

Division for Public Institutions & Digital Government, United Nations

Department of Economic and Social Affairs







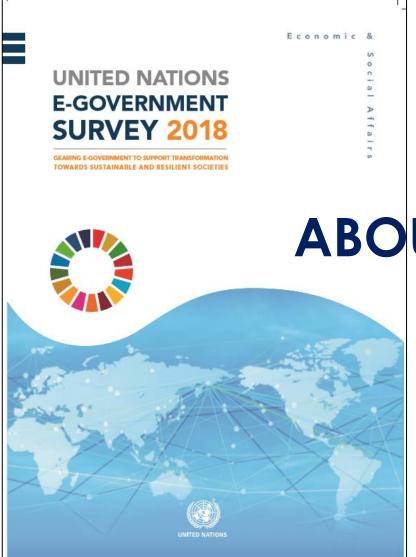


GEARING E-GOVERNMENT TO SUPPORT TRANSFORMATION TOWARDS SUSTAINABLE AND RESILIENT SOCIETIES

Vincenzo Aquaro Chief, Digital Government Branch DPIDG, UN DESA

Montevideo, 3 August 2018





ABOUT THE SURVEY



E-Government Survey: The Mandates



The Survey is mandated by the General Assembly through resolutions 69/327; 58/231 and 59/55 on Public Administration and Development



Relevant **ECOSOC resolutions** for the United Nations E-Government Survey include:



E/RES/2005/3 E/RES/2006/47 E/RES/2007/38 E/RES/2008/32 E/RES/2009/18

E/RES/2011/2 E/RES/2011/22 E/RES/2012/28 E/RES/2013/2 E/RES/2014/38 E/RES/2015/28



What is the UN E-Government Survey

- ☐ It is the only E-Government
 Survey that assesses the egovernment development status
 of all 193 UN Member States
- ☐ It is used as a benchmark tool to measure e-government development, build governments' capacity, provide policy recommendations and share good practices from around the World
- ☐ It is a UNDESA flagship publication issued every two years since 2003

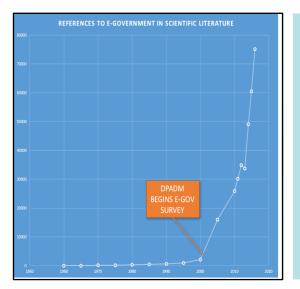


- Governments
- Intergovernmental institutions
- International and regional organizations
- Academia, research centers and schools of public administration
- Private sector
- Civil society organizations
- Citizens



Just Some Numbers and References





In 2017 >75,000 ref.
Citation analysis of scholarly references to the UN e-Government Survey reveals a rapidly expanding level of attention and inherent credibility of the product. ***





























 Timeframe
 Downloads

 Total downloads
 > 5 ML

 2016*
 1,271,250

 2015*
 1,172,600

 2014**
 1,072,760



*Second most downloaded publication of DESA **Most downloaded publication of DESA

E-Government Survey: A Continuous Improvement

The E-Gov Survey presents a systematic assessment of the use of ICT to transform and reform the public sector by enhancing efficiency, effectiveness, transparency, accountability, access to public services and citizen participation in 193 Countries

10th Edition of the UN E-Government Survey 2018 "Gearing E-Government to Support Transformation Towards Sustainable and Resilient Societies"

Call for Contributions

I deadline for submission is 31 December 2017

2018

SUNYEY 2018

SUNYEY 2018

SUNYEY 2018

https://publicadministration.un.org/en/Research/UN-e-EGOV2018-Call-for-Contributions

Esrchropking

A Global E-GOY

RADINESS E-GOY

RADINESS E-GOY

RADINESS E-GOY

RADINESS E-GOY

RECONSTRUCT

TOWN Common to Comm



2010

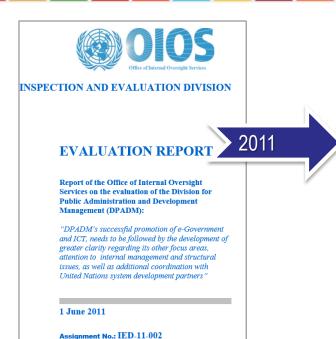
2008







Two External Independent Evaluations



Expert Group Meeting UN e-Government Survey 2018 New York, UN Headquarters (Conf. Room E) May 10-11, 2017

2017

External Evaluation

of the e-Government Survey for the Period 2001-2016

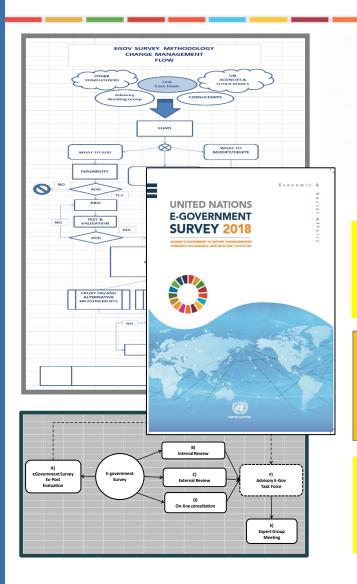
Edward M. Roche, Ph.D., J.D. Evaluation Consultant

The evaluation results showed that DPADM has, in particular, successfully promoted e-Government as a tool to deliver government services more efficiently. DPADM's 2010 United Nations E-Government Survey publication, as well as earlier versions, were recognized by stakeholders for their impact in raising general awareness of the benefits that governments can achieve by adapting e-Government strategies for service provision. Additionally, DPADM's e-Government survey is credited with raising awareness of specific national rankings intended to measure the relative success of governments' implementation of such approaches. The influence of DPADM's eGovernment work spanned multiple continents, was well integrated with e-Government work being undertaken by organizations," and, was serving as a credible benchmark in the development arena."

The e-Government Survey has been a remarkable success and has become one of the flagship publications of the **United Nations.** Although there are uncertainties in the precise measurement of the national rankings, the readiness index has served as an invaluable tool for governments and policymakers. The Index has been continually updated over the years, and now is in the process of being readjusted to make it supportive of the Sustainable Development Goals (SDG) program. There is no reason to imagine that going forward, the Index will not remain a crucial element in how governments will formulate their ICT strategies as regards citizen-facing public services.



