

The AIBD/ITU/ABU Pre-summit Regional Workshop on Enabling & Enhancing the DTT Broadcasting Experiences

23 May 2016, Incheon, Republic of Korea

The background features a large, faint watermark of the ITU logo, which consists of a globe with a satellite dish and the letters 'ITU' in the center.

Introduction

Wisit Atipayakoon
ITU Regional Office for Asia and the Pacific

Transition to Digital TV Broadcasting

- Moving from analogue to digital terrestrial television frees up scarce spectrum for other uses, especially mobile.
- The deadline of June 2015 set for the UHF band by the ITU Regional Radiocommunication Conference in Geneva in 2006 (RRC-06) for the migration from analogue terrestrial television to digital terrestrial television applies to Africa, the Middle East and Europe, as well as to the Islamic Republic of Iran.
- In North America, much of Europe and some parts of Asia, analogue switch-off has now been completed. Most countries in Latin America and Asia-Pacific have plans to complete the transition between 2015 and 2020.



Website

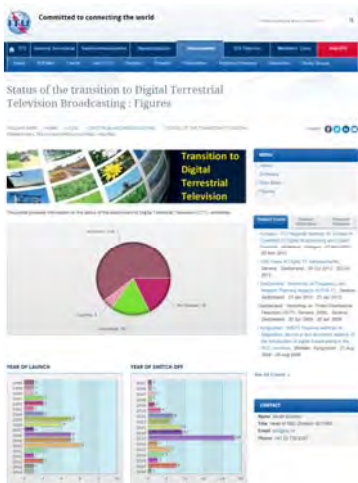
*Circular Letter BDT/IEE/SBD/DM/014 from the BDT Director
(23 February 2015)*

- Administrations are invited to make the necessary update to ensure that their actual status and data are correctly reflected on the portal.

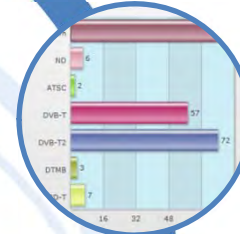
Website created, <http://www.itu.int/en/ITU-D/Spectrum-Broadcasting/Pages/DSO/Default.aspx>



Website



Data Miner



Figures



Summary



Country Profiles



Website features

Ongoing

Albania, Algeria, Azerbaijan, Bahrain, Bulgaria, Oman, Russian Federation, Serbia, Ukraine

Completed

Andorra, Austria, Belgium, Croatia, Cyprus, Czech Rep., Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Israel, Japan, Korea (Rep. of), Latvia, Lithuania, Luxembourg, Malta, Netherlands, New Zealand, Norway, Poland, Portugal, Seychelles, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, United Kingdom, Vatican

Not Started

Armenia, Belarus, Benin, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Djibouti, Egypt, Guinea, Guinea-Bissau, Iran (Islamic Republic of), Kyrgyzstan, Lebanon, Libya, Malawi, Mali, Moldova, Morocco, Namibia, Niger, Nigeria, Rwanda (Republic of), Senegal, Sierra Leone, South Africa, Sudan, Swaziland, Tanzania, Togo, Turkey, United Arab Emirates, Uzbekistan, Zambia, Zimbabwe

Unknown

Afghanistan, Angola, Antigua and Barbuda, Argentina, Australia, Bahamas, Bangladesh, Barbados, Belize, Bhutan, Bolivia (Plurinational State of), Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Burundi, Cambodia, Canada, Central African Rep., Chad, Chile, China, Colombia, Comoros (Union of the), Congo, Costa Rica, Cuba, Dem. People's Rep. of Korea, Dem. Rep. of the Congo, Djibouti, Dominica, Dominican Rep., Ecuador, El Salvador, Equatorial Guinea, Eritrea, Ethiopia, Fiji, Former Yugoslav Republic of Macedonia, Gabon, Gambia, Georgia, Greece, Grenada, Guatemala, Guyana, Haiti, Honduras, Iceland, India, Indonesia, Iraq, Jamaica, Jordan, Kazakhstan, Kenya, Kiribati, Kuwait, Lao P.D.R., Lesotho, Liberia, Liechtenstein, Madagascar, Malaysia, Maldives, Marshall Islands, Mauritania, Mauritius, Mexico, Micronesia, Monaco, Mongolia, Montenegro, Mozambique, Myanmar, Nauru, Nepal (Republic of), Netherlands Antilles, Nicaragua, Niue, Palau, Papua, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Qatar, Romania, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, San Marino, Sao Tome and Principe, Saudi Arabia, Singapore, Solomon Islands, Somalia, South Sudan, Sri Lanka, State of Palestine, Suriname, Syria, Tajikistan, Thailand, Timor-Leste, Tonga, Trinidad and Tobago, Tunisia, Turkmenistan, Tuvalu, Uganda, United States, Uruguay, Vanuatu, Venezuela, Viet Nam, Yemen

