**ITU Regional Forum and Training Workshop on Telecommunication/ICT Indicators: Measuring the Information Society**
and
ITU-ASEAN Meeting on Establishing National ICT Statistics Portals and Measuring ASEAN ICT targets
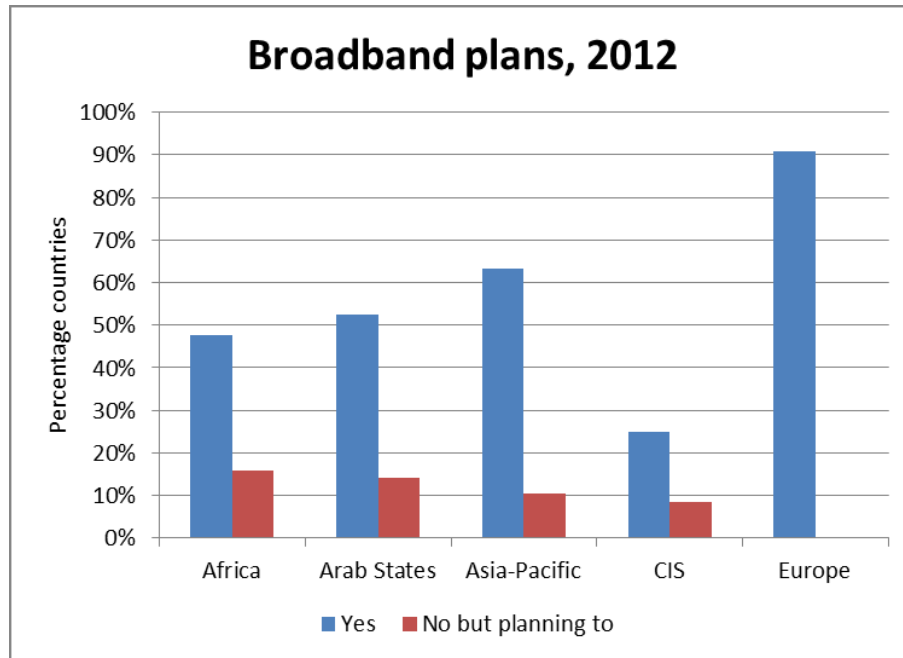
Bangkok, 13-16 October 2014

Overview of Global ICT Statistics

Susan Teltscher
Head, ICT Data and Statistics Division
ITU/BDT

13 October 2014

Role of statistics in ICT policy making
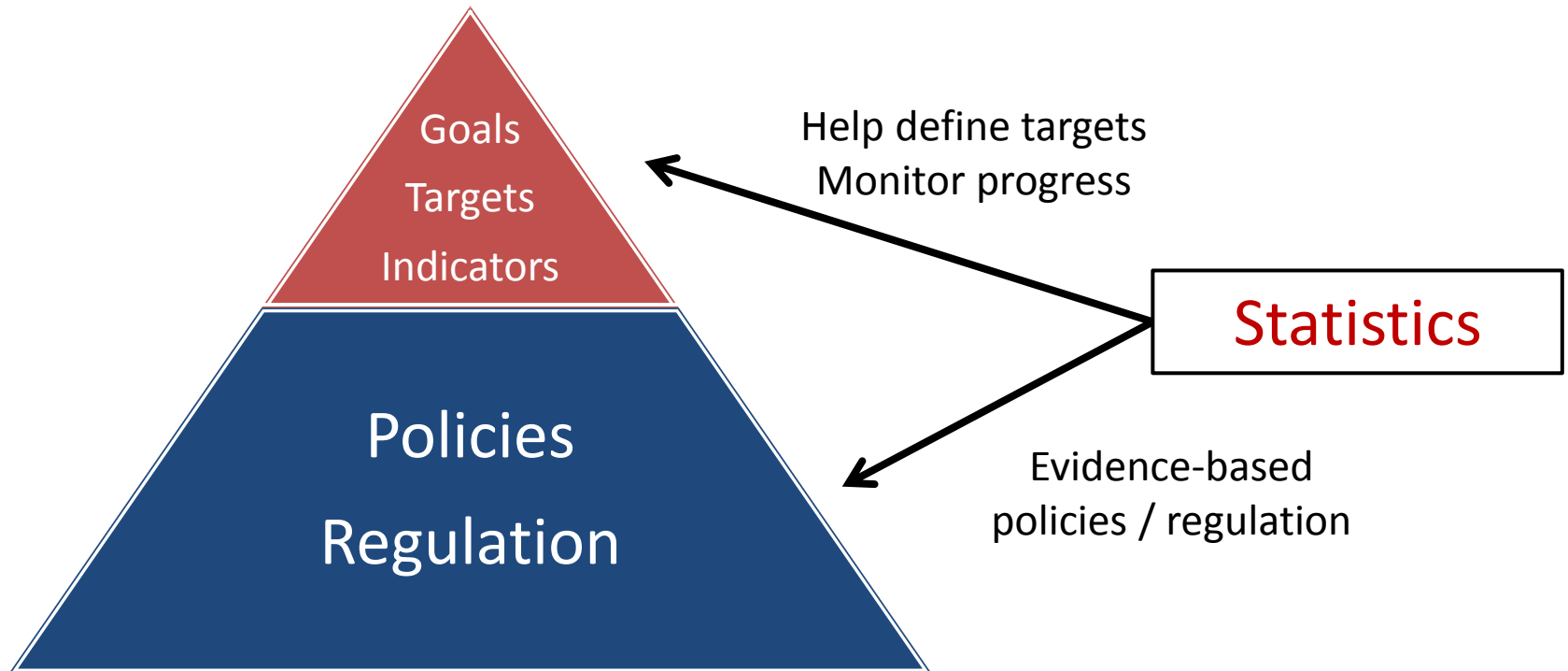
ICT policy needs ICT measurement
## but often key data are missing

