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E-Government Survey 2020

Digital Government in
the Decade of Action for
Sustainable Development

With addendum on COVID-19 Response

Asia Pacific Regional Webinar 2020 United Nations E-Government Survey Digital Government in the Decade of Action for Sustainable Development”

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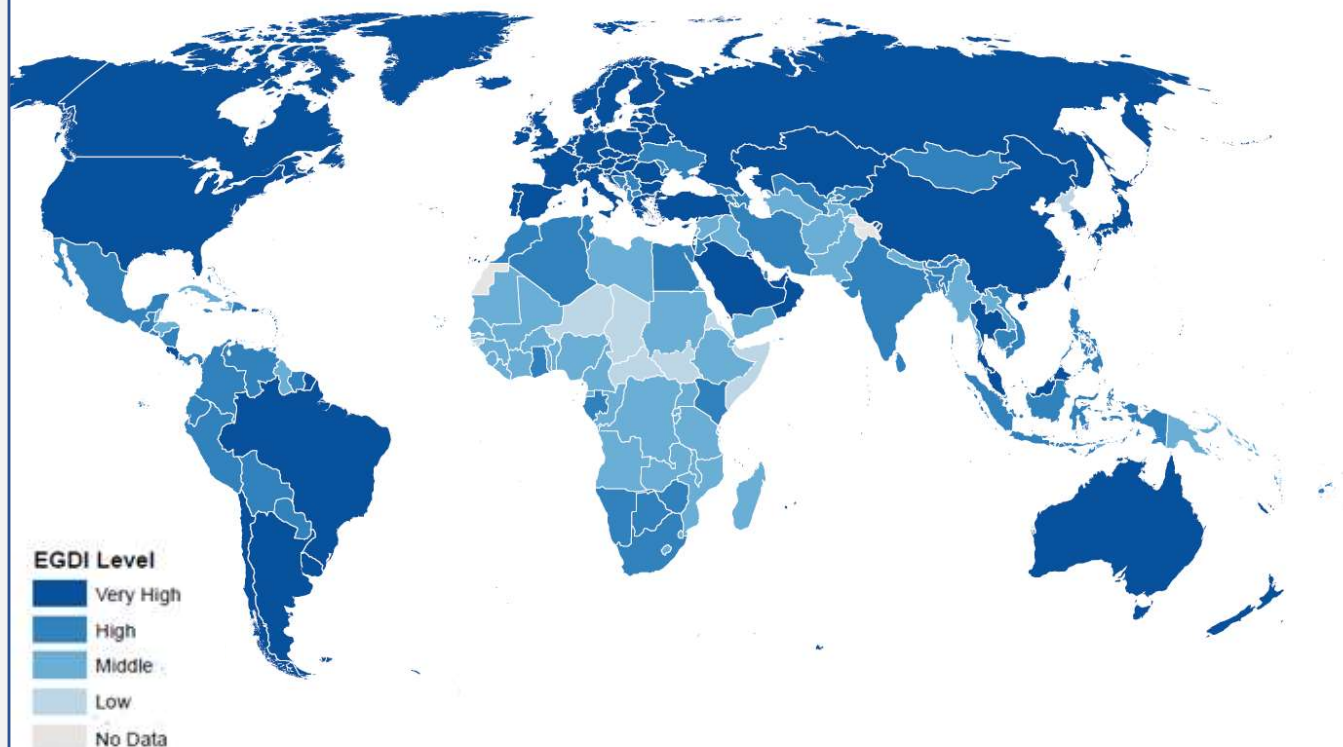
Outline

1. Global e-government development
2. Regional e-government development in Asia and Oceania
3. Local e-government development
4. E-Government response to the COVID-19 pandemic
5. E-Participation
6. Data governance for e-government
7. Capacities for digital transformation

1. Global E-Government Development at a Glance

Key Messages

- ✓ Globally, e-government development has improved
- ✓ **126** UN Member States have **High and Very-High EGD** levels
- ✓ **57** countries have “**Very-High EGD**” compared to 40 countries in 2018
- ✓ Only **8** countries have “**Low-EGD**” compared to 16 countries in 2018 (7 of them from Africa)
- ✓ **42 MS** transitioned from lower to higher levels of EGD (Asia: **11** countries (23.%))

