8th **World Telecommunication/ICT Indicators Meeting**
Geneva, 24-26 November 2010

Draft conclusions and recommendations

Presented by the Chair

1. The 8th World Telecommunication/ICT Indicators Meeting (WTIM) focused on the measurement aspects of seven topics: impacts of ICT; household ICT access and individual ICT use; ICT infrastructure and access indicators, in particular broadband; e-government; the WSIS targets; child online safety; and ICTs and climate change.

2. Based on the WTIM presentations and discussions, the following conclusions and recommendations are made.

1. Measuring the impact of ICTs

3. Delegates agreed that measuring the impact of ICTs is essential to inform and guide governments and the private sector in both developed and developing countries in their efforts to implement the most effective ICT policies and investments. The joint ITU-OECD-EU session provided important insight into available results from both macro and micro-level research, which point to a positive impact of ICTs on economic growth, productivity, employment and competitiveness; this includes the economic impact of broadband and the impact of mobile phones.

4. A number of presentations underscored the importance of intangible capital/assets, which play an important role when it comes to the impact of ICTs. Further work is needed to identify ways and means to measure intangible assets and develop appropriate indicators. The contribution of Internet use to productivity can be substantial but further research is required to measure it.

5. Detailed country-level data are indispensable in order to carry out meaningful ICT impact analyses. Acknowledging the fact that the cost of producing data is lower than the cost of implementing wrong policies, the meeting recommends a number of indicators that are key to measuring the economic impact, including - among others - indicators on (fixed and wireless) broadband, ICT investments, the ICT producing sector, ICTs in households, ICTs in business, ICT skills, indicators related to intangible assets, research and development, input-output matrices and employment data. The need for survey-based data was highlighted, in particular for measuring the impact of mobile telephony. Other useful suggestions include the collection of national data at a more disaggregated level and the need for time series data to monitor impact over time.

6. To date, a significant amount of research work has been carried out on measuring the economic impact of ICTs, but several delegates mentioned that not enough is known yet about the social and environmental impact, as well as the negative impact of ICTs. The meeting recommends that further work should be carried out on those aspects.

7. Finally, the meeting recognized that the international community plays an important role in measuring ICT impact, especially the OECD, the EU and ITU as well as the Partnership on Measuring ICT for Development. ITU and its partners should continue to address the issue of measuring ICT impact, and advocate the collection of relevant indicators.

2. Measuring household ICT access and individual ICT use

8. Collecting ICT statistics via household surveys is one key element in measuring the impact of ICTs and the only way to obtain data on the particular socio-economic and demographic characteristics for both households and individuals. The meeting recommends the collection of ICT statistics through household surveys based on the internationally agreed core list of ICT indicators.

9. The core indicators are a minimum recommended basis. Countries are also encouraged to include additional indicators in households surveys, which are needed to guide and monitor policy making. Important issues that can also be monitored are security and trust in the Internet, civil and political participation, use of e-health services, and access barriers, among others.

10. Challenges related to the indicator on Internet users were highlighted in the session. The meeting recommends collecting information on the use of Internet by individuals via household surveys. In this regard, it is recommended to take into account to the extent possible the entire population.

11. While supply side indicators – collected primarily by telecommunication operators – are important in documenting the spread of telecommunication networks and services, they are limited in terms of measuring the actual demand. In developing countries, the indicator on Internet use by individuals is often estimated from fixed (wired) Internet subscriptions. However, it is recognized that estimates based on these subscription data have limitations, especially if they do not take into account Internet users that access via wireless technologies. Countries are therefore strongly encouraged to obtain the data on Internet users from surveys on household ICT access and individual ICT use.

3. ICT Infrastructure and Access Indicators

3.1.   Expert Group on Telecommunication/ICT Indicators (EGTI)

12. The meeting recognized the excellent work of the EGTI, under the chairmanship of Denmark, in revising the telecom/ICT indicators and harmonizing definitions in accordance with other international organizations. The meeting recommends that the mandate of the EGTI should

continue in order to discuss new indicators related to tariffs, bundled services, quality of service, wireless broadband indicators, indicators related to convergence and other new indicators, as well as the ITU composite index.

