



INTERNATIONAL TELECOMMUNICATION UNION

**TELECOMMUNICATION
DEVELOPMENT BUREAU**

**Document INF/038-E
13 October 2006
Original: English only**

5TH WORLD TELECOMMUNICATION/ICT INDICATORS MEETING, GENEVA, 11-13 OCTOBER 2006

FOR INFORMATION

SOURCE: MEF, ITU

TITLE: Key themes highlighted during the meeting

5th World Telecommunication/ICT Indicators Meeting
11-13 October 2006, Geneva, Switzerland

Key themes highlighted during the meeting

- 1. Highlights of the work of the MEF Unit**
- 2. Data collection – country best practices**
- 3. Definitions of Indicators**
- 4. Conclusions**

Conclusions

The fifth World Telecommunication/ICT Indicators Meeting—organized by the International Telecommunication Union (ITU)—took place in Geneva, Switzerland, from 11-13 October 2006.¹ There were 150 participants, including 69 women, from 67 countries. A total of 11 international organizations were represented. The meeting was chaired by Mr. R. Zouakia from ANRT (Morocco) The meeting's rapporteurs were Ms R. Joshi and C. Prado of MEF Unit in the BDT (ITU). The meeting was divided into twelve sessions.

The purpose of the meeting was primarily to focus on Definitions of the ICT indicators as collected by the MEF Unit. This theme was chosen so as to keep in mind the evolving trends in the telecom sector as well as to respond to the emergence of the need to capture trends in usage and access to ICT services. In the course of the agenda, on the first day, the participants had an overview of the work done by the MEF Unit. The meeting also sought to present to participant country best practices in data collection, methodology and disse

to review the state of telecommunication/ICT statistics, definitions, collection, methodology and dissemination. The focus of the sixth' WTI Meeting was the discussion of definitions and recent indicators. Since the telecommunication/ICT sector has been changing rapidly over the recent years, the indicators to measure the telecommunication/ICT sector need to be adapted accordingly. The impressive growth and changes in the mobile sector, and with regard to broadband technologies, particularly, call for the revision of existing definitions. The meeting brought together entities responsible for telecommunication/ICT statistics and analysis, including telecommunication ministries, regulators and operators; national statistical offices (NSO); international organizations and researchers. Presentations were made on the following topics: ITU collection, processing, analysis and dissemination of data; country best practices on data collection; and definition of indicators. Since the focus of the meeting

¹ The programme and background documents are available at the following web site: <http://www.itu.int/ITU-D/ict/WICT06/index.html>

was to revisit the ITU's indicator definitions, separate sessions were held on the following topics:

- Fixed and mobile network indicators
- Revenue and Investment indicators
- Data network indicators (broadband and internet bandwidth)
- Internet traffic indicators
- Tariffs and traffic indicators
- Staff and broadcasting indicators
- Community based indicators

The opening and overview of the meeting put the statistical work of the ITU into a broader perspective. This is particularly important today in the light of the discussion on the information society. ITU is increasingly working with other international partners and organizations in an effort to help measure the information society and to identify and collect relevant indicators to help measure international, regional, and national ICT developments, and the digital divide. The important role that the ITU has in collecting and harmonizing data was highlighted. It was also noted that the input, comments, and expertise of ITU's members states and sector members is important to face the challenges posed by a changing technological environment **and to identify relevant and indicators.**

Overview of ITU's data collection, processing, analysis and dissemination

As the United Nations specialized agency for telecommunications, the ITU is responsible for producing statistics covering its sector. By means of an annual questionnaire the ITU collects data for around 100 indicators from more than 200 countries and territories. Data providers are mainly telecom ministries and regulatory authorities. The first presentation highlighted the reliance of the ITU on national entities (regulators and ministries) to collect ICT statistics. While the Market, Economics, and Finance Unit receives an increasing number of data requests (an expected 1'400 requests by email alone in 2006), the Unit continues to face a number of challenges, including the limited response rate to the questionnaire and non-response to some questions. MEF continues to publish its data in a number of formats, through regional and global reports, online, and on CD-ROM. ITU's Development Bureau recently launched a new application- the ICT Eye – which is a one stop-shop website for ICT information that provides some of the MEF's key World Telecommunication Indicators data, together with regulatory and policy profiles, national tariff policies, operator information, and financial and scientific institutions.