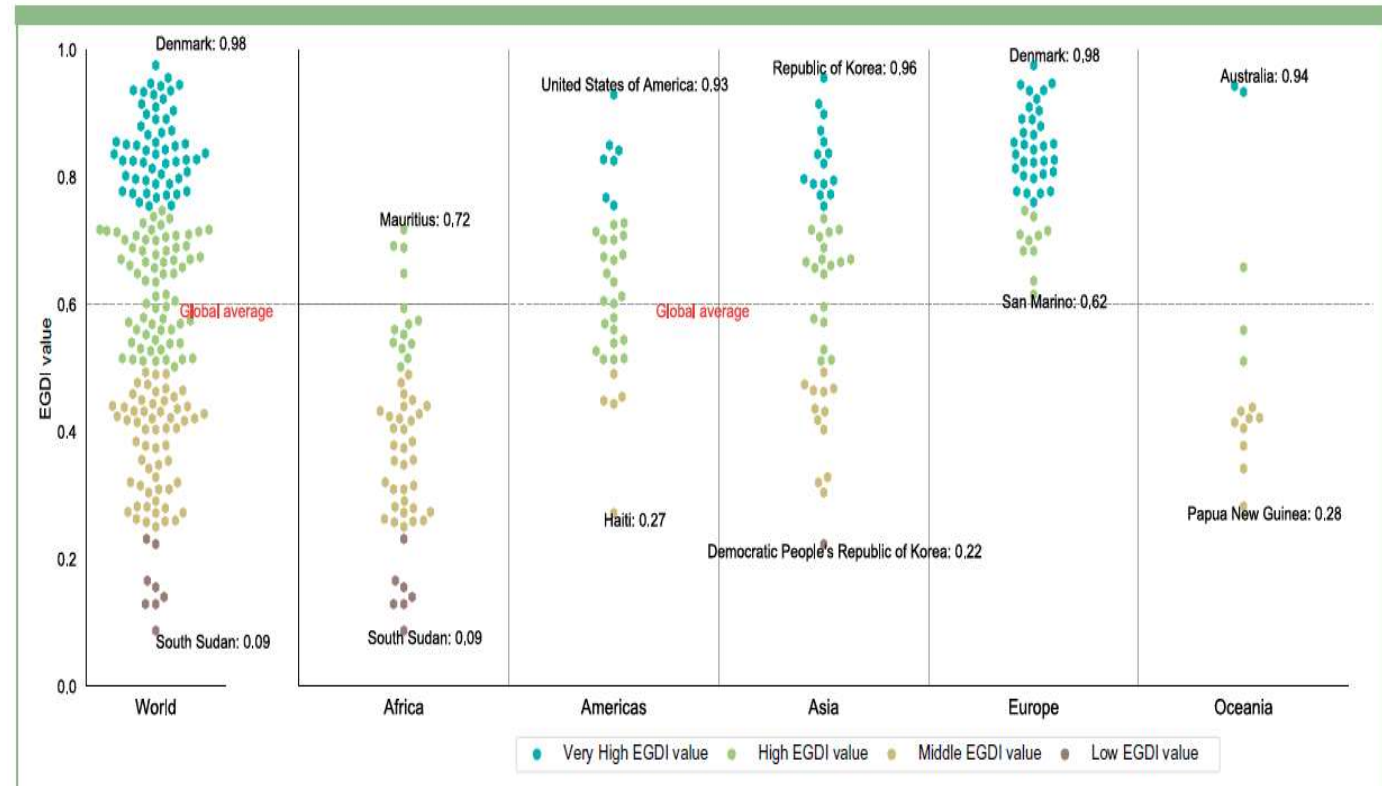


2. Regional E-Government Development and Digital Divides

Key Messages

- ✓ **Global average EGD increased to 0.60 in 2020, from 0.55 in 2018**
- ✓ 7 of the 8 countries with the lowest EGD scores are least developed and/or landlocked countries in Africa
- ✓ Differences in e-government development exist even in highly developed regions

Figure 2.2 Global and regional distribution of 193 countries according to EGD level, 2020



2. E-Government Development in Asia

Key Messages

Asia increased its average **EGDI** value from 0.57 in 2018 to 0.64 in 2020, or **by 10 per cent** becoming the **second most advanced region** in e-government development.

- ❑ **ROK , Singapore and Japan** lead in the region (Highest Rating class VH)
- ❑ **15 MS** are in the **Very-High EGD**
- ❑ **7 MS** moved from **High to Very-High EDGI** (Saudi Arabia, China, Kuwait, Malaysia, Oman, Turkey, and Thailand)
- ❑ **19 MS** are in the **High EGD**
- ❑ **3 MS** moved from **Middle to High** (Bhutan, Bangladesh, and Cambodia)
- ❑ **12 MS** are in the **Middle EGD**
- ❑ **1 MS** is in the **Low EGD** (the Democratic People's Republic of Korea)) (**)

Country	"Rating class"	"EGDI Rank"	Sub-Region	"OSI value"	"HCI value"	"TII value"	"EGDI (2020)"	"EGDI (2018)"
Republic of Korea	VH	2	Eastern Asia	1.0000	0.8997	0.9684	0.9560	0.901
Singapore	VH	11	South-Eastern Asia	0.9647	0.8904	0.8899	0.9150	0.8812
Japan	VH	14	Eastern Asia	0.9059	0.8684	0.9223	0.8989	0.8783
Cyprus	V3	18	Western Asia	0.8706	0.8429	0.9057	0.8731	0.7736
United Arab Emirates	V3	21	Western Asia	0.9000	0.7320	0.9344	0.8555	0.8295
Kazakhstan	V3	29	Central Asia	0.9235	0.8866	0.7024	0.8375	0.7597
Israel	V2	30	Western Asia	0.7471	0.8924	0.8689	0.8361	0.7998
Bahrain	V2	38	Western Asia	0.7882	0.8439	0.8319	0.8213	0.8116
Saudi Arabia*	V2	43	Western Asia	0.6882	0.8648	0.8442	0.7991	0.7119
China*	V1	45	Eastern Asia	0.9059	0.7396	0.7388	0.7948	0.6811
Kuwait*	V1	46	Western Asia	0.8412	0.7470	0.7858	0.7913	0.7388
Malaysia*	V1	47	South-Eastern Asia	0.8529	0.7513	0.7634	0.7892	0.7174
Oman*	V1	50	Western Asia	0.8529	0.7751	0.6967	0.7749	0.6846
Turkey*	V1	53	Western Asia	0.8588	0.8287	0.6280	0.7718	0.7112
Thailand*	V1	57	South-Eastern Asia	0.7941	0.7751	0.7004	0.7565	0.6543

* Countries that moved from the high to the very high EGD group in 2020.

