



Digital Broadcasting Switchover

**ITU-AIBD-ABU REGIONAL WORKSHOP
STRENGTHENING DIGITAL BROADCASTING EXPERIENCE
22 - 23 MAY 2011, HANOI, VIETNAM**

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Background

➤ RRC - 04

- ITU consultations on Digital broadcasting for regions 1 and part of region 3 of ITU member administrations
- Draft digital plan was produced for the whole planning region

➤ RRC - 06

- ITU coordinated Conference on Digital Migration that focused on adoption of the digital plan
- Adoption of Digital Migration Strategies and Principles
- Set a deadline for analogue television switch off i.e. June 2015 in UHF band and 2020 for VHF band



Background

➤ Benefits of Digital switchover

- A large portion of the lower UHF band can be freed up
- All current channels can be transmitted in a much narrower band with a better quality : - More efficient use of the spectrum
- Improved reception quality, a variety of enhanced services and applications, enhanced competition and Wide consumer choice
- Increased transmission possibilities



Background

- **Key issue of related to digital switchover**
 - **Policy and Regulatory :**
 - **Licensing, Network Operators**
 - **Number of Multiplexes, Program editors**
 - **Public TV services, Commercial TVs**
 - **Analogue Switch off (ASO), etc.**
 - **Economical :**
 - **Introduction of new business model**
 - **Transition costs, subsidizing vulnerable people**



Background

➤ Key issue of related to digital switchover

- **Technical :**
 - Standards (DVB, ISDB, ATSC)
 - Compression technique (MPEC2/MPEG4)
 - Spectrum availability
 - Coverage areas
 - End users equipment (Set-Top Box/ D-TV), etc.



ITU Activities

- **To support the smooth process of the digital switchover, ITU prepared**
 - **Software Packages for spectrum management**
 - **Recommendations, Reports and Handbooks on digital broadcasting technologies**
 - **Guidelines and Roadmaps for the transition to digital broadcasting**
 - **Provide direct support in customization of the guideline and developing roadmaps**



ITU Activities

➤ **Project Activities in Africa - Roadmap to DTTB and MTV Funded by ITU and Korea**

- **Feasibility Study**

Questionnaires has been sent to all African countries, 23 countries responded, 3 Beneficiary countries (Ethiopia, Angola and Mali) has been selected for developing roadmap

- **Developed Guideline for the transition to digital broadcasting**

- **Development of roadmap for the selected beneficiary countries**



ITU Activities

- **Project Activities in ASP - Roadmap to DTTB and MTV Funded by ITU and KCC, Korea**
 - **Survey conducted to assess the current situation on digital broadcasting**
 - Questionnaires has been sent to 38 countries, 22 responded
 - Among the 22 countries, 5 beneficiary countries (Cambodia, Mongolia, Nepal, Sri Lanka, and Tonga) has been selected
 - **Adaptation of the guidelines**
 - **Development of roadmap for the selected beneficiary countries**