Preparatory process of the 2018 E-Gov Survey





- ☐ 20 Months of Work
- ☐ A Taskforce of **308**Researchers
- **□ 206** UN-Volunteers
- ☐ Partnership with UNU-EGOV, ITU, ESCAP
- ☐ Contribution from ECLAC, UNECA, UNECE, ESCWA, UNOOSA
- 1 External Evaluation Report (2003-2016)
- 2 Expert Group Meetings
- 1 Informal Advisory Working Group
- ☐ Open Consultation with 193 MS (MSQ)
- ☐ 100 MSQ Returned
- ☐ 3x193 MS Assessments in 66 lanuguages
- **□ 57** New Case Studies



What was changed in the 2018 edition compared to 2016

Core principles and
linkages with 2030
Agenda and 2018 HLPF
themes

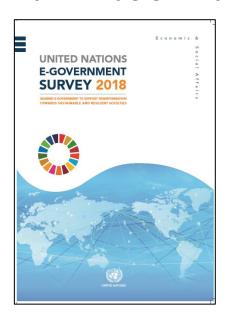
PEOPLE | Protect our planets and dignity and equality

Protect our planets and dignity and equality

Protect our planets | Sustainable | PROSPERITY |
Protect our planets | Sustainable | Development |
PRINCE | PROSPERITY |
PRINCE | PRINCE |
PRINCE | P

GEARING E-GOVERNMENT TO SUPPORT TRANSFORMATION TOWARDS SUSTAINABLE AND

RESILIENT SOCIETIES



Five
Dimensions
of SDG16



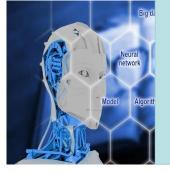


Local
Component
Cities

2018 Theme: Transformation Forward

Resilience Society

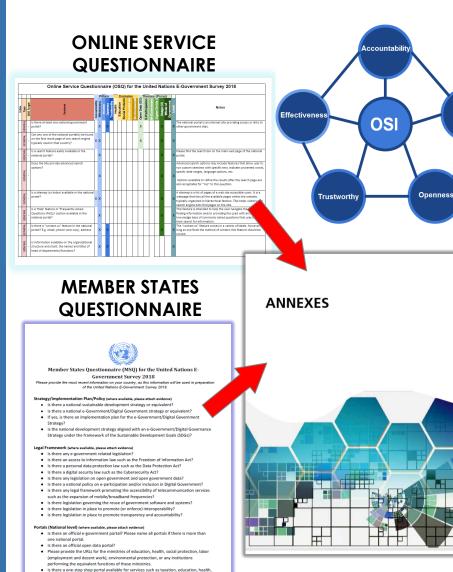




Fast evolving technologies and Artificial Intelligence



What was changed in the 2018 edition compared to 2016



- Online Service Questionnaire (OSQ), was expanded to include the main principles of the Sustainable Development Goals (SDGs) and Leaving No One Behind, with a particular focus on Goal 16
- An updated and detailed Member States Questionnaire (MSQ) was launched in 2017 to gather further detailed information about the efforts of governments in e-government development
- The MSQ and the list of 100 responding Member States were added in the Annexes.
- For the first time, the list of the OSQ areas assessed in this edition of the UN E-Government Survey was added in the Annexes.



What was changed in the 2018 edition compared to 2016

Improve cities resilience and sustainability through e-government assessment

7.1.1 Urbanisation and Sustainability

Cities are important hubs of human activity that are gaining it population and increased importance in the global economy. In 2016, close to 4 billion people — 54 per cent of the world's population — lived in cities. According to the World Bank¹, in the last 50 years the it is estimated that, by 2050, 6 billion people will be living in cities (66 per cent of the world's population). In 2014, high levels of urbanisation, at or above 80 per cent, characterised Latin America and the Caribbean and Northern America. Europe, with 73 per cent of its population living in cities, is expected to be over 80 per cent urban by 2050. Africa and Asia, in contrast, remain mostly rural, with 40 per cent and 48 per cent of their respective populations living in urban areas. Over the coming decades, the level of urbanisation is expected to increase in all regions with Africa and Asia urbanising faster than the rest².

The role of local administration in the achievement of the United Nations Sustainable Development Goals (SDGs) is critical, since those goals ognise the transformative power of urbanisation for develop and the significance of city leaders in driving global change from the bottom up. Most of the SDGs have targets that are directly or indirectly related to the daily operation of local and regional governments Local governments are policy makers and catalysts of change. They are also the level of government best-placed to bind the goals with local communities!. Improvement of local e-Government functions encompasses local public institutions, their operations and civil society organisations alignment with UN SDGs 11 and 17 for sustainable cities and communities and goal 16 for peace, justice and strong institutions. In practice, institutions are strengthened by free, fair and equal citizen participation. Furthermore, local governments that possess decentralised authority can better set local priorities to assure the rights and needs of vulnerable groups and provide transparent and accountable institutions

7.1.2 Public service delivery at a local level

Municipality administration constitutes the lowest level of governance in each country (Lanvin and Lewin, 2006). E-Government at the local level has its own flavour, since cities and municipalities are developing specific functions and components that cannot be found at othe levels of government. On the one hand, local government serves the



7.3.2 Study Findings

7.5. Conclusion

7.4. Using Local e-Government to Advance SDG implementation

A pilot Local Online Service Index (LOSI) has been created and a pilot analysis and ranking, covering 40 cities worldwide, was added (Chapter 7)

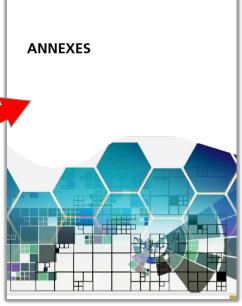
The list of the LOSI indicators assessed in this edition was added in the Annexes.