2. E-Government Development in Oceania

Key Messages

- ✓ **Australia and New Zealand** are the leading countries (rating class VH)
- ✓ **The remaining countries** have an average EGD value that is **below the global average (0.60)**.
 - ❑ **12 MS** are SIDS - 4 of them are also LDCs
 - ❑ **5 MS** are in the Very-High or High EGD groups
 - ❑ **3 MS moved up** from the Middle to the **High EGD**
 - ❑ **2 MS moved up** from the **Low to the Middle EGD**
 - ❑ **High variance** in EGD scores (0.90 to 0.28)

Country	"Rating class"	"EGDI Rank"	Sub-Region	"OSI value"	"HCI value"	"TII value"	"EGDI (2020)"	"EGDI (2018)"
Australia	VH	5	Australia and New Zealand	0.9471	1.0000	0.8825	0.9432	0.9053
New Zealand	VH	8	Australia and New Zealand	0.9294	0.9516	0.9207	0.9339	0.8806
Fiji	H3	90	Melanesia	0.5059	0.8227	0.6468	0.6585	0.5348
Tonga	* H2	108	Polynesia	0.3765	0.8283	0.4800	0.5616	0.5237
Palau	* H1	125	Micronesia	0.2765	0.8816	0.3745	0.5109	0.5024
Vanuatu	M3	142	Melanesia	0.3353	0.6012	0.3845	0.4403	0.3990
Kiribati	M3	145	Micronesia	0.4941	0.6778	0.1241	0.4320	0.3450
Samoa	M3	149	Polynesia	0.2647	0.7414	0.2596	0.4219	0.4236
Tuvalu*	M3	151	Polynesia	0.3000	0.6821	0.2807	0.4209	0.3779
Nauru	M3	154	Micronesia	0.1706	0.6006	0.4738	0.4150	0.3324
Marshall Islands*	M3	156	Micronesia	0.3412	0.7506	0.1247	0.4055	0.3543
Micronesia (Federated States of)*	M2	161	Micronesia	0.3529	0.6747	0.1061	0.3779	0.3155
Solomon Islands*	M2	166	Melanesia	0.3235	0.4985	0.2106	0.3442	0.2816
Papua New Guinea	M1	175	Melanesia	0.2235	0.5013	0.1233	0.2827	0.2787

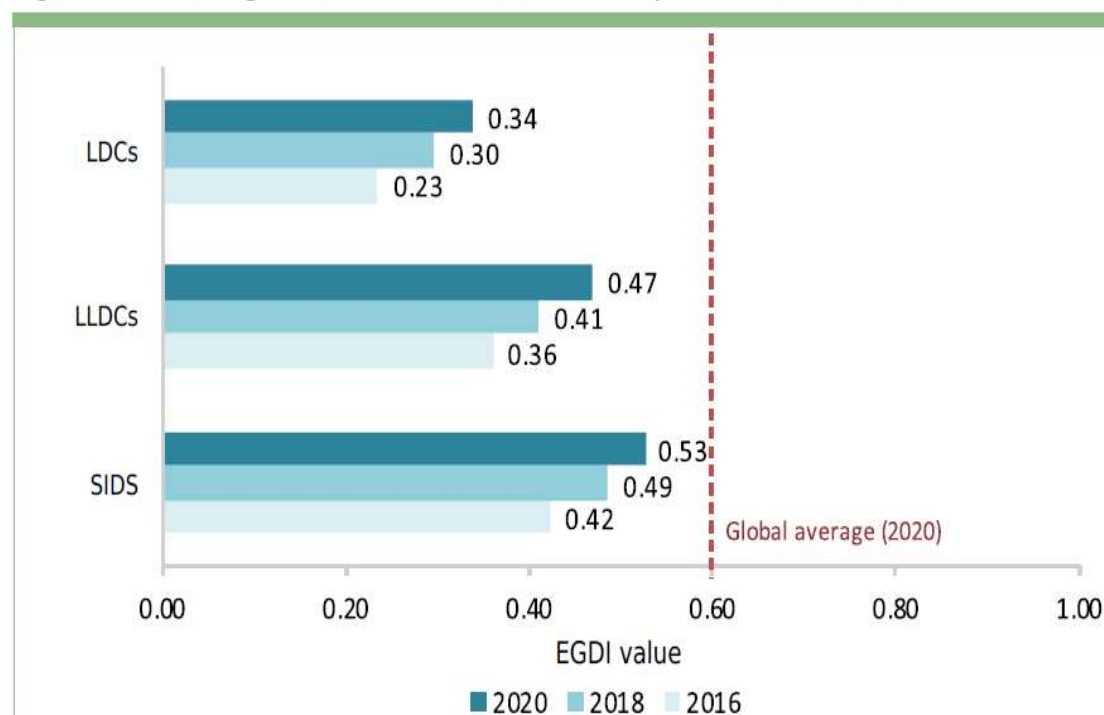
* Countries that moved from the middle to the high EGD group or from the low to the middle EGD group in 2020.