YEAR OF LAUNCH

YEAR OF SWITCH OFF

SYSTEM

COMPRESSION

AFRICA	AMERICAS	ASIA-EURASIA	ASIA-PACIFIC	EU	EUROPE
ATSC	DVB-T	DVB-T	DVB-T2	ISDB-T	
CHINA	COMPLETED	NOT STARTED	UNKNOWN		RESET

Country	Year Of Launch	DSO Date	TV Standard	Compression Format	Status
Andorra			DVB-T	MPEG-2	Completed
Austria	2006	2011	DVB-T DVB-T2	MPEG-2 MPEG-4	Completed
Belgium	2005		DVB-T DVB-T2	MPEG-2	Completed
Croatia	2009	2010	DVB-T DVB-T2	MPEG-2	Completed
Cyprus		2011	DVB-T		Completed
Czech Rep.	2005		DVB-T	MPEG-2 MPEG-4	Completed
Denmark	2006	31/10/2009	DVB-T DVB-T2	MPEG-4	Completed
Estonia	2006	2010	DVB-T DVB-T2	MPEG-4	Completed
Finland	2001	2007	DVB-T DVB-T2	MPEG-2 MPEG-4	Completed
France	2005	2011	DVB-T	MPEG-2 MPEG-4	Completed
Germany	2002	2008	DVB-T	MPEG-2	Completed
Hungary	2008	2013	DVB-T	MPEG-4	Completed
Ireland	2011	24/10/2012	DVB-T	MPEG-4	Completed
Israel		2011	DVB-T	MPEG-4	Completed
Italy	2004	2012	DVB-T DVB-T2	MPEG-2	Completed
Japan	2011		ISDB-T		Completed
Korea (Rep. of)		2012	ATSC		Completed
Latvia	2009	2010	DVB-T	MPEG-4	Completed
Lithuania	2008	2012	DVB-T	MPEG-4	Completed
Luxembourg		2006	DVB-T	MPEG-2	Completed
Malta		2011	DVB-T	MPEG-2	Completed
Netherlands	2003	2011	DVB-T	MPEG-2	Completed
New Zealand	2008	2013	DVB-T DVB-T2	MPEG-4	Completed
Norway	2008	2009	DVB-T	MPEG-4	Completed
Poland	2009	2013	DVB-T	MPEG-4	Completed
Portugal	2009	2012	DVB-T	MPEG-4	Completed
Seychelles		2013	DVB-T2		Completed
Slovak Republic	2009	2012	DVB-T DVB-T2	MPEG-2 MPEG-4	Completed
Slovenia	2006	2011	DVB-T	MPEG-4	Completed
Spain	2000	2010	DVB-T	MPEG-2	Completed
Sweden	1999	2007	DVB-T DVB-T2	MPEG-2	Completed
Switzerland	2001		DVB-T	MPEG-2	Completed
United Kingdom	1998	2012	DVB-T DVB-T2	MPEG-2 MPEG-4	Completed
Vatican			DVB-T		Completed
34 Countries					

Afghanistan

Documents provided by the country

No Document to display

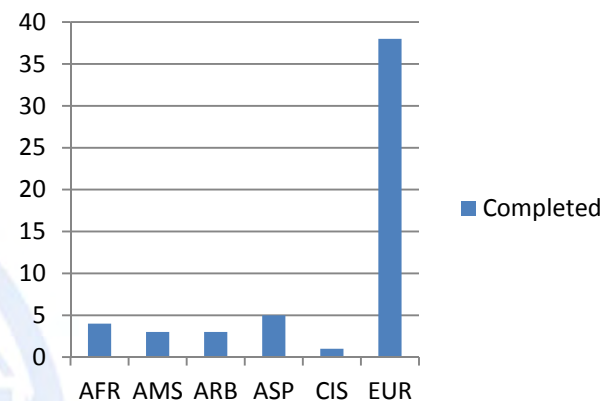
Events in this country

Meeting with Government <i>The new platform for Europe and Africa to meet and discuss future evolution of Digital TV</i>	29/11/2014	Paris
Powerpoint presentation of Dr. ZZZ <i>This is the description about this wonderful document</i>	29/11/2014	
Documents from Country:		
Presentation during Conference <i>This is our Powerpoint</i>		
Presentation by Mr... <i>This is just to see what happens when we have several document and if the style will work correctly, meaning one blue line and one white line alternately</i>		
Conference on Broadband <i>A simple meeting to demonstrate the capabilities of Digital TV</i>		
	25/11/2014	Moscow
	26/11/2014	
Documents from Country:		
Powerpoint presentation of Dr. ZZZ <i>This is the description about this wonderful document</i>		
Other Documents:		
Presentation		
First Workshop at Kabul <i>Showcase where the most efficient network have been setup.</i>		
	12/11/2014	Kabul
	19/11/2014	

