

**8<sup>th</sup> World Telecommunication/ICT Indicators  
Meeting (WTIM-10)**  
Geneva, Switzerland, 24 - 26 November 2010



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*Contribution to WTIM-10 session 4*

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## Report of the Expert Group on Telecom/ICT Indicators (EGTI)

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## Outline

- Background of the EGTI
- EGTI discussion forum
- March 2010 meeting
- **Revised** Telecommunication/ICT Indicators definitions, March 2010
- Indicators under discussion
- Lessons learned
- Recommendations for future work



## Background

- One of the main recommendations of the 7th ITU World Telecommunication/ICT Indicators (WTI) meeting held in Cairo, Egypt, on 3-5 March 2009 was the creation of an expert group - EGTI
- Objective: To review, revise and finalize the ITU telecommunication/ICT indicators
- Composition/Membership: ICT experts, engineers, statisticians and analysts
- Duration: May 2009 to March 2010
- Methods of work:
  - Chaired by Denmark
  - Coordinated by ITU
  - Online discussion forum (May 2009 to March 2010) – more than 150 online members
  - March 2010 – Face-to-face meeting
- Inputs received:
  - OECD, EUROSTAT,
  - Other entities
  - Individual countries (regulators, ministries, NSOs)
  - Universities



## EGTI online discussion forum

- More than 150 members
- Moderated by ITU
- Worked by exchanging comments in the forum by group of indicators
- Comments received varied by indicator group
- Comment period of one month for each group of indicators



## March 2010 meeting

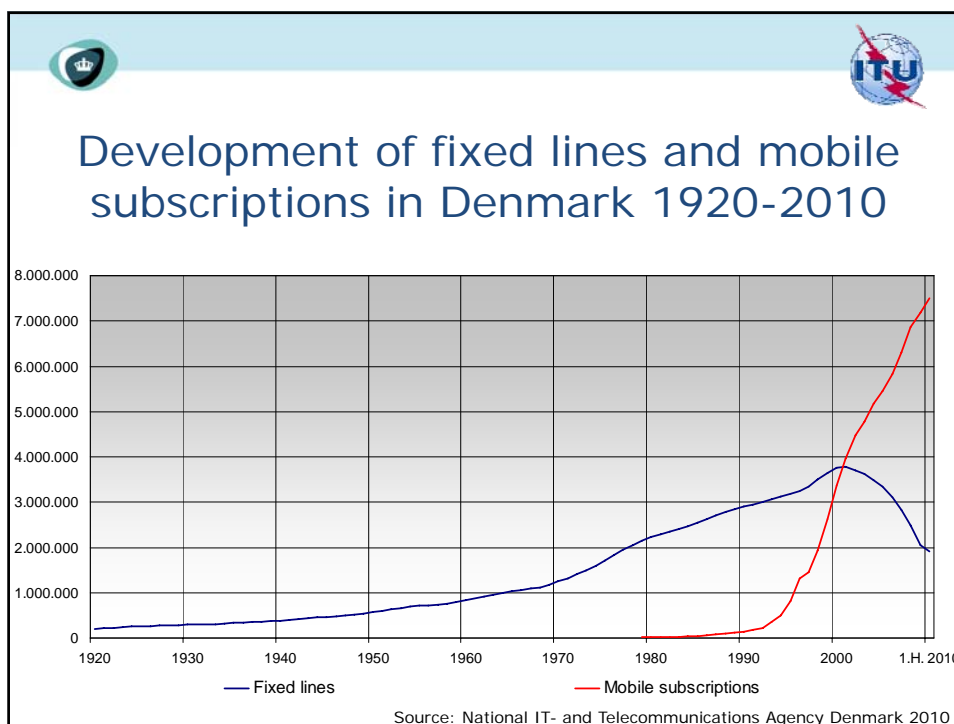
- Attended by 26 participants, representing regulators and ministries from 13 countries as well as GSMA, Intel, OECD, EUROSTAT
- Inputs received through online forum, presentation and papers
- Discussions/harmonization of indicators
- Revised 2010 list of indicators contains 168 indicators divided into 13 groups:
  - Fixed network
  - Internet
  - Wireless broadband
  - Tariffs
  - Staff
  - Investment
  - Other
  - Mobile cellular
  - Fixed (wired) broadband
  - Traffic
  - Quality of Service
  - Revenue
  - Community access

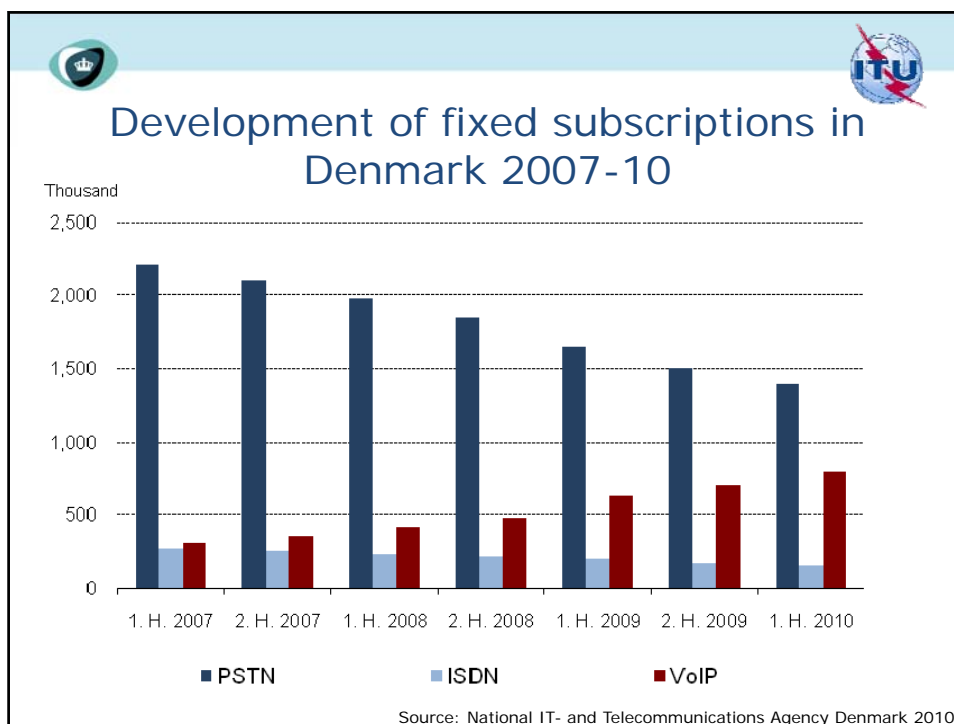


## Summary of revisions

- Indicators to be collected in ITU questionnaires
- New indicators – names highlighted in **bold**
- Revised indicators – revisions in definition or indicator name highlighted in **bold**
- Old indicators under discussion – **highlighted in red**
- New indicators under discussion
- Some editing still remains, will be done in handbook

Indicator code and title	Short	Long	ITU Definition (changes in <b>bold&gt;)</b>
112 Fixed telephone lines	Yes	Yes	<p>112 = 112a+28c+1112+112IP</p> <p>A <b>fixed</b> telephone line (previously called main telephone line in operation) is an active* line connecting the subscriber's terminal equipment to the public switched telephone network (PSTN) and which has a dedicated port in the telephone exchange equipment. This term is synonymous with the terms <i>main station</i> or <i>Direct Exchange Line (DEL)</i> that are commonly used in telecommunication documents. It may not be the same as an access line or a subscriber. This should include the active number of analog fixed telephone lines (112a), ISDN channels (28c), fixed wireless (WLL), public payphones (1112) and <b>VoIP subscriptions (112IP)</b>. If not included, specify in a note.</p> <p>*Active lines are those that has registered an activity in the past three months.</p>
117 Total capacity of local public switching exchanges	No	<b>No</b>	The total capacity of public switching exchanges corresponds to the maximum number of fixed telephone lines that can be connected. This number includes, therefore, fixed telephone lines already connected and fixed lines available for future connection, including those used for the technical operation of the exchange (test numbers). The measure should be the actual capacity of the system, rather than the theoretical potential when the system is upgraded or if compression technology is employed. This should exclude capacity of fixed telephone lines from mobile cellular network.
1142 Percent of fixed telephone lines connected to digital exchanges	No	<b>No</b>	This percentage is obtained by dividing the number of active fixed telephone lines connected to digital telephone exchanges by the total number of fixed telephone lines. This indicator does not measure the percentage of exchanges which are digital, the percentage of inter-exchange lines which are digital or the percentage of digital network termination points. Respondents should indicate whether the fixed telephone lines included in the definition represent only those in operation or the total capacity.
112a Analog fixed telephone lines (PSTN lines)	No	<b>No</b>	Number of active analog fixed telephone lines (network termination points at the end of the year). PSTN Direct services are defined as a situation where a customer is directly connected to a telecommunications operator which connects that customer to the public telecommunications network. Indirect services, which should not be included here, are provided to customer by means of their supplier's wholesale access to another operator's PSTN network infrastructure. The ISDN subscriptions should be excluded here.