2. Countries in Special Situations (LDCs, LLDCs and SIDSs)

Key Messages:

- ❑ **Average EGD values for LDC, LLDC and SIDS remain well below the world average**
- ❑ **LDCs have made the most progress** since 2016, (EGDI value increased by 44%)
- ❑ **LDCs have the lowest average score (0.34)**, followed by SIDS (0.47) and LLDCs (0.53)
- ❑ **LDC leading countries:** Bhutan, Bangladesh and Cambodia (HEGDI). Cambodia and Lesotho improved EGD by more than 20 positions
- ❑ **LLDCs leading countries:** Kazakhstan (VHEGDI - V3), followed by Armenia, Azerbaijan and North Macedonia (HEGDI - HV)
- ❑ **SIDS leading countries:** Singapore (VHEGDI- VH) and Bahrain (VHEGDI- V2), followed by Barbados, Mauritius and the Bahamas (HEGDI – HV) *

Figure 2.8 Average EGD values for countries in special situations, 2020



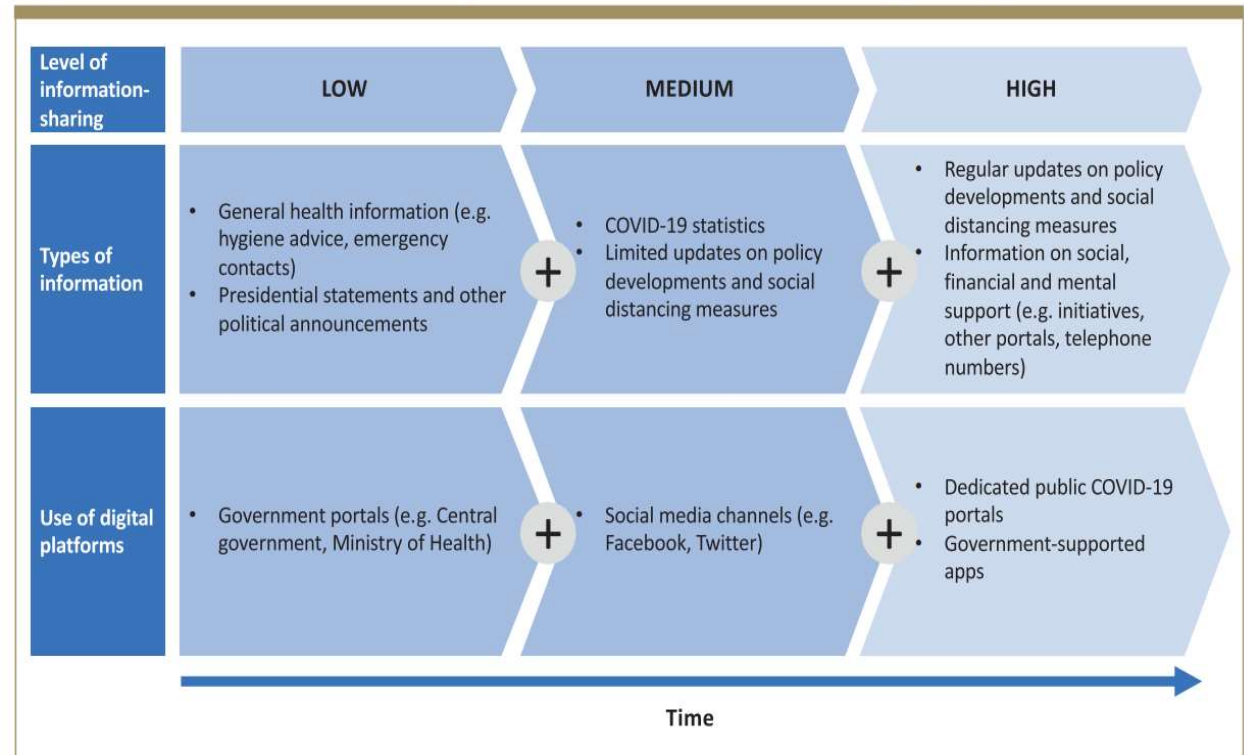
Source: 2016, 2018 and 2020 United Nations E-Government Surveys.

3. E-Government Response to the COVID-19 Pandemic

Key Messages

- ❑ During the pandemic, countries focused on providing basic information related to general health precautions and emergency numbers accompanied by public announcements on national portals (low level).
- ❑ As the crisis intensified, countries began extending their reach and started using more social media channels to report on COVID-19 statistics and provided some limited national policy updates (medium level).
- ❑ At a later stage in the crisis, more countries started providing regular updates on policy developments and information; some Governments started using dedicated COVID-19 portals and apps to centralize both information and services (high level).

Figure 2: Different levels of e-government information-sharing during COVID-19



3. E-Government Response to the COVID-19 Pandemic

Key Messages

- ❑ The pandemic has forced Governments and societies to turn toward digital technologies to respond to the crisis in the short-term, recover from and resolve socio-economic repercussions in the mid-term, and reinvent existing policies and tools in the long-term.
- ❑ With only ten years left to achieve the 2030 Agenda, Governments need to work on strengthening the relationship between technology and sustainable development.
- ❑ Using multi-stakeholder partnerships to share technologies, expertise and tools can support Governments in the recovery process that involves restarting the economy and rebuilding societies.
- ❑ Developing countries cannot mitigate the crisis alone. Therefore, national, regional and local collaborations with private sector, academia, civil society, international organizations and other stakeholders are necessary.

