

ITU Multi-Countries Workshop for National Focal Points on ICT Indicators and Measurements

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Telecommunication/ICT indicators
from administrative data sources

Esperanza Magpantay
ICT Data and Statistics Division
Telecommunication Development Bureau
International Telecommunication Union

Exercise

For both years:

('000)	2014	2015
Fixed subscriptions	5,052	5,158
PSTN/ISDN	2,604	2,549
Broadband	1,225	1,294
Pay-TV	1,223	1,315
Mobile cellular	7,598	7,896
Postpaid	2,469	2,925
Prepaid	5,129	4,971

1. Calculate the % mobile prepaid subscriptions out of total mobile cellular subscriptions
2. Provide the number of fixed broadband subscriptions
3. Provide the number of fixed telephone subscriptions

ITU Handbook (cont.)

Groupings:

- Fixed-telephone networks
- Mobile-cellular networks
- Internet
- **Traffic**
- Tariffs
- **Quality of service**
- Persons employed
- **Revenue**
- **Investment**
- Public access
- **Broadcasting indicators**

- Definition
- Clarifications and scope
- Method of collection
- Relationship with other indicators
- Methodological issues
- Examples



Machine to machine subscriptions

- New indicator collected from this year:

mobile-cellular machine-to-machine subscriptions that are assigned for use in machines and devices (cars, smart meters, consumer electronics) for the exchange of data between networked devices, and are not part of a consumer subscription.

For instance, SIM-cards in personal navigation devices, smart meters, trains and automobiles should be included. Mobile dongles and tablet subscriptions should be excluded.

Other indicators

- Mobile-cellular numbers ported
- Fixed-telephone numbers ported



Fixed-broadband subscriptions for organizations

New indicator, collected from this year:

subscriptions contracted by public and private organizations (i.e. non-residential customers) to access the public Internet at a fixed location at downstream speeds greater than, or equal to, 256 kbit/s. This includes cable modem, DSL, fibre-to-the-home/building and fixed wireless broadband technologies.

It excludes residential subscriptions and subscriptions that have access to data communications (including the Internet) via mobile networks.



Active subscriptions to LTE/WiMAX mobile-broadband networks

New indicator, to be collected from next year:

subscriptions that have generated Internet traffic in the last 90 days in LTE/mobile WiMAX and other advanced mobile-broadband networks, such as LTE-Advanced and WirelessMAN.

It excludes subscriptions having generated Internet traffic only in HSPA, UMTS, EV-DO and previous 3G networks, and also excludes fixed WiMAX subscriptions.



Total mobile
subscriptions

Mobile-
broadband
subscriptions

LTE/mobile
WiMAX
subscriptions

Bundled telecommunication services

Definition of bundle

- A bundle is a commercial offer meeting all of the following conditions:
 1. A commercial offer that includes two or more of the following services: fixed telephone, mobile voice, fixed broadband, mobile broadband, pay TV
 2. marketed as a single offer, with a single invoice and with a single price for the set of services included in the bundle
 3. subscribed under conditions that cannot be obtained by adding single play offers together

ITU indicators on bundles

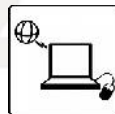
New indicators, collected from this year:



1. Subscriptions to fixed-broadband and fixed-telephone bundles

Subscriptions that include additional telecommunication services – such as triple play subscriptions including fixed telephony, fixed broadband and pay TV – should be excluded

2. Subscriptions to fixed-broadband, fixed-telephone and pay-TV bundles



QoS and traffic indicators

Quality of service (QoS)

- Mobile-cellular services:
 - Mobile-cellular unsuccessful call ratio
 - Mobile-cellular dropped call ratio
- Fixed broadband
 - Service activation time for fixed (wired)-broadband service

Indicator : Mobile-cellular unsuccessful call ratio (i146u)

Definition:

Mobile-cellular unsuccessful call ratio refers to the ratio of **unsuccessful mobile-cellular calls** to the total number of mobile-cellular call attempts in the given year.

An **unsuccessful call** is a call attempt to a valid **number**, while in a coverage area, where neither the call is answered nor called party busy tone nor ringing tone, is recognized at the access of the calling user within 40 seconds from the instant when the last digit of the destination subscriber number is received by the network.

