ITU

Committed to connecting the world

ITU is the United Nations **specialized agency for information and communication technologies** (ICTs)

Our sectors

*Each sector has a **separate mandate**, but all work towards **connecting the world***

ITU Radiocommunication
Coordinating radio-frequency spectrum and assigning orbital slots for satellites

ITU Standardization
Establishing international standards

ITU Development
Bridging the digital divide

ITU Won the 2023 Engineering, Science and Technology Emmy Award for its recommendation on High-Dynamic-Range Television or HDR-TV

ITU Development Work

10

Networks & digital infrastructure

Cybersecurity

Emergency telecommunications

Digital policy & regulation

Digital innovation ecosystems

Capacity development

Statistics

Digital services & applications

Digital inclusion

Environment

Achieving universal and meaningful digital connectivity in the decade of action

Aspirational targets for 2030

Achieving universal and meaningful digital connectivity –the possibility for everyone to enjoy a safe, satisfying, enriching, productive and affordable online experience– is key for enabling digital transformation and meeting the Sustainable Development Goals.

As part of the implementation of the UN Secretary-General's Roadmap for Digital Cooperation, the International Telecommunication Union and the Office of the UN Secretary-General's Envoy on Technology have established a set of aspirational targets for 2030 to help prioritize interventions, monitor progress, evaluate policy effectiveness, and galvanize efforts around achieving universal and meaningful connectivity by the end of the decade.

More information:
www.itu.int/umc2030

Universality targets

100%
- of population aged 15+ uses the Internet
- of households have Internet access
- of businesses use the Internet
- of schools are connected to the Internet
- of population is covered by a mobile network of the latest technology [1]
- of population aged 15+ owns a mobile phone

>70% of population aged 15+ has basic digital skills

>50% of population aged 15+ has intermediate digital skills

Gender parity is achieved for Internet use, mobile phone ownership and use, and digital skills [2]

Technology targets

100% of fixed-broadband subscriptions are 10 Mb/s or faster [3]

20 Mb/s Minimum download speed at every school

50 kb/s Minimum download speed available per student [4]

200 GB Minimum data allowance for every school

Affordability targets

2%
- Entry-level broadband subscription costs less than 2% of gross national income per capita
- Entry-level broadband subscription costs less than 2% of average income of the bottom 40% of population

Notes [1] Mobile network of the latest technology is the most advanced technology available in the country with at least 40% of the population already covered. | [2] Parity is deemed reached when the share of women using the Internet/ owning a mobile phone/using a mobile phone/with specific digital skills, among the female population is equal to the share of men. | [3] Download speed. Mb/s = megabits per second. | [4] kb/s = kilobits per second.

