



A Report on Migration from Analogue to Digital Broadcasting in Ghana

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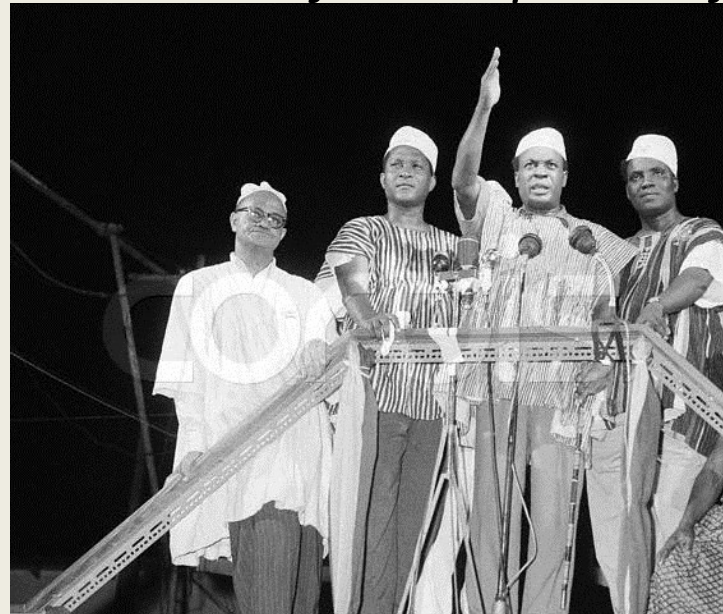
Secretary to the Digital Broadcasting Migration Committee (DBMC)

6th March, 1957

“The Independence of Ghana is meaningless unless it is linked with the total liberalization of the African Continent”

Kwame Nkrumah,

First President of the Republic of Ghana



Broadcasting Policy, Legal & Regulatory Environment



❑ Policies

- ✓ NMC National Media Policy, 2000
- ✓ National Telecommunications Policy (NTP), 2005
- ✓ Report of the National Digital Broadcasting Migration Technical Committee, 2010

