The 4ᵗʰ session of the SPECA Working Group on Innovation and Technology for Sustainable Development

: Asia-Pacific Digital Transformation Landscape

18 October 2023

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Chief, ICT and Development Section

Information and Communications Technology and
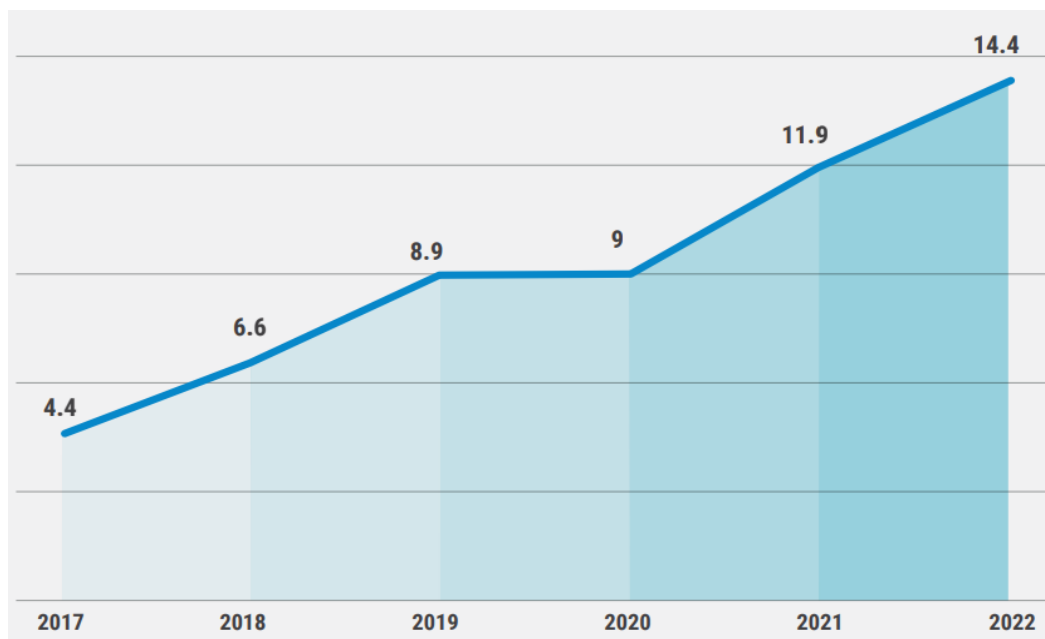
    Disaster Risk Reduction Division

1. SDG PROGRESS in ASIA AND THE PACIFIC

Progress towards all 17 SDGs in the Asia-Pacific region has been slow

- Increasing from **4.4% in 2017** to **14.4% in 2022**

- Asia-Pacific may **miss the 2030 target in time**

1. SDGs 7 & 9: greatest progress. SDG 13 is regressing.
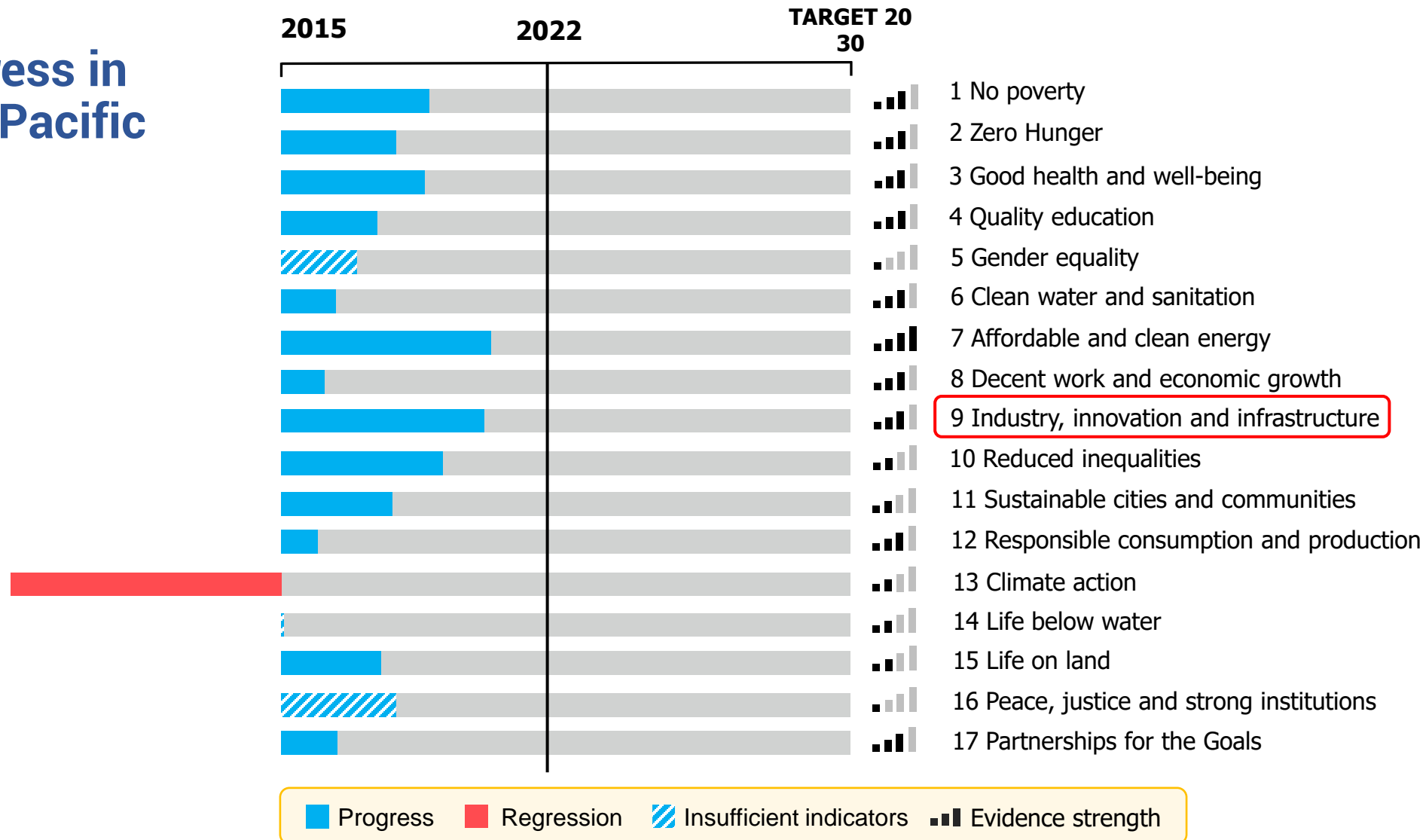
Progress in Asia-Pacific 2022