Content **Provision**

Provision

Chapter 7







Fast-Evolving Technologies in E-Government

The new technologies has expanded policy options that literally did not exist as recently as few decades

CHAPTER 8 + FAST-EVOLVING TECHNOLOGIES IN E-GOVERNMENT: GOVERNMENT PLATFORMS, ARTIFICIAL INTELLIGENCE AND PEOPLE

Chapter 8. Fastevolving technologies in e-government: Government Platforms, Artificial Intelligence and People

8.1. Introduction

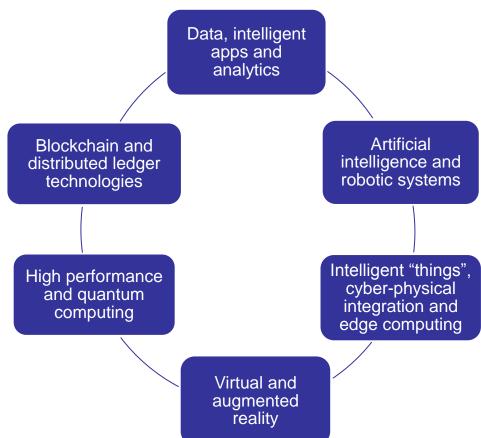
As public institutions focus on the implementation of Agenda 2030 with the core principles of leaving no one behind and eradicating poverty, frontier technologies are creating both opportunities and risks for future governance.

The fourth industrial revolution and convergence of innovative technologies, such as big data, Internet of Things (807), cloud and super-computing, geo-spatial data and broadband, artificial intelligence (Al), and deep machine learning, are promoting a darmantic shift towards more data and machine-friven societies, while development challenges and social inequality continue to increase. So-called disruptive technologies, including predictive analytics, are creating unforeseen opportunities in many government sectors, including health, security, water management, environment, among others. The rapidity with which these new technologies are evolving, combined with the knowledge that governments already possess, present a historic opportunity for sustainable development.

However, the pace and evolution of technological innovation can surpass the speed with which governments can absorb changes and reap their rewards. In the past decade, there have been ground-breaking technological advances, such as the economy app, blockchain, and facial recognition via simple smart phones, to name a few. Apart from the need for governments to catch up is the need to ensure that the new data tools are not concentrated in the hands of a few but are equitably distributed. A sufficient balance which seve the needs of many for the greater good is required. Thus, the process of integrating the new data tools could benefit from constant review and an incremental approach.

The accelerated speed of innovation and the integration of technology into all devices and all sectors are equally disrupting the public sector. Models governing the design and consumption of public services are evolving. Beyond digital transformation, governments the threnselves are increasingly called upon to evolve as well. Indeed, the degree to which technology is disrupting society on the one hand and supporting it on the other is unknown. The use of these fast-evolving technologies in





Chapter 8





E-GOV METHODOLOGY



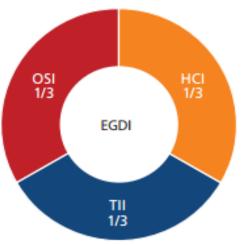
E-Government Survey Methodology: EGDI, OSI, TII, HCI

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

- Scope and quality of online services
 Online Service Index, OSI
- 2. Development status of telecommunication infrastructure

Telecommunication Infrastructure Index, TII





- OSI—Online Service Index
- TII—Telecommunication Infrastructure Index
- HCI—Human Capital Index



How does the Survey measure III

Telecommunication Infrastructure Index (TII)

2016 Subcomponents



Estimated internet users per 100 inhabitants



Number of main fixed telephone lines per 100 inhabitants



Number of mobile subscribers per 100 inhabitants



Number of fixed broadband facilities per 100 inhabitants



Number of wireless broadband subscriptions per 100 inhabitants

2018 Subcomponents



Estimated internet users per 100 inhabitants



Number of main fixed telephone lines per 100 inhabitants



Number of mobile subscribers per 100 inhabitants



Number of fixed broadband facilities per 100 inhabitants



Number active mobile broadband subscriptions per 100 inhabitants



15

How does the Survey measure HCI

Human Capacity Index (HCI)

It is measured through the average of the following indicators the educational base of citizens that will allow them to access the government services online



Adult literacy



Mean years of schooling



Gross enrolment ratio (Primary, Secondary, Tertiary)

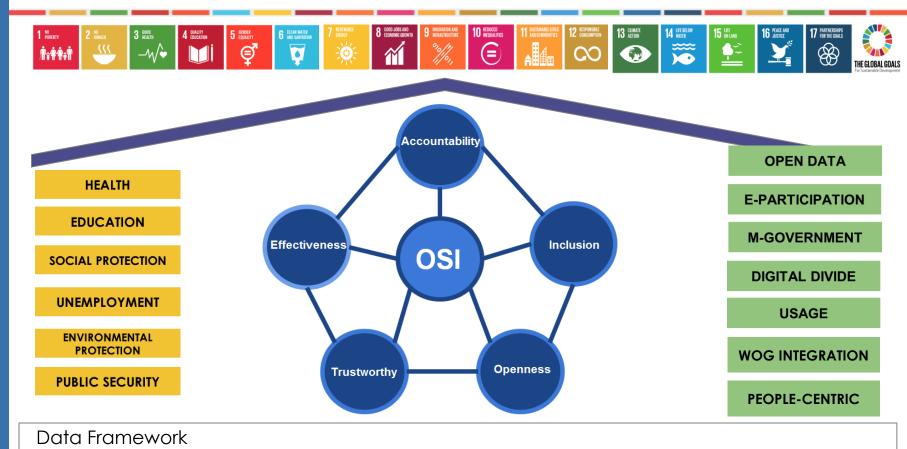


Estimated years of schooling



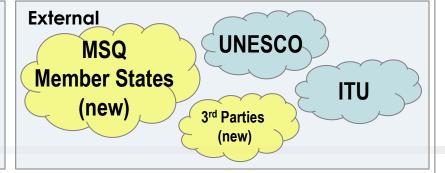
Primary source: based on the UNESCO data

2018: Digital Government Framework



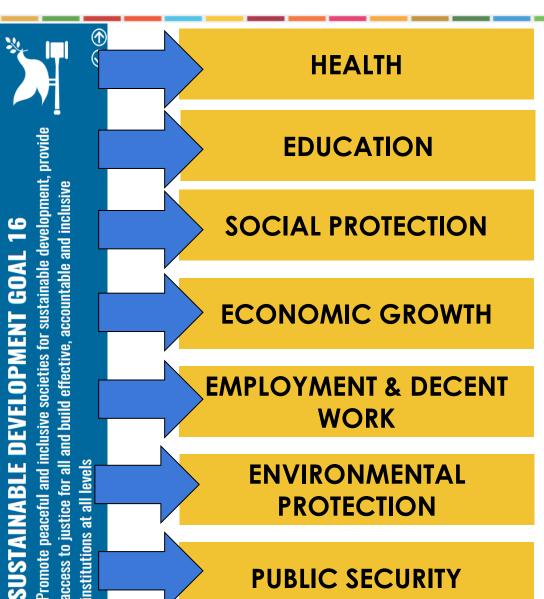


Pilots (researchers + automated)





