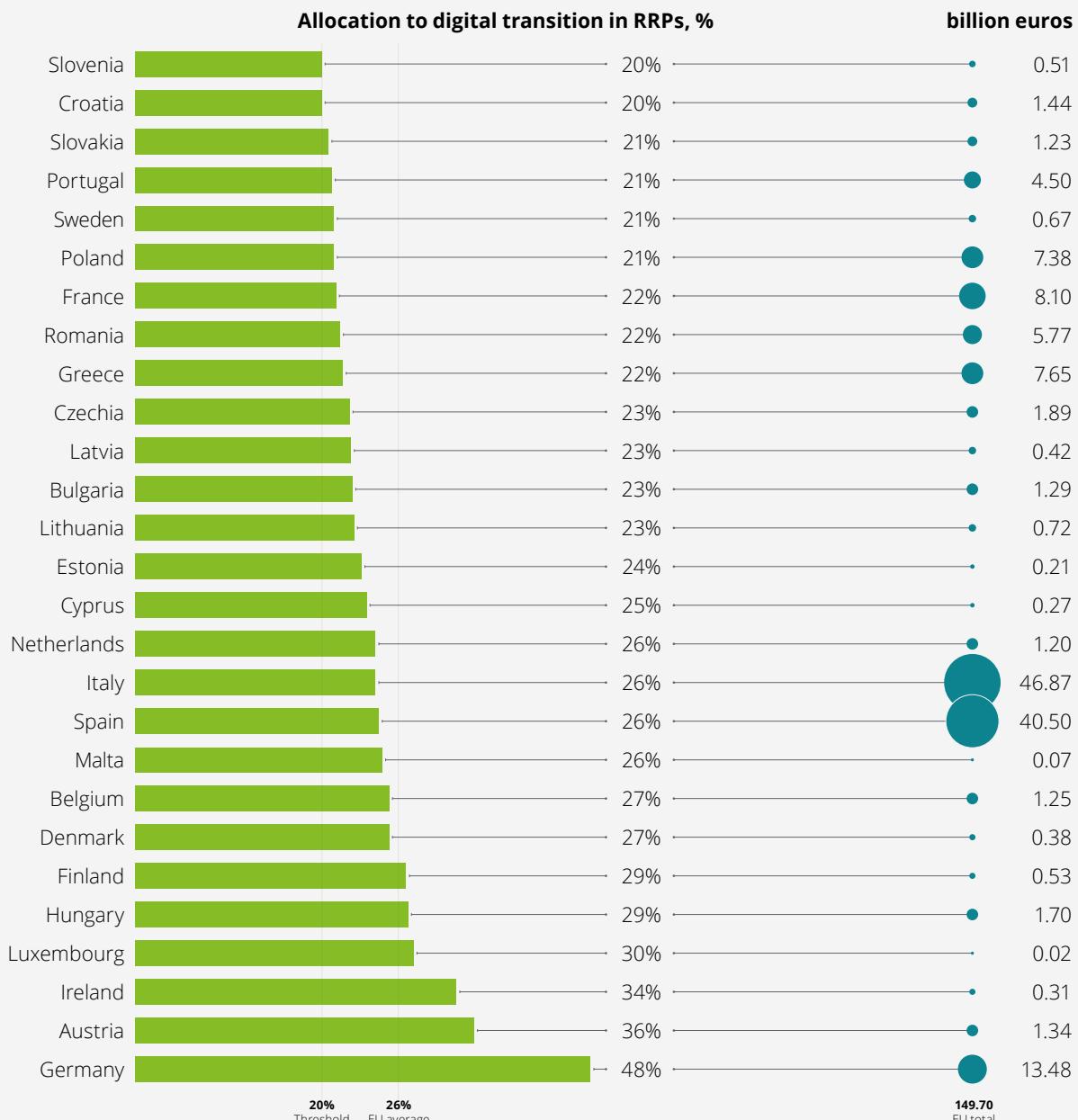


Fig. 10. Examples of EU countries' investments and their digital components under the RRF, 2023. Source: European Court of Auditors (2025), Special report 13/2025: Support from the Recovery and Resilience Facility for the digital transition in EU Member States: A missed opportunity for strategic focus in addressing digital needs.

COBOL (Common Business-Oriented Language, developed in the late 1950s) and other legacy technologies, consuming the bulk of available budgets (GAO, U.S., 2025b).

In the **United Kingdom**, between 2022 and 2025, the public sector invested over £47 billion in digital solutions and technology procurement. Despite this, around a third of central government IT systems remain classified as legacy, with their maintenance costing 3 to 4 times that of modern alternatives (Stotles, 2024). Oversight authorities report that more than 20 high-risk legacy platforms still lack funded modernization plans, threatening large-scale AI adoption in

the public sector (Public Accounts Committee, 2025).