Broadband plans, 2012

Source: ITU

- Almost all countries have a national ICT strategy or plan

- 2012: **146** countries had a national broadband plan (Asia-Pacific: around 30 countries)

- 2010-12: only **89** countries collected data on *households with Internet access*; from Asia-Pacific: (9 countries)

  - Australia, Hong Kong (China), Indonesia, Japan, Rep. of Korea, Macao (China), Nepal Singapore, Thailand

Growth of ICT uptake
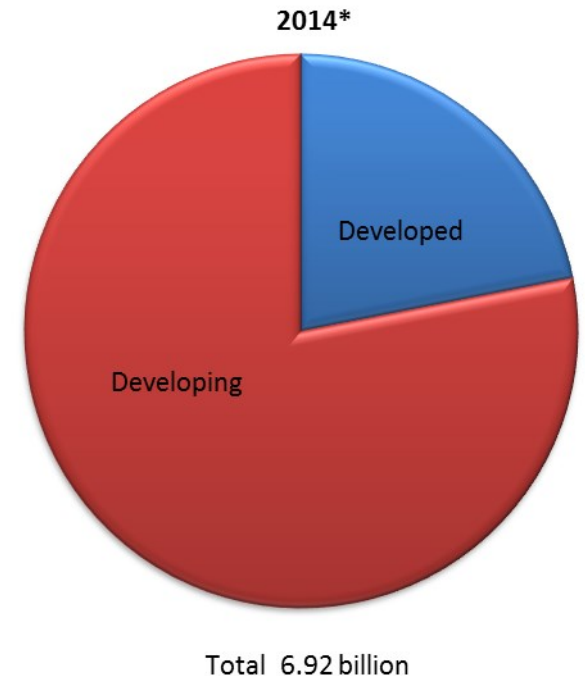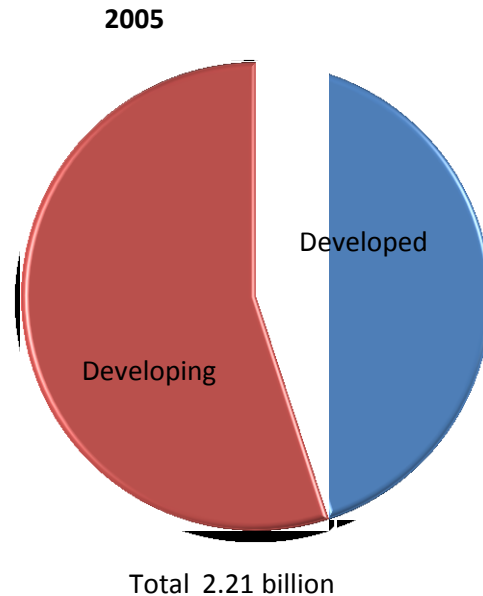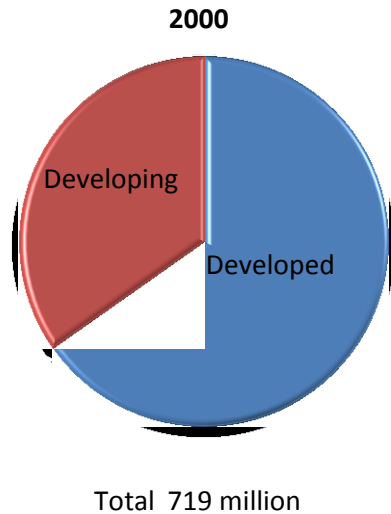
Global ICT developments, 2001-2014
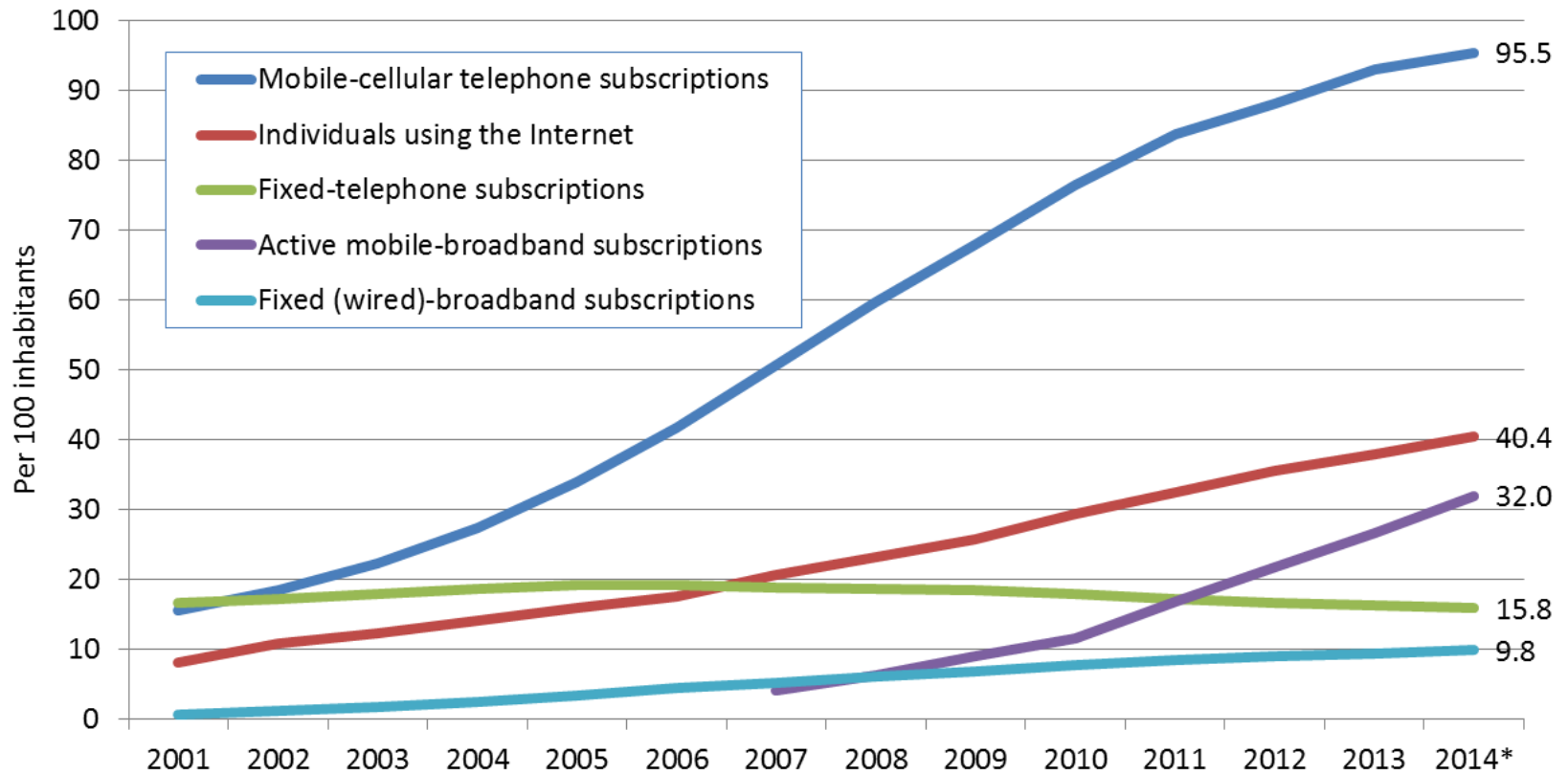
Note: * Estimate
Source: ITU World Telecommunication /ICT Indicators database