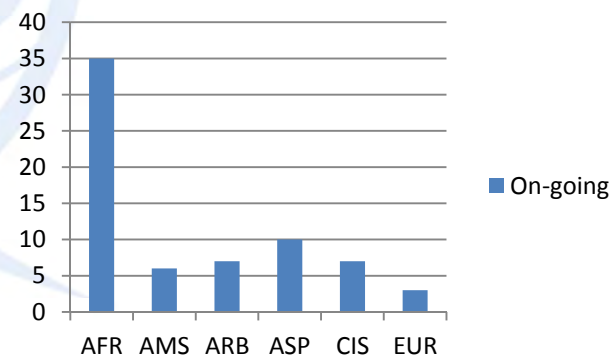
Statistics

	AFR	AMS	ARB	ASP	CIS	EUR	Sum	GE06
Completed	4	3	3	5	1	38	54	46
On-going	35	6	7	10	7	3	68	53
Not started	5	2	3	2	1	1	14	10
Unknown	0	25	8	23	3	1	60	12
	44	36	21	40	12	43	196	121

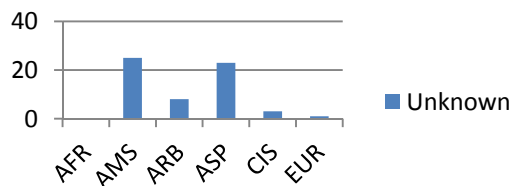
Completed



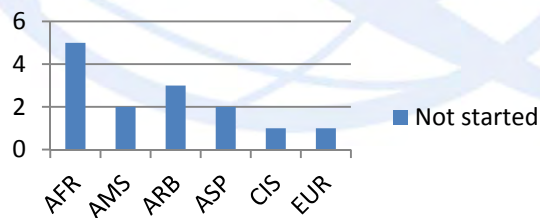
On-going



Unknown



Not started



Status in Asia-Pacific (1)

Country	Year Of Launch	DSO Date	TV Standard	Compression Format	Status
Afghanistan			ND		
Australia	2001	10/12/2013	DVB-T	MPEG-2	Completed
Bangladesh		2016	DVB-T2	MPEG-4	Not Started
Bhutan		2020	DVB-T2		
Brunei Darussalam		2015	DVB-T		
Cambodia		2020	DVB-T DVB-T2 DTMB	MPEG-4	Ongoing
China		2018	DTMB		
Dem. People's Rep. of Korea					
Fiji	2015	2018	DVB-T2	MPEG-4	Ongoing
India		2015	DVB-T DVB-T2		Ongoing
Indonesia		2018	DVB-T2	MPEG-4	Ongoing
Iran (Islamic Republic of)	2009		DVB-T		Ongoing
Japan	2003	2011	ISBD-T	MPEG-2 MPEG-4	Completed

Status in Asia-Pacific (2)

Country	Year Of Launch	DSO Date	TV Standard	Compression Format	Status
Kiribati		2017	ND		
Korea (Rep. of)	2001	2012	ATSC	MPEG-2	Completed
Lao P.D.R.		2020	DVB-T DTMB		
Malaysia	2016	2018	DVB-T2		Not Started
Maldives		2020	DVB-T2 ISBD-T		
Marshall Islands					
Micronesia			ND		
Mongolia	2014	05/10/2015	DVB-T2	MPEG-4	Completed
Myanmar	2013	2020	DVB-T2	MPEG-4	Ongoing
Nauru			ND		
Nepal (Republic of)		2017	DVB-T2		
New Zealand	2008	2013	DVB-T DVB-T2	MPEG-4	Completed
Niue					
Pakistan					
Palau					

Status in Asia-Pacific (3)

Country	Year Of Launch	DSO Date	TV Standard	Compression Format	Status
Papua New Guinea	2014	2017	DVB-T2	MPEG-4	Ongoing
Philippines		2018	ISBD-T		
Samoa	2014	2017	DVB-T2	MPEG-4	Ongoing
Singapore		2015	DVB-T DVB-T2		
Solomon Islands			ND		
Sri Lanka		2017	DVB-T2 ISBD-T		
Thailand	2014	2020	DVB-T2	MPEG-4	Ongoing
Timor-Leste		2024	ND		
Tonga		15/06/2014	DVB-T2		
Tuvalu					
Vanuatu		2017	DVB-T2		
Viet Nam	2010	31/12/2020	DVB-T DVB-T2	MPEG-2 MPEG-4	Ongoing