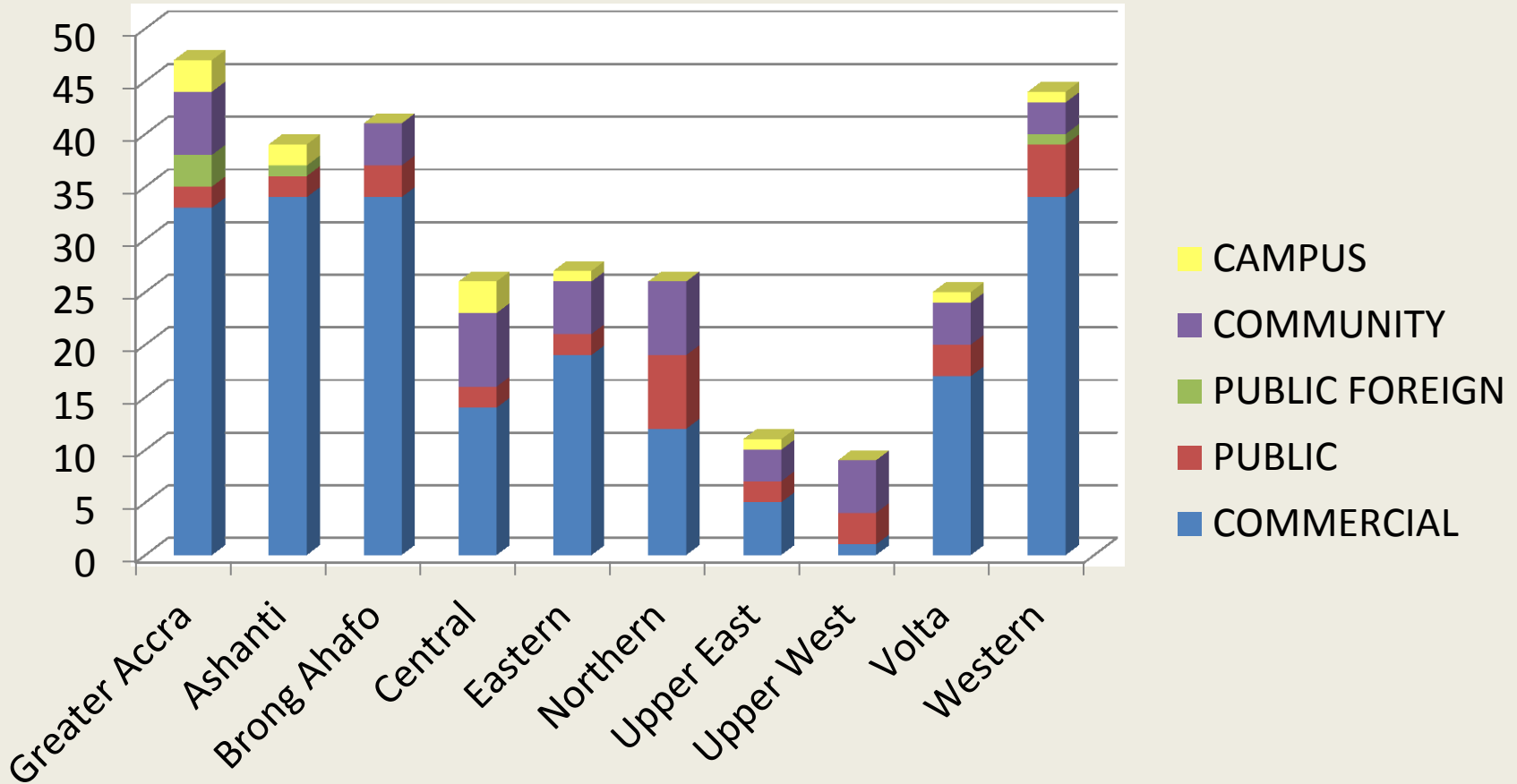
❑ Laws

- ✓ Television Licensing Decree, 1966, (N.L.C.D. 89)
- ✓ Television Licensing (Amendment) Law, 1991 (P.N.D.C.L. 257)
- ✓ Ghana Broadcasting Corporation Decree, 1968, (NLCD 226)
- ✓ National Media Commission Act, 1993 (Act 449)
- ✓ National Communications Authority Act, 2008 (Act 769)
- ✓ Electronic Communications Act, 2008, (Act 775)