Indicator : Mobile-cellular dropped call ratio (i146d)

Definition:

Mobile-cellular dropped call ratio refers to the proportion of incoming and outgoing mobile-cellular calls which, once they have been correctly established and therefore have an assigned traffic channel, are **dropped or interrupted** prior to their normal completion by the user, the cause of the early termination being within the operator's network.

Service activation time for fixed (wired)- broadband service (in days) (i147t)

Definition:

Service activation time for fixed (wired)-
broadband service refers to **the time from the
date of application to the date of service
activation**. The average service activation time for
all new applications received within the given year
should be provided.

Traffic

- Fixed telephone: domestic, international minutes
- Mobile cellular: domestic, international minutes and SMS
- Data traffic (**1st ITU collection 2013**):
 - Fixed (wired)- broadband Internet traffic (exabytes)
 - Mobile-broadband Internet traffic (inside country)
 - Mobile-broadband Internet traffic (outside, roaming out)

Measured at the end-user access point

Excl. walled-garden, wholesale traffic, IPTV/CATV

Revenue and investment

Methodology

- ITU Handbook
- EGTI reviewed the definitions in 2012
- Chapter 4 in MIS 2012 analysed revenue and investment data
- Input from international organizations



Methodological note



1. Definition of the sector

- International Standard Industrial Classification of All Economic Activities, Rev 4

The sector includes businesses that operate, maintain and provide access to telecommunication networks. Resellers of telecommunication services are also included.

- But ... *activities related to the creation of content are excluded* → Content&media sector

2. Revenues

- Breakdowns: Total / mobile →
- Main issues:

Additional breakdowns not comparable because of \neq revenue allocation

	INCLUDED
Retail revenues from residential customers	YES
Retail revenues from business customers	YES
Wholesale revenues, e.g. interconnection revenues	NO
Revenues from resellers and mobile virtual operators	YES
VAT and excise taxes	NO
Corporate taxes and administrative fees, e.g. numbering fees	YES (not to be deducted from total revenues)
Revenues from device sales and rents	NO
Revenues from added value services, e.g. premium SMS	YES

i75 - Revenue from all telecommunication services (i75)

Revenue from all telecommunication services refers to revenue earned from retail fixed-telephone, mobile-cellular, Internet and data services offered by telecommunication operators (both network and virtual) providing services within the country during the financial year under review.

It includes retail revenues earned from the transmission of TV signals, but excludes revenues from TV content creation. Revenue (turnover) consists of retail telecommunication service earnings (therefore excluding wholesale revenues, such as interconnection revenues) during the financial year under review. Revenues from device sales and rents, VAT and excise taxes should be excluded.

TV broadcasting

- Telecommunications or content and media sector?

Rule:

If a business engages both in the creation of content and its distribution through telecommunication networks, revenue and investment data should be reported only for those activities that relate to the distribution of content, and exclude those that relate to the creation of content

TV broadcasting (cont.)

- Proposed practical approach:

	INCLUDED	EXCLUDED
Free-to-air TV	NO	YES
Pay DTT channels	NO	YES
IPTV	YES	NO
Cable TV	- Internet/PSTN access - Multichannel distribution	PARTIALLY - Content creation
Satellite	- Internet access - Multichannel distribution	PARTIALLY - Content creation

i741 - Revenue from mobile networks (i741)

Revenue from mobile services refers to retail revenue earned from the provision of mobile-cellular services, including all voice, SMS and data (narrowband and broadband), offered by mobile operators (both network and virtual) providing services within the country during the financial year under review.

Revenues from value-added services (e.g. premium SMS) should be included. Wholesale revenues, such as mobile termination rates, should be excluded. Revenues from device sales and rents, VAT and excise taxes should also be excluded.

Indicator 71: Annual investment in telecommunication services (i81)

Annual investment in telecommunication services refers to the investment during the financial year made by entities providing telecommunication networks and/or services (including fixed, mobile and Internet services, as well as the transmission of TV signals) for acquiring or upgrading fixed assets (usually referred to as CAPEX), less disinvestment owing to disposals of fixed assets, within the country.