Cooperation in order to produce, disseminate and use more and better statistics, takes place in various forms, with different partners and at various stages of the data collection, gathering and dissemination process. Besides the WTI meeting, which is an important means of cooperating with member states and the private sector in order to develop a set of relevant indicators and definitions, MEF highlighted two important cooperation projects, the Millennium Development Goals (MDG) and the Partnership on Measuring ICT for Development. MEF is part of the MDG Expert Group and has been mandated to track target 18 (to make available the benefits on new technologies, particularly ICTs) of

Goal 8 (Develop a global partnership for development). With a view to monitoring this target 18, ITU provides three indicators that it collects: total telephone penetration, Internet penetration and PC penetration. Access to Information and Communication Technologies (ICT) has been growing, always exceeding global economic growth. Besides the global trends, the presentation further showed some of the regional results for the MDG indicators. It was also noted that there is today an increasing focus on “ICT for development”. Given the growing emphasis to go beyond measuring ICT developments and trends it is important to identify “impact” indicators to measure and monitor in which way ICTs are affecting the other MDGs, as well as social and economic development in general. MEF has contributed to this debate, primarily through the last World Telecommunication Development Report, which focused on ‘measuring ICT for social an Cooperation in order to produce, disseminate and use more and better statistics, takes place in various forms, with different partners and at various stages of the data collection, gathering and dissemination process. The Partnership has achieved one of its major objectives by developing a core list of 42 ICT indicators..

The Presentation of the ICT Opportunity Index focused on providing the rationale, mandate and the framework of the Index .the presentation developed the theme of understanding the components of the index as well as the results that came about and the speaker also brought out the need to revise the index in the light of developments in the telecommunication sector since 2003.

Telecom data collection – country best practice

The presentation made by Singapore’s Infocomm Development Authority (IDA) showed how Singapore uses its telecommunication/ICT statistics to monitor and analyse trends, to formulate new and review existing policies and to raise industry awareness and the general public’s understanding of developments and trends. Policies, for example, in the area of education and manpower are based on a set of administrative data and survey results. This includes the formulation of the “Intelligent Nation 2015 Masterplan” (iN2015), which has a clear set of ICT related objectives (see slide *Objective – Policy Formulation III*). Statistical information is also extensively used to analyse progress made in the area of the telecommunication sector itself. To evaluate the quality of services provided, IDA has carried out a number of surveys, including an e-Government Customer Perception survey. The ICT industry is dynamic and driven by rapid technological and market changes. Data collection efforts need to be reviewed and adapted to changing needs in order to be relevant to meet the needs of various stakeholders. To this end, IDA carries out period reviews and cooperated with other agencies and users.

A presentation made by a representative from Regulatel – the Latin American Forum for Regulatory Agencies - presented a project to collect, manage, and disseminate regional telecommunication statistics (SIRTEL). The project provides an interactive, online platform which allows member states to provide a set of statistics that the organisation has agreed on. The indicators and definitions collected through SIRTEL are largely identical to those collected through the ITU’s World Telecommunication Indicators questionnaire. These include traffic indicators, basic infrastructure indicators, revenue

and investment indicators, and tariff indicators. SIRTEL also collect data on Public Internet Access Centres (PIACs). Data are used to identify regional differences and carry out benchmarking. In the case of Mexico, which is one of the Regulatel members, ICT data are collected through the census, as well as through specific surveys. They are used – as in Singapore – to review policies, benchmark progress and to identify the importance of the telecommunication sector in the overall economy (which has been increasing). Special attention – through government projects - is paid to the provision of Public Internet Access Centres, which has allowed Mexico to substantially improve access to the internet to an increasingly large percentage of the population

In Oman, the Independent regulatory authority TRA is responsible for collecting and dissemination telecommunication/ICT statistics. Data are collected from operators that are requested to submit certain indicators on monthly, quarterly and annual basis. Most indicators and definitions have been adapted from ITU. In some cases, data from operators are not available in the format requested and operators have difficulties adopting to the definitions, as well as providing data on time. These administrative data are complemented through surveys, which are carried out in close cooperation with the Information Technology Authority (ITA). This includes a telecenter survey - carried out in collaboration with a university - to identify the need for telecenters. The survey showed that there is a high demand for telecenters, as well as for training in specific IT areas (see slide Tele-centers Survey). The Sultante also included some ICT specific indicators to a Household income and expenditure survey in order to identify the expenditure on ICTs. ITU's core indicators were used to identify which indicators should be included.

As a rescheduled in the presentation made by Tanzania (Mr Juma HANGO, TCRA) , the focus was on the Tanzanian experience on data collection of ICT and telecommunication information. TCRA which is the nodal authority for the collection of data started I 2003 and is in charge of the collection of information and statistics form the operators. While the TCRA has adopted the ITU list of indicators, challenges are faced regarding the development of an effective and streamline data collection and survey system. Data regarding key statistics for Tanzania was also presented. The presenter requested ITU to provide for enhanced capacity building measures for data collection methodology, storage, processing and analysis of information.