**Fixed telephone network (2)**

Indicator code and title	Short	Long	ITU Definition (changes in <b>bold</b> )
<b>112IP VoIP subscriptions</b>	No	Yes	Number of Voice over Internet Protocol (VoIP) fixed line subscriptions. Refers to fixed telephone line VoIP subscriptions that have generated in- or outbound traffic within the past three months. This includes VoIP subscriptions through fixed wireless, DSL, cable, and other fixed Internet platform that provides fixed telephony using Internet protocol, but excludes software-based VoIP applications (example: VoIP using Skype, hotmail, or yahoo).
116 Percent of fixed telephone lines which are residential	No	Yes	This percentage is obtained by dividing the number of active fixed lines serving households (i.e., lines which are not used for business, government or other professional purposes or as public telephone stations) by the total number of fixed telephone lines. A household consists of one or more people, who may or may not be related to each other who share accommodation; and who make common provision for food. If definition of household differs, please indicate in a note and the source of this definition. Active subscriptions means those that are in operation for the past three months.
1162 Percent of fixed telephone lines in urban areas	No	Yes	This percentage is obtained by dividing the number of fixed telephone lines in urban areas by the total number of fixed telephone lines in the country. The definition of urban used by the country should be supplied.
<b>1163% Percentage of localities with telephone service</b>	No	Yes	This indicator reflects the percentage of localities that have telephone service, fixed or mobile or both. To enhance usefulness, the total number of localities should be provided as well as the population of localities covered by telephone service.  <b>A locality is defined as a distinct population cluster, that is, the population living in neighboring buildings which either:</b> <b>(a) form a continuous built-up area with a clearly recognizable street formation; or</b> <b>(b) though not part of such a built-up area, form a group to which a locally recognized place name is uniquely attached; or</b> <b>(c) though not coming within either of the above two requirements constitute a group, none of which is separated from its nearest neighbour by more than 200 metres.</b>

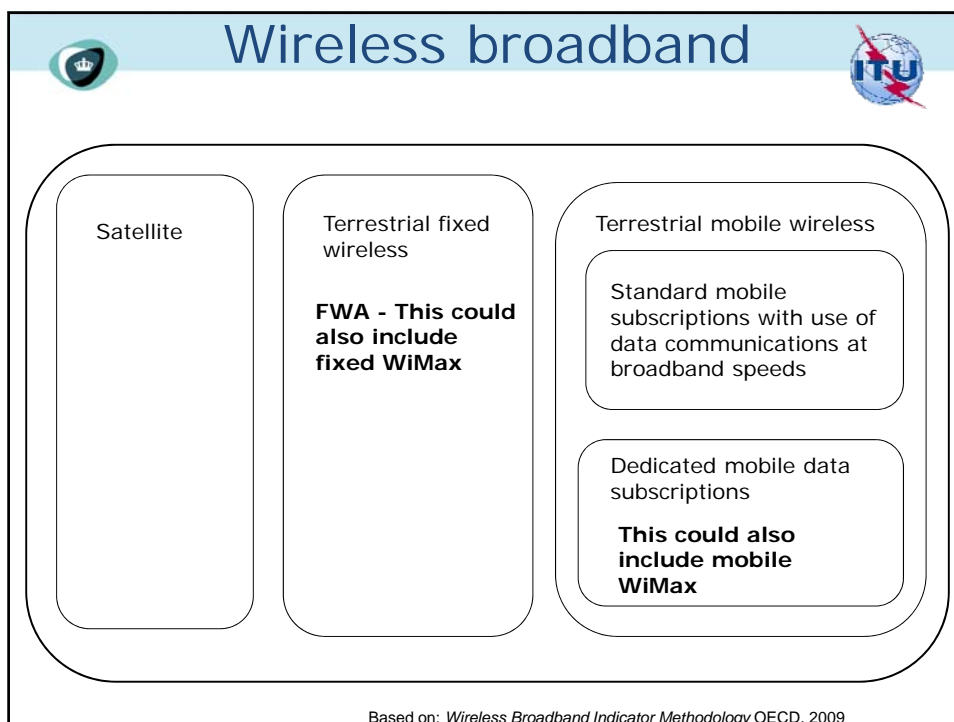
Indicator code and title	Short	Long	ITU Definition (changes in <b>bold</b> )
1112 Public payphones	No	Yes	Total number of all types of public telephones, including coin- and card-operated and public telephones in call offices. Publicly available phones installed in private places should also be included, as should mobile public telephones. All public telephones regardless of capability (e.g., local calls or national only) should be counted. If the national definition of "payphone" differs from that above (e.g., by excluding pay phones in private places), then respondents should indicate their own definition.
311 Telex subscription lines	No	No	A telex subscription line is a line connecting the subscriber's terminal equipment to the public telex network and which has a dedicated port in the telex exchange equipment.
28 ISDN subscriptions	No	Yes	28 = 281+282 The number of subscriptions to the Integrated Services Digital Network (ISDN). This can be separated by basic rate interface service (i.e., 2B+D, ITU-T Rec. I.420) and primary rate.
281 Basic rate ISDN subscriptions	No	Yes	The number of subscriptions to the basic rate interface service.
282 Primary rate ISDN subscriptions	No	Yes	The number of subscriptions to the primary rate interface service.
28c ISDN voice channel equivalents	No	Yes	28c = (281*2)+(282*30 or 23) B-channel equivalents converts the number of ISDN subscription lines into their equivalent voice channels, and represents the sum of basic and primary rate equivalents. The number of basic rate subscriptions is multiplied by two and the number of primary rate subscriptions is multiplied by 23 or 30, depending on the standard implemented.
112pt Fixed numbers ported	No	Yes	Total fixed numbers ported within the year. Number portability is defined as the number of transactions (i.e. one number can be ported several times – transactions).

Indicator code and title	Short	Long	ITU Definition (changes in <b>bold</b> )
271 Mobile cellular telephone subscriptions (post-paid + prepaid)	Yes	Yes	Refers to the <b>subscriptions</b> to a public mobile telephone service and provides access to Public Switched Telephone Network (PSTN) using cellular technology, including number of pre-paid SIM cards active during the past three months. This includes both analogue and digital cellular systems (IMT-2000 (Third Generation, 3G) and <b>4G subscriptions</b> , but <b>excludes mobile broadband subscriptions via data cards or USB modems</b> . Subscriptions to public mobile data services, private trunked mobile radio, telepoint or radio paging, and telemetry services should also be excluded. This should include all mobile cellular subscriptions that offer voice communications.
271p Mobile cellular subscriptions: prepaid	Yes	Yes	Total number of mobile cellular subscriptions ( <b>a subscription refers to a line</b> ) that used <b>prepaid refills</b> . These are subscriptions that rather than paying a fixed monthly subscription fee, choose to purchase blocks of usage time. This includes both analogue and digital cellular systems (IMT-2000 (Third Generation, 3G) and 4G subscriptions. Only active prepaid subscriptions that have used the system ( <b>as shown by traffic or whether they have recharged the card</b> ) during the past three months should be included.
2712 Digital mobile cellular subscriptions	No	<b>No</b>	Total number of mobile <b>subscriptions</b> (see 271 definition) to digital cellular systems. It should include both prepaid and post paid <b>subscriptions</b> .
271L Total number of mobile cellular subscriptions to low and medium speed access to data communications	No	<b>No</b>	Number of mobile cellular <b>subscriptions</b> with access to data communications (e.g., Internet) at downstream speeds below 256 kbit/s.
271mb_access Number of mobile cellular subscriptions with access to data communications at broadband speeds	Yes	Yes	Number of <b>subscriptions</b> to mobile cellular networks with access to data communications (e.g. the Internet) at broadband downstream speeds (here defined as greater than or equal to 256 kbit/s). Note that this refers to potential mobile broadband subscriptions and not active subscriptions. *If countries use a different definition of broadband, this should be indicated in a note.