In **Asian countries**, the focus is shifting towards systemic modernization as a prerequisite for service resilience and long-term development. In FY24, Singapore announced public-sector information and communication technology (ICT) procurements of up to SGD 3.3 billion, of which SGD 2.1 billion were allocated to infrastructure modernization aimed at countering cyber threats and maintaining trust in public services (Government Technology Agency of Singapore, 2024). **Japan** has institutionalized the modernization of legacy systems at the level of national policy: in 2025, the

Ministry of Economy, Trade and Industry (METI) published the Comprehensive Report compiled by the Legacy System Modernization Committee, emphasizing that legacy systems constitute a systemic barrier to digital transformation and require targeted measures (Ministry of Economy, Trade and Industry, 2025). In **China**, comparable assessments of “government IT spending” are presented less consistently in open sources; nevertheless, the public-sector demand for procurement illustrates its overall investment capacity (for example, the total volume of public procurement in 2024 was estimated at approximately CNY 3.38 trillion) (Ministry of Finance of the People’s Republic of China, 2025).

In the **MENA** region, the rapid growth of government ICT contracts is particularly illustrative: in its 2024 report on government ICT spending, Saudi Arabia’s Digital Government Authority recorded an increase in the value of new government contracts from approximately SAR 32 billion in 2023 to nearly SAR 38 billion in 2024 (Digital Government Authority, 2025).

For the **UAE**, aggregated public data are more often presented within the federal budget. For example, in 2025, planned expenditures amount to AED 71.5 billion, with the budget allocated by sector, including a separate category for “infrastructure and economic affairs” (AED 2.581 billion, or 3.6% of the budget). However, digitalization/government IT programs are not presented as a separate budget line in publicly available data; therefore, it is possible to assess only the overall expenditure levels and structure, but not the specifical share of investments in digital transformation (UAE Government, 2024).

Taken together, these examples highlight a common pattern: scaling new digital initiatives (particularly AI) requires parallel investments in the modernization of core systems, data, and cyber resilience; otherwise, legacy technical debt and continuity risks continue to grow.

LOCAL (MUNICIPAL) BUDGETS

Global market

In this report, the term “smart cities” refers to urban systems and services that use digital infrastructure, data, and sensor/IoT networks to improve the efficiency of resource management and urban processes (transportation, energy, utilities, security, environment) and enhance the quality of urban living.

A significant share of the GovTech market consists of solutions and services implemented by local communities and authorities within the “smart city” concept, which involves the integration of information systems and technologies to optimize urban resource management, improve urban living, and promote comprehensive urban development. This concept encompasses both citizen-government interaction channels (such as electronic contact

centers) and e-democracy tools currently used in most cities, and more complex energy and water supply management systems, IoT, mathematical models of buildings and distributed networks, and digital twins of cities.

According to the latest estimates by IMARC Group, the global smart city market was valued at approximately \$1.42 trillion in 2024, projected to reach \$4.91 trillion by 2033 ($\approx 14.8\%$ CAGR for 2025–2033). North America currently leads the market, accounting for over 30.6% in 2024, driven by active adoption of innovative ICT solutions and rapid urbanization (IMARC Group, 2024; see **Figure 11**).

Another analysis by The Business Research Company forecasts growth in the smart cities market from \$792.03 billion in 2024 to \$942.74 billion in 2025, projected to reach \$1.94 trillion by 2029 ($\approx 19\text{--}20\%$ CAGR). Key drivers include government initiatives and investments in digital infrastructure, particularly smart grids, intelligent transportation systems, and energy-efficient buildings. (The Business Research Company, 2024).

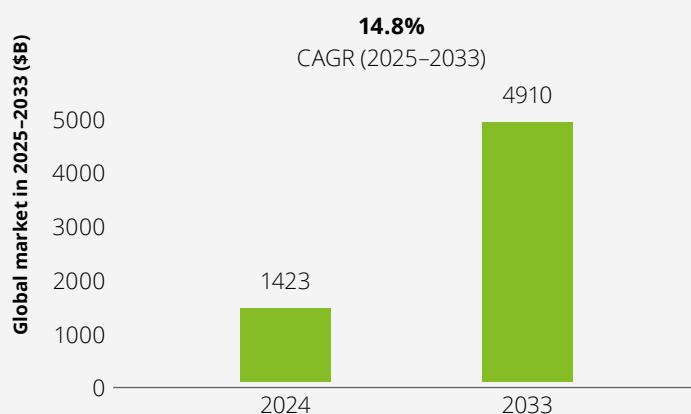


Fig. 11. Global smart cities market size and forecast for 2024–2033 (\$ billion). Source: IMARC Group. (2024). Smart cities market: Global industry trends, share, size, growth, opportunity and forecast 2025–2033.

Note: The chart was created by Deloitte and GGTC Kyiv, using data from the sources specified in the report.

The European smart city market was valued at \$212.5 billion in 2023 (Grand View Research), with a projected growth at a CAGR of 22.7% from 2024 to 2030. The region already accounts for approximately 28% of the global smart city market (Grand View Research, 2024). According to Meticulous Research, the European smart city market is expected to reach around \$489.3 billion by 2032 ($\approx 15.5\%$ CAGR), driven primarily by demand for sustainable urban infrastructure and large-scale municipal investments in digital solutions (Meticulous Research, 2024).