ICT Sector Definition

The OECD's made a presentation on the revised ICT Sector Definition and classification which is carried out in response to changing technological and regulatory environment, as well to a growing demand for ICT statistics and analysis. In 1998, OECD countries agreed on an ICT sector classification standard based on the concept of ICT industries. This definition distinguished between "ICT manufacturing industries" on the one hand and "ICT services industries" on the other hand. While there are a number of challenges in clearly defining the ICT sector, the revised proposal (ISIC Revision 4) has been able to clarify some borderline cases, while allowing for continuity. This is particular difficult in areas where new ICT related goods and services rapidly emerge and evolve. The ISIC Revision 4 has improved the incorporation of ICT industries and one of the main

objectives was to reflect the growing importance of "information" in the economy and in society. This includes the incorporation of a separate definition of the 'content and media' sector within the concept of the Information Economy

- Two main resolutions guide the statistical work of the ITU. The meeting is requested to look at the two resolutions and to update Resolution 131 to be submitted as input to PP2006 in November
 - Resolution 8 (Doha 2006)
 - Resolution 131 (PP2002)

- It was requested that a statistical contact (in MEF) be available not only for French, Spanish and English-speaking countries but also for Arabic, Chinese and Russian
- It was requested that an Arab Indicators Report be published
- ITU should continue collecting and publishing broadcasting statistics as ITU has the mandate to look at broadcasting infrastructure
- The Partnership will continue to improve the availability and quality of ICT statistics and will not endorse any index. The index work will be left to users of Partnership data.
- Digital divide indices – existence of two indices

DEFINITIONS OF INDICATORS

A number of presentations were made on the main focus of the present WTIM 2006, namely the issue of definitions and its harmonization.

The presentation on fixed definitions was made by Dr. Zouakia of the ANRT – wherein the key objective was to open the discussion on how indicators may change according to the new technologies as NGN is gradually being introduced both in developed and developing countries – there could be a basis for revisiting some of the definitions. A key idea that emerged is to create a global indicator based on "access" instead of lines.

In the presentation on mobile indicators, particularly 3G mobile indicators that was presented by Martin Garner of OVUM, the presentation dealt with the coverage of mobile connections and its implications for the definition of "active" subscribers. In addition, the key message was that indicators should make a distinction between connections and "people" who use services and it is possible that people may have multiple connections. There is increasingly a difficulty in defining territory as a concept given cross border implications. Greater liaison at the field level in understanding the scope of services is a positive way to build on the scope and refine indicator focus to the needs of the market. The discussions in this area centered on confidentiality issues, and the need for segregating capex related measures for 3G which could be captured as a distinct indicator.

Ms Mohar of APEK, Slovenia made the presentation on the definition of Prepaid subscriber including the difficulties in arriving at a common benchmark of an active subscriber. Usually operators counted all subscribers and the SIM cards sold. Further

some of the difficulties encountered is that there were no distinctions made whether the user was 2G, 2.5G, UMTS or GPRS subscriber. The overall definition of “active” subscriber was taken to mean – connected to the network in the past 90 days. A key point that emerged was that in Slovenia the ITU definitions have been sourced upon as a guide.

The discussions in the session on mobile indicators stressed on points such as wherever possible effective liaison on definitions of tariffs would be made in concert with study groups. In addition notions such as replacing “lines” by “access” still needs to be developed and understood in its true context

Session 6 covered –Revenue and Investment Indicators.

The presentation from ART, Senegal provided an overview of both data as well as information on revenue and investment indicators in Senegal. The focus was to stress on the confidentiality aspects of the information as well as the difficulties faced in receiving the information from operators. In addition ART Senegal is using the definition of the indicators of the ITU and an annual Report is published. The presentation also highlighted the success of the mobile and telecentres as important means of accelerating ICT usage in the country.

Ovum in its presentation of Investment indicators provided a brief background on the complexity of 3G investment indicators as an incremental layer in the CAPEX and thus the need to capture this element in a 3G specific investment indicator. The speaker also highlighted the difficulty in segregation of 2G and 3G investments. Different accounting systems of operators also made the estimation a difficult venture. In terms of recommendations, Ovum urged the ITU to look at market and investor driven indicators such as EBIDTA as well as indicators such as ROCE (Return of capital employed) as useful measure in the future.

Data network indicators

The presentations covered the country specific definitions of broadband as used in France as well as

ARCEP, France

ARCEP has 4 quarterly (on subscribers) surveys and one annual (volume) survey to operators

The disaggregated data can only be used for the purpose of transparency and to analyse the market. It cannot be used by ARCEP for regulatory purposes. Publication of data is aggregated. In the domain of multiplay – it is divided into services (so 3-play would be counted 3 times: once in each category).