13. National regulatory agencies and sector ministries collect telecommunication/ICT data directly from operators and ISPs and aggregate them at country level. The meeting agreed to encourage operators and service providers to participate in the work of the EGTI by sharing their experiences and technical expertise.

14. Countries provide telecommunication/ICT statistics to a number of international agencies. It is important that the definition of indicators is harmonized at the international level to avoid additional work to countries. The meeting recognized the importance of maintaining the participation of international and regional organizations in the EGTI. In this context, ITU should continue to work with OECD and the EU to harmonize the definitions, in cooperation with Member States.

3.2 ITU Handbook on the collection of telecommunication/ICT statistics

15. The revised ITU Handbook on the collection of telecommunication/ICT statistics will be a valuable tool for national and international collection of administrative data on telecom/ICT Statistics. The meeting encourages ITU to continue working towards the improvement of the current draft Handbook and to include new indicators as they become available.

16. To improve the availability, quality and comparability of administrative data on telecommunication/ICT statistics, the meeting encourages countries to use the Handbook in their national data collections.

17. Regional meetings and capacity building workshops dedicated to the Handbook are important in sharing country experiences and challenges. In addition, it will help clarify issues related to the definition of indicators included in the Handbook. The meeting suggests conducting regional capacity building workshops to help countries who may face difficulty in collecting the data.

18. A number of countries have collected data on fixed (wired) and wireless broadband indicators. The experiences and challenges faced during the data collection by countries will help improve future data collections and definition of the indicators. The meeting encourages countries to share their experiences related to the collection of fixed (wired) and wireless broadband indicators.

19. In some countries, operators are reluctant to provide the data to regulators or ministries due to concerns about confidentiality of the data. The meeting highlighted the importance of assuring operators about confidentiality of the data collected. Legal provisions for data collection may be used when requesting data, while ensuring that the data will be disseminated at the country level.

4. Partnership on Measuring ICT for Development: measuring e-government and the WSIS targets

20. The sessions organized in cooperation with the Partnership on Measuring ICT for Development[1] highlighted the importance of the work of the Partnership in terms of guiding countries in their data collection efforts and in helping produce internationally comparable ICT statistics. The meeting recommends that the Partnership should continue its work in the area of ICT measurement and the harmonization of international ICT indicators, definitions, and methodologies, as well as providing technical assistance on ICT measurement to developing countries. The meeting acknowledges the Partnership's efforts to expand its work to other areas of ICT measurement and to collaborate with other organizations, as well as external experts and members of the WSIS community.

4.1   Development and collection of e-government indicators

21. The meeting welcomes the work of the Partnership Task Group on e-government (TGEG) in developing a core list of indicators on e-government and its proposed way forward. Following the meeting, the TGEG will continue its work, including on definitions and model questions. The list will eventually be added to the Partnership's core list of indicators, as guidance for countries. The finalized list of e-government indicators should be submitted for consideration to the UN Statistical Commission. The Partnership demand side indicators concerning the use of e-government services by businesses and individuals should be reviewed and possibly updated.

22. The core list of e-government indicators will be open for comments[2] until the end of 2010 and then finalized by the TGEG. Based on the recommendations and the list of e-government indicators developed by the Partnership, all countries are encouraged to collect data on e-government.

4.2   Measuring the WSIS targets

23. The meeting recognizes the Partnership's endeavors to address and measure the WSIS targets, which include a number of new areas, such as e-health. It recognizes the usefulness of the Partnership's proposed indicators to measure the WSIS targets. The indicators will be reviewed and finalized during the first quarter of 2011 and will provide the basis for a more detailed framework document, which will address methodological issues and include definitions, and model questions.

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[1] Current members of the Partnership are the International Telecommunication Union (ITU); the Organisation for Economic Co-operation and Development (OECD); the United Nations Conference on Trade and Development (UNCTAD); the United Nations Educational, Scientific and Cultural Organization's Institute for Statistics (UIS); the United Nations Economic Commission for Latin America and the Caribbean (UNECLAC); the United Nations Economic and Social Commission for Western Asia (UNESCWA); the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP); the United Nations Economic Commission for Africa (UNECA); the UN Department of Economic and Social Affairs (UN-DESA); Eurostat; and the World Bank.

[2] Comments should be sent to itca@uneca.org

24. The document will be open for comments until the end of 2010[3] and then finalized by the Partnership Task Group on Measuring the WSIS targets.