A significant share of these investments is directed toward a wider range of municipal GovTech. While this report uses

the term smart city in its traditional, narrow sense—primarily referring to infrastructure- and IoT-based solutions for managing urban systems (transport, energy, utilities, security, environmental monitoring)—the concept of a “next-generation smart city” is evolving from isolated “smart” infrastructure projects toward a comprehensive digital operating model for cities, encompassing data and system integrations, automated internal processes, and user-centric digital services. As a result, city administrations are increasingly funding solutions that extend beyond the classic smart city paradigm, including electronic resident accounts, electronic document management systems, as well as geographic information systems and digital twins of urban infrastructure for asset management and spatial planning. Consequently, municipal GovTech has emerged as a major market segment combining investments both in smart infrastructure projects and in digital services and management platforms designed to satisfy everyday needs of the residents.

European Union

The role of public and municipal budgets in developing smart cities is particularly evident in the EU Mission on 100 Climate-Neutral and Smart Cities by 2030. Each participating city develops a Climate City Contract, which includes a roadmap to climate neutrality and an investment plan—a structured vision of how to mobilize public resources and attract private capital to achieve goals in energy efficiency (especially in buildings), construction, transport, and waste management (European Commission, 2025).

EU estimates indicate that 112 cities participating in the Mission will require approximately €650 billion in investments by 2030. This has necessitated the creation of the Climate City Capital Hub to attract private investors, supported by guarantees from national and municipal budgets (Reuters, 2024, June 25). As a result, digital and smart city strategies are increasingly integrated into medium-term municipal budget planning.

RISKS OF DUPLICATED INVESTMENTS AND ISOLATED SOLUTIONS AS A GOVTECH DEVELOPMENT/DIGITAL TRANSFORMATION TREND

In the current wave of government digitalization, two interconnected challenges are becoming increasingly apparent: Internal duplication of investments and international fragmentation of solutions. Duplication occurs

when similar registries, payment platforms, or e-service portals are developed in parallel within a single country—by different agencies or programs—with proper coordination and shared standards. At the international level, this problem manifests as fragmentation and a low level of reuse: states often develop functionally similar components from scratch, without considering the adaptation of existing modular or open-source solutions. Both trends lead to dispersed resources, higher maintenance costs, data incompatibility, and difficulties in scaling successful approaches. Instead of a coordinated digital public infrastructure, a mosaic of isolated systems emerges. In response, donors and multilateral institutions are increasingly calling for the reuse and adaptation of existing modules and platforms—from digital identity to social protection registries and e-health solutions—rather than building bespoke solutions from scratch, especially in healthcare, education, and social protection.

The World Bank takes a similar stance through its DPI approach, promoting to wider share and reuse digital building blocks instead of siloed sectoral solutions—often duplicating functions, inefficient, and costly (Clark et al., 2025). An Economist Impact review on public sector productivity indicates that governments and donors are gradually shifting from isolated solutions to systemic approaches, favoring to use data and platforms for multiple purposes rather than rebuilding them from scratch for each agency (Economist Impact, 2025).

Likewise, the UNDP report on digitalization in small island states explicitly recommends governments against creating new digital platforms where existing components or solutions can be reused (UNDP, 2024).

A substantial share of digital services for citizen feedback, problem reporting, or crowdsourcing has already been developed by other governments and innovators—and many are freely available and open source. For example, the FixMyStreet platform allows citizens to report problems to local authorities, while the Ushahidi crowdsourcing and mapping platform helps engage citizens on particular topics and initiatives. Governments can save significant resources by shifting from building solutions from scratch to assembling them using adapted and reusable existing technology blocks (UNDP, 2024).

Investment trends by GovTech domain

This section outlines current trends and presents successful cases of public sector investments worldwide across key GovTech domains.

AI AND DATA ANALYTICS IN THE PUBLIC SECTOR

Governments are increasingly integrating artificial intelligence (AI) into public administration—as a tool to enhance the effectiveness of managerial decision-making and as a driver of automation in administrative processes. According to Gartner, against the backdrop of moderate growth in overall IT spending (projected to increase from approximately \$5.04 trillion in 2024 to nearly \$7.6 trillion in 2029), a breakthrough is occurring in the generative AI (GenAI) segment. Investment in GenAI is expected to grow from \$5.7 billion in 2024 to \$75.8 billion in 2029 (Gartner, 2025a). Given that, the structure of these investments is undergoing a radical transformation—shifting from one-off analytical solutions toward the development of agentic AI platforms capable of autonomously interacting with citizens and supporting data-driven managerial decisions.

Given current trends, it is safe to expect most governments to introduce technological sovereignty requirements in the short term following the example of EU countries and to widely deploy AI agents to automate more than half of citizen transaction services.

Initially used for descriptive and predictive analytics, AI is now increasingly adopted by governments to automate end-to-end processes, from handling citizen requests to drafting legislation. Key development areas include **Generative AI (GenAI)**: creating texts, documents, policies, and advisory outputs; **Agentic AI**: digital agents acting autonomously on behalf of citizens or public officials; **Composite AI**: combining GenAI, machine learning, symbolic logic, and rule-based systems to ensure adaptability, transparency, and scalability.

The development of the Agent State concept and the deployment of agentic/GenAI in the public sector require new governance frameworks, including AI impact assessment, model auditing, decision explainability and transparency, personal data protection, and safeguards against discrimination and errors in critical decisions affecting human life, health, among others.