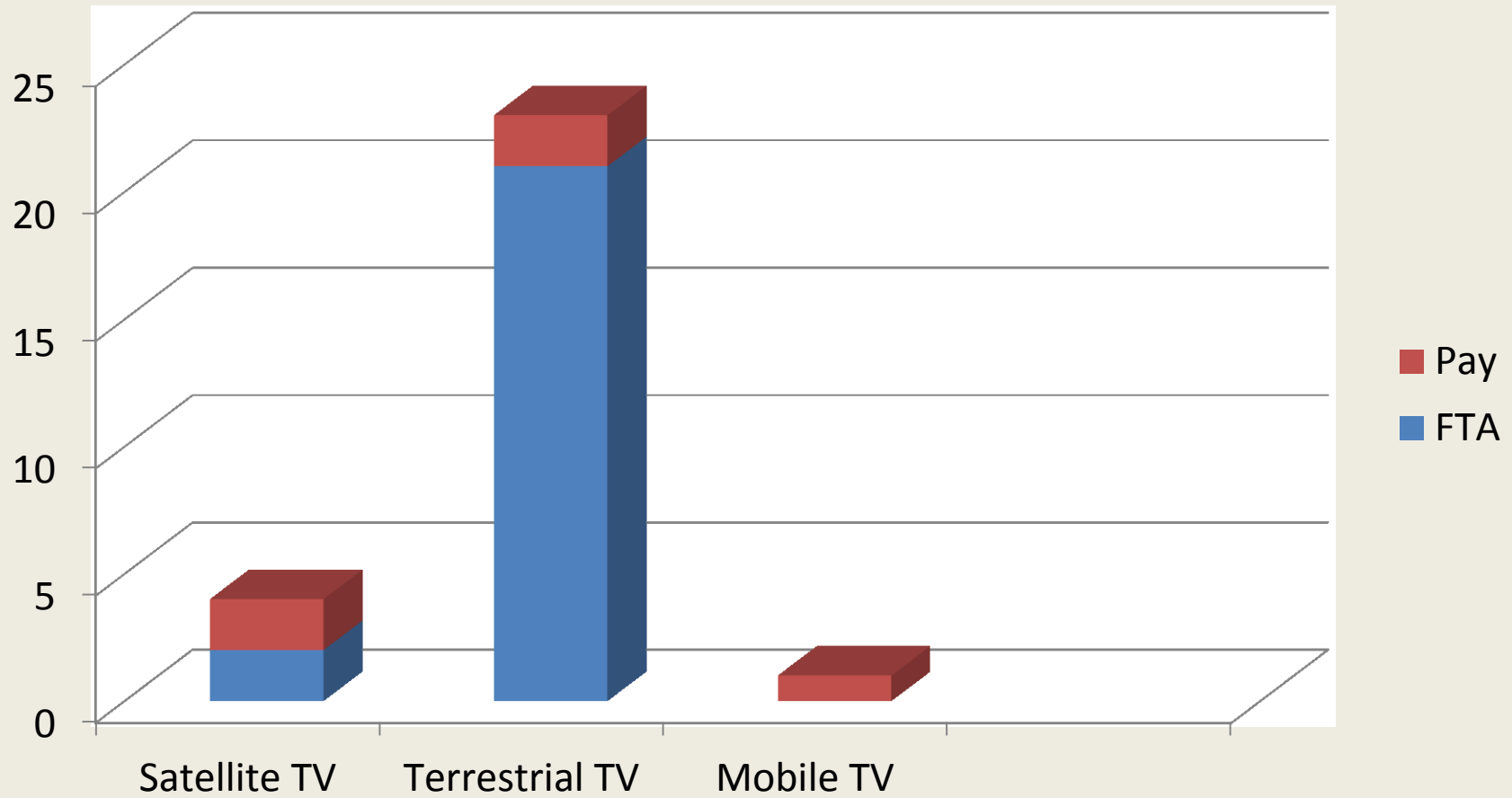
❑ Regulations & Guidelines

- ✓ Television Licensing Regulations, 1991 (L.I. 1520)
- ✓ NMC Broadcasting Standards, 2000
- ✓ National Communications Regulations, 2003, (L.I. 1719)
- ✓ NMC Guidelines for Local Language Broadcasting, 2009
- ✓ Guidelines for the Deployment of Communications Infrastructure, 2010

Authorised FM Stations as @ 31 Dec 2012



Authorised TV Stations as @ 31 Dec 2012



Governance/Leadership

❑ Overall Leadership provided by the Government of Ghana:

- ✓ All policy decisions approved by Cabinet
- ✓ All Legal instruments to be approved by Parliament

❑ Digital Broadcasting Migration Committee:

- ✓ Chaired by Honourable Minister of Communications
- ✓ Membership of 13 from all stakeholder institutions
 - Ministries, Parliament, Regulators, State Broadcaster, Private Broadcasters
- ✓ Responsible for:
 - policy implementation
 - integrated planning
 - budgeting
 - communication with the public
 - performance monitoring

Licence Categories

Nature of Service

Digital Television
Transmission Network Service

Digital Television Programme
Channel Service

Digital Audio Programme
Channel Service

Digital Television
Additional Service

Nature of Broadcasting Entity

Public Service
Broadcasting

Commercial
Broadcasting

Community
Broadcasting

Business Model

Free to Air (FTA)

Pay TV

Free-to-Air TV Strategy

□ Independent DTT Transmission Entity

- ✓ Originally planned as Public Private Partnership
 - ✓ Ghana Broadcasting Corporation (GBC) and Ghana Independent Broadcasters Association (GIBA)
 - ✓ Negotiations have temporarily broken down over ownership structure
- ✓ Contract signed for rollout of 2 multiplexes to cover >96% of population
 - ✓ Total of 53 transmission sites
 - ✓ 1+1 or n+1 redundancy in critical aspects of network
 - ✓ 1 central headend/ capabilities for local insertion @ regional capitals, / call centre/ etc
- ✓ Concessional loan from China Exim Bank being arranged

Pay TV Strategy



❑ 2 existing DTT Pay TV services since 2009/2010

- ✓ Cable Gold & Skyy Digital
- ✓ Migrated from analogue MMDS in 2.6GHz band
- ✓ Operating DVB-T/MPEG-2/MPEG-4

❑ 2 new DTT Pay TV operators authorized in Jan 2013

- ✓ GOtv & Crystal TV
- ✓ Previously had UHF channels for analogue Pay TV and were in good standing
- ✓ Applied & authorised to rollout DVB-T2/MPEG-4.

