ITU Regional Workshop on ICT Statistics

Lilongwe, Malawi
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Global ICT benchmarks

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Outline

- Sustainable Development Goals (SDG) indicators framework

- Connect 2020 Agenda

- Broadband Commission 2025 Targets

- ICT Development Index

SUSTAINABLE DEVELOPMENT GOALS (SDG) INDICATORS FRAMEWORK

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The sustainable development goals (SDGs)

- A new framework for international cooperation to promote sustainable development between 2015 and 2030
- A Member State-led process (facilitated by the UN) with broad participation from major stakeholders that has identified a wide range of areas
  - economic growth
  - social justice
  - environmental sustainability
- SDGs were adopted at the UN Sustainable Development Summit - September 2015
  1. 17 Goals
  2. 169 Targets
  3. 232 Indicators

The SDG indicators framework

- UN Statistical Commission set up the Inter-agency Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs) to take the lead role in developing a final list of indicators
  - 28 representatives of NSOs
  - Observers: regional commissions and regional and international agencies - including ITU and others that were responsible for global reporting on the MDGs to provide technical advice and support

ICT indicators for the SDGs

- The current draft outcome document recognizes that
  "*the spread of information and communications technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies, as does scientific and technological innovation across areas as diverse as medicine and energy.*" (Draft Outcome Document of the UN Summit for the Adoption of the post-2015 Development Agenda)

- While none of the SDGs is specifically about ICTs, several targets make references to ICTs and technology

- ITU has lead role on ICT indicators for the SDGs, in cooperation with the Partnership on Measuring ICT for Development

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SDG Indicators framework

- The proposed list of indicators was endorsed at the 47th session of the UN Statistical Commission held on 8-11 March 2016

- 232 total indicators

- Includes 5 ICT indicators collected by ITU
  - 3 indicators that are collected via household surveys from NSOs
  - 2 indicators are based on administrative data collected from regulatory authorities/ICT Ministries
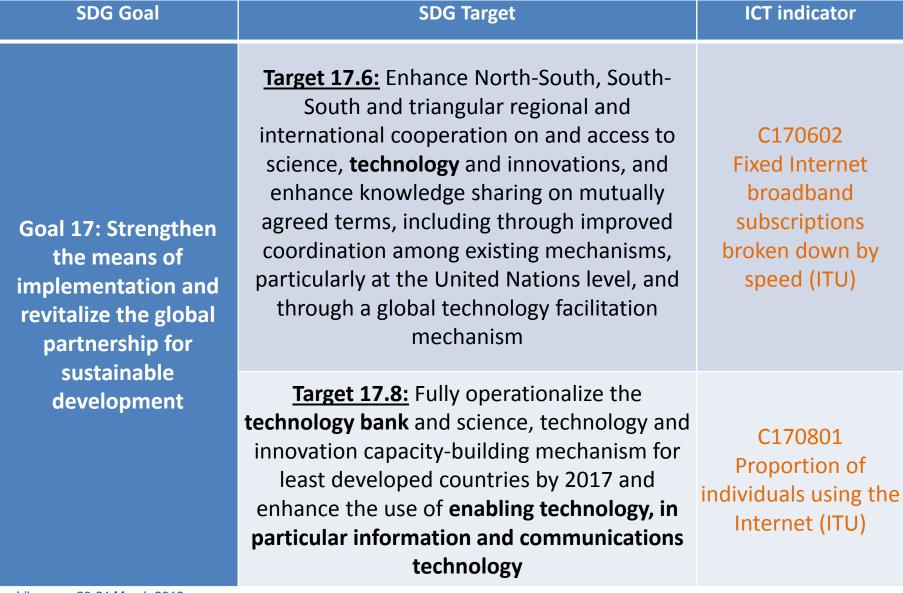
SDG Goal	SDG Target	ICT indicator
Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	**Target 4.4:** By 2030, substantially increase the number of youth and adults who have **relevant skills, including technical and vocational skills**, for employment, decent jobs and entrepreneurship	C040401 Proportion of individuals with ICT skills, by type of skills (ITU)
	Target 4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	Proportion of schools with access to the Internet for pedagogical purposes (UIS)
		Proportion of schools with access to computers for pedagogical purposes (UIS)

