

BELIZE'S NATIONAL DIGITAL AGENDA



E-GOVERNANCE
& DIGITALIZATION UNIT

TOWARDS A DIGITAL BELIZE: BELIZE'S NATIONAL DIGITAL AGENDA



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& DIGITALIZATION UNIT**



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TOWARDS A DIGITAL BELIZE:

Building Trust in Government Services

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GOVERNMENT
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CITIZENS
INDUSTRY



1

FOREWORD



MESSAGE FROM HON. MINISTER KEVIN BERNARD

We've all heard that we need to embrace Digital Transformation. But how do we do so? Digital Transformation is more than just adopting technology; it addresses critical areas from digital infrastructure and connectivity to innovation, digital skills, online services, open government, and cybersecurity. Thriving in this new digital age requires a shift in mindset and strategy. Belize's first National Digital Agenda 2022-2025 is that roadmap and strategy that will guide us to transforming our country into a Digital Nation. It represents our resiliency, willingness, and collective vision to strive in unprecedented times by embracing technology.

The National Digital Agenda builds on the Government's commitment to transforming lives. Through the Digital Agenda, we will pursue investments in digital infrastructure, centralized digital platforms, and innovative technologies. We aim to transform the way Government operates, build a digital culture and society, and build the foundation for future digital transformation. This transformation and modernization plan offers us the opportunity to adapt and achieve shared prosperity. It was designed utilizing a comprehensive methodology involving consultations, surveys, and research to identify citizens' demands and main challenges. Therefore, I am confident that the programs and actions in this plan

will lead to tangible results and create public value.

A critical success factor for this plan is collaboration. We cannot achieve it alone. Everyone needs to be part of this transformation process. As such, this plan requires the Government to break down the silo culture and work together with the private sector and the public to successfully implement the various initiatives. We will need to jointly foster our strengths to unlock our true potential. Our future will depend on achieving and sustaining this strong partnership.

We are grateful to the Inter-American Development Bank for providing the technical expertise and support to the E-Governance and Digitalization Unit to elaborate this plan. The E-Governance and Digitalization Unit is ready to rise to the challenge of leading us in this transformation journey. I commend them and all partners who contributed to the development of the plan. As we move forward, let us continue to work together to achieve our vision of a Digital Belize.

A handwritten signature in black ink, appearing to read 'Kevin Bernard', positioned above the printed name.

Hon. Minister Kevin Bernard
Ministry of Youth, Sports & E-
Governance



2 EXECUTIVE SUMMARY



Digital Agendas have become an important guiding instrument for the digitalization of several Latin American and Caribbean countries in the past few years. In the past year, Belize has made various efforts to start its digitalization journey by launching programs such as the National E-Government Policy, Strategy, and Action Plan 2015–2018. Nonetheless, the country continues to lag on most international indices linked to digital transformation and competitiveness. For instance, in the UN E-Government Development Index, the country has reached position 136 out of 193 countries, declining in the Online Service Sub Index (OSI), falling from 90 in 2014 to 168 in 2020. These rankings reflect the slowness of government units in adopting ICTs as a tool for improved service delivery to its citizens.

Moreover, several international organizations have highlighted the importance of digitalization as a tool for resilience against the covid-19 crisis and other economic shocks, whose effects can be mitigated thanks to digital tools and innovative solutions. Therefore, digital transformation can support a country's recovery while allowing for improved efficiency, resiliency, and cost savings for the Government. As such, the Government of Belize is fully committed to facilitating digitalization and e-services across entities, but more importantly, to create the enabling ecosystem for the development of a digital society.

As the leading institution for digital transformation, the E-Governance and Digitalization Unit has launched the current National Digital Agenda for Belize 2022-2025, aiming to create the enabling environment for a digital government. The Agenda is an integrated transformation and modernization of the state plan, addressing key areas from infrastructure and connectivity programs to training, innovation, and new technologies application programs to build trust in Government services, break the silos, and create a participative culture. Hence, this Digital Agenda must be understood as a strategic plan and working framework for the Belizean Government to achieve complete inclusion and digitalization by carrying out high-impact programs designed to transform the public administration and the society itself.

The first set of programs under the ICT and Technological Enablers pillar focuses on digital infrastructure to facilitate access and connectivity, and deploy digital infrastructure across the country. The aim of this pillar is to build the foundation for future digital transformation. This first pillar focuses on connectivity and inclusive access – expansion of reliable internet connection and access points to remote and rural areas in Belize to support the use of digital services and mobile applications –, digital infrastructure – efficient and resilient digital infrastructure through next-generation technologies and new appliances by providing an enabling framework that impacts and improves citizens lives, businesses productivity, and institutions modernization –, and horizontal platforms – cross-sectorial solutions used extensively by the whole public administration to optimize efforts and reduce duplicated ICT costs.

The second pillar, Digital Government, focuses on improving service delivery within Government and transforming the way Government Operates. It includes e-Services and Digital Identity – agile, intuitive, simple, and efficient digital services for all citizens and improves digital identification making it easy to access all government procedures and government transactions –, Good Governance – fostering open, inclusive, and transparent institutions to build trust in government structures and digital solutions by promoting e-participation, strengthening e-governance and releasing public data sets for multiple purposes –, and Cybersecurity – reliable, safe, and secure digital environment to support the delivery and use of digital services while ensuring privacy and confidentiality.

Lastly, the third pillar concentrates on Digitalization for Recovery, which involves a list of programs to mitigate the economic and health impacts from the covid-19 pandemic through ICT tools while seeking to develop a digital culture and society. This pillar acknowledges the importance of closing the digital skills gap – training in ICT skills across citizens (youth, public servants, employees) to minimize the digital gap and step towards digital transformation by fostering an entrepreneurial and innovative society with high employability and productivity levels –, promoting innovation – as mobilizing critical assets for fostering innovation while meeting market needs and engaging with global value chains –, and facing covid by digitalization – economic recovery and reactivation strategies link to digitalization and the use of ICT with the focus on key sectors for Belize (education, health, agriculture, and tourism).

These strategic themes are also broken down into different programs involving critical projects and activities to achieve integrated, efficient, and fast-driven digital e-services and transforming solutions. Thus, the Digital Agenda will guide the transformation of Belize, by highlighting critical areas for investment to generate public value and transform citizens' interaction with Government.

3

INTRODUCTION: EMBRACING DIGITAL GOVERNMENT AND OVERCOMING ADVERSITY



Covid-19 has caused a significant economic shock worldwide, especially for those countries like Belize, whose economy relies on tourism and other service sector activities. The unprecedented hit has added pressure to the country's economic growth and fiscal balance, changing Belize's economic and social outlook. Moreover, it has affected how the public sector and society function, increasing the urgency to introduce digital solutions and transformation structures across the public service.

Today, policymakers must find new ways to overcome the impacts of Covid-19 while addressing long-standing systemic problems impeding the country's socio-economic growth. To meet these demands, the Government must pivot and fully embrace E-Governance as a vital tool for economic recovery and resilience.

While Belize finds itself in a position of strength, having built a robust telecommunication infrastructure and a growing ICT industry, the public service must embrace this systemic change and transformation to capture the opportunities from E-Governance. Unfortunately, Belize's low levels of digital maturity have hindered its ability to fully leverage the power of technology in sustaining the impacts of economic shocks and driving sustainable development. As such, revolutionizing the public administration has never been more critical for a country's recovery and survival.

Digital Government entails the digitalization of public service and utilization of ICTs as a core element in public administration to create public value. It requires strengthening the enabling environment and public governance to achieve a more open, efficient, and effective government. Digital Government represents the integration of ICT at all levels of society and in the public sector's reform agenda. One thing is certain: the question is not whether to undergo this transformation journey but how to do so effectively and efficiently to achieve a more efficient and better government.

To capture the benefits of a digitally-enabled society, Belize must rethink its policies, strategies, and governance to promote the use of digital technologies across public service while creating value for citizens and boosting innovation in the private sector. Accordingly, Belize's Government is fully committed to establishing new strategies that place ICT at the core of its transformation to realize its national development goals and objectives for a brighter future.

To enter this period of rapid and disruptive transformation, Belize has chosen to unleash the power of ICT by establishing a unified vision, promoting cross-sectoral collaboration, building a digital-savvy population, and fostering an enabling environment and innovation.

The background of the entire page is a dark blue color. Overlaid on this background is a complex network diagram. The diagram consists of numerous small, light blue circular nodes connected by thin, white lines. The nodes are scattered across the page, with some clusters and some isolated nodes. The lines connecting the nodes form a web-like structure, suggesting a network or a system of interconnected elements. The overall aesthetic is clean, modern, and technical.

4 STATUS OF DIGITALIZATION IN BELIZE

To achieve Belize's vision of a digitally-enabled society, it is necessary to understand the internal challenges hindering its digital transformation. While In 2015, the Government of Belize endorsed the *National E-Government Policy, Strategy, and Action Plan 2015-2018* to leverage the power of ICT to improve its delivery of services, its programs emphasized infrastructure and legacy systems which limited the Government's ability to truly deliver better digital services. Moreover, despite releasing the strategy six years ago, its implementation has been fragmented and had little impact in improving e-government solutions and capturing its benefits.

Thus, in 2020, Belize continued to lag on the **UN E-Government Development Index**, reaching position 136, out of 193 countries, for the E-Government subindex and position 163 in terms E-Participation. Furthermore, in the Online Service Index (OSI), a sub-pillar of the Survey, Belize's rank had fallen every year from 90 in 2014 to 168 in 2020. These rankings reflect the slowness of government units in adopting ICTs as a tool for service delivery to its citizens.

Furthermore, Belize's performance has also been impacted due to systemic challenges such as little or no interconnectivity and data-sharing among government agencies, lack of unique citizen identifier common to all government Management Information Systems, lack of standards and guides regarding e-government solutions.

Regarding open Government and open data, the **Open Government Data Index** highlights weak transparency, openness, inclusiveness as Belize ranks in the low OGD I group with a score of 55.5.

Regarding digital infrastructure, the **ICT Development Index** by the International Telecommunication Union (ITU) shows that Belize performs well in areas such as international internet bandwidth per internet users but requires more efforts in fixed-telephone subscriptions and broadband subscriptions or households with the internet. Belize's position was steady relative to its rank in 2016 (120 out of 176 countries in the overall index) and is comparable to that of El Salvador and Guatemala. However, this result reveals the historically low level of connectivity throughout the territory.

On the other hand, the **Broadband Development Index** from IDB highlights that there have been some advances regarding the "Public Policy and Strategic Vision" pillar since the country has increased 11 positions in comparison with the last edition (2018).

Other indicators, such as the **Doing Business** (2020) from the World Bank Group, highlight the need for Belize to address its regulatory environment to improve the ease of doing business and competitiveness. Over the last decade, Belize's score has declined to a global position of 135 out of 190 countries due to the lengthy procedures and uncondusive legal and regulatory environment. However, at the sub-index level, the utilization of ICT in the trade sector and electricity sector has yielded marginal improvements in its business climate.

Regarding competitiveness and digitalization of enterprises, Belize's private sector is relatively less prepared for the digital age than Latin America and the Caribbean (LAC). For example, according to recent research, only 47.5 % of businesses in Belize use email, and 23.2% have a website. Although firms differ on their readiness and digital maturity levels within the tourism and agriculture industries (both of which have been severely impacted by the pandemic), very few firms operate beyond the beginner-intermediate level of digital maturity. Yet to compete effectively and to tap into new markets, firms must adopt more advanced digital technologies.

¹ Public Digital (2020) *Belize Digital Strategy Recommendations and Roadmap*.

Table 1. Belize performance on international rankings

INDEX	POSITION	SCORE
(1) UN e-Government Survey (2020)	136/193	0.4548
• OSI (Online Service Index)		0.2647
• TII (Telecommunications Infrastructure Index)		0.4079
• HCI (Human Capital Index)		0.6919
(2) e-Participation Index (2020)	163/193	0.2976
(3) Open Government Data Index (2020)	Low OGD I	0.0688
(4) ITU ICT Development Index (2017)	120/176	3.71
• IDI ACCESS SUB-INDEX		4.07
• IDI USE SUB-INDEX		2.29
• IDI SKILLS SUB-INDEX		5.80
(5) Broadband Development Index (2020)	55/65	4,14
• PE (Public Policies and Strategic Vision)	47/65	4,50
• RG (Strategic Regulation)	60/65	4,12
• IN (Infrastructures)	45/62	4,53
• AC (Application and Training)	61/65	2,66
(6) Doing Business (2020)	135/191	55.5
• Starting a Business	166	
• Dealing with Construction Permits	123	
• Registering Property	137	
• Paying taxes	60	



² The Intracen (2018), *SME Competitiveness Outlook 2018 on Business Ecosystems for the Digital Age*.

Overall, different international assessments on Belize's digitalization levels show that there are important barriers to overcome in the next years, such as bureaucratic silos, inadequate Government ICT frameworks, weak institutional framework, lack of digital skills amongst public servants, and weak legislative and regulatory framework, among others, which negatively impacts the way Government conducts its business, and in turn, the country's competitiveness (IDB, 2021).

To address these issues, the Government of Belize is making a significant push towards increasing effectiveness in public institutions by studying the public perception and attitudes towards E-Government. A recent survey carried out by the Statistical Institute of Belize in 2021, the so-called *Governance Acceptance Survey*³, examined the factors associated with E-Government acceptance in the Belizean context, including perceived usefulness, perceived ease of use, trust in e-Gov, and perceived behavioral control.

One of the main findings of the survey is that 49% of respondents had accessed government services in the past year, and 65% of them expressed high intention to use e-services in the future and believe that they will increase their productivity, save them time in daily tasks, and provide significant advantages over the physical channel (against 35% who expressed low intention to use E-Gov)⁴. These numbers show a great demand and intention for using e-services and ICT among Belizeans, emphasizing how important it is to create a clear path for the following years in regards to the deployment of digital Government and digital services.

Moreover, the survey reveals that public institutions should focus on creating a trustworthy and accessible environment for digital services and highlight their significant benefits. This goal includes first addressing more time-consuming services for citizens, such as immigration or vital statistics procedures.

³ Aguilar, G (2021), E-Governance Acceptance Factors. Statistical Institute of Belize.

⁴ In addition, respondents who scored high on PBC (Perceived Behavioural Control) believed that they have the resources, skills, and knowledge for using e-Government tools, increasing the willingness to use e-services.



5 THE WAY FORWARD

5.1 INSTITUTIONAL FRAMEWORK: E-GOVERNANCE AND DIGITALIZATION UNIT

Understanding the challenges in achieving its vision for a digital society and the need for a robust institutional framework for a digital government, in 2020, the new administration established the first-ever **Ministry of Youth, Sport, and e-Governance** with the responsibility to coordinate the planning and implementation of e-Governance and e-Government in Belize. Through its **E-Governance and Digitalization Unit**, the Ministry aims to support the delivery of an efficient, transparent, and proactive e-government to Belizean citizens by providing ICT solutions, horizontal platforms, and a common digital infrastructure for the whole administration.