❑ 2 new market entrants to be authorised by end of Mar 2013

- ✓ 4 applicants in competition (NGB, Nour Vision, Pure Grp, Man Cap)
- ✓ 2 stage beauty contest (Review of application docs & business presentation)

Minimum Receiver Specs



	STB	iDTV
Video decoding/processing		
MPEG-4 AVC HP@L3 SDTV	M	M
MPEG-4 AVC HP@L4 HDTV	O	M
Audio decoding/processing		
E-AC3, including down-mix to stereo	O	M
E-AC3 (E-AC3 converted to AC3) digital output	O	M
HE-AAC V2(Mono or stereo audio pairs)	M	M
Subtitling		
DVB (SDTV) subtitling	M	M
API		
DVB HbbTV	O	O
Interfaces		
DVB-T2 front end	M	M
RF female input connector	M	M

Minimum Receiver Specs (II)



❑ Published on 6th Feb 2013

- All Standard Definition (SD) functionalities shall be mandatory for all DTT Receivers.
- High Definition (HD) functionalities are mandatory for iDTVs but optional for STBs.
- If STB opts to include HD, it must conform to HD specs

❑ Conformance Regime under development

- EoI for Labs interested in Conformance Testing to be published by end of February
- Beta version of Test suite to be released in March
- Shortlisted Test Labs would participate in finalising Test suite
- Logo would confirm to consumers that the receiver is Ghana DTT compliant



Conformance Test Reporting



GHANA DVB-T2 SI/PSI CONFORMANCE

Test Suite Ver1.1

Evaluation Details

Receiver Under Test (RUT)

RUT Device Type
(iDTV/Set top box)

RUT Firmware Version

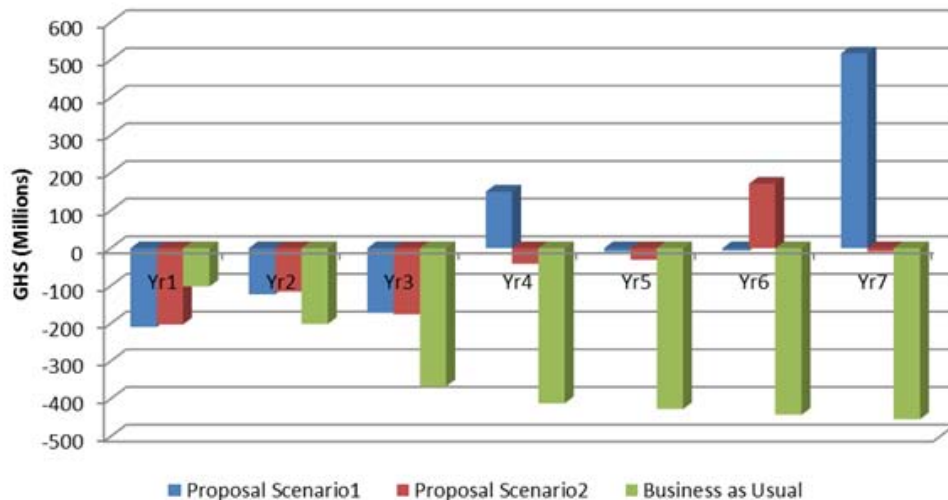
Evaluation Results

Test Category	Total Test Item	Pass	Fail	Not Tested	Remarks
1.0 Basic SI/PSI	64	1	1	62	
2.0 Logical Channel Numbering	6	0	0	6	
3.0 Network Evolution	19	0	0	19	
4.0 Character Test	32	0	0	32	
5.0 Active Format Description	5	0	0	5	
Results Total	126	1	1	124	

