

United Nations

Economic and Social Commission for Asia and the Pacific

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Career Experience

 ICT Policy and Strategy 2 International Project Management

3 Capacity Building

25+ year ICT career in both Policy & Technical areas

16 years of Senior Management experience

UN Asian and Pacific Training Centre for ICT for Development (APCICT) Established in 2006



62



Mandate

Human and Institutional ICT capacity of ESCAP member States

Capacity
Building

Technical Assistance

E-learning & Knowledge Sharing

Trained more than 100,000 government officials



1 Capacity Building Technical
Assistance

E-learning & Knowledge Sharing

ACADEMY

of ICT
Essentials for
Government
Leaders

Policymakers

WIFI

Women ICT Frontier Initiative

Women

PRIMER

Primer Series on ICTD for Youth





19 training courses in 6 Categories

Introductory

ICT for Sustainable Development

Inclusive **Digital Development**

ICT Project Management

Digital Connectivity

Cross-Sectoral Infrastructure
Sharing for Broadband

Digital G & T

Digital government and transformation

Data-Driven Governance

Social Media, Development and Governance

Information Security & Privacy

Data Privacy and Protection

National **Open data policy**



19 training courses in 6 Categories

Digital Inclusion

ICT for Active **Aging**

ICT for Persons with **Disabilities**

Transboundary

ICT for **Climate Resilient**Development

ICT for **Disaster Risk**Management

Emerging ICTs

Frontier ICT for Sustainable Development (Main)

AI (Submodule1)

Block Chain (Submodule 2)

IoT (Submodule 3)

Ethics of AI (Submodule 4)



Academy of ICT Essentials for Government Leaders Programme

Rolled out in 30 countries



Reached to local government



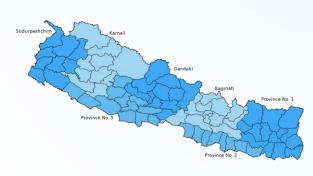


Digital Leadership
Academy
in Yogyakarta Province





Reached officials in 750+ municipality offices





Inclusive digital government for **local chief executives**





Reached local community in WIFI Pattaya City



Capacity
Building

ACADEMY

of ICT
Essentials for
Government
Leaders

WIFI

Women ICT Frontier Initiative

PRIMER

Primer Series on ICTD for Youth

WIFI
Women ICT
Frontier
Initiative

9 courses in 3 tracks

Core Track (2)

Women's Empowerment, **SDGs and ICT**

Policymakers Track (1)

An **Enabling Environment** for Women
Entrepreneurs

Women Entrepreneurs Track (6)

- 1. Planning/Managing Business with ICT
- 2. E-commerce/ Digital Marketing
- 3. Financial Management
- 4. E-Business Management and BCP
- 5. Trust and Security in Digital Tech
- 6. Data Analytics for Women Entrepreneurs



WIFI



- **22** countries reached
- 40,000+ trained participants
- 1,475 enrollments in **e-Learning** in 85 countries



















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Digital Government and Transformation

Academy of ICT Essentials for Government Leaders



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Academy Module on "Digital Government and Transformation"

31 August 2021

The last two decades have seen a rapid societal transformation in the way information is processed and consumed. Digital technologies are now playing a catalyzing role in the digitization of services to citizens and are being used in multiple functions across Governments. This module provides an overview of how digital technologies can be used to improve the quality of governance and, in turn, contribute to the Sustainable Development Goals (SDGs). While digital technologies have evolved rapidly and have the potential to transform governance sectors, the experience so far suggests that careful attention to strategy and implementation processes are necessary. This module highlights and builds on the key principles that are considered useful for digital government strategy and policy, namely effectiveness, inclusiveness, and accountability.



Human Centricity

1. About People - needs, preference, behaviour



Services A-Z

Design thinking in Georgia government website

Georgia used design thinking methodologies to update its official government website. The designers empathized with the needs of the user realising that citizens seek only 10 to 15 per cent of the information present on the previous version. This was achieved by using heat maps, analyzing the search data that presented traffic patterns, and analysing what content received the highest number of clicks.

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Source: Govtech.com. 2020. Design Thinking In Action. [online] Available at: https://www.govtech.com/computing/Design-Thinking-in-Action.html

