

# POLICYBRIEF

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## Globalizing GovTech Expertise and Solutions: Advancing Digital Collaboration, Diplomacy, and Export Promotion Strategies

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### Key Recommendations

To ensure the success of government entities tasked with transferring and promoting GovTech solutions and services abroad, consider the following five recommendations:

#### 1. Strategic Vision

Develop a 5-year strategic vision complemented by annual action plans. Prioritize commercial opportunities through digital collaboration and diplomacy, and align them with specific objectives, targets, and resource allocation.

#### 2. Coordination Nucleus

Create a central coordinating nucleus that emphasizes streamlined coordination and enhanced communication. Utilize internal tools such as a catalog of GovTech solutions and a CRM system for effective promotion.

#### 3. Collaborative partnership

Foster a collaborative partnership model by engaging non-government stakeholders in export services. This approach aims to synergize digital collaboration, diplomacy, and commercial opportunities.

#### 4. Country Brand

Establish a distinctive country brand to leverage branding as a facilitating tool. This branding strategy can enhance the positive impact of commercial endeavors when combined with digital collaboration and diplomacy activities.

### 1. Introduction

How does different government promote their digital transformation experience abroad? How use this experience to export the technical solutions and services? How can they leverage this expertise to export technical solutions and services? To answer these questions, this policy brief explores the approaches to the transfer and promotion of national GovTech experiences, services and solutions abroad. In doing so, 'what', 'why' and 'how' is explored.

Over the past three decades, the public sector has been steadily embracing technology to enhance quality of service, boost productivity, and enhance cost-efficiency. Periods of economic uncertainty such as the aftermath of the 2008 financial crisis or the more recent COVID-19 pandemic, have further accelerated this trend. With the growing imperative to modernize public services, governments have sought inspiration and knowledge-sharing among their counterparts and have also aimed to shape global standards.

The rapid expansion of technology adoption across public and private sectors, as well as throughout society at large, has fuelled the rapid growth of the IT sector. Globally, the market share of digital transformation, encompassing all forms of Information Communication Technology (ICT), including GovTech, and associated services, is valued at USD 1.5 trillion (2021), and it is expected to rise to USD 8.1 trillion

in 2030. During the period from 2019 to 2021, global exports of ICT related service witnessed an impressive 8.4% increase, climbing from USD 3.3 trillion to USD 3.8 trillion, even as overall services trade fell by 3.5%. While facilitating the growth of the IT sector, governments are also looking at utilising their experiences and solutions to drive ICT export led economic growth and job creation.

The rapid pace of digital transformation has highlighted significant disparities between nations. For instance, 90+% of individuals in the Nordic countries use both public and private sector digital and internet-based services, while the International Telecommunication Union (ITU) data shows that third of the world’s population still did not have access to the internet in 2022.

Similarly, in 2020, the global average of ICT related exports stood at approximately 6%, ranging from 58% in Hong Kong to 0% in Qatar. High-income countries particularly in Asia, the Americas and Europe, have developed substantial ICT sectors. In contrast, medium to low-income countries with competitive ICT skills and capacities have successfully established ICT sectors anchored in exports and outsourcing by high-income countries.

In light of rapidly changing GovTech scene and the economic potential of the ICT sector for domestic and export led growth.

## 2. Research approach

To identify and analyse diverse national approaches to international knowledge exchange, and export of GovTech advisory services and solutions, UNU-EGOV employed a three-step methodology.

First, national experiences were identified and evaluated to assess their strengths and improvement potential. Based on their relevance, socio-economic diversity, and distinct approaches Denmark, Estonia, India, and the Republic of Korea (henceforth South Korea) were selected.

Second, an exploration of the ways in which GovTech experiences, solutions and services are promoted. This was accomplished by analysing relevant written material, including national and international policy documents, news outlets and academic sources. To complement this analysis, a set of 19 exploratory interviews with key national stakeholders from the GovTech ecosystem were conducted. These stakeholders encompassed government entities responsible for digital transformation, foreign affairs, and export promotion, as well as significant figures from the IT and management consultancy sectors.

Third, the gathered data was analysed with the aim to identify and map the national objectives, value propositions, stakeholders, partnerships and strategies in the four countries. Grounded in the ‘what’, ‘why’ and ‘how’ of each nation’s approach, this analysis led to the identification and synthesis of a set of policy recommendations.

## 3. Findings

### 3.1 The aims of GovTech promotion abroad

Three core aims were identified in the analysis of the Estonian, Danish, Indian and South Korean approaches to the international transfer of digital government experiences and solutions. These aims are summarised in Table 1.

