Module 2 – Fundamentals
Submodule 2.3
E-Government Survey
[beta version]

Thus far, you...

✓ were introduced to the background and objectives of e-Government

✓ learned about the key factors of e-Government

✓ learned about the key areas of e-Government

✓ were introduced to the reference model of e-Government

In this section you will learn...

Objectives, scope and purpose of E-Government Survey
- What is it

Structure and methodology of E-Government Survey
- E-Government Development Index (EGDI)
- Online Service Index (OSI)
- Telecommunication Infrastructure Index (TII)
- Human Capital Index (HCI)
- Local Online Service Index (LOSI)

E-Government and SDGs
- Goal 16
- Cases

Objective

By the end of this submodule, you will be able to:

✓ Understand the background and objectives of e-Government Survey

✓ Understand the scope and purpose of e-Government Survey

✓ Understand the structure and methodology of e-Government Survey

✓ Understand how e-Government Survey can help in achieving SDGs

Completion Time

- In total there are around **40 pages** for this submodule. It will take approximately **60 to 90 minutes** for each user to complete. This is an indication and can differ per user.

- Feel free to skip some parts of this submodule if you are already familiar with the content.

Other Information

- You can read along (PDF) as well as listen to the content (audio) while taking this course;
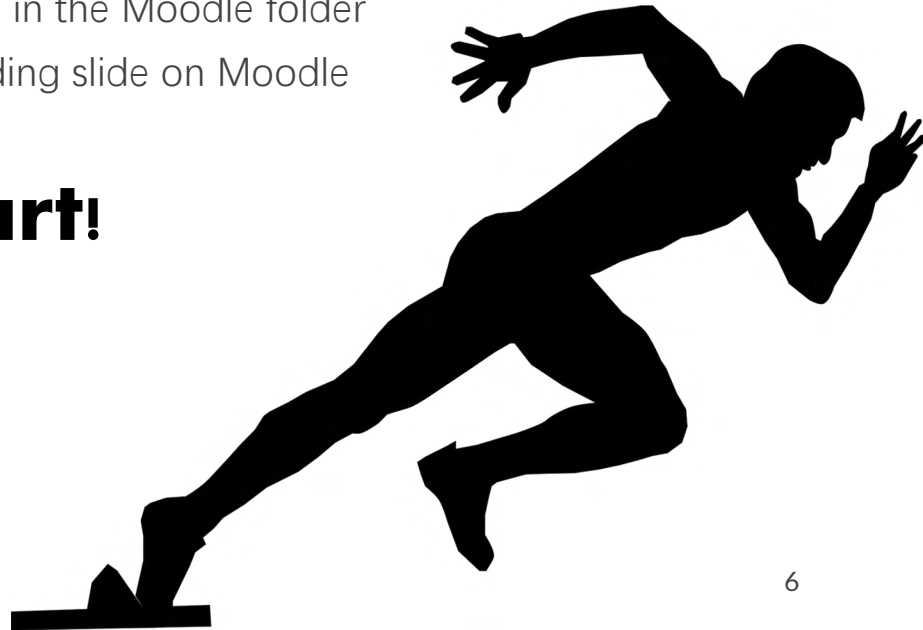
  📄⬇ Course material (PDF) can be downloaded in the Moodle folder

  🎧 Audio can be streamed on the corresponding slide on Moodle

Let's start!

What is the United Nations E-Government Survey?

- The only survey that assesses the e-government development status of all 193 UN Member States

- Used as a benchmark tool to measure
  * e-government development
  * build governments' capacity
  * provide policy recommendations
  * share good practices

- A UNDESA flagship publication published every two years, since 2011.

Scope and purposes of the E-Government Survey

- The Survey provides an analysis of:

  * Progress in using e-government

  * How e-government can support the realization of SDGs

  * Help address emerging public administration issues.