United Nations
Office of the Secretary-General's
Envoy on Technology

ITU

Network and Digital Infrastructure

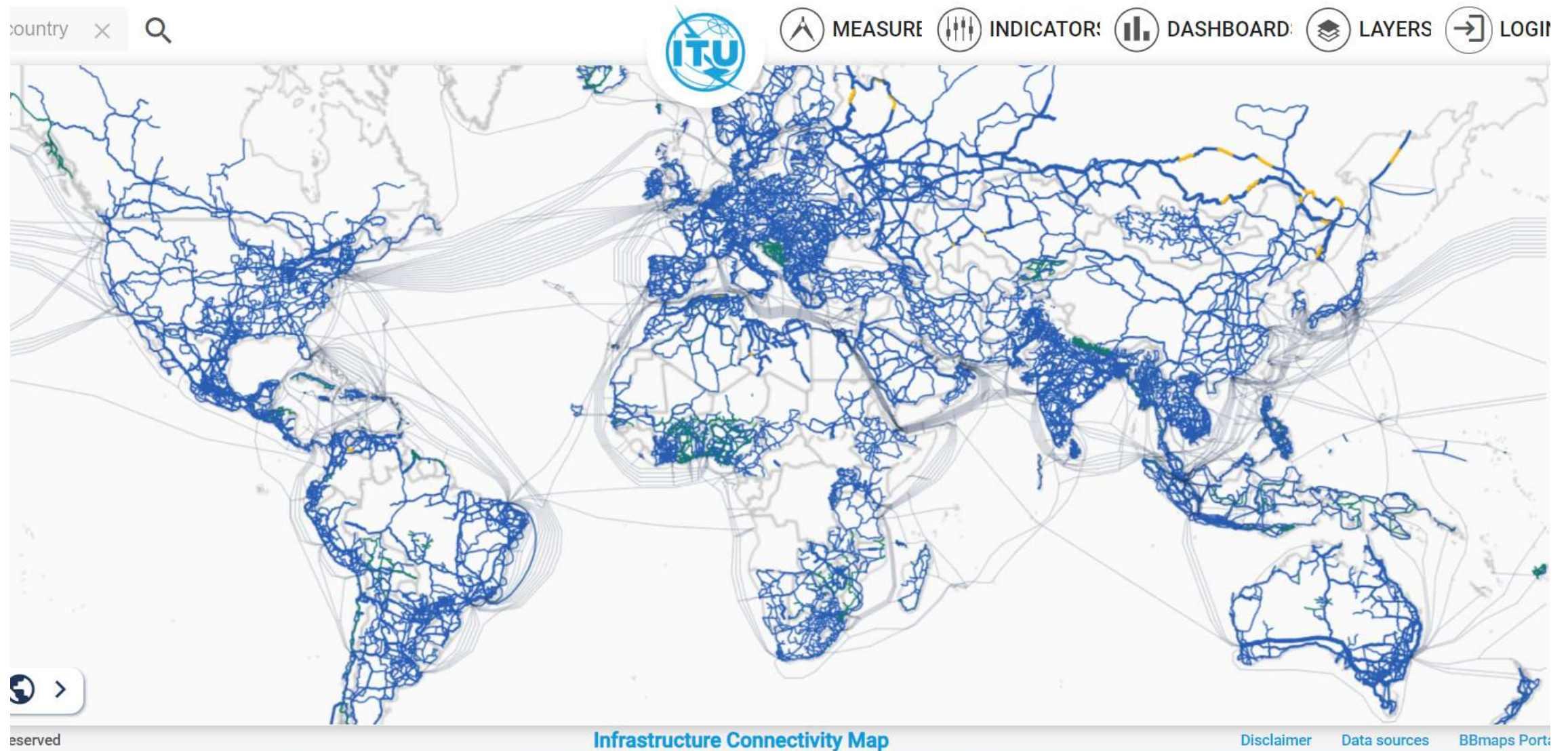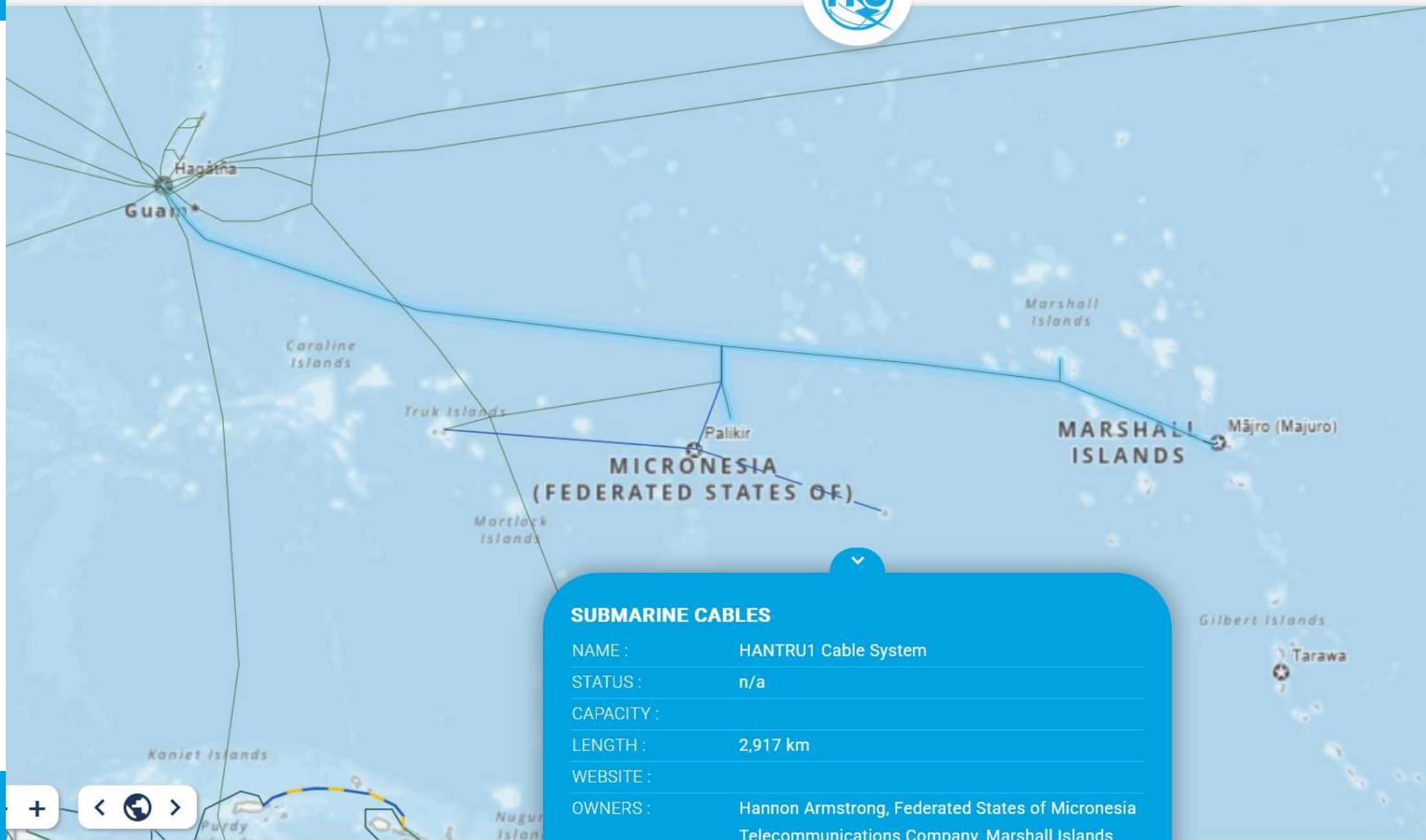| Spectrum Management	• NTFA updates • Spectrum Master plan • Spectrum capacity building study
Broadcasting	• Regional event Future of TV in ASP
Next Generation Networks	• IXP related engagements • Multiple engagements on 5G related issues e.g. EMF
Broadband networks	• ICT connectivity and Policy Gap assessments
Rural-Communications,	• GIGA • LMC toolkit launch
Bridging the Standardization Gap and C&I	• CoE events
International Connectivity	• ITU BB Maps update • Study on National mapping system

ITU interactive transmission map

Source: https://bbmaps.itu.int/bbmaps/

Hagåtña
Guam

Caroline
Islands

Marshall
Islands

Truk Islands

Palikir

MICRONESIA
(FEDERATED STATES OF)

MARSHALL
ISLANDS

Mājro (Majuro)

Mortlock
Islands

Gilbert Islands

Tarawa

SUBMARINE CABLES

NAME :	HANTRU1 Cable System
STATUS :	n/a
CAPACITY :	
LENGTH :	2,917 km
WEBSITE :	
OWNERS :	Hannon Armstrong, Federated States of Micronesia Telecommunications Company, Marshall Islands Telecommunications Authority

Kaniet Islands

Purdy

Nugu...
Islan...

4 Pillars of Early Warning Systems

Pillar 1: UNDRR

Disaster risk knowledge

Systematically collect data and undertake risk assessments

- Are the hazards and the vulnerabilities well known by the communities?
- What are the patterns and trends in these factors?
- Are risk maps and data widely available?

Pillar 2: WMO

Detection, observations, monitoring, analysis and forecasting of hazards

Develop hazard monitoring and early warning services

- Are the right parameters being monitored?
- Is there a sound scientific basis for making forecasts?
- Can accurate and timely warnings be generated?

Preparedness and response capabilities

Build national and community response capabilities

- Are response plans up to date and tested?
- Are local capacities and knowledge made use of?
- Are people preapred and ready to react to warnings?

Warning dissemination and communication

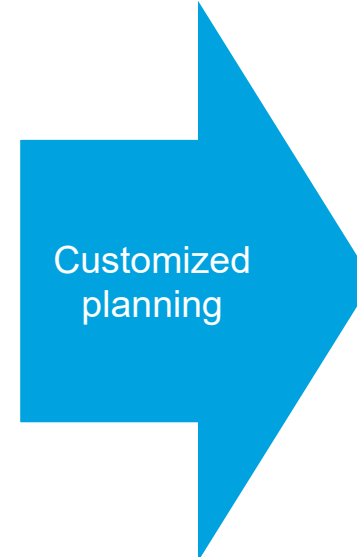Communicate risk information and early warnings

- Do warnings reach all of those at risk?
- Are the risks and warnings understood?
- Is the warning information clear and usable?