Table 1: Digital government policy response to COVID-19

Time horizon	Policy action	Digital government response
Short-term	React	<ul style="list-style-type: none">• Use digital platforms (i.e., online portals, social media) for accurate and timely information-sharing• Lead two-way communication with people and foster e-participation (i.e. hackathons, brainstorming events)• Ensure protection of people's human rights including data privacy and take into consideration unintended consequences of technology
Mid-term	Recover & Resolve	<ul style="list-style-type: none">• Form effective multi-stakeholder partnerships (i.e. private sector, academia, NGOs and international organizations) on regional, national and local levels• Provide technology education for digital literacy, specifically targeted at public officials, children, women/girls and MSMEs• Offer financial and technical support to local governments in the implementation of digital tools and technologies• Leverage lessons learned and policy ideas from the ongoing crisis
Long-term	Reinvent	<ul style="list-style-type: none">• Invest in new technologies (i.e., AI, blockchain, robots, drones) and ICT infrastructure to increase the resilience of the health economy and public services delivery• Develop digital infrastructure and engagement tools for the most vulnerable groups in society, particularly for migrants, refugees and ethnic minorities• Revisit data protection and privacy legislation along with lessons learned

4. Local E-Government Development

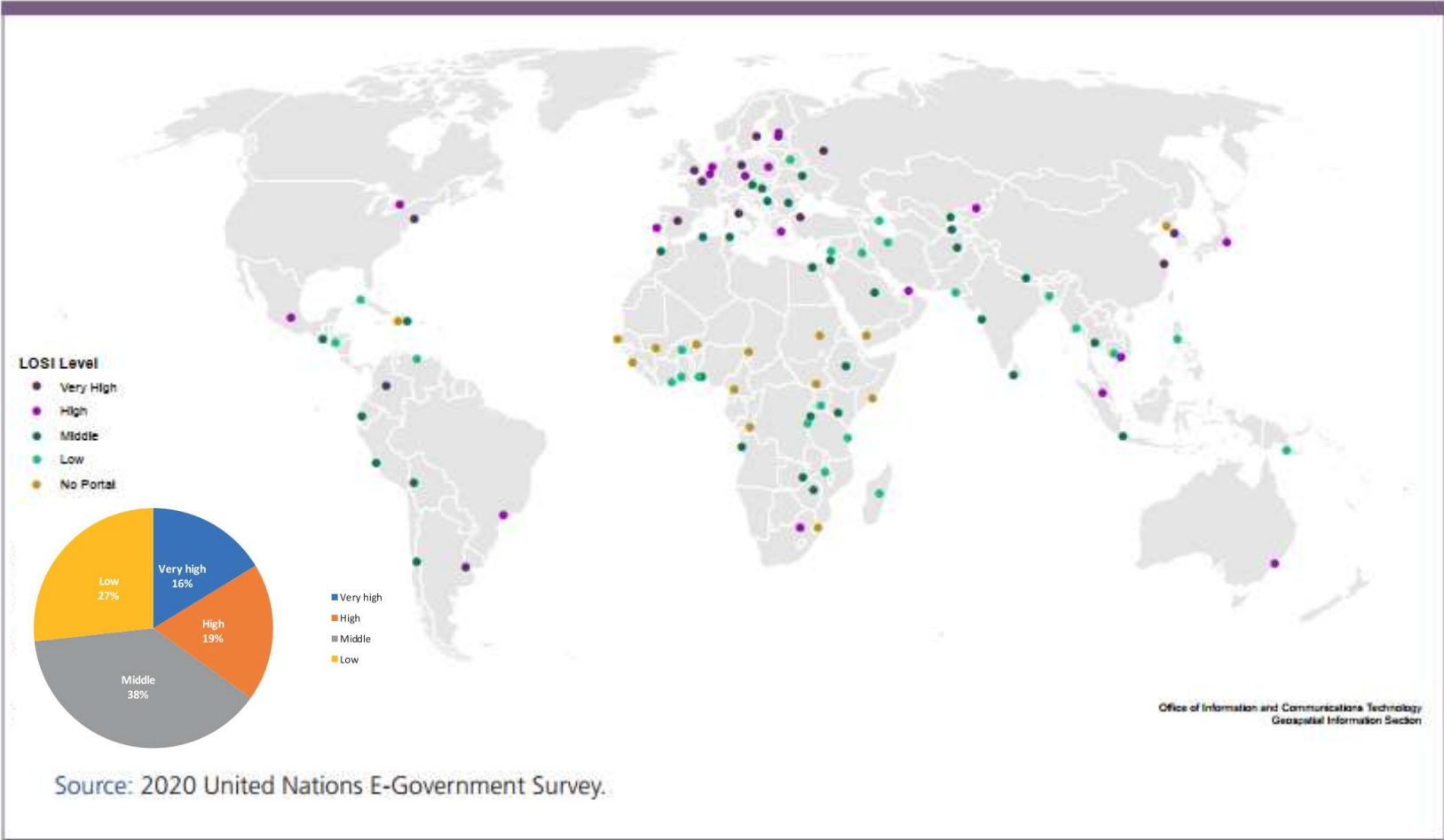
Key Messages

- ❑ The findings of the **2020 LOSI survey (100 cities)** reinforce that levels of local e-government development are not necessarily consistent with national e-government development levels.
- ❑ The **2020 LOSI average is 0.43**, which implies that most city portals are still offering very basic features (such as information provision but little or no services provision).
- ❑ The findings point to the **need for a shared vision and increased collaboration** at the local level.
- ❑ Incentives could be provided to encourage **small and medium-sized enterprises to participate as critical partners** in developing and delivering innovative smart city projects.
- ❑ **More collaboration is also needed among cities** from different countries to share insights and exchange experiences.