## Mobile cellular network (2)


Indicator code and title	Short	Long	ITU Definition (changes in <b>bold</b> )
271land Percent coverage of mobile cellular network (land area)	No	No	Proportion of total mobile cellular coverage of the land area in percent. This is calculated by dividing the land area covered by a mobile cellular signal by the total land area.
271pop Percentage of the population covered by a mobile cellular telephone network	No	Yes	Mobile cellular coverage of population in percent. This indicator measures the percentage of inhabitants that are within range of a mobile cellular signal, irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants within range of a mobile cellular signal by the total population. Note that this is not the same as the mobile subscription density or penetration. When there are multiple operators offering the service, the maximum amount of population covered should be reported.
<b>271G</b> <b>3G/4G mobile networks coverage (percent of population)</b>	No	Yes	The percent of total population that are covered by at least 3G mobile communication network. This indicator measures the percentage of inhabitants that are within range of at least 3G mobile cellular signal, irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants that are covered by at least 3G mobile cellular signal by the total population. *Note: 3G is defined as IMT-2000 or IMT-advanced.
<b>271pt</b> <b>Ported mobile numbers</b>	No	Yes	Total mobile numbers ported within the year. Number portability is defined as the number of transactions (i.e. one number can be ported several times – transactions).








## Wireless broadband




**Table 1. Active use: several voice and data package scenarios and how they are counted in the methodology**

Type of plan	Voice segment	Data segment	How counted
Stand alone voice	Standard voice subscription	No subscription. Pay as you go data.	Must have active use.
3G dongle/modem subscription	None	Monthly subscription for data	Automatically counted as active.
Bundled voice and limited data	Standard voice subscription	Some data included in monthly subscription	Must have active use because the data plan is not purchased separately.
Bundled voice and unlimited data	Standard voice subscription	Advertised as "unlimited" data in the combined package but data caps are still common.	Must have active use because the data plan is not purchased separately.
Stand alone voice plan where the user subscribes to an add-on data plan	Standard voice subscription	Separate data plan	Automatically counted as active because the user purchased the data plan separately.
Stand alone voice plan where the user buys data credits periodically to fill up the account	Standard voice subscription	No stand-alone data subscription. Only pay-as-you-go credits.	Must have active use because there is no data service purchased separately from voice.
Pre-paid data-only plan using wireless modem	No subscription	No subscription	Must have active use.

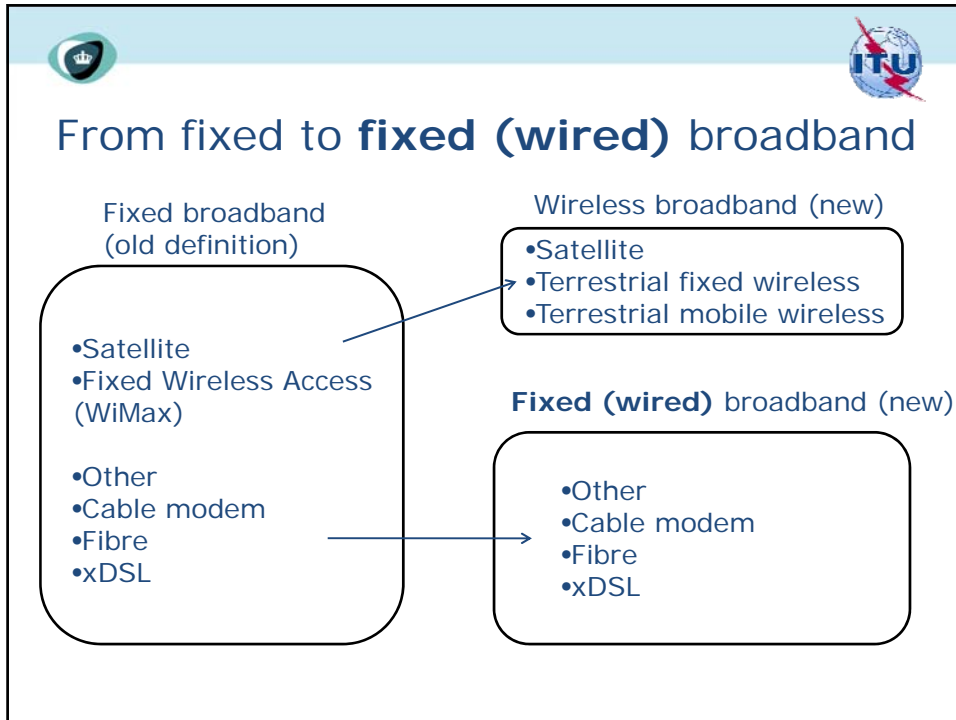
Source: *Wireless Broadband Indicator Methodology*  
OECD, 2009



## Wireless broadband



Indicator code and title	Short	Long	ITU Definition (changes in <b>bold</b> )
<b>271twb</b> <b>Total Wireless broadband subscriptions</b>	Yes	Yes	Sum of satellite, terrestrial fixed wireless and terrestrial mobile wireless subscriptions. (271s + 271fw + 271mw)
<b>271s</b> <b>Satellite subscriptions</b>	No	Yes	The number of satellite Internet subscriptions with advertised download speeds of at least 256 kbit/s.
<b>271fw</b> <b>Terrestrial fixed wireless subscriptions</b>	No	Yes	The number of terrestrial fixed wireless subscriptions with advertised download of at least 256 kbit/s. <b>This could also include fixed WiMax</b> and fixed wireless subscriptions and excludes occasional users at hotspots etc.).
<b>271mw</b> <b>Terrestrial mobile wireless subscriptions</b>	No	Yes	Sum of active mobile broadband subscriptions and dedicated mobile data subscriptions. (271mb_use + 271md).
<b>271mb_use</b> <b>Standard mobile subscriptions with use of data communications at broadband speeds</b>	No	Yes	Standard mobile subscriptions (only included with active use): Includes mobile subscriptions with advertise data speeds of 256 kbit/s or greater and which have been used to make an Internet data connection via IP in the previous 3 months. To be counted, the subscription must allow access to the greater Internet via HTTP and must have been used to make a data connection using the Internet Protocol in the previous three months. Standard SMS and MMS messaging do not count as an active Internet data connection even if they are delivered via IP.
<b>271md</b> <b>Dedicated mobile data subscriptions</b>	No	Yes	Subscriptions to dedicated data services over a mobile network which are purchased separately from voice services either as a stand-alone service (modem/dongle) or as an add-on data package to voice services which requires an additional subscription. All dedicated mobile data subscriptions with recurring subscription fees are included as "active data subscriptions" regardless of actual use. Pre-paid mobile broadband plans require active use if there is no monthly subscriptions. <b>This could also include mobile WiMax subscriptions.</b>



Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
4213	Total fixed (wired) Internet subscriptions	Yes	Yes	The number of total Internet subscriptions with fixed (wired) Internet access, which includes dial-up and total fixed (wired) broadband subscriptions. Only active subscriptions that have used the system within the past 3 months should be included.
4213d	Dial-up Internet subscriptions	No	No	Number of Dial-up Internet subscriptions. Dial-up is a connection to the Internet via a modem and fixed telephone line, which requires that the modem dial a phone number when Internet access is needed. Only active subscriptions who used the system during the past three months should be included.
4212	Estimated Internet users	Yes	Yes	The estimated number of Internet users <b>out of total population. This includes those using the Internet from any device (including mobile phones) in the last 12 months.</b> A growing number of countries are measuring this through <b>household</b> surveys. In countries where household surveys are available, this estimate should correspond to the estimated number derived from the percentage of Internet users collected. (If the survey covers percentage of the population for a certain age group (e.g., 15-74 years old, the estimated number of Internet users should be derived using this percentage, and <b>note indicating the scope and coverage of the survey should be provided</b> ). In situations where surveys are not available, an estimate can be derived based on the number of Internet subscriptions.
4212f	Percent female Internet users	No	Yes	Share of females in the estimated number of Internet users. This is calculated by dividing the number of female Internet users by the total number of Internet users and multiplied by 100.
4212f% <sub>f</sub>	Female Internet users as percent of female population	No	Yes	Share of female Internet users in the total number of females. This is calculated by dividing the number of female Internet users by the total number of females and multiplied by 100.

Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
424	PWLAN access points	No	No	The number of <i>Public Wireless Local Area Network (PWLAN) access points</i> (i.e., <i>hotspots</i> ). PWLANs are based on the <b>IEEE 802.11</b> standard, commonly referred to as WiFi.
4214	International Internet bandwidth (Mbit/s)	Yes	Yes	Total capacity of international Internet bandwidth in Mega Bits Per Second (Mbit/s). If capacity is asymmetric (i.e., more incoming than outgoing), the incoming capacity should be provided. <b>This is measured as the sum of capacity of all Internet exchanges offering international bandwidth.</b>
4212og	International Outgoing Internet bandwidth (Mbit/s)	No	No	Total outgoing capacity of international Internet bandwidth in Mega Bits Per Second. <b>This is measured as the sum of capacity of all Internet exchanges offering international bandwidth.</b>
4212ic	International Incoming Internet bandwidth (Mbit/s)	No	No	Total incoming capacity of international Internet bandwidth in Mega Bits Per Second. <b>This is measured as the sum of capacity of all Internet exchanges offering international bandwidth.</b>
4214d	Domestic Internet bandwidth	No	Yes	Total capacity of domestic Internet bandwidth in Mega Bits Per Second (Mbit/s). If capacity is asymmetric (i.e., more download than upload), the download capacity should be provided.
4212di	Domestic download Internet bandwidth	No	No	Total <b>download</b> capacity of domestic Internet bandwidth in Mega Bits Per Second.
4114do	Domestic upload Internet bandwidth	No	No	Total <b>upload</b> capacity of domestic Internet bandwidth in Mega Bits Per Second.

Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
4212fbb	Total fixed <b>(wired)</b> broadband Internet subscriptions	Yes	Yes	Total fixed <b>(wired)</b> broadband Internet subscriptions refers to subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or greater than, 256 kbit/s. <b>This can include for example cable modem, DSL, fibre-to-the-home/building and other fixed (wired) broadband subscriptions.</b> This total is measured irrespective of the method of payment. It excludes subscriptions that have access to data communications (including the Internet) via mobile cellular networks. If countries use a different definition of broadband, this should be indicated in a note. It should exclude technologies listed under wireless broadband category.
4213cab	Cable modem Internet subscriptions	Yes	Yes	The number of Internet subscriptions using cable modem (modems attached to cable television networks) services to access the Internet, at downstream speeds greater than, or equal to, 256 kbit/s. If subscriptions to lower speed cable modem services cannot be excluded this should be indicated in the note.
4213dsl	DSL Internet subscriptions	Yes	Yes	The number of Internet subscriptions using Digital Subscriber Line (DSL) services to access the Internet (at downstream speeds greater than or equal to 256 kbit/s). DSL is a technology for bringing high-bandwidth information to homes and small businesses over ordinary copper telephone lines. If subscriptions to lower speed DSL services cannot be excluded this should be indicated in the note. <b>It should exclude VDSL subscriptions if these are included in fibre-to-the-home/building subscriptions.</b>
4213fthb	<b>Fibre-to-the-home/building</b>	Yes	Yes	The number of Internet subscriptions using fibre to the home or fibre to the building with downstream speeds equal to, or greater than, 256 kbit/s. This should include subscriptions where fibre goes directly to the subscribers premises or fibre to the building subscriptions which terminate no more than 2 meters from an external wall of the building. Fibre to the cabinet and fibre to the node are excluded.
4213ftcn	<b>Fibre to the cabinet/node</b>	No	No	The number of Internet subscriptions using fibre to the node (typically a cabinet), and another access medium (e.g. copper with VDSL technology) to the subscribers, with downstream speeds equal to, or greater than, 256 kbit/s. (Under discussion)
4213ob	Other fixed <b>(wired)</b> broadband Internet subscriptions	No	Yes	Internet subscriptions using other fixed <b>(wired)</b> broadband technologies to access the Internet (other than DSL, cable modem, and fibre) with downstream speeds equal to, or greater than, 256 kbit/s. This includes technologies such as powerline* communications, etc. It would exclude those users of temporary broadband access (e.g., roaming between WLAN hotspots), and those with Internet access via mobile cellular networks. <b>WiMax should be excluded.</b> *Powerline subscriptions refer to subscriptions using broadband over power line services (BPL) to access the Internet (at downstream speeds greater than or equal to 256 kbit/s).

Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
4213_256to2	<b>256kbps to less than 2Mbps subscriptions</b>	No	Yes	All fixed (wired) broadband Internet subscriptions with advertised downstream speeds equal to, or greater than, 256 kbit/s and less than 2Mbps.
4213_2to10	<b>2 Mbps to less than 10 Mbps subscriptions</b>	No	Yes	All fixed (wired) broadband Internet subscriptions with advertised downstream speeds equal to, or greater than, 2 mbps and less than 10 Mbps.
4213_G10	<b>Above 10Mbps</b>	No	Yes	All fixed (wired) broadband Internet subscriptions with advertised downstream speeds equal to, or greater than 10 Mbps.
4213_10to100	<b>10 Mbps to less than 100 Mbps subscriptions</b>	No	No	All fixed (wired) broadband Internet subscriptions with advertised downstream speeds equal to, or greater than, 10 mbps and less than 100 Mbps.
4213_100to1G	<b>100 Mbps to less than 1Gbps subscriptions</b>	No	No	All fixed (wired) broadband Internet subscriptions with advertised downstream speeds equal to, or greater than, 100 mbps and less than 1 Gbps.
4213_G1GB	<b>Above 1Gbps subscriptions</b>	No	No	All fixed (wired) broadband Internet subscriptions with advertised downstream speeds equal to, or greater than, 1Gbps.

Indicator code and title	Short	Long	ITU Definition (changes in <b>bold</b> )
1311m Local fixed <b>to fixed</b> telephone traffic (minutes)	No	<b>No</b>	Local fixed telephone traffic consists of effective (completed) fixed telephone line voice traffic exchanged within the local charging area in which the calling station is situated. This is the area within which one subscriber can call another on payment of the local charge (if applicable). This indicator should be reported in the number of minutes. This should exclude minutes used for dial-up Internet access.
<b>1312m</b> <b>Long distance fixed to fixed</b> telephone traffic (minutes)	No	<b>No</b>	Long distance fixed telephone voice traffic exchanged with a station outside the local charging area of the calling station. The indicator should be reported as the number of minutes of traffic. This should exclude minutes used for dial-up Internet access.
131m Domestic fixed <b>to fixed</b> telephone traffic	No	<b>Yes</b>	Domestic fixed telephone traffic consists of completed local (1311m) and long-distance fixed telephone voice traffic (1312m). The indicator should be reported as the number of minutes of traffic. This should exclude minutes used for dial-up Internet access.
1313wm Fixed telephone lines to mobile networks traffic (minutes)	No	<b>Yes</b>	Total minutes from the fixed telephone network to the mobile cellular network within the country.
1311im Internet Dial-up traffic (minutes)	No	No	The total volume in minutes of dial-up sessions over the public switched telephone network to access the Internet.
132mb International incoming and outgoing fixed telephone traffic (minutes)	No	<b>No</b>	Sum of international incoming and outgoing fixed traffic (132m+132mi).
132m International outgoing fixed telephone traffic (minutes)	No	Yes	This covers the effective (completed) fixed telephone voice traffic originating in a given country to destinations outside that country. <b>This should include traffic to mobile phones.</b> The indicator should be reported in number of minutes of traffic.
132mi International incoming fixed telephone traffic (minutes)	No	Yes	Effective (completed) fixed telephone voice traffic originating outside the country with a destination inside the country. The indicator should be reported in number of minutes of traffic.