Pillar 4: IFRC

Pillar 3: ITU

Whole-of-government approach for digital development

National Vision and SDG implementation plan

SDG

Digital agriculture policy / strategy / plan

E-Commerce Strategy; Other sectoral policy/ strategy / plan

Whole of Government (National) Policy / Strategy / Plan

Digital health policy/ strategy / plan

Digital financial inclusion policy/ strategy / plan

Digital education policy/ strategy / plan

Legislations Regulations

Customized planning

Smart city

Smart village

Smart Islands

GovStack

Concept of Smart Villages and Smart Islands

whole-of-government approach

common ICT building-blocks

low cost
better scalability
multi-sector collaboration
partnerships

SUSTAINABLE DEVELOPMENT GOALS

e-healthcare

e-education

e-agriculture

e-governance

disaster management

digital finance

COUNTRY	Nauru	FSM	RMI	Palau	Tonga	Vanuatu	Samoa	PNG	Fiji
Location	Nauru	Tanoas Island	Jabwor–Jaluit,	Babeldaob	Ovaka and Hunga	South Malekula	Manono-Tai	Maprik	Rotuma
Government partners	DoC, Nauru	MCIT, Samoa	MOFAT, MOTCIT, RMI	MPII	MEIDECC, Tonga	OGCIO, Vanuatu	MCIT, Samoa	DICT and NICTA, PNG	MoC, Fiji
Improved connectivity (quality, coverage, resilience)	Programme focused on digital inlcusion center	V	V	V	V	V	V	V	V
Digital skills		V	V	V	V	V	V	V	V
Digital education		V	V	V	V	V	V	V	V
Digital finance		V	V	V		V	V		V
Digital government		V		V	V			V	V
Digital health		V	V	V	V	V	V	V	V
Digital agriculture		V	V	V	V		V	V	V
Disaster management		V						V	
Funding sources	Joint SDG Fund	Joint SDG Fund	Joint SDG Fund	Joint SDG Fund	Joint SDG Fund	Joint SDG Fund, Government of Australia (DITRDCA), ITU, UNCDF, ADB	Joint SDG Fund, Gov. of Australia (DITRDCA), Government of Japan (MIC), ITU, FAO	ADB, ITU	Joint SDG Fund, Asian Development Bank (ADB)

IDENTIFIED PRIORITY NEEDS

Governments struggle with online provisioning of public services due to several reasons

CAPACITY

Challenges in terms of limited capacity across design, technical, technological, infrastructural and programmatic in nature

SILOES

Siloed systems and duplicative efforts promote fragmented digital governance and resultantly fragmented citizen experience.

ARCHITECTURE FOR SCALING

Challenges exist in adapting and investing in projects at scale, particularly around the rollout of physical ICT infrastructure, the deployment and use of common data platforms

COORDINATION AND COLLABORATION

Problems in coordination commonly occur in aligning ICT ministry work with that of other agencies.

FUNDING

Challenges in procuring and implementing affordable IT solutions persist, as do challenges in creating the necessary capital to invest in ICT infrastructure projects

POLICIES

Limited policies to enable cross-sectoral collaboration and sharing of data and infrastructure

GovStack's Whole-of-Government approach

There is growing evidence that a whole-of-government approach to digital infrastructure investment can deliver reusable digital services at scale with a greater return on investment.

The approach takes advantage of economies of scale that are not available when taking a piece-meal approach.

ℹ️ Instead of creating unique and disparate solutions, use a common reusable stack of Building Blocks to form the core platform engine and contextualize various e-government services on top.

Adaptive Shared Citizen-centric e-Government Services

Mediation Middleware
Open API gateway, secure data exchange

Common Applications Blocks
e-Learning, e-Marketplace business intelligence/analytics, workflow, etc.

Foundational Blocks*
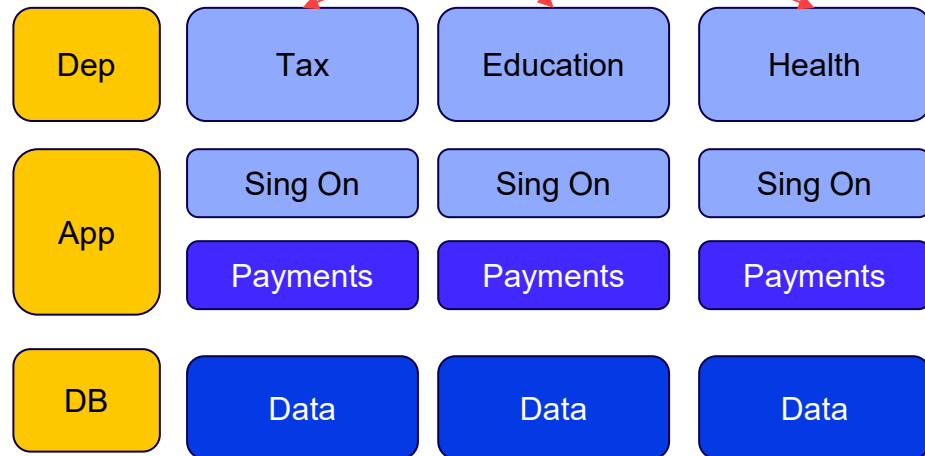Identity/authentication, security, consent, payment, registration, messaging, etc.