SDG Goal	SDG Target	ICT indicator
Goal 5: Achieve gender equality and empower all women and girls	**Target 5b:** Enhance the use of **enabling technology, in particular information and communications technology,** to promote women's empowerment	C050b01 Proportion of individuals who own a mobile telephone, by sex (ITU)

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SDG Goal	SDG Target	ICT indicator
Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	**Target 9.c:** Significantly increase **access to information and communications technology** and strive to provide universal and affordable access to the Internet in least developed countries by 2020	C090c01 Percentage of the population covered by a mobile network, broken down by technology (ITU)

SDG Goal	SDG Target	ICT indicator
Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development	**Target 17.6:** Enhance North-South, South-South and triangular regional and international cooperation on and access to science, **technology** and innovations, and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, particularly at the United Nations level, and through a global technology facilitation mechanism	C170602 Fixed Internet broadband subscriptions broken down by speed (ITU)
	Target 17.8: Fully operationalize the **technology bank** and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of **enabling technology, in particular information and communications technology**	C170801 Proportion of individuals using the Internet (ITU)

SDG Indicators framework

- Target 4.1: Proportion of schools with access to the Internet for pedagogical purposes (UIS)
- Target 4.1: Proportion of schools with access to computers for pedagogical purposes (UIS)
- Target 4.4: Proportion of individuals with ICT skills, by type of skills (ITU) C040401
- Target 5b: Proportion of individuals who own a mobile telephone, by sex (ITU) C050b01
- Target 9c: Percentage of the population covered by a mobile network, broken down by technology (ITU) C090c01
- Target 17.6: Fixed Internet broadband subscriptions, broken down by speed (ITU) C170602
- Target 17.8: Proportion of individuals using the Internet (ITU) C170801

Leaving no one behind

Sustainable Development Goal indicators should be disaggregated, where relevant, by:

- income
- sex
- age
- race
- ethnicity
- disability
- geographic location
- other characteristics, in accordance with the Fundamental Principles of Official Statistics

Partnership on Measuring ICT for Development

Task Group on ICT for SDGs

Objectives:

- Propose a list of thematic ICT indicators - should help monitor the availability and use of ICT in different sectors relevant to the SDGs.

- Review indicators in the core list while focusing on indicators related to the targets.

- Improve availability of data (including disaggregated data) for the indicators that will be included in the thematic list.

Tasks, activities and outputs

- Develop a framework for monitoring the SDG targets with ICT indicators complementary to the existing global indicators framework

- Prepare a methodology document for the indicators for selected SDG targets along with their definitions and collection methodologies

- Awareness raising - disseminate the list of indicators to stakeholders, present and discuss the monitoring framework at relevant global and regional events (e.g. global/regional meetings, Partnership events, UNSC, WSIS, WTIS, etc.)

- Compile and disseminate the data - by the relevant members of the TG/responsible agency on a continuous basis

- Prepare regular quantitative assessment of the ICT indicators - final report to be prepared for 2020

THE CONNECT 2020 AGENDA

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Connect 2020 Agenda for Global Telecommunication/ICT Development

- Connect 2020 Agenda sets out vision, goals and specific targets for future development of ICT sector

- Unanimously adopted at the ITU 2014 Plenipotentiary Conference (PP-14)

- ITU Member States committed to work towards *"an information society, empowered by the interconnected world, where telecommunication/ICT enables and accelerates socially, economically and environmentally sustainable growth and development for everyone."*

Connect 2020 Agenda Goals

GOAL 1: GROWTH

GROWTH

Enable and foster access to and increased use of telecommunication/ICT

GOAL 2: INCLUSIVENESS

INCLUSIVENESS

Bridge the digital divide and provide broadband for all

GOAL 3: SUSTAINABILITY

SUSTAINABILITY

Manage challenges resulting from telecommunication/ICT development

GOAL 4: INNOVATION

INNOVATION & PARTNERSHIP

Lead, improve and adapt to the changing telecommunication/ICT environment

Agreed Global Telecommunication/ICT Targets

by 2020...