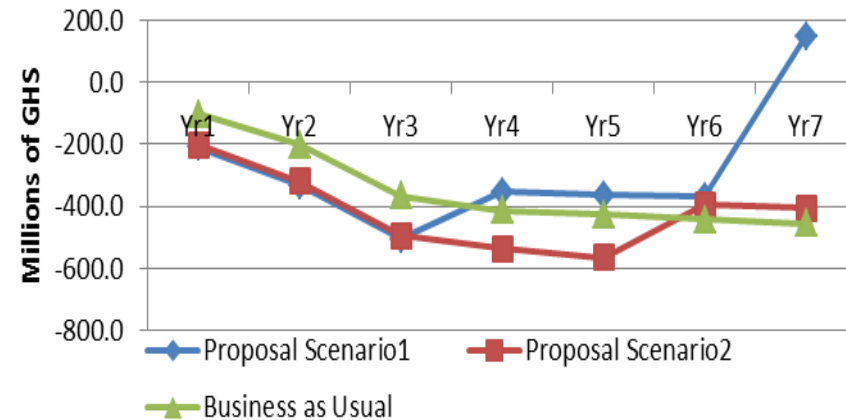
Phased Analogue Switch-off Date

- ❑ 31st December, 2014 (3 yr double illumination)
- ❑ (We are late by 13 months)!

Annual Net Cash Flow



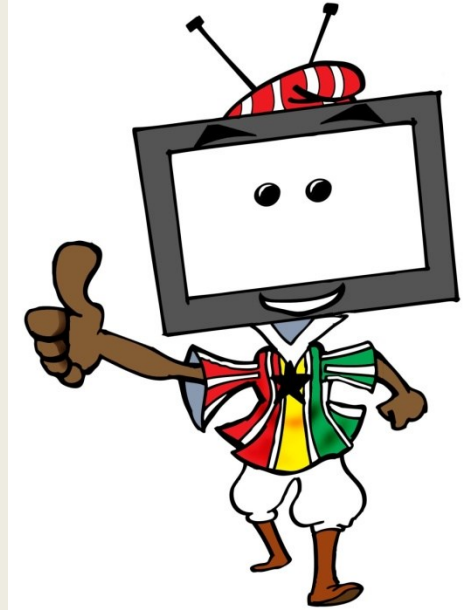
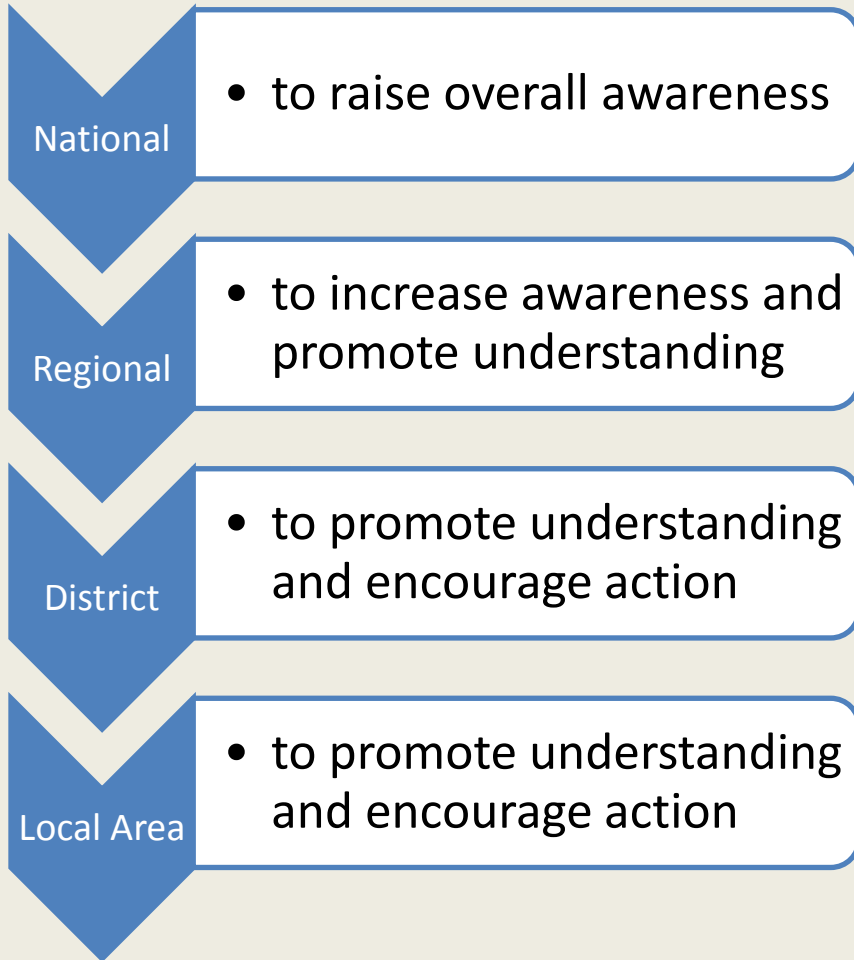
Cumulative Net Cash Flow of all Scenarios



