Young ICT Leaders' Forum 2015

ITU Introduction and the Digital Societies

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Regional Office for Asia and the Pacific

Introduction

UNITED NATIONS

United Nations

UNESCO WHO ILO UPU ICAO WMO IMO IAEA

WB UNWTO FAO IFAD UNIDO WIPO WFP IMF

Telecommunications and ICTs

Established in 1865

193 Member States
567 Sector Members
159 Associates
60 Academia

Headquartered in Geneva,
4 Regional Offices
7 Area Offices.

ITU-T
Standardization

ITU-R
Radiocommunication

ITU-D
Development

ITU: Elected Officials (2015-2018)

Mr. Houlin Zhao
ITU Secretary General

Mr. Malcolm Johnson
ITU Deputy Secretary General

Mr. Brahima Sanou
ITU-D Director

Mr. Francois Rancy
ITU-R Director

Mr. Chaesub Lee
ITU-T Director

ITU Global Forums

World Telecommunications Standardization Assembly (WTSA)

The **World Telecommunication Standardization Assembly** is held every four years and defines the next period of study for ITU-T. WTSA-16 will take place in the 4th quarter of 2016.
http://www.itu.int/en/ITU-T/wtsa16/Pages/default.aspx

World Radiocommunication Conferences (WRC)

World radiocommunication conferences (WRC) are held every three to four years. It is the job of WRC to review, and, if necessary, revise the Radio Regulations, the international treaty governing the use of the radio-frequency spectrum and the geostationary-satellite and non-geostationary-satellite orbits.
http://www.itu.int/en/ITU-R/conferences/wrc/Pages/default.aspx

World Telecommunication Development Conferences (WTDC)

World Telecommunication Development Conferences is held every four years. It serves as forums for free discussion by all concerned with the Development Sector. In addition, they review the numerous programmes and projects of the Sector and BDT. Results are reported and new projects are launched. Development Conferences set the agenda and the guidelines for the following four-year cycle.
http://www.itu.int/en/ITU-D/Conferences/WTDC/Pages/default.aspx

ITU Telecom World

http://telecomworld.itu.int/

ITU TELECOM WORLD 2015

Forum

The global platform for SMEs, corporates and government to exhibit solutions, share knowledge and network at the highest level

- Leadership Summit
- Forum
  - Keynotes & Panel sessions
  - Government & SME Dialogue
  - Industry & SME Dialogue
  - Ministerial Roundtable
- ITU Telecom World Entrpreneurship Awards
- SMEs exhibiting within National Pavilions and independent pods
- Targeted networking including Government and SME Dialogue, Industry and SME Dialogue

ITU TELECOM WORLD 2015

EXHIBITING SMES

ENTREPRENEURSHIP AWARDS

SME DIALOGUES

ACCELERATION PLATFORM

ITU Presence

ITU Headquarter: Geneva, Switzerland

Europe Regional Office
Geneva, Switzerland

CIS Area Office
Moscow, Russia

Americas

Regional Office
Brasilia, Brazil

Area Offices
Tegucigalpa, Honduras.
Santiago, Chile.
Bridgetown, Barbados

Asia-Pacific

Regional Office
Bangkok, Thailand

Regional Director
Mr. Ioane Koroivuki

Area Office
Jakarta, Indonesia

Africa

Regional Office
Addis Ababa, Ethiopia

Area Offices
Yaoundé, Cameroon
Harare, Zimbabwe
Dakar, Senegal

Arab

Regional Office
Cairo, Egypt

ITU Regional Office for Asia and the Pacific

38 Member States)
134 Sector and Associate Members
17 Academia Members

Land Locked Developing Countries (5)

Least Developed Countries (12)

- Afghanistan
- Bangladesh
- Bhutan
- Cambodia
- Lao, PDR
- Nepal
- Myanmar
- Timor Leste

Small Islands Developing States (12)

- Kiribati
- Solomon Is.
- Tuvalu
- Vanuatu
- Fiji
- Maldives
- Marshall Islands
- Micronesia
- Nauru
- Tonga
- PNG
- Samoa

Low-Income States (10)

- D.P.R. Korea
- India
- Indonesia
- Mongolia
- Pakistan
- Philippines
- Sri Lanka
- Vietnam

The Rest (10)

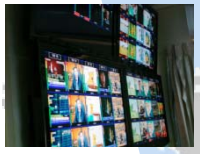
- Australia
- Brunei
- China/Hong Kong
- Iran
- Japan
- Malaysia
- New Zealand
- R.O. Korea
- Singapore
- Thailand

Emergency Telecommunications

Climate Change

e-Health / m-Health

Digital Inclusion



Digital Broadcasting

e-Education

Broadband

e-Agriculture

Cybersecurity

e-Government

Spectrum Management

Compliance and Interoperability

Smart Sustainable Cities

ITU-D Dubai Action Plan (DuAP)

Global Development Objectives (2015-2018)