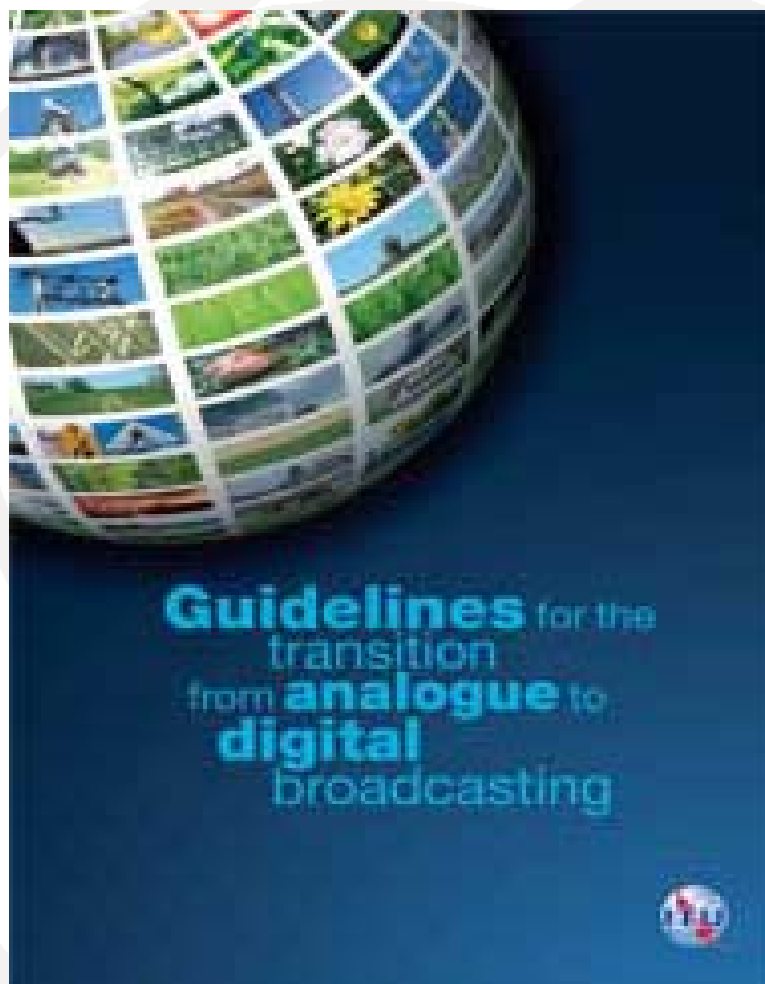


ITU Activities

➤ Project Activities in Asia pacific

- **Capacity building on digital broadcasting technologies**
 - **DTTB online training by CoE: Oct 2010**
 - **Joint-event with ABU/AIBD workshop, March 7-8, 2011, Kuala Lumpur, Malaysia.**
 - **Regional Workshop, joint-event with AIBD/ABU, May 22-23, 2011, Hanoi, Vietnam**

Guideline



Guidelines designed to provide Information and recommendations on policy, regulation, technologies, network planning, customer awareness and business planning