Goal 1 Growth : Enable and foster access to and increased use of telecommunications/ICTs

55% of households should have access to the Internet

60% of individuals should be using the Internet

40% Telecommunications/ICTs should be **40%** more affordable

GROWTH

Goal 2 Inclusiveness – Bridge the digital divide and provide broadband for all

50% of households should have access to the Internet in the developing world; **15%** in the least developed countries

50% of individuals should be using the Internet in the developing world; **20%** in the least developed countries

40% affordability gap between developed and developing countries should be reduced by **40%**

5% Broadband services should cost no more than **5%** of average monthly income in the developing countries

INCLUSION

90% of the rural population should be covered by broadband services

Gender equality among Internet users should be reached

Enabling environments ensuring accessible ICTs for persons with disabilities should be established in all countries

Goal 3 Sustainability – Manage challenges resulting from the telecommunication/ICT development

40% improvement in cybersecurity readiness

50% reduction in volume of redundant e-waste

30% decrease in Green House Gas emissions per device generated by the telecommunication/ICT sector

SUSTAINABILITY

Goal 4 Innovation and partnership – Lead, improve and adapt to the changing telecommunication/ICT environment

Telecommunication/ICT environment conducive to innovation

Effective partnerships of stakeholders in telecommunication/ICT environment

INNOVATION

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Monitoring the ITU Connect 2020 Agenda

Goal 1 Growth – Enable and foster access to and increased use of telecommunications/ICTs

- **Target 1.1**: Worldwide, 55% of households should have access to the Internet by 2020
- **Target 1.2**: Worldwide, 60% of individuals should be using the Internet by 2020
- **Target 1.3**: Worldwide, telecommunication/ICTs should be 40% more affordable by 2020

Goal 2 Inclusiveness –Bridge the digital divide and provide broadband for all

- **Target 2.1.A**: In the developing world, 50% of households should have access to the Internet by 2020
- **Target 2.1.B**: In the least developed countries (LDCs), 15% of households should have access to the Internet by 2020
- **Target 2.2.A**: In the developing world, 50% of individuals should be using the Internet by 2020
- **Target 2.2.B**: In the least developed countries (LDCs), 20% of individuals should be using the Internet by 2020
- **Target 2.3.A**: The affordability gap between developed and developing countries should be reduced by 40% by 2020
- **Target 2.3.B**: Broadband services should cost no more than 5% of average monthly income in developing countries by 2020
- **Target 2.4**: Worldwide, 90% of the rural population should be covered by broadband services by 2020
- **Target 2.5.A**: Gender equality among Internet users should be reached by 2020
- **Target 2.5.B**: Enabling environments ensuring accessible telecommunications/ICTs for persons with disabilities should be established in all countries by 2020

Goal 3 Sustainability – Manage challenges resulting from the telecommunication/ICT development

- **Target 3.1**: Cybersecurity readiness should be improved by 40% by 2020
- **Target 3.2**: Volume of redundant e-waste to be reduced by 50% by 2020
- **Target 3.3**: Green House Gas emissions generated by the telecommunication/ICT sector to be decreased per device by 30% by 2020

Goal 4 Innovation and partnership – Lead, shape and adapt to the changing telecommunication/ICT environment

- **Target 4.1**: Telecommunication/ICT environment conducive to innovation
- **Target 4.2**: Effective partnerships of stakeholders in telecommunication/ICT environment
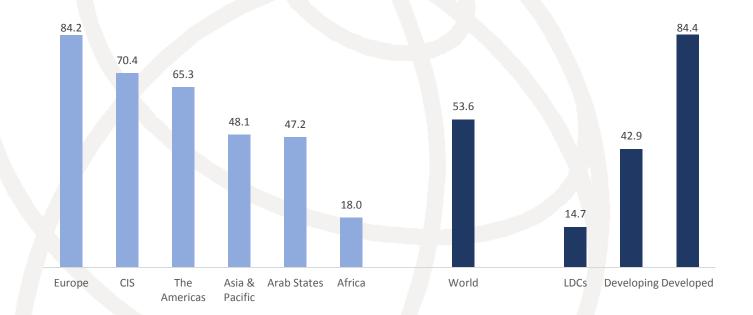
Some Highlights