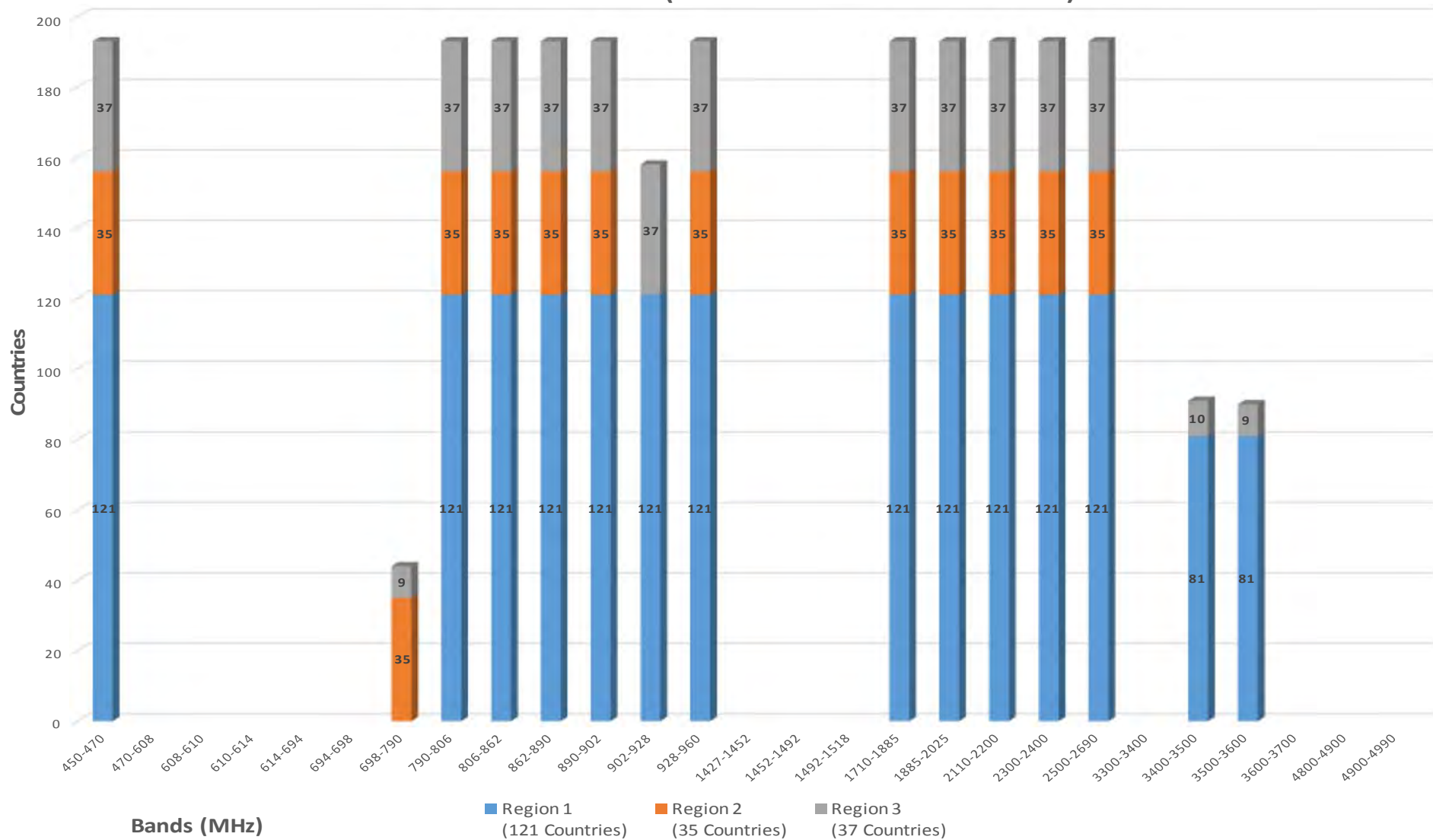
Importance of WRC-15 Decisions

Agenda items 1.1 and 1.2

- Satisfy growing IMT broadband spectrum requirements:
 - 60% increase in IMT bands after WRC-15
 - total IMT spectrum of 1886 MHz
- Provide harmonization of IMT bands:
 - 39% increase in globally harmonized spectrum after WRC-15
318 MHz of harmonized bands in more than 80% of countries:
 - Secures future of other services through coordination procedures, technical restrictions, in some cases operation on a non-interference basis



IMT Bands after WRC-07 (Number of Countries Identified)



IMT Bands after WRC-15 (Number of Countries Identified)