Mobile revolution
Unprecedented growth in developing countries

2000

Developing

Developed

Total 719 million

2005

Developed

Developing

Total 2.21 billion

2014*

Developed

Developing

Total 6.92 billion

Total number of mobile-cellular subscriptions is close to total world population of around 7.2 billion
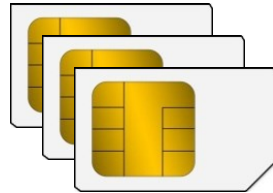
Source: ITU

* Estimate

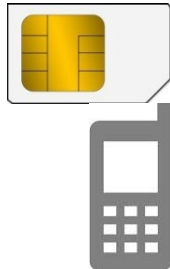# But: mobile subscriptions do NOT measure how many people have a mobile phone

Subscriptions
1 person = several subscriptions/SIM cards

Unique subscribers
1 person = 1 subscription

Users
1 subscription/ handset= several users

Phone owners
1 owner = several phones

Internet usage
4.3. billion people yet to be connected

Source: ITU ; * Estimate
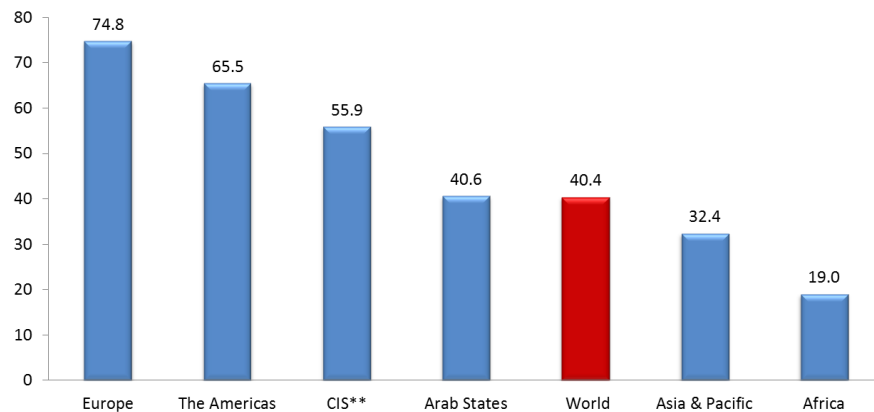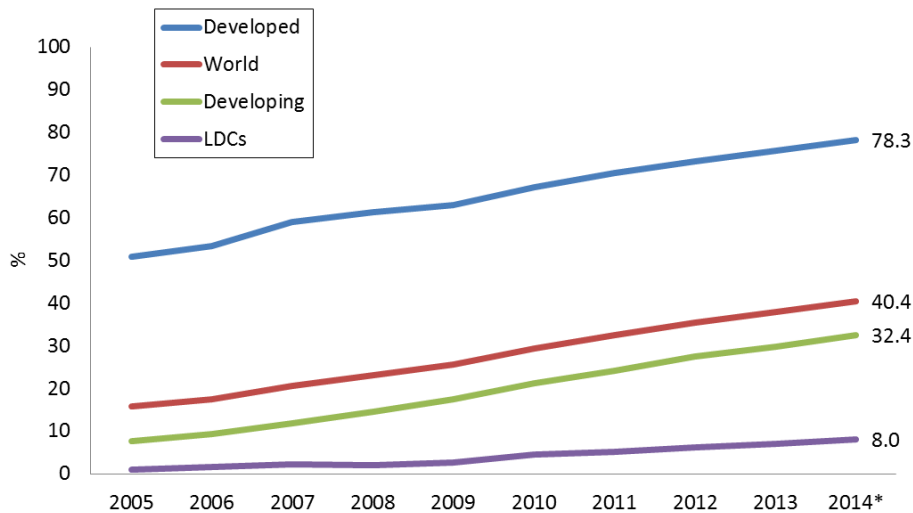
□ Globally, around 40% of the population is using the Internet (45% if excluding China and India)