	2015	2022	TARGET 20 30

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

Progress   Regression   Insufficient indicators   Evidence strength
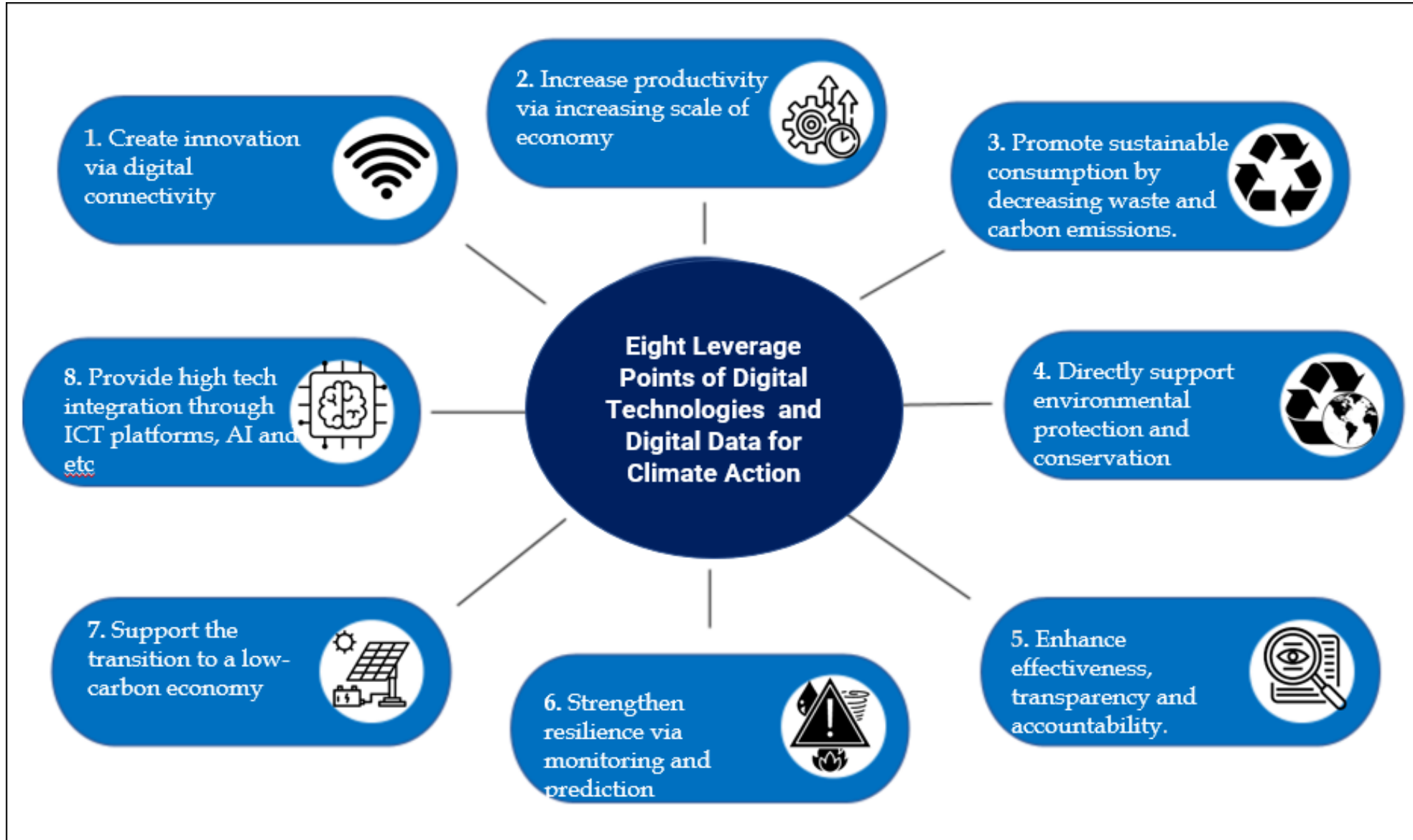
SDG GATEWAY
Asia Pacific

2. Digital Tech Accelerates Progress towards the SDGs

Countries with stronger digital infrastructure made **more SDG progress** between 2010 and 2020 – compared to peer countries in their income group

« 40%

5.9

4.2

Peers · TOP20

Lower-Middle Income Coutries

« 44%

3.6

2.5

Peers · Strong growth in digital infrastructure

High Income Countries
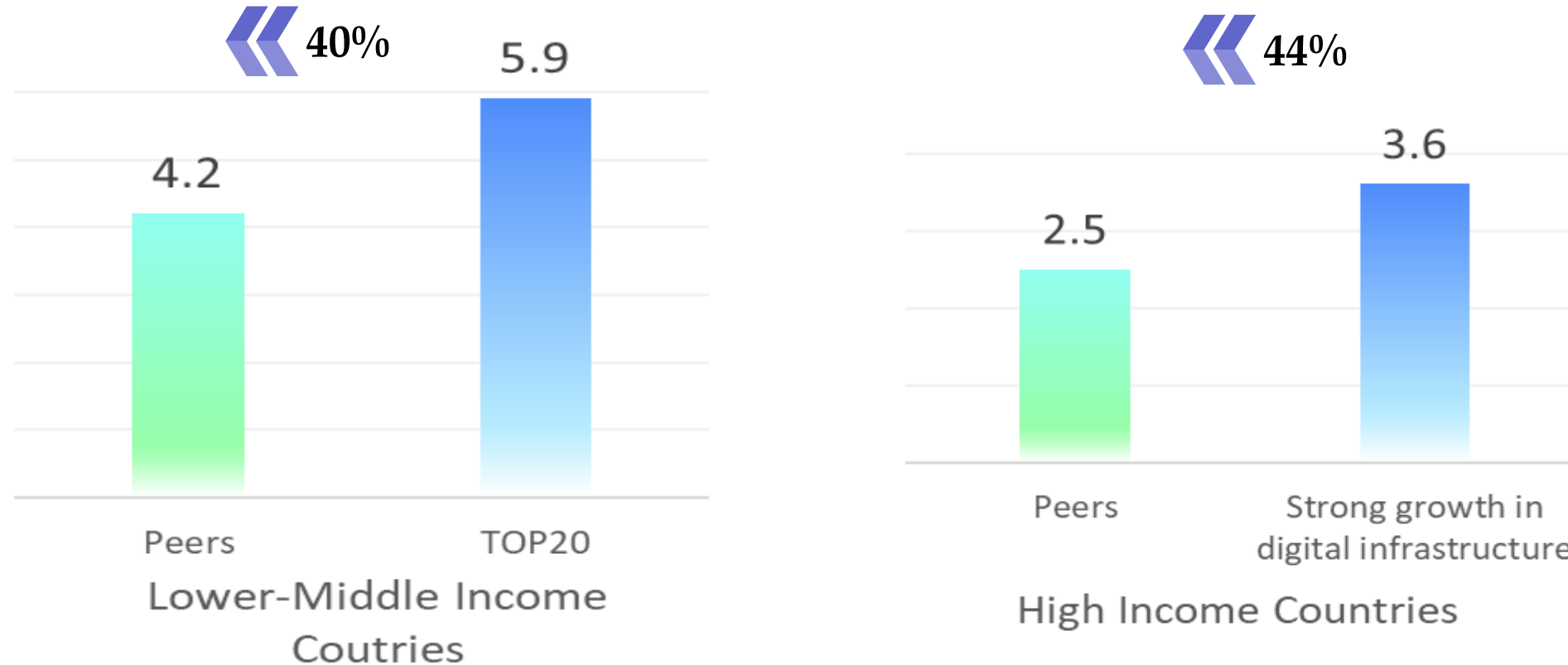
(Source: ITU)