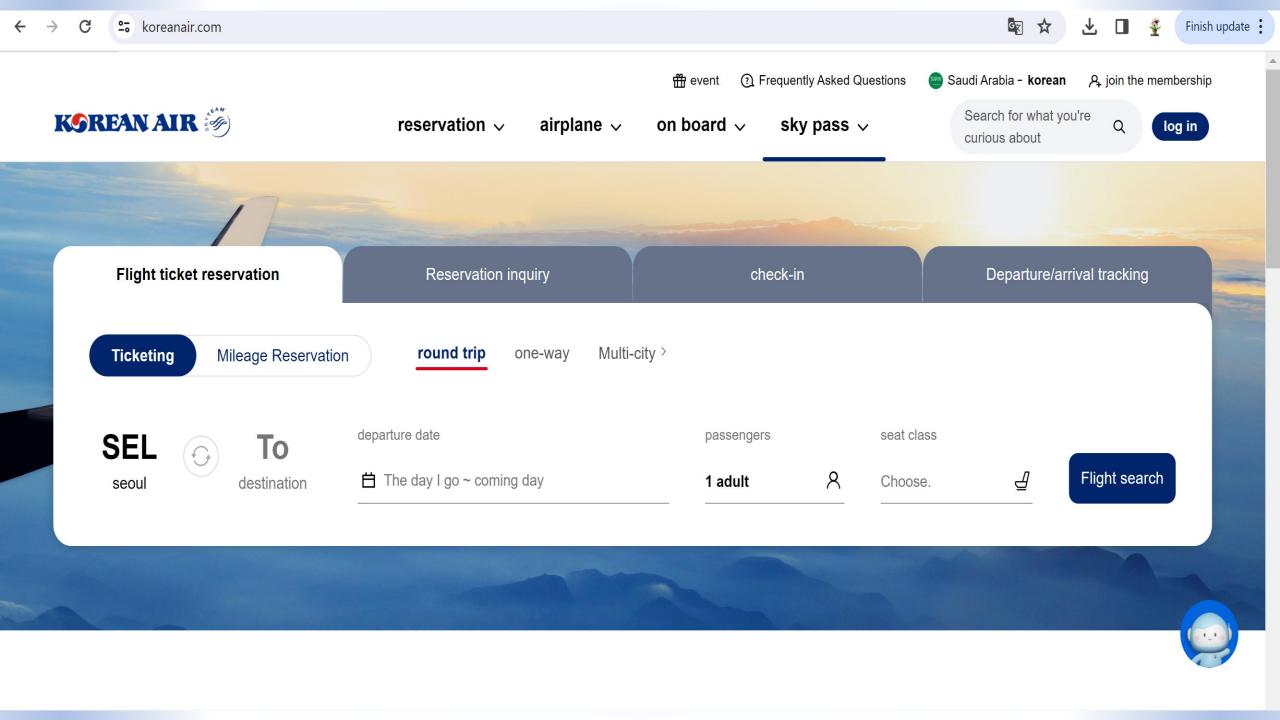


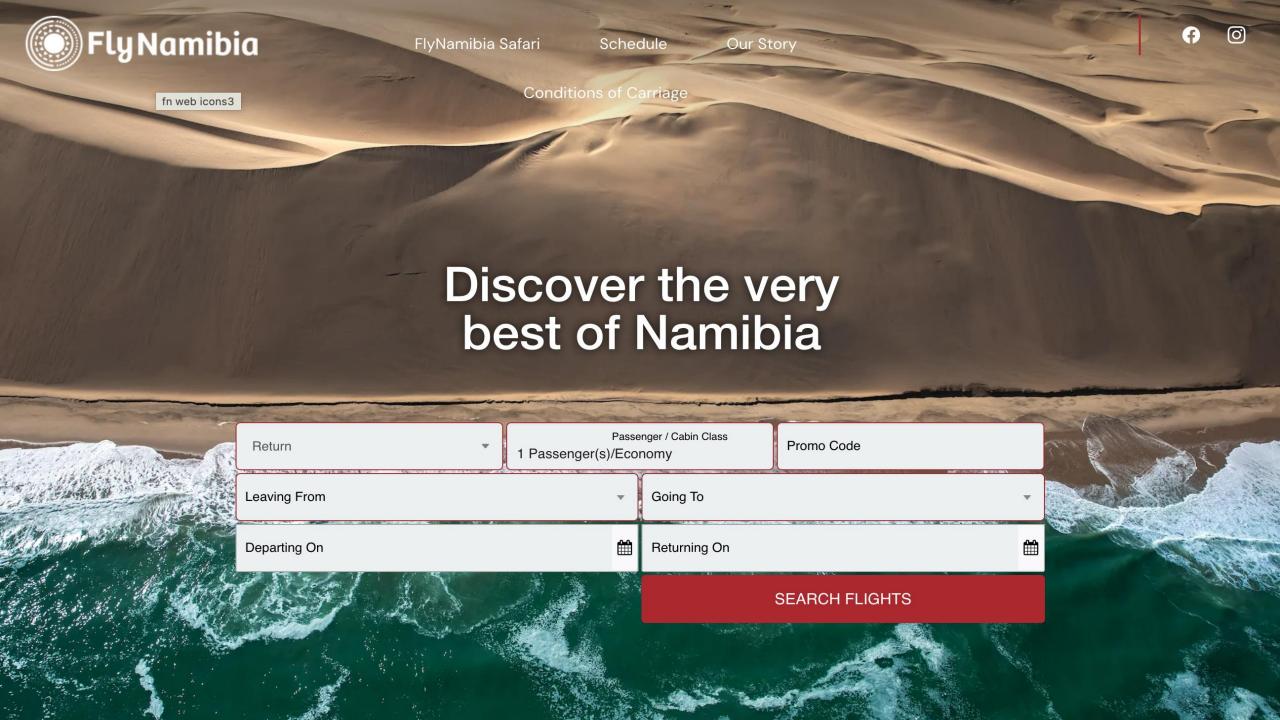


Chatbot

nd I can help







Human Centricity

1. About People - needs, preference, behaviour

2. Leave no one behind (inclusivity - vulnerable pop)



2015

"The World We Want"

17 SDG for 2030



SUSTAINABLE GEALS

17 GOALS TO TRANSFORM OUR WORLD

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



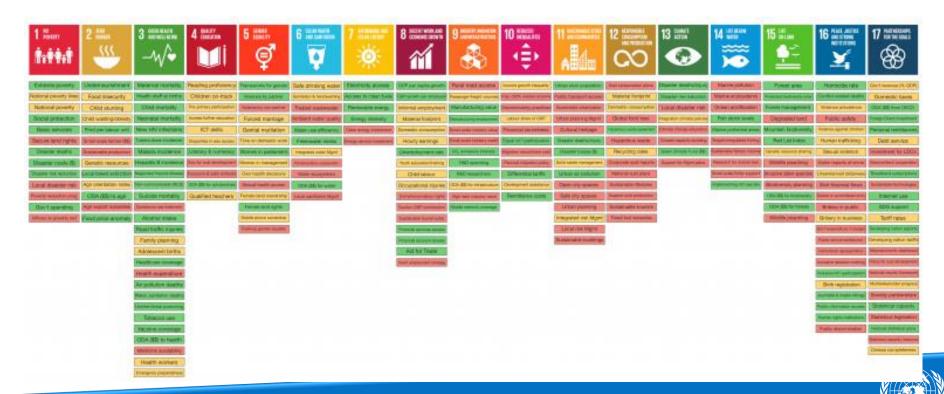
17 PARTNERSHIPS FOR THE GOALS







17 Goals 169 Targets 247 Indicators



Why do we need digitalization in the public sector?

Efficiency,
Costs,
Service delivery improvements

What is the end goal?

Public Welfare

How to make it right?

How to make it right?



Ways for "Human-Centric" Digitalization

Strategies for digitalization in the public sector

Strategies for Digitalization in Public Sector

- Strategies,
- **Emerging Trends**,
- Where Namibia stands











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Digital Government and Transformation

Academy of ICT Essentials for Government Leaders



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Definition

Use of digital technologies, specifically ICTs by the Government

Application in various government domains:

Public Health

Education

Food and Nutrition Security

Livelihoods

Public Order

Safety

Tax Administration

Regulatory Processes

Good

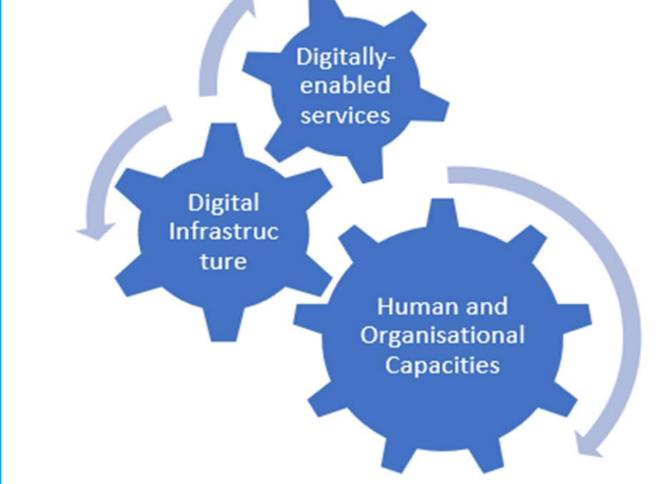
- Quality, efficiency and effectiveness of public services through
 - improved competency,
 - sound policymaking,
 - and increased collaboration.