□ In Asia-Pacific, 1/3 of the population is using the Internet (same number if excluding China and India)

□ Many estimates – need for better data

Young people are more online
45% of Internet users are below the age of 25

Note: * Estimate
Source: ITU World Telecommunication/ICT Indicators database

Digital natives
will double in developing countries over next 5 years

5% of the world's population are digital natives

30% OF THE WORLD'S YOUTH HAVE BEEN ONLINE FOR AT LEAST FIVE YEARS
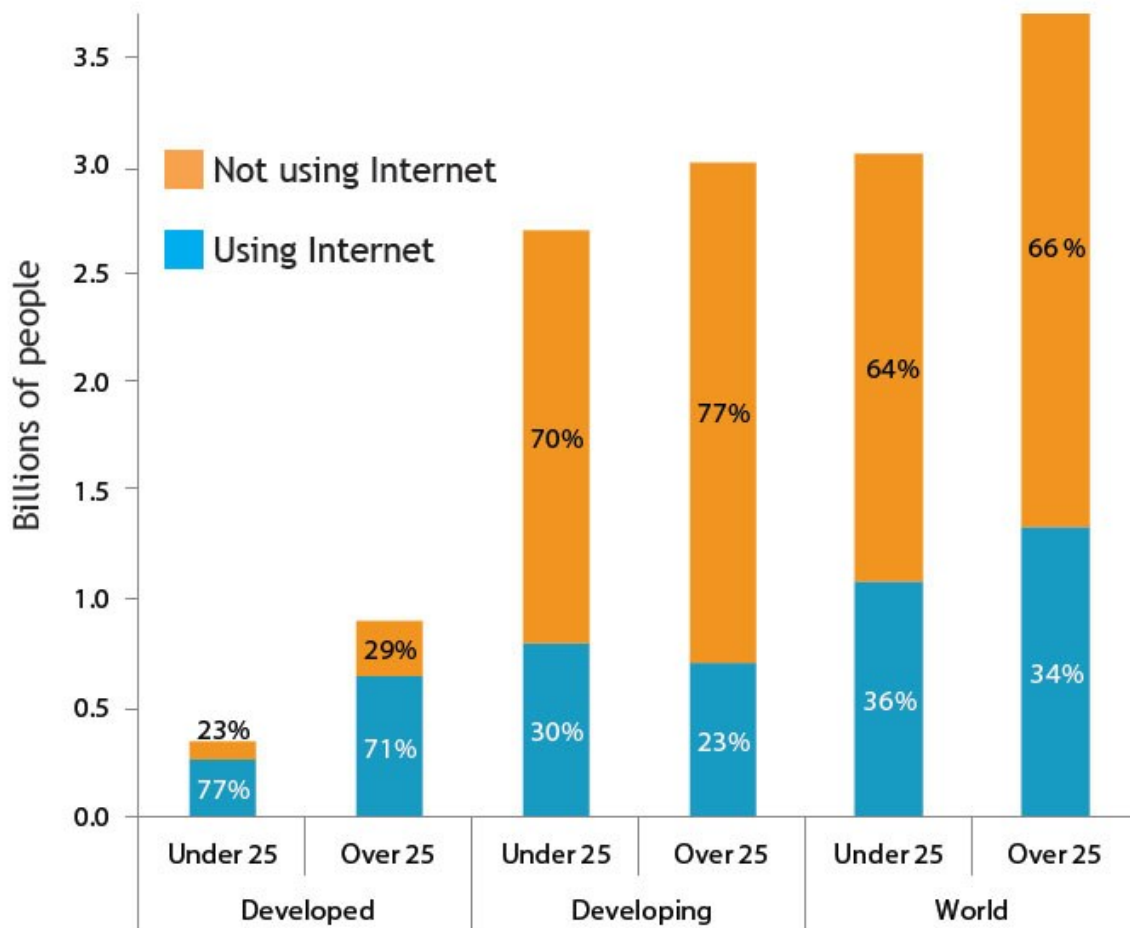
TODAY, **GLOBALLY,** 56% OF YOUNG INTERNET USERS ARE DIGITAL NATIVES — 56%

IN **DEVELOPING COUNTRIES,** LESS THAN ONE IN TWO YOUNG INTERNET USERS ARE DIGITAL NATIVES... — 47%

COMPARED TO 86% IN **DEVELOPED COUNTRIES** — 86%

DIGITAL NATIVES   NON DIGITAL NATIVES
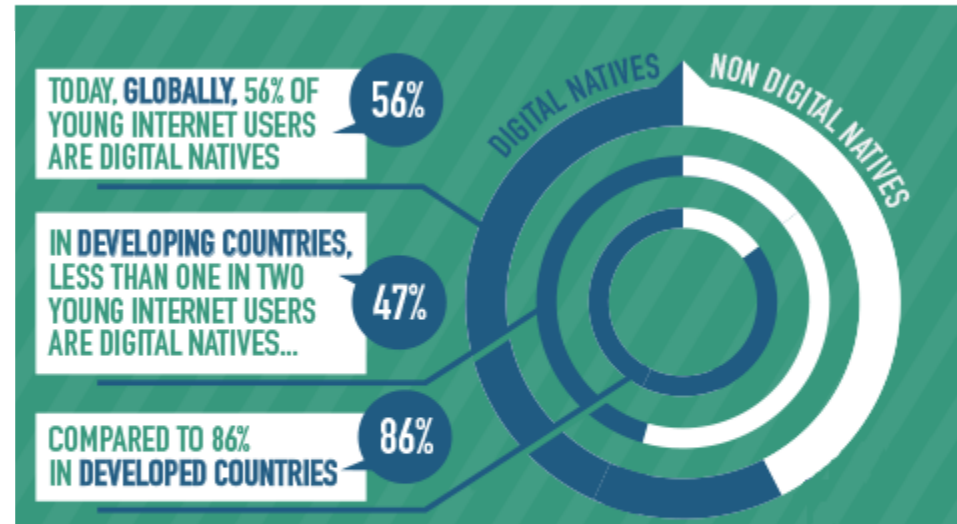
Price of ICT services is falling but broadband still unaffordable for low-income segments