The advancement of AI in the public sector is impossible without appropriate and reliable infrastructure. Gartner expects

spending on AI-optimized servers to reach \$353 billion in 2026, up 26.2% from \$280 billion in 2025 (Gartner, 2025f). This reflects a new reality in which government AI platforms must be built on sovereign infrastructure integrated into digital public infrastructure (DPI).

Domain case studies

National Large Language Model (National LLM, Ukraine). Ukraine is among the first countries to pursue the creation of a national large language model for public administration needs. The model is trained on corpora of Ukrainian legislation and administrative data and can be used both as a consultative tool for citizens and public officials and as a technological foundation for the development of agentic AI services in the digital state. This case illustrates not only AI adoption but also a state investment in technological sovereignty (Digital State UA, 2025).

Dii.a.AI (Ukraine). In 2025, Ukraine launched Dii.a.AI—a national AI assistant for public services, which helps citizens find relevant services, guides them through document procedures, and, upon request, verifies data in public registries. It can also recommend services for specific life events, such as the birth of a child or starting a business. The integration of this tool into the digital infrastructure helped Ukraine rise by 14 positions in the 2025 Government AI Readiness Index 2025, ranking 40th out of 195 countries worldwide—driven by a record level of digitization of public services (99.63%) (Oxford Insights, 2025).

IRENA (Czech Republic). IRENA is a modular cloud-based virtual contact center platform developed by Deloitte Czech Republic using GenAI to deliver public services and psychological support. Deloitte has implemented this platform in the Czech Republic, Slovakia, Poland, and Ukraine, enabling the rapid provision of support to refugees and migrants requiring communication in their native languages. Currently, the solution automatically handles nearly 80% of communications and handles approximately 10,000 calls per day in 10 EU countries. The platform's public value lies in its rapid deployment and significant optimization of communication costs (Deloitte, 2023).

Back offices (USA) — Local governments use GenAI tools to automate the drafting of budget justifications, laws, and

policies. This frees up hundreds of public servants' working hours each year (Brookings, 2024).

Officials use AI to draft new laws or policies. For example, an official can prompt the system to create an e-scooter use policy for a city of 50,000 residents, and the AI will analyze thousands of examples from other municipalities to generate a structured initial document. Such solutions save hundreds of public servants' working hours annually, especially in small communities that lack dedicated legal or analytical departments. Generative systems are emerging as a new "intelligent layer" of public administration: they not only process data but also generate content, propose wording, and support decision-making.

AI for earthquake and tsunami prediction (Japan) — The Japan Meteorological Agency (JMA) has implemented a deep-learning AI system. This innovation has reduced the margin of error in estimating earthquake epicenters from 20 km to just a few kilometers and cutting processing time to 5 seconds. It delivers substantial public value by helping save lives (Jenosize, 2023).

Chatbots and Ask Jamie (Singapore) — In Singapore, the Government Technology Agency (GovTech) has deployed more than 70 AI chatbots across government websites. For instance, Ask Jamie, a virtual assistant operating on dozens of government websites, answers citizens' questions on a wide range of topics, from healthcare and immigration to public services. Ask Jamie has halved contact center workloads and dramatically reduced response time for common citizen inquiries—by 80% (Creole Studios, 2025).

CYBER RESILIENCE AND DATA SECURITY

The period 2021–2025, catalyzed by geopolitical instability, has transformed cyber resilience from an IT budget item into a non-discretionary economic imperative. This shift is driven not so much by the cyber threat itself as by its direct cost: global losses from cybercrime were estimated at \$9.5 trillion in 2024, with projections rising to \$10.5 trillion by 2025—equivalent to the third-largest economy in the world (Cybersecurity Ventures, 2024).

The United States leads this trend, with a federal demand projected at \$13 billion for 2025. The United Kingdom, Germany, and Japan are increasing their budgets to combat cyber threats (DeepStrike, 2025). These investments are intended to protect critical assets, as specified in the dedicated budgets—for example, \$470 million for CISA's CDM Program and \$150 million for the U.S. Department of the Treasury's Cybersecurity Enhancement Account (DHS, 2024; Treasury, U.S., 2024).

At the same time, these hefty investments draw attention to a complex systemic challenge identified during audits in the USA and the UK—the modernization gap. For example, a UK audit found that 28% of red-rated legacy systems lack

remediation funding (Gov.Uk, 2025). This challenge arises from the need to integrate modern security measures into outdated systems.

Thus, the key trend is not only the acquisition of emerging technologies but also the resource-intensive and complex task of modernizing the underlying infrastructure that supports the entire digital state.

Domain case studies

CISA Continuous Diagnostics and Mitigation (CDM) (USA) is a program of the Cybersecurity and Infrastructure Security Agency (CISA), funded with \$470 million, that provides federal agencies with a real-time network monitoring dashboard. Through CDM, CISA works to monitor almost all connected devices, detect and identify their vulnerabilities (such as outdated version of Windows Servers), and require immediate remediation before exploitation occurs. CDM's public value lies in preventing incidents similar in kind to SolarWinds (a large-scale cyberattack on government programs via a malicious software update in 2020, which allowed hackers to conduct undetected espionage and data theft from within the most secure systems for months) or OPM (a catastrophic breach of personal data of former and current government employees and job applicants in 2015), both of which resulted in tens of billions of dollars in losses.