Fixed assets should include tangible assets, such as buildings and networks, and non-tangible assets, such as computer software and intellectual property.

3. Investment

- Only total investment →
- Definition of investment
≈ gross fixed capital formation (as in SNA)

Difficult to allocate investment to services

investment made by entities providing telecommunication networks and/or services (including fixed, mobile and Internet services, as well as the transmission of TV signals) **for acquiring or upgrading fixed assets (usually referred to as CAPEX) less disinvestment owing to disposals of fixed assets**

3. Investment (cont.)

- Main issues:

	INCLUDED
Additions less disposals of tangible fixed assets	YES
Additions less disposals of intangible fixed assets	YES
Investment from national-owned operators in the country	YES
Investment from foreign-owned operators in the country	YES
Investment from national-owned operators outside the country	NO
Licence fees	NO
R&D expenditures	YES

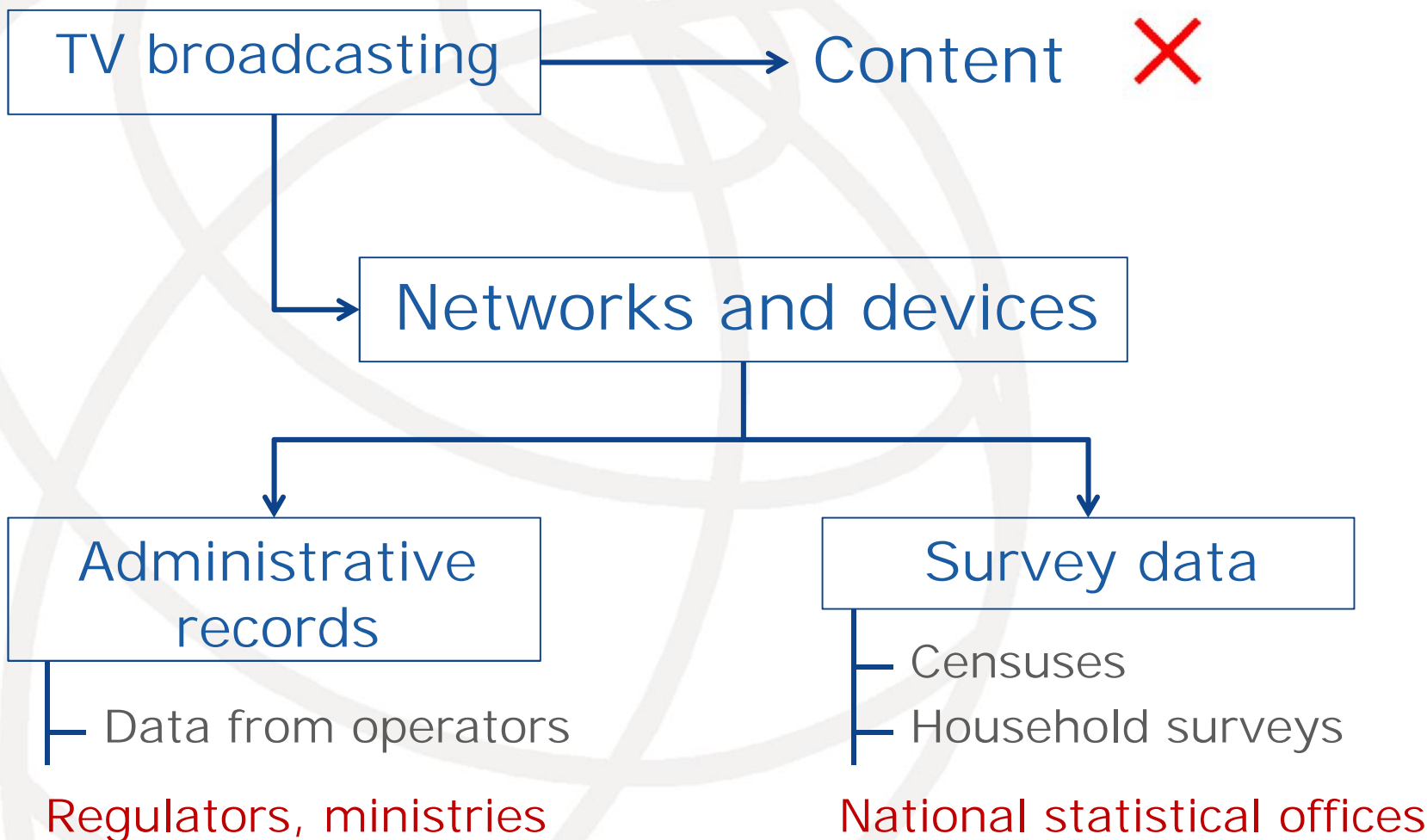
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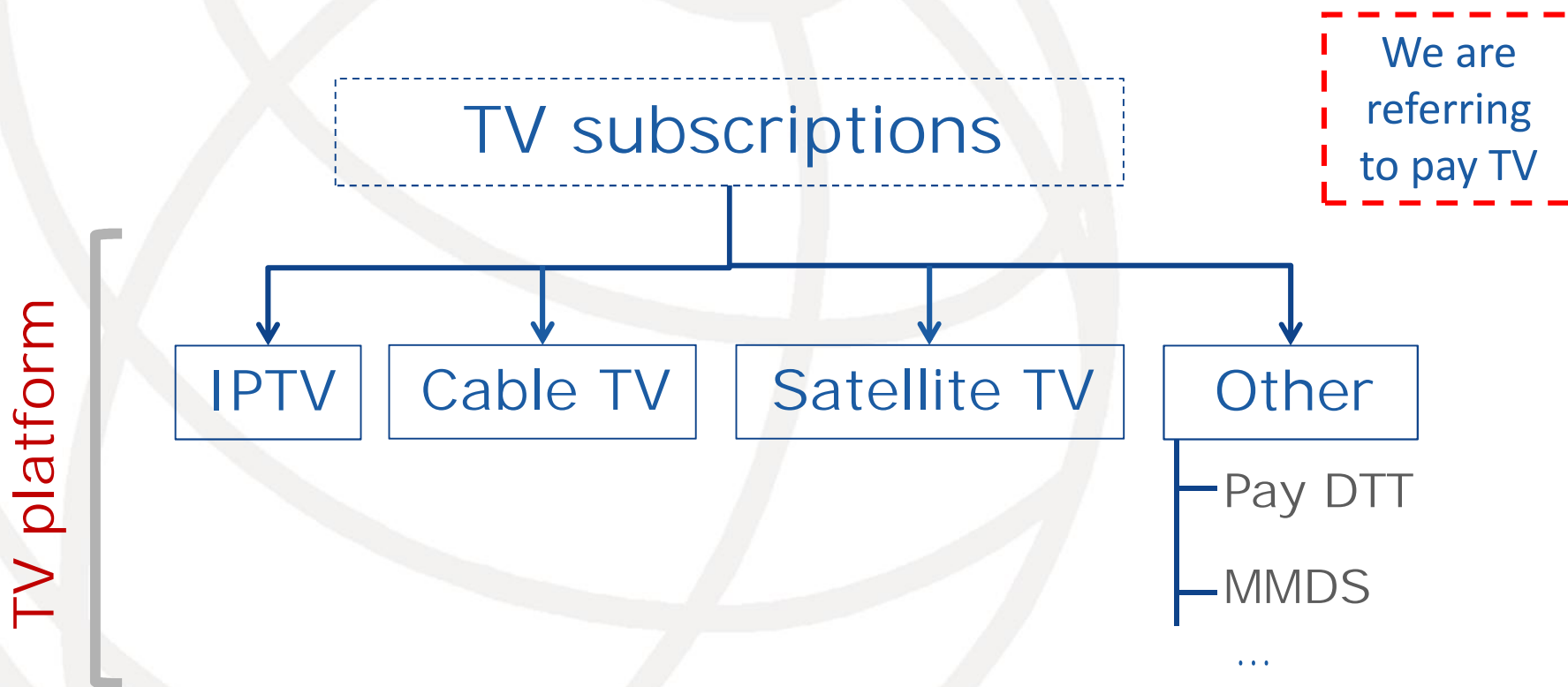
Broadcasting

ITU data on TV broadcasting



ITU indicators on TV broadcasting

- EGTI proposed changes to administrative indicators on TV broadcasting:



i965IP - IPTV subscription

IPTV subscriptions refers to the number of subscriptions to **Internet protocol television (IPTV)**, i.e. TV delivered over an IP-based network managed to support the required level of quality of service, quality of experience, security, interactivity and reliability.