Price of fixed broadband as a % of GNI p.c.
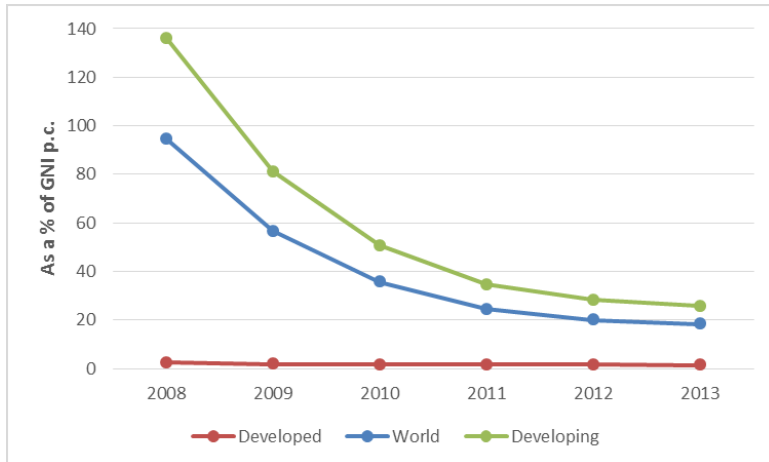
- ☐ Steep fall in consumer prices of fixed-broadband services over the past 5 years

- ☐ In developing countries, fixed broadband still unaffordable for majority of population (on average 26% of GNI p.c.)

Price of mobile cellular as a % of GNI p.c.
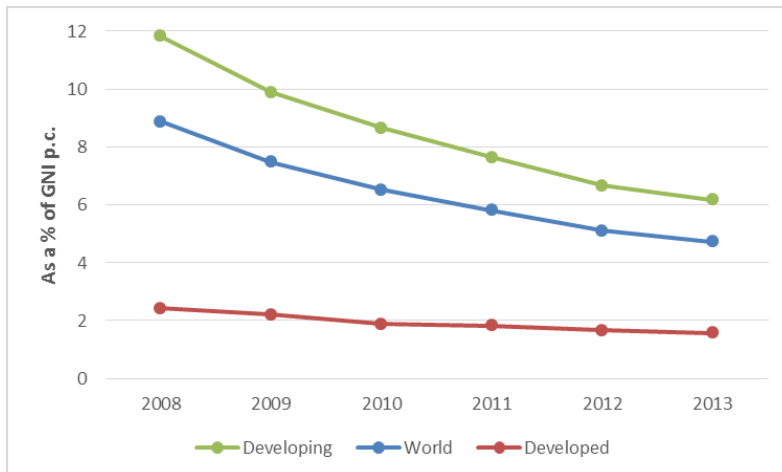
- ☐ Mobile cellular prices are relatively affordable in most countries

- ☐ Measured in USD, prices are lower in developing countries

Source: ITU

ITU: Source for global ICT statistics

- 50 years of data collection and dissemination
- Development of statistical standards
- Data analysis and flagship research reports
- Global forum for exchange (WTIS, Expert Groups)
- Capacity development
- Monitoring of global goals

ITU statistics

Collected from official sources

Include all countries/economies More than 100 indicators

Data are harmonized and comparable

ITU is the main sources for global ICT statistics

ITU Statistics cover two sets of official data

Administrative data

ITU Statistics

Survey data

Telecom statistics (infrastructure and access)
(annual questionnaire)
Source: Regulators/ Ministries