Bad

Case	Unintended Consequences (findings of selected research studies)
Digitization of Land Records	The digitization of land records in Bangalore, India "led to increased corruption, much more bribes and substantially increased time taken for land transactions," as well as allowing "very large players in the land markets to capture vast quantities of land when Bangalore experienced a boom in the land market."
Online consultation platforms	Online discussions have little impact on the formal political process, and also that the quality of the discussions themselves tends to deteriorate over time.
Education Technology	Providing laptops alone has little impact on students' learning and crowds out resources from substantive aspects such as teacher education and school infrastructure, adversely impacting the quality of education.
Digital Identity (Aadhar)	India's digital identity program has authentication failure rates as high as 12 per cent leading to the potential exclusion of a large number of citizens from marginalized communities in various welfare programs
Predictive Policing	The use of algorithms perpetuated and amplified discriminatory policing practices and biases against minority groups.

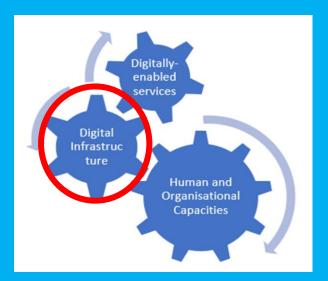
Recommended Strategies

Components of a Digital Government Strategy





- 1. Whole-of-government (WoG) approach: CPII
- 2. Open Government Data (OGD)
- 3. Project Management Skills



Infrastructure

INFRASTRUCTURE & ACCESS

Namibia



Network coverage

Population covered by a mobile-cellular network 100% (2022)

Population covered by at least a 3G mobile network (2022)







Mobile-cellular subscriptions per 100 inhabitants (2022)

113



INTERNET USE

Namibia

Percentage of population using the Internet



Individuals using the Internet, total (2022) (ITU estimate)





Digital literacy for citizens

For government officials

- Design, Implement, Manage, M&E for improvement

A legal framework to protect the privacy of citizens

Regulatory and legal framework

Interoperability standards across departments using open APIs and open data standards

Data governance frameworks to prevent the misuse of personal data



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The emerging trend of Digitalization in public sector

New technology New tools New approaches

A to redesign internal government operations and public services

Types of Government Problems Appropriate for AI Applications					
Resource Allocation	 Administrative support is needed to speed up task completion Inquiry response times are long due to insufficient support 				
Large Datasets	 Dataset is too large for employees to work with efficiently Internal and external datasets can be combined to enhance outputs and insights Data is highly structured with years of history 				
Experts Shortage	 Basic questions can be answered, freeing up time for experts Niche issues can be learned to support experts in research 				
Predictable Scenario	 Situation is predictable based on historical data Prediction will help with time-sensitive responses 				
Procedural	 Task is repetitive in nature Inputs/outputs have binary answer 				
Diverse Data	 Data includes visual/spatial and auditory/linguistic information Qualitative and quantitative data needs to be summarized regularly 				

Applications of AI in Public Sector

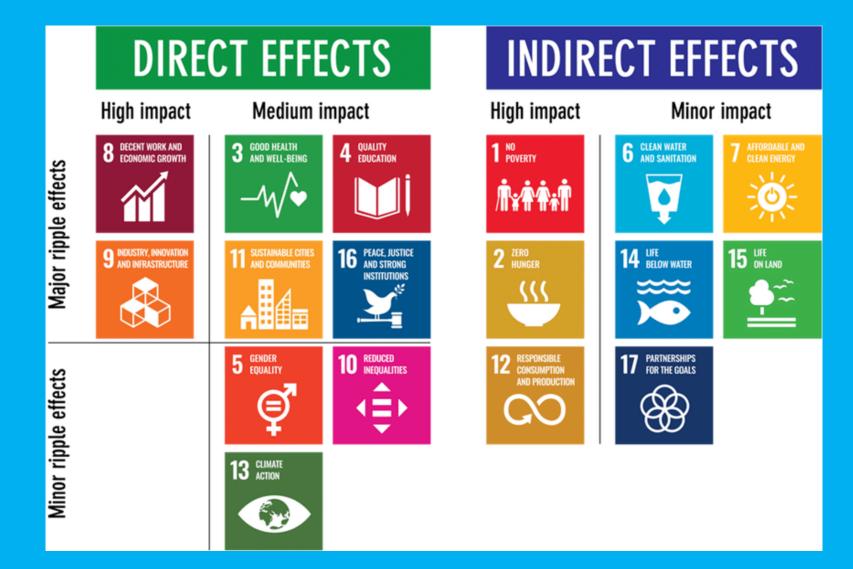
Education

- Provide personalised education irrespective of the number of students
- •Create a virtual teaching assistant to support students when a teacher is unavailable
- Analyse student's progress and find discrepancies between what is taught and what is not yet understood

Public Health

- Cross checking patients with similar symptoms from different locations
- Building a machine learning algorithm that detects patterns and warns when an outbreak might occur
- Preventing the spread of deadly infectious diseases

AI for UN SDGs



Ethics of AI vs. Governance of AI

- Governance of Al
 - Understand the potential benefits and risks of the use of Al
- Al systems must align with governance values of
 - Inclusiveness
 - Effectiveness: Automation Bias
 - Accountability

AI: EU agrees landmark deal on regulation of artificial intelligence

3 9 December 2023





EU Commissioner Thierry Breton said the agreement was "historic"

European Union officials have reached a provisional deal on the world's first comprehensive laws to regulate the use of artificial intelligence.

After 36 hours of talks, negotiators agreed rules around AI in systems like ChatGPT and facial recognition.

The European Parliament will vote on the AI Act proposals early next year, but any legislation will not take effect until at least 2025.

The US, UK and China are all rushing to publish their own guidelines.

. What is Al. how does it work and what can it be used for?

The proposals include safeguards on the use of AI within the EU as well as limitations on its adoption by law enforcement agencies.

Consumers would have the right to launch complaints and fines could be imposed for violations.

EU Commissioner Thierry Breton described the plans as "historic", saying it set "ries rules for the use of Al"

He added it was "much more than a rulebook - it's a launch pad for EU startups and researchers to lead the global Al race".