1.1 Worldwide, 55% of households should have access to the Internet by 2020

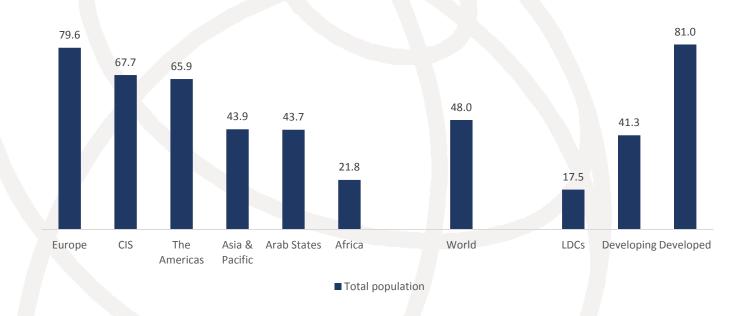% Household access worldwide expected to **surpass the Target**

Category	Value
Europe	84.2
CIS	70.4
The Americas	65.3
Asia & Pacific	48.1
Arab States	47.2
Africa	18.0
World	53.6
LDCs	14.7
Developing	42.9
Developed	84.4

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Note: *Estimate. Source: ITU.

1.2 Worldwide, 60% of individuals should be using the Internet by 2020

% Internet users worldwide expected to **fall short of the Target**

■ Total population

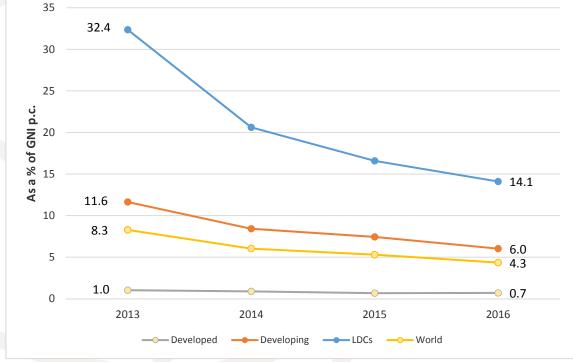Note: *Estimate. Source: ITU.

1.3 Worldwide, ICTs should be 40% more affordable in 2020 than in 2012

Affordability improving significantly

Mobile broadband prices as a percentage of GNI per capita, 2016

Note: *Estimate. Source: ITU.

By end 2016, almost no LDCs had achieved the Broadband Commission's affordability target

Number of countries

	Below 5%		Above 5%	
	Mobile broadband	Fixed broadband	Mobile broadband	Fixed broadband
LDCs	3	2	34	35
Developing (excl. LDCs)	73	61	15	27
Developed	44	43	0	1

Broadband Commission target 5% GNI p.c.

■ Developed ■ Developing (excl. LDCs) ■ LDCs
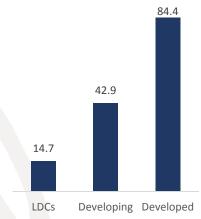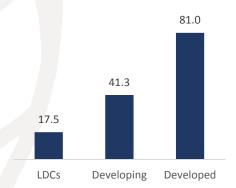
Note: *Estimate. Source: ITU.