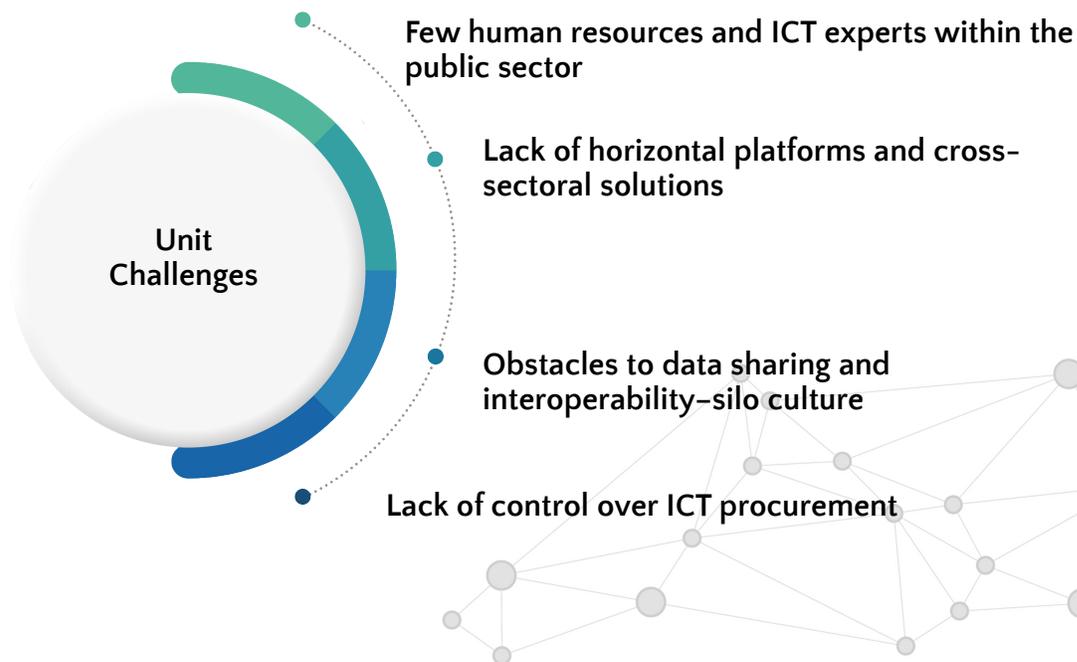
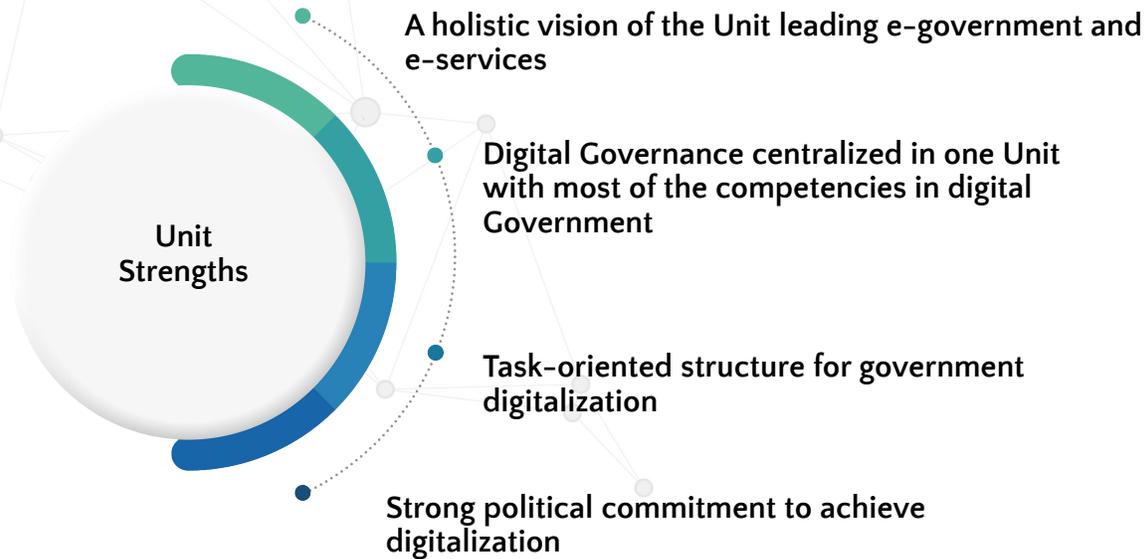
As such, the Unit, in principle and in practice, must embrace the dimensions and principles for a Digital Government. Therefore, the E-Governance and Digitalization Unit has the overall task to **lead digitalization and e-Governance efforts** with specific responsibilities in the areas of **digital infrastructure**, **digital Government**, and **digital transformation**. As the leaders in Digital Government, the Unit will *mobilize resources, align priorities for the digitalization of the country, and design budgets and programs through public and private sector partnerships.*

Table 2. E-Governance and Digitalization Unit's responsibilities

DIGITAL INFRASTRUCTURE	DIGITAL GOVERNMENT	DIGITAL TRANSFORMATION
<ul style="list-style-type: none">✓ Design policy and guidelines on ICT infrastructure and architecture✓ Implement horizontal platforms and ICT enablers for the whole administration, including interoperability, ERM, cloud, and other cross-solutions✓ Supervise and approve ICT procurement (including veto power) - Issue recommendations on information technology projects that optimize public resources investment.	<ul style="list-style-type: none">✓ Lead the implementation of e-services – Manage the National e-Service Portal✓ Provide enabling tools for the simplification and digitalisation of procedures✓ Support the implementation of the Cybersecurity Strategy✓ Design/update/review regulation regarding digital government✓ Data Governance✓ Propose and establish governance mechanisms to analyse and coordinate the implementation of digital government projects and/or topics (i.e., e-services)✓ Coordination with International Organisations regarding digital government indices	<ul style="list-style-type: none">✓ Train and support the administration in developing digital skills✓ Contribute to building a digital culture in Belize

However, the Unit's success in fostering Belize's digital transformation will require addressing its current challenges, as highlighted through a self-assessment tool developed to study the level of digital maturity based on IDB's vision for digital transformation⁵.

Figures 1 & 2. E-Governance and Digitalization Unit Self-Assessment Conclusions



⁵ IDB (2021), *IDB Digital Transformation Vision and Framework* (working document under revision).

5.2 LEADING DIGITAL GOVERNMENT

Besides the need to overcome institutional and policy challenges, the Unit's role in leading Belize's digital transformation begins with establishing a national vision and priorities for the next years through a robust and forward-thinking Digital Agenda. The elaboration of Belize's first National Digital Agenda has been led by the E-Governance and Digitalization Unit with the support of the Inter-American Development Bank.

The 2022-2025 Digital Agenda represents the Ministry's and the Unit's strong commitment to leading Belize towards a digital government. The Digital Agenda presents a national vision and the Government's priorities to embrace digital government over the next four years. The E-Governance and Digitalization Unit aims to foster a collaborative environment with all key stakeholders to implement the Digital Agenda during the next four years successfully. This strategy highlights the need to address urgent challenges to strengthen the enabling environment, particularly the governance and institutional framework, legal framework, digital talent, and digital infrastructure and technological tools.





6 DESIGNING THE AGENDA

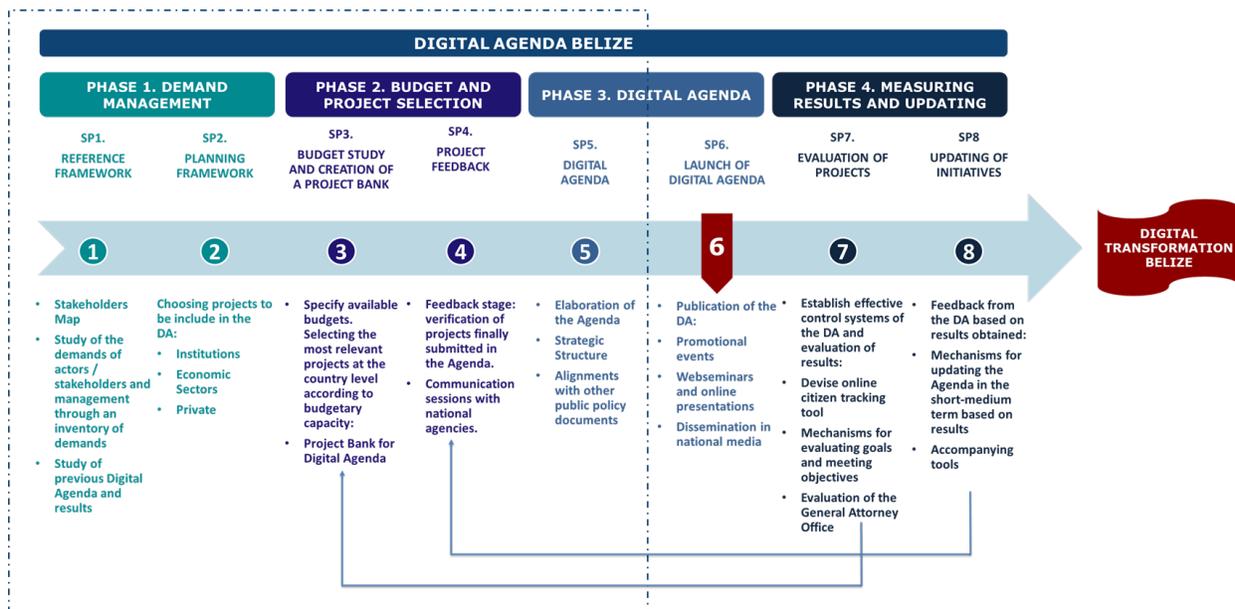
6.1 METHODOLOGY

The Digital Agenda has been developed utilizing a comprehensive methodology to identify the main challenges and priorities regarding digitalization in the country. The design of the Agenda included the following phases and activities (figure 2):

- **Demand Management:** getting to know the stakeholders' needs and citizen demands regarding digitalization; starting planning and detecting priorities in different impact areas.
- **Budget and Project Selection:** studying the budget available and creating a project bank as a detailed listing of all the projects identified. Since the Digital Agenda cannot address all stakeholders' demands at once, due to limited resources available, this phase will help design the Digital Agenda and the project's final selection.
- **Digital Agenda Drafting:** drafting and designing the Agenda itself, the approval and collaboration sessions with different National Agencies and Ministries (including the Cabinet of Belize), and lastly, the dissemination and public launching of the document.
- **Measuring results:** designing evaluation mechanisms for monitoring the Agenda and evaluating the results of the different programs proposed. This phase will include updating the Agenda after the finalization period according to results and new needs for digitalization.

Hence, the Digital Agenda is a complete and comprehensive policy product based on a systematic methodology focused on identifying demands, choosing priorities, and transforming them into national programs with associated goals, commitments, actions, and resources.

Figure 2. Methodology for building the Digital Agenda



6.2 THE REFERENCE FRAMEWORK FOR THE DIGITAL AGENDA IN BELIZE

To inform the design of the Digital Agenda, a comprehensive analysis was conducted of national, regional, and international policies, strategies, and frameworks. Creating a Digital Agenda has become a very complex and challenging exercise since it requires considering a broad range of frameworks, policies, and data coming from citizens, enterprises, or other stakeholders^{6 7}.

Figure 3. Reference framework for the Digital Agenda



⁶For example, such as the results from the Governance Acceptance Survey (2021) and the *Demands for Digital Skills in the Private Sector Survey* (2020), developed by the IDB in cooperation with other international institutions.

⁷The input provided by the Digital Skills Survey, to check the demands for the private sector on digital skills and recruiting digital talent (2020), reveals that, despite the negative impact of the COVID-19 on businesses, more than half of the business respondents (52%) are willing to employ a certified professional with digital skills by the end of the year 2021. This is a good indication of the importance of ICT and digital skills for business. Hence, this item should be prioritized in the policy-making process for building the Digital Agenda.

Therefore, a policymaker needs to consider the reference framework to identify areas of action, study the most important trends for digitalization and define digitalization priorities. In the case of Belize, being a member of both SICA and Caricom, it was vital to study all frameworks to help build the Agenda so it can position itself as a leader in Digital Government.

The present Digital Agenda is aligned with these frameworks, which have informed the definition of the vision, pillars, and strategic themes set in this strategy.

6.3 NATIONAL POLICIES

6.3.1 #PLAN BELIZE

The new administration has a strong political commitment to achieve digital transformation to support economic recovery and resiliency. The Government's strategic plan **#PlanBelize** is a multidimensional plan focused on transforming Belize and taking it forward to a new era while ensuring sustained growth according to the UN Sustainable Development Goals. #PlanBelize highlights the importance to overcome adversity by addressing systemic challenges:

"With limited time and public funds, the country has to face the challenges of a structurally deficient economy exacerbated by COVID-19, which together threaten to ravage the limited capacities of our economic system."

#PlanBelize has set a series of policies for economic recovery and national transformation to overcome this challenge. These policies are distributed in eleven thematic areas: *governance, anti-corruption, education, healthcare, agriculture, women's agenda and family, rural living, transport and infrastructure, safe society and justice, land, economy and jobs, and tourism*. PlanBelize also acknowledges the power of ICT in achieving these policies and commitments for national transformation.

In each area, there are initiatives and commitments linked to the Digital Agenda's primary purpose: the Digitalization of Belize.

Table 3. Main digital initiatives in Plan Belize

#PLANBELIZE	
GOVERNANCE	RURAL LIVING, TRANSPORT, AND INFRASTRUCTURE
<ul style="list-style-type: none"> Implement a transparent government procurement process: E-marketplace for the Government of Belize 	Provide Internet access to rural schools and online education for all rural schools where applicable
ANTI-CORRUPTION	SAFE SOCIETY AND JUSTICE
<ul style="list-style-type: none"> Implement a national budget planning and monitoring system to guarantee transparency of the budget. 	<ul style="list-style-type: none"> Hall of Justice - courts, registry, legal library, admin, media center & a judicial education institute. Digitalizing the Court System
EDUCATION	LAND
<ul style="list-style-type: none"> Digitization of student transfer applications. Technology skills for youths E-Book program/ digital device for children 	<ul style="list-style-type: none"> Digitize the Lands Department to ensure non-partisan, efficient, and convenient distribution of lands and other services Surveillance technology for forest protection
HEALTHCARE	ECONOMY AND JOBS
<ul style="list-style-type: none"> Update of National Health Formulary National Health Record System Establishment of a fair, competitive & transparent tendering procedure. Virtual doctor consultation in rural areas (Telemedicine) 	<ul style="list-style-type: none"> Establish a Ministry of Information Technology and Digital Transformation to spearhead development in ICT, the transformation of governments services, and spur technological innovation and development of the digital economy Systems: Establish systems to integrate the response effort (data, communication, transport, referrals, etc.)
AGRICULTURE	TOURISM
<ul style="list-style-type: none"> Review the entire tax system and enact reforms to have a simplified, fair, efficient, and development-driven system Climate Smart Systems for farmers Improving storage and logistic facilities 	<ul style="list-style-type: none"> Develop and adopt new digital technologies that enable easy and safe travel and improve the overall traveler experience Develop capacity building and training programs for current and new tourism workers and small businesses and empower them with the essential digital skills to adjust
WOMEN'S AGENDA AND FAMILY	
<ul style="list-style-type: none"> Promote Women in Science, Technology, Engineering, Mathematics Creating empowerment/special development zones to better target specialized assistance and strengthen the capacities of families and communities 	

This strategic plan is the primary reference for developing the Digital Agenda since it establishes the national vision for the next four years. It also defines the Government's priorities in digital government. As such, the Digital Agenda is aligned with PlanBelize.

6.3.2 RECOVERY PLAN: HOW CAN BELIZE INNOVATE TO BOOST ECONOMIC DEVELOPMENT?

In collaboration with the IDB, the Office of the Prime Minister elaborated a plan for the economic recovery in Belize. The Plan clearly focuses on **private sector development** to facilitate doing business for SMEs by simplifying the regulatory framework and reducing red tape.

Thus, the Plan will aim to provide *a sustained development process that will allow Belize's private sector to develop and reduce poverty*⁸. The proposals highlight the need to address procedures and digitalize services to make them more accessible.

In this regard, the Digital Agenda and the Unit's Action Plan would be the leading plans to support two of the proposals: *keep it simple* (adopting simple business rules so that Belizeans do business in all sectors of the economy) and *keep it digital* (administrative work must be fully online), since one of the main priorities of the Agenda and Unit's responsibility is to simplify and digitalize procedures for both citizen and business to gain efficiency, reduce the administrative burden and increase transparency.

Figure 4. Recovery Plan Reforms



⁸Frigerio et al., 2021: 13

6.4 INTERNATIONAL FRAMEWORK

When preparing a Digital Agenda, it is important to consider experiences and lessons learned from other countries and analytical work developed by academia, international and regional organizations such as OCDE, IDB, CEPAL, or SICA, among others.

6.4.1 IDB DIGITAL TRANSFORMATION VISION

The Inter-American Development Bank (IDB) Group has developed a *Digital Transformation Vision* to guide countries in their digital transformation process. This framework lays out a set of strategic areas of intervention to guide a coherent digital transformation of countries in the region based on the deployment and strengthening of an enabling framework that sets the foundation for the digital transformation in economic sectors.

As the following figure shows, the enabling framework includes *digital infrastructure and ICT tools* to ensure connectivity, *digital talent* to strengthen skills across society, *a legal framework* to set the regulations on digital transformation, and governance to create strong and resilient institutions leading digital transformation.