Eight Entry Points for Leveraging Digital Technologies and Data

Asia Pacific Information Superhighway
and
APIS Action Plan 2022-2026

Asia Pacific Information Superhighway (APIS)

1. **Uniqueness:** **Only one digital network covering all Asia-Pacific**

2. **Objective**

   ▪ To **bridge the digital divide** and **accelerate digital transformation** by promoting digital technology, connectivity and data use.

3. **Two Major Roles**

   a. **Accelerator role for** finding digital solutions for SDGs

   b. **Coordinator role for** coordination, cooperation and partnerships
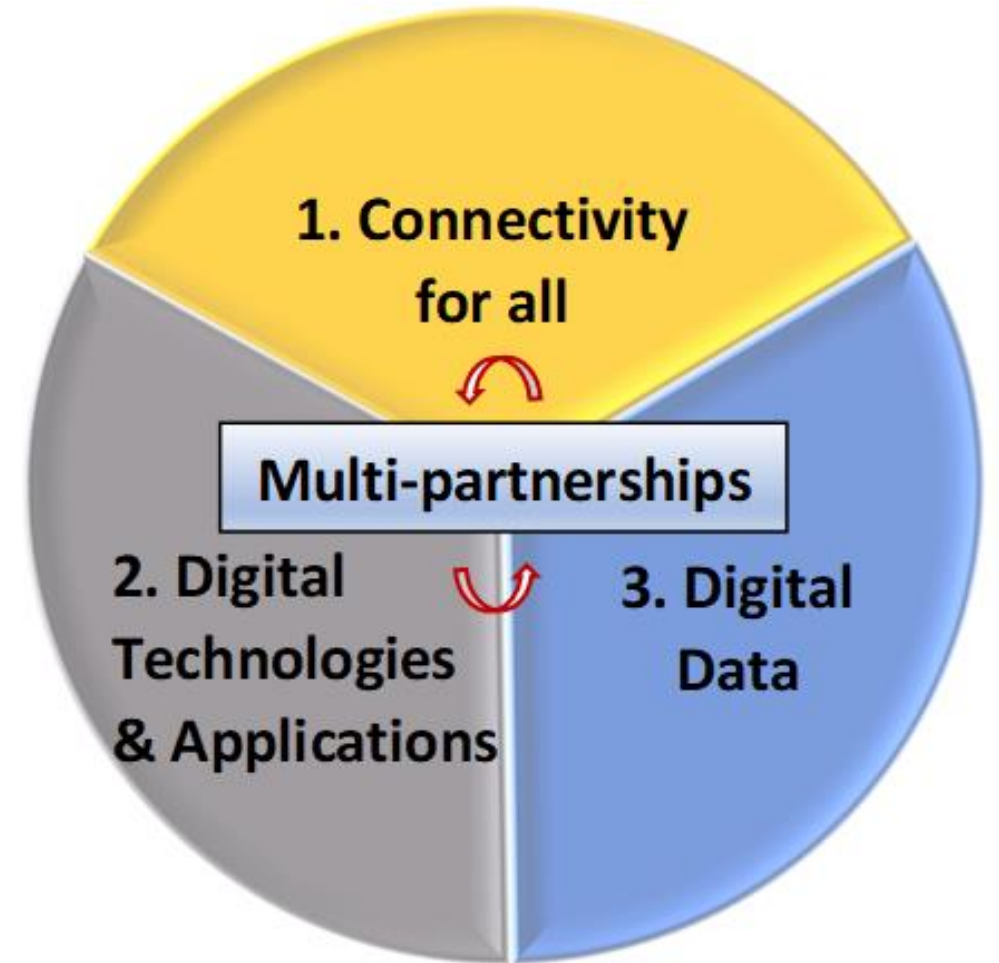
AP-IS Action Plan 2022-2026 (Regional Blueprint)

Play as a regional blueprint for actions

3 pillars (3 pathways) and 25 actions.

3 Working Groups

Member-driven

AP-IS Action Plan (2022-2026): 25 Actions

#	Action Title	SDG Goals and Targets	WSIS Action Lines	Outputs/Deliverables	Success Indicators	Working Group	ESCAP Subregion/Country	AP-IS Pillar	Activity Type	Relevant International/Regional / National Initiatives	Deadline
1	Promote digital connectivity by integrating frontier technologies	SDG 4, Target 4.4 SDG 9, Target 9.1, 9.5, 9.c	C2, C4, C6	Strengthened policy for digital connectivity through mapping of frontier technologies related to digital connectivity Enhanced knowledge on frontier technologies through capacity building workshops Promoted Regional Hub/Research Centre on Frontier Technologies in North and Central Asia	At least 10 member States indicate the importance of digital connectivity, digital divide and digital economy in statements and reports At least 1 initiative for the Regional Hub/Research Centre on Frontier Technologies in North and Central Asia implemented	1 - Connectivity for all	Asia-Pacific countries	Connectivity for all	Research and capacity building	Dilijan FabLab, Fab Academy, ITU, GIGA, UNICEF	2026
2	Promote innovative and efficient use of universal service fund (USF) for ICT infrastructure development	SDG 9, Target 9.1, 9.a, 9.c SDG 17, Target 17.8	C1, C2, C3, C4, C6, C11	Increased research on the gaps and effectiveness of existing USF policies and practices Organized capacity building workshops	At least 1 paper introducing USF system and best practices shared with member States	1 - Connectivity for all	Asia-Pacific countries	Connectivity for all	Research	Useful reference to ITU-D Study Groups 1 and 2 on Question 5/1 (Telecommunications/ICTs for rural and remote areas).	
3	Strengthen e-resilience to disaster risks through SMART (Scientific Monitoring And Reliable Telecommunications) fiber-optic cable systems	SDG 9, Target 9.1, 9.a, 9.c	C1, C2, C3, C4, C7,C11	Increased policy awareness on e-resilience	Working Paper and research on SMART fiber-optic cables for e-resilience	1 - Connectivity for all	Asia-Pacific countries	Connectivity for all	Research		