Questions cover these DOMAINS





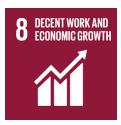






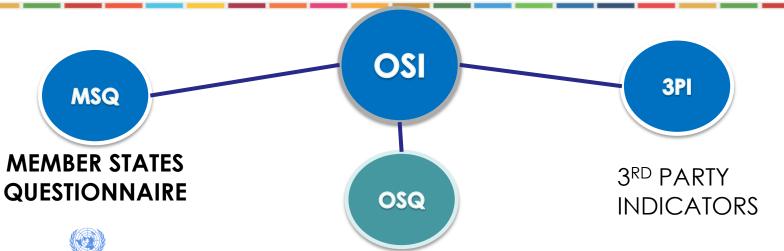








2018 Online Service Index



Member States Questionnaire (MSQ) for the United Nations E-Government Survey 2018

Please provide the most recent information on your country, as this information will be used in preparation of the United Nations E-Government Survey 2018.

Strategy/Implementation Plan/Policy (where available, please attach evidence)

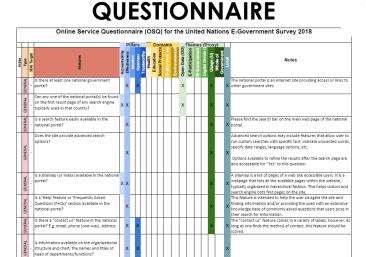
- Is there a national sustainable development strategy or equivalent?
 Is there a national e-Government/Digital Government strategy or equivalent?
- If yes, is there an implementation plan for the e-Government/Digital Government
- Strategy?
- Is the national development strategy aligned with an e-Government/Digital Governance Strategy under the framework of the Sustainable Development Goals (SDGs)?

Legal Framework (where available, please attach evidence)

- · Is there any e-government related legislation?
- . Is there an access to information law such as the Freedom of Information Act?
- Is there a personal data protection law such as the Data Protection Act?
- Is there a digital security law such as the Cybersecurity Act?
- Is there any legislation on open government and open government data?
- Is there a national policy on e-participation and/or inclusion in Digital Government?
- Is there any legal framework promoting the accessibility of telecommunication services such as the expansion of mobile/broadband frequencies?
- Is there legislation governing the reuse of government software and systems?
- Is there legislation in place to promote (or enforce) interoperability?
- · Is there legislation in place to promote transparency and accountability?

Portals (National level) (where available, please attach evidence)

- Is there an official e-government portal? Please name all portals if there is more than
 one national portal.
- Is there an official open data portal?
- Please provide the URLs for the ministries of education, health, social protection, labor (employment and decent work), environmental protection, or any institutions performing the equivalent functions of these ministries.
- Is there a one-stop shop portal available for services such as taxation, education, health,



ONLINE SERVICE



Global Cybersecurity Index

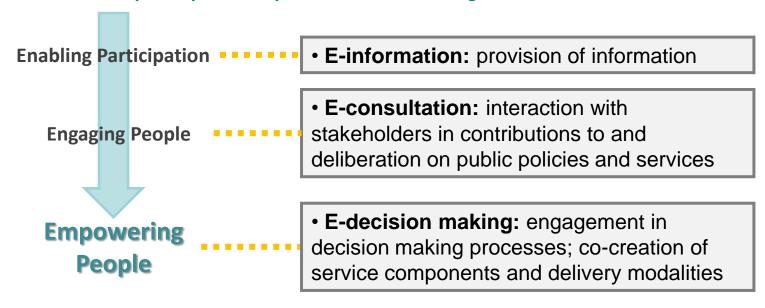




How does the Survey Measure EPI

E-Participation Index (EPI)

Based on an independent online assessment and a questionnaire conducted by DGB/DPIDG It emphasizes citizen's participation in public decision-making