ARCEP is facing a number of difficulties, for example the separation between Edge/UMTS. Also, operators are reluctant to provide data. It is expected that better data will be available over the next years and that the definition will evolve.

Point Topic

Dial up subscribers is an important indicator because it can help measure potential of broadband subscribers. The PointTopic Definition of broadband is compatible with that by ITU. Speed is becoming less important since most bb access is at least >256kbps.

Broadband and internet household data are important because of the inclusion of business lines in administrative counting/data. Total broadband lines is not equivalent to total broadband households.

Bandwidth – NECTEC

Definition of bandwidth is the same as that used by ITU. This is the sum of all international Internet connections. In addition, incoming and outgoing bandwidth are equal but previously incoming was somewhat larger so that that one is used as overall bandwidth (conform with ITU definition).

Collecting Internet bandwidth data requires a lot of human effort and collaborations.

VoIP, Point Topic

VoIP is growing fast: 5 million subscribers in 2004, mainly in Japan. Almost 20 million subscribers at the end of 2005. Because so much VoIP is software driven, there are constantly new services (video provision, or free calls to certain networks). The speaker highlights that minutes and revenue would be useful (outgoing minutes to same network, minutes to other VoIP networks, minutes to PSTN etc).

Tariff charges (usually based on monthly fees with per-minute charges for international destinations) but this is very complex.

Resume of definition: A telephony service where the voice traffic is carried using IP over a broadband connection from the subscriber's equipment to the VoIP provider's IP network to the public internet (implies that someone is paying).

Summary: subscribers of full-service VoIP can be measured but soft-client VoIP is very difficult to measure absolutely with out data on minutes.

ARCEP

Broadband services offered over VoIP as access services that are regulated and controlled by operators and from registered operators that provide VoIP.

ARCEP does not collect data from non-registered operators or service providers such as skype (pc to pc VoIP).

Comments

VoIP definition by ITU not been firmly established

A list of countries that allow VoIP should be drawn up so as to analyse definition issues.

VoIP used to be illegal mainly because the international long-distance providers did not want to allow it. Now the service is provided by the traditional operators as well as new entrants.

Singapore has definition and we have started collecting data but collecting volume is very difficult since there is a high number of operators offering this service. Also, the total number will always be underestimated since it reflects only Singapore's side of the use and not the international side.

Traffic indicators

A revision of the definitions was also presented; the comments are included in the revised list of indicators.

- What is the definition of mobile network – it should be good to disaggregate if it
- Desegregation or not of the tariffs – based on the commercial plans operators are providing to users.
- VoIP it will be useful to split between different type of services (pc –pc, pc-pstn, etc)
- Some countries are not sending the whole list of data requested, it should be good determine which type of specific problems they have?
- the accuracy of the information was also discussed, as some countries are sending information which is unverified.

Tariffs indicators

Background of the work of Tarifica was presented – the different services and types of tariffs that they collect (tariffs fixed, mobile, internet, internet content such as music, video, etc.) including broadband and leased lines. The presentation gave a broad list of the tariff compilation by Tarifica. Tariff definitions need to be revised in the light of market conditions. With focus on clarity in duration of contracts, nature of subscription, need of data collection agencies.

Remarks

Errors in definitions: definitions are revised by study groups composed by countries. All the tariffs definitions are revised by SG3 - National definition and international definition difference.

Tariffs indicators in the way they are defined now for operators, it is hard to represent some of the various tariffs plans they have. Proposed solution elaboration of a kind basket for some services aggregates. (Bulgaria)

The SG is working on recommendations and standard definitions. That could be useful as first data. BDT can share the information between the related SG.

Regarding national tariffs, it is important that MEF definitions are revised and improved as looking at the evolution of the telecom environment and market. Our objective is to have useful indicators for every body and comparable. (P.T.)

Staff and broadcasting indicators

This presentation was focused on occupations in information and communication technology. For employment, in the new ISCO 88 be revised. The occupations should be identified in line with the telecommunication sector of countries and enable countries to include the level of education and skills into the staff indicators.

Community access/ universal access indicators

A geographical background was presented try in to illustrate the community areas in the country – rural and remote areas and to facilitate the introduction of the action plan for the implementation of community access. This included the number of cybercafé in the country – including the rural areas.

In addition, the definition of “Locality” was not clear as presented by the statistical office, compared with the telecom objectives.

The presentation focuses on issues of geographical dispersion of remote communities which make it difficult to estimate.

Discussion

The terms professional should be defined for the staff indicators. “Is a group of occupation which requires extensive knowledge and very well know communication and technical skills (it is not necessary university).” ILO

The definition of community (Localidad) should be country specific.

In addition, the role that mobile plays in community access should be captured.