Asia Pacific Digital / ICT Events and Activities

Please advertize your big events here to other member States

Asia-Pacific ICT/Digital-related Events in 2022

2022 02 25

Title of Event / Activity	Key Contents (Link/URL to the Event's website, if available)	Nature of Event/Activity	Link to the AP-IS Pillar(s)	Host Organization / Country	Date(s)	Venue (City, Country)	Target Countries / Sub-Region to be invited	Number of Participants	Contact Information
(samples in the below)									
Workshop on regional digital connectivity and transformation	Digital divides, digital connectivity, digital transformation	Capacity building	Pillar 1 Connectivity	Ministry of Science and ICT of ROK (tbc)	23-Nov	Seoul Korea	Asia Pacific countries	20	Mr. Tae Hyung Kim, Chief ICT and Development Section (IDS), Email: escap-ids@un.org
Capacity building workshops on digital transformation index 1.0	digital transformation	Capacity building	Pillar 1-3: Connectivity for all, Digital tech & applications, and	ESCAP	16-Feb	On-line (MS Teams)	Asia Pacific countries	100	Mr. Tae Hyung Kim, Chief ICT and Development Section (IDS), Email: escap-ids@un.org
Expert meeting on digital transformation index 1.0	digital transformation	Capacity building	Pillar 1-3: Connectivity for all, Digital tech & applications, and	ESCAP	15-Mar	On-line (MS Teams)	Asia Pacific countries	100	Mr. Tae Hyung Kim, Chief ICT and Development Section (IDS), Email: escap-ids@un.org
Fourth session of the Committee on Information and Communications Technology, Science, Technology and Innovation	ICT, STI	Intergovernmental meeting	Pillar 1 Connectivity	ESCAP	30 Aug-1 Sep	Bangkok, Thailand	Representatives of Asia Pacific countries	100	Mr. Tae Hyung Kim, Chief ICT and Development Section (IDS), Email: escap-ids@un.org
Regional inception meeting of the "Digital and transport connectivity for the socioeconomic resilience of rural communities during the post-COVID-19	Digital and transport connectivity	Regional workshop	Pillar 1 Connectivity	ESCAP	28-Sep	Bangkok Thailand	ASEAN	20	Mr. Siope Ofa, Economic Affairs Officer, IDS Email: escap-ids@un.org
6th Session of the Asia Pacific Information Superhighway Steering Committee	Digital divides, digital connectivity and digital transformation	Intergovernmental meeting	Pillar 1 Connectivity	ESCAP	13-Oct	Bangkok, Thailand	Asia Pacific countries	100	Mr. Tae Hyung Kim, Chief ICT and Development Section (IDS), Email: escap-ids@un.org
Frontier Technology Policy Experimentation and Regulatory Sandboxes in Asia and the Pacific – "1st Study Visit" for Bangladesh, Kazakhstan and the Maldives	Frontier Technology Policy Experimentation and Regulatory Sandboxes	Capacity building	Pillar 2 Digital Techr	ESCAP and MSIT ROK (tbc)	22-24 Nov	Seoul, Korea	Bangladesh, Kazakhstan, Maldives	10	Mr. Siope Vakataki Ofa, Economic Affairs Officer ICT and Development Section/ICT and Disaster Risk Reduction Division Email: escap-ids@un.org
Frontier Technology Policy Experimentation and Regulatory Sandboxes in Asia and the Pacific – "2nd Study Visit" for Bangladesh,	Frontier Technology Policy Experimentation and Regulatory Sandboxes	Capacity building	Pillar 2 Digital Techr	ESCAP and CAICT China (tbc)	20-21 Oct	tbc, China	Bangladesh, Kazakhstan, Maldives	10	Mr. Siope Vakataki Ofa, Economic Affairs Officer ICT and Development Section/ICT and

Intergovernmental Policy Dialogues (Ministerial-level event)

Asia-Pacific Digital Ministerial Conference 2024

1. **Resolution 79/10 in May 2023**

   - **Promoting digital cooperation and inclusion** through the Action Plan for Implementing the Asia-Pacific Information Superhighway Initiative, 2022–2026

2. Kazakhstan committed MC

   - around August 2024

   - **Theme: Digital for Climate (Green Digital Transformation) or AI for SDGs (TBD)**

Asia-Pacific Digital Transformation Forum and Asia-Pacific Digital Ministerial Conference

09-10 November 2022 (9:00 – 17:00 UTC +9)
Seoul, Republic of Korea

Asia-Pacific Digital Transformation Forum & Digital Ministerial Conference 2022

Ministry of Science and ICT

ESCAP75 MOVING FORWARD TOGETHER

9-10 November 2022
InterContinental Seoul COEX
Seoul, Republic of Korea

H.E. Mr. Lee Jong-Ho
Minister, Republic of Korea

Ibu. Ms. Armida Salsiah Alisjahbana
Executive Secretary, UN ESCAP

H.E. Mr. Gevorg Mantashyan
First Deputy Minister, Armenia

H.E. Ms. Alexandra Siddall
Deputy Ambassador, Australia

H.E. Mr. Jeyhun Salmanov
Deputy Chairman, Azerbaijan

H.E. Mr. Ir. Haji Mohammad Nazri bin Haji Mohammad Yusof
Permanent Secretary, Brunei Darussalam

