



## TECHNOLOGIES AND NETWORKS DEVELOPMENT (TND)

- **Mandate of the Unit**
  - **WSIS: Action Line C2**
  - **Doha 2006: Programme 2**
- **Assist Member States and ITU-D Sector Members to maximize the utilization of appropriate new technologies**
- **Assists developing countries to plan, build, operate, upgrade, manage and maintain technologies applicable in their networks and services**
- **Applied research and the transfer of technological know-how**

01 June 2009
Arab Regional Development  
Forum, Tunis
2 / 14

## PROGRAMME 2: Information and communication infrastructure and technologies development



Priorities are given to the following technology-related domains:

- 1.1 Spectrum management and radio monitoring
- 1.2 Broadcasting
- 1.3 Network planning
- 1.4 Mobile terrestrial communications
- 1.5 Innovative services/applications networks

01 June 2009

Arab Regional Development  
Forum, Tunis

3 / 14

## TASKS WITHIN PROGRAMME 2



- Creation of tools
- Creation of training material
- Assistance to members
- Information sharing

The Programme is carried out by various means, including symposia, workshops, conferences, seminars and expert advice.

01 June 2009

Arab Regional Development  
Forum, Tunis

4 / 14

## TND Activities



- **Training**  
Technology-oriented training material developed and presented in all regions
- **Assistance to members**  
Network engineering and dimensioning (Wireline, Wireless, Mobile),  
Spectrum management  
Transition to digital broadcasting
- **Partnerships**  
United Nation agencies and other stakeholders, international and regional organisations

01 June 2009

Arab Regional Development  
Forum, Tunis

5 / 14

## SPECTRUM MANAGEMENT AND BROADCASTING ACTIVITIES OF TND / 1



- Developing principles and techniques for effective spectrum management
- Advising on practical questions from developing countries on spectrum management and broadcasting
- Providing an opportunity for expert and high-level consultation for senior personnel from developing countries

01 June 2009

Arab Regional Development  
Forum, Tunis

6 / 14

## SPECTRUM MANAGEMENT AND BROADCASTING ACTIVITIES OF TND / 2



- Providing information on various aspects of sound and television broadcasting systems/networks and of spectrum management systems (planning, engineering, operations, management and economics).
- Evaluating existing systems and participate in the evaluation of tenders for equipment
- Participating in seminars and courses organized at ITU Headquarters or elsewhere on specialized aspects of broadcasting and spectrum management subjects

01 June 2009

Arab Regional Development  
Forum, Tunis

7 / 14

## SPECTRUM MANAGEMENT AND RADIO MONITORING



The frequency spectrum is recognized as a "scarce resource"

- efforts to strengthen administrations' national regulatory bodies in the fields of frequency planning and assignment, spectrum management and radio monitoring.
- assisting developing countries to better plan and manage the use of their radio spectrum and establishing their national frequency management system

01 June 2009

Arab Regional Development  
Forum, Tunis

8 / 14

## SPECTRUM MANAGEMENT ACTIVITY EXAMPLES / 1



### • SMS4DC (Spectrum Management Software for Developing Countries)

- Developed by BDT close cooperation with the ITU-R sector
- Recent developments: monitoring link, Google Earth
- Providing training

### • 2008

#### • SMS4DC Trainings

- Gambia, Bangladesh, Yemen, Lebanon

#### • Presentations

- Buenos Aires (BR Seminar), Johannesburg
- Regular information to administrations, delegates

### • 2009

- FAT of version 3 (monitoring, Google Earth)

### • ITU-D SG2, Resolution 9

01 June 2009

Arab Regional Development  
Forum, Tunis

9 / 14

## SPECTRUM MANAGEMENT ACTIVITY EXAMPLES / 2



### • Assistance to developing countries

- spectrum management assessments, revising legislation, spectrum pricing, coordination procedures
- assisting in spectrum management projects

### • 2008

- spectrum management assessments

- **Benin**, Gambia, Samoa, Vanuatu, East-Timor, Tonga, Gabon, Sierra-Leone, Zimbabwe

- assisting in spectrum management projects

- Angola, Colombia

- Satellite communication:

- Mongolia, Sri Lanka, Bangladesh

- Spectrum pricing

- Kenya

01 June 2009

Arab Regional Development  
Forum, Tunis

10 / 14



## BROADCASTING

Digitization is completely transforming the sound and television broadcasting sector.

- impart information to broadcasters and service providers to all aspects of digital conversion
- provide advise in the area of implementation of digital technology and development of relevant human resources

01 June 2009

Arab Regional Development  
Forum, Tunis

11 / 14



## BROADCASTING ACTIVITY EXAMPLES

- **Transition from analogue to digital**
  - Roadmap project for Africa
  - ITU-D SG2 Question 11-2/2
- **Cooperation with regional broadcasting unions**
  - e.g. WBU, EBU, ABU, ASBU
- **Delivering seminars for capacity building**
- **Assistance to developing countries**
- **Conversion of audiovisual archives from analogue to digital**

01 June 2009

Arab Regional Development  
Forum, Tunis

12 / 14

## ROADMAP PROJECT IN AFRICA DIGITAL BROADCASTING TRANSITION



- Outputs of the 1<sup>st</sup> phase of the project (January – July 2008)
  - Survey on the digital broadcasting transition situation including the African governments' requirements for assistance from ITU
  - Development of the project document of the 2<sup>nd</sup> phase of the project
- Expected outputs of the 2<sup>nd</sup> phase of the project (November 2008 - October 2009)
  - Development of the guidelines on transition to DTTV and introduction of MTV
  - Customization of guidelines and deployment of pilot systems to selected countries

01 June 2009

Arab Regional Development  
Forum, Tunis

13 / 14



***Thank you !***

***István BOZSÓKI***  
***ITU / BDT / TND***  
***istvan.bozsoki@itu.int***

01 June 2009

Arab Regional Development  
Forum, Tunis

14 / 14