Estonia's cybersecurity architecture, including Data Embassies (copies of government data stored at backup sites in Luxembourg) and investments in NATO's Cooperative Cyber Defense Centre of Excellence (CCDCOE) after the massive cyberattacks in 2007. Estonia's entire digital economy, which generates billions in value and saves approximately 844 man-years, is built and running only because of these investments in cybersecurity (e-Estonia, 2021). Without them, neither e-ID nor X-Road would have such level of public trust as they do today. Thus, the public value of investments in cybersecurity in Estonia is equal to the entire public value of the digital state. As a result, Estonia has become a global cybersecurity services brand and exporter.

DIGITAL PUBLIC INFRASTRUCTURE

A clear trend can be observed across governments: rather than investing in siloed IT solutions, they are increasingly investing in Digital Public Infrastructure (DPI).

DPI is the state's "digital highway," enhancing the effectiveness of all public services. The DPI core building blocks—digital identity (eID), payment systems, data exchange platforms (DataHubs/APIs), cloud/network infrastructure, and interoperability—operate as a shared public service, providing a scalable, secure, and inclusive framework for the future automation of public services. DPI enables scalability and cross-agency data flows between information systems and registries, ensuring secure data exchange with data originators. In addition, DPI helps prevent duplication of GovTech system functionalities and optimize investment in their development.

Domain case studies

eID

Aadhaar (India) — A digital identification (eID) system that provides a unique digital identification number to over 1.3 billion residents. It enabled the government to shift to Direct Benefit Transfers, delivering payments directly to citizens while eliminating intermediaries, reducing corruption, and saving billions.

With a budget of \$1.3 billion, Aadhaar reduced identity verification costs from \$10–20 to just \$0.27 per transaction. (Biometric Update, 2025a, 2025b). This cost-efficiency enabled the implementation of large-scale social benefit programs, saving the government billions of dollars annually by minimizing leakages in the distribution system.

Diia (Ukraine) — A digital state ecosystem delivered through a mobile application and web portal. It represents a national one-stop shop (“a State in a Smartphone”), providing citizens with access to both digital documents (eID) and dozens of public services.

Diia addresses the fundamental problem of siloed public registries and the resulting bureaucracy. Previously, citizens had to visit multiple institutions to collect paper-based certificates because there was no mechanism for information exchange between databases—particularly those of the Ministry of Internal Affairs, Ministry of Justice, and the Tax Service. Diia resolves this challenge by leveraging Trembita, Ukraine’s secure data exchange platform, which is comparable to Estonia’s X-Road.

The Diia case is a textbook example of a successful DPI investment, generating enormous, measurable public value (UAH 184 billion) that exceeds costs by dozens of times, fully justifying the infrastructure-based approach (Diia, 2025).

An emerging trend worth particular note is the evolution of eID, namely digital **identity wallets (Identity Wallets)** — mobile or web applications that allow users to store, manage, and selectively disclose their digital identity data and verified credentials from multiple sources. These wallets provide citizens with significantly greater control over personal data and potentially enable more robust identity verification.

EUDI Wallet (European Union)

A prominent example of Identity Wallet implementation is the EU eIDAS 2.0 regulation, ratified in March 2024, which mandates all 27 EU Member States to offer citizens free EU Digital Identity Wallets by 2026. This initiative addresses the challenge of cross-border identity verification. For example, today it remains difficult to complete online registration in Spain using a German eID. The EUDI Wallet establishes a single standard, allowing EU citizens to securely identify themselves when accessing public or private service throughout Europe—for example, opening a bank account, renting a car, or enrolling at a university.

The European Commission invested €46 million from the Digital Europe Program into four large-scale pan-European pilot projects (Large Scale Pilots, LSPs). These pilots, covering travel, health, banking, and education, represent a combined investment of over €90 million, co-financed by the Commission at 50% (European Commission, 2023). Overall, under the DIGITAL Work Program 2025–2027, the European Union plans to invest €1.3 billion in technological advancement covering the EUDI Wallet architecture, AI, and cybersecurity, thus underscoring the project’s strategic priority for the EU (Biometric Update, 2025a).

Secure data exchange gateways

The NHS Federated Data Platform (United Kingdom) is a dedicated gateway for sharing healthcare data across more than 240+ hospital trusts of the National Health Service (NHS) in England. The contract awarded to Palantir was worth £330 million (equating to approximately \$415 million) (NHS England, 2023). Since introducing the tool, hospital trusts using FDP have each treated on average 114 more inpatients in operating theatres every month. The NHS Foundation Trust in South Tyneside and Sunderland, one of the pilot sites, reported a 37% reduction in the number of days patients remained in hospital after they were ready for discharge. (UKAuthority, 2024).

As a result, investments in DPI are no longer viewed as discrete IT projects. They are increasingly recognized as foundational national infrastructure investments of the 21st century—a prerequisite for economic resilience, public trust, and the delivery of proactive, human-centered services in the digital age.

PROCESS AUTOMATION AND MODERNIZATION

GovTech investments between 2021 and 2025 demonstrate a clear dual-track trend in the automation of public processes. While some investments are aimed at addressing technical debt in critical sectors, others focus on building new, high-return platforms from scratch.