Figure 5. IDB Digital Transformation Vision

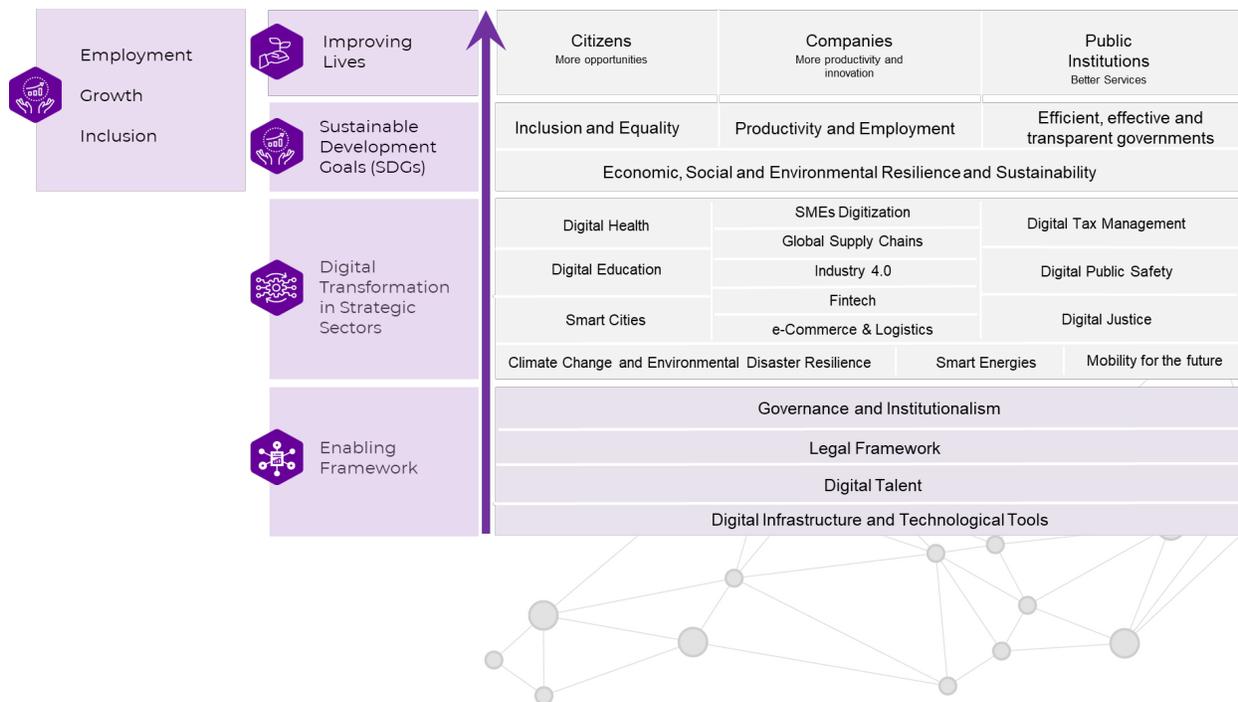
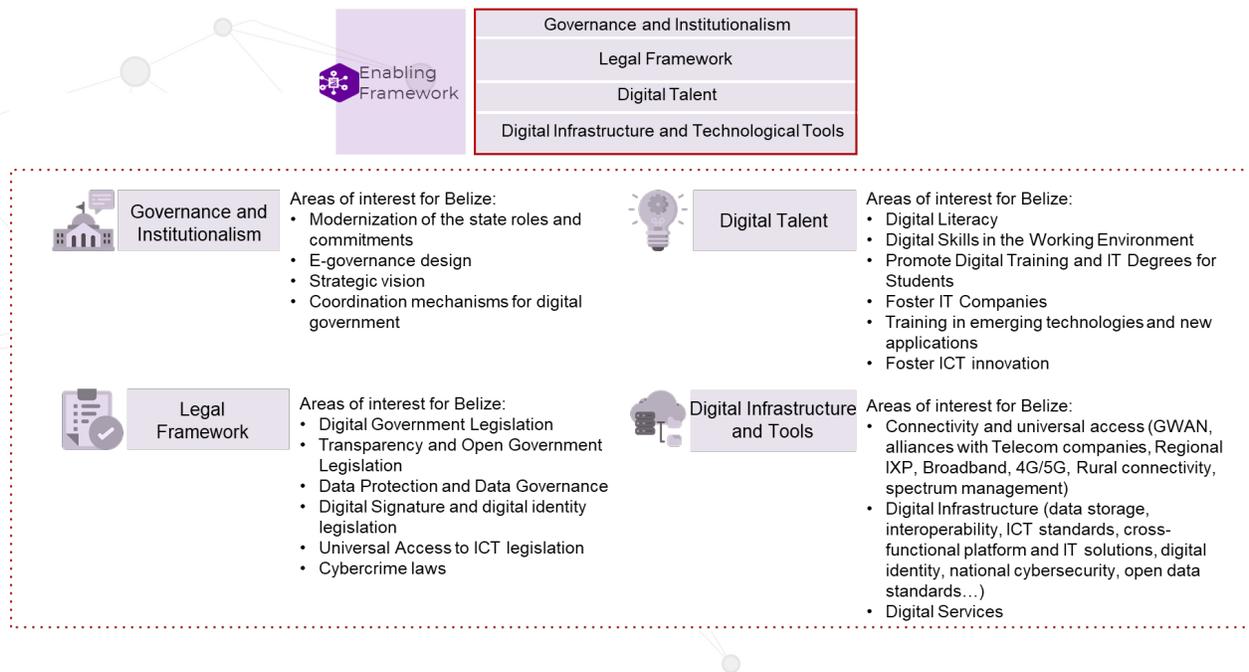


Figure 6. Enabling framework areas of interest for Belize



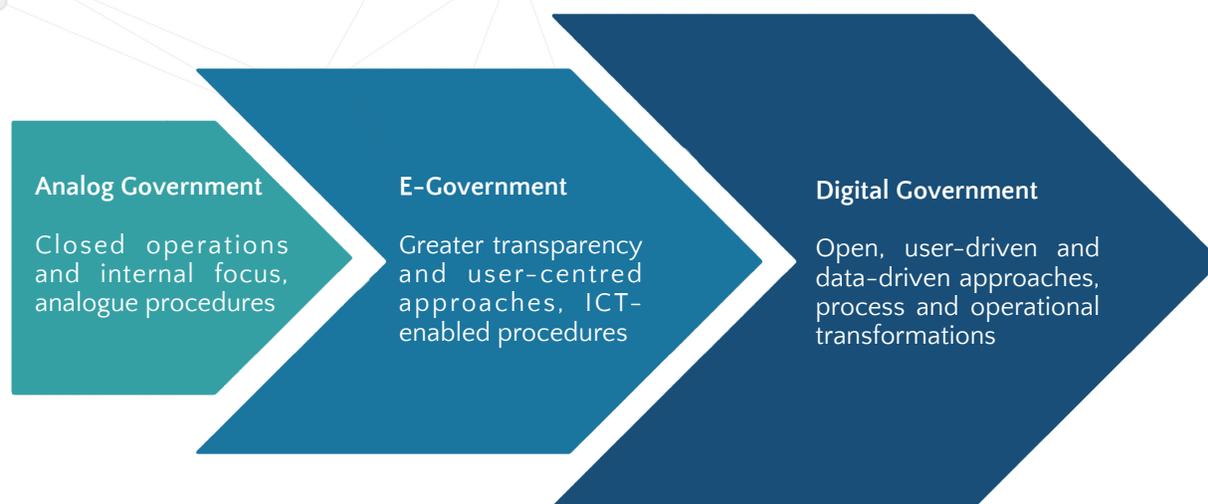
The framework highlights the need to strengthen the enabling environment to support digital transformation in strategic sectors such as social services (education, health, social protection, employment services); the digital transformation of infrastructure services (energy, transport, water, and sanitation); smart cities; technologies and rural development; resilience to climate change and disaster risk management; digitization of MSMEs and value chains; digitization of integration and trade; and digital finance (Fintech).

Considering Belize's digital maturity and weakness, it is necessary to develop a strong enabling framework in the next four years to create the foundation for future sectoral transformation. Therefore, in building the Digital Agenda, we have focused on improving governance, updating the legal framework, creating digital talent, and implementing digital infrastructure and ICT Tools.

6.4.2 OECD RECOMMENDATIONS ON DIGITAL GOVERNMENT STRATEGIES

According to the OECD, there is an important distinction between *Electronic Government* (the use of ICT and the Internet to improve the performance of the administration) and *Digital Government* (use of digital technologies to add value to society), which opens the ecosystem to society (Administration, Companies, Citizens, NGOs, ...) and includes the commitment to innovate in the purchase of technology.

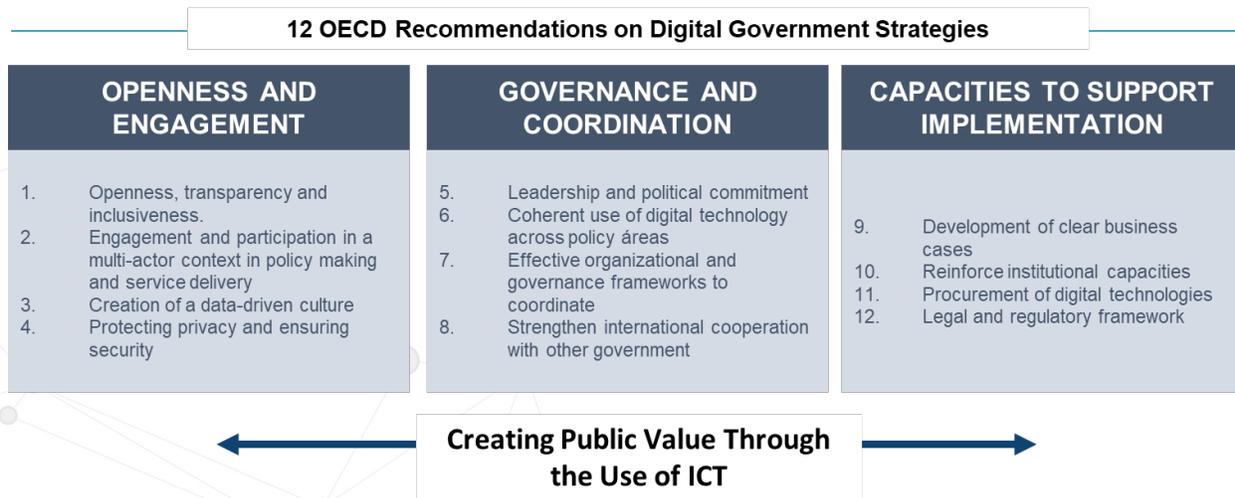
Figure 7. OCDE vision of digital Government



Source: Based on the OECD Recommendation of the Council on Digital Government

To step into digital government and digital transformation, it is first necessary to consolidate the efforts in e-Government. Therefore, governments must carry out self-assessments to identify their stage of maturity and progress towards achieving digital government. To support this transition, the OECD has developed several recommendations on how governments can create public value using ICT across institutions (2020). These recommendations must be used as a guideline when designing digital government strategies. It includes *openness and engagement, governance and coordination, and capacities to support implementation*.

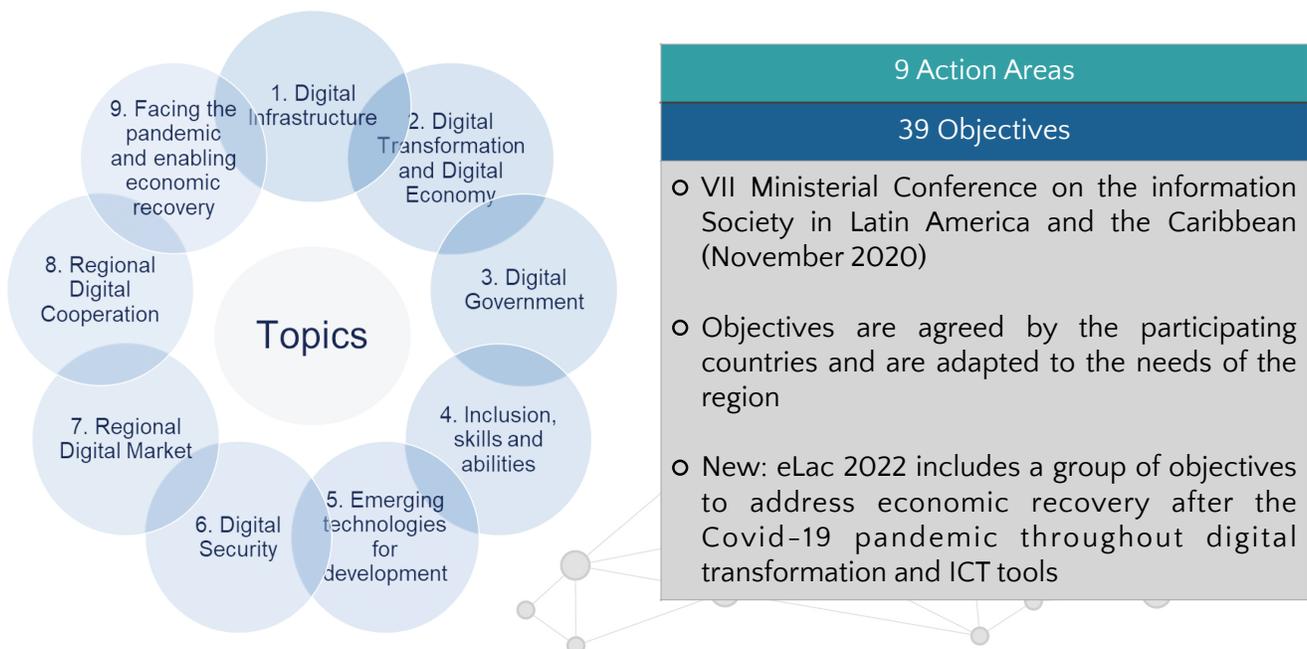
Figure 8. OECD recommendations on digital government strategies



6.4.3 CEPAL ELAC 2022

CEPAL launched *eLac2022* in November 2020 with the objective of supporting and guiding countries on how to use digital development to overcome the covid-19 crisis, to adapt digitalization trends, and meet the needs of the region. The priorities for digitalization, according to CEPAL, are *digital infrastructure, digital economy, digital government, inclusion, skills, emerging technologies, digital security, regional digital market access, regional cooperation, and facing the pandemic*.

Figure 9. eLac 2022 main objectives



⁹ More information on each 2022 is available at: <https://www.cepal.org/es/proyectos/elac2022#>

6.4.4 SICA

Currently being updated, SICA's Regional Digital Strategy (ERDI) is a framework of reference for the execution of regional actions and shared objectives that will facilitate progress in building digital economies in Central America.

Thus, the ERDI will become a key strategic instrument that establishes shared objectives and the execution of regional actions that will enhance the use of new technologies in a coordinated and harmonized manner (SICA, 2021). It includes seven high-level actions for digital transformation: *broadband access, e-government, environment, social security, product development and innovation, education, and interinstitutional cooperation.*

Figure 10. SICA's recommendation on digital strategies



6.4.5 OTHER REGIONAL ORGANIZATIONS' FRAMEWORKS

For the creation of Belize's Digital Agenda, additional regional frameworks were reviewed, such as the Caribbean Development Bank's *Roadmap for Digital Transformation* (2019) and CARICOM's *Short-term Digital Transformation Plan* (2021).

1. The *Roadmap for Digital Transformation* (2019) establishes a set of recommendations for digital transformation that includes:
 - Promote digital skills and literacy to ensure that citizens can participate in the digital economy
 - Enhance infrastructure development
 - Strengthen legislation, regulation, and data governance
 - Expedite digitalization of government services
2. The *Short-Term Digital Transformation Plan* (2021) establishes fast-track responses to the impact of the COVID-19 pandemic through ICT solutions and digitalization. The key area of the Plan involves growing government ecosystems, placing citizens/people at the center, public sector data, and embedding resilience.