- Foundation models such as ChatGPT and GPAI to comply with transparency obligations before they are put on the market.
 - Technical documentation,
 - Complying with EU copyright law
 - Disseminating detailed summaries
- Foundation models with systemic risk will have to conduct model evaluations, assess and mitigate systemic risks

New Tools

Cloud computing technology

- Public cloud,
- Private cloud
- Hybrid Cloud

Open Government Data

- Improve operations, innovation, engage, build trust,

New approaches in digitalization in public sector

Cognitive

Agile and adaptive

Seamless: DLI



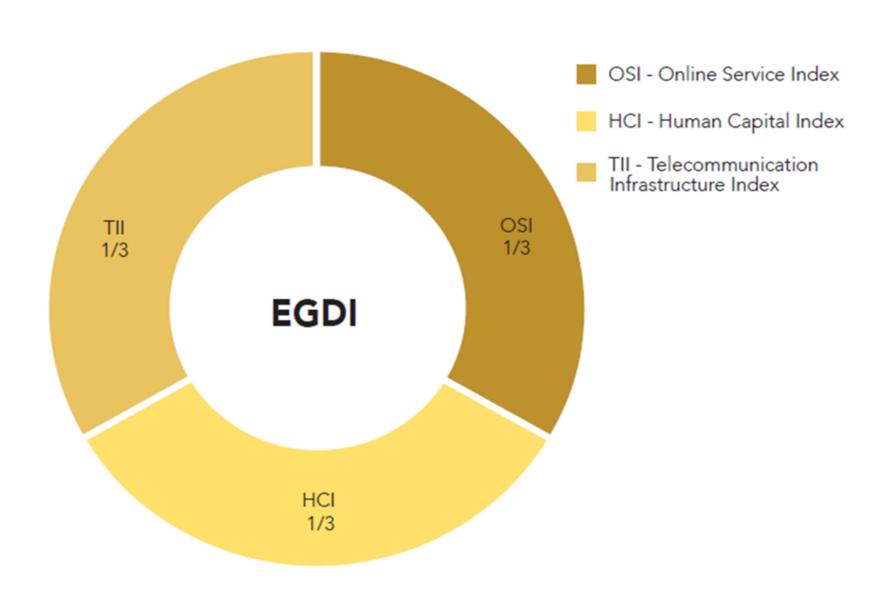
Department of Economic and Social Affairs

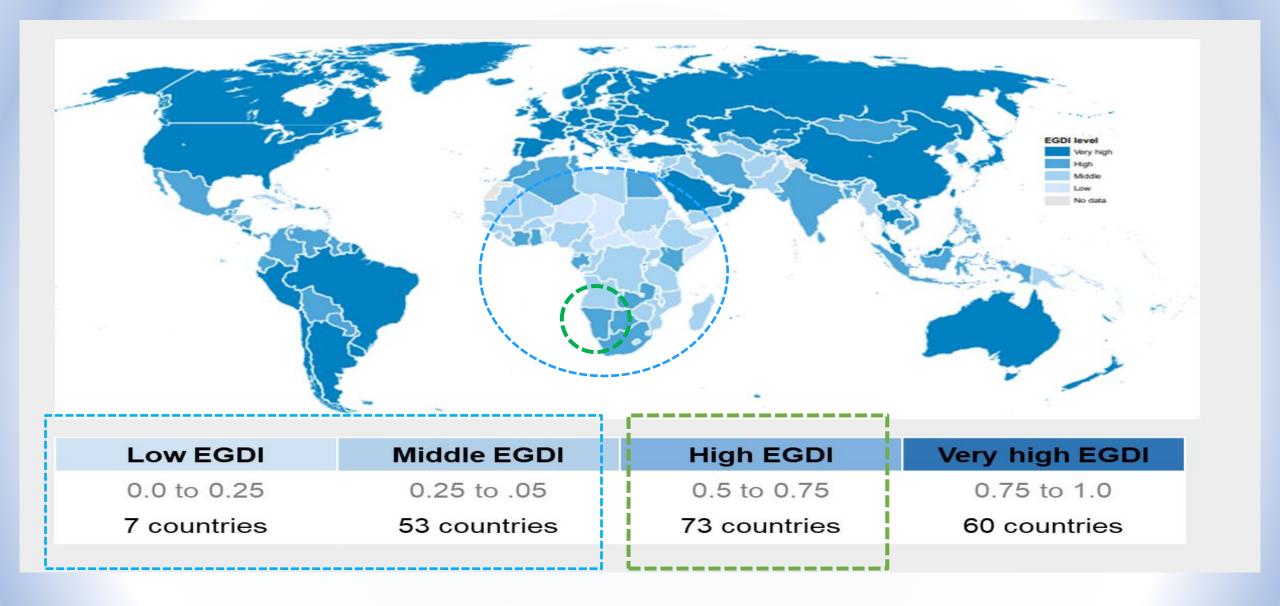
E-Government Survey 2022

The Future of Digital Government



EGDI: E-government Development Index





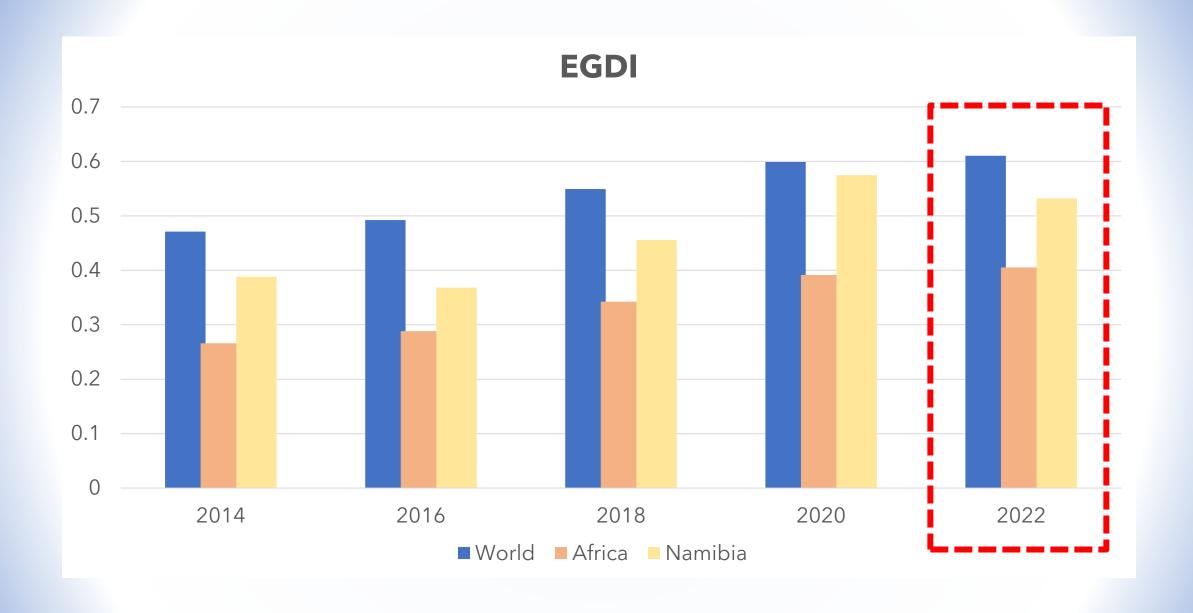
E-government development has improved between 2020 and 2022: Global average EGDI value rose by 2%