2.1 50% of households should have Internet by 2020 in developing countries, 15% in LDCs

Households with Internet

	target	2015	2016	2017*
Developing	50%	34.1%	41.1%	42.9%
LDCs	15%	6.7%	11.1%	14.7%

Chart values:
- LDCs: 14.7
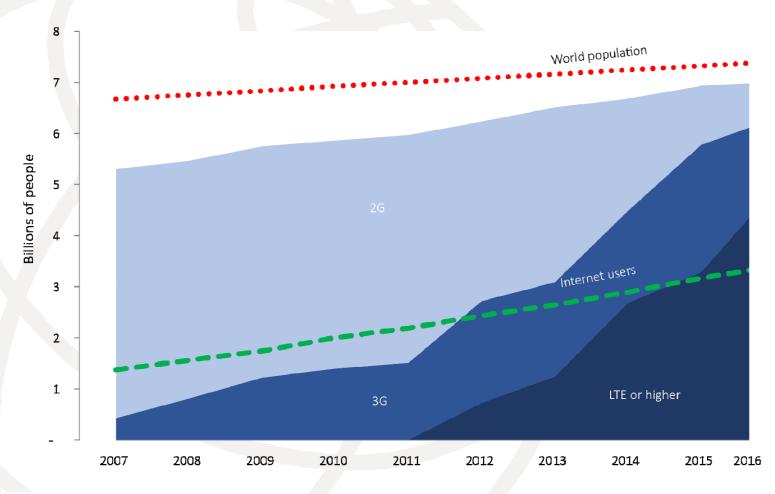- Developing: 42.9
- Developed: 84.4

2.2 50% of individuals should be using the Internet by 2020 in developing countries, 20% in LDCs

Internet users

	target	2015	2016	2017*
Developing	50%	35.3%	40.1%	41.3%
LDCs	20%	9.5%	15.2%	17.5%

Chart values:
- LDCs: 17.5
- Developing: 41.3
- Developed: 81.0

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Note: *Estimate. Source: ITU.

2.4 Worldwide, 90% rural population should be covered by broadband in 2020
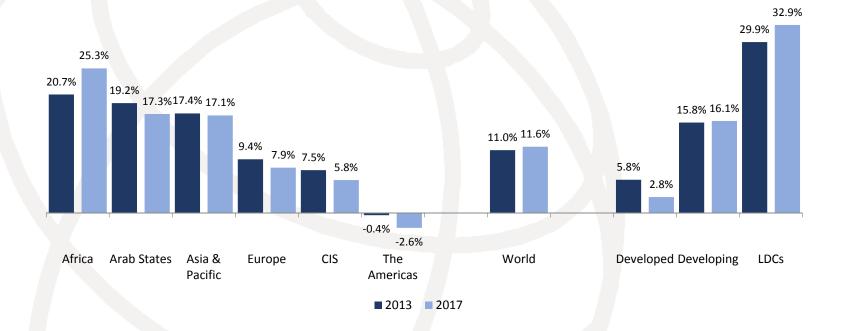
Note: *Estimate. Source: ITU.

Gender equality

➢ There is a significant divide in ICT access and use between men and women
➢ The gender gap is higher in developing countries and LDCs

Note: The gap represents the difference between the Internet user penetration rates for males and females relative to the Internet user penetration rate for males, expressed as a percentage.

Source: ITU.

For more, read

At
https://www.itu.int/en/ITU-
D/Statistics/Documents/facts
/ICTFactsFigures2017.pdf

At
https://www.itu.int/en/ITU-
D/Statistics/Pages/publications/
mis2017.aspx

BROADBAND COMMISSION 2025 TARGETS

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The Broadband Commission for Sustainable Development

- Set up by ITU and UNESCO (as BB Commission for Digital Development) in response to UN Secretary-General Ban Ki-Moon's call to step-up UN efforts to meet the Millennium Development Goals (MDGs).

- Established in May 2010

- Aims to:
  - ➢ boosting the importance of broadband on the international policy agenda
  - ➢ expanding broadband access in every country as key to accelerating progress towards national and international development targets.

- Defines practical ways in which countries — at all stages of development — can achieve this, in cooperation with the private sector.

- Composed of high-powered community, including top CEO and industry leaders, senior policy-makers and government representatives, international agencies, academia and organizations concerned with development.

- Multi-stakeholder approach to promoting the roll-out of broadband, as well as providing a fresh approach to UN and business engagement.