The first track is the transformation of GovTech into a revenue center. Investments go beyond mere cost savings and become a direct instrument of economic policy, enabling revenue generation and anti-corruption efforts.

The second track consists of large-scale investments in sectoral modernization. Governments continue to allocate substantial budgets to the automation of complex, mission-critical sectors such as defense and healthcare.

Among process automation solutions, the most widely adopted type—and the one that most clearly demonstrates both economic impact and public value—is, perhaps, e-auctions for public procurement and the sale or lease of state-owned assets (property, land, shares, state-owned enterprises, etc.). Investments in this area made during 2021–2025 closely align with the dual-track model and increasingly

serve as tools of economic policy and anti-corruption. According to the OECD's Digital Transformation of Public Procurement (June 2025), investment is increasingly directed towards digital procurement infrastructure: governments are spending more on platforms, data, and system integration, rather than merely digitizing existing procedures (OECD, 2025b).

Domain case studies

Prozorro.Sale (Ukraine) is a hybrid electronic auction system for the sale and lease of public assets, recognized by the OECD (OPSI) as a flagship government innovation. The platform operates on a two-tier model—similar to Prozorro, it combines a central database with private electronic marketplaces—and ensures transparency based on the “everyone sees everything” principle. The system has generated more than \$2.17 billion (equalling to UAH 61 billion) in revenues, while small-scale privatization auctions recorded an average price increase of 57%, indicating intense competition and a significant economic impact. In just one year (2024–2025), the system generated \$230 million (equalling to UAH 8.9 billion) from the sale of four large assets (Prozorro.Sale, 2025).

Digital Brain (South Korea) is an enterprise resource planning (ERP) system for public financial management. It functions as the “single brain” of the government’s financial system, integrating 36 previously separate systems and enabling a real-time management of a full national fiscal cycle—from budget planning to execution and audit—for all ministries and the public. The system delivers substantial gains in transparency and operational efficiency. The implementation of dBrain+ had an anti-corruption effect: for example, the share of citizens who believed bribery was widespread declined from 69% to 57%, while the share of respondents who admitted having paid bribes fell from 25% to 5% (World Bank, 2015). In addition, according to South Korea’s Ministry of the Interior and Safety (MOIS), the operational efficiency has been strengthened through integration with 63 other systems across 46 institutions, supporting electronic payments and interagency fiscal processes (MOIS, n.d.).

DILRMP (India) is a national land record modernization program representing a large-scale infrastructure reform that involves the digitization of millions of paper records and new cadastral surveys to create a single authoritative land registry. The program addresses a major source of economic stagnation—land-related disputes that account for 66% of all civil court cases in India. DILRMP’s public value lies in unlocking latent economic potential. According to the Ministry of Rural Development, the country’s GDP losses amount to approximately 1.3% due to project delays caused by land litigation. Overall, 66% of all civil lawsuits in India are related to land or property disputes, and the average duration of land acquisition cases is around 20 years (Financial Express, 2024).

The most successful strategies—from Ukraine to South Korea—demonstrate that maximum public value is achieved

when investments are directed not merely toward digitizing legacy processes, but toward re-engineering existing (As-Is) processes and building foundational infrastructure platforms that unlock systemic economic potential.

CITIZEN SERVICES, EXPERIENCE, AND ACCESS

User experience (UX/CX) is increasingly shaping how citizens engage with the state. Governments are recalibrating their investment approaches, recognizing that trust in government begins with the ease and accessibility of public services.

Investments in citizen-centric services are now recognized as the state’s social showcase and its “digital face.” Metrics such as user satisfaction, usability, and accessibility have evolved into new core KPIs, used alongside traditional efficiency and cost-saving indicators (OECD, 2022).

The overarching GovTech trend indicates that UX/CX is emerging as a central argument in budget planning and is increasingly treated as a measure of public value, on par with economic impact. UX-focused investments build institutional trust, foster habitual use of digital services, and lay the foundation for proactive governance, visibly demonstrating effectiveness and transparency—key pillars of the modern social contract (Accenture, 2023).

Domain case studies

Signalen (Amsterdam, the Netherlands) is a low-code application platform (LCAP) for managing citizen complaints and service requests (e.g., a broken lamppost, waste issues, etc.). With its flexible functionality, the system automatically routes reports for processing by the appropriate handler, without manual dispatching. The introduction of Signalen has led to a significant reduction in response time—to as little as 20 minutes—and increased transparency and trust, as citizens can see that their complaints are being addressed promptly; citizen satisfaction rose from 29% to 64% (Ténart, J., van der Zee, D., & van Herk, S., 2022).

IRS Direct File (the USA): A pilot project offering free tax filing, which has become a textbook example of UX-driven GovTech. It achieved exceptionally high user satisfaction (Net Promoter Score of +74 and 90% of positive feedback) and delivered a direct political outcome: 86% of users admitted that their experience increased their trust in the IRS (U.S. Internal Revenue Service) (USDS, 2024).

SSA.gov (USA): The modernization of the Social Security Administration portal (serving 180 million visitors) resulted in a 53% increase in customer satisfaction and one million additional logins per week. It also delivered a clear financial ROI, with projected savings of \$285 million over five years (USDS, 2024).