Africa

Country	Rating class	EGDI rank	Subregion	OSI value	HCI value	TII value	EGDI (2022)	EGDI (2020)
South Africa	HV	65	Southern Africa	0.7487	0.7733	0.6850	0.7357	0.6891
Mauritius	HV	75	Eastern Africa	0.6282	0.7733	0.7588	0.7201	0.7196
Seychelles	НЗ	85	Eastern Africa	0.4424	0.7758	0.8198	0.6793	0.6920
Tunisia	НЗ	88	Northern Africa	0.6031	0.6911	0.6646	0.6530	0.6526
Morocco	H2	101	Northern Africa	0.4721	0.6350	0.6676	0.5915	0.5729
Egypt	H2	103	Northern Africa	0.5730	0.6375	0.5579	0.5895	0.5527
Ghana	H2	106	Western Africa	0.5361	0.6176	0.5934	0.5824	0.5960
Cabo Verde	H2	110	Western Africa	0.4965	0.6507	0.5507	0.5660	0.5604
Algeria	H2	112	Northern Africa	0.3743	0.6956	0.6133	0.5611	0.5173
Kenya	H2	113	Eastern Africa	0.6821	0.5641	0.4305	0.5589	0.5326
Gabon	H2	116	Middle Africa	0.3578	0.6706	0.6279	0.5521	0.5401
Botswana	H1	118	Southern Africa	0.2740	0.6932	0.6814	0.5495	0.5383
Rwanda*	H1	119	Eastern Africa	0.7935	0.5322	0.3209	0.5489	0.4789
Côte d'Ivoire*	H1	120	Western Africa	0.5467	0.5748	0.5186	0.5467	0.4457
Namibia	H1	121	Southern Africa	0.4316	0.6516	0.5133	0.5322	0.5747
Zambia*	нт	T31	Eastern Africa	0.4414	0.6744	0.3909	0.5022	0.4242

Leading countries in e-government development, 2022

Country name	Rating class	Region	OSI	HCI	TII	EGDI (2022)	EGDI (2020)
Denmark	VH	Europe	0.9797	0.9559	0.9795	0.9717	0.9758
Finland	VH	Europe	0.9833	0.9640	0.9127	0.9533	0.9452
Republic of Korea	VH	Asia	0.9826	0.9087	0.9674	0.9529	0.9560
New Zealand	VH	Oceania	0.9579	0.9823	0.8896	0.9432	0.9339
Sweden	VH	Europe	0.9002	0.9649	0.9580	0.9410	0.9365
Iceland	VH	Europe	0.8867	0.9657	0.9705	0.9410	0.9101
Australia	VH	Oceania	0.9380	1.0000	0.8836	0.9405	0.9432
Estonia	VH	Europe	1.0000	0.9231	0.8949	0.9393	0.9473
Netherlands	VH	Europe	0.9026	0.9506	0.9620	0.9384	0.9228
United States of America	VH	Americas	0.9304	0.9276	0.8874	0.9151	0.9297
United Kingdom of Great Britain and Northern Ireland	VH	Europe	0.8859	0.9369	0.9186	0.9138	0.9358
Singapore	VH	Asia	0.9620	0.9021	0.8758	0.9133	0.9150
United Arab Emirates	VH	Asia	0.9014	0.8711	0.9306	0.9010	0.8555
Japan	VH	Asia	0.9094	0.8765	0.9147	0.9002	0.8989



Ways for Human-Centric Digitalization

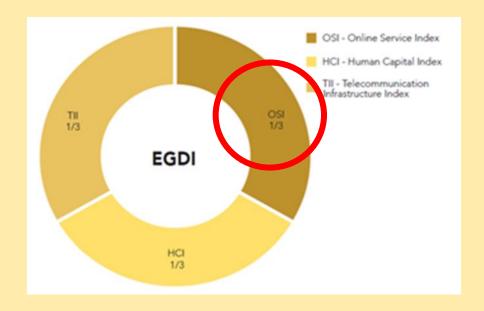


- Inclusivity



1. Participatory design

Co-creation



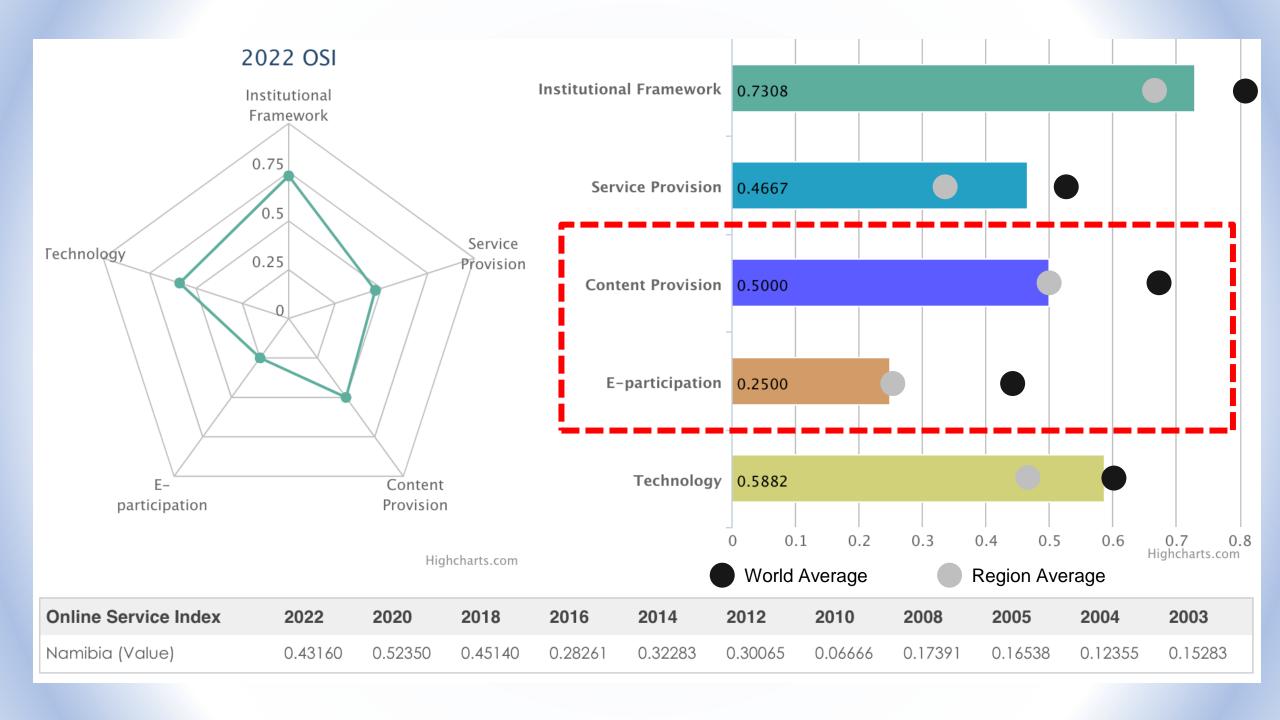
- 1) Institutional framework (IF),
- 2) Services provision (SP),
- 3) Content provision (CP),
- 4) Technology (TEC)
- 5) E-participation (EPI)