7 VISION FOR THE AGENDA: TOWARDS A DIGITAL BELIZE

Belize's Digital Agenda provides a clear strategy and implementation roadmap to better position the Public Administration to deliver services that meet citizens, businesses, and public officers' expectations and demands. The Digital Agenda seeks to **create the enabling environment required for the state's integrated transformation and modernization, from infrastructure and connectivity programs to innovation and new technologies application programs.**

The transformation process will focus on extending the depth and breadth of digital technologies on processes, developing digital talent across society, and citizen service models across the entire public sector. Therefore, this new vision seeks to break the silos and create a collaborative culture where digitalization is the enabling path to better lives:

- *The Digital Agenda: Towards a Digital Belize's **vision** is to build trust in government services by providing reliable, inclusive, safe, and efficient digital solutions for citizens, businesses, and employees.*
- *The Digital Agenda: Towards a Digital Belize's **mission** is to create public value through simplifying procedures, improving service delivery, optimizing opportunities, and facilitating economic recovery through digitalization.*



“Building Trust in Government Services”



8 STRATEGIC GOALS

The *Digital Agenda* is built on three main pillars: **ICT and Technology Enablers**, **Digital Government**, and **Digitalization for Recovery**. These pillars have a set of programs for the next four years which will contribute to achieving three high-level strategic goals:



TRANSFORMING THE WAY GOVERNMENT OPERATES

The digitalization of services will result in reduced bureaucracy, increased efficiencies, and a new culture in public service. Simple, transparent, secure, and easy-to-access digital services will facilitate an interconnected, open, and inclusive government. By creating a more interconnected government, the silo culture will evolve into a more collaborative government that recognizes the value of data driven decision making. Government will rethink its processes to meet user needs and citizens expectations.

DEVELOPING A DIGITAL CULTURE AND SOCIETY

Government will build a supportive ecosystem in Belize to promote innovation, equip public servants and citizens with digital skills, and generate job opportunities for everyone. This ecosystem will enable collaboration and support the private sector's business transformation for economic recovery.

BUILDING THE FOUNDATION FOR FUTURE DIGITAL TRANSFORMATION

Improving digital infrastructure will facilitate access and connectivity for every Belizean while providing for the utilization of shared ICT platforms for delivery of services. It will support government's reliability, accessibility, and resiliency through a robust government ICT architecture. Government's technological capabilities will be widened to include cloud computing and big data concept.



9 TEN GUIDING PRINCIPLES

The following core principles underpin the implementation of the Digital Agenda for the development of a digital government while ensuring alignment across Government:

Establish processes and systems open by default unless there is a compelling reason for them not to be. This principle provides drivers to promote collaboration, innovation, transparency, and accountability through open data.

Develop a digital-oriented workplace culture by educating, empowering, and rewarding staff for using digital solutions and providing the training to make the most of digital solutions.

Strengthen value for money by reducing operating costs and increasing productivity.

Drive adoption of standards, consent models, and safe and reliable tools to mitigate emerging cyber threats affecting critical infrastructures.

Design strategies to close the digital divide at different levels to create a more equitable society and a more efficient government.



Develop services based on citizen and business needs and their own expectations regarding services' content and access.

Offer seamless and coordinated services across Government through common platforms and solutions

Continuous improvement of services that create new value for stakeholders.

Generate public value through the use of data in planning, implementing, evaluating, and monitoring public policies.

Strengthen capacities to support rapid response and recovery to shocks from unexpected events or crises in the digital world both at the institutional and private sector levels.

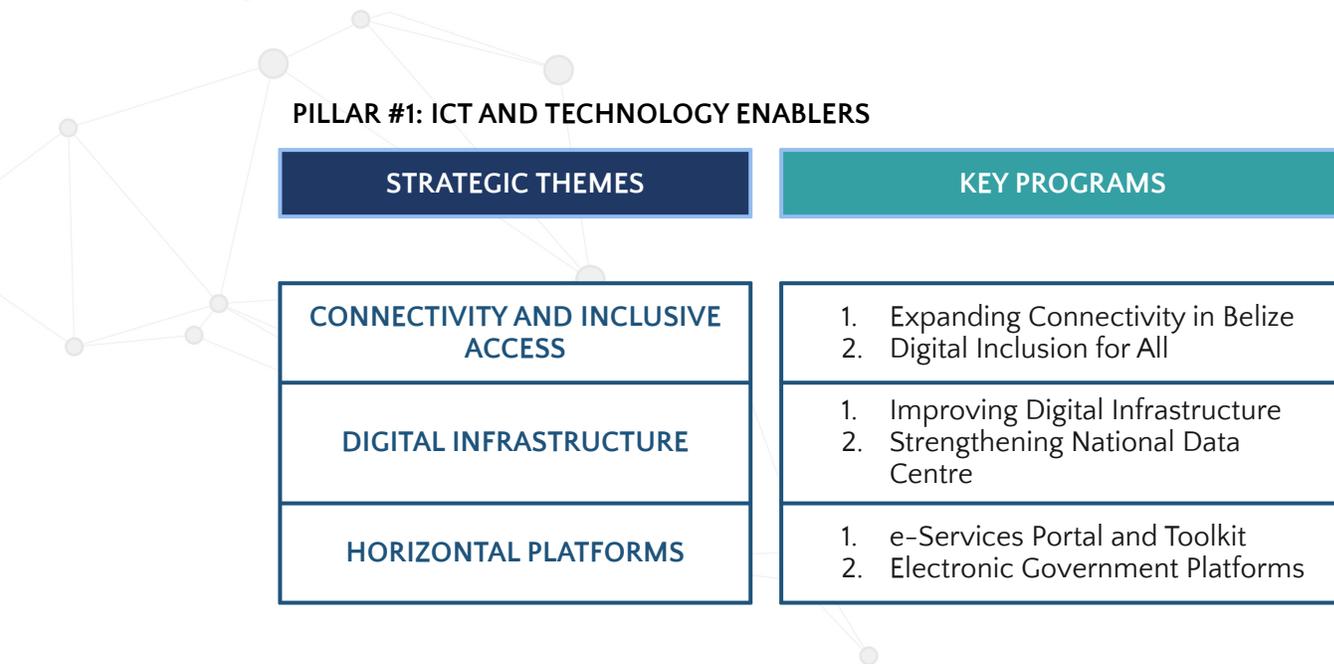


10

PILLARS, STRATEGIC THEMES AND PROGRAMS

PILLAR 1: ICT AND TECHNOLOGY ENABLERS

Pillar **ICT and technology enablers** is comprised of three strategic themes: **connectivity and inclusive access**, **digital infrastructure**, and **horizontal platforms**.



STRATEGIC THEME 1: CONNECTIVITY AND INCLUSIVE ACCESS

Strategic Theme Description: *Expansion of reliable internet connection and access points to remote and rural areas in Belize to support the use of digital services and mobile applications. It will facilitate access, adoption, and application of information and communication technologies by marginalized communities as a means for socio-economic prosperity.*

Program 1: Expanding connectivity in Belize.

Justification:

Currently, rural and remote communities face challenges to access affordable and high-speed internet which impedes their ability to utilize ICT for their economic growth. Based on the *Rural Significant Connectivity Index (ICS)* and *Significant Urban Connectivity (ICS)*, Belize belongs to the cluster with low significant connectivity, which means that there is a huge gap between urban connectivity and rural connectivity with populations which do not have access to connectivity services of sufficient quality (IDB, IICCA, 2020).

In 2018, the Government made efforts to increase connectivity throughout the country, an essential condition necessary for accessing public services and fostering the digital economy. Furthermore, in recent years, the country has made efforts to increase broadband coverage. Nevertheless, there is still much more to address since Covid-19 has exacerbated the need for expanding the levels of broadband connectivity countrywide, especially in rural areas.

Therefore, this project seeks to establish a national plan for Belize to deploy internet access allowing full coverage of internet services. This includes closing the connectivity gap between rural and urban areas.

Program objectives:

- (1) Universal internet access strategy: expand affordable internet connection across Belize partnering with private and public telecommunication providers.
- (2) Establish a fair and equal treatment policy regarding the price and quality of internet service for families living in rural areas, either at home or through wireless devices.

Components/ Projects:

1. Coverage of rural and remote areas
2. Internet Access in public spaces: Government Offices, Schools, Universities, and Hospitals
3. Info centers and free internet access points in every Municipality



Key actions:

- Develop infrastructure maps to identify if current failures are because of market problems due to lack of economic-financial profitability (which justifies a public intervention), or if the obstacles are competition, in which case it is necessary to address the regulatory competition.
- Create an action plan for expanding broadband across the territory.
- Establish public-private cooperation for the deployment of broadband countrywide.
- Reduce barriers to market access and promote network neutrality between market operators, specific technologies, or the provision of services to avoid distortion in market access strategies.
- Review the regulatory burden, emphasizing the need to minimize the connectivity gap to guarantee the provision of universal service/ access at the lowest possible cost: the creation of a Universal Access Act.
- Measure broadband usage and differentiation of connectivity between the urban and rural sectors and incorporate the statistics in the national statistical records surveys to keep track of improvements.
- Develop a *Universal Broadband Fund* to support and finance projects across the country.
- Identify and list all public hospitals and schools in Belize with no internet access and develop an action plan to implement high-speed internet access in public areas.
- Create collaborative co-working areas with free internet access in every Municipality (one per 5.000 inhabitants).
- Rehabilitation of public spaces as info centers/digital labs and establishing alliances with the local Government to maintain the areas.

Leading institution:

Ministry of Logistics, Energy & Public Utilities; Public Utilities Commission; Municipalities

Partnership:

Private Telecom Operators; Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit)



Program 2: Digital Inclusion

Justification:	<p>Citizens, especially children and the elderly population, do not benefit equally from the internet and digital technologies. In general, children who are vulnerable offline tend to be more vulnerable in online spaces as well. Significant gaps persist in Belize regarding digital inclusion for improving education and skills, which can affect both online and offline outcomes for children.</p> <p>Therefore, this program aims to minimize the access gap in Belize by providing digital devices (tablets), so older people can make the most of digital government and internet benefits, and children can have access to digital education in a more effective and safe way.</p>
Program objectives:	<p>(1) Ensure that all children in primary school, whoever they are, and wherever they come from, will be given a fair and equal opportunity to be closer to technology and digital educational tools. This means providing universal access to digital devices for the next generations creating a sustainable and robust framework for digital teaching and learning.</p> <p>(2) Ensure that older people will not be excluded from the digital era by providing basic skills and internet devices adapted to old generations and their needs.</p>
Components/ Projects:	<ol style="list-style-type: none"> 1. One Tablet Per Child' (OTPC) scheme 2. Devices for the elderly population
Key actions:	<ul style="list-style-type: none"> • Estimate the digital access gap (as the number of users without digital access devices): <ul style="list-style-type: none"> • % of children at risk of digital exclusion • % of elderly people in Belize at risk of digital exclusion • Conduct a phase I project to target the most vulnerable zones to deliver a 'one tablet per child' strategy focused on children in schooling years (10 and 6 years old, for example). • Create a specific program targeting older people to include them in the digital wave. • Create a program for training activities in rural and vulnerable urban areas to enhance the use of the devices. It should also include education about practices and tools that can help protect them in the digital realm, such as parental control activities, safety navigation, and national awareness campaign about cyberbullying. • Create a training program for older people to teach them how to use the devices for different purposes, such as using digital services (apply for benefits), searching for content online, booking vacations. • Conduct a phase II project to expand benefits to other age range, mainly targeting more children in secondary school
Leading institution:	<p>Ministry of Education, Culture, Science & Technology; Ministry of Human Development, Families & Indigenous Peoples' Affairs</p>
Partnership:	<p>Ministry of Youth, Sports & E-Governance (DYS, E-Governance & Digitalization Unit); Educational Institutions; Municipalities; Telecommunication Providers</p>

STRATEGIC THEME 2: DIGITAL INFRASTRUCTURE

Strategic Theme Description: *Efficient and resilient digital infrastructure through next-generation technologies and new appliances by providing an enabling framework that impacts and improves citizens' lives, businesses productivity, and institutions modernization.*

Program 1: Improving Digital Infrastructure

Justification:	<p>This program is based on the need for modernization of digital infrastructure in Belize to meet demands from the <i>expanding connectivity program</i>. Thus, it is necessary to establish a <i>Strategic Plan</i> and roadmap to develop a strong, resilient infrastructure countrywide to support productivity, sustainability, connectivity, and adoption of new technologies.</p>
Program objectives:	<p>This program targets three main infrastructure upgrades for Belize: improvement of regional connectivity (through choosing one of the major infrastructure options, i.e., submarine cable connection, IXP or Satellite connection), migration to next-generation networks (including the study of the deployment of 5G), and full deployment of government WAN (to manage the complex and diverse network infrastructure at a low cost.).</p> <p>(1) Enhance connectivity and play an influential role in shaping regional integration by providing cost-effective access countrywide through a resilient and robust infrastructure.</p> <p>(2) Create the foundation for the migration to next-generation mobile networks, including 5G.</p> <p>(3) Procure secure IT systems by adopting WAN solutions that will allow addressing potential vulnerabilities in businesses processes to ensure the highest level of data protection and security. Additionally, migrating onto this common network infrastructure for MDAs will realize savings.</p>
Components/ Projects:	<ol style="list-style-type: none"> 1. Improve Regional Connectivity (Submarine Cables/ IXP/ Satellite) 2. Evaluate migration to next-generation networks (5G) 3. Full coverage of Government WAN

Key actions:

- Improve *Regional Connectivity* by defining which option is the most suitable to meet Belize's needs.
- Provide expert support to present processes of infrastructure development
- Establish rules and regulations for reliable and affordable, high-quality digital infrastructure services in both urban and rural areas in all regions.
- Promote public and private sector partnership in the development of IXP policies or the migration to next-generation networks.
- Study migration to next-generation networks, including allocation of radio spectrum management and assigning radio frequencies to different telecom companies according to citizens and national company's needs.
- Expand high-speed wide area network (WAN) linking all government offices through a single internet provider that would deploy PABXs using internet-based technology (VOIP) to completely satisfy the voice requirements of the Government and provide for a government-wide email system.
- Design and adapt strategies to encourage public sector entities to join the Government WAN.

Leading institution:

Ministry of Logistics, Energy & Public Utilities; CITO, Public Utilities Commission

Partnership:

Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit); Telecom Operators



Program 2: Strengthening National Data Centre

Justification:	One of the most important infrastructure updates is the centralization and consolidation of data storage to take advantage of the benefits that data can bring to the Government and its citizens. Thus, the program emphasizes leveraging the large amount of government data that sits in department to facilitate insightful decision making, spur innovation, and assist with economic growth.
Program objectives:	<ol style="list-style-type: none"> (1) Save and optimize costs on data storage by creating a clear roadmap and guidelines for the rest of the entities on how data should be stored. (2) Evaluate new storage options for Belize: Government cloud (G-Cloud) to provide a resilient and secure common platform, which will allow ministries and departments to leverage access computing resources and software services on-demand. (3) Establish a protocol for disaster recovery (DRP) and a Business Continuity Plan (BCP) to avoid disruptions to operations in case of a national emergency. (4) Consider a data embassy strategy based on cases studies of countries with similar characteristics as Belize.
Components/ Projects:	<ol style="list-style-type: none"> 1. Data Storage Strategy including Cloud Service Strategy 2. Consolidation of Data Centers 3. DRP / BCP in place 4. Data Embassy (servers outside the country that are legally under Belize jurisdiction)
Key actions:	<ul style="list-style-type: none"> • Develop a data strategy to improve the use and efficiency of Belize’s Centralised Data Centres to consolidate the current data centers. • Putting a Cloud Strategy in place to transition web-enabled public services to cloud computing platforms and consider hybrid approaches for sensitive information. This “Cloud First” strategy will promote MDAs leveraging the G-Cloud instead of looking to spend on their own ICT. • Deliver legislation that supports the privacy and security of citizens and businesses to implement cloud services and data embassies • Establish a new workforce model to support cloud-based services • Consider/select options for public, private, and hybrid cloud solutions • Engage and promote Cloud First program to other ministries, departments, and agencies • Execute Cloud Migration Strategy or Select/Identify which IT services to move and when to (Move to cloud to Manage - Actively monitor through SLAs) • Create protocols for recovery in case of disaster, including a checklist that includes supplies and equipment, data backups and backup site locations, contact information for emergency responders, key personnel, and backup site providers. The plans may provide detailed strategies on how operations can be maintained for both short-term and long-term outages. • Study Estonia case and data embassies options which could be an easy and efficient way to protect critical infrastructures from cyberattacks or in crisis situations with KSI blockchain technology which are capable not only to provide data backups but also operate the most critical services.
Leading institution:	Ministry of Finance (CITO); Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit)
Partnership:	International Organizations (IDB)

STRATEGIC THEME 3: HORIZONTAL PLATFORMS

Strategic Theme Description: Cross-sectorial solutions are used extensively by the whole public administration to optimize efforts and reduce duplicated ICT costs.