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Monitoring and Evaluation

- 4 Targets in 2011

- 1 additional Target in 2015

New Targets announced January 2018

2025 Targets: "Connecting the Other Half"

1. By 2025, all countries should have a funded National Broadband Plan or strategy or include broadband in their Universal Access and Service (UAS) Definition
2. By 2025, entry-level broadband services should be made affordable in developing countries at less than 2% of monthly Gross National Income (GNI) per capita
3. By 2025, Broadband-Internet user penetration should reach: a) 75% worldwide b) 65% in developing countries c) 35% in Least Developed Countries
4. By 2025, 60% of youth and adults should have achieved at least a minimum level of proficiency in sustainable digital skills
5. By 2025, 40% of the world's population should be using digital financial services
6. By 2025, overcome unconnectedness of Micro-, Small- and Medium-sized Enterprises (MSMEs) by 50%, by sector
7. By 2025, gender equality should be achieved across all targets

THE ICT DEVELOPMENT INDEX (IDI)

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The ICT Development Index (IDI)

- The IDI is a composite index that until 2017 combined 11 indicators

- Designed to be global and reflect changes taking in countries of different levels of development

- Developed by ITU in 2008 in response to member states' request to establish an overall ICT index

- Results first reported in the Measuring the Information Society Report (MISR) 2009

Measuring the Information Society Report 2017

- **The current state of ICTs**

- **The ICT Development Index (IDI)**
  - ➢ Global analysis
  - ➢ Regional analysis

- **Emerging ICT trends**

- **Country profiles**

IDI 2017 Top ten

1. Iceland
2. Korea (Rep.)
3. Switzerland
4. Denmark
5. United Kingdom
6. Hong Kong, China
7. Netherlands
8. Norway
9. Luxembourg
10. Japan

- For the first time, Iceland tops the IDI rankings in 2017

- European countries and economies in the Asia-Pacific region take the top places

- Top performers have high levels of economic prosperity, literacy and other skills that enable citizens to take full advantage of ICTs

Source: ITU.
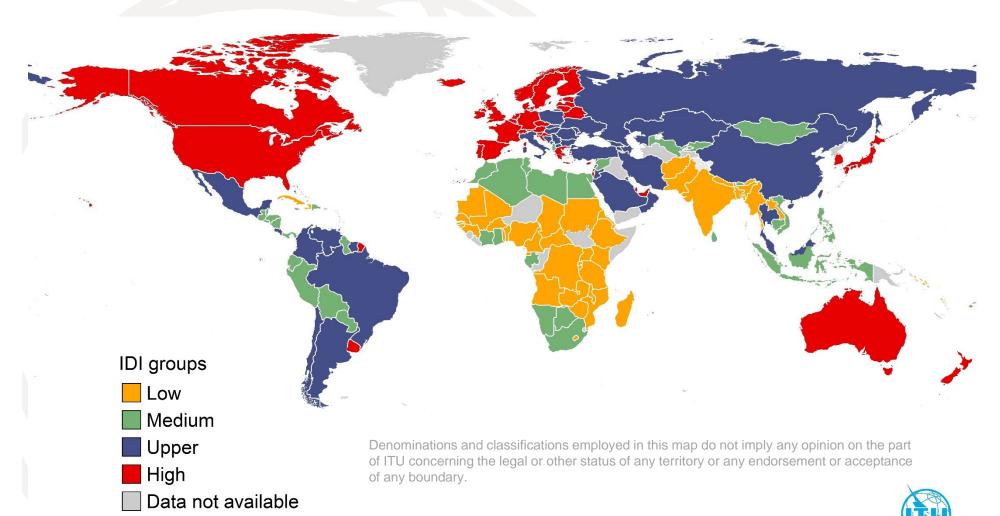
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Most dynamic countries

☐ Improvements were particularly significant in middle-income developing countries