H.E. Mr. Vat Chun
Secretary of State, Cambodia

H.E. Mr. Meas Po
Under Secretary of State, Cambodia

H.E. Mr. Eisa Zarepour
Minister, Islamic Republic of Iran

H.E. Mr. Mohammad Khansari
Deputy Minister, Islamic Republic of Iran

H.E. Mr. Askar Zhambakin
Vice Minister, Kazakhstan

H.E. Mr. Santisouk Simmalavong
Deputy Minister, Lao PDR

H.E. Mr. Mohamad Salim bin Fateh Din
Chairman, Malaysia

H.E. Mr. Mohamed Shareef
State Minister, Maldives

H.E. Mr. Uchral Nyam-Osor
Minister, Mongolia

H.E. Mr. Ivan John E. Uy
Secretary, The Philippines

H.E. Mr. Toelupe Poumulinuku Onesemo
Minister, Samoa

H.E. Mr. Kanaka Dasaratha Herath
Minister, Sri Lanka

H.E. Mr. Chaiwut Thanakamanusorn
Minister, Thailand

H.E. Mr. Philip Goldberg
Ambassador, United States of America

Agendas

Leveraging digital technologies and data

Promoting digital connectivity and digital transformation

Strengthening government-business cooperation platforms

Institutional Capacity Building Projects

ICT Projects and Partnerships

1. Central Bank Digital Currency (RB)

2. Digital and transport connectivity for rural communities (RB)

3. Internet Exchange Points (IXP) in the Pacific (RB)

4. UN SPECA WG on Innovation and Technology (RB)

5. Clean Air for Sustainable ASEAN (CASA) (XB)

6. Digital ID systems in ASEAN (2025-2028) under review (XB)

7. Capacity building on digital technology applications for Pacific (2024-2026), approved by donor (XB)

8. AI for SDGs (certificate programme): under negotiation

   ▪ Master course for AI Policy

Analytical Research
(Asia-Pacific Digital Transformation Report)

Asia-Pacific Digital Transformation Report 2022

United Nations ESCAP Flagship Report

https://www.unescap.org/kp/2022/asia-pacific-digital-transformation-report-2022-shaping-our-digital-future
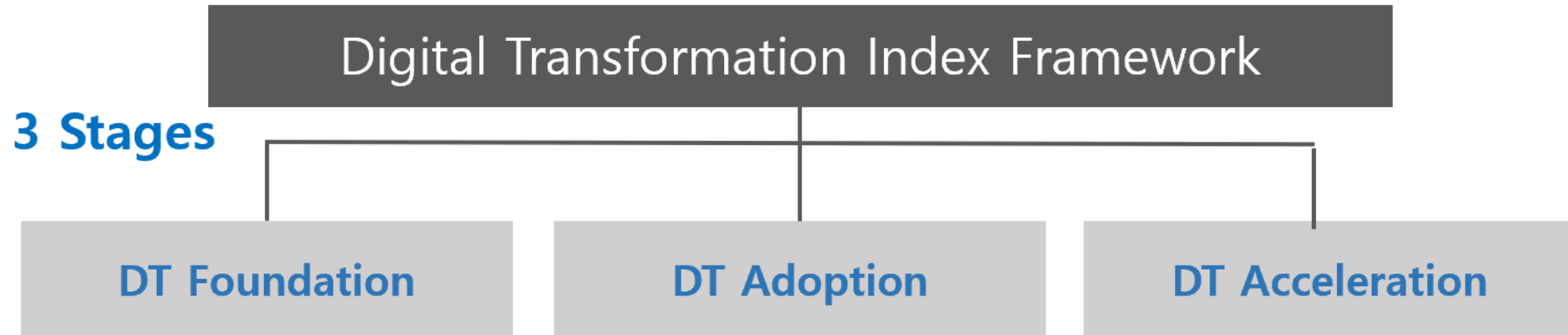
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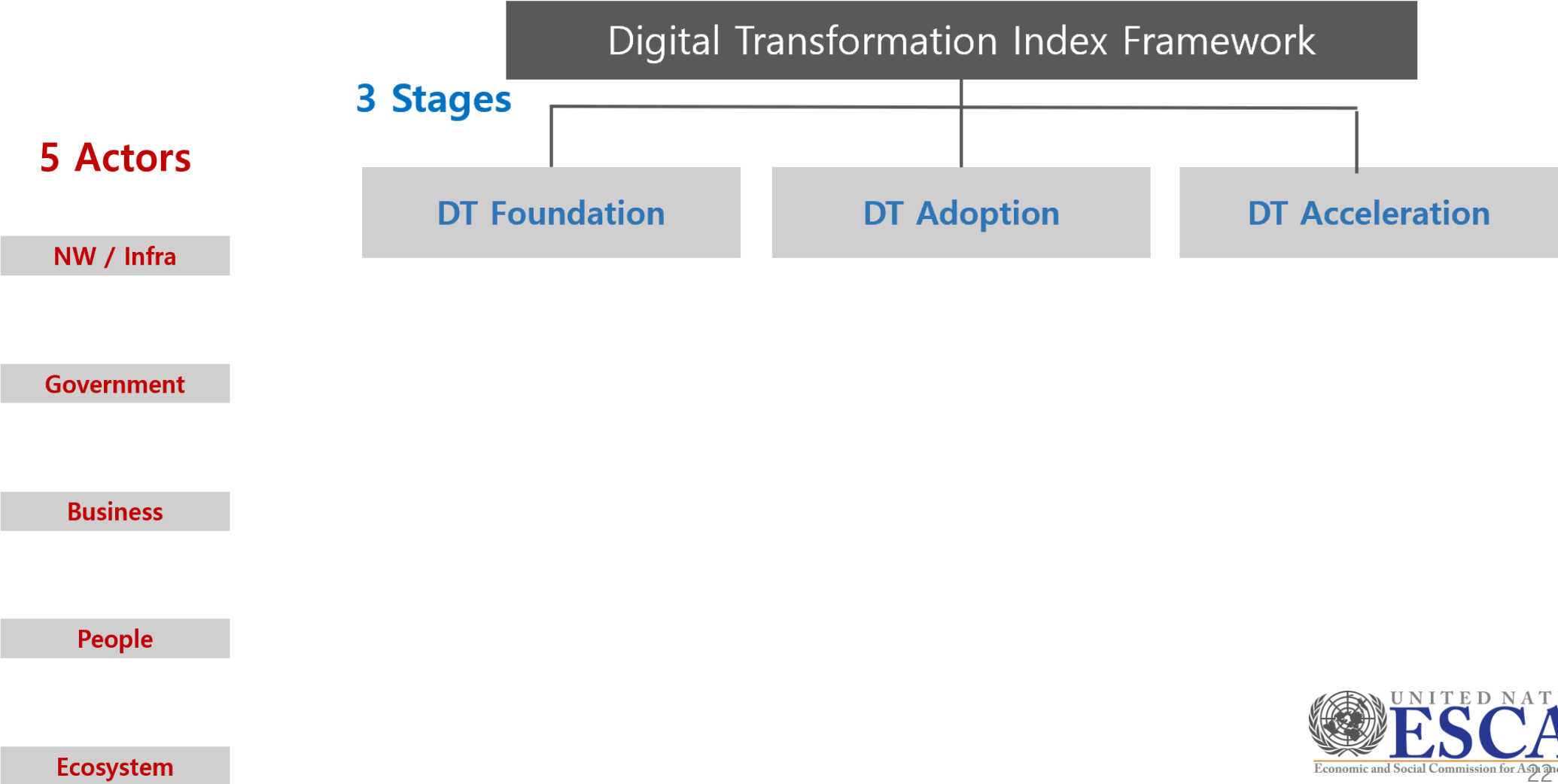# First Digital Transformation Index