Program 1: e-Services Portal and Toolkit

Justification:	There is a need within Belize's public administration for cross-sectorial platforms to be used by the whole administration to mitigate the traditional silo culture and duplication of efforts in the delivery of common products. In addition, having centralized cross-sectorial platforms will yield cost savings due to a reduction of initial capital investments and duplication of efforts. Therefore, it is necessary for ministries to operate in a collaborative and cohesive manner in delivering common platforms that meet citizens' needs & expectations.
Program objectives:	<ol style="list-style-type: none">(1) Create common and extensive solutions for the whole administration to improve digital government solutions and gain positions in international rankings by creating a collaborative and digital culture that uses the same systems and platforms.(2) Create the enabling tools for the development and functioning of digital services, especially focusing on four main areas: e-service portal, interoperability and sharing data standards, payment solutions and digital identity solutions(3) Develop a content management system to improve the quality of information shared, customer experience, branding, and support easy and trouble-free restructures and interface redesigns.(4) Deploy a record management system for controlling the quantity and quality of records, simplify the activities, systems, and processes of records maintenance and use, identify what records exist by records inventory, and preserve records throughout their life cycle.
Components/ Projects:	<ol style="list-style-type: none">1. e-Service Toolkit<ul style="list-style-type: none">○ Interoperability○ Electronic Payment Solutions (eWallet, Online Payment Gateway, Digital Transactions)○ Single Sign-On / Digital Authentication○ eService Portal2. Content Management System<ul style="list-style-type: none">○ eService Portal/ Government Websites3. Electronic Record Management System<ul style="list-style-type: none">○ Unified platform for document management

Key actions:

- Defining ICT Architecture for the Government of Belize and creating ICT Handbooks on the use of the different solutions (e-service portal, ERMS, etc.)
- Develop a single point of access for e-services in Belize, including a toolkit with different applications and different functionalities.
- Creating standards for interoperability (phase 1), interoperability model (phase 2), implementing interoperability bus (phase 3)
- Improve legislation for interoperability purposes, including the 'only-once' principle for the administration and other key criteria for interoperability.
- Establish self-management and data conservation measures according to each institution's needs.
- Decide which technology will be the most suitable for Belize's interoperability bus (red hat, Xroad) and train the E-Governance & Digitalization Unit's team to implement and use this technology.
- Selection of an appropriate solution for e-payments by studying what currently exists in the market, what would be acceptable (user acceptance and take-up) as a payment process facility, and the ease of use of the solution under consideration.
- Implement an e-payment platform (payment gateway) that allows Belizeans to pay for government services online, including license fees, taxes, or fines. Processing these payments online will allow the Government to benefit through lower transaction costs, more timely payments, and higher levels of revenue collection.
- Create an identification mechanism for a citizen to register in the online e-service portal and to unify registration in the government portals.
- Update all government pages to reflect a new corporate brand or image through CMS implementation.
- Optimize content and customer experience on the government websites through the new CMS platform unifying criteria for communication platforms.
- Establish a web-based Electronic Records Management (ERM) system which provides for file and document cataloging, correspondence action, and status tracking as other metadata components along with proper workflows which can be used to channel such submissions to relevant action officers.
- Use the ERM system for classifying, storing, securing, and destruction or archival preservation, and protects fragile historical archives, and assures permanent records are accessible and readable for years into the future.

Leading institution:

Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit)

Partnership:

IDB, Other international organizations; Belize Archives; Ministry of Finance; Ministry of Public Service, Constitutional & Political Reform; GoB Press Office

Program 2: *Electronic Government Platforms*

Justification:	There are several demands within the public administration for the development of several cross-functional platforms. Considering the high demand and impact to facilitating digital government and centralized working processes, the following two systems have been prioritized: the HR Management System for the whole administration and the e-Procurement System to manage and connect with 3rd party suppliers of goods, works, consultancies, and/or services.
Program objectives:	<ol style="list-style-type: none">(1) Meet the demands from government agencies to improve HR & Administrative processes and optimize their ICT platforms through centralized systems.(2) Optimize the way in which the Government contracts suppliers by creating a centralized system where all entities can upload their offers and bids online.(3) Optimize the way in which the Government manages HR for more efficient use of resources, both human and financial(4) Ensure compliance with procurement policies and contribute to reducing the opportunities of corruptive and fraudulent practices and purchases.(5) Support the optimization of capital investments and reduction in the duplication of efforts/investments(6) Support the effective allocation of resources
Components/ Projects:	<ol style="list-style-type: none">1. Online Procurement System (delivered by Ministry of Finance)2. Human Resources Management System (delivered by Ministry of Public Service)

Key actions:

- Establish a cross-sectorial platform for the whole administration to manage Human Talent and Talent Acquisition in a centralized and more efficient manner:
 - Identifying the entities needs in terms of HR management
 - Design the project by phases according to the modules needed
 - Establish key modules for the following purposes: candidate management, employee engagement, employee management (salary, vacancies, unpaid leaves, others), online payroll, management of benefits and rewards, contingent workforce management (freelances, contractors, consultants, interns, or temporary employees)
 - Provide a single repository where all employee records are stored, updated, and maintained.
 - Management of talent acquisition to build public careers: create job profiles and descriptions, manage positions, integrate open positions with job boards, manage resumes, etc.
 - Workforce planning and budget allocation for HR.
- Implement a centralized procurement portal for the optimization of the procurement process, with a special focus on ICT acquisition.
 - Establish an institutional framework for the project, create a general assessment and strategic plan for the deployment of the platform.
 - Carry out e-tendering (tending documents. and awarded contracts on the internet, customize search facility, bidding documents on the internet).
 - Establish e-contract management (contract capacity consolidation and contract execution management).
 - Establish e-purchasing (procurement policies, supplier enablement, structure of supply on the internet, structure of demand on the internet, online purchasing and e-transaction, customized services, and supply incentives).

PILAR 2: DIGITAL GOVERNMENT

Pillar **Digital Government** is comprised of three strategic themes: **e-Services and Digital Identity, Good Governance, and Cybersecurity.**

PILLAR #2: DIGITAL GOVERNMENT

STRATEGIC THEMES	KEY PROGRAMS
e-SERVICES AND DIGITAL IDENTITY	<ol style="list-style-type: none">1. Regulatory Improvement for Digital Government Sustainability2. Catalogue & Simplification of e-Services3. National Identity Solution4. Digitalization of Civil Registry
GOOD GOVERNANCE (Open Government)	<ol style="list-style-type: none">1. e-Participation and Citizen Dialogue Platforms2. Open Data Initiatives3. Improving Data Governance4. Open Governance Platforms
CYBERSECURITY	<ol style="list-style-type: none">1. National Cybersecurity Strategy Implementation2. Cybersecurity Labs

STRATEGIC THEME: e-SERVICES & DIGITAL IDENTITY

Strategic Theme Description: Agile, intuitive, simple, and efficient digital services for all citizens and improve digital identification making it easy to access all government procedures and government transactions.

Program 1: Regulatory Improvement for Digital Government Sustainability

Justification:

There are important gaps and outdated regulations that need to be improved to create the enabling framework for the development of e-government and e-services. Archaic legislation is a high barrier to achieving digital government because it reinforces a 'paper' culture within the entities which impede optimization of procedures through ICT tools.

For instance, the update of the Electronic Transaction Act, which was passed in the House of Representatives and Senate, represents a big step forward for Belize in terms of setting standards for the legal recognition of digital signatures. However, there is little or no interconnectivity or data-sharing among government agencies, and there is no unique citizen identifier common to all government Management Information Systems.

Regarding interoperability, a study by the IDB found that no Caribbean country currently has an interoperability platform, and only some of them have a once-only initiative, and interoperability plans for developing a platform including interoperability schemes, standards, or regulation (*Wait No More: Citizens, Red Tape, and Digital Government Caribbean Edition*, 2019).

On the other hand, Belize has a Data Protection Bill but still needs to be approved in the House of Representatives which will support data sharing and regulate data processing by public and private sector. The approval of this Bill is vital to protect personal data, set limitations to data collection, and specify cybersecurity requirements.

Therefore, updating legislation to support digital government is the number one priority in Belize to establish obligations for offering digital services, simplifying procedures and unnecessary paperwork, and interoperating and data sharing standards between institutions.

Program objectives:

- (1) Create an enabling legal atmosphere for the development of digital services and the simplification of procedures to make government service more cost-effective and transparent.
- (2) Establish obligations for government entities to interoperate between them and avoid duplication of requirements for citizens and businesses.
- (3) Design standards and regulations to implement the Data Protection Bill

Components/ Projects:

1. **Legal and Regulatory Tools for the Simplification and Optimization of Public Services**
2. **Legal and institutional assessment for implementing digital signature (IDB cooperation)**
3. **Establish the legal framework/regulation to Implement the Data Privacy Act (IDB cooperation)**

Key actions:

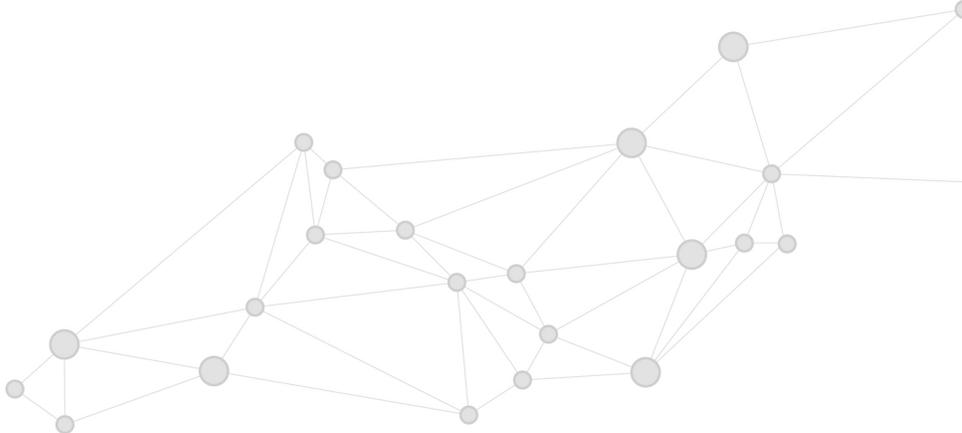
- Create a Digital Government Legislation Team to coordinate and oversee digital legislative reform
- Review existing legislative and regulatory framework to identify gaps and legislative barriers
- Review legal and regulatory systems in other jurisdictions (e.g., Estonia) to identify areas of best practice
- Consider imposing penalties on ministries for not applying digital government legislation and not adhering to the 'once only' principle in requesting information from citizens
- Establish obligation for the public administration to offer face-to-face and digital services
- Establish common fee structures for electronic and physical transactions for citizens and businesses.
- Enacting public sector data sharing bill (e.g., Databases Act, Public Information Act, Digital Signatures Act, Act on Intellectual Property, Information Policy, etc.)
- Establish regulations, institutional frameworks, and tools to enforce the Data Protection Act.

Leading institution:

Ministry of Youth, Sports & E-Governance (E-Governance and Digitalization Unit)

Partnership:

Attorney General's Ministry



Program 2: Catalogue & Simplification of e-Services

Justification:	<p>Currently, the public sector has no inventory on how many procedures and transactions are in place. There is no inventory or catalogue that establishes how many procedures and documents are required per service. To simplify and re-engineer the process, it is necessary to create an inventory to establish priorities in digitalization and identify areas of inefficiencies for re-engineering.</p> <p>This activity also involves putting in place an online e-Service portal that will serve as the primary channel through which Government digital services can be accessed online, and citizens can communicate with the Government.</p>
Program objectives:	<ol style="list-style-type: none"> (1) Establish an inventory of all government services, including those at the local or municipal level (2) Establish a procedure for selecting the digital services that will go online in the short, medium, and long term. (3) Supporting the simplification and re-engineering of services
Components/ Projects:	<ol style="list-style-type: none"> 1. Mapping and simplification of public services 2. Implementation of the National e-Service Portal 3. On-board between 50-75 e-Services Online
Key actions:	<ul style="list-style-type: none"> • Listing government services and study priorities for digitalization in the short, medium, and long term for simplification purposes. • Choose criteria for the definition of priorities in digitalization and analyzing demands (pools, surveys, investigations, technical cooperation for defining priorities) and select a list of e-services to digitalize in the first four years. • Establish e-service standards and guidelines for businesses and citizens • Portal establishment and build-out of standard operating procedures, content management processes, testing, and review of content. • Design a customer "journey mapping" to show how customers engage ("customer journey") with a particular government service. This process can then be designed to be more efficiently delivered and re-engineered for on-board to the Portal. • Launch of a National e-Service Portal and promotion campaign for citizens to understand the features of the e-services portal • Integrate the resources of multiple service delivery partners to provide better customer solutions and a more seamless overall experience for citizens when accessing public services: <ul style="list-style-type: none"> ○ Personalize the approach to service delivery by offering customers multiple channels (e.g., mobile, web, face-to-face, etc.) ○ Ensuring all service delivery channels are integrated, and customers can seamlessly transition between them at any point in their customer journey
Leading institution:	Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit)
Partnership:	All Ministries, Departments, Agencies

Program 3: National Identity Solution

Justification:	<p>Belize's current identity system may cause issues when attempting to develop a digital identity. Belize does not issue a unique identity document; the most used and accepted documents to verify a person's identity are passports, residence cards, national cards, or social security cards. In addition, birth certificates also do not have a unique number that can identify a person, which is a prerequisite to build an identification system. Not having a unique identification number represents a major challenge regarding identity since a unique number that can identify a person is necessary to make their information interoperable among different government entities and services.</p> <p>There is a high demand for the implementation of digital identification so citizens and businesses can save money and time doing procedures that require identity verification for different purposes, i.e., cards to vote, pay taxes online, access digital services, etc. Therefore, digital identification has become the Government's number one priority due to the need for stronger means of online authentication. Such identification becomes a de facto requirement for all online services from the Government and even other stakeholders such as healthcare providers or multinational companies.</p>
Program objectives:	<ol style="list-style-type: none"> (1) Create an identification framework that will help Government improve the quality of customer identity data, improve assurances around identity claims, and facilitate the provision of online identity services. (2) Study different solutions for digital identification and implement the most suitable for Belizeans to access the e-service platform. (3) Implement a secure and efficient solution for all citizens.
Components/ Projects:	<ol style="list-style-type: none"> 1. Implementation plan and pilot to improve identification system (IDB technical cooperation)
Key actions:	<ul style="list-style-type: none"> • Define and implement an Identity Management Framework (including e-Authentication) • Enact legislation mandating the support of digital identification by all government ministries and departments • Study different identity solutions (single sign-on, digital signature, electronic certificate, password access) for the e-service portal • Plan, test, and roll out the solution which provides capacity for each citizen to securely access all digital government services. • Study the need for a new Citizen ID and/or Public Services Smartcard • Study new technologies and new authentication methods, including intelligent citizen ID cards, electronic signatures, web ID, and fingerprint ID, to name a few. • Identify security risks and data privacy risks since it is essential to have a secure National Authentication Framework to mitigate risks. • Fully integrate the National ID system and the CRVS systems to consolidate an updated real-time registry including information of vital statistics and immigration services.
Leading institution:	Ministry of Youth, Sports & E-Governance (E-Governance and Digitalization Unit)
Partnership:	Attorney General's Ministry, Social Security Board, Ministry of Foreign Affairs, Foreign Trade & Immigration