Objective #1	Foster international cooperation on telecommunication/ICT development issues
Objective #2	Foster an enabling environment conducive to ICT development and foster the deployment of telecommunication/ICT networks as well as relevant applications and services, including bridging the standardization gap
Objective #3	Enhance confidence and security in the use of telecommunications/ICTs, and roll-out of relevant applications and services
Objective #4	Build human and institutional capacity, provide data and statistics, promote digital inclusion and provide concentrated assistance to countries in special need
Objective #5	Enhance environmental protection, climate-change adaptation and mitigation, and disaster-management efforts through telecommunications/ICTs

Asia-Pacific Regional Initiatives

Initiative #1	Special Consideration For LDCs*, SIDSs**, Including Pacific Island Countries, And Landlocked Developing Countries
Initiative #2	Emergency Telecommunications
Initiative #3	Harnessing The Benefits Of New Technologies
Initiative #4	Development Of Broadband Access And Adoption Of Broadband
Initiative #5	Policy And Regulation

ITU Asia-Pacific Centres of Excellence (2015-2018)

36 ITU Centres of Excellence

Up to **6** Centres each in
Africa, Americas, Arab, Asia-Pacific, CIS and Europe Region

Asia-Pacific
Centres of Excellence

- **TOT Academy – Ministry of ICT (Thailand)**
  Policy & Regulation & Broadband Access
- **National Information Society Agency (Rep. of Korea)**
  Policy & Regulation
- **IMPACT (Malaysia)**
  Cybersecurity
- **State Radio Monitoring Centre (China)**
  Spectrum Management
- **China Academy of Telecommunications Research (MIIT, China)**
  Conformance and Interoperability
- **Advanced Level Telecom Training Centre (India)**
  Broadband Access

Note: List of selected ITU Asia-Pacific CoE (Formal agreement awaited)

ICTs in Global Agendas

world summit on the information society
Geneva 2003 - Tunis 2005

http://www.itu.int/net/wsis/

WSIS Action Lines

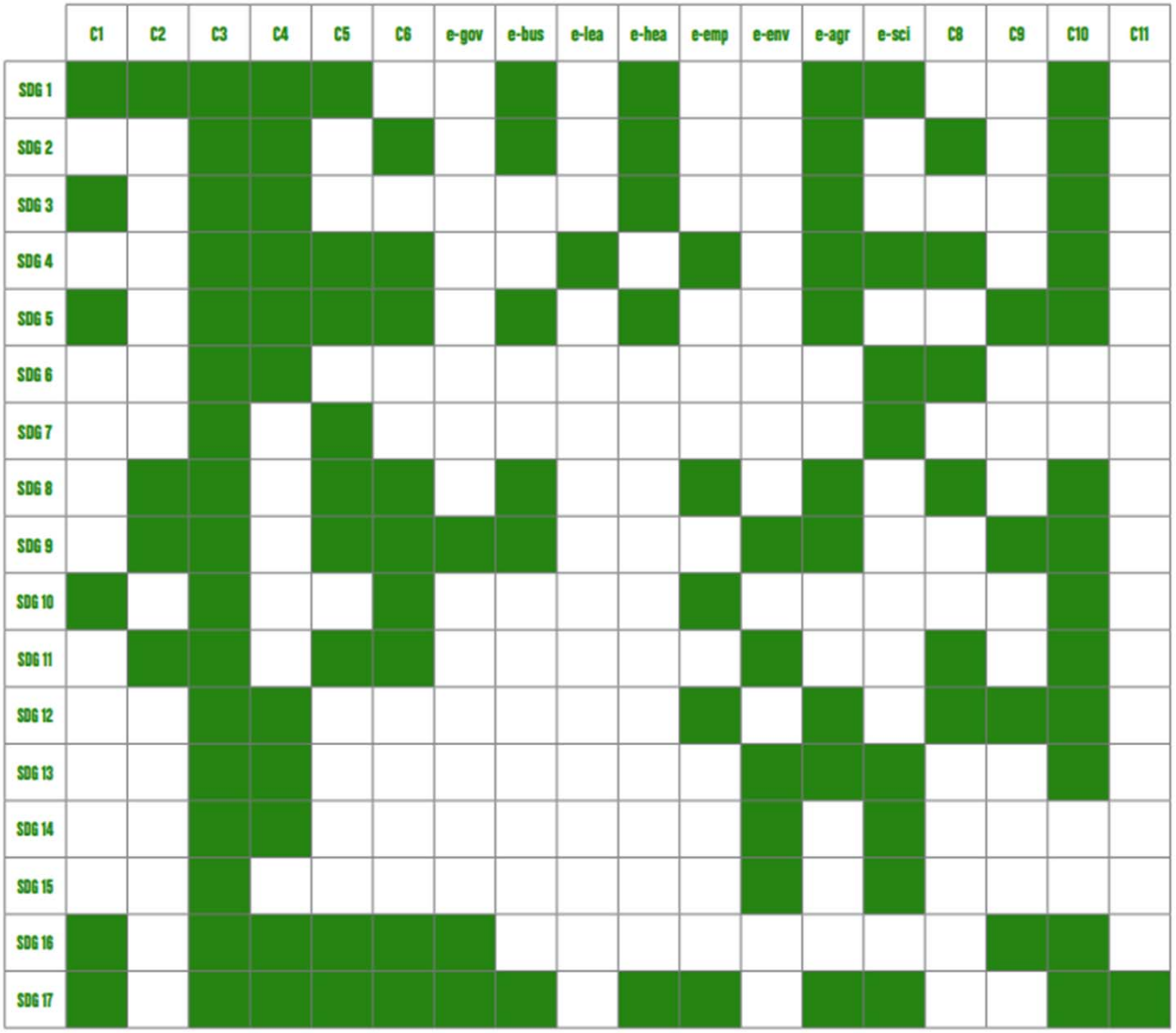
C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development
C2. Information and communication infrastructure
C3. Access to information and knowledge
C4. Capacity building
C5. Building confidence and security in the use of ICTs
C6. Enabling environment
C7. ICT Applications: E-government, E-business: E-learning; E-health; E-employment; E-environment; E-agriculture; E-science
C8. Cultural diversity and identity, linguistic diversity and local content
C9. Media
C10. Ethical dimensions of the Information Society
C11. International and regional cooperation