E-Participation Index (EPI)

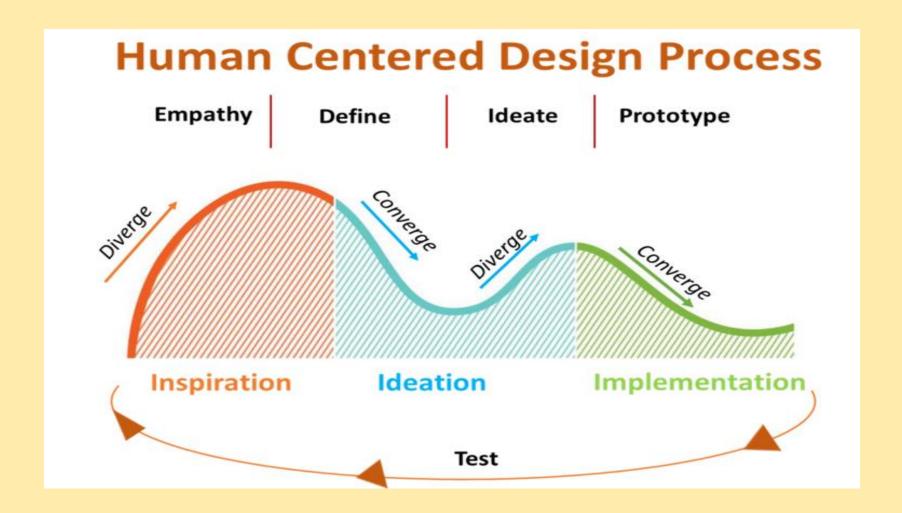
- (i) government portals and websites for participatory budgeting
- (ii) the availability of open government data (OGD)
- (iii) evidence of co-creation
- (iv) evidence of online consultations

Countries ranked highest in the 2022 E-Participation Index

EPI rank		World average	World average 0.445				
in 2022		world averag	World average: 0.445				
1	Japan	Africa's avera	Africa's average: 0.2595				
2	Australia	Allica 3 avela	Allica 5 average. 0.2373				
3	Estonia	World's Top:	World's Top: 1Namibia: 0.25				
3	Singapore	· ·					
5	Netherlands	Namibia: 0.2					
6	Finland				+8		
6	New Zealand		0.9545	4	-2		
6	United Kingdor	m of Great Britain and Northern Ireland	0.9545	6	0		



2. Design Thinking





Services A-Z

Design thinking in Georgia government website

Georgia used design thinking methodologies to update its official government website. The designers empathized with the needs of the user realising that citizens seek only 10 to 15 per cent of the information present on the previous version. This was achieved by using heat maps, analyzing the search data that presented traffic patterns, and analysing what content received the highest number of clicks.

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Source: Govtech.com. 2020. Design Thinking In Action. [online] Available at: https://www.govtech.com/computing/Design-Thinking-in-Action.html





Chatbot

nd I can help



3. Agile methodologies

 "the ability to create and respond to change [and] a way of dealing with, and ultimately succeeding in an uncertain and turbulent environment"

Ways for Human-Centric Digitalization

- Design,
- Inclusivity



> How to Ensure We Cover Vulnerable Population

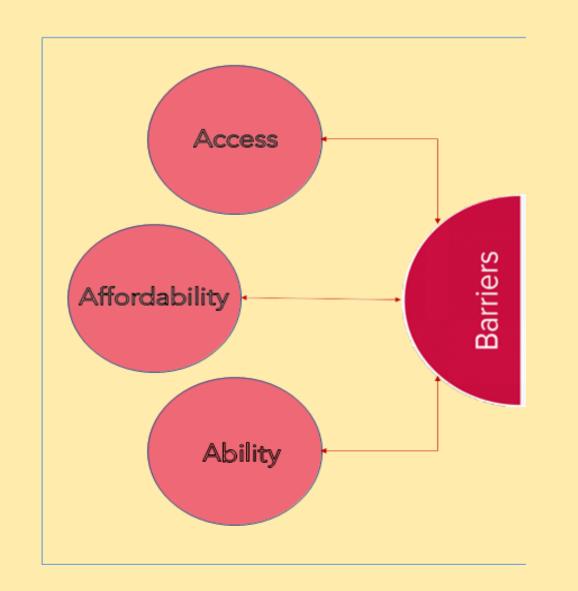
The new face of inequality is digital

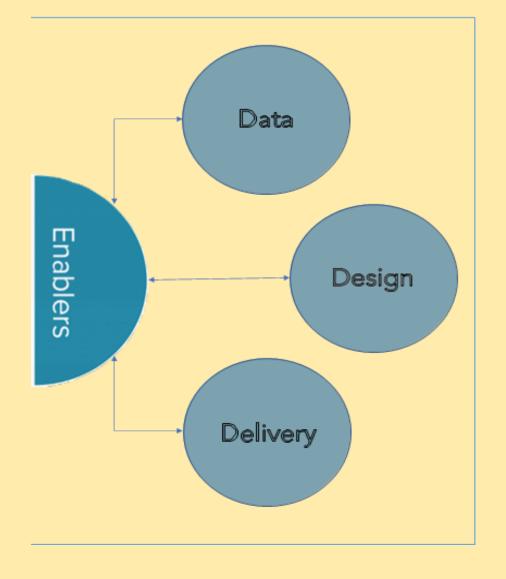
Digital Divide

Who can access internet



Who can benefit from online information and digital services



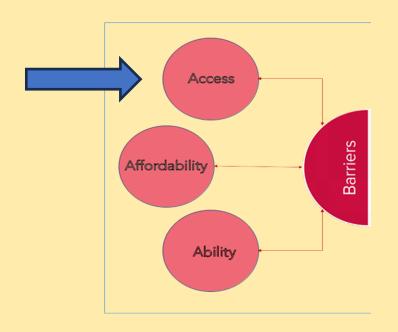


Access

to electricity

to the Internet and mobile infrastructure

to e-information and e-services

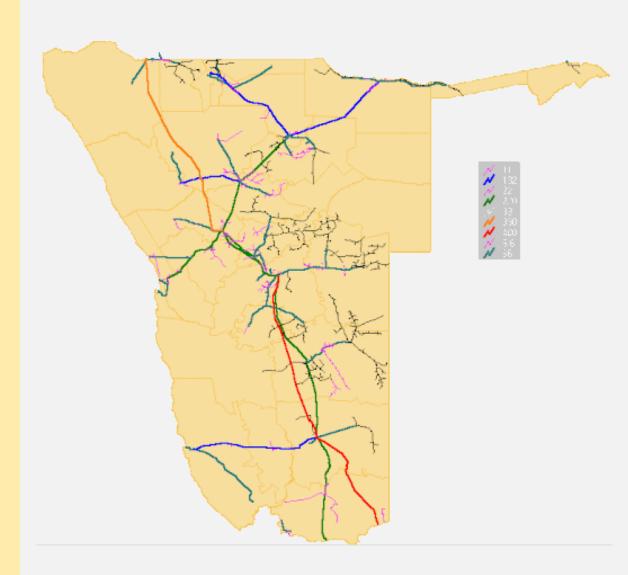


Proportion of the population with access to electricity, selected country groupings, 2010 and 2019 (Percentage)