4. Local E-Government Development

Figure 4.1 Number and percentage of cities at each LOSI level



5. E-participation

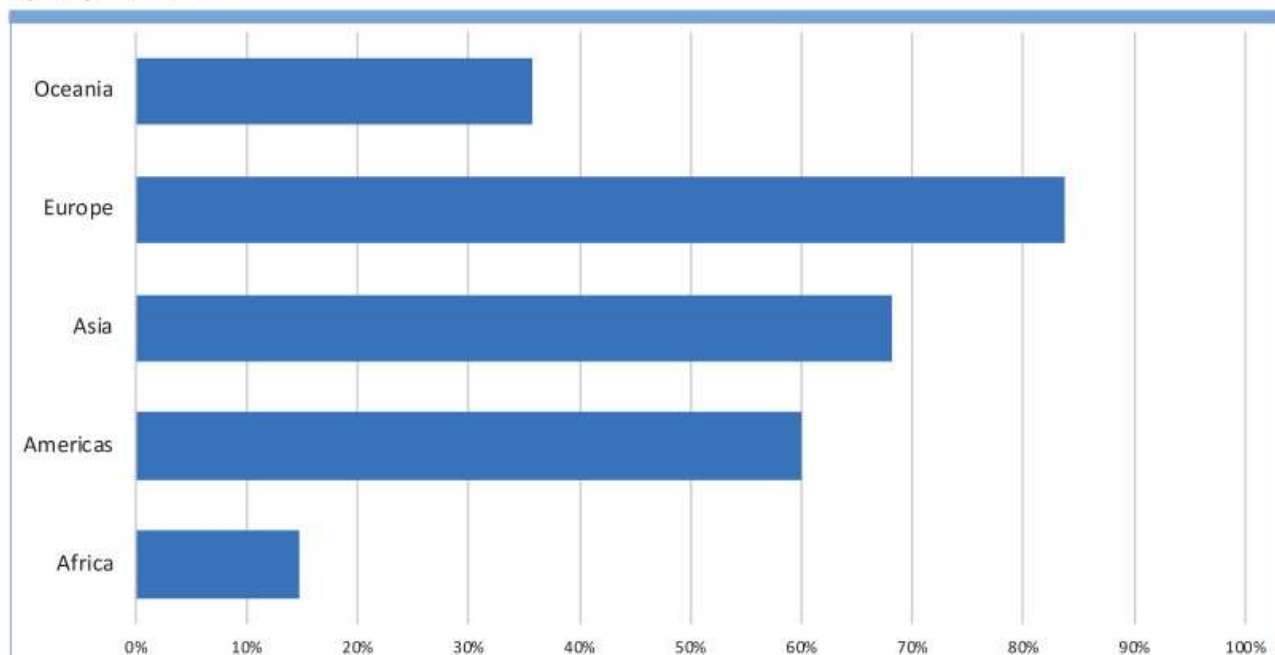
Key Messages

- ❑ While e-participation platforms have continued to spread in more countries, there is a trend towards multi-function participation platforms, such as ideation forums, consultations and/or e-petitions on new policies, opinion surveys, complaint system, reports of corruption and generation of ideas and innovations.
- ❑ It is not always clear that the multiplication of electronic platforms has translated into broader or deeper participation.
- ❑ In many cases, the take-up of e-participation remains low. Beyond reasons related to technology access and digital skills, a lack of understanding of motivations to participate online and the reluctance of public institutions to share agenda setting and decision-making power seem to play an important role in the observed limited progress, among many other factors.



5. E-participation

Percentage of countries with evidence of online consultations held in the past 12 months, by region, 2020



Source: 2020 United Nations E-Government Survey

Note: The figure reflects the proportion of countries in each region in which evidence was found of at least one e-consultation having been conducted in the past 12 months in the any of the following sectors: education, health, environment, social protection, labour or justice.

6. Towards Effective Data Governance

Key Messages

- ❑ Optimizing the use of government data will increase the productivity, accountability and inclusivity of public institutions, in line with the principles embodied in Goal 16 of the 2030 Agenda.
- ❑ A data-centric government will also help build trustworthiness and public trust.
- ❑ Many benefits around government data have yet to be realized, especially in countries in special situations. The greatest obstacles to progress include a general lack of understanding of data and data science, low political priority and the absence of data leadership, resource constraints, and concerns about data quality, security and privacy.



CHAPTER 6 • TOWARDS DATA-CENTRIC E-GOVERNANCE

6. Towards Data-Centric E-Government

6.1 Introduction

The need for government data is nothing new. For decades, the ways in which government data are gathered, secured, used and shared have been of great interest to Governments and to academics in the fields of development and public administration.¹ Government data have always been critically important, but the ways in which data are created and used have changed dramatically, bolstered by the revolution in data technologies and the proliferation of applications of different types and forms of data, including small and big data, real-time data, and geospatial data.