WSIS Action Line Facilitators

ITU · United Nations Educational, Scientific and Cultural Organization · UNCTAD · UNDP · UNDESA · FAO · UNEP · WMO · ILO · World Health Organization · WFP wfp.org · International Trade Centre · UPU Universal Postal Union · WIPO World Intellectual Property Organization · ECLAC · ESCAP · United Nations Economic Commission for Europe · Economic Commission for Africa · ESCWA · UNODC · UN Women

Sustainable Development Goals (SDGs)

WSIS – SDG Matrix



Connect 2020
Agenda for Global Telecommunication/ICT Targets

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

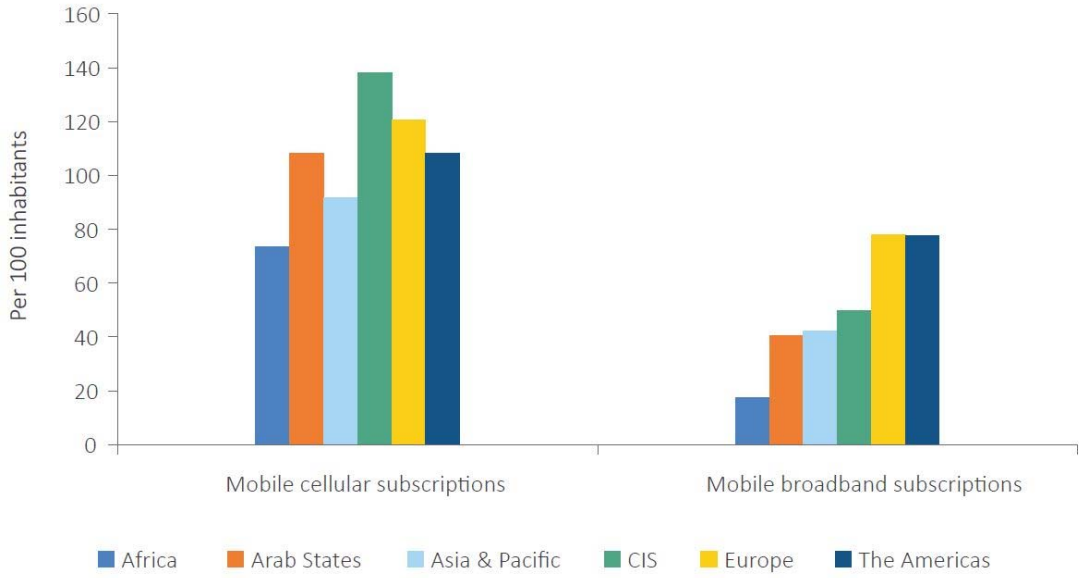
http://www.itu.int/en/connect2020/Pages/default.aspx