1. **First & global** index on digital transformation

2. Analysis beyond the business sector

3. Very comprehensive index
   - **105 indicators** for **108 countries**

4. **Now working on index development: Digital for Climate**

Building Framework (3 development stages)
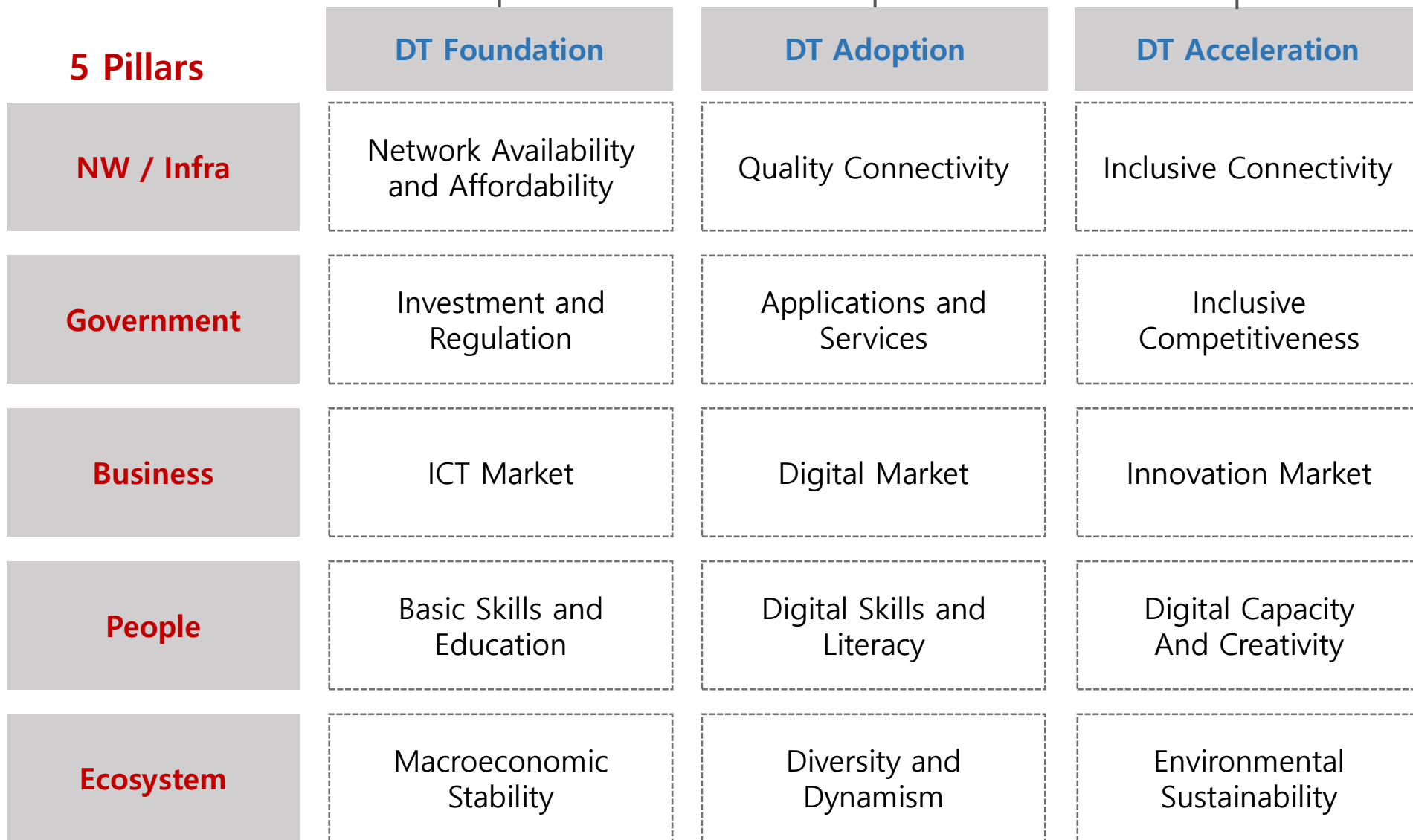
3 digital Development Stages:
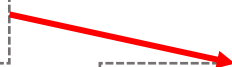
Building Framework (5 Actors)

Digital Transformation Index Framework

3 Stages

| DT Foundation | DT Adoption | DT Acceleration |

5 Actors

NW / Infra

Government

Business

People

Ecosystem

Digital Transformation Index Framework

(Total: 105 indicators)

3 Stages

5 Pillars

	DT Foundation	DT Adoption	DT Acceleration
NW / Infra	Network Availability and Affordability	Quality Connectivity	Inclusive Connectivity
Government	Investment and Regulation	Applications and Services	Inclusive Competitiveness
Business	ICT Market	Digital Market	Innovation Market
People	Basic Skills and Education	Digital Skills and Literacy	Digital Capacity And Creativity
Ecosystem	Macroeconomic Stability	Diversity and Dynamism	Environmental Sustainability