FranceConnect (France): A national single sign-on authentication system enabling citizens to easily and securely access over 1,000 public services using a single login. Users

can authenticate via their bank, social security, or tax accounts without the need to create separate credentials for each agency. To date, FranceConnect has been used by 40 million citizens, becoming a key tool for reducing digital inequality, while generating substantial time and resource savings for both civil servants and users (ACN, 2024).

RESILIENT GOVTECH

In contemporary GovTech, investments are increasingly strategic in nature, focusing on resilience and green transformation. This approach seeks to ensure the state's ability to withstand external shocks—such as wars, pandemics, and climate disasters—while simultaneously supporting climate objectives through more efficient resource use. GovTech investments with a focus on resilience are a direct response to global crises, enabling governments to rapidly mobilize resources and maintain mobility during emergencies.

Domain case studies

Investments in the smart cities market are growing rapidly. These technologies enable municipalities to optimize energy grids, water, and waste management, leading to significant reductions in emissions and overall resource consumption.

DAFNI (Data & Analytics Facility for National Infrastructure, United Kingdom) is a high-performance computing platform designed to model complex national infrastructure, including transport and energy networks. Its core feature is the ability to run "what-if" scenarios as part of resilience planning, enabling governments to assess and mitigate the impact of climate-related disruptions. Initial funding for the DAFNI creation amounted to approximately £9 million (UK Research and Innovation (UKRI, 2022; 2023). With its improved data-driven infrastructure planning, DAFNI is expected to support up to £15 billion in long-term savings, reducing overall project risk and project costs.



Conclusions and recommendations

Our review demonstrates that over the past five years, digital technologies have ceased to be merely supporting IT tools. Instead, they have evolved into a new form of state infrastructure, shaping the future of tax bases, economic resilience, and national investment attractiveness.

For governments, this represents a new architecture of statehood. For investors, it opens a window of opportunity in a sector characterized by guaranteed demand and chronic underfunding. For thought leaders and citizens, it signals a shift in the perception of the state—from one that merely digitizes bureaucracy to one that provides a technology services platform and opportunities for diverse segments of society.

Key GovTech market trends

The primary customers of the GovTech market are national governments seeking to move away from funding siloed digital projects. Instead, they are investing in foundational technology layers that pave a broad way for delivering public services—such as electronic identification platforms, digitized registries—and ensure interoperability across domestic systems and databases, cloud architectures, and AI. This shift also underscores the growing importance of reengineering key government processes during automation, resulting in cost savings, time efficiency, and improved accessibility of public services.

Key verified trends include:

- *In 2025, global IT spending continued to grow (by an estimated 10% according to Gartner), with Software and IT Services making the largest contribution to market growth, outperforming other segments in both volume and growth rates. These dynamics reflect a transition from capital-intensive hardware to software-driven and cloud-based models.*
The global impact of this trend lies in greater flexibility, rapid scalability, and reduced maintenance costs of in-house physical infrastructure.
- *Investments are increasingly pouring in Digital Public Infrastructure (DPI), especially in the use of shared building blocks such as eID and data exchange platforms.*
The global impact of this trend is the reduction of duplicated investments in standalone IT products and the creation of a foundation for cross-agency interaction. Prominent examples include DiiA and Aadhaar.

- *Investment in AI is growing exponentially. Projected spending on GenAI services in the public sector is expected to soar from \$14.4 billion in 2025 to \$75.8 billion in 2029. The global impact of this trend lies in productivity gains driven by the shift from descriptive analytics to end-to-end automation using GenAI, Agentic AI, and Composite AI.*

Redefining economic Impact

Financial impact (cost reduction or revenue growth enabled by government systems) and public value together unlock a new understanding of the economic effect of GovTech. To assess the real impact, in addition to traditional return on investment (ROI), it is necessary to consider indicators of improved government performance, including reduced time for citizens to receive public services, fiscal savings, loss avoidance, and improved citizen experience and trust in government.

User experience (UX/CX) is emerging as a key KPI and a core metric of public value. Investments in usability (IRS Direct File, SSA.gov) directly contribute to increased trust in public institutions (up to 86% positive feedbacks in the IRS case).

The analysis across various domains reveals that GovTech is also becoming a source of revenue for governments. Successful platforms (such as Prozorro.Sale in Ukraine) have proven their ability to generate direct revenue (over \$2.17 billion), while financial control systems (such as Digital Brain in South Korea) deliver systemic savings of up to \$1.8 billion annually through enhanced transparency and efficiency.

Investments in cyber resilience are aimed at preventing catastrophic losses (global damages from cybercrime — \$10.5 trillion by 2025); they lay the foundation for trust in government and effective operation of the digital state (CISA CDM in the US, Data Embassies in Estonia).

However, significant barriers remain. In many developed countries, a significant share of their IT budgets is still allocated to maintaining legacy systems, creating a “modernization gap” that undermines cyber resilience and constrains the large-scale adoption of AI and innovation. In addition, shortages of internal digital talent increase dependence on commercial vendors.



Strategic recommendations to consider

Based on the investment trends reviewed, this report highlights the need to have a strategic focus on the following priority areas at the highest level of public digitalization governance and policy-making:

1. Integrating central digitalization metrics to assess economic impact on the state (community)

Measuring the economic impact of government digital solutions is often challenging—or in most cases impossible—due to the absence of a “before/after” economic benchmarks. Institutionalizing the public value and economic impact measurement will be an important prerequisite for driving GovTech investment and evaluating KPIs.