For free download at
<http://www.itu.int/publ/D-HDBGUIDELINES.01-2010/en>



Guideline

➤ **Functional layer of the Guideline**

A. Policy and regulation

B. Analogue switch-off (ASO)

C. Market and business development

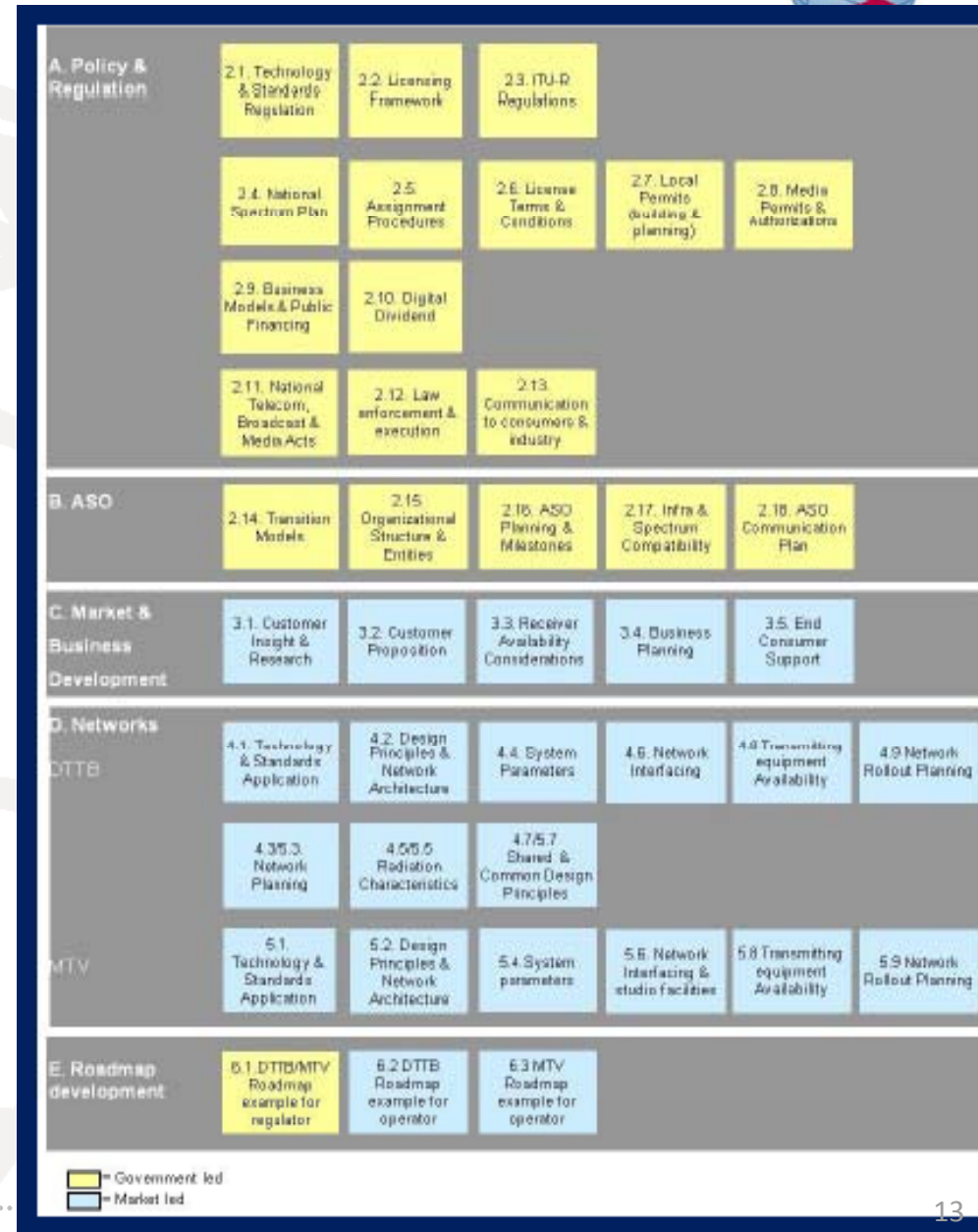
D. DTTB & MTV networks

E. Roadmap development

⇒ **Each layer has 3 to 13 functional building blocks.**

Guideline

➤ **Functional Building Blocks under each layer**





Guideline

A. Policy and regulation

- **Key issues and choices faced by the Regulator when formulating DTTB, MTV or ASO policy objectives**

- **Implementation of policies**

By issuing information, funds, rights, licenses and permits to (qualified) market parties in compliance with the relevant legislation



Guideline

B. Analogue switch-off (ASO)

- **Process of turning off the analogue terrestrial television signal and replacing it with a digital signal**
- **Government initiated policy, aiming at**
 - More channels and services
 - New revenue streams and business models
- **The key objective in the ASO process is reducing the risk of service interruption**



Guideline

C. Market and business development

- **Key business issues and choices faced by Service Providers/Network operators when planning the commercial launch of DTTB and MTV services**
- **A set of business activities and tools**
 - For defining the DTTB/MTV service proposition and associated business case and plan
 - Demand drivers, service barriers, financial feasibility, receiver availability and customer support issues