Customer Satisfaction Surveys

Discussion Forums

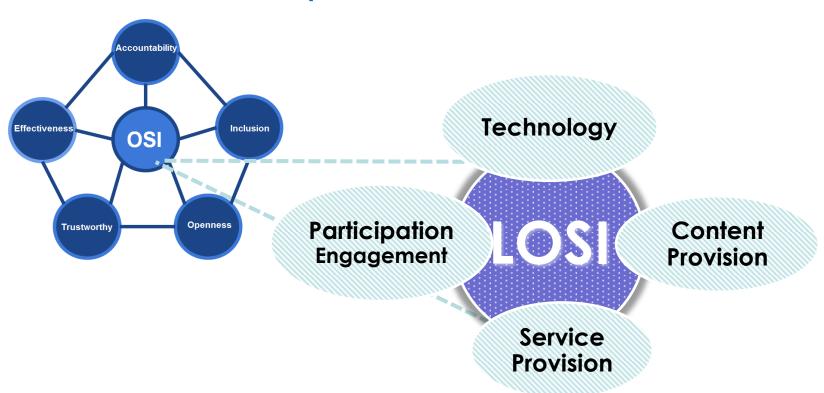
Opinion Poll

Social Networking Websites



2018: Local Online Service Index

National Component



Local Component



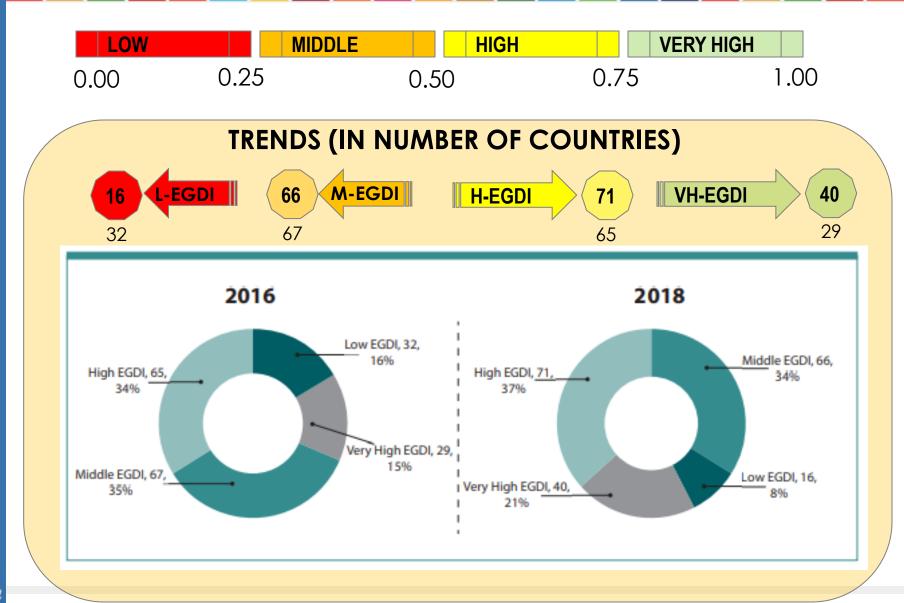


TRENDS AND INSIGHTS



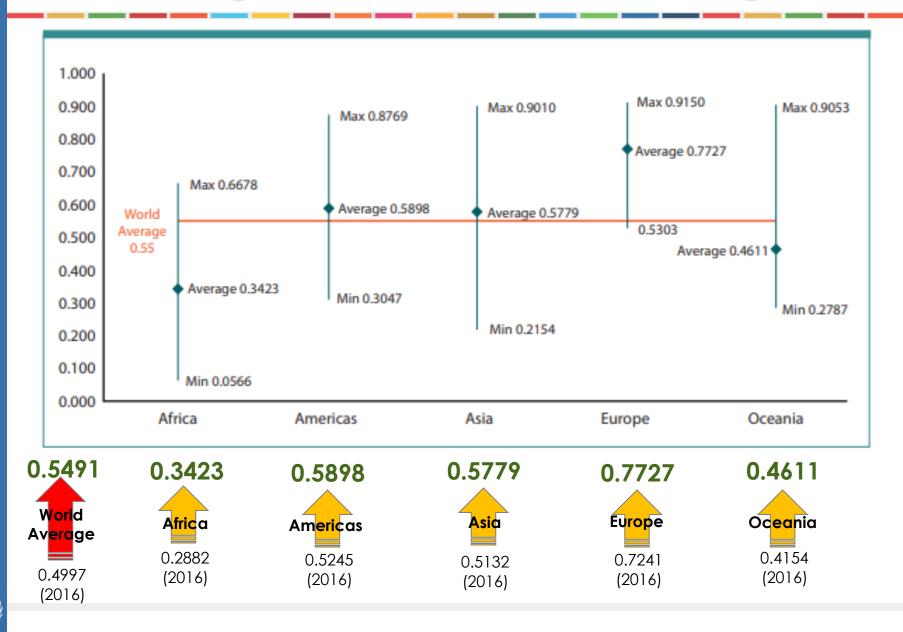


E-Government Development Index (EGDI)





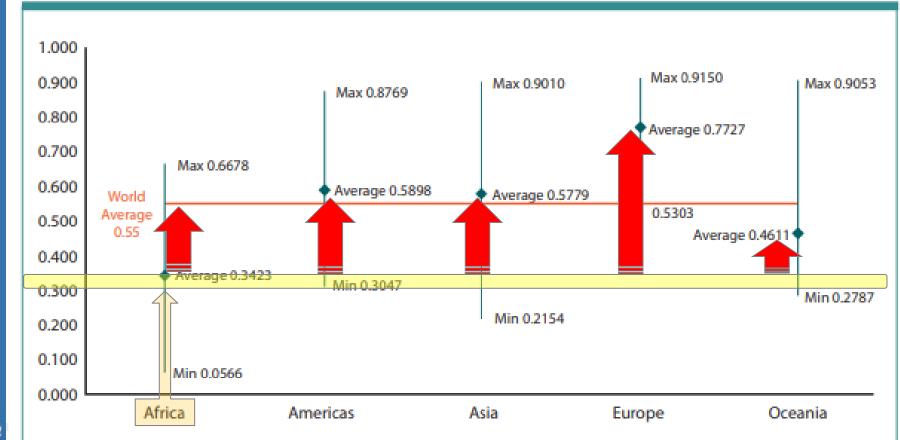
EGDI: Regional and Global Averages





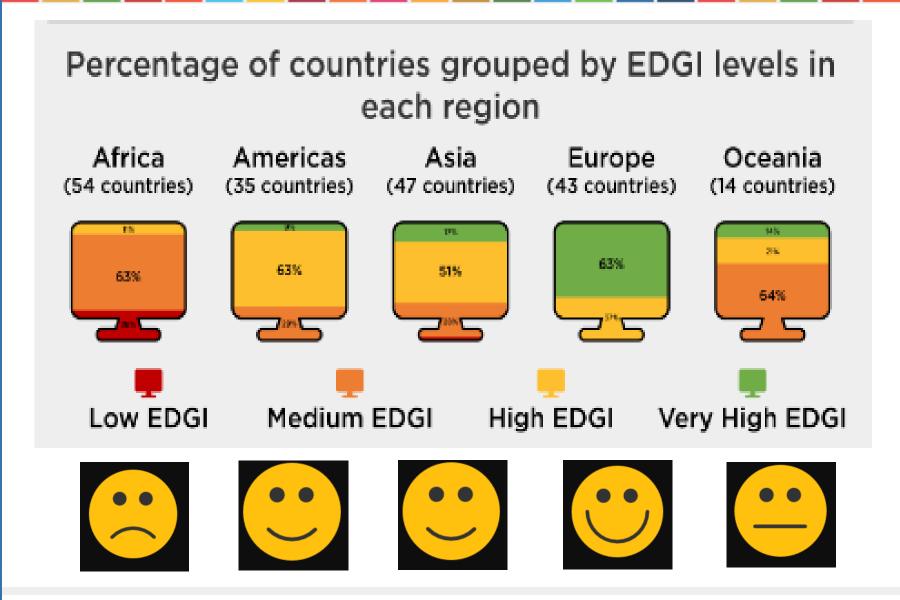
EGDI: Digital Divide

Despite some development gains and investments in technology in several countries, e-government divide and digital divide continue to persist. Only 4 countries out of 54 in Africa score higher than the world average EGDI of 0.55, whereas 14 LDCs countries have very low EGDI scores below 0.25.