25. Once finalized, the meeting encourages countries to use the framework document and the indicators proposed to monitor the WSIS targets as a basis for tracking progress towards the WSIS targets until (at least) 2015. This will help countries to see how they are moving towards becoming information societies and making progress towards the WSIS targets

26. The meeting welcomed the project to construct indicators of linguistic diversity on the Internet and endorses efforts to measure this important aspect of the Information Society. It suggests that the Partnership through its Task Group on Measuring the WSIS Targets, become involved in this project to enhance the international harmonization of indicators to measure linguistic diversity.

27. The meeting also encourages the different members of the Partnership to continuously improve and refine the existing indicators, including through cooperation with national and regional experts from academia, the private sector, as well as non-governmental organizations. It acknowledges ITU's efforts to improve data on the number of estimated Internet users and at the same time encourages countries to collect the Internet user indicator through surveys on household ICT access and individual ICT use.

5. Measuring child online safety

28. Child online safety is becoming increasingly important with the increasing participation of children the Internet/web and its social networking sites. The meeting recommends that child online safety needs to be monitored to reduce the related risks and threats for children. The availability of measurable and comparable indicators is critical in this regard.

29. The meeting welcomes the ITU Child Online Protection (COP) statistical framework as a useful document that provides an overall framework and indicators for measuring COP, which could be applied internationally. The meeting recommends that national and international organizations involved in child online safety as well as countries are encouraged to use the framework as a basis for their COP measurement efforts. It is proposed that the document should be reviewed regularly, in cooperation with relevant stakeholders, as more countries gather experience that can be used a basis for revision.

30. The experiences from the EU Kids Online project as well as from countries that have piloted COP measurement are useful as it is a new subject and the proposed indicators need to be tested; their experiences should be taken into consideration in future revisions of the indicators.

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[3] Comments should be posted on http://groups.itu.int/wsis-targets or sent to indicators@itu.int.

6. Measuring ICT and climate change

31. ICTs are a cross-cutting technology that can help drive the deep transformation needed in the global effort to combat climate change by driving down emissions in the ICT sector itself through the more efficient use of current equipment and networks and the introduction of more efficient equipment and -networks; by reducing emissions and enabling the monitoring of and increased energy efficiency in other sectors through, for example, substituting for travel and replacing physical objects by electronic ones (dematerialisation); and by helping Member States address the negative effects of climate change using ICT based systems for monitoring weather and the environment worldwide.

32. The meeting recognizes the necessity to develop concrete and common methodologies, including unified metrics to describe and estimate objectively and transparently the present and future energy consumption and GHG emissions of ICTs over their entire life cycles.   Delegates welcome the ITU work on climate change, including the work by ITU-T Study Group 5, as Lead Study Group on ICT and Climate Change, which has developed Recommendation L.1400 "Overview and general principles of methodologies for assessing the environmental impact of ICT". This presents the general principles on how to assess the environmental impact of ICT (including impact on greenhouse gas (GHG) emissions) and outlines the different methodologies that are being developed by ITU, including the assessment of the environmental impacts of ICT goods, networks, and services; and the assessment of the environmental impacts of ICT in organizations, ICT projects, cities and countries. In order to minimize the negative effects of ICT and maximize the positive effects, ITU-T Study Group 5 develops methodologies that cover both the positive and negative environmental aspects of ICT.

33. Assessing the impact of ICTs on climate change is an emerging area that needs to be further improved, including the calculation and collection of data that will help monitor environmental impacts along the complete ICT devices and services life cycles, including embedded GHG emissions and GHG emissions during use and end of life phases and evaluate the potential of "smart" ICT solutions and management practices (e.g. smart transport or building management systems) to reduce energy consumption and GHG emissions.

34. The meeting agrees that overall there is a need to collect data to assess and improve environmental performance, enhance energy efficiency and resource management. An increasing number of countries and companies are being requested to report on ICT-related GHG emissions worldwide. The meeting recommends that Member States should collect data from all telecommunications operators and service providers in order to publish the total Green House Gas (GHG) emissions. ITU should consider collecting these data and setting up a global database on ICT-related GHG emissions. ITU Member States and Sector Members are encouraged to engage actively in this process.