Switchover Timetable

Activity	Start Date	End Date
NDBMTC Final Report to Govt	13 th Jan 2010	30 th Aug 2010
Development of Legal Framework (Amendment of Electronic Communications Act)	Sept 2010	December 2010
Public Awareness Campaign	September 2010	December 2014
Establishment of National Digital Migration Implementation Body	January 2011	
Licences for Digital TV	3Q 2011	
Nationwide Roll-out of Digital TV (Simulcast Period)	2012	2013
Coverage of all Regional Capitals & environs	By December 2012	
Phased Analogue Switch-off	To be determined according to locations and conditions	
Completion of Switchover	31 st December 2014	
Appraisal Report of Switchover Process	6 months after completion of switchover	

Public Education Strategy



message should be *simple* and *straight forward*

materials should be transmitted in at least the languages identified to be widely spoken in Ghana

all media platforms should be used

Outreach events to schools, churches, mosques, etc

Identified Risks

Low public awareness:

- could lead to a slow uptake of the service or conversely, panic when the 2014 analogue switch-off date is announced.

Uncertainty about funding sources which could stifle implementation of the project.

- Funding for consumer incentives e.g. help scheme for economically vulnerable, etc.

Absence of a legal framework for ASO:

- to avert any risks of legal suits from civil society organisations and/or pressure groups.

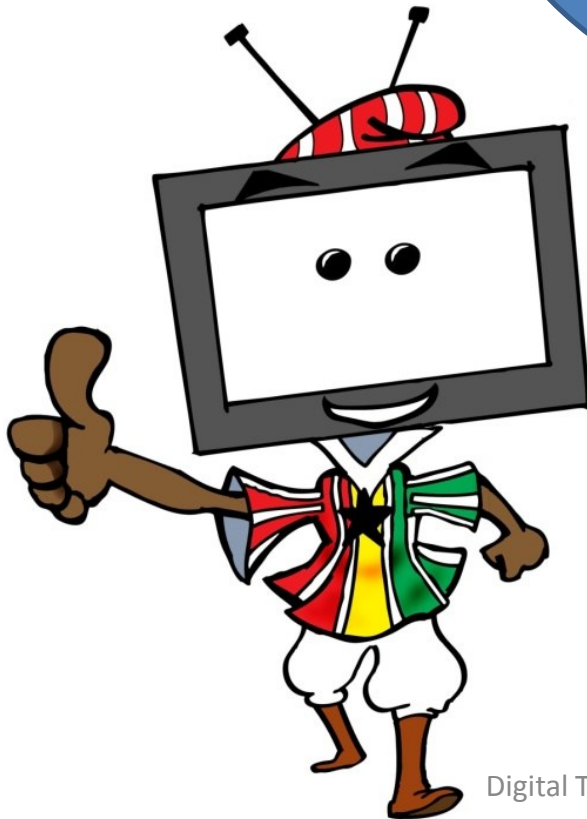
6th March, 1957

“When would WATRA commence work on harmonizing DTT transition efforts?”



**It's Digitime in
Ghana!**

Thank You!



Questions/Comments



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