Hosting

A "platform of platforms" that can be used by any government agency, department across different sectors to build new government digital services without having to design, test and operate the underlying systems and infrastructure themselves
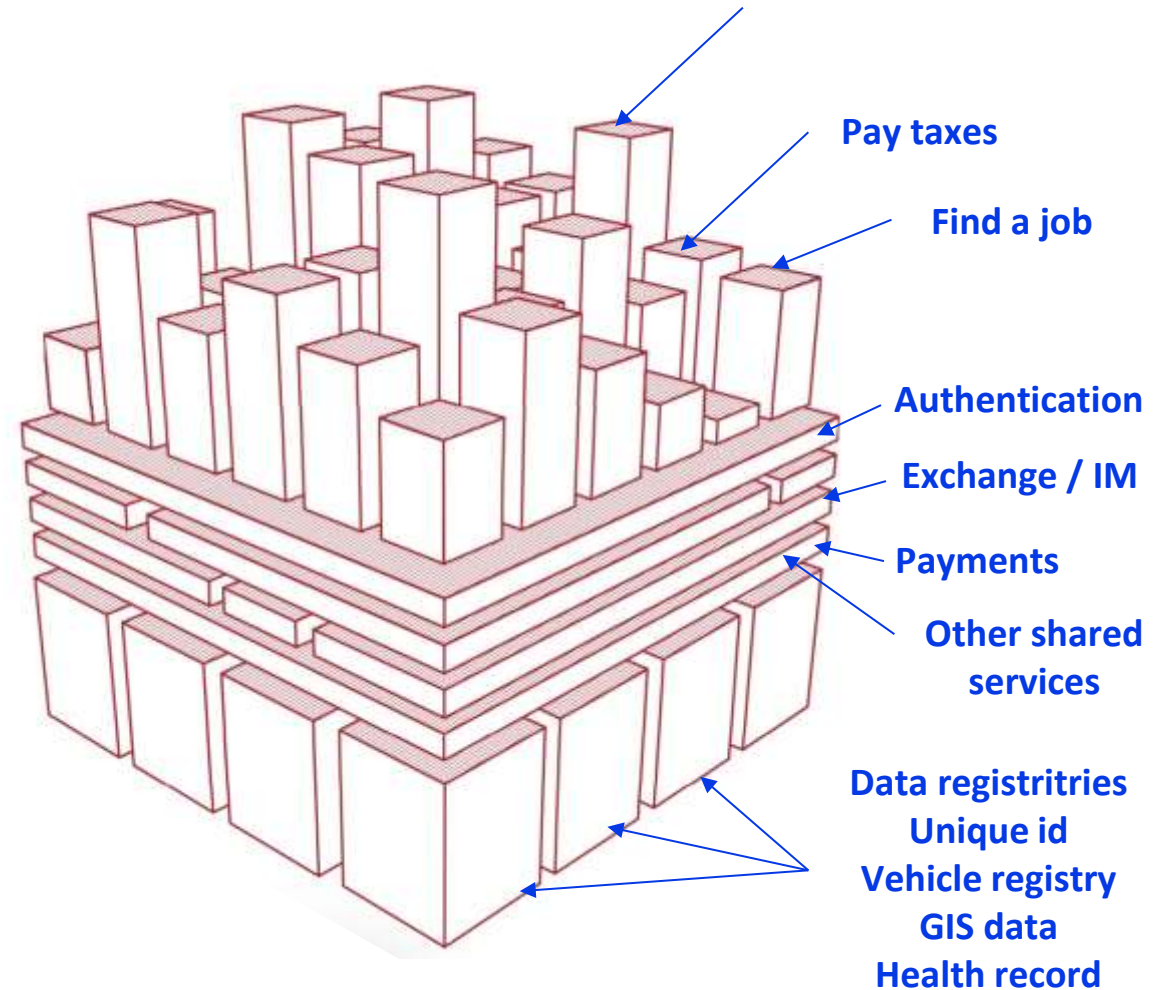
Source: David Eves, UCL 2023

Digital Public Infrastructure (DPI)
Or a Government Tech Stack

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Whole of Government approach helps all stakeholders realize benefits through more responsive, relevant, and citizen centric services

GovStack

SPEED
Increases speed of delivery by facilitating reuse of core service elements and redirecting resources towards improving citizen outcomes.

COST-EFFICIENCY
Provides common capabilities cross-departments / -agencies which avoids duplication of efforts, reduces cost to develop new e-gov. services.

Real Economic Return
Provides socioeconomic ROI by enabling faster and closer connections from government to addressing needs of citizens and businesses.

ONE GOVERNMENT
Enables service delivery that links and invokes different parts of government, providing a connected, consistent and seamless user experience.

AGILITY + RESPONSIVENESS
Enable governments to design and deliver new services quickly to respond to needs and unexpected circumstances (e.g. global pandemic and disasters).

INTEGRATION + EXCHANGE
Enables integrated transactions and exchange of information across other equivalent stacks and systems through standards and open APIs.

HARMONIZED POLICIES
Opens possibilities for aggregation of big data for richer insights that would help develop better nonconflicting policies and monitor operations.

MINIMIZED VENDOR LOCK-IN
Minimizes product 'lock-in' and allows independent services to run where modular Building Blocks could be replaced without impacting overall exp.

[Ref. on other documented rationalization w. AsiaPac. countries examples: GSMA Report "Advancing digital societies in Asia Pacific: a whole-of-government approach"]

Designing e-government services with generic Building Blocks

What are *Building Blocks?*

Generically-defined **software components** that in combination provide key functionalities to facilitate generic workflows common across multiple sectors.

What are their characteristics?

- Reusable software components
- Open-source, commercial off-the-shelf (COTS), or freely available with open access to data
- Facilitate one or more generic op. workflows
- Applicable to use cases across multiple sectors
- Interoperable with other Building Blocks
- Secure by design, standards-based and interoperable

Registration	Messaging	Scheduling	Security
Payments	Information Mediator	eMarketplace	GIS
Identification & Authentication	Client Case Management	Collaboration Management	Analytics & Business Intelligence
eLearning	Reporting & Dashboards	Content Management	Data Collection
Shared Data Repositories	Digital Registries	Terminology	Artificial Intelligence
Consent Management	Mobility Management	Workflow and Algorithm	

[refer to: Building Blocks section of Govstack.global]

*Creating a
Circular Economy*

E-waste

What is E-waste

Electronic waste, or e-waste, refers to electrical and electronic equipment (EEE) that is waste, including all components, sub-assemblies and consumables that are part of the equipment at the time the equipment becomes waste

- This includes a broad range of products with circuitry or electrical components with power or battery supply that have been discarded **without the intent of reuse**

- E-waste, also known as Waste Electrical and Electronic Equipment (WEEE), is one of the **fastest-growing waste streams in the world**

- A substantial amount of e-waste includes waste derived from discarded ICT equipment such as **mobile phones, personal computers, printers, telephones, laptops and routers**. At the same time, a growing number of other types of products such as temperature exchange equipment and white goods are functioning as 'smart technologies', relying on sensors and connectivity to other devices