The 2030 Agenda for Sustainable Development has made data a focal point, acknowledging that data are key to effective decision-making and that timely, reliable, quality and disaggregated data are needed to facilitate the measurement of progress towards sustainable development and to ensure that no one is left behind.² The latter imperative is reflected in multiple global indicators and entails not only reaching the poorest and most vulnerable groups but also combating rising inequalities within and among countries.³ Data and related issues and developments in the public sector have become increasingly important in terms of government analysis and operations, academic research, and real-world applicability and acceptance. Data are now integral to every sector and function of government—as essential as physical assets and human resources. Much of the operational activity in government is now data-driven, and many Governments would find it difficult, if not impossible, to function effectively without data.

At the global level, the quantity of data is expected to increase more than fivefold from 33 zettabytes⁴ in 2018 to 175 zettabytes in 2025, with 49 per cent stored in the public cloud.⁵ Researchers have estimated that the number of devices driven by the Internet of Things (IoT) will reach 10 times the world population (about 75 billion) in 2025.⁶ These trends, coupled with the propagation of 5G networks and other next-generation devices, will also equip society with data-centric applications in areas such as artificial intelligence (AI), blockchain, and augmented and virtual reality (AR and VR) and will further boost data supply and demand, moving the world closer to becoming a truly digital society.

The exponential growth and rapid evolution of new digital and data technologies and related applications will unquestionably affect the public sector. Conventional government data sources include censuses, surveys and administrative data, and while those have served administrators well, the future of data holds virtually unlimited promise. Big data, social media, analytics and a wide range of digital technologies can be leveraged to develop cost-effective, time-saving policy solutions



Photo credit: Shutterstock

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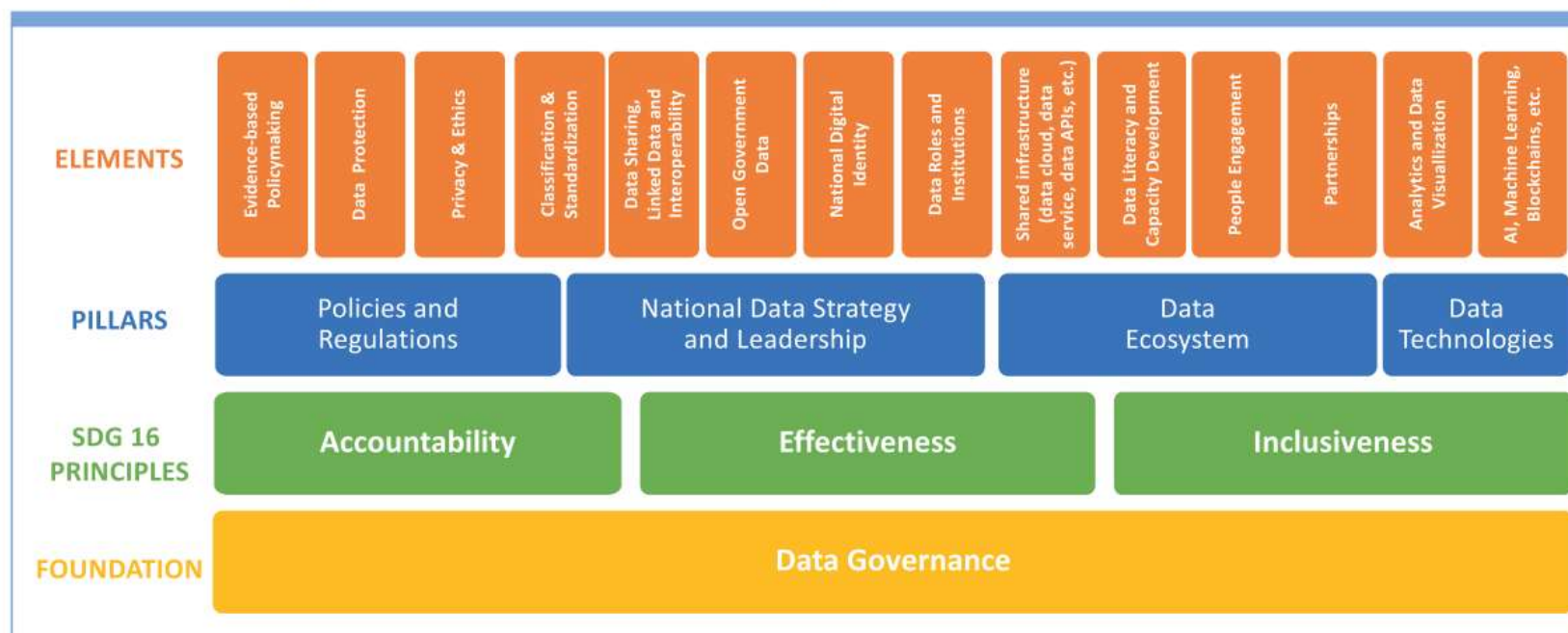
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Chapter 6

6. Towards Effective Data Governance

- ❑ Harvesting public value from data requires a long-term vision and approach that involves mastering the economics and politics of data governance and management and effectively navigating the evolving data security and privacy landscape. As data governance encompasses much more than technical functions, Governments must employ a holistic, whole-of-government approach in developing an overarching data governance framework supported by a national data strategy, strong data leadership and a data ecosystem.

Illustrative data governance framework for e-government







7. Capacities for Digital Transformation

Key Messages

- ❑ Digital government transformation is fundamentally about governance transformation and cultural change in support of a country's overall national development vision and strategy and the achievement of the Sustainable Development Goals.
- ❑ Digital government transformation requires a holistic approach that is value-driven and institutionalized across all levels of government and society.
- ❑ Digital government transformation should aim at promoting digital inclusion and ensuring that all people, including vulnerable groups, can access new technologies to improve their wellbeing. It should put people first and revolve around their needs.