- Serves as a development tool:

  * For countries to learn from each other

  * Identify areas of strength and challenges in e-government

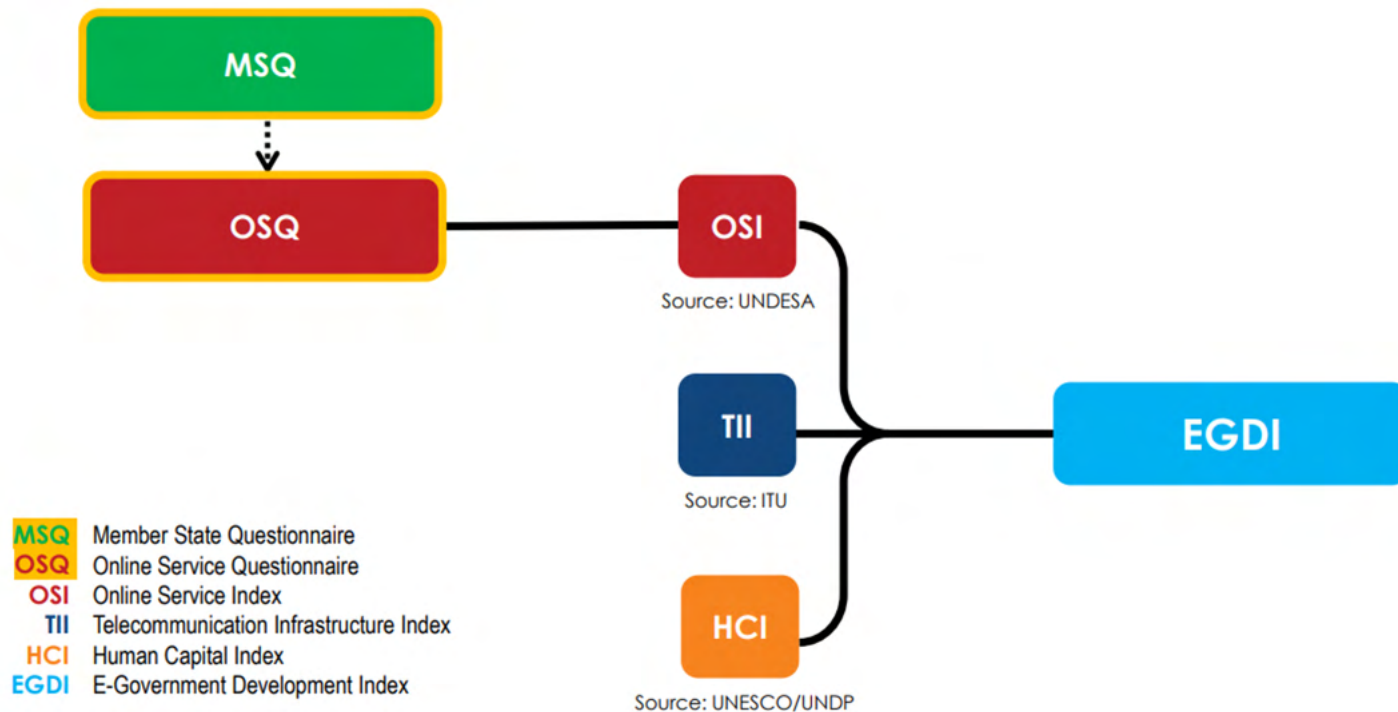 * Shape their policies and strategies in these area

Structure of the E-Government Survey

- The survey is composed of two parts; an analytical part and a data part.

- Every edition of the Survey focuses on a specific theme

- The most recent 2018 Survey examined how e-government can be used to build sustainable and resilient societies.