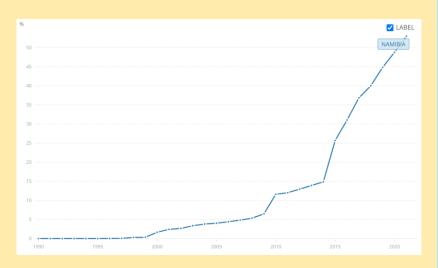
Access to electricity

In 2021, an estimated 71% (19%) of all households in urban (rural) areas have access to electricity, including off-grid sources, implying that the country's national electrification rate amounts to approximately 45%.



Access in Namibia

53% of population has internet access in Namibia





Network coverage

Population covered by a mobile-cellular network (2021)

99%



Population covered by at least a 3G mobile network (2021)

96%





Mobile phone ownership

Individuals owning a mobile phone (2019)

79%



ICT access at home

Households with Internet access at home (2019)

18%

Households with a computer at home (2019)

24%





Mobile and fixed telephone subscriptions

Mobile-cellular subscriptions per 100 inhabitants (2022)

144

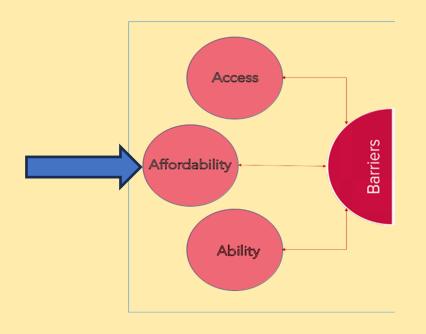


Affordability

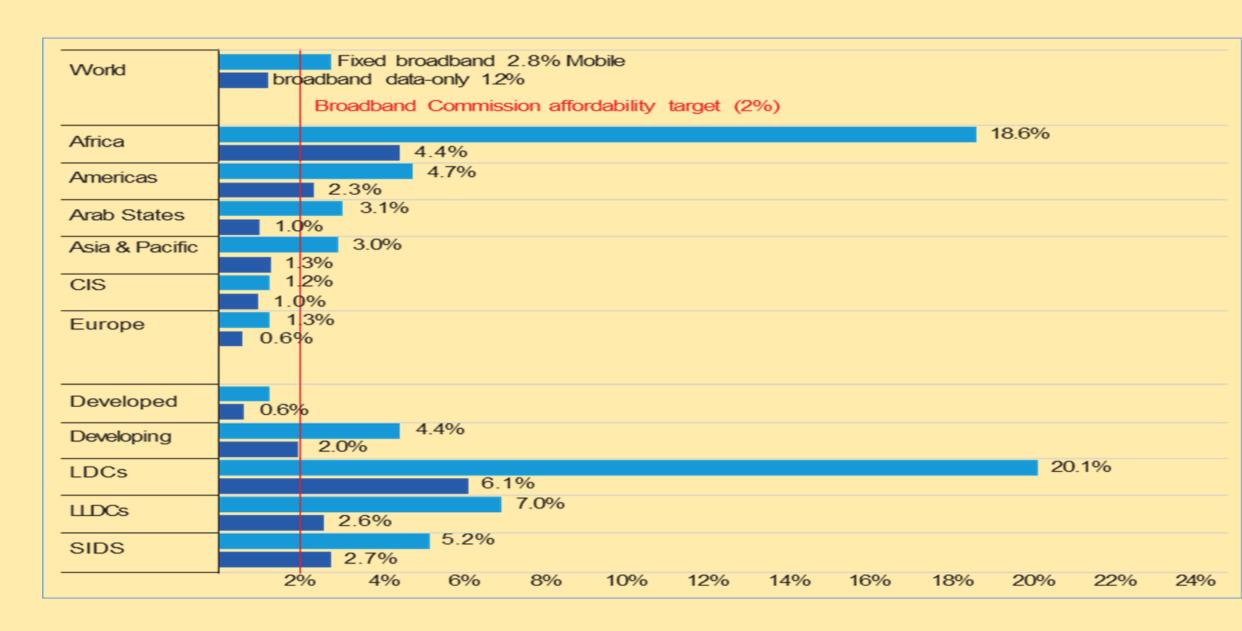
of Internet access

of digital devices

of e-services and the need for public access points



Basket prices for fixed broadband and data-only mobile broadband as a percentage of GNI per capita, 2020



Affordability



ICT prices

Fixed broadband basket as a % of GNI p.c. (2022)

8.7%

Mobile data and voice basket (high consumption) as a % of GNI p.c. (2022)

2.6%

Mobile broadband basket as a % of GNI p.c. (2022)

2.6%

Mobile data and voice basket (low consumption) as a % of GNI p.c. (2022)

2.6%

Mobile cellular basket as a % of GNI p.c. (2022)

1.0%

Number of countries providing free public Internet access points, 2018, 2020 and 2022

	Number of countries			
	2018	2020	2022	
Countries providing free Internet access through kiosks, community centres, post offices, libraries, public spaces or free Wi-Fi	106 (54.9 per cent)	9I (47.2 per cent)	103 (53.4 per cent)	



Namibia needs about N\$300 million to meet the country's objective to provide free internet to its citizens, Parliamentary Standing Committee on ICT and Innovation member, Dr. Becky Ndjoze-Ojo has revealed.

Ability

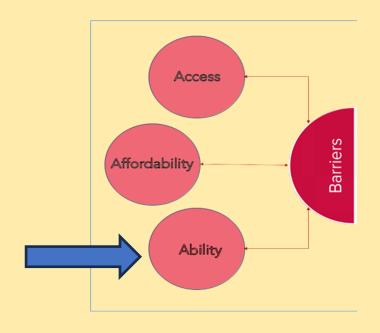
Digital Literacy

Language literacy

7,000

111

98 % vs. 12







HOME ABOUT GOVERNMENT

ABOUT NAMIBIA

GRN DIRECTORY ~

NATIONAL SYMBOLS ~

DOWNLOADS

FEEDBACK

Welcome to Government of Namibia Portal

This portal provides access to government websites, applications and information.