ICT Household Statistics (use of ICT)
(annual questionnaire)
Source: NSOs
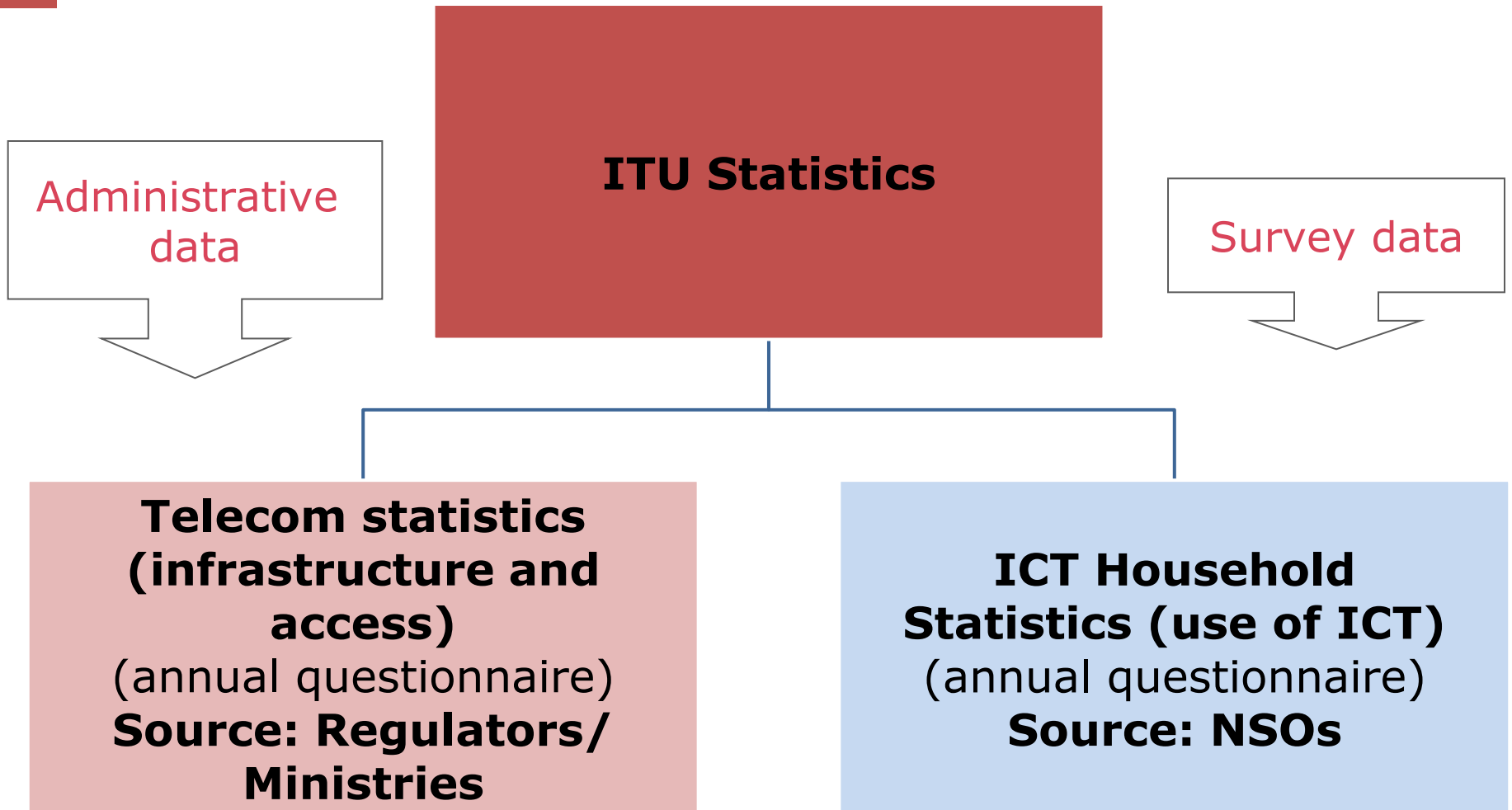
Data collection and dissemination

Collection of data

- ☐ Four annual questionnaires collecting more than 100 indicators
- ☐ Administrative data: ICT infrastructure, fixed/mobile telephony and broadband, TV, prices, traffic, investment, revenue
- ☐ Survey data: households with radio, TV, telephone, computer, Internet; individual usage of ICTs (by age, gender, level of education, urban/rural etc.)
- ☐ Sent to national ICT statistical focal points

Dissemination of data

- ☐ WTI database (2 editions per year – June and December)
- ☐ Online: ICT Eye, ITU Statistics website, Google PDE, UN Data portal
- ☐ Regional and global reports; ITU Yearbook of Statistics
- ☐ Statistical newsletters, leaflets
- ☐ Direct requests from users (more than 1000 per year)

Measuring the Information Society (MIS) Report 2014

- Latest trends in ICT developments worldwide
  - Fixed/mobile market, Internet usage, revenue, investment, ICT in schools, e-government, e-business
- ICT Development Index (IDI)
  - Digital divide, regional analysis, top and dynamic performers, IDI and MDGs, IDI and geography
- ICT prices and the role of competition
  - ICT Price Basket (IPB) and income distribution
  - Impact of competition/regulation on prices and affordability
- Big data from the telecommunication/ICT industry
  - Big data as a source of real-time information
  - Challenges and opportunities

Measuring the Information Society Report 2014
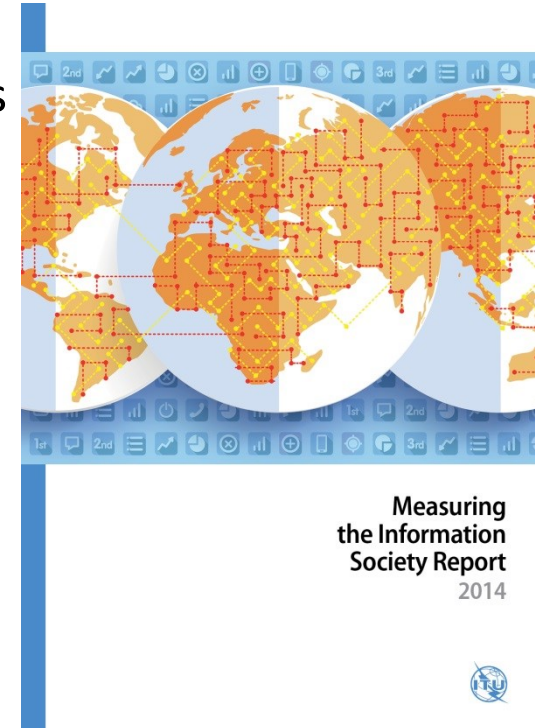
MIS Report 2014 launch: 26 November 2014, Tbilisi, Georgia (at WTIS 2014)

