

**Report of**  
**ITU Regional Workshop for CIS on**  
**Experience in the Implementation and Operation of Digital TV Broadcasting in the CIS**  
**Moscow, Russian Federation, 16-18 February 2016**

The ITU Regional Workshop for CIS on Experience in the Implementation and Operation of Digital TV Broadcasting in the CIS, organized in cooperation with the Institute of Upgrade Qualification of Moscow Technical University of Communications and Informatics (MTUCI), ITU-D Sector Member, and with the support of the Communication Administration of Russia, was held in Moscow, Russian Federation, from 16 to 18 February 2016.



The workshop was attended by representatives of communication administrations, regulators, telecommunication providers, scientific and research institutions and telecommunication universities of **6 ITU Member States** from the region of CIS (Republic of Belarus, Kyrgyz Republic, Republic of Moldova, Russian Federation, Republic of Uzbekistan, and Republic of Tajikistan). Also, the workshop was attended by representative of the Regional Commonwealth in the field of Communications (RCC). The ITU was represented by Mr. Orozobek Kaiykov, Head, ITU Area Office for CIS and Mr. Farid Nakhli, Programme Officer, ITU Area Office for CIS.

Total number of participants made **63**.

Within the framework of official opening, the workshop participants were greeted by Mr. Sergei Yerokhin, Acting Rector, MTUCI; Mr. Orozobek Kaiykov, Head, ITU Area Office for CIS; Ms. Natalya Zorya, Deputy Director General, Executive Committee, RCC; Mr. Yury Zubarev, Corresponding Member of the Russian Academy of Science, academician.



On the first day of the workshop, 16 February 2016, 8 presentations were delivered.

- *Professor Mark Krivosheyev, Consultant, NIIR, Honorary Chairman of the ITU-R Broadcasting Study Group, told in detail of the prospects of digital terrestrial broadcasting development and latest inventions in the field. When speaking of the future of digital terrestrial broadcasting, Professor Krivosheyev noted the timeliness of the event as a platform to discuss recent achievements and challenges in the field of digital terrestrial broadcasting. Also, Professor Krivosheyev touched the issues of coordination and use of the first and the second digital dividends, noting that this issue is beyond the CIS and should be solved collectively.*
- *Mr. Farid Nakhli briefly presented the results of WCR-15 and the tasks of the CIS related to the implementation of the WCR-15 decisions.*
- *Mr. Valery Dotolev, Deputy Head of Division, FSUE Scientific and Research Institute of Radio, told of the issues of the frequency resource use regulation, which are not reflected in the Geneva-06 Agreement. Also, he touched the issues of frequency assignment coordination in border areas between the CIS countries and between of Transcaucasian Sub-region (Armenia, Azerbaijan, Georgia, and Iran), noting that there are some problems which are to be solved at a neutral platform (ITU could facilitate this).*
- *The experience in the digital television transition was covered by the presentations of Mr. Vitaly Stytsko (Russia), Mr. Maxat Dzhylyshbayev, Mr. V.Tashlanov (Kyrgyz Republic), Mr. Daniel Stici (Republic of Moldova), Mr. Abrobek Razhabov (Republic of Uzbekistan). They told of the compression standards and the compression degree and touched the issues of multiplexes, central and regional programmes and routing.*

- *The results of the first day were summarized at the round table. The participants expressed satisfaction with the results and thanked the moderator, Mr. Vitaly Stytsko and the speakers.*

On the second day of the workshop, 17 February 2016, the participants visited radio-transmitting television station (TV Centre Ostankino), the construction, which is unique for the entire ex-Soviet space. The participants were satisfied with the visit, organized by the Institute of Upgrade Qualifications.



The presentations foreseen by the Session 3 agenda were postponed for the 3<sup>rd</sup> day, 18 February 2016.

Within the framework of the 3<sup>rd</sup> day, 18 February 2016, 6 presentations were delivered.