E-Government Survey Methodology: Overview

MSQ	Member State Questionnaire	
OSQ	Online Service Questionnaire	
OSI	Online Service Index	
TII	Telecommunication Infrastructure Index	
HCI	Human Capital Index	
EGDI	E-Government Development Index	

E-Government Survey Methodology: EGDI

A country's ranking in the survey is determined by the EGDI - E-Government Development Index, the weighted average of three normalized scores on

1. Scope and quality of online services
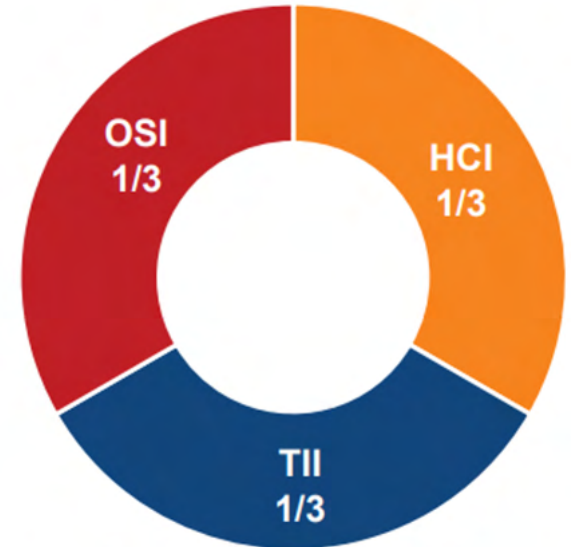   **Online Service Index, OSI**

2. Development status of telecommunication infrastructure
   Telecommunication Infrastructure Index, TII

3. Inherent human capital
   Human Capital Index, HCI

Source: UNDESA, 2018

11

What is Online Service Index, OSI?

- It is a composite indicator

- Measures the use scope and quality of online services provided by government

- Assesses technical features of national websites

- Based on data collected from independent survey questionnaire (MSQ and OSQ)

Member State Questionnaire (MSQ)

- The Member State Questionnaire (MSQ) requests member states to provide information on:
  - * Their respective portals
  - * Efforts in support of e-government development
  - * Open Government data
  - * E-Participation
- In 2018, 100 Member States (51.8%) returned completed questionnaires.

Online Service Questionnaire (OSQ)

- Online Service Questionnaire (OSQ) is an enhanced quantitative survey with a wider range of point distributions.

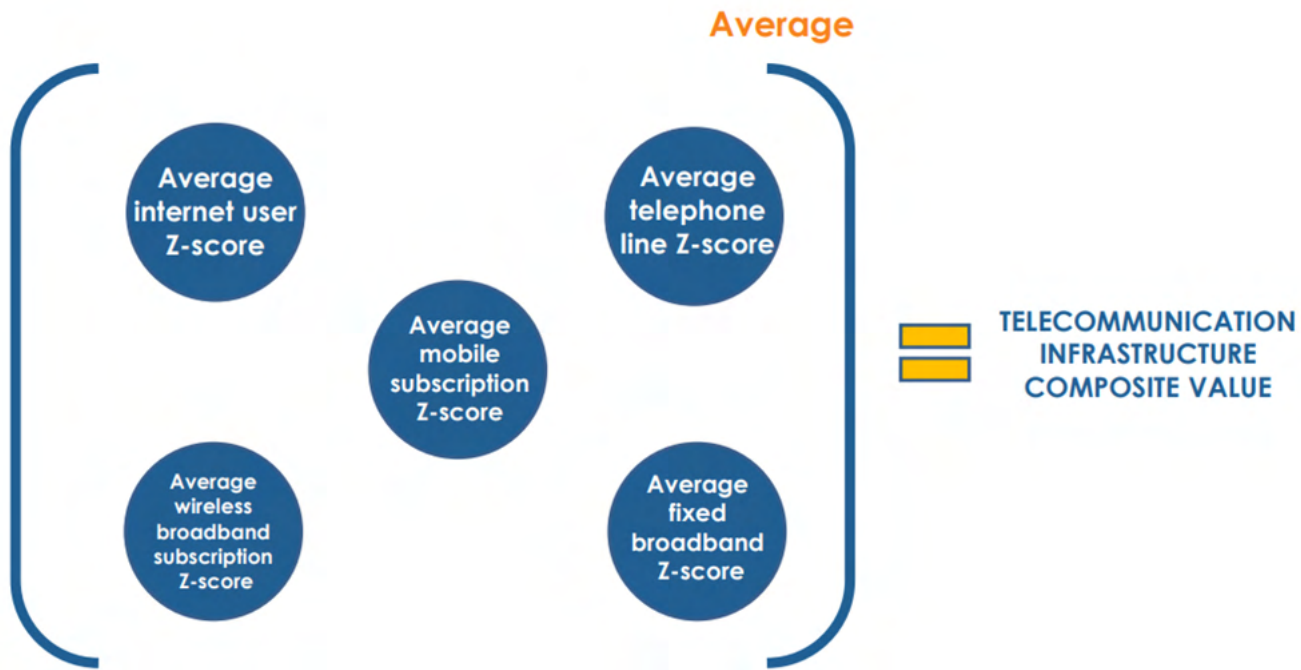- The 2018 OSQ consists of a list of 140 questions.