Indicator code and title	Short	Long	ITU Definition (changes in <b>bold</b> )
<b>133wm</b> <b>Domestic mobile telephone traffic</b> (minutes)	No	Yes	Total number of minutes made by mobile subscribers within a country (including minutes to fixed telephone and minutes to mobile phone subscribers) (133wm = 1331wm + 1332wm + 1332wmf).
1331wm Outgoing mobile minutes to same mobile network	No	No	Number of minutes made by mobile subscribers to the same mobile network (within the country).
1332wm Outgoing mobile minutes to other mobile networks	No	No	Number of minutes made by mobile subscribers to other mobile networks (within the country).
1332wmf Outgoing mobile minutes to fixed networks	No	<b>Yes</b>	Number of minutes made from mobile cellular network to fixed networks within the country.
1333wm Outgoing mobile minutes to international	No	Yes	Number of mobile minutes originating in a country to destinations outside that country to any destination.
1335wm Incoming international minutes to mobile network	No	Yes	Number of incoming minutes (fixed and mobile) received by mobile networks from another country.
1334wm Roaming minutes outside of home network ( <b>outbound roaming</b> )	No	No	Total minutes made and received by own customers in foreign networks (outbound roaming). Retail international roaming minutes from own network subscribers roaming on foreign networks abroad. Excludes minutes from foreign of non-national users who are not subscribers to domestic mobile networks and are temporarily roaming on domestic mobile networks.
1336wm Roaming minutes by foreign subscribers ( <b>inbound roaming</b> )	No	No	Total number of minutes made by visiting (foreign) subscribers when making and receiving calls within a country (inbound roaming).

Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
133sms	SMS sent	No	Yes	Total number of mobile Short Message Service (SMS) sent, both to national and international destinations. <b>This should exclude messages sent by computers to mobile or to computers.</b>
133smsi	SMS international	No	Yes	Total number of mobile Short Message Service (SMS) sent to international destinations. <b>This should exclude messages sent by computers to mobile or to computers.</b>
133	MMS sent	No	Yes	Total number of mobile Multimedia Messaging Service (MMS) sent, both to national and international destinations. <b>This should exclude messages sent by computers to mobile or to computers.</b>
133rm	Number of countries with which there is a roaming agreement.	No	<b>No</b>	Total number of countries, with which there is a roaming agreement. If there are several operators with a different number of roaming agreements, the total number of countries with roaming agreement. For example, if operator 'A' has agreement with country '1', '2', '3', '4', and '5' where as operator 'B' has agreement with country '1', '6', and '7'. The total number of countries with which there is a roaming agreement should be '7'.
132tb	International incoming and outgoing total telephone traffic (minutes)	No	<b>No</b>	Sum of international incoming and outgoing fixed and mobile traffic (132t+132ti).
132t	International outgoing total telephone traffic (minutes)	No	Yes	This covers the effective (completed) international outgoing minutes originating from national networks, fixed and mobile, including managed VoIP. The indicator should be reported in terms of number of minutes of traffic (132m+1333wm).
132ti	International incoming total telephone traffic (minutes)	No	Yes	Effective (completed) International incoming minutes originating outside the country and terminated in national networks, fixed and mobile, without transit, and including managed VoIP. The indicator should be reported in terms of number of minutes of traffic. (132mi+1335wm).
131VoIP	VoIP minutes	No	Yes	Calls using managed fixed Voice over Internet Protocol telephony. A managed VoIP service means a publicly available telephone service provided using VoIP for call origination whereby the operator controls the quality of service provided. This variable specifies the total VoIP traffic (national and international). It should exclude traffic exchanged using software-based VoIP.
133i	Mobile Internet traffic	No	No	Total amount of data traffic (excluding SMS and MMS) for the past year from all mobile networks. (Under discussion)

Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
151	Installation fee for residential telephone service	No	Yes	Installation (or connection) refers to the one-off charge involved in applying for residential basic telephone service. Where there are different charges for different exchange areas, the charge for the largest urban area should be used and specified in a note. Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.
152	Monthly subscription for residential telephone service	No	Yes	Monthly subscription refers to the recurring fixed charge for subscribing to <b>postpaid</b> PSTN service. The charge should cover the rental of the line, but not the rental of the terminal (e.g., telephone set) where the terminal equipment market is liberalized. Separate charges should be stated where appropriate, for first and subsequent lines. If the rental charge includes any allowance for free or reduced rate call units, this should be indicated. If there are different charges for different exchange areas, the largest urban area should be used and specified in a note. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
153	Price of a 3-minute fixed telephone local call (peak rate)	No	Yes	Local call refers to the cost of a peak rate 3-minute call including the call set-up charges if applicable, within the same exchange area using the subscriber's own terminal (i.e., not from a public telephone). <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
1530	Price of a 3-minute fixed telephone local call (off-peak rate)	No	Yes	Local call refers to the cost of a off peak rate 3-minute call including the call set-up charges if applicable, within the same exchange area using the subscriber's own terminal (i.e., not from a public telephone). <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
151b	Installation fee for business telephone service	No	Yes	Installation (or connection) refers to the one-off charge involved in applying for business basic telephone service. Where there are different charges for different exchange areas, the charge for the largest urban area should be used and specified in a note. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
152b	Monthly subscription for business telephone service	No	Yes	Monthly subscription refers to the recurring fixed charge for subscribing to a <b>postpaid</b> PSTN service. The charge should cover the rental of the line but not the rental of the terminal (e.g., telephone set) where the terminal equipment market is liberalized. Separate charges should be stated where appropriate, for first and subsequent lines. If the rental charge includes any allowance for free or reduced rate call units, this should be indicated. If there are different charges for different exchange areas, the largest urban area should be used and specified in a note. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
153tm	International telephone call prices	No	No	This is the cost of a fixed 3-minute directly dialled (i.e., without operator intervention) call originating within the country to another country. The rate should be supplied for peak rate time calls and off-peak (discount) rate calls (if applicable). The cost should be reported in national currency, with a statement on what taxes are applied. International tariffs to all countries should be provided. <b>Taxes should be included.</b>



Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
151c	Mobile cellular <b>postpaid</b> connection charge	No	No	The initial, one-time charge for a new postpaid subscription. Refundable deposits should not be counted. Although some operators waive the connection charge, this does not include the cost of the Subscriber Identity Module (SIM) card. The price of the SIM card should be included in the connection charge. It should also be noted if free minutes or free SMS are included in the connection charge. <b>Taxes should be included. If not included, it should be specified in a note including the tax rate applicable.</b>
151p	Mobile cellular <b>prepaid</b> connection charge	No	Yes	The initial, one-time charge for a new subscription. Refundable deposits should not be counted. Although some operators waive the connection charge, this does not include the cost of the Subscriber Identity Module (SIM) card. The price of the SIM card should be included in the connection charge ( <b>for a prepaid service the cost of SIM is equivalent to connection charge</b> ). It should also be noted if free minutes or free SMS are included in the connection charge. <b>Taxes should be included. If not included, it should be specified in a note including the tax rate applicable.</b>
	Mobile cellular - cheapest recharge card value	No	No	Refers to the cheapest available prepaid recharge card. <b>Please indicate how many equivalent minutes or SMS messages can be used out of the recharge card. Taxes should be included. If not included, it should be specified in a note.</b>
	Mobile cellular monthly subscription charge	No	No	The monthly subscription charge for mobile cellular service. Due to the variety of plans available in many countries, it is preferable to use the tariff with the cheapest initiation/connection charge. If prepaid services are used (for those countries that have more prepaid than post-paid subscribers), the monthly subscription charge would be zero. If the plan includes free minutes <b>and/or free SMS</b> , this should be put in a note. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
153c	Mobile cellular <b>prepaid</b> - price of 3-minute local call (peak, <b>on-net</b> )	No	No	The price of a three minute peak rate call from a mobile <b>cellular prepaid</b> telephone to a mobile cellular subscriber of the same network. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
153pn	Mobile cellular prepaid – price of local call per minute (peak, on-net)	No	Yes	The price per minute of a peak rate call from a mobile cellular prepaid telephone to a mobile cellular subscriber of the same network. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>

Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
153po	Mobile cellular prepaid – price of local call per minute (peak, off-net)	No	Yes	The price per minute of a peak rate call from a mobile cellular prepaid telephone to a mobile cellular subscriber of another (competing) network. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
153pf	Mobile cellular prepaid – price of local call per minute (peak, to fixed)	No	Yes	The price per minute of a peak rate call from a mobile cellular prepaid telephone to a fixed telephone subscriber. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
153co	Mobile cellular <b>prepaid</b> - price of 3-minute local call (off-peak, <b>on-net</b> )	No	No	The price of a three minute off-peak rate local call from a mobile <b>cellular prepaid</b> telephone to a mobile cellular subscriber of the same network. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
153pon	Mobile cellular prepaid – price of local call per minute (off-peak, on-net)	No	Yes	The price per minute of an off-peak rate call from a mobile cellular prepaid telephone to a mobile cellular subscriber of the same network. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
153poo	Mobile cellular prepaid – price of local call per minute (off-peak, off-net)	No	Yes	The price per minute of an off-peak rate call from a mobile cellular prepaid telephone to a mobile cellular subscriber of another (competing) network. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
153pof	Mobile cellular prepaid – price of local call per minute (off-peak, to fixed)	No	Yes	The price per minute of a off-peak rate call from a mobile cellular prepaid telephone to a fixed telephone subscriber. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
153pwn	Mobile cellular prepaid – price of local call per minute (weekend/evening, on-net)	No	Yes	The price per minute of a weekend/evening rate call from a mobile cellular prepaid telephone to a mobile cellular subscriber of the same network. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>

Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
153pwo	Mobile cellular prepaid – price of local call per minute (weekend/evening, off-net)	No	Yes	The price per minute of a weekend/evening rate call from a mobile cellular prepaid telephone to a mobile cellular subscriber of another (competing) network. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
153pwf	Mobile cellular prepaid – price of local call per minute (weekend/evening, to fixed)	No	Yes	The price per minute of a weekend/evening rate call from a mobile cellular prepaid telephone to a fixed telephone subscriber. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
153psms	Mobile cellular <b>prepaid</b> -price of SMS (On_net)	No	Yes	Price of sending a Short Message Service (SMS) message from a mobile <b>cellular prepaid</b> handset to a mobile cellular subscriber of the same network. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
153sms_po	Mobile cellular <b>prepaid</b> -price of SMS (off-net)	No	Yes	Price of sending a Short Message Service (SMS) message from a mobile cellular prepaid telephone to a mobile cellular subscriber of another (competing) network. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>



Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
4213c	Dial-up Internet connection charge	No	No	The initial, one-time charge for a new dial-up Internet connection. Refundable deposits should not be counted. <b>Taxes should be included. If not included, it should be specified in a note.</b>
4213s	Dial-up Internet monthly	No	No	The monthly subscription charge for dial-up Internet service. <b>Taxes should be included. If not included, it should be specified in a note.</b> The note should also specify the amount of free monthly hours included if applicable.
4213p	Dial-up Internet - price of per minute (peak) connection	No	No	Cost of per minute (peak) connection once the free Internet hours included in the dial-up subscription are used up. <b>Taxes should be included. If not included, it should be specified in a note.</b>
4213po	Dial-up Internet - price of per minute (off-peak) connection	No	No	Cost of per minute (off-peak) connection once the free Internet hours included in the dial-up subscription is used up. <b>Taxes should be included. If not included, it should be specified in a note.</b>
4213bc	Fixed (Wired) broadband Internet connection charge	No	Yes	The initial, one-time charge for a new fixed (wired) broadband Internet connection. The tariffs should represent the cheapest fixed (wired) broadband entry plan. Refundable deposits should not be counted. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
4213bs	Fixed (Wired) broadband Internet monthly subscription	No	Yes	The monthly subscription charge for fixed (wired) broadband Internet service. Fixed (wired) broadband is considered any dedicated connection to the Internet at downstream speeds equal to, or greater than, 256 kbit/s, using DSL. Where several offers are available, preference should be given to the 256 kbit/s connection. <b>Taxes should be included. If not included, it should be specified in a note including the applicable tax rate.</b>
4213bs_s	Fixed (Wired) broadband speed (Mbits)	No	Yes	Fixed (wired) broadband speed (Mbits) represents the advertised maximum theoretical download speed and not speeds guaranteed to users.
4213bs_c	Fixed (Wired) broadband_Cap	No	Yes	Maximum amount of data (Gigabytes) that can be transferred within a month that is included in the fixed (wired) broadband subscription.
4213bs_cp	Fixed (Wired) broadband_Price Cap+	No	Yes	Price per additional data downloaded (Gigabytes) once the monthly allotted limit of the fixed (wired) broadband subscription is used.



## Quality of service

Indicator code and title	Short	Long	ITU Definition (changes in <b>bold</b> )
123 Waiting list for <b>fixed</b> lines	No	<b>No</b>	Un-met applications for connection to the Public Switched Telephone Network (PSTN) due to a lack of technical facilities (equipment, lines, etc.). The waitlist should reflect the total number reported by all PSTN service providers in the country.
143 Faults per 100 <b>fixed</b> lines per year	No	Yes	The total number of reported faults to fixed telephone lines for the year. Faults, which are not the direct responsibility of the public telecommunications operator, should be excluded. This is calculated by dividing the total number of reported telephone faults <i>for the year</i> by the total number of fixed lines in operation and multiplied by 100. The number of faults per 100 fixed lines per year should reflect the total reported by all PSTN service providers in the country.
141 Percent of <b>fixed</b> telephone faults cleared by next working day	No	Yes	Percentage of PSTN faults reported that have been corrected by the end of the next working day (i.e., not including non-working days, e.g., weekends, holidays). The percent of fixed telephone faults cleared by next working day should reflect the total number across all PSTN service providers in the country.

## Staff

Indicator code and title	Short	Long	ITU Definition (changes in <b>bold</b> )
51 Total full-time telecommunication staff	No	Yes	Total full-time staff employed by telecommunication network operators in the country for the provision of public telecommunication services, including fixed, mobile and Internet services. <b>This should include all operators (both network and virtual operators) offering services within the country.</b> This should exclude staff working in national broadcasting networks if offering only the traditional broadcasting services. Part-time staff should be expressed in terms of the full-time staff equivalent.
51f Female telecommunication staff	No	Yes	The number of full-time telecommunication staff that are female.
51fp Female professional telecommunication staff	No	No	The number of full-time professional staff that are female. Professional staff is those included in ISCO-88 group 2.
51w Mobile telecommunication staff	No	<b>No</b>	Total number of staff employed by mobile cellular network operators. This refers to mobile operators' staff only, and not staff employed by resellers. <b>In cases where it is difficult to separate the exact number of staff working on mobile services, please provide an estimate.</b>
51wf Female mobile telecommunication staff	No	<b>No</b>	Total number of female staff employed by mobile cellular network operators. This refers to mobile operators' staff only, and not staff employed by resellers.
51wfp Female professional mobile telecommunication staff	No	<b>No</b>	Total number of professional female staff employed by mobile cellular network operators. This refers to mobile operators' staff only, and not staff employed by resellers. Professional staff is those included in ISCO-88 group 2.
51_ISP <b>Total staff employed by Internet Service Providers (ISPs)</b>	No	No	Full time staff employed by Internet Service Providers (ISP). Part-time staff should be expressed in terms of full-time staff equivalents. In cases where it is difficult to separate the exact number of staff working on Internet services, please provide an estimate. Both wired and wireless Internet service providers should be included.

Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
75	Total revenue from all telecommunication services	No	Yes	This is the total (gross) telecommunication revenue earned from all (fixed, mobile and data including Internet) <b>operators (both network and virtual operators)</b> offering services within the country. This should exclude revenues from non-telecommunications services. Revenue (turnover) consists of telecommunication service earnings during the financial year under review. This should refer to actual revenues earned by retailers and not from wholesale. Revenue should not include monies received in respect of revenue earned during previous financial years, neither does it include monies received by way of loans from governments, or external investors, nor monies received from repayable subscribers' contributions or deposits. Revenues should be net of royalties. <b>It should exclude revenues generated from traditional broadcasting.</b>
71	Revenue from fixed telephone services	No	Yes	Revenues from fixed telephone services includes: Revenue received for the connection (installation) of telephone service (this may include charges for transferring or cancelling a service); Revenues from recurring charges for subscription to telephone (and broadband and Internet access if can not be separated from fixed telephone) including equipment rentals where relevant; and Revenue from calls (local, national and international calls).
711	Revenue from fixed telephone connection charges	No	No	Revenue received for connection (installation) of fixed telephone service. This may include charges for transfer or cessation of service.
712	Revenue from fixed telephone subscription charges	No	No	Revenues from recurring charges for subscription to the PSTN including equipment rentals where relevant.
713	Revenue from fixed telephone calls	No	No	The sum of income from local, national long distance and international calls.
7131	Revenue from <b>fixed</b> local calls	No	No	Revenue from fixed local calls based on applicable retail charges on users.
7132	Revenue from <b>fixed</b> national long distance calls	No	No	Revenue from fixed national long distance calls based on applicable retail charges on users.
7133	Revenue from <b>fixed</b> international calls	No	No	Revenue from fixed international calls based on applicable retail charges on users.
741	Revenue from mobile networks	No	Yes	Revenues from the provision of mobile cellular communications services including all voice and data (narrowband and broadband) services. <b>This should refer to actual revenues earned by retailers and not from wholesale.</b>



Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
76o	Revenue from outbound roaming	No	No	Roaming revenues from own mobile subscribers that make and receive calls when outside the country (outside home network), e.g. when travelling abroad.
76i	Revenue from inbound roaming	No	No	Roaming revenues from visiting (foreign) subscribers that make and receive calls within the country. These revenues are obtained by network operators within the country from network operators of visiting subscribers.
741d	Mobile data revenues	No	<b>No</b>	Revenues from mobile data services such as text messaging (SMS), multimedia messaging (MMS), data and Internet services.
741m	Text and multimedia messaging revenues	No	<b>No</b>	Revenues from text messaging and multimedia messaging (SMS and MMS).
731	Revenue from data services	No		Revenues from all data services such as data communications (e.g., packet switching) and Internet access (including revenues generated from mobile broadband subscriptions and usage) but not telegram or telex.
7311	Revenue from Internet services	No	<b>No</b>	Revenues from the provision of fixed Internet services such as subscriptions, traffic and data communication. It should exclude the provision of access lines used to connect to fixed Internet (such as fixed telephone line used to access DSL connection).
7311_fb	<b>Revenue from fixed broadband services</b>	No	No	Revenues from the provision of high-speed (at least 256 kbps) data connectivity and related services over fixed (wired) infrastructure.
7311_wb	<b>Revenue from wireless broadband services</b>	No	No	Revenues from the provision of high-speed (at least 256 kbps) data connectivity and related services over wireless infrastructure.
732	Revenue from leased lines	No	Yes	Revenue from the provision of leased lines. <b>This should refer to actual revenues earned by retailers and not from wholesale.</b>
733	Revenue from fixed value-added telecommunication services	No	No	Represents the revenue generated by the telecommunication service sector for fixed value-added telecommunication services (for example, call forwarding, conference call, detailed billing etc)
74	Other telecommunication revenues	No	No	Any other revenues not accounted for elsewhere for the provision of public telecommunication services. Respondents should indicate in a note what the main sources of "other" telecommunications revenues are. This should refer to actual revenues earned by retailers and not from wholesale.

Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
81	Total annual investment in telecom	No	Yes	Also referred to as annual <i>capital expenditure</i> , this is the gross annual investment in telecom (including fixed, mobile and Internet services) for acquiring property and network. <b>This should include all operators (both network and virtual operators) offering services within the country.</b> The term investment means the expenditure associated with acquiring the ownership of property (including intellectual and non-tangible property such as computer software) and plant by the operator. This includes expenditure on initial installations and on additions to existing installations where the usage is expected to be over an extended period of time. Note that this applies to telecom services that are available to the public, and excludes investment in telecom software or equipment for internal use. <b>Excludes expenditures on research and development and fees for operating licenses and for the use of radio spectrum.</b>
811	Non-tangible investment			This should include all operators (both network and virtual operators) offering services within the country. This is investment associated with acquiring non-tangible property such as computer software and licenses by the operator. Note that this applies to telecom services that are available to the public, and excludes investment in telecom software or equipment for internal use.
83	Fixed telephone service investment	No	Yes	Annual investment in fixed telephone service for <b>acquiring property and network</b> within the country.
87	Fixed (wired) broadband investment	No	Yes	Annual investment in fixed (wired) broadband service for <b>acquiring property and network</b> within the country.
841m	Mobile communication investment	No	Yes	Annual investment in mobile telephone service for <b>acquiring property and network</b> within the country. It should include investments made for mobile broadband services.
841f	Foreign investment	No	Yes	Annual investment in telecom (for fixed, mobile and Internet) services coming from foreign sources, also referred to as Foreign Direct Investment (FDI). This is usually collected by national banks as part of the Balance of Payments.
88	<b>Total investment in pay TV services</b>	No	No	<b>Annual investment for acquiring property and equipment for the provision of pay TV (cable, DTH, MMDS or other) services. The term investment means the expenditure associated with acquiring the ownership of property (including intellectual and non-tangible property such as computer software) and plant by the operator. This includes expenditure on initial installations and on additions to existing installations where the usage is expected to be over an extended period of time. This term is also referred to as capital expenditure. (Under discussion)</b>

Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
				A locality is defined as a distinct population cluster, that is, the population living in neighboring buildings which either: <b>(a) form a continuous built-up area with a clearly recognizable street formation; or</b> <b>(b) though not part of such a built-up area, form a group to which a locally recognized place name is uniquely attached; or</b> <b>(c) though not coming within either of the above two requirements constitute a group, none of which is separated from its nearest neighbor by more than 200 metres.</b>
PIAC5	Total number of public Internet access centres (PIAC)	No	No	Refers to the total number of public Internet access centres (PIAC). A PIAC is a site, location, or centre of instruction at which Internet access is made available to the public, on a full-time or part-time basis. This may include telecentres, digital community centres, Internet cafés, libraries, education centres and other similar establishments, whenever they offer Internet access to the general public. All such centres should have at least one public computer for Internet access.
PIAC6	Total number of Digital Community Centres (DCC)	No	No	Refers to the total number of a nation's Digital Community Centres (DCC). A DCC is a place where the public can access Internet services from terminal facilities placed at their disposal. A DCC is an undertaking based on a government framework for universal access. It should offer equitable, universal and affordable access. A DCC is a sub-category of a PIAC but there are some minimum requirements for a public Internet access centre (PIAC) to be considered a DCC. Every DCC should have at least one computer and one printer and a minimum connection speed of 64 kbit/s per centre to the Internet Service Provider (ISP). DCC users should also be provided with support and maintenance and it should be opened a minimum of 20 hours per week.
PIAC7	Total number of other public Internet access centres (PIAC)	No	No	Refers to the total number of other public Internet access centres (not PIACs and not DCCs). Other PIACs include cybercafés. Education Centres may be classified as a DCC or a PIAC, depending on the conditions they satisfy.
PIAC3	Number of localities with public Internet access centres (PIAC)	No	No	Refers to all localities (a nation's villages, towns, and cities) that have at least one public Internet access centre (PIAC). A PIAC is a site, location, or centre of instruction at which Internet access is made available to the public, on a full-time or part-time basis.



Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
PIAC1	Percentage of localities with public Internet access centres (PIAC)	No	Yes	A public Internet access centre (PIAC) is a site, location, centre of instruction at which <b>broadband</b> Internet access is made available to the public, on a full-time or part-time basis. This may include telecentres, digital community centres, Internet cafés, libraries, education centres and other similar establishments, whenever they offer Internet access to the general public. All such centres should have at least one public computer for Internet access. The percentage of localities with public Internet access centres (PIACs) is computed by dividing the number of localities with at least one PIAC by the total number of the country's localities and multiplying by 100. The indicator should be broken down by range (number) of inhabitants. This indicator will be used to measure the WSIS target "to connect villages with ICTs and establish community access points" by 2015.
PIAC2	Percentage of the population with access to a public Internet access centre (PIAC)	No	Yes	Measures the number of inhabitants enjoying PIAC coverage as a proportion of the country's total population. When a locality (village, town, city, etc.) has at least one PIAC, then the entire population living in this locality is considered to be served by that PIAC.
PIAC4	Target population for DCC (Digital Community Centres) services	No	No	Refers to the potential population (the potential population refers to anyone of age 6 years or more) minus the number of non-community Internet users (non-community Internet users are those citizens that have Internet access from a point different from a PIAC, for example from at home).
PIAC8	Total number of computers in Digital Community Centres (DCC)	No	No	Refers to the total number of computers available in all Digital Community Centres. A DCC is a place where the public can access Internet services from terminal facilities placed at their disposal. See indicator 36.1 for the definition of a DCC.
PIAC9	Actual Digital Community Centre (DCC) usage percentage	No	No	To calculate the actual DCC usage percentage, countries should divide the actual number of DCC users by the DCC target population (see indicator 36.6 for definition) for DCC services and multiply by 100. A user is defined as a person who accesses the Internet at least once a month.
PIAC10	Terminals installed in Digital Community Centres (DCC)	No	No	Refers to the total number of computers installed in all Digital Community Centres. A DCC is a place where the public can access Internet services from terminal facilities placed at their disposal.
PIAC11	Rural localities with public Internet access centres	No	No	Refers to all rural localities (villages, town, etc of a country) that have at least one community access centre which is a site, centre of instruction at which Internet access is made available to the public, on a full-time or part-time basis. (Since the definition of rural differs between countries, the definition of rural should be provided.)