This does not include video accessed over the public Internet – for example, by streaming – and subscriptions to over-the-top audiovisual content providers.

i965s - Satellite TV subscriptions

Satellite TV subscriptions refers to the **number of pay direct-to-home (DTH) satellite subscriptions**, i.e. pay-TV received via a satellite dish capable of receiving satellite television broadcasts.

This does not include free-to-air satellite TV.

i965cab - Cable TV subscriptions

Cable TV subscriptions **refers to multichannel TV programming delivered over coaxial cable networks**. It includes both analogue and digital cable TV subscriptions.

If the breakdown of analogue/digital cable TV subscriptions is available, data for each type of cable TV subscriptions should be specified in a note.

It excludes IPTV delivered over cable TV networks.

i965oth - Other TV subscriptions

Other TV subscriptions refers to pay-TV subscriptions **other than IPTV, satellite TV and cable TV.**

This includes subscriptions to TV platforms such as **microwave multipoint distribution systems (MMDS) and pay digital terrestrial television (pay DTT).**

Free-to-air TV should not be included. The TV platforms corresponding to the data reported should be indicated in a note.



Future work

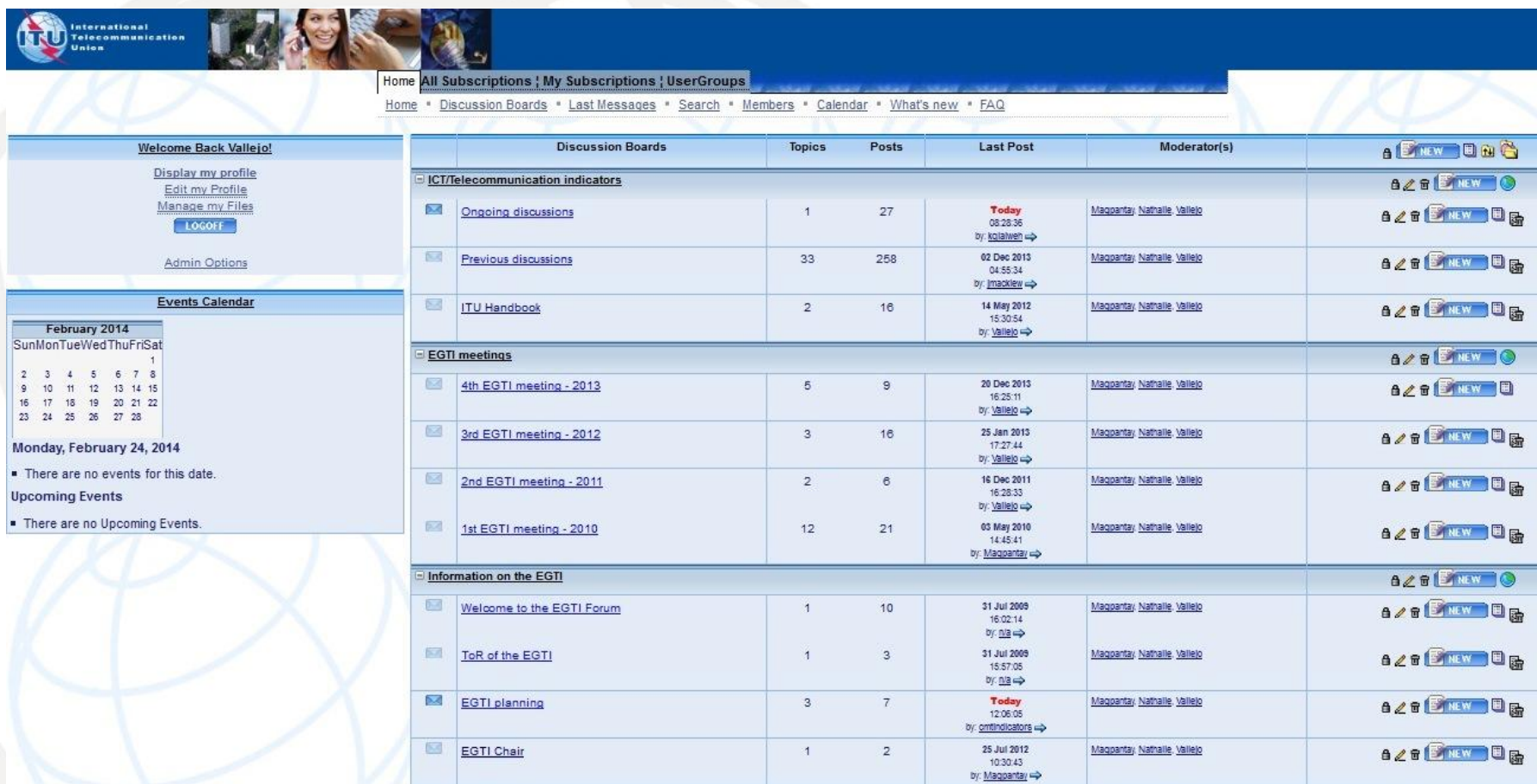
To be discussed in EGTI

- 1- Revision of the composition of the ICT price baskets
- 2- Detailed guidelines for the international bandwidth indicators.
A **sub-group** was created within EGTI to produce a draft
- 3- WiFi networks: discussion on how subscriptions to these networks are considered
- 4- Guidelines for the collection of Digital Financial Services indicators.
A **sub-group** was created within EGTI to produce a draft document.

To be discussed in EGTI

- 5- Experience sharing on the collection of LTE/mobile Wimax indicators (subscriptions and coverage) by countries
- 6- Fixed network coverage indicators

EGTI online forum