Program 4: Digitalization of Civil Registry

Justification:	<p>Any trip for Belizeans to the registry office will clearly demonstrate the importance of this department for citizens, as they attempt to obtain certification of major life events for different purposes: insurance, access to finance, obtaining a passport, or even getting married.</p> <p>Moreover, the digitalization of the civil registry is a foundational pillar for the national e- ID scheme and inclusive e-Government services. Thus, the digitalization of the Civil Registry is an enabling program for the development of digital identity solutions, interoperability, and the development of other projects. In addition, it is a crucial tool to fight poverty, corruption, and inequality and a key element of sustainable development for Belize and its citizens.</p>
Program objectives:	<ol style="list-style-type: none"> (1) Ensure that the Belize CRVS system is universal, accurate, and reliable by improving the quality of data and the management of vital statistics information, and reducing the total cost to the Government of collecting information regarding this field. (2) Improve CRVS systems to support the census and household surveys in determining population size and status. (3) Optimize inefficient ID systems that are often paper-based or decentralized, which leads to issues such as data duplication, delayed updates, and identity theft and fraud, by putting the necessary resources, technologies, and legal frameworks in place to support the process of linking its ID register and CRVS system. (4) Incorporate inputs arising from the digitalization of the CRVS systems into their decision-making processes to control corruption, promote equality, coordinate policy, and inform decision-making processes in Belize.
Components/ Projects:	<ol style="list-style-type: none"> 1. Digitalization of vital events services: births, marriages, deaths, divorces, and others civil status. 2. Improve access to services for Belizeans residing abroad, naturalized, and marriages of foreigners that occurred abroad, and other vital statistics. 3. Digitization of records 4. Support Institutional Strengthening & External Relations
Key actions:	<ul style="list-style-type: none"> • Improvement of the legal and institutional arrangement for the digitalization of the civil registry by identifying legislative gaps and human resource needs • Establish data quality standards and maintenance guidelines • Assure the quality of the data that will be digitalized according to international standards for future interoperability with other entities. • Public awareness of the benefits from a robust integrated e-civil registry, especially when it comes to service delivery. • Build human resource capacities and consider organizational restructuring • Conduct a digitization exercise including data cleansing for all existing records and files
Leading institution:	Attorney General's Ministry
Partnership:	Statistical Institute of Belize, Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit)

STRATEGIC THEME: GOOD GOVERNANCE

Strategic Theme Description: *Fostering open, inclusive, and transparent institutions to build trust in government structures and digital solutions by promoting e-participation, strengthening e-governance, and releasing public data sets for multiple purposes (new business initiatives, open Government, etc.).*

Program 1: e-Participation and Citizen Dialogue Platforms

<p>Justification:</p>	<p>e-Participation and e-Democracy platforms are highly demanded by citizens and by international stakeholders, since it provides for engaging citizens by using digital technologies in policy and decision-making to make public administration participatory, inclusive, and collaborative.</p> <p>While e-participation is still an evolving concept, there is vast evidence that e-participation technologies expand opportunities for civic engagement, including increased possibilities for people to participate in decision-making processes and service delivery to make societies more inclusive. It helps connect "citizens with one another and with their elected representatives."</p> <p>In this regard, Belize still needs to improve its current position of 163 out of 191 countries in the UN e-Participation Index, considering that it is essential to embrace e-participation tools for connecting citizens with the Government and restoring trust in public institutions.</p>
<p>Program objectives:</p>	<p>(1) Establish an e-participation platform where citizens can participate in many ways by:</p> <ul style="list-style-type: none"> (i) commenting on digital government plans and roadmaps themselves (ii) Retrieving or offering information. (iii) Participating in dialogues, both public dialogues with the Government and citizen-to-citizen dialogues hosted by the Government.
<p>Components/ Projects:</p>	<p>1. Citizen Dialogue Portal</p>
<p>Key actions:</p>	<ul style="list-style-type: none"> • Create a government’s toolbox and citizen dialogue platform for reaching out to and engaging with people so they can submit complaints, suggestions, and questions through a single-window access • Use of new technology and new platforms such as crowdsourcing to allow for inviting ideas and initiatives for the Government to deploy in the next years. • Provide a transparent channel for citizens to connect online with Government as well as engage in policy and decision-making to make public administration participatory, inclusive, collaborative, and deliberate.
<p>Leading institution:</p>	<p>Ministry of Public Service, Constitutional & Political Reform</p>
<p>Partnership:</p>	<p>Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit)</p>

Program 2: Open Data Initiatives

Justification:	<p>Over the last years, Belize hosted a series of co-creation events on open government and open data to promote collaboration with civil society and innovation in service delivery. However, the country faces many challenges to build a data ecosystem and harness the value of data.</p> <p>Making data widely available is a number one demand for enhancing e-government and transparency. This also allows small businesses and citizens to take advantage of the government data to search for new products or entrepreneurship initiatives.</p> <p>Therefore, data should be open by default, i.e., automatically available, with access only limited in cases where privacy, security, or confidentiality must be protected.</p>
Program objectives:	<ol style="list-style-type: none"> (1) Release data sets the Government collects to the public in a free, easy-to-search, and accessible way. (2) Benchmarking across government services
Components/ Projects:	<ol style="list-style-type: none"> 1. Transparency Portal 2. Open Data Initiative for re-engineering and new business utilization
Key actions:	<ul style="list-style-type: none"> • Identify and issue government-wide open data policies, standards, and best practices for improved data set release. • Publish appropriate data in machine-readable formats by all public bodies by default subject to legal or other restrictions • Develop a code of practice and standards for the gathering and use of data • Develop an integrated approach to the collection of administrative data across Government • Release of open data and free access through a national portal so every citizen or company can consult the data available
Leading institution:	Ministry of Public Service, Constitutional & Political Reform
Partnership:	Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit)



Program 3: Improving Data Governance

Justification:

Countries such as Belize need to reinforce their data strategy at early stages since it yields benefits and savings. For instance, a data strategy helps to prevent data errors and the misuse of personal or sensitive data, improves data storage and its security, and allows interoperability within different institutions. It also helps to prioritize financial benefits as well as improves quality and avoids poor data practices by setting specific policies and standards that describe what is governed, why, and the methods used, as well as who is governed and by whom.

A Data Strategy will be the first step to allow the Government to manage its data not as a by-product of operations and transactions but as a valuable asset, overseeing and monitoring data integrity, compliance, and security.

Program objectives:

- (1) Articulate a holistic approach to data governance and management for the Government, establishing standards, processes, and documentation for collecting and managing data to ensure integrity (i.e., data is accurate and usable)
- (2) Make consistent, confident public decisions based on trustworthy data aligned with all the various purposes for the use of the data assets within the Government.
- (3) Use data to increase efficiency and cost-saving
- (4) Assign data quality responsibilities in order to measure and follow up on data quality KPIs related to the general performance KPIs within the Government
- (5) Plan better by not having to cleanse and structure data for each planning purpose
- (6) Eliminate re-work by having data assets that are trusted, standardized, and capable of serving multiple purposes
- (7) Optimize staff effectiveness by providing data assets that meet the desired data quality thresholds
- (8) Evaluate and improve the data governance maturity level phase by phase
- (9) Acknowledge gains and build on forward momentum in order to secure stakeholder continuous commitment and a broad organizational support

Components/ Projects:

1. **Drafting a National Data Strategy (IDB cooperation)**
2. **Drafting a Data Governance Framework**

Key actions:	<ul style="list-style-type: none"> • Establish a core purpose and long-term vision for the strategy: identify the government drivers, vision, and principles for the DGS • Establish the scope of the strategy and define current goals for data governance • Define data architecture • Study institutional key capabilities to implement the strategy and study data management concerns • Create policies and good practices for data sharing and data releasing • Improve data security by establishing data ownership and related responsibilities • Establish an implementation roadmap: architecture, asset valuation, standards, and procedures, expected changes to business and technology processes, and deliverables to support auditing activities and regulatory compliance • Defining, sharing, implementing, and following collaborative policies and protocols in data management along with other institutions and the private sector.
Leading institution:	Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit)
Partnership:	IDB, Statistical Institute of Belize

Program 4: Open Governance Platforms	
Justification:	In the past, corruption regarding public processes and projects have led to poor governance and a lack of trust in public investments. Therefore, this program provides a new tool for transparency, including open access to the government information on projects, including those that have been proposed in the present Digital Agenda, as a step one for increasing transparency.
Program objectives:	<ol style="list-style-type: none"> (1) Increase transparency on investments by tracking the progress of public projects (2) Identify priority areas or sectors for public investments (i.e., there are no projects located in this area, or past projects did not have the impact required) (3) Measure the global performance of the organization regarding the projects on the Digital Agenda (4) Release public information regarding public projects (5) Organize and release legal information for all readers
Components/ Projects:	<ol style="list-style-type: none"> 1. Information Platform for the follow up of National Plans, Projects, and Digital Agenda 2. Investment Map Platform 3. GOB Online Library

Key actions:

- Create a website platform or online tracking tool for the pillars, programs, and projects of the Digital Agenda, so citizens can interact with the document itself.
- Create a platform to release data on public investments.
- Update, promote, and increase the visibility of all Government of Belize public information, including laws, strategies, etc., by utilizing and populating the GOB Online Library

Leading institution:

Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit)

Partnership:

Ministry of Economic Development and Investment; Attorney General's Ministry, Office of the Prime Minister (Economic Development Council)

STRATEGIC THEME: CYBERSECURITY

Strategic Theme Description: *Reliable, safe, and secure digital environment to support the delivery and use of digital services while ensuring privacy and confidentiality.*

Program 1: National Cybersecurity Strategy Implementation

Justification:

Despite the development and deployment of sophisticated cyber security solutions, patches, and updates, there has been a continuous increase in the number of cyber-attacks nationally and globally, which impacts both citizen and government structures. The more connected people become, the more exposed they are to cyberattacks. According to the Cybersecurity Strategy, the internet penetration rate of Belize was recorded as being over 50% of the population in 2018, an increase of over 40% since 2000.

Therefore, cybersecurity has now become an increasing part of the national dialogue in Belize, with discussions to address this issue being staged among different sectors of the country. Over the past few years, several government agencies have also been working to address cybersecurity. For instance, an inter-institutional cybersecurity task force was established comprising of various entities such as the PUC, NSCS, CITO, and a cross-section of national stakeholders (both public and private sector, academia, and civil society groups). As a result, in late 2020, a National Cybersecurity Strategy was approved for Belize. However, a critical element of the execution of the strategy is its action plan and governance structure which is currently undefined. Therefore, the starting point for the implementation of the strategy is to define the governance structure (institutional structures and frameworks) and prioritize critical projects and actions to develop a secure and enabling environment countrywide.

Program objectives:

- (1) Define and establish a strong governance structure
- (2) Design critical information infrastructure protection and minimum-security standards to ensure effective prevention and to achieve a common understanding of the current requirement.
- (3) Develop national capacity to monitor the incidence of cyber-attacks and develop appropriate responses through a CSIRT (Establishment of National Incident Response capabilities and sectoral CIRTs)
- (4) Develop measures to protect services defined as critical that are essential for the functioning of the economy established

Components/ Projects:

1. **Inventory of Critical Infrastructures**
2. **Creation of Computer Security Incident Response Team (CSIRT)**

Key actions:	<ul style="list-style-type: none"> - Conduct a Governance Assessment to establish the enabling institutional structures - Define and implement Belize’s cybersecurity framework - Identify what are the priorities in the National Cybersecurity Strategy and establish a roadmap for those activities selected. - Re-enforce legislative and regulatory framework regarding cybersecurity for the secure sharing of information and data protection (Cybercrime Act and Data Protection Bill). - Develop a roadmap for the establishment and implementation of a national CSIRT. - Train incident response personnel and develop strategic capacity. - Conduct Risk/Threat Assessment and identify all technology assets which support critical information systems - Develop incident response and recovery plans that facilitate the measurement, detection, mitigation, and monitoring of cyber incidents for critical assets.
Leading institution:	Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit); Ministry of Home Affairs & New Growth Industries
Partnership:	CITO, Public Utilities Commission, Ministry of National Security



Program 2: Cybersecurity Labs

Justification:

There have been attempts to increase awareness of cybersecurity risks throughout different sectors of society in Belize: the recent Cyber Security Symposium had participants from the private sector, Government, law enforcement, the judiciary, and the legal community. Nevertheless, the reality is that there is simply not enough awareness activities on cybersecurity tips and best practices.

The importance of security awareness training in Government cannot be overemphasized. Just as awareness training in the health sector can help improve the standard of living and avoid certain diseases, so security awareness mitigates the consequences of cyber incidents. By promoting an awareness of digital rights and recognizing risks, efforts need to be made to build campaigns to help the public understand that cybersecurity is a shared responsibility.

On the other hand, finding skilled personnel in cybersecurity in Belize is a great challenge. A cybersecurity workforce is a diverse group of practitioners who govern, design, defend, analyze, administer, operate, and maintain the data, systems, and networks. Hence, building a pool of talent in Belize will benefit the country as technology advances.

Therefore, this component seeks to raise national awareness on key cybersecurity issues, focus on specific messaging for targeted groups, and build the necessary human capacities to support cybersecurity. It includes executing specific programs regarding cybersecurity within the public sector and targeting other audiences.

Program objectives:

- (1) Design initiatives and capacities that support developing a national cybersecurity workforce to defend, analyze, administer, and maintain the data, systems, and networks developed across the Government.
- (2) Design tools to achieve awareness in cybersecurity (development of courses relevant to the digital economy and society's awareness of threats)

Components/ Projects:

- 1. Development of cybersecurity capacities across the public sector**
- 2. Development of cybersecurity workforce**

Key actions:

- Undertake a cybersecurity workforce study using the survey to determine the skills gap at the national level
- Develop a national training/workforce development plan that leverages existing educational offerings (certificates, degrees, etc.) to address gaps identified in the cybersecurity workforce study
- Create Cybersecurity Labs for public servants where participants can safely engage in cyber-related activities, including malware detection and deactivation, and penetration testing, in a contained and controlled environment without possible impact to other campus networks.
- Mapping of key stakeholders and executing targeted awareness campaigns
- Establish a Multistakeholder Advisory Group (community) focused on community awareness.
- Implement a National Public awareness campaign to sensitize the public on the availability of prevention tool
- Adopt international cybersecurity awareness messaging services such as Get Safe Online website or STOPTHINKCONNECT

Leading institution:

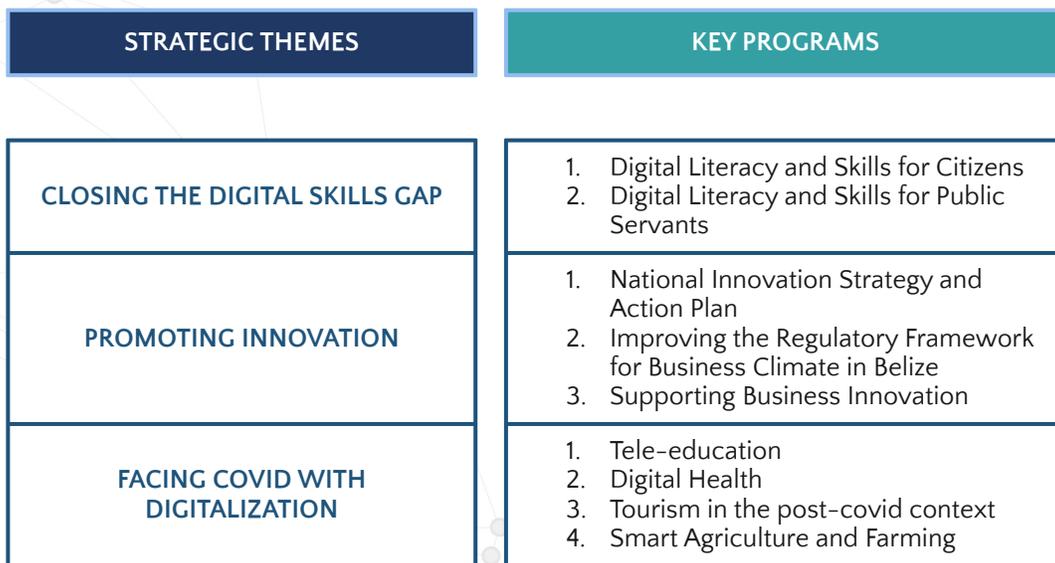
Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit); Ministry of Home Affairs & New Growth Industries

Partnership:

CITO, Public Utilities Commission, Ministry of National Security; Ministry of Education, Culture, Science & Technology, Ministry of Youth, Sports & E-Governance (Department of Youths)



PILAR #3: DIGITALIZATION FOR RECOVERY



STRATEGIC THEME: CLOSING THE DIGITAL SKILL GAP

Strategic Theme Description: Implement training programs in ICT skills across citizens (youth, public servants, employees) to minimize the digital gap and to support digital transformation by fostering an entrepreneurial and innovative society with high employability and productivity levels.