The Digital Societies and Divide

Substantial growth in **global** access to and use of ICTs

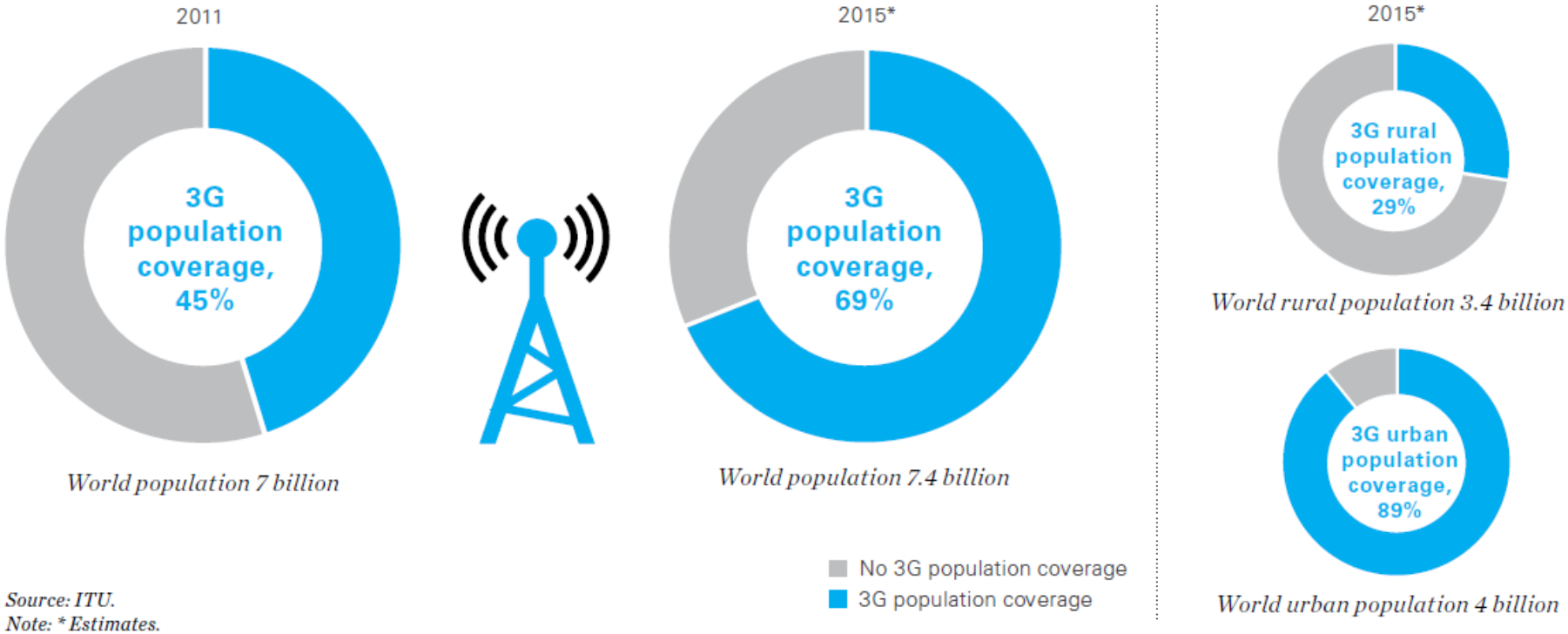
- Mobile-cellular subscriptions have risen from 2.2 to 7.1 billion in the last 10 years
- 3G population coverage grew from 45% to 69% between 2011 and 2015
- Mobile-broadband subscriptions have risen from 0.8 to 3.5 billion in the last 5 years
- Rapid growth of Internet usage, over 40 per cent of the world's population online in 2015
- Steady growth of fixed-broadband subscriptions, reaching 0.8 billion in 2015

Significant digital divides between **regions** persist

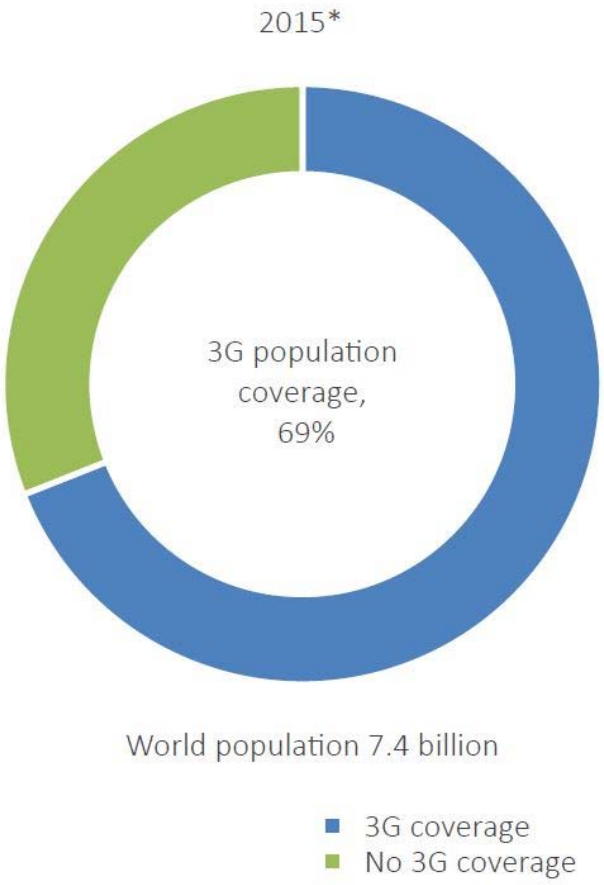


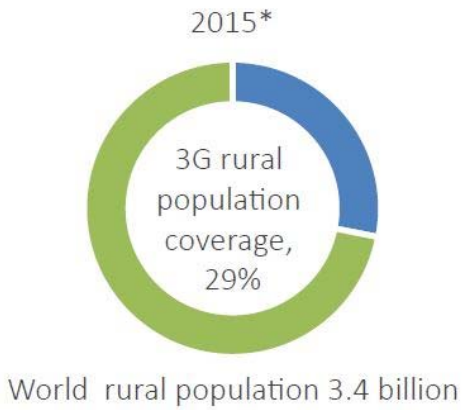
Source: ITU.