What is Telecommunication Infrastructure Index, TII?

- The Telecommunication Infrastructure Index is an arithmetic average composite of five indicators:
  - estimated Internet users per 100 inhabitants
  - number of main fixed telephone lines per 100 inhabitants
  - number of mobile subscribers per 100 inhabitants
  - number of wireless broadband subscriptions per 100 inhabitants
  - number of fixed broadband subscriptions per 100 inhabitants.
- The International Telecommunication Union is the primary source of data in each case.

15

How is TII calculated?

Average

$$\left[\; \text{Average internet user Z-score} \quad \text{Average telephone line Z-score} \quad \text{Average mobile subscription Z-score} \quad \text{Average wireless broadband subscription Z-score} \quad \text{Average fixed broadband Z-score} \;\right] = \text{TELECOMMUNICATION INFRASTRUCTURE COMPOSITE VALUE}$$
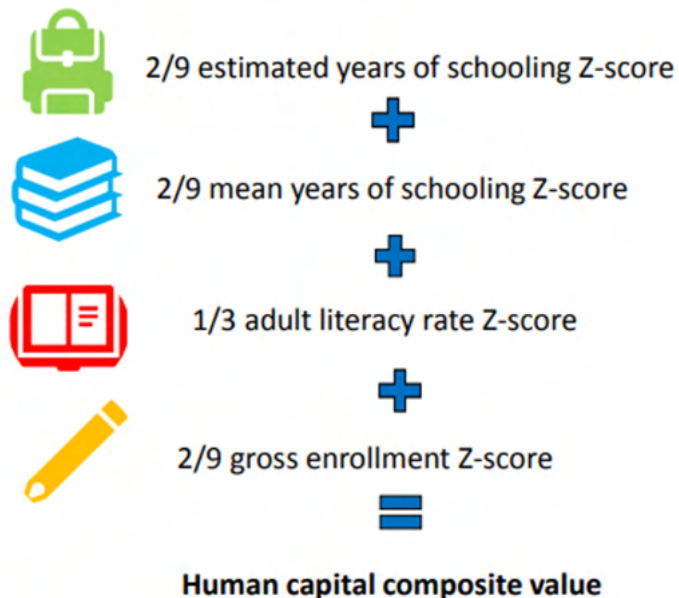
Source: UNDESA, 2018

16

What is Human Capital Index (HCI)?

- Assesses the Inherent human capital to promote and use ICT such as

  - The level of knowledge

  - Skill sets

  - Motivation

- The United Nations Educational, Scientific and Cultural Organization (UNESCO) is the primary source of data

How is HCI calculated?

- It is the weighted arithmetic mean of:
  - *   estimate years of schooling
  - *   mean years of schooling
  - *   adult literacy rate
  - *   gross enrollment ratio

- All component indicators are standardized via the Z-score procedure.

2/9 estimated years of schooling Z-score

➕

2/9 mean years of schooling Z-score

➕

1/3 adult literacy rate Z-score

➕

2/9 gross enrollment Z-score

＝

Human capital composite value

Source: UNDESA, 2018

What is Local Online Service Index (LOSI)?

- As of 2018, a pilot Local Online Service Index (LOSI) was added.

- It includes analysis and ranking of 40 cities worldwide.