Program 1: Digital Literacy and Skills for Citizens

Justification:	<p>According to IDB's report "Skills to Shape the Future: Employability in Belize" (2020), Belize has potential for workforce development in a range of digital skills that are in high demand in various sectors. Training and digital skills programs must be implemented to develop a highly educated labor force adapted to companies' requirements and future jobs.</p> <p>The report also shows that women constitute an untapped resource for economic growth, especially given Belize's growing need for an educated workforce and women's higher education attainment. While 17 percent of the population with a higher education degree held a degree in STEM fields in 2010, almost 60 percent of the population with higher education had specialized in social sciences and humanities. Moreover, only a third of those individuals who specialized in a STEM field were women.</p> <p>On the other hand, the gender wage gap is higher in STEM specializations than in other fields. For example, the average woman with a non-STEM degree earns 95 cents for every dollar a man earns, but the average woman with a STEM-related specialization makes only 90 cents for every dollar a man makes. Therefore, women's underrepresentation in STEM occupations and careers in Belize is a reality that should be fostered to provide the economy with skills in high demand by employers.</p>
Program objectives:	<ol style="list-style-type: none">(1) Adapt the education system to the new labor market needs in digitalization(2) Design high-performing education and training ecosystems and strategic vision for human-capital development in Belize with clear objectives.(3) Design a strategic vision for literacy development and closing the skills gap, especially focusing on encouraging women to participate in STEAM programs.(4) Establish a governance structure to guide policymaking to coordinate all parties involved in the skills system.
Components/ Projects:	<ol style="list-style-type: none">1. STEAM program in schools and high schools2. Girls in computing and science, and women in advanced IT degrees3. Cybersecurity literacy for companies and citizens: understanding risks on the internet4. Digital Skills Bootcamps

Key actions:

- Design a digital literacy strategy to address citizen needs
- Create an integrated skills information system to identify present and future skills needed in a systematic way.
- Establish forums in which employers and educators can meet regularly to ensure that the education and training system responds to the changing needs of employers
- Design mechanisms to monitor, maintain, enhance, and ensure the quality of the services provided by educational institutions.
- Design STEAM programs for the new generation and access to new careers, especially in computing and science.
- Increase STEAM literacy through specific school-level interventions aiming at transforming learning environments (virtual and mixed) through the use of technology and data, promoting autonomous and data-driven creative learning, and developing digital media and informational competencies in students on all levels of education.
- Promote the establishment of a Belizean Edutech industry that could provide the solutions for this important program in Belize and neighboring countries. This can be done through incubation and acceleration programs.
- Develop a gender-based strategy to boost enrollment of women in ICT-related areas through mentoring, sponsored summer courses, educational events, internships, and contests soliciting creative scientific approaches to local companies' challenges.
- Create strategies for girls in STEAM and increase employability to close the digital skill gender gaps
- Create strategies for youth education in cybersecurity threats and tips to stay safe online:
 - o Understanding risks online program
 - o Cyber component to existing forums (e.g., ICT for girls)
- Based on market needs, conduct intense digital skills boot camps in cybersecurity targeting key age groups.
- Create a digital skills accelerator program (Bootcamps) for digital skills in demand by the private sector.

Leading institution:

Ministry of Education, Culture, Science & Technology

Partnership:

Ministry of Youth, Sports & E-Governance (Department of Youths), Academia, Private Sector

Program 2: Digital Literacy and Skills for Public Servants

Justification:	<p>Belize lags behind the regional average in its development of human capital, which hinders its ability to acquire the necessary talent to develop e-government services. In the Human Capital Index (HCI) of the 2020 UN E-Government Survey, Belize ranks 111 out of 193, which is below the LAC average of 102, and close to the Caribbean average of 110. There have been few improvements in its position of 110 in 2018, when the average rank for LAC and the Caribbean were 100 and 110, respectively. The HCI is a useful measure for understanding the potential of a government for further developing digitally, as low levels of human capital can impede the overall development of e-government.</p> <p>In conclusion, there are limited digital skills and capabilities across the government workforce. Where digital expertise exists within the public service, it is fragmented, and there is often a reluctance to change existing processes and use digital technologies within IT departments. Furthermore, an overview of the job profiles in Government highlighted that most IT skills are focused on operations. There are high levels of risk aversion reducing the capacity for innovation. There is also a lack of awareness of where innovation should occur. In addition, the limited human capacity within the country highlights a serious concern to strengthen the Unit with the necessary skill sets.</p> <p>Therefore, this program emphasizes the need to bring closer digital tools to all public servants, including those identified in the current Digital Agenda (e-service platform, digital identity, data strategy, others)</p>
Program objectives:	<ol style="list-style-type: none">1. Transform the public sector digital culture by empowering the public sector workforce with the capabilities to use and provide digital services effectively and improve productivity.2. Create an environment where the public sector workforce becomes better innovators, and cross-functional teams who conceive, build, and launch innovations that offer seamless and coordinated services across multiple channels, resulting in value for money.3. Implement change management initiatives to break the silo culture and drive a more efficient and collaborative working environment4. Create an enabling atmosphere for retaining human talent within the public sector in Belize since Government organizations often struggle to compete for such talent, since the private sector frequently can offer higher wages, a more entrepreneurial culture, and more clearly defined career paths.
Components/ Projects:	<ol style="list-style-type: none">1. 'How to use cross-functional solutions and platforms' program: e-Service Toolkit, cybersecurity solutions, interoperability2. Virtual University3. Basic digital skills for public servants



Key actions:

- Study the maturity of organizations' in building digital skills to understand their capacities for training public servants and invest in bridging skill gaps.
- Upgrade the public sector skillsets by offering e-learning and training courses and improve their knowledge in digital tools and solutions.
- Train the entities in the development of new digital solutions such as how to use the e-Service Toolkit and its appliances, especially the e-service portal.
- Attract talented individuals from the private sector by offering fast-track career opportunities for high performers. In addition, high-performing graduates are offered fast promotion opportunities in various government-service areas, including IT.
- Develop a program to teach basic digital skills in public servants, including excel, word, digital signature, among other programs.

Leading institution:

Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit); Ministry of Public Service, Constitutional & Political Reform

Partnership:

Ministry of Education, Culture, Science & Technology



STRATEGIC THEME: PROMOTING INNOVATION

Strategic Theme Description: mobilize critical assets to foster innovation while meeting market needs and engaging with global value chains.

Program 1: National Innovation Strategy and Action Plan

Justification:	The Government of Belize, like most large organizations and governments worldwide, has historically lacked the drive for cutting-edge innovation. Mistakes and failures in developing new concepts can be costly from a social, financial, economic, and political standpoint. This fact traditionally has prevented the public sector from experimenting with potentially new ideas and giving innovation a central role in public policy.
Program objectives:	<ol style="list-style-type: none">(1) Create a culture that favors digital transformation by innovation - they nurture investigation, foster collaborative work environments, and maintain a positive attitude toward risk-taking. The Belize Innovation Strategy has a central role in this objective.(2) Promote digitally friendly change management approaches and innovative working atmospheres by building capabilities across society.(3) Help to de-risk innovation by creating innovation labs bringing together internal stakeholders, academics, citizens, and entrepreneurs to share perspectives on disruptive trends and to design novel solutions.(4) Establish and implement compelling innovation strategies to direct and concentrate the organization's efforts and resources and align around direction and level of aspirations for different innovation efforts.
Components/ Projects:	<ol style="list-style-type: none">1. Innovation Pact Belize2. Creation of innovation labs and clusters3. Development of Local Innovation Support Institutions

Key actions:

- Boost innovation as a strategy for growth and development. The signing of this pact generates some benefits focused on accompanying companies in different innovation activities, such as obtaining a roadmap through a free self-diagnosis to determine their current status and for innovation.
- Launch innovation labs and associations to carry out concept development projects, including prototyping concepts, piloting design, planning, and execution, among others; and foster a safe-space environment where trial and error serves as the methodology and failure is simply a means to an end.
- Create an innovation framework for the Government of Belize, i.e., establish the relations, roles, and skills needed for fostering an innovation ecosystem, including defining a central innovation hub, a digital studio, incubators, and external hubs, and vendors or partners.
- Engaging the entrepreneurial technology ecosystem (private sector) in the following ways: opening data sets, sponsoring hackathons, prizes, and challenges, partnering with civic-tech organizations, and fellowship programs.
- Bring together employees with different skillsets to collaborate on developing solutions to business challenges and training teams on how to rapidly prototype and test new ideas effectively.
- Forming teams of rapid prototyping experts who move throughout the organization, assisting divisions in bringing their new ideas to life
- Recruiting proven entrepreneurs that bring a fresh perspective on organizational issues and foster a culture of creativity
- Create a business innovation lab linked to a mainstream incubator
- Develop local capacities in innovation management (universities, new consulting firms, local consultants, etc.) to provide local services to the ecosystem.

Leading institution:

Ministry of Economic Development & Investment (Beltraide)

Partnership:

Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit), Ministry of Education, Culture, Science & Technology, University of Belize, Office of the Prime Minister (Economic Development Council)

Program 2: Improving the Regulatory Framework for Business Climate in Belize

Justification:	Improving the ease of doing business is a result of the development of any digital government strategy. According to the last version of the Doing Business (2020), Belize lags in several indicators within the index ranking of 135 out of 190. As such, there is a need to improve the business climate in Belize, especially when it comes time to protect minority investors, paying taxes, enforcing contracts, registering a property, or getting credit, among other areas.
Program objectives:	<ol style="list-style-type: none"> (1) Provide channels for businesses to transact online with the Government within the Digital Service Portal to facilitate productivity and economic growth within the country. (2) Provide tools and advice from across Government to help save time to drive business growth and productivity.
Components/ Projects:	<ol style="list-style-type: none"> 1. Regulatory Impact Assessments to Simplify the Rules for MSMEs 2. Legislative Design 3. Supporting MSME's Digital Transformation 4. Innovative approaches to improving the business climate
Key actions:	<ul style="list-style-type: none"> • Conduct a regulatory impact assessment to identify challenges and gaps • Partner with respective ministries to implement amendments to the legislative and regulatory environment • Improve regulation for MSMEs by (i) the design and implementation of a methodology for a regulatory impact assessment that will support the simplification of the regulatory environment for MSMEs; (ii) a consultancy to strengthen the capacity of the committee with recommendations for improving and reporting on the ease of doing business processes; and (iii) a communication strategy for promoting digital mindset shifts and change management techniques. • Study and highlight structural & policy barriers to entrepreneurship, start-ups & SMEs growth • Develop a SMEs program for improving digital skills and access to new e-commerce channels
Leading institution:	Office of the Prime Minister (Economic Development Council); Ministry of Economic Development & Investment
Partnership:	Ministry of Finance, Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit)

Program 3: Supporting Business Innovation

Justification:

Innovation, testing, and developing new solutions and appliances have traditionally been understood as a risky activity for businesses since the frameworks that drive efficiency are not the same ones that drive innovation. It is often true that a blind commitment to efficiency for business can be a significant threat to the success of actors seeking to innovate.

Thus, creating an atmosphere that supports the design and commercialization of valuable product and services innovations is rarely fast or efficient. In this sense, the goal of the Government is to provide incentives and help boost innovation while offering a wide range of funding options and other incentives so companies, and especially SMEs, can start their innovation plans.

Program objectives:

- (1) Define the role of Government as an enabler for businesses innovation
- (2) Create a viable innovation ecosystem for companies in Belize by breaking barriers to efficiency, value creation, entrepreneurship, and commercialization of innovations.
- (3) Encourage inclusive innovation and changes in management, production, and business models, with special attention to small businesses and young innovators.
- (4) Develop funding windows and policies to support entrepreneurial initiatives regarding innovation
- (5) Design a hub aimed at promoting Belize's digital ecosystem. The hub should act as a catalyst for investments directed towards adopting information and communication technologies by companies in different sectors of the economy.

Components/ Projects:

1. **Designing contests, project financing, tax exemptions, others**
2. **Design & launch of ENOVA@UB (Digital District)**
3. **Venture Capital Fund**
4. **Innovation Vouchers**
5. **Minimum Viable Innovation Systems**

Key actions:

- Design funding programs for innovation through unconventional financing:
 - Young Innovators' Financing Program
 - Entrepreneurship Innovation Award
 - Start-Up Financing
 - Cultivation of a Business Angel Community and crowdfunding opportunities
 - GovTech
- Host a rich setup of supportive functions & services in innovation & entrepreneurship
- Showcasing dynamic private-public partnerships for business development, export, innovation, etc.
- Provide incubation facilities; access to office equipment & business-related software; a helpdesk for consulting & mentoring services; an information center on best practices in business setup & operation; &
- Launch specialized training for SMEs in building management capacity & ensuring knowledge of key business processes
- Implement a hub to foster the development and consolidation of SMEs through the provision of physical space, access to key technologies, differentiated benefits, and specialized support services, including incubation, acceleration, financing, connection to global markets, etc.
- Hire knowledge providers to provide innovative services that allow companies to address a challenge, take advantage of an opportunity or solve a production problem in the development of innovation processes.
- Develop capacities related to key aspects that drive business innovation to create and consolidate basic innovation systems in Belizean firms based on specialized advice with expert consultants in innovation management.

Leading institution:

Ministry of Economic Development & Investment (Belgrade)

Partnership:

Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit, Department of Youth Services); Ministry of Education, Culture, Science & Technology, University of Belize

STRATEGIC THEME: FACING COVID BY DIGITALIZATION

Strategic Theme Description: economic recovery and reactivation strategies link to digitalization and the use of ICT with the focus on key sectors for Belize (education, health, agriculture, and tourism).

Program 1: Tele-education	
Justification:	<p>Economic uncertainties, combined with rising unemployment rates due to covid-19, have highlighted the need for flexible, cost-efficient, and open-schedule educational programs. In addition, distance learning allows people to display self-motivation and attain new skills with negligible impact on the existing lifestyle, which will prove advantageous in the search for your next professional move.</p> <p>It also has proven as a useful tool during covid for earlier stages in education, connecting students and teachers through digital platforms.</p>
Program objectives:	<ol style="list-style-type: none"> (1) Increasing equality and inclusiveness in accessing education and formation programs through Tele-education. (2) Design appropriate investment in connectivity, equipment, and organizational capacity and skills to ensure that everybody has access to digital education. (3) Strengthen distance education programs in national educational systems with a special focus on rural areas, considering the use of digital tools specifically designed for a context of low connectivity and post-pandemic needs. (4) Design new teaching methods and high-quality education content adapted to digital platforms and remote learning
Components/ Projects:	<ol style="list-style-type: none"> 1. Distance education programs in national education systems 2. Development of digital educational content according to new educational challenges
Key actions:	<ul style="list-style-type: none"> • Fostering the development of a high-performing digital education ecosystem: planning and development of training systems and ICT tools for education. • Define an 'Access to e-learning and distance education program' for students living in rural areas • Development of new digital educational content for schools including digital teaching methods: use of gamification tools, adaptive learning, or flipped classroom methodologies • Search and study new learning methods throughout emerging technologies, i.e., IA for education, Virtual Reality, others. • Create common guidelines for teachers and educational staff to foster digital literacy and tackle disinformation through education and training. • Others
Leading institution:	Ministry of Education, Culture, Science & Technology, Academic Institutions
Partnership:	Ministry of Youth, Sports, and E-Governance

Program 2: Digital Health

Justification:	The covid-19 context has highlighted the importance of accessing efficient and reliable health services. The waiting time, queues, and other difficulties accessing these services can be minimized through digital tools. Thus, digital health has the potential to prevent disease and lower healthcare costs while helping patients monitor and manage chronic conditions. It can also tailor medicine for individual patients. In addition, it is important to utilize ICT to implement prevention measures to mitigate the spread of the pandemic.
Program objectives:	<ol style="list-style-type: none"> (1) Promote strategies and programs in the field of digital health, considering aspects such as the training of health professionals and the promotion of telemedicine services (2) Allow the coordination of examinations, services, epidemiological prediction, and the reduction of physical contact between people thanks to digital tools. (3) Establish the foundations for a sustainable health system and coordinate work that is already happening between the Government, healthcare providers, consumers, innovators, and the technology industry.
Components/ Projects:	<ol style="list-style-type: none"> 1. Telemedicine Services: Virtual doctor consultation in rural areas 2. Digital Health records - COVID Passport issue in Belize
Key actions:	<ul style="list-style-type: none"> • Define interoperability of information systems and health records, • Create a virtual doctor program for rural areas <p>Strengthen governance for digital health and search for cooperation at the regional and global levels.</p> <ul style="list-style-type: none"> • Design and implement a vaccination passport that is inclusive and considers all citizens access to ICT
Leading institution:	Ministry of Health & Wellness
Partnership:	Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit)

Program 3: Tourism in the post-covid context

Justification:

Tourism has been one of the hardest-hit industries by COVID-19 in Belize and is evolving to reduce its contribution to climate change and meet the new social, digital, and environmental objectives. Due to the pandemic crisis, tourism has experienced a major shock which has led to millions of losses both for the public coffers and private enterprises. In addition, this industry will be the last one to experience recovery, according to experts, looking towards 2022-2023.