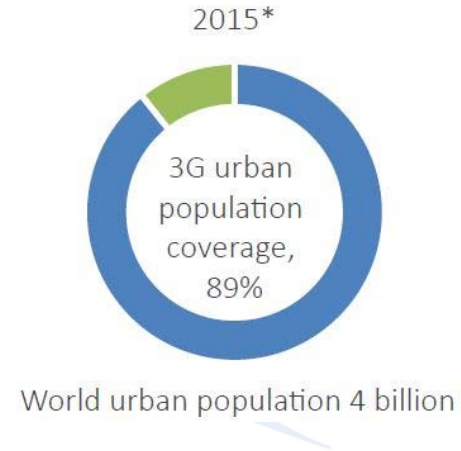
3G mobile-broadband coverage is extending rapidly and into the rural areas



Source: ITU.
*Note: * Estimates.*

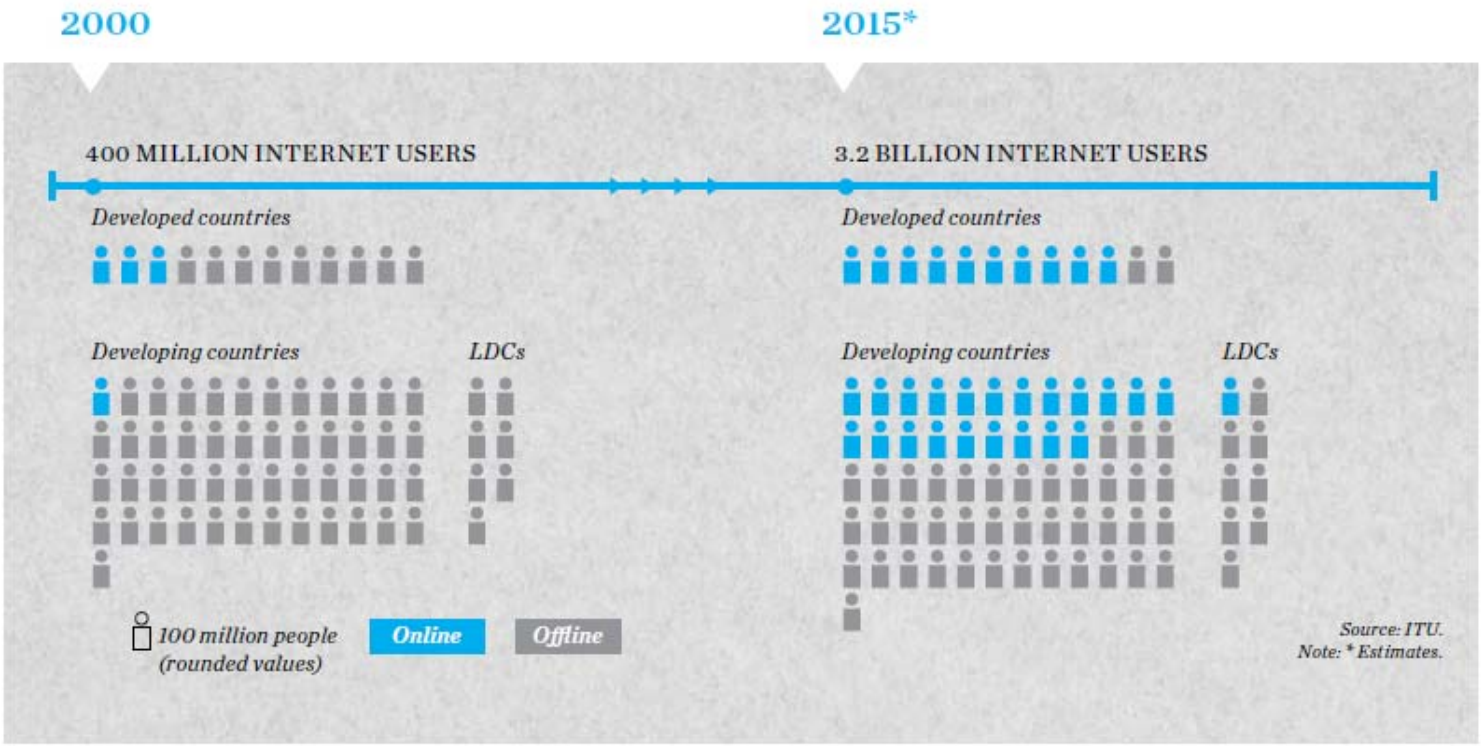






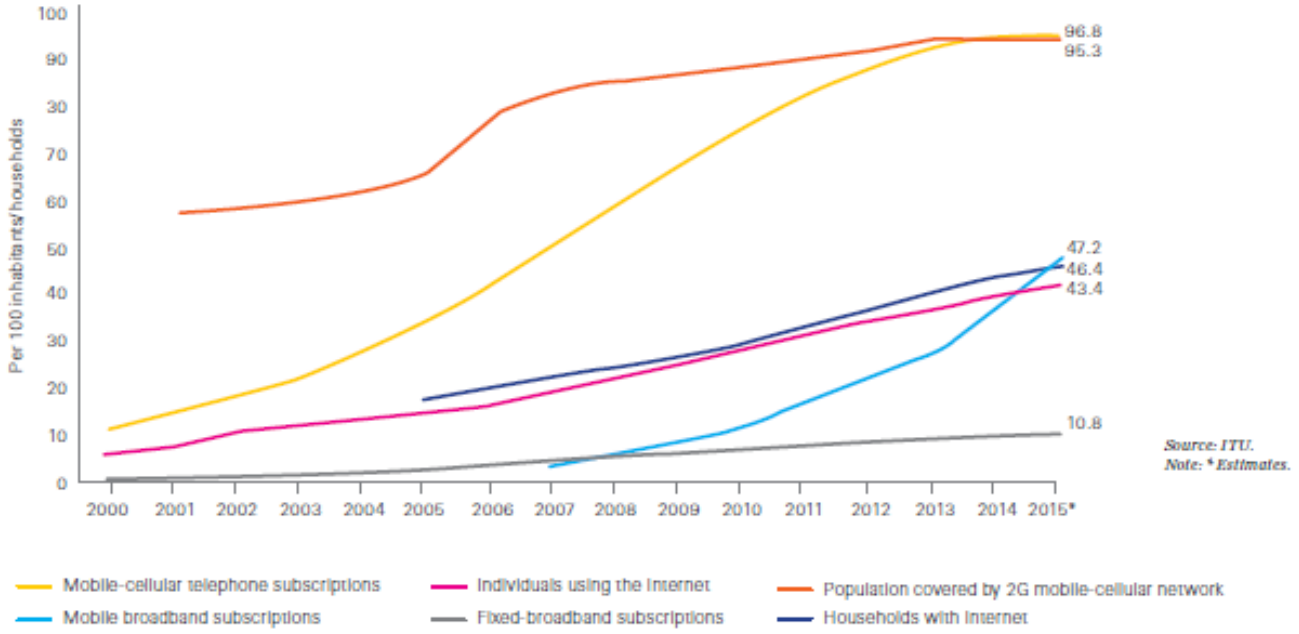
3G absent in many rural areas

Note: *Estimate. Source: ITU.



- Globally 3.2 billion people are using the Internet by end 2015, of which 2 billion are from developing countries