- It is a multi-criteria index, composed of 60 binary indicators.

- Each of the indicators measures the municipality's official website in one of four criteria:

    - Technology

    - Content Provision

    - Services Provision

    - Participation and Engagement

- An additional email response test is conducted which identifies different aspects regarding how municipality portals respond to email requests

Source: UNDESA, 2018

19
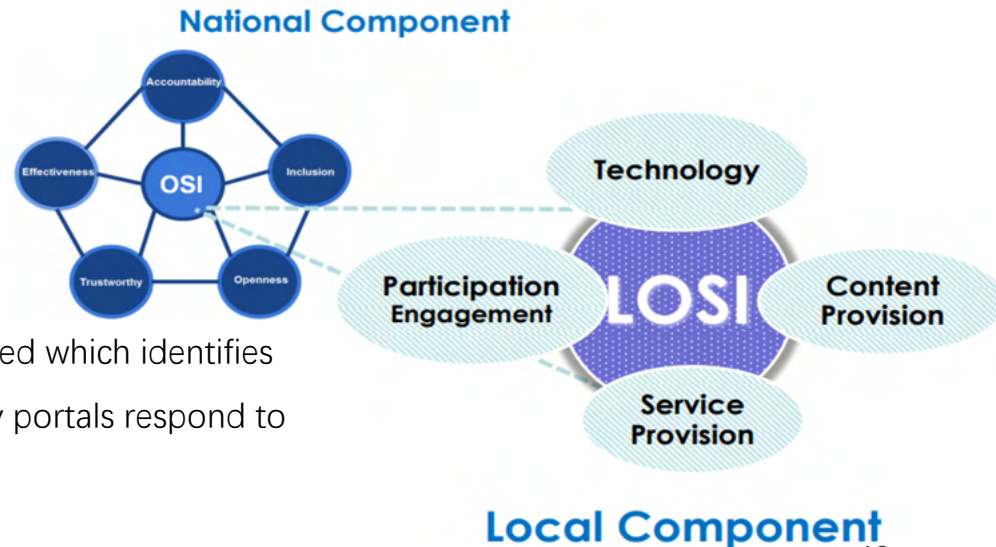
E-Government Survey and
The Sustainable Development Goals

E-Government Survey and Goal 16

Goal 16: Peace, Justice and Strong Institutions: Promote
peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective,
accountable and inclusive institutions at all levels.

- Inclusiveness: Extends from "leaving no one behind" to "leaving no one offline"
- Accountability and public trust: Assesses weaknesses to build on regarding the delivery of public policies and public services
- Openness: Emphasizes citizen's participation in public decision-making, e-information, e-consultation, e-decision making.

21

Let's take a
break!

Are you up for a
challenge?

MCQ 1

Which of the following is *not* true about the e-Government Survey? Select all that apply.

A. EGDI consists of OSI, TII, HCI and LOSI

B. OSI measures the use scope and quality of online services provided by government

C. The United Nations Educational, Scientific and Cultural Organization (UNESCO) is the primary data source for HCI

D. The Telecommunication Infrastructure Index is an arithmetic average composite of five indicators

E. LOSI was added to the Survey in 2018

F. OSQ requests member states to provide information on matters such as their respective portals and efforts in support of e-Government development

MCQ 2

Select the correct answer: *True* **or** *False*.

1. E-Government Survey can help promote Goal 16 of SDGs through assessing inclusiveness, accountability and public trust, and openness of the Member States of the United Nations

   - True

   - False

2. E-Government Survey suggests specific policies for the Member States to improve on their current state of e-Government development.