☐ Most growth in the ICT use sub-index, particularly in mobile broadband

Change in IDI ranking			Change in IDI value (absolute)		
IDI rank 2017	Country	IDI rank change	IDI rank 2017	Country	IDI value change
95	Uzbekistan	8	118	Namibia	0.57
159	Afghanistan	6	81	Iran (I.R.)	0.54
36	Croatia	6	114	Gabon	0.50
88	Suriname	6	139	Lao P.D.R.	0.47
152	Uganda	6	28	Cyprus	0.47
42	Uruguay	6	111	Indonesia	0.47
139	Lao P.D.R.	5	112	Bolivia	0.47
35	Latvia	5	122	Timor-Leste	0.46
135	Myanmar	5	67	Turkey	0.43
118	Namibia	5	80	China	0.42
122	Timor-Leste	5	135	Myanmar	0.42
67	Turkey	5	95	Uzbekistan	0.42
			130	Nicaragua	0.42

Source: ITU.

Disparities in IDI value – LDCs falling behind in ICT development

IDI groups

- Low
- Medium
- Upper
- High
- Data not available

Denominations and classifications employed in this map do not imply any opinion on the part of ITU concerning the legal or other status of any territory or any endorsement or acceptance of any boundary.
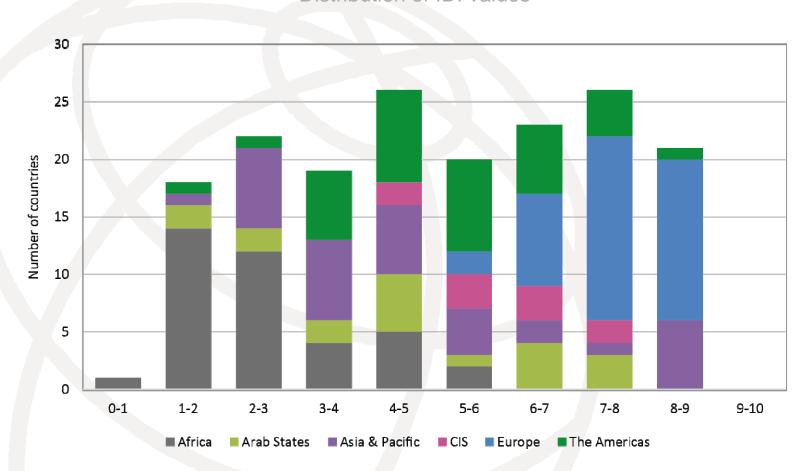
Source: ITU.

Regional IDI

Distribution of IDI values

□ Considerable differences between geographical regions & countries

Source: ITU.

IDI 2017 values – Africa

Africa

Fixed-telephone subscriptions — Mobile-cellular subscriptions — International Internet bandwidth per Internet user — Households with computer — Households with Internet — Internet users — Fixed-broadband subscriptions — Active mobile-broadband subscriptions — Secondary enrolment — Tertiary enrolment — Mean years of schooling

2017
2016

Developed
World
Developing
Africa

IDI 2017

Mauritius, Seychelles, South Africa, Cape Verde, Botswana, Gabon, Ghana, Namibia, Côte d'Ivoire, S. Tomé & Principe, Lesotho, Zimbabwe, Kenya, Senegal, Nigeria, Gambia, Zambia, Cameroon, Mozambique, Uganda, Rwanda, Mali, Togo, Angola, Benin, Burkina Faso, Equatorial Guinea, Tanzania, Guinea, Malawi, Madagascar, Ethiopia, Congo (Dem. Rep.), Burundi, Guinea-Bissau, Chad, Central African Rep., Eritrea

Source: ITU.

Most dynamic countries – Africa

Change in IDI ranking				Change in IDI value (absolute)			
IDI rank 2017	Rank region	Country	IDI rank change	IDI rank 2017	Rank region	Country	IDI value change
2	20	Uganda	6	118	8	Namibia	0.57
4	8	Namibia	5	114	6	Gabon	0.50
4	6	Gabon	4	72	1	Mauritius	0.36
6	1	Mauritius	3	146	17	Zambia	0.35
3	9	Côte d'Ivoire	3	131	9	Côte d'Ivoire	0.30
3	17	Zambia	3				
2	23	Togo	3				

Source: ITU.

Source: ITU.

ITU Data Visualization Tool

Thank you
For more information

http://www.itu.int/ict