- For every Internet user in the developed world there are 2 in the developing world
- However, 4 billion people from developing countries remain offline, representing 2/3 of the population residing in developing countries
- Of the 940 million people living in the least developed countries (LDCs), only 89 million use the Internet, corresponding to a 9.5% penetration rate

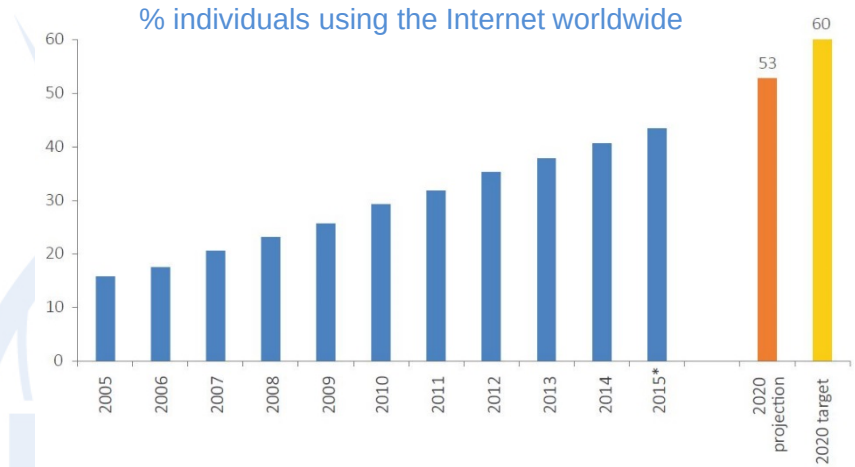
15 years of ICT growth: what has been achieved?