Muntaka Chasant for Fondation Carmignac

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E-waste Generated and Documented as Formally Collected and Recycled by Region
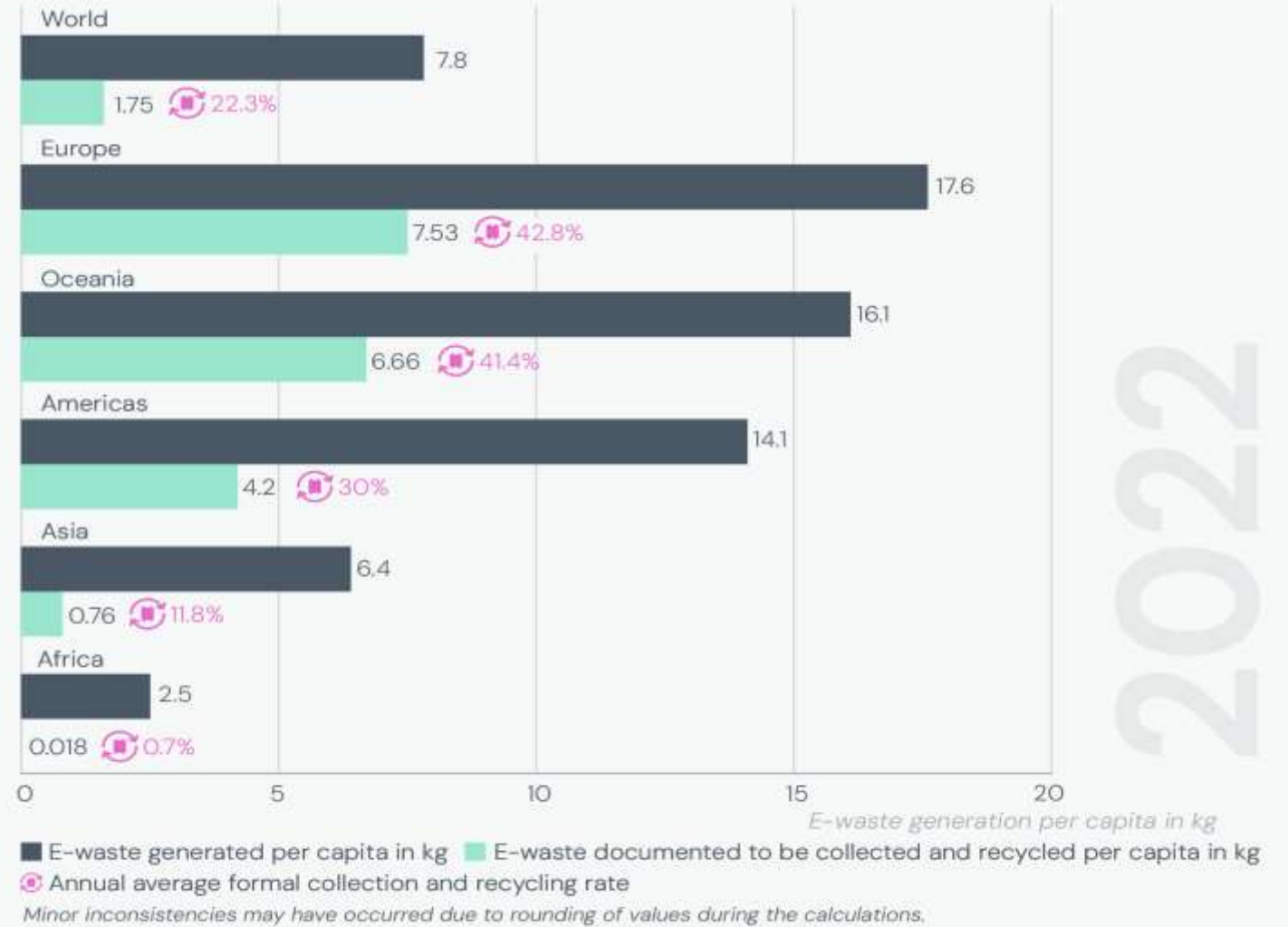
Source: The Global E-waste Monitor 2024

ITU Capacity Development Partnerships: Closing the Digital Skills Gap

Capacity and Digital Skills Development Division
Telecommunication Development Bureau (BDT)
International Telecommunication Union

Capacity Development Programme

The ITU-D Capacity Development programme aims at achieving a digitally competent society and improve livelihoods by boosting knowledge and skills on digital technologies. Its efforts are focused in the following areas:

Its efforts are focused in the following areas:

Develop the capacity of **ICT policy-makers and professionals**

Boost digital literacy and skills of **citizens**

Foster **knowledge and collaboration** on digital skills

Discover the ITUAcademy

ITU's online learning platform offers a diverse range of courses to bolster skills and advance career in the field of ICTs and digital development.

45'000+ users* from the entire digital sector:

- Policymakers, regulators, government officials
- ICT professionals
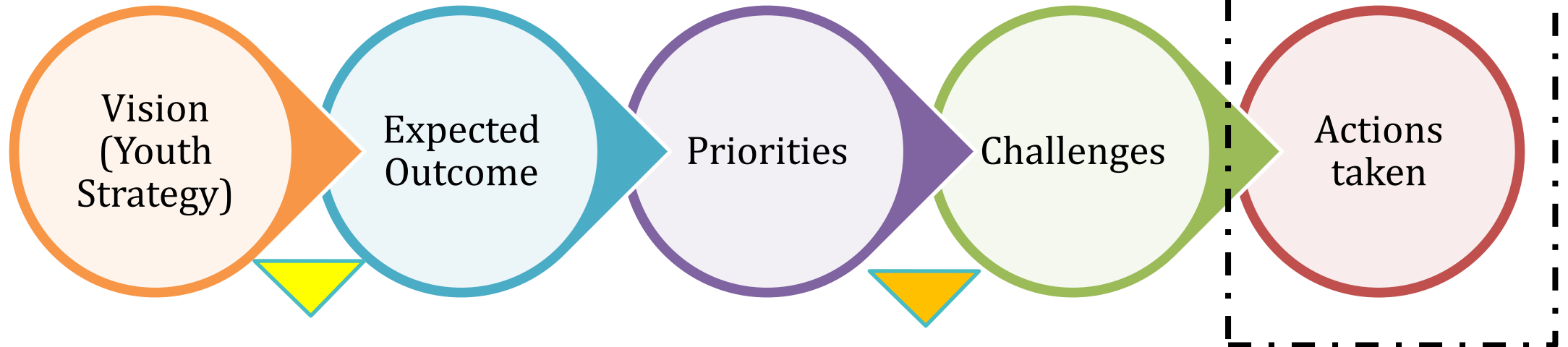- Professionals from academia and civil society

67% of participants are from developing countries

From Youth Strategy to GC-ASP Action Plan 2022-2025

Vision (Youth Strategy) → **Expected Outcome** → **Priorities** → **Challenges** → **Actions taken**

- ➢ Engage in the work of ITU-ASP
- ➢ Contribute to the decision-making processes
- ➢ Promote ICT youth-related policies within ITU Member States
- ➢ Regular dialogue and consultations
- ➢ Incorporate a youth perspective in the implementation of the ITU strategic plan

① Cybersecurity
② Digital Services and Applications
③ Digital Inclusion
④ Capacity Development

Engagements including:
- ✓ Smart villages and smart islands
- ✓ Girls in ICT Day
- ✓ Child Online Protection
- ✓ E-waste
- ✓ EU-STREIT PNG Programme
- ✓ WTDC, TDAG, Council, PP, GCY, RDF...