2018 E-Government Survey: Regional Trends





2018 Global Ranking: World Leaders

Top Leading Countries in E-Government Development					
Country	Region	Subregion	EDGI	Rank	
Denmark	Europe	Northern Europe	0.9150	1	
Australia	Oceania	Australia and New Zealand	0.9053	2	
Republic of Korea	Asia	Eastern Asia	0.9010	3	
United Kingdom	Europe	Northern Europe	0.8999	4	
Sweden	Europe	Northern Europe	0.8882	5	
+ Finland	Europe	Northern Europe	0.8815	6	
Singapore	Asia	South-Eastern Asia	0.8812	7	
New Zealand	Oceania	Australia and New Zealand	0.8806	8	
France	Europe	Western Europe	0.8790	9	
Japan	Asia	Eastern Asia	0.8783	10	
United States of America	Americas	North America	0.8769	11	
Germany	Europe	Western Europe	0.8765	12	
Netherlands	Europe	Western Europe	0.8757	13	
₩ Norway	Europe	Northern Europe	0.8557	14	
Switzerland	Europe	Western Europe	0.8520	15	
Estonia	Europe	Northern Europe	0.8486	16	
Spain	Europe	Western Europe	0.8415	17	
Luxembourg	Europe	Western Europe	0.8334	18	
: Iceland	Europe	Northern Europe	0.8301	19	
Austria	Europe	Western Europe	0.8301	20	

(Country	Region	Subregion	EDGI	Rank
_	Jnited Arab Emirates	Asia	Western Asia	0.8295	21
<u> </u>	reland	Europe	Northern Europe	0.8287	22
• [(Canada	Americas	North America	0.8258	23
1	taly	Europe	Southern Europe	0.8209	24
L	iechtenstein	Europe	Western Europe	0.8204	25
E	3ahrain	Asia	Western Asia	0.8116	26
E	Belgium	Europe	Western Europe	0.8080	27
1	Monaco	Europe	Western Europe	0.8050	28
F	Portugal	Europe	Southern Europe	0.8031	29
1	Malta	Europe	Southern Europe	0.8011	30
o	srael	Asia	Western Asia	0.7998	31
	Russian Federation	Europe	Eastern Europe	0.7969	32
_ F	Poland	Europe	Eastern Europe	0.7926	33
<u>≡</u> ι	Jruguay	Americas	South America	0.7858	34
	Greece	Europe	Southern Europe	0.7833	35
	Cyprus	Asia	Western Asia	0.7736	36
_ 5	Slovenia	Europe	Southern Europe	0.7714	37
= E	Belarus	Europe	Eastern Europe	0.7641	38
- F	Kazakhstan	Asia	Central Asia	0.7597	39
	ithuania	Europe	Northern Europe	0.7534	40



Regional Trends: Americas

Countries with the Highest EDGI					
Country EGDI 2018 Rank					
United States of America	0.8769	11			
Canada	0.8258	23			
Uruguay	0.7858	34			
Chile	0.7350	42			
Argentina	0.7335	43			
Brazil	0.7327	44			
Barbados	0.7229	46			
Costa Rica	0.7004	56			
Colombia	0.6871	61			
Mexico	0.6818	64			

Countries with the Lowest EDGI					
Country	EGDI	2018 Rank			
Guatemala	0.4974	113			
Suriname	0.4773	116			
Jamaica	0.4697	118			
Saint Lucia	0.4660	119			
Honduras	0.4474	123			
Guyana	0.4316	124			
Nicaragua	0.4233	129			
Belize	0.4115	132			
Cuba	0.4101	134			
Haiti	0.3047	163			



Case Study on Agenda Uruguay
Digital 2020



In addition to developing "Digital Government Plan 2020", the Government of Uruguay has created "Agenda Uruguay Digital 2020", a plan built on four key pillars:

- Social Policy and Inclusion
- Sustainable Economic Development
- Government Management
- Governance for the Information Society

The Americas is continuing its improvement in e-government development into 2018. The **region is no longer represented in the low-EGDI and low-OSI levels**. The average regional EGDI improvement of 0.0650 represents the **largest regional improvement in 2018**.



Very High OSI: Top Leaders (57 MSs)

#	Country	Region	OSI Score 2018	OSI Rank 2018	EGDI Rank 2018
1	Denmark	Europe	1.0000	1	1
2	Singapore	Asia	0.9861	2	7
3	United States of America	Americas	0.9861	2	11
4	France	Europe	0.9792	4	9
5	Republic of Korea	Asia	0.9792	4	3
6	United Kingoom of Great Britain and Northern Ireland	Europe	0.9792	4	4
7	Australia	Oceania	0.9722	7	2
8	Finland	Europe	0.9653	8	6
9	India	Asia	0.9514	9	96
10	Italy	Europe	0.9514	9	24
11	Japan	Asia	0.9514	9	10
12	New Zealand	Oceania	0.9514	9	8
13	Norway	Europe	0.9514	9	14
14	Sweden	Europe	0.9444	14	5
15	United Arab Emirates	Asia	0.9444	14	21
16	Spain	Europe	0.9375	16	17
17	Canada	Americas	0.9306	17	23
18	Germany	Europe	0.9306	17	12
19	Netherlands	Europe	0.9306	17	13
20	Poland	Europe	0.9306	17	33
21	Portugal	Europe	0.9306	17	29



United Nations Department of Economic and Social Affairs **Division for Public Institutions and Digital Government**

Very High OSI: Top Leaders (57 MSs)