EGTI and EGH
Defining indicators and developing international standards

- Expert Group on Telecommunication/ ICT Indicators (EGTI) (since 2012)
  - Around 500 members from 128 countries
- Expert Group on ICT Household Indicators (EGH) (since 2010)
  - Around 270 members from 100 countries
- Online discussion forum
- Face-to-face meeting
  - 15-19 September 2014, Geneva
- Report to WTIS for adoption
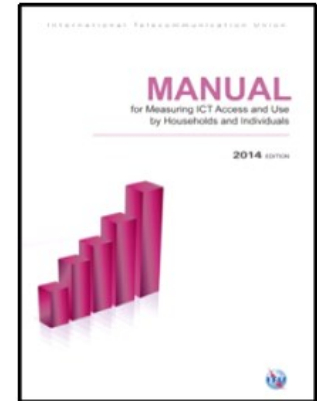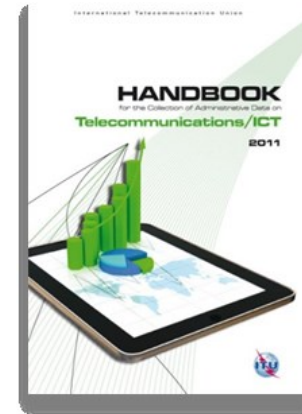
Further discussion on Wednesday afternoon

12th World Telecommunication/ICT Indicators Symposium (WTIS)

- **24-26 November 2014, Tbilisi, Georgia; pre-event on 23 November 2014**
- Main global event on ICT measurement - bringing together ICT policy and ICT data community
- Presentation of work of EGH and EGTI for adoption
- Main agenda topics
    - Post 2015, future ICT-for-development priorities and measurement
    - Measuring competition and affordability
    - Big data
    - Data quality, open data
    - Partnership on Measuring ICT for Development
- Launch of the MIS Report 2014 – high-level panel on top performers and dynamic countries

Please register at www.itu.int/en/ict

Monitoring ITU strategic goals and targets

Global ICT goals

1 **GROWTH**
Enable and foster access to and increased use of telecommunications/ICTs

2 **INCLUSIVENESS**
Bridge the digital divide and provide broadband for all

3 **SUSTAINABILITY**
Manage challenges resulting from the telecommunication/ ICT development

4 **INNOVATION & PARTNERSHIP**
[Lead,] shape and adapt [the Union] to the changing telecommunication/ICT environment

- ☐ Expected to be approved by the ITU Plenipotentiary Conference (PP-14)
- ☐ Busan, Republic of Korea, 20 October to 7 November 2014
- ☐ **Measurable targets – ICT indicators**
- ☐ Part of *Connect2020*

Monitoring ITU strategic goals and targets

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 [the Union] 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

Emerging trend: Big data

- ☐ Session in WTIS 2013
- ☐ Comprehensive review of «Big data in telecommunication» in MIS Report 2014
- ☐ UNSC Working Group on Big Data for Official Statistics – Meeting in Bejiing, October 2014
- ☐ Link to post 2015 development agenda and call for *data revolution*
- ☐ Development of Big Data Strategy for ITU
- ☐ Major topic at WTIS 2014
- ☐ In partnership with private sector, UN Global Pulse

Further discussion on Wednesday afternoon

International cooperation

- □ Partnership on Measuring ICT for Development

- □ UN Group on the Information Society (UNGIS); WSIS+10

- □ UN Inter-agency and Expert Group on MDG indicators, MDG Gap Task Force

- □ UN Statistical Commission

- □ Broadband Commission for Digital Development

Partnership on Measuring ICT for Development
10 years of successful cooperation

- ☐ Global initiative to improve internationally comparable ICT statistics

- ☐ Main mechanism for the coordination of ICT statistics internationally (Steering Committee, Task Groups, regular meetings, work programme)

- ☐ Membership includes all international and regional agencies involved in official ICT statistics

Partnership on Measuring ICT for Development
14 members

Partnership Core list of ICT indicators

Partnership on Measuring ICT for Development

Core ICT Indicators 2010

PARTNERSHIP ON MEASURING ICT FOR DEVELOPMENT

www.itu.int/en/ict

- ☐ Launched first in 2005
- ☐ Regularly revised and extended
- ☐ Endorsed by the UN Statistical Commission (2007, 2012)
- ☐ Statistical framework for producing internationally comparable ICT indicators
- ☐ 53 basic indicators covering:
  - ◻ ICT infrastructure
  - ◻ ICTs in households
  - ◻ ICTs in businesses
  - ◻ ICT sector and trade
  - ◻ ICT in education
  - ◻ E-government

24

Partnership on Measuring ICT for Development
## Work focus

- ☐ Task Group on WSIS

- ☐ Task Group on E-waste

- ☐ Task Group on Gender

- ☐ Task Group on Trade in Services

- ☐ New work on ICT in employment (ILO-led)

- ☐ Previous TGs: e-government, ICT in education, impact, capacity building

WSIS+10 Review

- ❑ Partnership on Measuring ICT for Development developed a set of indicators to measure the WSIS targets

- ❑ Final assessment of progress made towards each of the ten WSIS targets

  - ◻ Major report coordinated by ITU and involving many contributors

  - ◻ The only *quantitative* global assessment of WSIS outcomes

  - ◻ Based on data collection carried out in 2013 with all member states (WSIS targets questionnaire)

  - ◻ 10-year review of progress made towards achievement of WSIS targets – major milestone in tracking information society worldwide