GC-ASP Members inputs

Generation Connect Asia and the Pacific Youth Envoys' Engagements (2021-2023)

Establishment of GC ASP

GC ASP at WTDC &Youth Summit

GC ASP at ITU PP
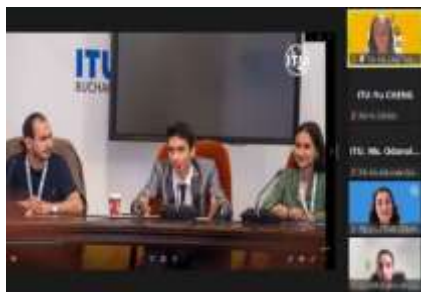
GC ASP at GICT

GC ASP at TDAG

ITU Council

COP & GICT

GC-ASP: Walk into ICT Industry

Partnership with Huawei: Seeds for the Future 2022-2023

Digital inclusion: Gender

ITU Handbook on
mainstreaming gender in digital policies

Available now at:
https://www.itu.int/hub/publication/d-hdb-gender-2023-01/

Network of Women in ITU-D

Visit the website at
itu.int/NOW4WTDC

EQUALS Global Partnerships

Visit the website at
equalsintech.org

Pacific Girls in ICT Day 2023

1000+ girls and young women raise awareness and skills

Pacific Girls in ICT Day 2024

2200 girls and young women raise awareness and skills

http://itu.int/go/ZJVV

http://itu.int/go/gict-pacific24

Digital inclusion: Gender
Girls in ICT Day 2024: *"Leadership"*

Girls in ICT Networking event by Forum Global at the 10th Asia-Pacific Spectrum Management Conference, Indonesia 24 April 2024.
- Participants: **30 delegates of the conference including women and young women** from Indonesia and Asia-Pacific region.

International Girls in ICT Day
Manila, Philippines, (hybrid mode), 25 April 2024
- Participants: approximately **800 girls, boys, and women** worldwide.

Opening ceremony of the Girls in ICT Day Thailand 2024
Bangkok, Thailand, (hybrid mode), 25 April 2024
- Participants: **over 650 girls, boys, young women, and teachers** from across the country.

Pacific Girls in ICT Day
Port Villa, Vanuatu (hybrid mode), 2 May 2024
- Participants: **150 girls, boys, and women** from **Australia, FSM, Kiribati, Papua New Guinea, Samoa, Tonga, Tuvalu, Vanuatu**

Girls in ICT Day Samoa
Apia, Samoa, 7 May 2024
- Participants: **100 girls, boys, and women from** across the country

Girls in ICT Day India
New Delhi, India, 15 May 2024
- Participants: **1000 girls, boys, and women from** across the country

ITU Girls in ICT portal

World wide celebrations at a glance

The designations employed and the presentation of material on this [map/infographic] do not imply the expression of any opinion whatsoever on the part of ITU and of the Secretariat of the ITU concerning the legal status of the country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

Girls in ICT celebrations across the world on 25 April and throughout the year

Asia & Pacific Afghanistan	25/04/2024	Technology for Good Online Innovation Challenge
Asia & Pacific Bangladesh	24/04/2024	Luna Shamsuddoha Girls in ICT Day Celebration
Asia & Pacific Bangladesh	25/04/2024	Nation Wide Coding Camp on "Blockchain, Cyber Security and e-commerce"
Asia & Pacific Bangladesh	28/04/2024	Promoting Digital Skills for Life on Girls in ICT Day*
Asia & Pacific Bhutan	25/04/2024	Girls in ICT
Asia & Pacific Cambodia	20/04/2024	Girls in ICT Day 2024
Asia & Pacific India	25/04/2024	DoITBetter Bootcamp
Asia & Pacific India	25/04/2024	International Girls in ICT Day 2024 - Digital Skills for Life International Women Achiever's Award & Indian Women in ICT Awards along with SDG 5 - Gender equality and the empowerment of women and girls to recognize the achievements of women and inspire others to act for gender equality.
Asia & Pacific Iran (Islamic Republic of)	26/05/2024	Leadership role of girls in IT and ICT
Asia & Pacific Kiribati	02/05/2024	Pacific Girls in ICT 2024
Asia & Pacific Korea (Rep. of)	25/04/2024	E-mentorship for Ethical Leadership development: Decision-making Processes for Sustainable Development Projects.
Asia & Pacific Malaysia	30/03/2024	Axiata Digital Leaders Programme (ADLP) For Girls 2024
Asia & Pacific Malaysia	27/04/2024	CodeMaven 4.0: Girls2Code 2024
Asia & Pacific Mongolia	17/04/2024	Girl's Leadership event

Once, you have finalized your **Girls in ICT** events, please **submit** and **share** the details on the event portal in the _following link_ or **scan** the QR code at:

https://www.itu.int/women-and-girls/girls-in-ict/international-girls-in-ict-day-2024/girls-in-ict-2024-events-worldwide/

Why does ICT accessibility matter: facts and figures?

9.8 billion is the estimated World Population in 2050

- 1.1 billion **people with disabilities** are excluded if the digital environment is not accessible.

- 1.1 billion young people are at risk of losing their hearing because of unsafe listening practices and systems.

- 2.1 billion people over the age of 60 by 2050 – face **age-related disabilities**

- 0.47 billion **Indigenous people**

- 0.77 billion **illiterates**

- 0.28 billion **migrants**

4,3 to 5,82 billion people

> About half of the world's population will need accessible ICTs in the next 30 years!

ITU Area Office for South Asia and Innovation Centre

- The ITU Area Office for South Asia and Innovation Centre was inaugurated at the highest levels by ITU's Secretary General and the PM of India on 22nd March 2023.

- It is fully funded and hosted by the Government of India.