#	Country	Region	OSI Score 2018	OSI Rank 2018	EGDI Rank 2018
22	Brazil	Americas	0.9236	22	44
23	Luxembourg	Europe	0.9236	22	18
24	Mexico	Americas	0.9236	22	64
25	Russian Federation	Europe	0.9167	25	32
26	Estonia	Europe	0.9028	26	16
27	Malaysia	Asia	0.8889	27	48
28	Turkey	Asia	0.8889	27	53
29	Uruguay	Americas	0.8889	27	34
30	Colombia	Americas	0.8819	30	61
31	Philippines	Asia	0.8819	30	75
32	Austria	Europe	0.8681	32	20
33	Kazakhistan	Asia	0.8681	32	39
34	China	Asia	0.8611	34	65
35	Switzterland	Europe	0.8472	35	15
36	Malta	Europe	0.8403	36	30
37	Chile	Americas	0.8333	37	42
38	South Africa	Africa	0.8333	37	68
39	Ireland	Europe	0.8264	39	22
40	Israel	Asia	0.8264	39	31



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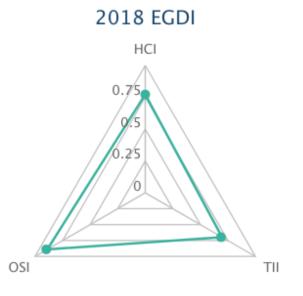
Very High OSI: Top Leaders (57 MSs)

#	Country	Region	OSI Score 2018	OSI Rank 2018	EGDI Rank 2018
41	Greece	Europe	0.8194	41	35
42	Peru	Americas	0.8194	41	77
43	Oman	Asia	0.8125	43	63
44	Tunisia	Africa	0.8056	44	80
45	Bahrain	Asia	0.7986	45	26
46	Liechtenstein	Europe	0.7986	45	25
47	Lithuania	Europe	0.7986	45	40
48	Slovenia	Europe	0.7986	45	37
49	Kuwait	Asia	0.7917	49	41
50	Qatar	Asia	0.7917	49	51
51	Saudi Arabia	Asia	0.7917	49	52
52	Uzbekistan	Asia	0.7917	49	81
53	Bangladesh	Asia	0.7847	53	115
54	Cyprus	Asia	0.7847	53	36
55	Republic of Moldova	Europe	0.7708	55	69
56	Bulgaria	Europe	0.7639	56	47
57	Belgium	Europe	0.7569	57	27



