



# Policy and Regulatory Initiative for Digital Africa (PRIDA)

## Concept Note

Online capacity building workshops on modern spectrum management and related software

### Introduction

Capacity building represents an essential component of the PRIDA project. PRIDA will provide trainings in different regions of the continent, tailored to the targeted countries' needs. They will be provided in English or French.

Participants of the PRIDA focal points' meeting that took place in Addis Ababa last December 2019 agreed that modern spectrum management and a training on the ITU spectrum management software for developing countries (SMS4DC) are among the priorities.

The two trainings will be tailored to the overall project objectives of harmonising the spectrum utilisation and will be provided on-line during April and May 2020.

### Modern spectrum management module

The ITU is leading the process for international and regional spectrum harmonisation. Every four years, the world radio communications conference (WRC) convene to amend the ITU Radio Regulations. These include the international frequency allocation table and the technical conditions and regulatory procedures for using the radio spectrum. Regional organisations and industry associations are also taking a complementary role in harmonising the use of radio spectrum.

The growing demand on the spectrum allocated for wireless broadband services took significant spectrum harmonisation efforts in the recent years.

Spectrum management has moved from the traditional command-and-control to the market-based mechanisms. Advanced spectrum auctions emerged to help regulators in determining the market value of the radio spectrum.

To cope with spectrum scarcity, innovative sharing schemes have been implemented.

Regulators also liberalised the spectrum assignments and allowed spectrum users to reform their assignments, as well as to implement the latest spectrum-efficient technologies. Regulators also implemented several approaches to reform legacy spectrum assignments with and without compensating the incumbent users.

In order to ensure the sustainability and continuity of the training outcomes, a train-the-trainers approach will be used. Hence, the **target audience** of this training will be seasoned spectrum management experts who are willing and able to transfer the knowledge within their organisations and/or throughout Africa.

This module of five half days duration will cover the following topics:

- Spectrum harmonisation, how the regional organisations and industry associations can complement the ITU harmonisation efforts.
- ITU-BDT spectrum management activities
- Outcomes of WRC-19 and the first session of the Conference Preparatory Meeting CPM23-1, to the extent that these outcomes are related to the harmonisation of wireless broadband spectrum.
- Wireless broadband spectrum awards
  - Multiband Spectrum auctions (e.g. SMRA, clock auctions, single-round & sealed envelope)
  - Administrative incentive pricing
  - Coverage obligations
  - Spectrum caps
- Mobile infrastructure sharing:
  - passive sharing: site and mast sharing,



- active sharing: RAN and core sharing,
- implementing nation-wide Mission Critical Communications networks,
- competition concerns
- Spectrum sharing and Dynamic Spectrum Access:
  - DSA opportunities, issues and challenges,
  - white spaces, , Citizens Broadband Radio Service (CBRS) in 3.5 GHz and other case studies,
  - spectrum pooling,
  - Licensed Shared Access, and
  - Spectrum commons (unlicensed spectrum)
- Spectrum use efficiency, economic value and refarming
  - Approaches to defining and measuring Spectrum Use Efficiency (SUE)
  - Methods and means for deriving (comparative) economic value of spectrum
  - Spectrum refarming approaches, challenges and case studies

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

Keeping in mind the profile of audience who are attending the modern spectrum management training, this training is designed to familiarise participants with the main functionalities and capabilities of the SMS4DC, and how the software can support the harmonisation and deployment of wireless broadband.

This five half days module will provide participants with an overview on:

- Introduction on SMS4DC,
- creating the national frequency allocation table,
- defining frequency channelling arrangements,
- importing terrestrial radio communications stations from BR IFIC,
- performing basic engineering functions: coverage calculation and interference analysis focusing on UHF TV broadcasting and mobile systems, and;
- performing cross-border frequency coordination.

### Timing and location

The above two modules will be delivered over ten half working days in two different languages and dates, as follows:

Period	Language
20 April – 1 May	EN
11-22 May	FR

### Target audience

The target audience for these trainings are technical staff from African Regulatory Agencies.

### Registration and further information

Further information, as well as registration will be made available at the related event pages at the ITU Africa regional site: <https://www.itu.int/en/ITU-D/Regional-Presence/Africa/Pages/default.aspx>