Guideline

D. DTTB & MTV networks

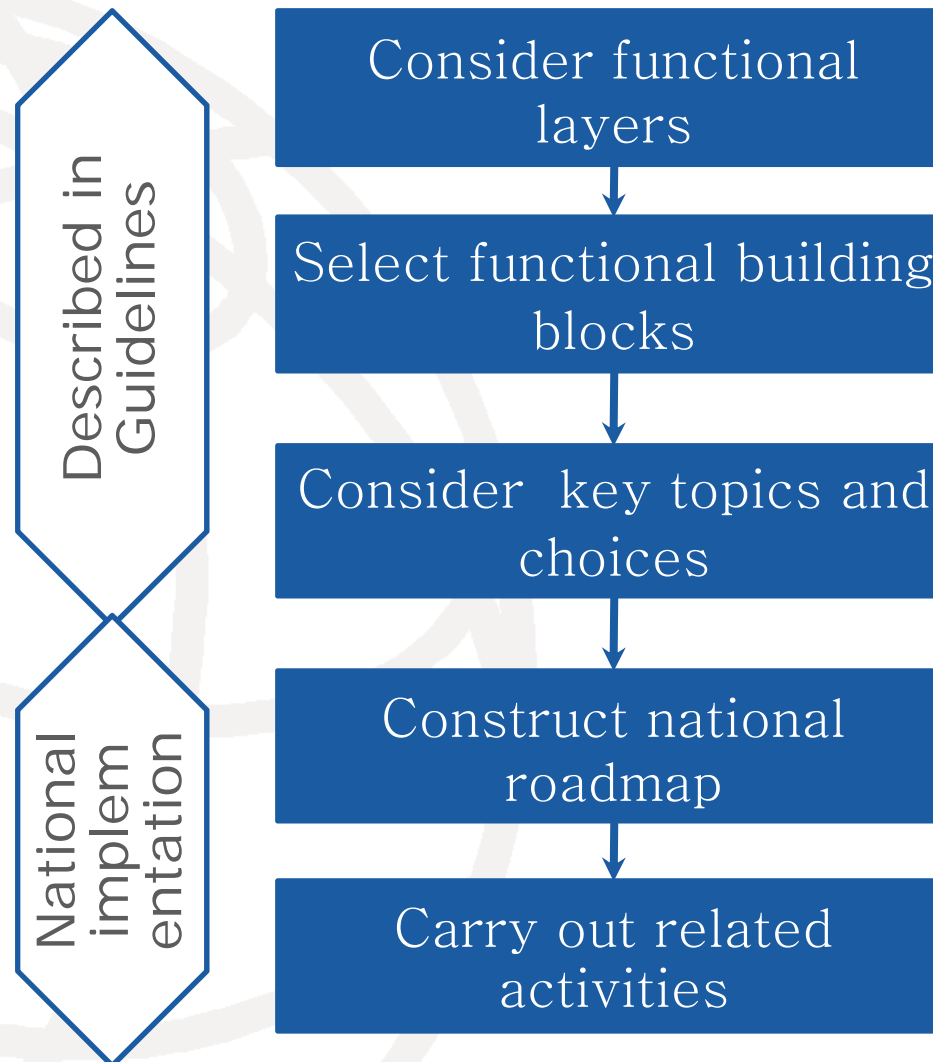
- Choices should be made within framework of
 - License conditions (including GE06 provisions)
 - Business objectives

E. Roadmap development

- Development of generic roadmaps regarding the whole process of transition to DTTB
 - Matching short term and long term goals
 - Indicating the main activities to meet goals