- The objectives of the area office are:

  - Promoting the introduction of advanced technologies

  - Contributing to the development of ICT/telecommunication networks and services

  - Providing TA to infrastructure, e-governance, and cross-sectoral ICT applications

  - Assisting with human resources and capacity development

  - Conducting other activities related to ITU's mandate to connect the world

Mainstreaming emerging technologies and digital innovation in critical aspects of inclusive and sustainable digital transformation regionally and globally to reduce technological inequities

1. A global center to reduce technological inequities
2. Spotlight the Indian ecosystem
3. Support ITU's mission with new capabilities
4. Accelerate Digital Development

ECOSYSTEM

ENTREPRENEURS

FINANCE

ENTREPRENEURIAL SUPPORT

PUBLIC SECTOR

ACADEMIA

PRIVATE SECTOR

Innovation Centre
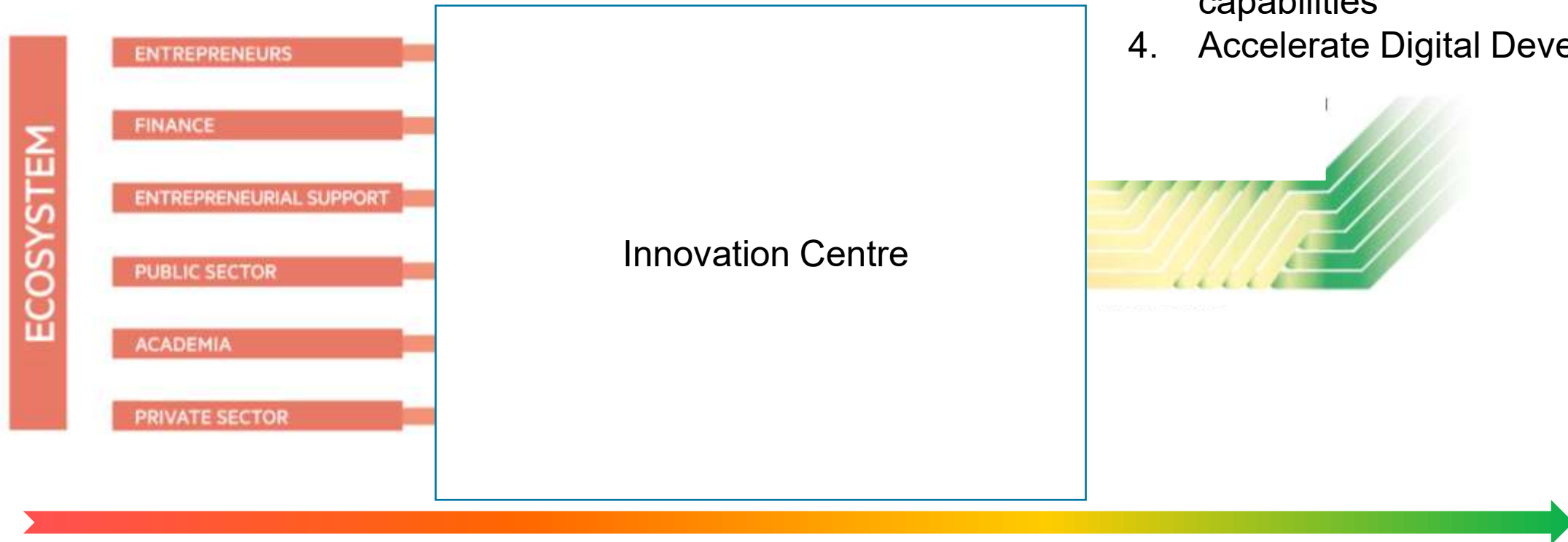
Cybersecurity

ITU's role in providing capacity building and technical assistance

Areas of intervention	Incident Response	Cybersecurity Strategy	Cybersecurity Inclusion	Data and Advocacy
Areas of developing impact	CIRTs	NCS Development	Child Online Protection	GCI
	CyberDrills	Action Plan Development	Women in Cyber	Global Partnerships
	Guides and Frameworks	Benchmarking	Youth for Cyber	Reports

Creating a trusted cyberspace for all

ITU

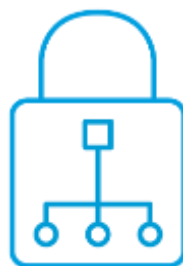# Cybersecurity is multifaceted – the GCI measures if countries have 83 measures in place across 5 pillars

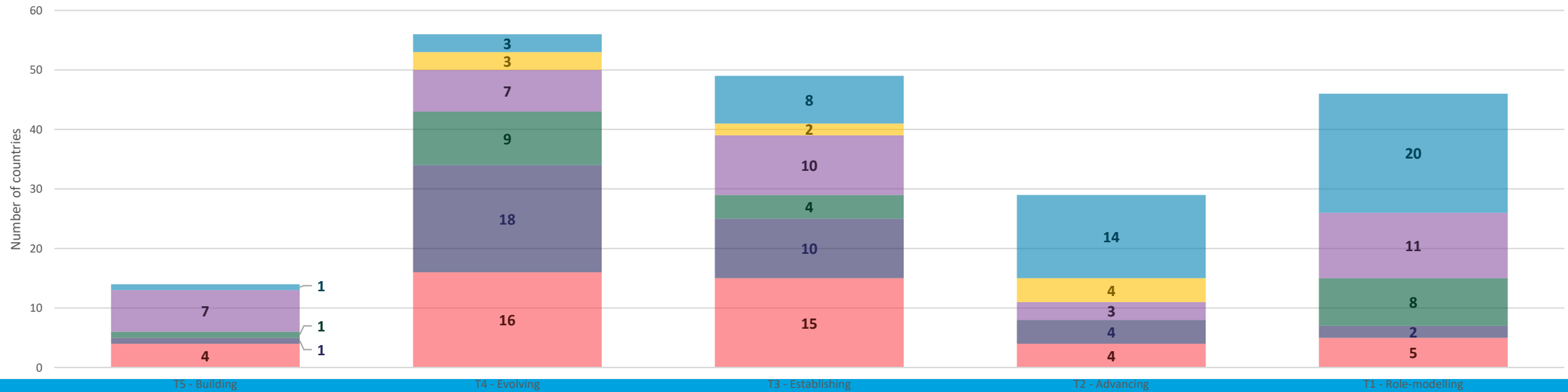| Legal | Technical | Organizational | Capacity Development | Cooperation |

| Countries fill out questionnaire | Questionnaire verified by GCI team, with measures in place, partial/in progress, or not present | Work to clarify responses with country and country validate | Responses scored and weighted | Overall scores |

GCI 2024: Asia and the Pacific Tier Performance

T5 *Building*	T4 *Evolving*	T3 Establishing	T2 Advancing	T1 Role-Modelling
Afghanistan Dem. People's Rep. of Korea) Maldives Marshall Islands Micronesia Solomon Islands Timor-Leste	Cambodia Fiji Lao P.D.R. Nauru Samoa Tonga Tuvalu	Bhutan Brunei Darussalam Iran (Islamic Republic of) Kiribati Mongolia Myanmar Nepal (Republic of) New Zealand Papua New Guinea Vanuatu	China Philippines Sri Lanka	Australia Bangladesh India Indonesia Japan Malaysia Pakistan The Philippines Singapore Thailand Viet Nam

Stacked bar chart — Number of countries by tier and region.