Each domain

Source of Indicators

Report	Source	No. of Country	Factors	Weight
Digital Readiness Index (2019)	CISCO	141	# Of indicators: 25 **7 Pillars** (Basic needs, Business and Government, Ease of Doing Business, Human Capital, Start-up Environment, Technology Adoption, Technology Infrastructure)	Total score from 0 to 25
Network Readiness Index (2020)	Portulans	134	# Of indicators: 60 **4 Pillars** (Technology, People, Governance, Impact), 3 sub-pillars under each pillar	Each pillar was given a weight of 25%
World Digital Competitiveness Rankings (2020)	IMD	64	# Of indicators: 52 **3 Pillars** (Knowledge, Technology, Future Readiness), 3 sub-pillars under each pillar	Hard criteria: weight of 2/3 Survey data:weight of 1/3.
Government AI Readiness (2020)	Oxford Insight	166	# Of indicators: 33 **3 Pillars** (Government, Technology Sector, Data and Infrastructure)	All indicators, dimensions and pillars were weighted equally.
The Inclusive Internet Index (2021)	Economist	120	# Of indicators: 83 (59 + 24 background indicators) **4 Pillars** (Availability, Affordability, Relevance, Readiness)	Availability (40%) + Affordability (30%) + Relevance (20%) + Readiness (10%)
Global Competitiveness Index (2019)	WEF	141	# Of indicators: 103 **4 Areas** (Enabling Environment, Human Capital, Markets, Innovation Ecosystem) **and 12 pillars**	Each pillar was given a weight of 8.3%.
Global Innovation Index (2021)	WIPO	132	# Of indicators: 81 **7 pillars** (Institution, Human capital and research, Infrastructure, Market sophistication, Business sophistication, Knowledge and technology outputs, Creative outputs)	

Indicator	Source	Year
Total electricity access	World Bank	2019
Days to get electricity	World Bank	2019
Smartphone penetration	Statista	2018-2020
Public cloud services spending (% of the worldwide)	Gartner	2018
Ease of doing business	World Bank	2019
E-Participation Index	UN DESA	2020
Online Service Index	UN DESA	2020
Government Effectiveness	World Bank	2020
Cloud regulation	ACCA	2020
FDI NetFlow	IMF	2021
High-tech exports	World Bank	2019, 2020
Number of tech unicorns (CB insight)	CB Insight	2021
Labor force participation	ILO	2020
Adult literacy	UNESCO	2019, 2020
Harmonized test score	World Bank	2020
School computers per student	OECD, PISA	2020

105 Indicators

DT Progress	Foundation	Adoption	Acceleration
NW / Infra	**Network Availability and Affordability**	**Quality Connectivity**	**Inclusive Connectivity**
	Total electricity access	Smartphone penetration	5G coverage
	Days to get electricity	Average revenue per user	5G deployment
	Mobile subscribers	Average fixed broadband download speed	Public cloud services spending (% of the worldwide)
	Fixed-line broadband subscribers	Mobile download speed	Gender equality in mobile phone access
	Internet users	Average mobile latency	Gender equality in internet use
	Mobile tariff affordability	Tablet possession	Government effort to promote 5G
	Fixed line broadband affordability	4G coverage	Government initiatives to make Wi-Fi available
	Handset prices affordability	Servers per population	Private sector initiatives to make Wi-Fi available

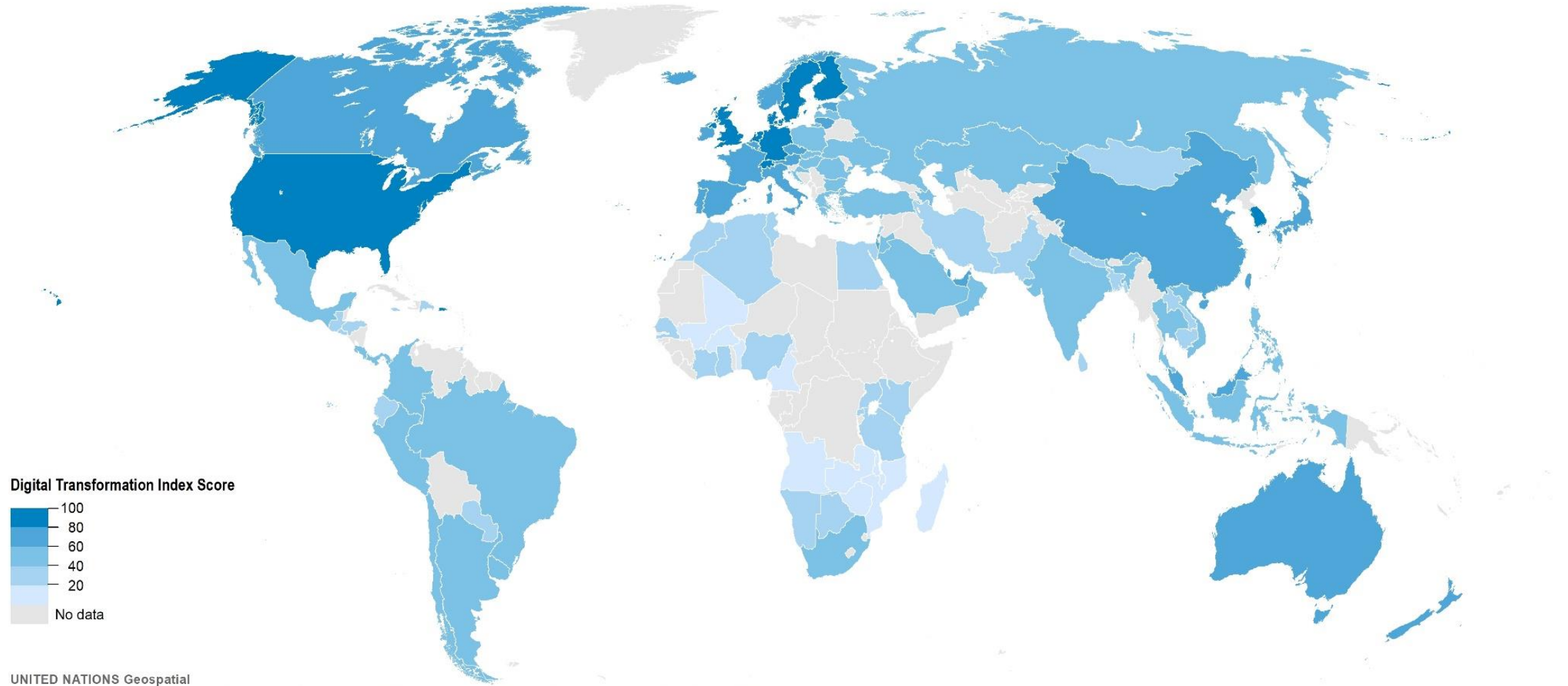| **Government**	**Investment and Regulation**	**Applications and Services**	**Inclusive Competitiveness**
	Ease of doing business	E-Government Index	National AI policies
	Intellectual property protection	E-Participation Index	Publication and use of open data
	ICT regulatory environment	Online Service Index	AI readiness index
	Privacy regulation	Legal framework's adaptability to digital business models	Open data policies
	Burden of government regulation	National digital identification system	Trust in online privacy
	Business & Government Investment	Government Effectiveness	Trust in government websites and apps
	R&D expenditure by government and higher education	Government's responsiveness to change	Online Security
	Government promotion of investment in emerging technologies	E-commerce legislation	Future orientation of government