Table 1: Primary aims identified

	Denmark	Estonia	India	South Korea
Primary aims of international engagement	Knowledge exchange. Shape standards and trends. Systematic identification of export opportunities advisory services, skills development and solutions.	Knowledge exchange. Reputation building. Shape standards and interoperability. Open doors for export of advisory services, solutions and skills development.	Reputation building through DPI and bilateral support. Promote DPI and facilitate economic flows to/ from India.	Knowledge exchange. Reputation building and systematic bilateral support. Systematic identification of export opportunities advisory services, skills development and solutions.

The primary promotional objectives can be categorized into three distinct activities: digital collaboration; digital diplomacy, and the exploration of commercial opportunities and export promotion.

Digital collaboration, focus on Government-to-Government (G2G) knowledge exchange. The goal is the exchange of insights as well as the augmentation of domestic GovTech approaches and solutions. This is achieved by adopting and adapting innovative ideas and solutions within the domestic GovTech ecosystem.

Digital diplomacy is revolving around the proactive promotion of national and foreign policy objectives abroad. The aim is to influence regional and global policies, strategies, standards, and initiatives. To influence, for instance, new or emerging international standards, the domestic experiences, standards, and approaches to GovTech are actively used to help illustrate the relevance of the national position and suggestions.

Success in this endeavour brings both reputational gains and the assurance of national interoperability or early compliance with new standards.

The exploration of commercial opportunities and export promotion, aim at identifying and capturing opportunities to export GovTech, other ICT related solutions as well as advisory services to the international market. The aim is domestic growth and job creation. Key is the identification of potential competitive advantages of domestic GovTech and IT solutions, identifying potential markets, and to actively support domestic GovTech and IT companies in capturing opportunities abroad.

### 3.2 Key actors and their roles

The key actors and their respective roles differ depending on the value propositions in question.

The primary actors for digital collaboration and diplomacy involve mandated entities for digital transformation, ministries, and specialised ambassadors.

In all four cases, the main driver and coordinator for digital collaboration is the government entity mandated with the digital transformation. Whether a ministry or an agency, the responsibility is to ensure a cohesive and transformative knowledge exchange with government peers abroad. The exchange is both formal and informal. Often the exchange is bilateral or through regional or global fora's such as Digital Nations, the European Union (EU) OECD, regional development banks, the World Bank, ITU, UNDESA and so forth. Entities responsible for specific service areas such as health, education, telecommunication are actively involved with respect to specialised knowledge exchange. Ministries of foreign affairs and diplomatic representations are often conduits of initial contacts or meetings in forums such as ITU, UNDESA, UNESCO, OECD, G20+ and others.

With respect to digital diplomacy, ministries of foreign affairs are typically identified as the central conduit and driving force. However, their effectiveness in this role relies heavily on the active support from the mandated entity for digital transformation and specialised government entities. The combination of traditional diplomatic capacities and digital and GovTech insights, ensures a coherent representation of national interests. As with digital collaboration, these activities are both informal and formal. Bilateral, regional or global fora are once more found to be key. Other important activities are national lobbying, contributions to initiatives setting a formal standard, and promoting conceptual models. Examples include ITU's GovStack work or regional standard

such as EU's large-scale pilot projects for electronic identity management, interoperability invoicing, commerce, cross-border service and data exchange.

With respect to harnessing commercial opportunities abroad, ministries of foreign affairs, development aid agencies, representations abroad, specialised ambassadors, trade councils, and export promotion actors are the primary actors in all four cases.

Secondary actors encompass mandated digital transformation bodies, line ministries, agencies, and regional authorities. They actively contribute to promotion activities by providing key insights with respect to the value added of their GovTech solutions, as well as the public sectors digital ecosystem. These experiences and lessons learned indirectly promote private sector providers of the national providers of advisory services, solutions, and training. While the terminology may differ, traditional development aid agencies, export promotion and export credit providers play a key role in capturing the export potential of GovTech. The role of the government entities with GovTech experiences (and solutions implemented) is to promote and facilitate solutions, rather than directly selling them.

An interesting observation is that all four countries have established coordinating nucleuses to promote national GovTech solutions and services abroad. These coordinating entities act as a facilitating conduit and matchmaker – although the primary focus tends to be on the general reputational promotion and export, with digital diplomacy being secondary. This approach is first observed with the E-Estonia Briefing Centre (est. 2009). The Digital Hub Denmark (est. 2018), IndiaStack.global (est. 2022) and South Korea's Digital Government Expansion Centre Implementation System (est. 2023), in turn, are more recent initiatives.

Both Denmark and Estonia have specialised ambassadors for the GovTech and technology portfolio. The former also promote GovTech through innovation centres at embassies in places like Silicon Valley, Munich, Seoul. South Korea similarly uses its network of 46 Korea International Cooperation Agency (KOICA) offices and ten Digital Government Cooperation Centres globally to underpin the national aims for digital collaboration, diplomacy and export promotion.