   - True

   - False

Case Study 1 - Mauritius

Table 6.1   Top 10 countries for e-government in Africa

Country	Sub-region	OSI	HCI	TII	EGDI	EGDI Level	2018 Rank
Mauritius	Eastern Africa	0.7292	0.7308	0.5435	0.6678	High	66
South Africa	Southern Africa	0.8333	0.7291	0.4231	0.6618	High	68
Tunisia	Northern Africa	0.8056	0.6640	0.4066	0.6254	High	80
Seychelles	Eastern Africa	0.6181	0.7299	0.5008	0.6163	High	83
Ghana	Western Africa	0.6944	0.5669	0.3558	0.5390	High	101
Morocco	Northern Africa	0.6667	0.5278	0.3697	0.5214	High	110
Cabo Verde	Western Africa	0.4861	0.6152	0.3926	0.4980	Medium	112
Egypt	Northern Africa	0.5347	0.6072	0.3222	0.4880	Medium	114
Rwanda	Eastern Africa	0.7222	0.4815	0.1733	0.4590	Medium	120
Namibia	Southern Africa	0.4514	0.5850	0.3299	0.4554	Medium	121

- Highest ranking country from Africa (66th overall), scoring EGDI of 0.6678.
- "Digital Mauritius 2030 Strategy" and "Digital Government Strategy for 2018-2022" were developed to address legal, regulatory, security and institutional frameworks.

Source: UNDESA, 2018

25

Case Study 2 - Republic of Korea

Table 6.3   Top 10 countries for e-government in Asia

Country	Sub-region	OSI	HCI	TII	EGDI	EGDI Level	2018 Rank
Republic of Korea	Eastern Asia	0.9792	0.8743	0.8496	0.9010	Very High	3
Singapore	South-Eastern Asia	0.9861	0.8557	0.8019	0.8812	Very High	7
Japan	Eastern Asia	0.9514	0.8428	0.8406	0.8783	Very High	10
United Arab Emirates	Western Asia	0.9444	0.6877	0.8564	0.8295	Very High	21
Bahrain	Western Asia	0.7986	0.7897	0.8466	0.8116	Very High	26
Israel	Western Asia	0.8264	0.8635	0.7095	0.7998	Very High	31
Cyprus	Western Asia	0.7847	0.8083	0.7279	0.7736	Very High	36
Kazakhstan	Central Asia	0.8681	0.8388	0.5723	0.7597	Very High	39
Kuwait	Western Asia	0.7917	0.6852	0.7394	0.7388	High	41
Malaysia	South-Eastern Asia	0.8889	0.6987	0.5647	0.7174	High	48

- Highest ranking country from Asia (3rd overall), scoring EGDI of 0.9010.
- Developed the "E-Government Master Plan 2020" to address the challenges that come from a constantly evolving e-government service.

Source: UNDESA, 2018

26

Case Study 3 - Bangladesh

Table 6.7   Top 10 countries for e-government - Least Developed Countries (LDC)

Country	Region	Sub-Region	OSI	HCI	TII	EGDI	EGDI Level	2018 Rank
Bangladesh	Asia	Southern Asia	0.7847	0.4763	0.1976	0.4862	Medium	115
Nepal	Asia	Southern Asia	0.6875	0.4957	0.2413	0.4748	Medium	117
Rwanda	Africa	Eastern Africa	0.7222	0.4815	0.1733	0.4590	Medium	120
Bhutan	Asia	Southern Asia	0.5000	0.4743	0.3080	0.4274	Medium	126
Zambia	Africa	Eastern Africa	0.4792	0.5689	0.1853	0.4111	Medium	133
Uganda	Africa	Eastern Africa	0.5694	0.4906	0.1566	0.4055	Medium	135
Vanuatu	Oceania	Melanesia	0.4375	0.5675	0.1920	0.3990	Medium	137
Togo	Africa	Western Africa	0.5556	0.5058	0.1353	0.3989	Medium	138
United Republic of Tanzania	Africa	Eastern Africa	0.5625	0.4759	0.1403	0.3929	Medium	139
Timor-Leste	Asia	South-Eastern Asia	0.3125	0.5387	0.2937	0.3816	Medium	142

- Highest-ranking country among the Least Developed Countries (LDCs)
- Launched the "Digital Bangladesh Initiative" to emphasize the importance of ICTs in improving efficiency and productivity in all industries