- By end 2015, there are more than 7 billion mobile cellular subscriptions, corresponding to a penetration rate of 97%, up from 738 million in 2000
- Between 2000-2015, global Internet penetration grew 7 fold from 6.5% to 43%
- Mobile broadband is the most dynamic market segment; globally, mobile-broadband penetration reaches 47% in 2015, a value that increased 12 times since 2007
- The proportion of households with Internet access at home increased from 18% in 2005 to 46% in 2015
- Fixed-broadband uptake is growing at a slower pace, with a 7% annual increase over the past three years and reaching 11% penetration by end 2015
- The proportion of the population covered by a 2G mobile-cellular network grew from 58% in 2001 to 95% in 2015

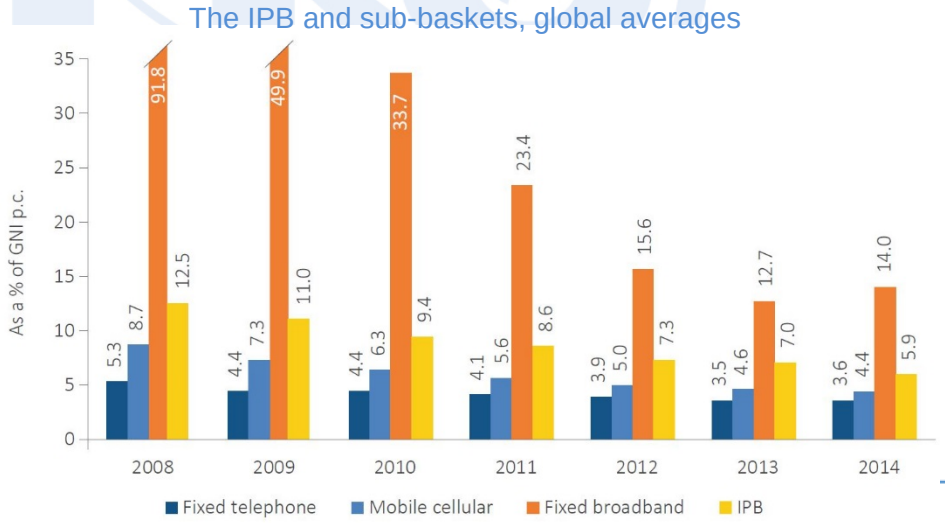
Worldwide, 60% of individuals should be using the Internet by 2020

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



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

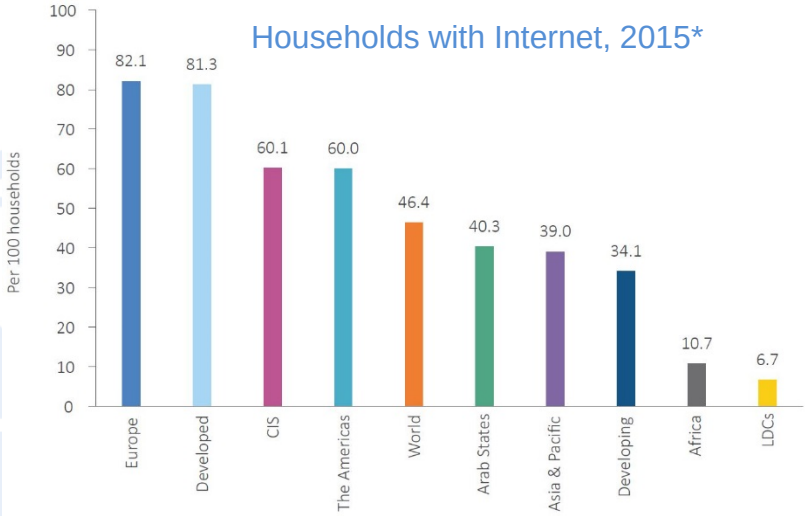
Affordability improving significantly



Note: *Estimate. Source: ITU.

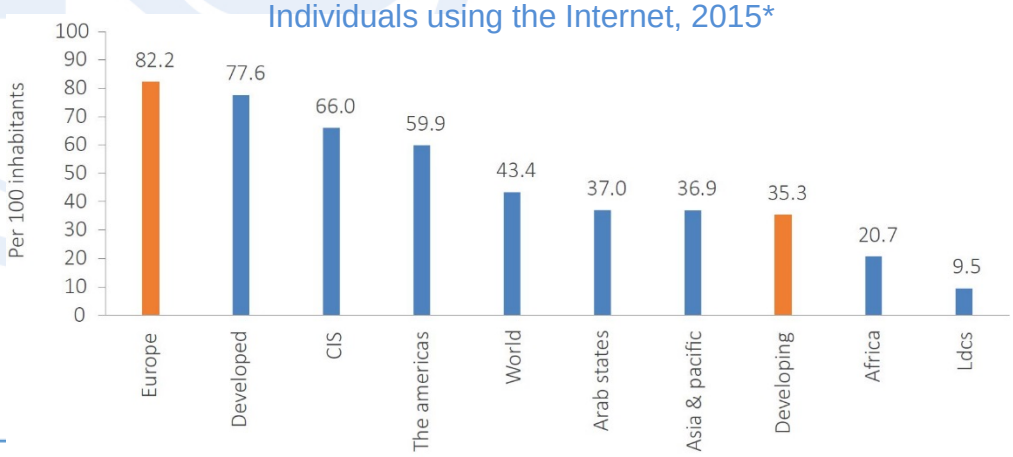
50% of households should have Internet by 2020 in developing countries, 15% in LDCs