### 3.3 GovTech offerings, markets and promotion activities

With respect to GovTech offerings, all four countries offer advisory services, technical solutions, and skills and capacity development. Although no specific "best sellers" are identified. Identity management, data exchange, and payment

solutions seems to attract more attention globally. Similarly conceptual GovTech ecosystems, standards, legal and regulatory frameworks, innovation and change management approaches are of increasing interest internationally.

While technical solutions remain crucial, there has been a noticeable shift toward a more comprehensive approach that includes advisory services and capacity training. The preference for adaptable, rather than off-the-shelf solutions, is anchored in the need for customization to comply with existing legal and regulatory frameworks or existing legacy. This shift is particularly evident in Denmark, Estonia and South Korea, where there is a concerted effort to promote open concepts and initiatives centered on open-source solutions, like the Nordic Institute of Interoperable Solutions of which Estonia is a founding member. The IndiaStack.global initiative similarly exemplifies this trend.

In their strategic approach to target markets Denmark exhibits the most comprehensive strategy, with the Danish Digital Hub doing specific market studies. Denmark, Estonia and South Korea also identify opportunities in a more informal manner with embassies and representations abroad feeding information back to the coordinating nucleus and primary actors. In terms of the current geographical focus of the four countries, Denmark mainly targets mature GovTech users within the EU, OECD, G20+ countries, and local authorities. Estonia tends to engage with its European neighbourhood and emerging economies. India strategically positions itself in the Global South, with a specific focus on Digital Public Infrastructure (DPI), targeting G20+ nations, emerging economies, and low-income countries. South Korea directs its efforts toward emerging economies and low-income countries.

Regardless of the geographical focus, all four countries primarily target and prioritise government entities. All are expanding their focus to local and regional authorities. Secondary targets are international organisations like bilateral and multilateral development agencies and lenders who indirectly promote national experiences and approaches.

Promoting GovTech on an international scale involves key activities such as sharing expertise, advocacy, and awareness creation with specific aim-based targeting. All four countries employ collaborative efforts, partnerships, and expert presentations as integral components of their strategies. Key promotional factors include highlighting experience, cost-efficiency, user benefits, and other significant outcomes. Storytelling plays a crucial role in all countries' strategies, with variations depending on the specific context.

With respect to the specific messaging Table 2 summarise the key taglines and value propositions of the four countries.

Table 2: Summary of approaches and value propositions identified

	Denmark	Estonia	India	South Korea
Tagline	Systemic PPP approach to promote experience and advisory services targeting mature and emerging GovTech users and local government.	Effective promotion network of government and non-government actors, underpinned by a strong country brand.	Government-driven promotion of DPI solutions for the Global South.	Systematic approach driven by G2G collaboration and international development assistance targeting emerging economies.
Core value proposition	Innovative whole-of-government ecosystem of concepts and solutions for transparent, user-friendly, cost-efficient and sustainable government and service delivery.	Technology enabled modernization and innovation. Interoperable and efficient ecosystem of concepts and components (tech, legal, etc.).	Cost efficient, interoperable, scalable and affordable open-source components (DPI).	Technology enabled, innovation and cost efficient public sector ecosystem of concepts and solutions – standalone or plug-n-play.

With respect to the taglines and value propositions, Denmark, Estonia, and South Korea emphasise the strong functional GovTech ecosystem built on strong legal and regulatory foundations and a large portfolio of specific GovTech solutions. These strengths are complemented by focused export promotion endeavours, including initiatives like export credit and joint public-private trade delegations, which are coordinated with representatives from the ICT sector. India currently does not formally articulate a commercial aim of IndiaStack.global or associated activities. However, opportunities for export promotion may indirectly arise from its initiatives in digital collaboration and diplomacy.

The taglines and value propositions identified are embedded in the formal or informal country brand and communication emanating from each country. Denmark emphasises sustainability and social impact, recognizing the pivotal role of digital diplomacy in promoting GovTech solutions abroad. Estonia stands out with a strong E-Estonia brand, skilfully weaving a narrative of re-independence,

innovation, modernization, and expertise in cybersecurity and international collaborations. India excels in multilateral and bilateral relations, collaborative joint initiatives, and develops a positive international brand based on open source, DPI, and support to emerging economies. South Korea has an excellent reputation and organisational approach regarding international cooperation and overseas development support. Of the four cases, E-Estonia is the most established GovTech related country brand at present. IndiaStack and Digital Denmark have emerged the last couple of years, while South Korea has yet to decide whether a GovTech country brand is required.