Indicator code and title		Short	Long	ITU Definition (changes in <b>bold</b> )
955	Number of radio sets	No	No	The total number of radio sets. A radio set is a device capable of receiving broadcast radio signals, using popular frequencies, such as FM, AM, LW and SW. <b>It includes a radio set</b> integrated into another device, such as a Walkman, a car or an alarm clock <b>but excludes radios integrated in a mobile phone or in a computer.</b>
965	Number of TV sets	No	No	The total number of television sets. A television set is a <b>stand-alone</b> device capable of receiving broadcast television signals, using popular access means such as over-the-air, cable and satellite. <b>It excludes TV functionality</b> integrated into another device, such as a computer or a mobile phone. It may be useful to distinguish between digital and analogue signal delivery and between TV sets receiving only a limited number of signals (usually over-the-air) and those that have multiple channels available (e.g., by satellite or cable).
965m	Total number of multi-channel TV subscriptions	No	No	965m=965c+965s.
965c	Number of terrestrial multi-channel TV subscriptions	No	No	Number of terrestrial multi-channel TV such as cable TV, digital terrestrial TV, Microwave Multi-point Distribution systems (MMDS) and Satellite Master Antenna Television (SMATV) subscriptions.
965s	Direct to Home satellite antenna subscriptions	No	No	The number of subscriptions to a home satellite antenna that can receive television broadcasting directly from satellites.
965cp	Homes passed by multi-channel TV	No	No	Number of households that have a multi-channel (both terrestrial and satellite) television connection whether they are subscribing or not.
422	Number of computers	No	No	The number of computers measures the number of computers installed in a country. The statistic includes PCs, laptops, notebooks etc, but excludes terminals connected to mainframe and mini-computers that are primarily intended for shared use, and devices such as smart-phones that have only some, but not all, of the functions of a PC (e.g., they may lack a full-sized keyboard, a large screen, an Internet connection, drives etc) <b>or TV sets.</b>
4213L	Leased line subscriptions	No	Yes	Number of leased line subscriptions. A leased line connects two locations for private voice and/or data telecommunication service. Not a dedicated cable, a leased line is a reserved circuit between two points. Leased lines can span short or long distances. They maintain a single open circuit at all times, as opposed to traditional telephone services that reuse the same lines for many different conversations through a process called "switching." Leased lines most commonly are rented by businesses to connect branch offices, because these lines guarantee bandwidth for network traffic.

## Summary of indicators

Name of group	Indicators in group in total	Indicators in short questionnaire	Indicators in long questionnaire
Fixed telephone network	15	1	11
Mobile cellular network	9	3	6
Internet	12	3	6
Wireless broadband	6	0	6
Fixed (wired) broadband	12	4	8
Traffic	25	0	3
Quality of service	3	0	2
Staff	7	0	2
Revenue	20	0	4
Investment	6	0	5
Community access	12	0	3
Other indicators	8	0	1
<b>Total</b>	<b>135</b>	<b>11</b>	<b>57</b>
Tariffs questionnaire	33		

## Indicators under discussion

**4213fttc/n - Fibre to the cabinet/node**

**133i - Mobile Internet traffic**

**Quality of Service**

- a. Mobile cellular services
- b. Internet
- c. Fixed Telephony

**Tariffs**

- a. Mobile broadband tariffs indicators
- b. Tariffs on converged services

**88 - Total investment in pay TV services**



## Lessons learned

- What worked well?
  - The number of participants and their different backgrounds
  - The duration of the meeting
  - Preparation in forums followed by face-to-face-meetings (for negotiations and difficult indicators)
  - Paper on mobile broadband with examples and diagrams
  - Grouped indicators make it possible to change definitions and still keep time series, as long as the individual indicators are collected separately
  - Grouped indicators also allow countries to report to organisations with different definitions while keeping the same indicators. Such as FWA which can be in both the Fixed bb. category (old) and the wireless bb. category (new).



## Lessons learned

- What could be improved?
  - The amount of indicators discussed or collected
  - Online forums have limitations in terms of reaching agreements
  - Operators and service providers needed to share data compilation experiences



## Recommendations for future work by EGTI

- The mandate of EGTI should continue:
  - It is important that the work of EGTI continues so we can keep harmonizing and discussing indicators that are not yet covered by the current list, such as on converged services, tariffs, Quality of Service.
- A handbook for the data collection will make it easier for NRA's and NSO's to collect the data. Further, the handbook would also increase the comparability of indicators from different countries by having the data collected in a similar manner.



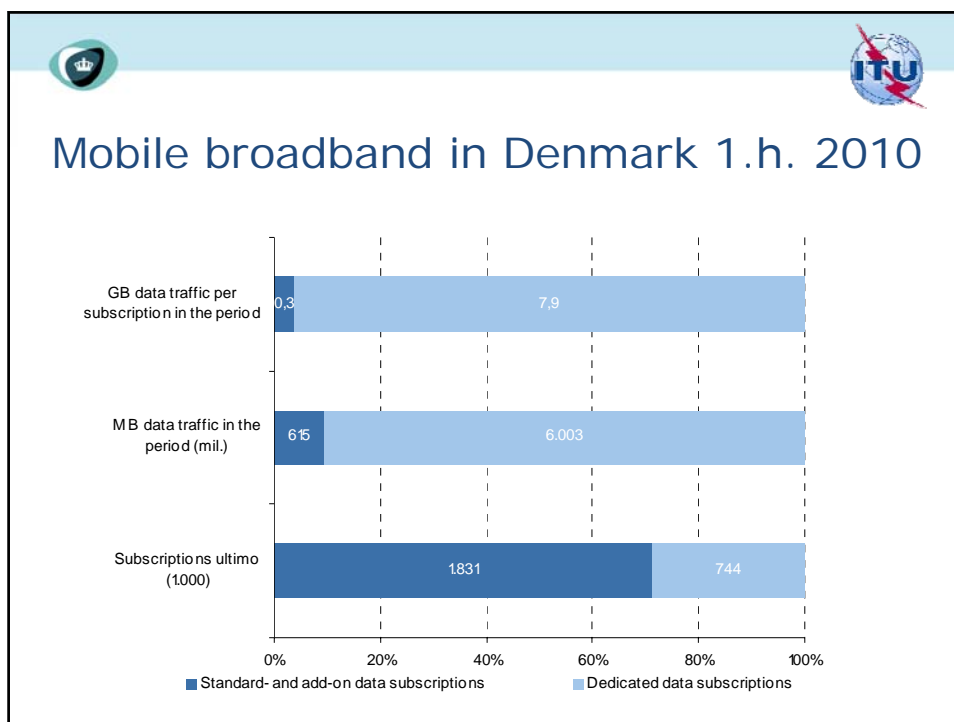
## Recommendations for future work by EGTI

- Operators should be encouraged to become EGTI members.
- Keep EU, OECD, LIRNEasia, Regulate1, and other international organizations in the group as well as members from both developing and developed countries.
  - Share experiences and workload
  - Challenge indicators
  - Develop new indicators together to avoid conflicting indicators
  - Harmonise existing indicators in order to reduce burden of operators, NSO's and NRA's reporting and to increase comparability across organizations



Thank you for your attention.





## Danish definitions of mobile broadband

In the telecom statistics, only mobile broadband subscriptions with an advertised download speed of at least 256 kbps are included.

Mobile broadband subscriptions are divided into three types:

*Standard subscriptions* consist of mobile voice subscriptions from which there have been established an internet connection within the last three months but does not have a separate subscription for data access.

*Add-on data subscriptions* consist of regular mobile subscription which gives the subscriber the possibility of internet traffic at a fixed determined rate. Add-on subscriptions are especially used for smartphones and often include a fixed limit on usage of data for example one or two GB data per month and a given maximum speed.

*Dedicated data subscriptions* consist of data-only mobile broadband subscriptions. Dedicated data subscriptions are often provided with a USB-dongle which the subscriber can use to establish a mobile broadband connection.