ONLINE SERVICES















OFFICES, MINISTRIES & AGENCIES

OFFICES

» Office of the President

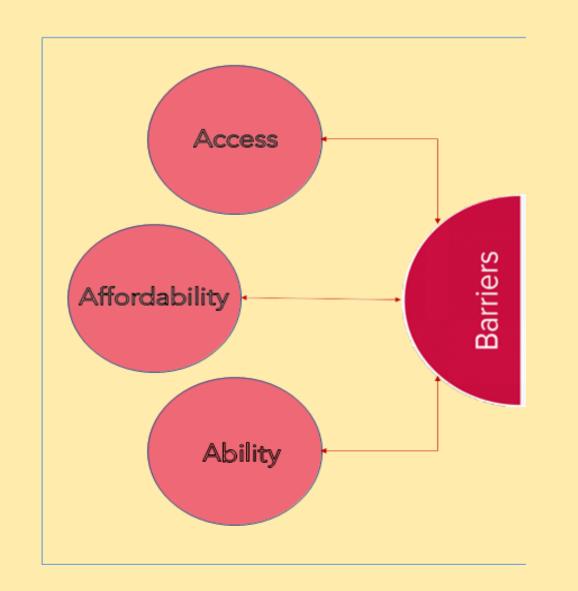
» Gender Equality, Poverty Eradication and

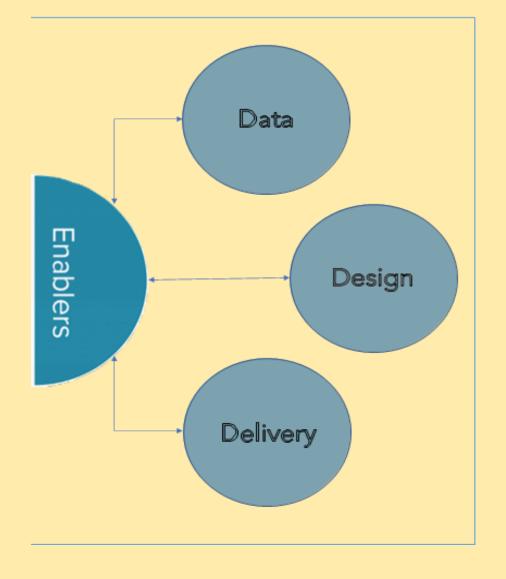
MINISTRIES

» Agriculture, Water and Land Reform» Land Reform

AGENCIES

- » Anti-Corruption Commission
- » Electoral Commission of Namibia
- " Namihia Central Intelligence Service



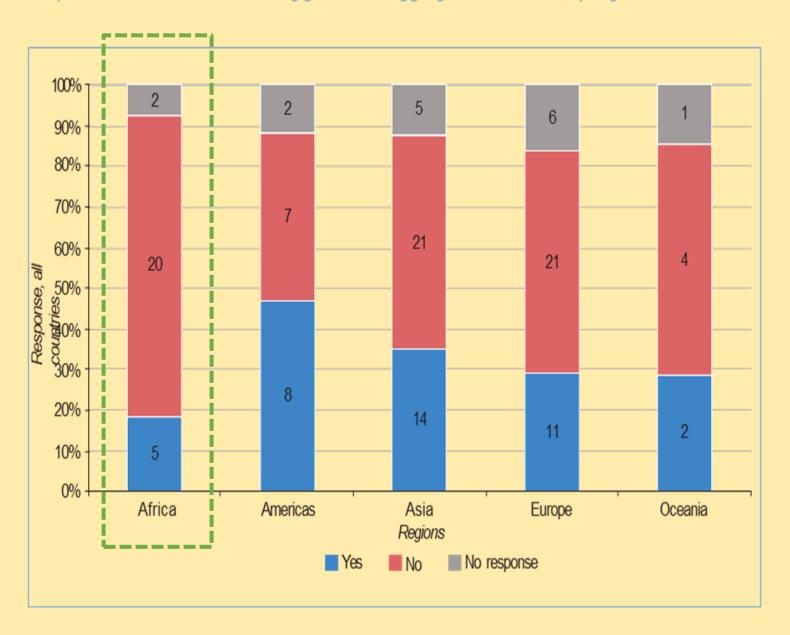


Data

Disaggregated data

High-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location

Proportion of countries collecting gender-disaggregated user data, by region



Data

Open government data

Enhance transparency and reduce the time and resources

Digital Identity

1.5 billion

Prerequisite for the inclusive distribution and efficient administration of e-services

Data in Namibia



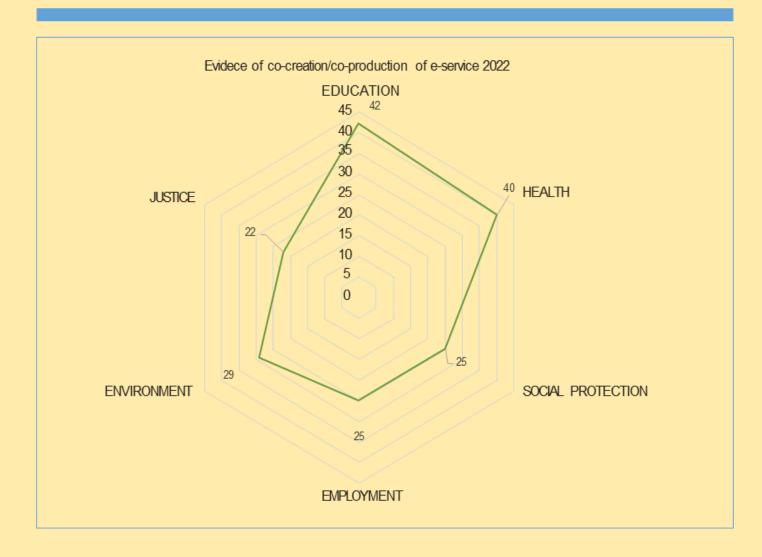
The African Development Bank (AfDB) and the International Monetary Fund (IMF) have collaborated to provide an **Open Data Platform (ODP) for African countries**

Namibia Data At-a-Glance ğı **6**9 **A** ••• Healthcare Education **Food Security Foreign Trade** More As of 2017 As of 2017 As of 2017 As of 2021M7 **GDP** Inflation GDP per capita GDP at market prices 176.32 146.20 N\$ per capita **GDP** at current prices 176.32 166.35 150.16 138.76 122.79 106.86 90.11 100 82.60 75.21 70.11 61.58

Design

Co-design and coproduction of e-services

Low numbers of countries engaged in the co-design, co-creation and co-production of e-services in six sectors



Design

Targeted services for each vulnerable group

Accessible and Responsive web design and assistive technologies

Inclusion by Default

Inclusivity be a fundamental and integral part

"LNOB: Leaving no one behind," the operational principle

Summary

- 1. Why Human Centricity matters in digitalization in Public Sector
- 2. How to make "Human-Centric Digitalization" Right

Strategies for Digitalization in Public Sector

- Strategies, emerging trends, where Namibia stands

Ways for Human-Centric Digitalization

- Design perspective, and inclusivity
- Barriers and Enablers

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