In essence, the country brand is an effective way to communicate key messages that underlie the strategic objectives of each country. The brand development is a potent tool, not only fostering digital collaboration but also shaping digital diplomacy and commercial opportunities. Messages are adjusted to specific aims, tag lines and value propositions, GovTech solutions and services, as well as the target audiences. The four countries exhibit varying levels of formalisation and maturity of their communication.

Interestingly, the impact measurement associated with the promotion of their national GovTech experiences are generally found to be indirect and lack structure. Common indicators identified include participation in international fora, various forms of collaborations, and partnerships. Key performance indicators tend to include the number of touch points, that is the number of queries received, delegation visits, media coverages, partner satisfaction surveys etc. Revenue indicators tend to encompass annual expenditure, grants, and donations, commercial activities, as well as other income such as membership fees.

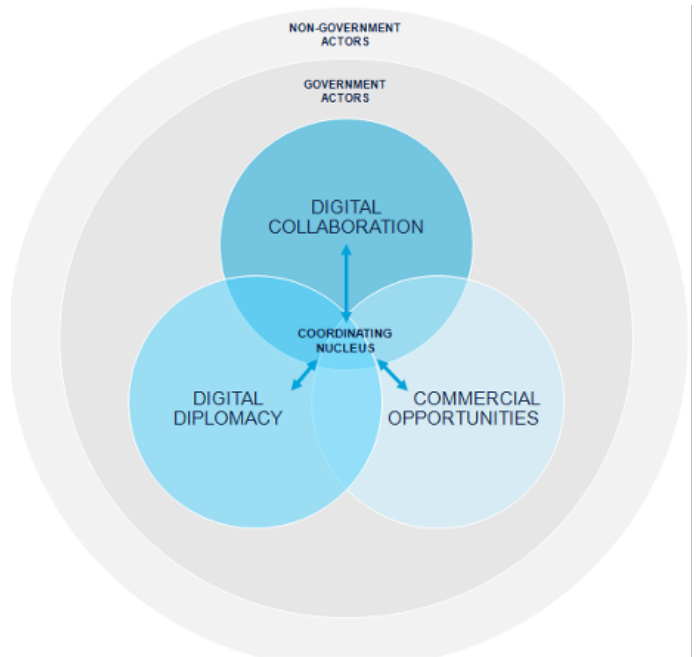
**CONCLUDING RECOMMENDATIONS**

While Denmark, Estonia, India and Korea each have unique approaches to GovTech, they also share similarities. With respect to their objectives and methods with which they promote their GovTech experience internationally, both distinctive and similarities are displayed. The aims, value propositions and country branding reflect their national context especially what they perceive as national GovTech achievements and strengths.

The analysis of Denmark, Estonia, India and Korea’s approaches and experience in promoting their national GovTech abroad has led to the formulation of four policy recommendations. The four recommendations are independent of the national contexts, specific strategic

aims and value propositions. They are intended to generally facilitate digital collaboration, digital diplomacy and export promotion while including both public and private sector actors and stakeholders. The interconnectivity and synergies are illustrated in the Figure 1 below and followed by the four recommendations.

Figure 1: Synthesised approach to GovTech promotion abroad and key actors



First, develop a comprehensive 5-year strategic vision complemented by an action plan with annual roadmaps. The active engagement of primary and even secondary actors will facilitate co-ownership and support. Clearly define mandates and roles of different actors, identify key activities, outputs, outcomes, staff, and budget requirements. Place a strong emphasis on identifying competitive advantages and potential partnerships for GovTech solutions and services.

Second, establish a coordinating nucleus tightly integrated with the approved strategic vision and the action plan(s). Regularly assess performance against the strategy and action plans to ensure effective implementation and alignment of activities. An internal catalogue of GovTech solutions and structured customer relationship management assist the communication, promotion, and effective “match making” of queries and opportunities.

Third, define a partnership model including responsibilities for government and non-government actors. Non-government

actors may include IT vendors, training providers, academics, and the donor community, who will be involved in the development and export the GovTech solutions and services. Maintaining these relationships in contact lists/CRM tools are beneficial to coordinate activities, queries, stakeholders, partners and interest from abroad. It is important to include multilateral and bilateral partners in close coordination with the Ministry of Foreign Affairs, as well as the Ministry of Finance in order to establish a sustainable funding model.

Fourth, develop a “country brand”. Complement the brand with key messages and promotional material aligned with the 5-year strategic vision, key competitive advantages, and GovTech experiences. Align the digital country brand with the general government identity. The brand should be tailored to underpin the digital collaboration, digital diplomacy and export promotion aims that has been established. It is essential to incorporate key problem statements, inputs, outputs, and outcomes of the GovTech experience into both general branding efforts and targeted promotion of specific GovTech solutions and services abroad.

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