  - ◻ Input to debate on post 2015 agenda – forward looking recommendation

- ❑ Launched at WSIS+10 High-level Event, 10-13 June 2014, Geneva
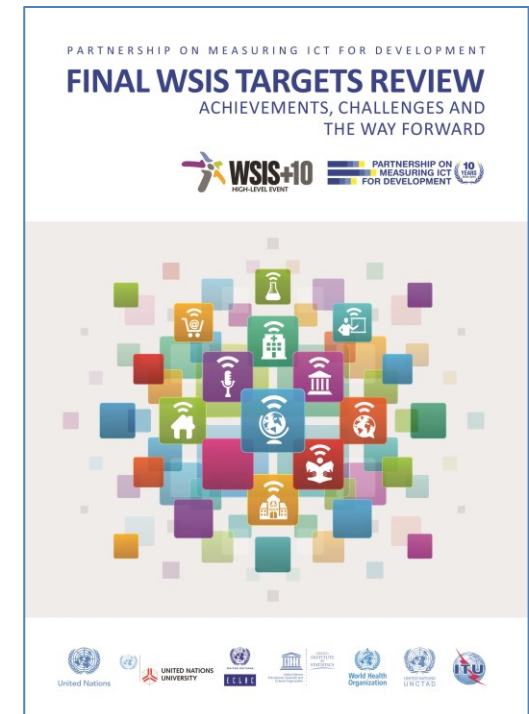
WSIS Monitoring Process
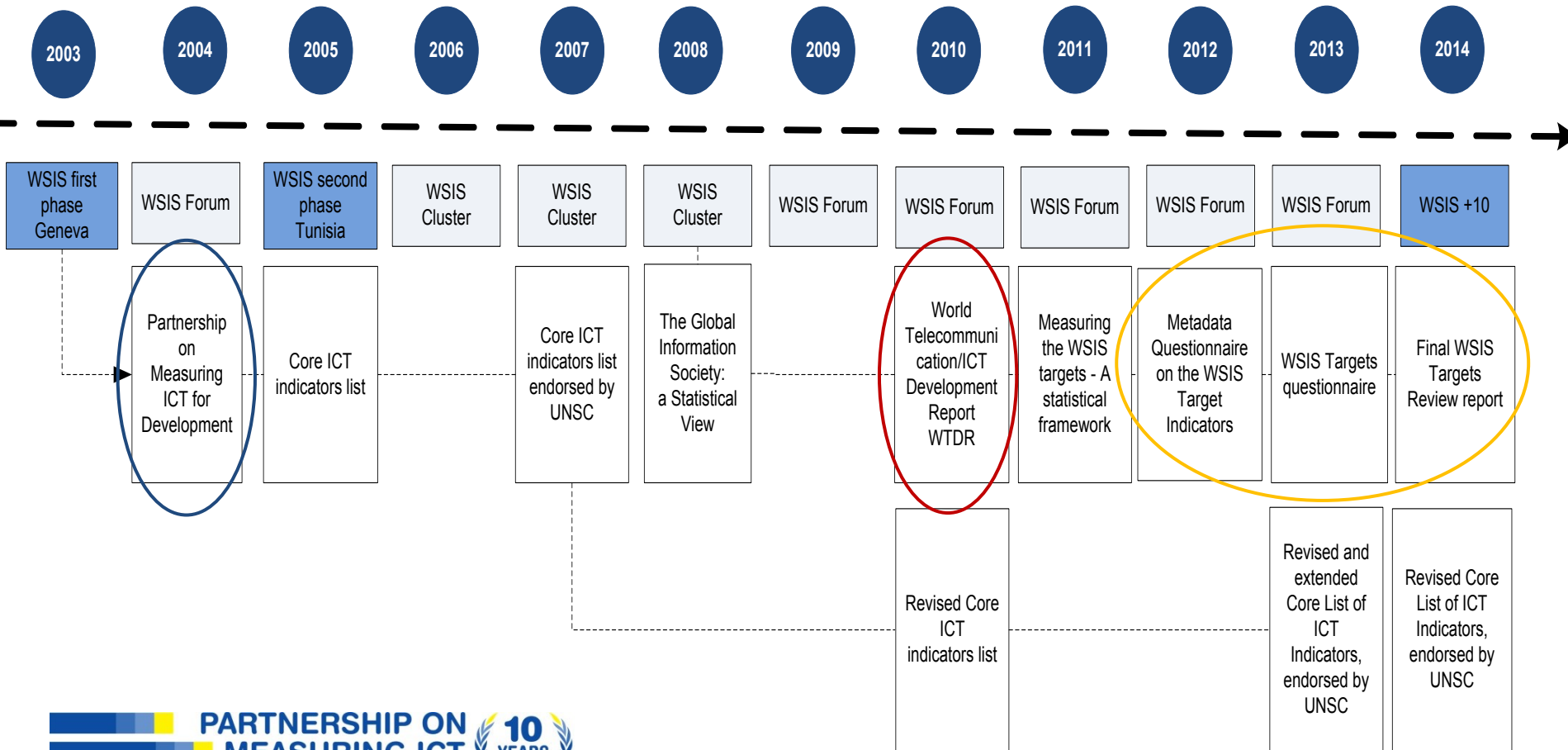
WSIS+10 Review
Conclusions and lessons learnt

- Targets achieved ? Mixed results (incredible progress in expansion of communication networks but much to do in terms of bringing everyone online and achieving high development impact)

- Challenges of monitoring: targets not clearly defined (vague), no formal WSIS monitoring process (until 2010), data availability poor beyond basic connectivity

- Subjects of targets and action lines difficult to capture quantitatively; not linked to high-level goals; some targets outdated

- Need coordination between policy makers and statistical community

- Targets and action lines: move from connectivity to usage, quality and impact; role of ICTs as an enabler to achieve broader development goals; forward looking and regularly reviewed

- High-level endorsement of goals and targets; awareness building among policy makers

- Open consultation process to identify targets bringing in statistical community

- Targets should be time-bound, concrete and measurable

- Future ICT goals, targets and measurement framework need to be linked to post-2015 development agenda

- Partnership should contiue to take lead in coordinating measurement of information society at the international level

Thank you

For more information and data: www.itu.int/en/ITU-D/statistics