Households with Internet	target	projection
Developing	50%	45%
LDCs	15%	11%



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

Internet users	target	projection
Developing	50%	46%
LDCs	20%	16%



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

Region	Gap 2013 (%)	Gap 2015 (%)
Developed	6.3	5.4
Developing	15.6	15.4
World	11.0	11.1
LDC	29.9	28.9
Africa	20.7	20.5
Arab States	15.5	14.4
Asia & Pacific	17.7	17.6
CIS	7.5	7.0
Europe	9.4	8.2
The Americas	-0.4	-0.7

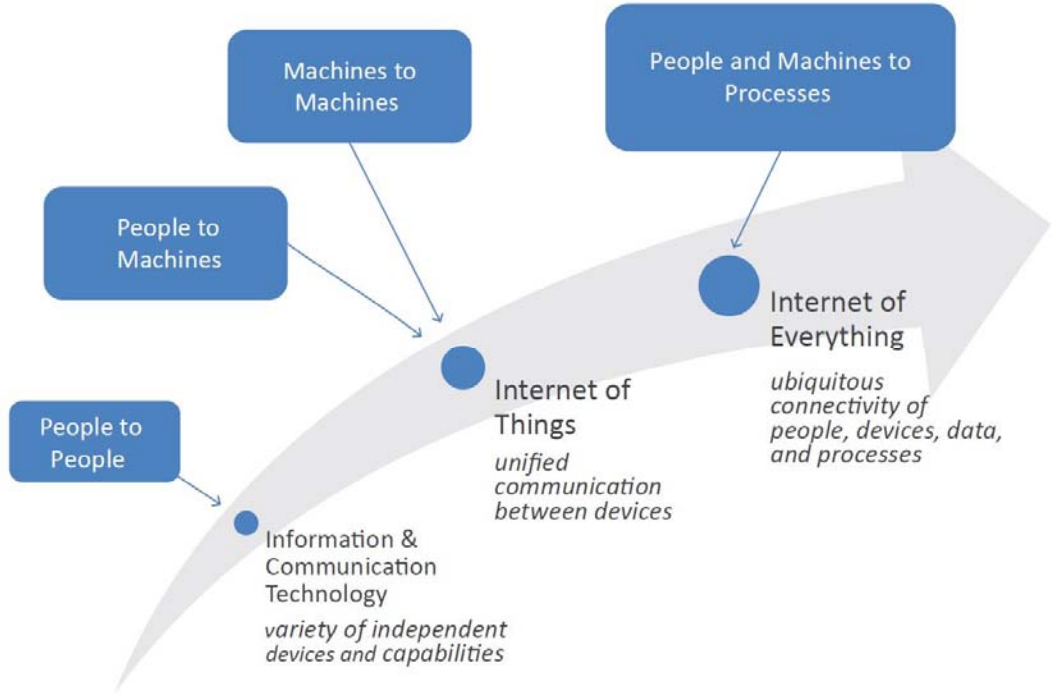
Note: The gap represents the difference between the Internet user penetration rates for males and females relative to the Internet user penetration rate for males, expressed as a percentage.

Source: ITU.

The Internet of Things: data for development

IoT includes objects or devices which have an IP address, and the communication between these objects and other devices and systems that thus become Internet-enabled

- ICT developments are underpinning and accelerating the progress of IoT
- Most of the value derived from IoT comes from the generation, processing and analysis of new data



Source: ITU.

Size and impact of IoT

- It is estimated that from 26 to 100 billion devices will be connected as part of IoT by 2020*
- IoT is expected to generate several trillions of USD of market value by 2020**
- IoT has the potential to become a major driver of development

Sectors in which IoT can play an enabling role for development

Source: ITU based on Al-Fuqaha, Ala et al. (2015).

* ABI (2013), Gartner (2013), IDC (2014)
** Forbes (2014), Gartner (2013) and McKinsey (2015)

IoT data for development – challenges

Infrastructure

- **Interoperability** key to unlocking as much as 40 to 60 per cent of IoT's potential value
- **Fixed-broadband connectivity and large bandwidth** are required for the development of IoT

Data management and analysis

Similar to those of other **big data** applications:

- Need to set statistical and data standards, identify analytical best practices and **facilitate data sharing**
- Mechanisms to **protect privacy** and foster competition and openness in data markets are required
- Public administrations could also contribute by adopting **open data policies** for their IoT datasets

Thank you for your attention