- T5 - Building: Africa 4, Arab States 1, Asia Pacific 7, Europe 1, (1)
- T4 - Evolving: Africa 16, Americas 18, Arab States 9, Asia Pacific 7, CIS 3, Europe 3
- T3 - Establishing: Africa 15, Americas 10, Arab States 4, Asia Pacific 10, CIS 2, Europe 8
- T2 - Advancing: Africa 4, Americas 4, Asia Pacific 3, CIS 4, Europe 14
- T1 - Role-modelling: Africa 5, Americas 2, Arab States 8, Asia Pacific 11, Europe 20

Legend: ■ Africa ■ Americas ■ Arab States ■ Asia Pacific ■ CIS ■ Europe

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ITU's Child Online Protection Initiative

In 2020, ITU has released a new set of COP Guidelines: updated, re-thought and re-written by an expert multi-stakeholder working group.

The new Guidelines include:
➢ The special situation of children with disabilities
➢ Issues around new technological developments

4 sets of guidelines for
- Policy-makers
- Industry
- Parents and educators
- Children

www.itu-cop-guidelines.com

Child Online Protection for Asia and the Pacific

Outputs

Beneficiary Countries

Outcomes

- **Translated versions of the ITU COP Guidelines** (Bahasa Indonesian, Mongolian and Thai). Bhutan **localized version of the ITU COP Guidelines**.

- 3 **UN2UN Agreements** on COP with UNICEF Thailand, Bhutan and Mongolia deployed COP in the countries.

- Organized a series of **national COP conferences, focus group discussions, workshops and trainings.**

- **4 COP National Assessment Reports** with policy recommendations for Bhutan, Mongolia, Pakistan and Thailand. Support the development of the presidential COP Roadmap in Indonesia.

COP ASP website

Bhutan, Thailand, Mongolia, Indonesia, Pakistan, Cambodia, Timor-Leste

Ongoing: India, Nepal

COP ASP Regional Concluding Workshop 2023

- **Strengthened capability of stakeholders** in building safety and security for protecting children online.

- **Increased awareness at regional and national level** on the importance of child online protection in the digital economy.

- **Improved engagement of stakeholders and cooperation** amongst the government and academia, international organizations, industry and media, civil society, and parents and educators

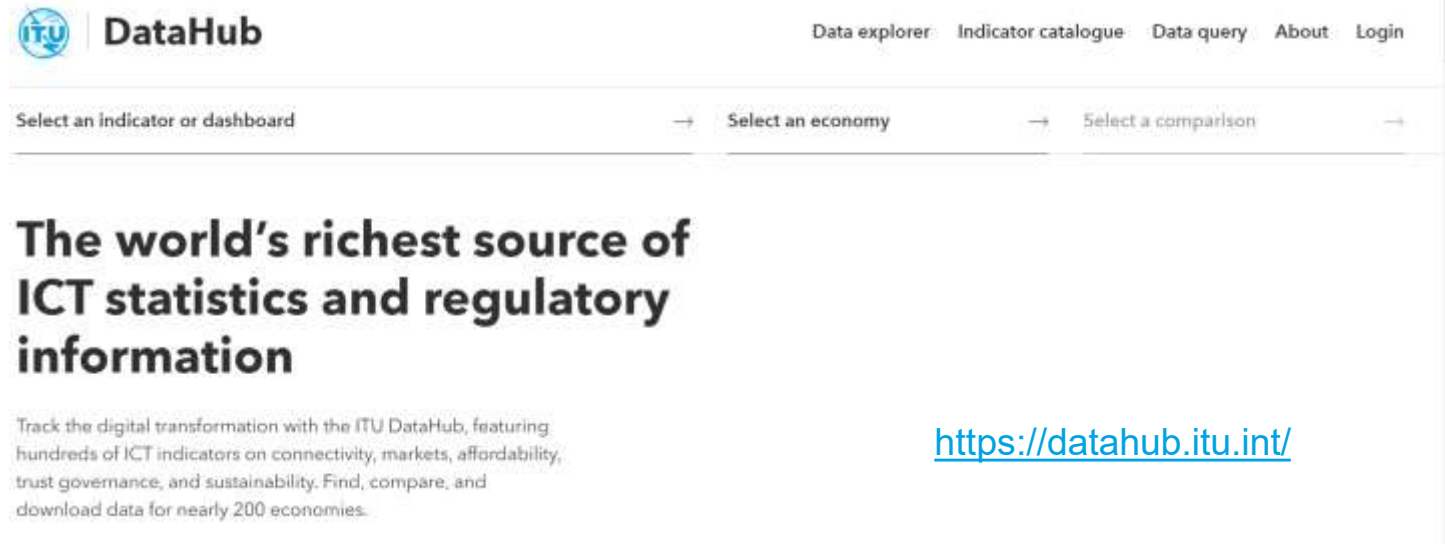
ASEAN Regional Conference on COP

Statistics: Resources

ITU | DataHub

Data explorer | Indicator catalogue | Data query | About | Login

Select an indicator or dashboard → Select an economy → Select a comparison →

The world's richest source of ICT statistics and regulatory information

Track the digital transformation with the ITU DataHub, featuring hundreds of ICT indicators on connectivity, markets, affordability, trust governance, and sustainability. Find, compare, and download data for nearly 200 economies.

https://datahub.itu.int/

ICT Development Index:
https://www.itu.int/itu-d/reports/statistics/idi2024/

Facts and Figures 2023:
https://www.itu.int/itu-d/reports/statistics/facts-figures-2023/

Dashboard for Universal and Meaningful Connectivity (UMC):
Tracking progress towards the UMC targets
https://www.itu.int/umcdashboard

Facts and Figures SIDS:
https://www.itu.int/itu-d/reports/statistics/facts-figures-for-sids/

Facts and Figures LLDCs:
https://www.itu.int/itu-d/reports/statistics/facts-figures-for-lldc/

World Telecommunication Development Conference

ITUWTDC
KIGALI 2022

6-16 June 2022
Kigali, Rwanda

Leading quadrennial policy conference to shape the future of digital development.

Setting strategies & objectives.

Developing innovative models of collaboration.

Next WTDC:

17-28 November 2025, in Azerbaijan

Thank You

Contact Us

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the Pacific:

ituasiapacificregion@itu.int