Guideline

- Steps associated in the switchover



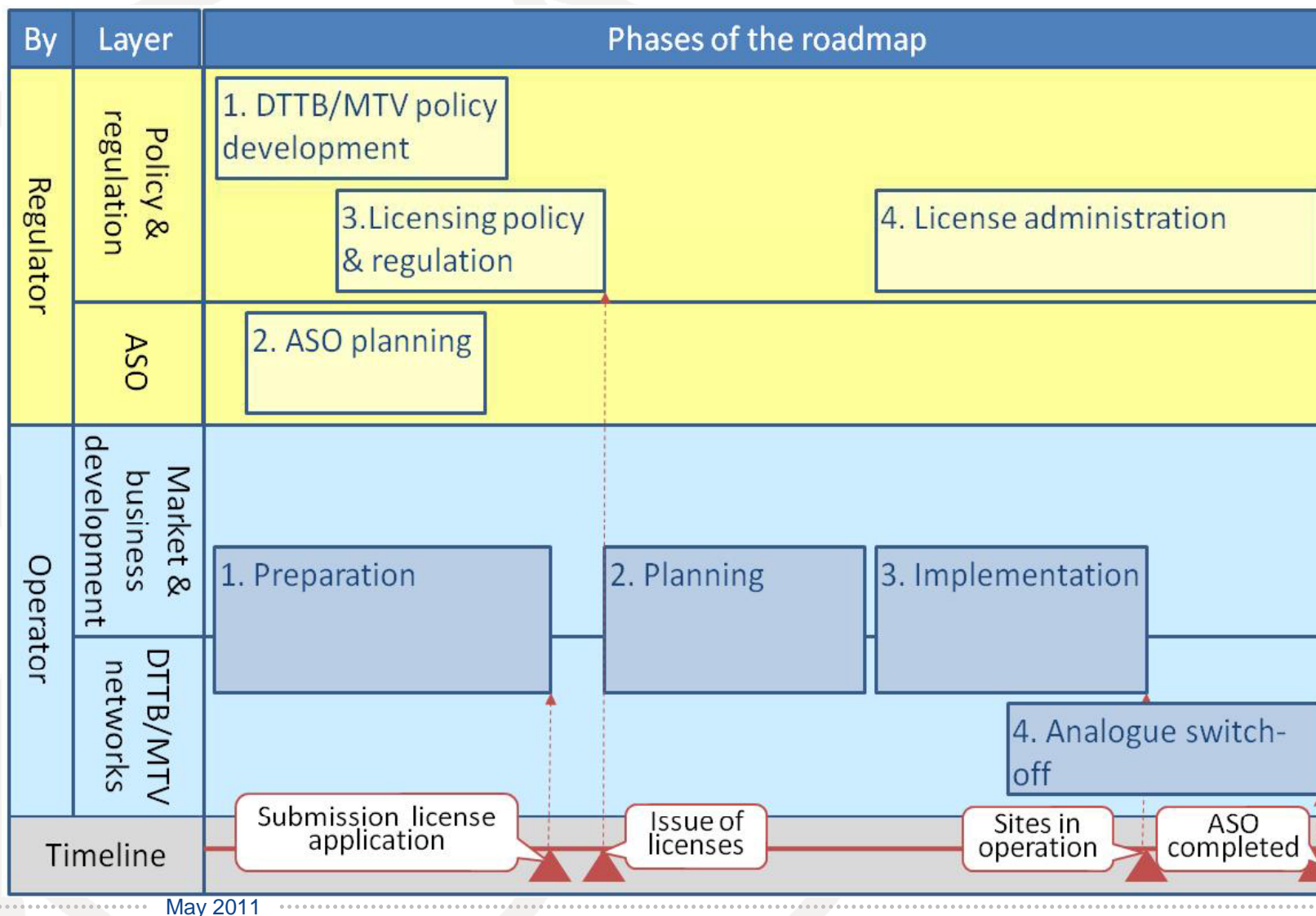


Roadmap Construction

- **Construction of two roadmaps, one for the Regulator, one for the Operator**
- **A roadmap consists of three or four phases**
- **In each phase, functional building blocks should be placed in a logical order**
 - **One or more functional layers may have to be addressed**
 - **Several functional building blocks are carried out in parallel**
 - **A number of functional building blocks are interrelated**



Roadmap Construction





Conclusion

- **Digital Switchover is a complex process**
 - Every country should be ready to handle the complicity
- **Successful switchover requires**
 - Strong leadership of government
 - Firm decision of analogue TV switch-off date
 - Close cooperation of Regulator and market parties
 - Clear and timely regulatory framework
 - Adequate information and assistance to viewers
- **Explore the potential of the Digital Dividend**



THANK YOU FOR YOUR ATTENTION!

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