The screenshot shows the ITU EGTI online forum interface. At the top, there is a navigation bar with links for Home, All Subscriptions, My Subscriptions, and UserGroups. Below this is a secondary navigation bar with links for Home, Discussion Boards, Last Messages, Search, Members, Calendar, What's new, and FAQ.

On the left side, there is a user profile section for 'Vallejo' with options to display, edit, or manage their profile, and a logoff button. Below this is an events calendar for February 2014, showing that there are no events for the current date (Monday, February 24, 2014) and no upcoming events.

The main content area is a table of discussion boards. The table has columns for Discussion Boards, Topics, Posts, Last Post, and Moderator(s). The data is as follows:

Discussion Boards	Topics	Posts	Last Post	Moderator(s)
ICT/telecommunication indicators				
Ongoing discussions	1	27	Today 08:28:36 by: kjalawen →	Maqantay Nathalie Vallejo
Previous discussions	33	258	02 Dec 2013 04:55:34 by: jpackler →	Maqantay Nathalie Vallejo
ITU Handbook	2	16	14 May 2012 15:30:54 by: Vallejo →	Maqantay Nathalie Vallejo
EGTI meetings				
4th EGTI meeting - 2013	5	9	20 Dec 2013 16:25:11 by: Vallejo →	Maqantay Nathalie Vallejo
3rd EGTI meeting - 2012	3	16	25 Jan 2013 17:27:44 by: Vallejo →	Maqantay Nathalie Vallejo
2nd EGTI meeting - 2011	2	6	16 Dec 2011 16:28:33 by: Vallejo →	Maqantay Nathalie Vallejo
1st EGTI meeting - 2010	12	21	03 May 2010 14:45:41 by: Maqantay →	Maqantay Nathalie Vallejo
Information on the EGTI				
Welcome to the EGTI Forum	1	10	31 Jul 2009 16:02:14 by: NB →	Maqantay Nathalie Vallejo
ToR of the EGTI	1	3	31 Jul 2009 15:57:05 by: NB →	Maqantay Nathalie Vallejo
EGTI planning	3	7	Today 12:06:05 by: sntinocators →	Maqantay Nathalie Vallejo
EGTI Chair	1	2	25 Jul 2012 10:30:43 by: Maqantay →	Maqantay Nathalie Vallejo

<http://www.itu.int/ITU-D/ict/ExpertGroup>

THANK YOU

More information

<http://www.itu.int/ict>
indicators@itu.int