Source: UNDESA, 2018

27

Case Study 4 - Kazakhstan

Table 6.8   Top 10 countries for e-government - Landlocked Developing Countries

Country	Region	Sub-Region	OSI	HCI	TII	EGDI	EGDI Level	2018 Rank
Kazakhstan	Asia	Central Asia	0.8681	0.8388	0.5723	0.7597	Very High	39
Republic of Moldova	Europe	Eastern Europe	0.7708	0.7274	0.4787	0.6590	High	69
Azerbaijan	Asia	Western Asia	0.7292	0.7369	0.5062	0.6574	High	70
The former Yugoslav Republic of Macedonia	Europe	Southern Europe	0.7153	0.6924	0.4859	0.6312	High	79
Uzbekistan	Asia	Central Asia	0.7917	0.7396	0.3307	0.6207	High	81
Armenia	Asia	Western Asia	0.5625	0.7547	0.4660	0.5944	High	87
Kyrgyzstan	Asia	Central Asia	0.6458	0.7628	0.3418	0.5835	High	91
Mongolia	Asia	Eastern Asia	0.5972	0.7899	0.3602	0.5824	High	92
Bolivia (Plurinational State of)	Americas	South America	0.5625	0.7148	0.3148	0.5307	High	103
Paraguay	Americas	South America	0.5556	0.6701	0.3507	0.5255	High	108

- Highest-ranking country among the Landlocked Developed Countries (LLDCs).
- Adopted "Information Kazakhstan -2020" in 2013, which aims to create the conditions for its transition to an information society, ensure and optimize the effectiveness of public administration through information technology, and provide ICT awareness opportunities through e-Learning to its citizens.

Source: UNDESA, 2018

Case Study 5 - Singapore

Table 6.9 Top 10 countries for e-government - Small Island Developing States

Country	Region	Sub-Region	OSI	HCI	TII	EGDI	EGDI Level	2018 Rank
Singapore	Asia	South-Eastern Asia	0.9861	0.8557	0.8019	0.8812	Very High	7
Barbados	Americas	Caribbean	0.6667	0.8301	0.6719	0.7229	High	46
Mauritius	Africa	Eastern Africa	0.7292	0.7308	0.5435	0.6678	High	66
Saint Kitts and Nevis	Americas	Caribbean	0.5347	0.7491	0.6825	0.6554	High	71
Bahamas	Americas	Caribbean	0.7014	0.7249	0.5393	0.6552	High	72
Trinidad and Tobago	Americas	Caribbean	0.6389	0.7195	0.5735	0.6440	High	78
Seychelles	Africa	Eastern Africa	0.6181	0.7299	0.5008	0.6163	High	83
Grenada	Americas	Caribbean	0.4931	0.8202	0.4658	0.5930	High	89
Antigua and Barbuda	Americas	Caribbean	0.4583	0.7518	0.5617	0.5906	High	90
Dominica	Americas	Caribbean	0.6111	0.6497	0.4775	0.5794	High	93

- Singapore is the highest-ranking country among the Small Island Developing States (SIDS).
- Since 2016, Singapore has been providing a digital government to a "smart nation" improving lifestyles, creating more opportunities, and stronger communities by harnessing technology.

Conclusion

- The E-Government Survey provides analysis and evidence to further utilize the potential of e-government to support the 2030 Agenda.

- The Survey allows UN member states to identify areas of strength and challenges in e-government and shape their policies and strategies in these areas.

Congratulations!

You have reached the end of submodule 2.3 on the E-Government Survey.

Thank you for joining us in this exciting journey.

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Under this submodule, you:

  learned about the background and objectives of the E-Government Survey

  learned about the scope and purpose of the E-Government Survey

  learned about the structure and methodology of the E-Government Survey

  learned about how the E-Government Survey can help in achieving SDGs

You may proceed to the next submodule 2.4 on Data

Sources & Recommended Reading
Please check the PDF in the folder

31

Contact us for inquiries or questions

DPIDG@un.org
Or post your questions/comments in the forum!

Please note that this is a beta version. We appreciate your feedback so we can further improve our toolkit