Relevant metrics may include service delivery time reduction, fiscal savings (reduced cost, increased revenue), and avoidance of government losses (fraud prevention, cybersecurity).

2. Strengthening cyber resilience as a pillar of reliable and resilient digital infrastructure

Investments in cybersecurity directly impact national resilience, economic welfare, and citizen trust by enabling proactive identification and mitigation of vulnerabilities before exploitation. The public value lies in preventing uncontrolled financial and reputational losses, as well as sensitive data leaks.

3. Developing open standards to ensure the state's technological sovereignty

Government digital leadership should prioritize vendor independence by avoiding “vendor lock-in” and adopting open standards and component reuse.

Investment policies should encourage the use of low-code/no-code and open-source solutions, enabling rapid adaptation and reducing reliance on a limited number of commercial providers. When it comes to finding, priority should be given to projects that adapt or reuse existing DPI components rather than build isolated systems from

scratch. This is the key to the optimized resource use and scaling capacity. The above approach also fosters internal talent development while ensuring control over long-term modernization costs.

4. Introducing unified standards for government data collection, processing, and quality assurance

Data is a core asset of the digital state and central to analytics, automation, and AI. The absence of unified standards for data collection, processing, and validation significantly limits cross-agency interoperability, scalability of digital solutions, and countrywide deployment of AI services. Governments should invest in data quality standards, registry interoperability, and transparent data access rules to improve decision accuracy, reduce operational risks, and increase trust in digital services.

5. Institutional sustainability of government digitalization

Achieving economic impact from government digitalization is impossible without institutional capacity to maintain, develop, and scale digital solutions in the long run. This requires a clear allocation of roles and responsibilities among public institutions, stable funding mechanisms, and policy continuity regardless of administrative changes or political cycles.

Institutional stability also includes developing internal expertise, systematic work with human resources, and creating conditions in which the state acts not only as a customer but also as a competent owner of digital solutions and data.

GovTech is no longer merely about digitalization, time savings, or cost reduction—it is an investment in a sustainable future. Successful GovTech development requires a comprehensive digital strategy. Smart, open, and secure digital platforms are transforming technological advancement into social capital, enabling new, proactive, inclusive, and trustworthy engagement between government, business, and citizens in the digital age.

Annex A

Table A1

Selection of countries and administrative units (Gartner, EIU)

Argentina	Japan
Australia	Malaysia
Austria	Mexico
Belgium	Netherlands
Brazil	New Zealand
Canada	Norway
Chile	Poland
China	Portugal
Colombia	Saudi Arabia
Czech Republic	Singapore
Denmark	South Africa
Finland	South Korea
France	Spain
Germany	Sweden
Greece	Switzerland
Hungary	Taiwan
India	Thailand
Indonesia	Turkey
Ireland	Ukraine ¹
Israel	United Kingdom
Italy	United States
	Other countries:
	• Europe
	• Emerging Asia-Pacific
	• Latin America
	• Middle East and North Africa
	• Sub-Saharan Africa

Note. The same country sample was used for analyses based on Gartner and EIU data.¹

¹ For Ukraine, the analysis relies solely on EIU data.

Table A2

Comparison of international digitalization experience

Country	Central Authority / Position	Internal digital team	Data and interoperability policies
Great Britain	Government CDO at the Cabinet Office; the CDO network across ministers	Government Digital Service (GDS) introduced in 2011, responsible for standards and a single portal GOV.UK (Digital Service Teams: Challenges and Recommendations for Government, 2017) Challenges and Recommendations for Government, 2017)	National data strategy; open API for services; UK interoperability standard (e-GIF)
USA	Federal CIO; Head of USDS at the White House	U.S. Digital Service (USDS) introduced in 2014, a SWAT team for IT projects; the 18F developer team (Digital Service Teams: Challenges and Recommendations for Government, 2017) (Digital Service Teams: Challenges and Recommendations for Government, 2017)	Federal Data Strategy; FISMA (security) and Privacy Act; NIEM standards for data exchange.
Estonia	Government CIO (at the Ministry of Finance), IT Minister since 2015	e-Estonia ecosystem: centralized IT team accountable to CIO, close collaboration with private sector	Public Information Act; national interoperable platform X-Road (Digital Service Teams: Challenges and Recommendations for Government, 2017); digital ID for all citizens
Ukraine	Deputy Prime Minister – Minister of Digital Transformation; a CDTO in each agency (since 2020)	Ministry of Digital Transformation (2019) coordinates the team of developers of the Diia portal and project offices at ministries	National Digital Strategy (Diia.Digital State); the law on electronic public services; interoperability standards based on European principles
Australia	Minister for the Public Service and Digital Transformation; Australian Government CDO	Digital Transformation Agency (DTA) – since 2015, center of expertise and IT project oversight (Digital Service Teams: Challenges and Recommendations for Government, 2017)	Digital Government Strategy; use of standardized platforms (myGov); standards for data exchange between states

Source: IBM Centre for The Business of Government (2017). Digital service teams: Challenges and recommendations for government.

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