Uruguay - EGDI





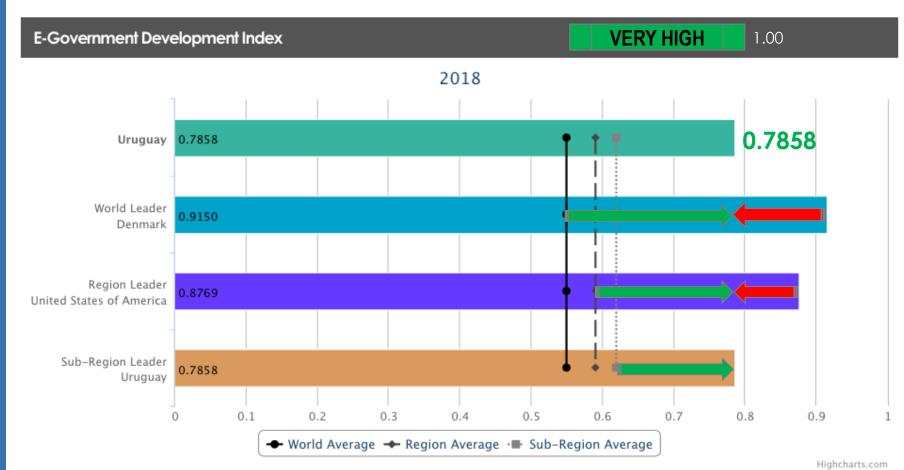






Uruguay: EGDI





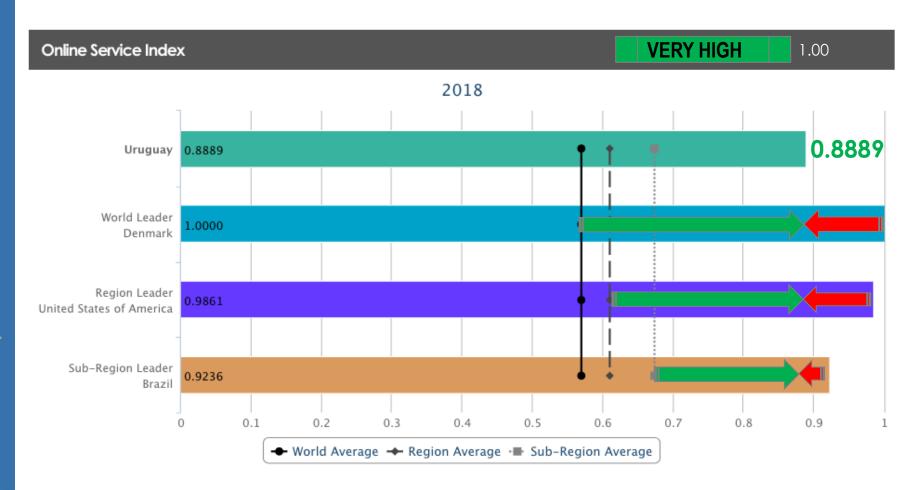


 EGDI Rank
 2018
 2016
 2014
 2012
 2010
 2008

 Uruguay
 34
 34
 26
 50
 36
 48

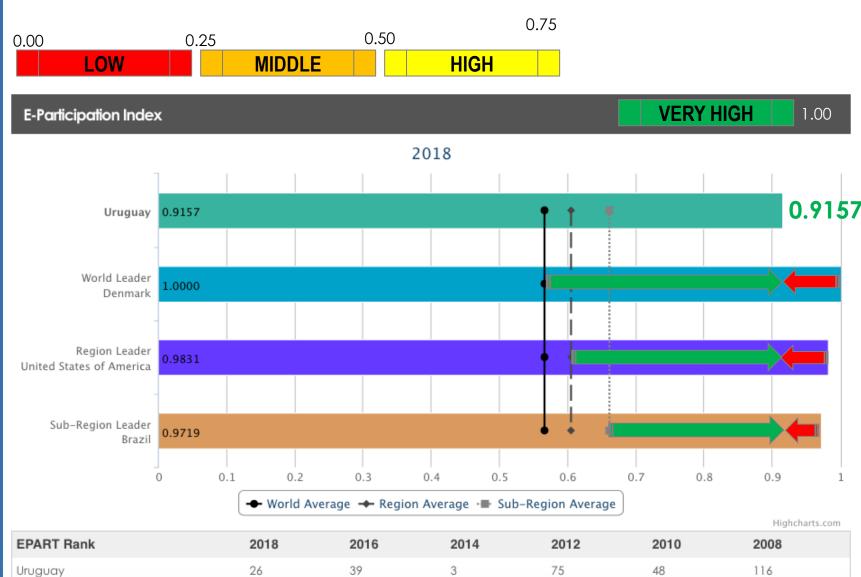
Uruguay: OSI





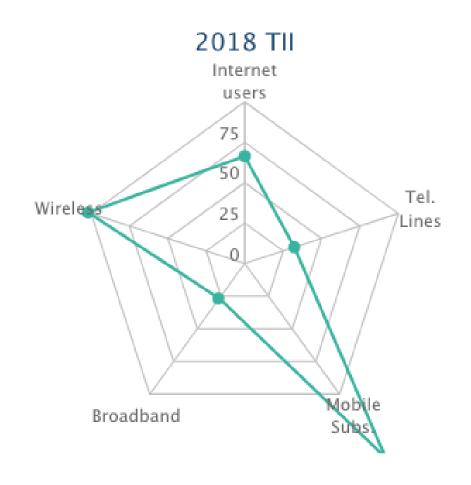


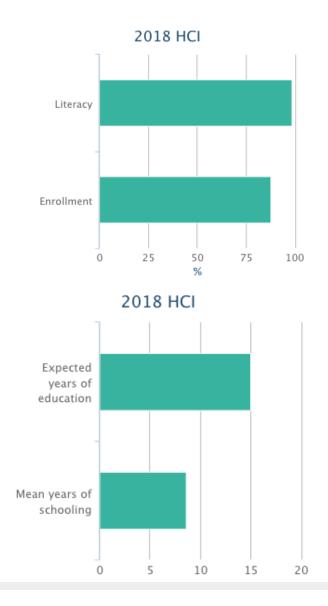
Uruguay: EPI





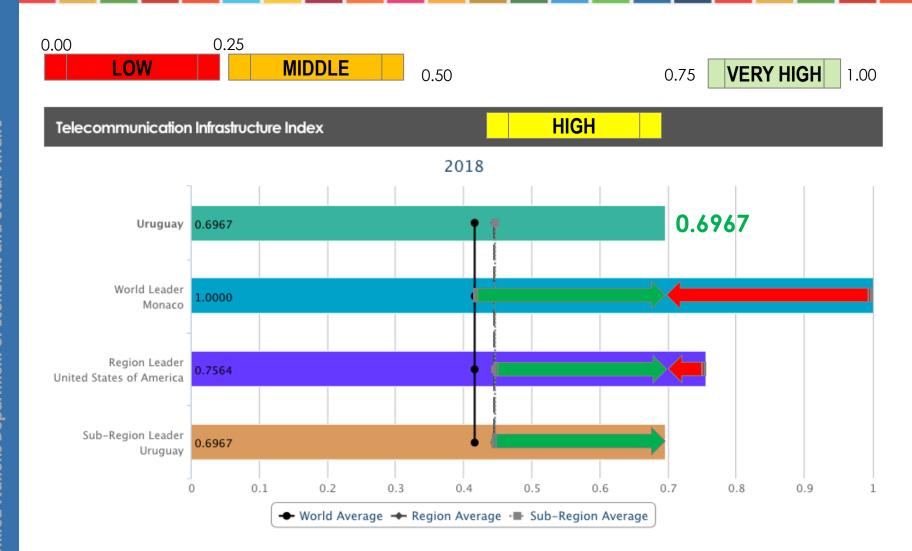
Uruguay: Tll and HCI







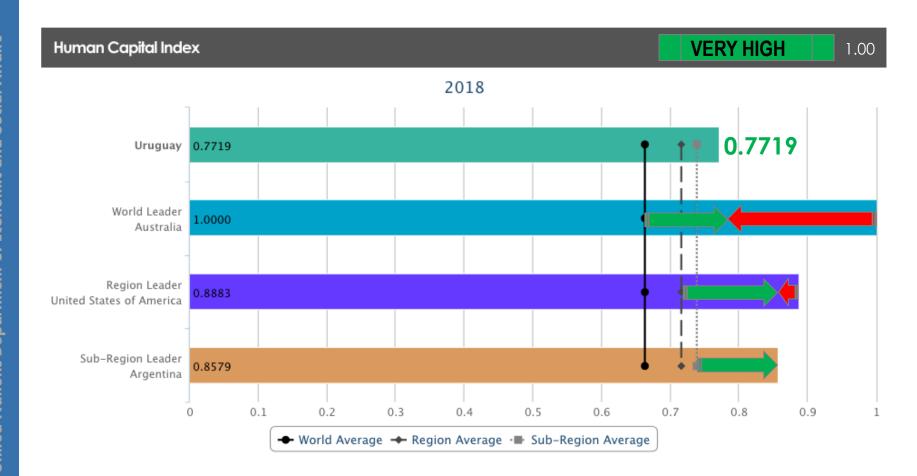
Uruguay: TII





Uruguay: HCI







URUGUAY

Democratizing access to all government services



The Government of Uruguay committed to the digitalization of all services by 2020 (presidential goal):

- All services should be started online by the last quarter of 2016.
- E-forms, e-notifications, e-payments are being digitized, making them more user-friendly.
- The "single-sign-in" allows citizens to log in to all government services with a single user ID and password or by using the digital signature integrated into the Uruguayan ID card.
- All these are being coordinated by the Agency for e-Government and Information and Knowledge Society (Agesic) from the Office of the President, as part of the Uruguayan digital policy of transforming with equity.



URUGUAY: Digital Government Plan

for the

Society

Agenda Uruguay Digital 2020

Objective VI of the Agenda "Proximity government"

Improve transparency, accountability, citizen participation and services through increased focus on citizens' interaction with the Government.



Goals: Establishment of "Citizen Response Centers" and portals, which will allow citizens to complete all transactions related to select services online.







2018 UN e-Government Survey: Insights and regional prespecive

Thank you for your attention

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