- *Mr. Vladimir Matveyev, Associate Professor, MTUCI, presented the process of training of specialists in the field of digital television and radio broadcasting, the training programme for specialists from the CIS and the training-related capabilities of the Institute of Upgrade Qualifications.*
- *Mr. Mikhail Lohvitsky, Associate Professor, MTUCI, presented a number of technical capabilities using the OFDM digital modulation method and its modernization for digital television. The method is more familiar for LTE, as of the use for digital television, it should be studied additionally.*
- *Great interest was stirred by the presentation of Mr. Timofei Brukhin, representing Russian company Central Access System. Currently, there is a single-media approach in the digital television: only digital television coverage areas are taken into consideration, while interests of exact consumers, living in high-rise apartment buildings, who need to restore collective antennas to receive digital television, are not considered.*
- *The presentation of Mr. Dmitry Lukyanov, MTUCI post graduate student was dedicated to implementation of digital television broadcasting in different regions of Russia.*

The workshop was finalized by the roundtable on The Experience in the Implementation and Operation of Digital Television Broadcasting in the CIS, chaired by Mr. Orozobek Kaiykov.

At the roundtable, representatives of academia, communication administrations, regulators, broadcasters discussed the issues related to digital television broadcasting transition in the region, including organizational and economical aspects of the transition, the issues of frequency assignment coordination in border areas and use of the first and the second digital dividends. Within the framework of the roundtable, Mr. Sergei Bodganov, Chief Engineer, Unitary Enterprise Beltelecom, informed the participants of the digital television broadcasting status in the Republic of Belarus. In particular, he told of existing problems, including synchronization of singly-frequency networks within the framework of 25 zones, of the receiving set distribution etc. According to Sergei Bogdanov, the last analogue transmission unit was switched off on 4 April 2016: therefore, the Republic of Belarus completed the digital television broadcasting transition. This year, the country plans to start first high-definition transmission unit.

The participants noted a good level of digital broadcasting transition in the CIS region and excellent results of the transition in the Republic of Belarus. Most the CIS countries plan to switch off analogue transmission units by the middle of 2017.

Also, within the framework of the roundtable, the participants not only discussed the issues of transmission, but also of the reception of digital television. In this regard, the majority of the participants appreciated the presentation by Mr. Timofey Bryukhin.

Thanks to a truly creative atmosphere of cooperation between the speakers and the audience, the Workshop was a good platform for exchange of opinions and experiences between representatives of different institutions and countries and furthered new cooperative relationships.

The successfulness of the event could be evaluated based on following KPIs:

- **Number of participants: 63**
- **Number of participating countries: 6 Member States from the CIS**
- **Number of presentations on the subject: 14**
- **Positive feedback from the participants** confirming the usability of the event: according to the questionnaires filled out by the participants upon the completion of the event, the participants are satisfied with the results of the workshop, the information is really topical, because digital television bears some social load in almost all CIS countries, so the governments rest significant responsibility upon the broadcasters.
- **Information and experiences shared:** the participants significantly raised their awareness of different aspects of digital TV broadcasting transition, this will practically contribute to final transition to digital terrestrial TV broadcasting in the CIS countries.

Therefore, the workshop was a success and implemented the objectives fixed within the ITU-D OP-16. The number of participants was really significant, besides among the representatives there were reputed specialists in the field of digital TV. Also, the number of presentations on the topic of the workshop proves the workshop topicality and importance of the topic for the CIS. The success of the event is also supported by positive feedback from the participants.

The participants expressed gratitude to the ITU Area Office for CIS, the Communication Administration of the Russian Federation, and the MTUCI Institute of Upgrade Qualifications for the organization of the event. Also, the participants expressed thanks to the speakers for the topical and interesting presentations.

The ITUA Area Office for CIS, in its turn, expresses thanks to the participants and to the Communication Administration of the Russian Federation, and the MTUCI Institute of Upgrade Qualifications for cooperation and support and personally to Mr. Mikhail Lokhvitsky for coordination of the event.