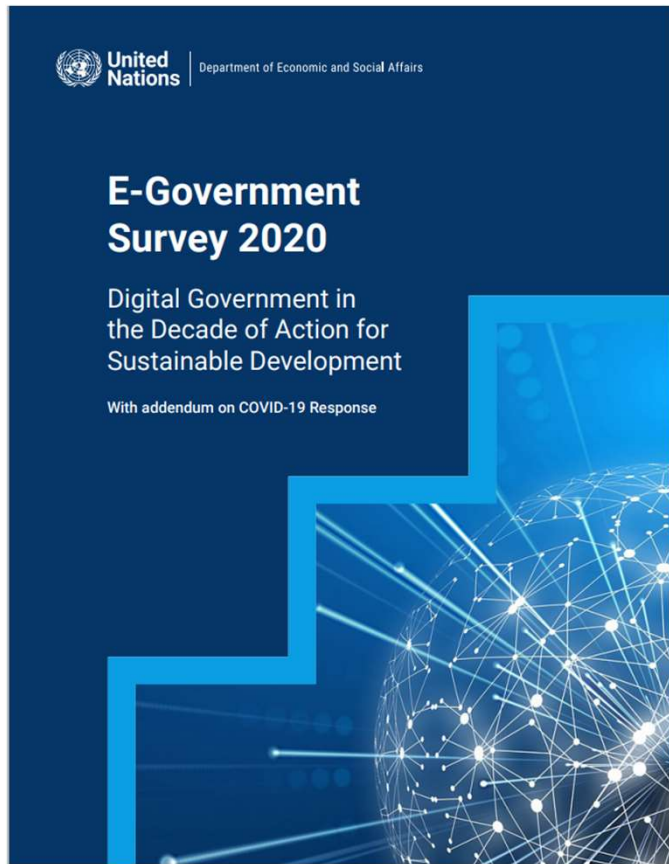
Table 7.1 Key pillars for government transformation, by digital government development category

	 Online presence	 Transactional	 Connected	 Transformative
01 Vision, leadership, mindsets	Individual leaders in IT department support e-government; reactive mindsets	Some e-government champions across government	Leadership's commitment at top level creates an environment that allows people to become more involved	Transformational leadership and full support for digital government from leadership at all levels of government; digital strategy is embedded in or aligned with the national development strategy; Teams aligned around data; forward-looking, proactive/anticipatory, innovative, digital and adaptive mind-sets
02 Legal and institutional framework	Basic laws are in place	Regulators as watchdogs; some form of legal authentication of citizen ID	Most legislation in place	Regulators as facilitators; Farsighted and comprehensive legal framework; strong Digital ID; regulatory sandboxes to explore use of emerging technologies
03 Organizational set-up and culture	Not centralized	E-government coordination is under a ministry such as the ICT ministry	CIO at the central level	CIO located within the highest-ranking decision-making body in government with budgetary autonomy; multidisciplinary and cross-functional teams; network of CIOs national/local levels; Environment of continuous learning to quickly adapt to change; operational agility, e.g., analytics-enabled human resources to identify and bridge skills gaps, and procurement engages innovative start-ups; augmented workforce or human and machine collaboration, which require among other things, creativity, strategic decisions and empathy; freeing up employees to carry out higher value-added tasks which require creativity
04 Systems thinking and integration	Departments work in silos; low integration of services; information available online	Two-way communication with people; 'downloadable forms'; some e-government projects are experimenting with integrated approaches	E-services cut across ministries and departments and services are provided in a seamless manner; from government-centric to people-centric service delivery	Strong single government website; "Digital-first principle," digital by default, digital by design and mobile-first principle; Public service delivery as an integrated system; strong National Digital ID; anticipatory people-centric and people-driven services; co-creation of services; Government easy to deal with, responsive and adaptive to people's needs
05 Data management	Limited access to accurate, timely, disaggregated and widely available data; Low connectivity;	Transaction data-based culture	Data integration and synchronization	Data governance office; once-only (data) principle; data-driven culture; evidence-informed decisions; continuous monitoring and improvement of data; open, machine-readable government data and high usage of open data
06 ICT Infrastructure, affordability & access	Low availability of hardware; No strategy on ICT investment as a whole; IT centric	Customer centric	One single government website	High broadband connectivity, use of frontier technologies, big data; platform business model; decentralized and interoperability architecture; secure by design; blockchain as a security feature; ecosystem centric
07 Resources	Little or no investment for digital transformation	Investment for specific projects	Large-scale investment	Whole-of-government and long-term approach to IT investment, including sustainability in financing; public-private partnerships
08 Capacity of capacity developers	Limited capacity	Investment in computer labs	The use of ICT integrated in all curricula	Strong partnerships with academia, think tanks, private sector, i.e., innovation labs, and other national governments, e.g., regional cybersecurity training; engagement of schools of public administration in building curricula for digital capacity and other relevant skills, continuous training of trainers
09 Societal capacities	Limited programmes in place to build societal capacities	Outreach activities to some vulnerable groups		Digital literacy in society high and Internet penetration also very high at all levels; 'omni or multichannel approach to lifelong learning'; partnerships between government and local ICT industries; maintain trust in government and ICT security, safety and privacy



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Thank You

Merci

Спасибо

Gracias

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