Therefore, digitalization could help to create innovative solutions for the sector's current problems such as lack of trust in international trips, fast-changing regulations regarding covid measures, vaccination requirements, etc. Digitalization and ICT tools will allow recovery, generation of new business opportunities to ensure continued competitiveness and growth, and sustainable development.

Program objectives:

- (1) Supporting the digital transformation of tourism service providers and establishing new measures for the sector's recovery.
- (2) Allowing tourism recovery and fostering tourism development and promotion in a sustainable and inclusive way.
- (3) Boosting innovation in the practices of reservation and consumption of tourism experiences and activities.
- (4) Studying new parameters for the evolution of the tourism sector in Belize: Safety, Sustainability, and Digital Transformation and how Digital Innovation Ecosystems can support its transition.
- (5) Designing policies to minimize health risks in traveling and during visitors staying in Belize

Components/ Projects:

1. **ICT technologies to enable easy and safe travels**
2. **Digital Migration**
3. **COVID Passport acceptance from other countries**

Key actions:

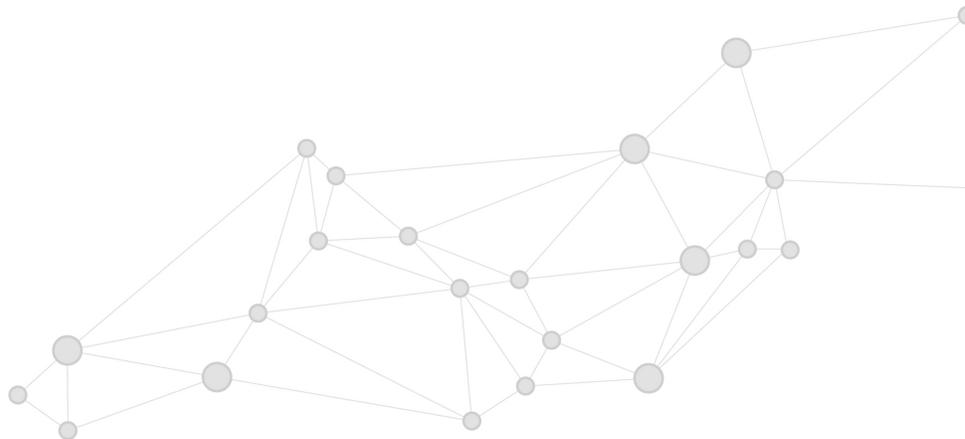
- Develop an app to improve travelers' experience when facing regulatory procedures due to covid-19 (uploading documents, declaration of health, etc.)
- Develop new apps for tourism purposes, i.e., *Safe Beaches App*, a solution for safe and smart destinations
- Digital participatory tools for sustainable tourism engaging with their communities and tourists to preserve their cultural and natural heritage.
- Develop digital services for migration and traveling purposes (visa application, accommodation licenses, work permits, digital hotel taxation, etc.)
- Design a covid passport throughout transnational interoperability
- Territorial marketing and promotion initiative to attract both new tourists and new residents in the post-pandemic context
- Research how innovation hubs and innovation labs can help the tourism sector to evolve and become more economically and socially resilient
- Strengthen international cooperation and partner with organizations and the private sector to define recovery strategies for the public sector.

Leading institution:

Ministry of Tourism and Diaspora Relations

Partnership:

Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit)



Program 4: Smart Agriculture and Farming

Justification:	<p>Digital technologies, including the internet, mobile technologies and devices, data analytics, artificial intelligence, digitally delivered services, and apps; are changing agriculture and the food system. This reflects a shift from generalized management of farm and agriculture resources toward highly optimized, individualized, real-time, hyper-connected, and data-driven management.</p> <p>According to OECD (2019), digital technologies can also help governments improve the efficiency and effectiveness of existing policies and programs and to design better ones. For example, freely available and high-quality satellite imagery dramatically reduces the cost of monitoring many agricultural activities.</p> <p>In addition to monitoring compliance with environmental policies, digital technologies enable automation of administrative processes for agriculture and the development of expanded government services, such as in relation to extension or advisory services.</p> <p>This is far more important in the covid-19 context since it has proven how useful digital tools are to allow fast recovery in certain economic sectors such as agriculture.</p>
Program objectives:	<ol style="list-style-type: none">(1) Creating policies for the implementation of smart farming (also known as Farming 4.0) to achieve the application of information and data technologies for optimizing complex farming systems.(2) Using ICT tools for fostering investigation and innovation in the agriculture field, improving resilience to the climate crisis in the post-pandemic context.(3) Improving systems by updating and digitalizing farmer's registry and other relevant databases for agriculture purposes(4) Helping to provide new market opportunities and channel options for farmers in Belize through digital technologies (digital mapping, e-commerce, agrolinks, etc.)
Components/ Projects:	<ol style="list-style-type: none">1. ICT investigation to increase varieties of commodities for adapting Belize to climate change challenges2. Create the farmers registry and update the Belize Agriculture Information Management System3. Digital repository using GIS4. Information helpdesk for farmers5. Online marketplace: agrolinks6. Capacities for farmers to adopt ICT and new technologies applications for agriculture (such as IA, IoT, etc.)7. Digital Mapping and surveillance of production

Key actions:

- Study farmer's needs in terms of digitalization and training in ICT
- Mapping current systems, software, and other technology used in the agriculture sector
- Incentivize and mobilize investments for research and investigation purposes regarding digital tools applied to agriculture and farming
- Design training courses for helping farmers to adapt to the age of technological, including those regarding new marketplaces options and selling opportunities (exports, e-commerce, airlines, others)
- Create flexible online registries with farmers' information to create value from data and more adapted decision making

Leading institution:

Ministry of Agriculture, Food Security, and Enterprise

Partnership:

Ministry of Youth, Sports & E-Governance (E-Governance & Digitalization Unit)



11

TEN KEY SUCCESSFUL FACTORS FOR THE
IMPLEMENTATION OF DIGITAL GOVERNMENT
SOLUTIONS AND E-SERVICES

KEY SUCCESSFUL FACTORS

1) Change management and break silo culture	<p>Understanding the Digital Agenda as a national project will help to break the silos within the administration. The Digital Agenda doesn't belong to one single Unit (E-Governance and Digitalization unit) and must be understood as a national plan for the whole administration.</p>
2) Promote cross-sectoral collaboration	<p>All Ministries are working together for the development of the digital Agenda and its projects. In order to implement the Digital Agenda in due time, collaboration and coordination must be done on an everyday basis along with governance from the leading institution (E-Governance & Digitalization Unit).</p>
3) Consider different stages of digitalization according to real capacities	<p>Understanding the real capacities of public service is the first step for a successful Digital Agenda. We should visualize the Digital Agenda as a dynamic plan in constant evolution, so it can be adapted to the different capabilities depending on the resources and manpower available in the administration.</p>
4) Implement checks and balance system where the E-Governance & Digitalization Unit can supervise institutional ICT projects	<p>The E-Governance and Digitalization Unit should be empowered to supervise all ICT projects to reduce duplication of efforts executed by different institutions or units. There should be a centralized and national view in some strategic projects such as interoperability, so everyone can consume the same platforms reducing costs for the administration. This is very important to increase transparency and open Government (which is at the same time one of the main purposes of the Digital Agenda)</p>
5) Provide enough financing for short-, medium- and long-term projects	<p>Searching for resources internally and externally is one of the main critical aspects for the implementation of the Digital Agenda since some projects could be very ambitious while others are just quick wins.</p>
6) Create a strong and diversified team trained constantly	<p>Establish a strong team with specific tasks to implement the Digital Agenda. It will be necessary to provide training in ICT and new skills as key success factor since it will enable the whole administration to properly use the platforms and solutions mentioned in the Digital Agenda</p>
7) Agile Development of Projects	<p>Intermediate products must be defined, which have minimal functionality or characteristics to demonstrate that they work. The project execution time must be a maximum of one month to have something visible, three months to have a working prototype, six months for the project to be up and running.</p>
8) Rely on citizenship	<p>Citizen & private sector surveys can give us the arguments we need to validate a project. A public preview chart for multi-stakeholder projects can be an incentive for them and a way to avoid bad news.</p>

9) Be the Best Seller

In order to secure support from authorities, other institutions, officials, or the citizens themselves, the sales pitches must be convincing and associated with each other's needs. Each group of people has its own metrics on which we need to offer improvements. Not being afraid to use "moral" arguments such as: do you not want to make life easier for the citizen by putting paperwork online, can you send us a letter explaining that you have no interest in making improvements for citizens?

10) Lower entry barriers

It is very easy to have the intention to implement a project that involves others and assume that they will join, but the reality is that everyone has their own priorities. To get others to join, we must be the ones who deliver tools that facilitate change. Training, technical support delivery, platforms, and other initiatives allow us to support others to embrace the change.

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12

POLICY RECOMMENDATIONS FOR IMPROVING E-GOVERNANCE

Recommendation 1: Establish an allied club to gain political support in other institutions

Political support is one of the essential elements in the implementation of the Digital Agenda. It will help to obtain 'buy-in' when it comes to transforming the policies into action and channel financial and technical resources to the programs designed.

Moreover, when we have projects that require the collaboration of many institutions (an interoperability platform, a paperwork portal, skills programs, etc.), it is important to approach each institution in a personalized way, not simply sending orders and commands but also generating a reliable atmosphere.

With the first members, a club is set up that must be shown as attractive to those who do not belong. Little by little, no one will want to be "outside" the club. Therefore, it is important to design activities, guarantees, and benefits of being part of this club, which includes giving visibility to managers and allowing them to "show off" their projects in front of others.

Hence, creating an allied club with those institutions that are more proactive, participative, and willing to help will allow for better implementation of the Digital Agenda.

Recommendation 2: Involve the private sector in the progress and development of the Agenda

The concept behind the Digital Agenda has evolved from a policymaking process to a collaborative country transformation. In several countries, Digital Agendas are even developed for private and social institutions showing a large trust in other institutions.

Thus, it is important to create scenarios where private firms and social agents can contribute to implementing the Digital Agenda—for instance, developing private–public associations to deploy digital infrastructures in rural areas or launching accessible and high-quality training courses for closing the digital gap in a certain sector.

Recommendation 3: Define baselines for accomplishing goals

Each institution leading should decide a baseline for the projects to which they are in charge of within the Digital Agenda. This activity will make easier the future monitoring of the programs and the overall development of the Agenda. Defining baselines, even when there are none, will also help to define quantitative and concrete goals per year (2022 to 2025), so we can start measuring the progress. Those goals must also follow the SMART methodology, so they are Specific, Measurable, Attainable, Relevant, and Timely Specific, allowing a better integration and definition.

For instance, these goals could point at a quantitative indicator (such as raising ten positions in the UN e-Government Survey by the year 'X') or could refer to the delivery of products (for example, release a system or platform by the end of the year 'X'). In any case, it is important to carry out this exercise to create a more task-oriented Agenda that will lead to concrete actions in the upcoming years.

Recommendation 4: Establish a collaborative mechanism for the monitoring of the Digital Agenda

To evaluate and follow up of the programs of the Agenda, collaboration mechanisms comprised of the key stakeholders should be created at various levels. For instance, the allied club of Ministers will support the alignment and programming of projects in the Ministries' yearly action plan. A leading team comprised of the key Chief Executive Officers will support tactical level decision making, cooperation, and resource planning. At the operational level, delivery teams per Digital Agenda program comprising leads from each implementing entity. To support progress reporting and monitoring, it will be necessary to establish a reporting structure at the various levels. The personnel from the Ministry of Youth, Sports & E-Governance (Minister, Chief Executive Officer, Director) will lead at the various levels of the collaboration mechanism. In addition, digital leaders/Project Officers from the E-Governance and Digitalization Unit will support monitoring and reporting. Considering that in Belize, governance structures such as Cabinet and CEO Caucus already exist and meetings occur weekly, the Unit should consider leveraging these structures.

Recommendation 5: Develop legal and policy frameworks to support the E-Governance and Digitalization Unit's implementation and coordination of the Digital Agenda

It is vital to establish the enabling legal and policy framework through a Digital Law to empower the E-Governance and Digitalization Unit as the champion and coordinator of digital transformation. In addition, the Unit should develop ICT guidelines and standards, establish executing teams, define reporting process, and guide the simplification of procedures.

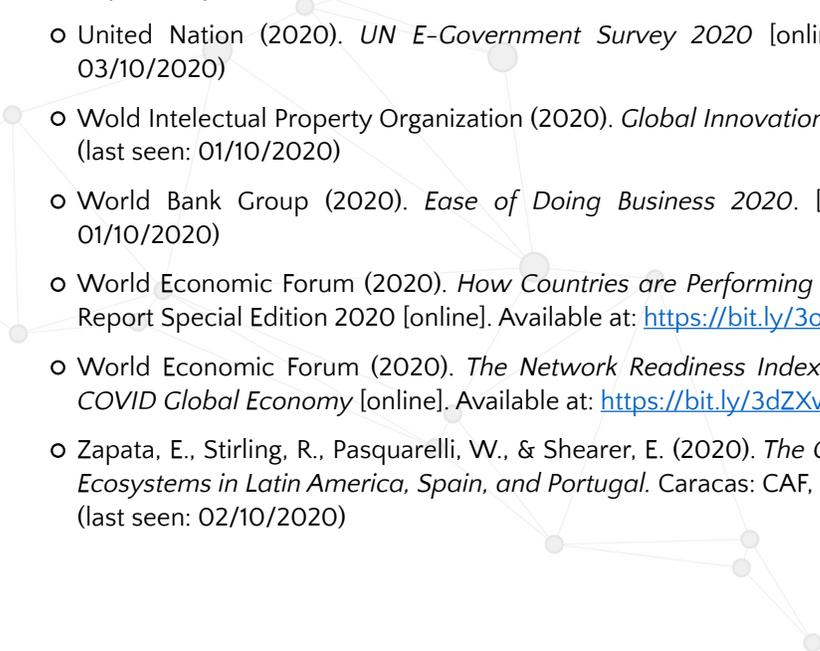
Recommendation 6: Search for international support and best experiences regarding similar programs

Studying best practices in the region can help to get a more realistic and lesson-learned Agenda. In addition, requesting support from international partners and leading countries can help execute complex projects, such as designing an interoperability model or building a CSIRT Team. This will also help achieve external support, recognition, and visibility of efforts made to jump into digitalization.

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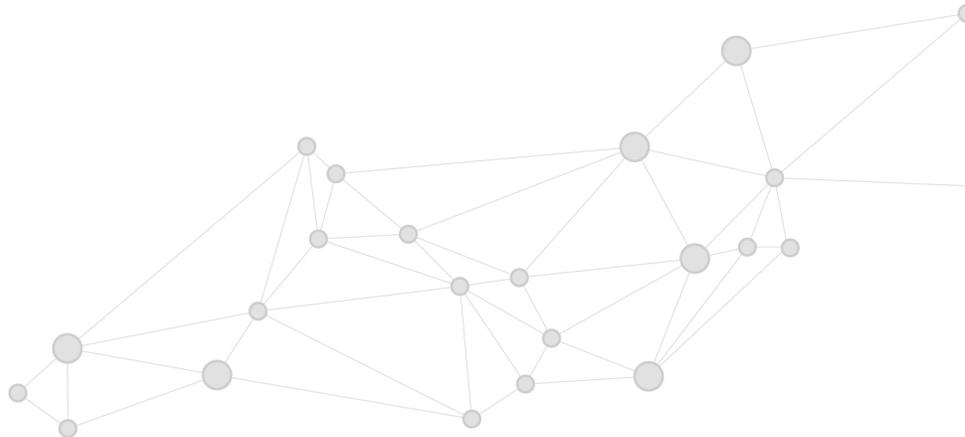


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