Business	**ICT Market**	**Digital Market**	**Innovation Market**
	FDI NetFlow	Computer software spending	Start-up environment
	R&D expenditures by businesses	Venture capital availability	Robot density
	Business Environment	Mobile apps development	Use of big data analytics
	High-tech exports	Digital contents (news) in local languages	Innovation capability
	Medium and high-tech industry	e-Government services in local languages	Adoption of emerging technologies
	Labor productivity per employee	Business use of digital tools	Number of tech unicorns
	Scientific publications	ICT enabled organizational model creation	Growth of innovative companies

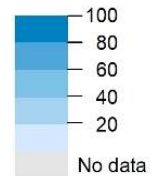| **People**	**Basic Skills and Education**	**Digital Skills and Literacy**	**Digital Capacity and Creativity**
	Labor force participation	Digital skills among active population	Critical thinking in teaching
	Adult literacy	Quality of vocational training	Pupil to teacher ratio in primary education
	Harmonized test score	Ease of finding skilled employees	School computers per student, 2020
	Public expenditure on education (% of GDP)	Support for digital literacy	Female digital skills training
	Basic skills	Schools with Internet access	Female STEM education
	Mean years of schooling	Skills of current workforce	Skills of future workforce

Ecosystem	**Macroeconomic Stability**	**Diversity and Dynamism**	**Environmental Sustainability**
	Nominal GDP	Flexibility in labor market	Energy efficiency regulation
	GNI per capital	Diversity of workforce	Renewable energy regulation
	Democracy Index	International co-inventions	Environmental treaties in force
	Corruption Perceptions Index	Multi-stakeholder collaboration	SDG 11 (Sustainable Cities and Communities)
	Price stability	Cluster development and depth	GDP/unit of energy use
	Debt dynamics	Joint venture/strategic alliance deals	Environmental performance

+ 34 survey data

Digital Transformation Landscape

Digital Transformation Index Score
- 100
- 80
- 60
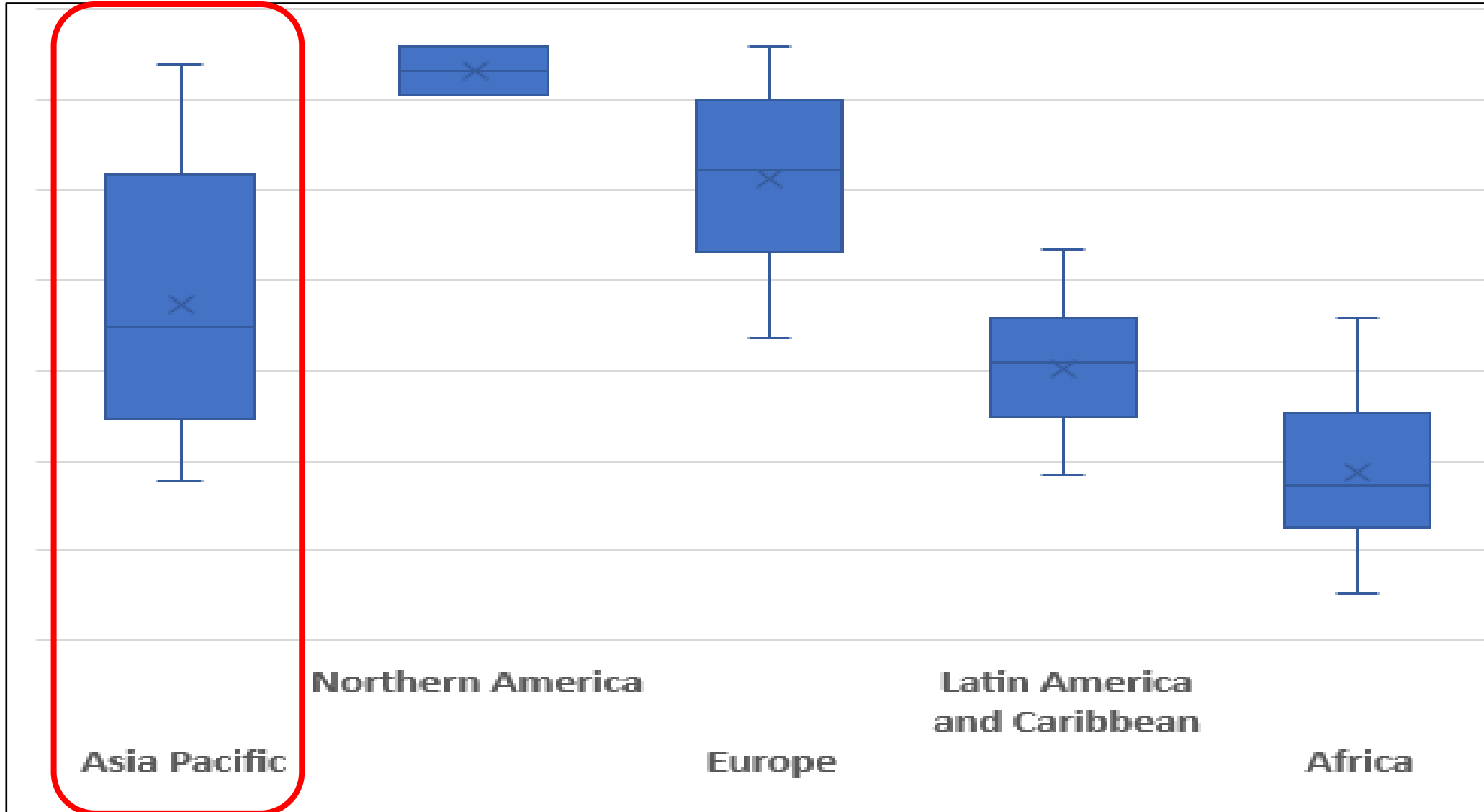- 40
- 20
- No data

Jul 2022

Analytical Research: Digital Divides

2024 Asia-Pacific Digital Transformation Report

1. **Theme: Digital for Climate**

2. Focus:

   a. how two drivers are **changing our socio-economic structures** and will transform in what shape

   b. **How two drivers are interlinked**

   c. **What scenarios and our actions?**

3. To Ministerial Conference 2024, in Kazakhstan, August 2024

4. Call a partner meeting around in December 2023, inviting interested partners

Regional digital cooperation for building a resilient and inclusive digital economy.

through:

- **the Asia-Pacific Information Superhighway as your platform**

Thank you very much

IDS/IDD

ESCAP