

5G Implementation in Europe and CIS

Strategies and Policies Enabling New Growth Opportunities

3-5 July 2018
Budapest, Hungary

Regional Seminar for Europe and CIS back-to-back with
Experts' Knowledge Exchange related to the work of ITU-D Study Groups
organized by International Telecommunication Union and hosted by
National Media and Infocommunications Authority of Hungary



DRAFT AGENDA

Tuesday, 3 July 2018

8:30 – 9:30	Registration
9:30 – 9:40	Opening Addresses <ul style="list-style-type: none"> • Dr. Péter Vári, Deputy Director General, National Media and Infocommunications Authority, Hungary • Mr. Jaroslav Ponder, Head of ITU Office for Europe, International Telecommunication Union
9:40- 10:00	Setting the Context <ul style="list-style-type: none"> • Mr. Istvan Bozsoki, Head of Spectrum Management and Broadcasting Division, BDT, ITU
10:00 – 10:20	Coffee Break and Group Photo



10:20 – 12:30

Session 1: National strategies for 5G implementation

This session focus on the guidance available to date to countries on how to elaborate a National Strategy to enable 5G roll out. Countries that have already started work on their National Strategies for 5G Implementation are invited to share their experience.

Panel Discussion moderated by Mr. Jaroslav Ponder, Head of ITU Office for Europe, International Telecommunication Union.

- **“Political and Regulatory Developments in Denmark”** by **Mr. Peter Madsen**, Senior Advisor, Ministry of Energy, Utilities and Climate, Denmark
- **“5G in Hungary”** by **Dr. Péter Vári**, Deputy Director General, National Media and Infocommunications Authority, Hungary
- **“Introduction of 5G”** by **Mr. Dimitar Bukavalov**, Head of Department for Communications, Ministry of Information Society and Administration, FYR Macedonia
- **“Towards the National 5G Strategy for Republic of Poland”** by **Mr. Dominik Kopera**, Deputy Director, Ministry of Digital Affairs, Republic of Poland
- **“National 5G Strategy of Republic of Serbia”** by **Ms. Aleksandra Vučić**, Chief Advisor, Regulatory Agency for Electronic Communications and Postal Services (RATEL), Republic of Serbia
- **“5G Networks Development in the Russia: Experiences and Plans”** by **Mr. Evgeny Tonkikh**, Deputy Head of Department, Radio Research and Development Institute (NIIR), Russian Federation
- **“How Regulation Can Encourage Investments in 5G”** by **Mr. Eric Delannoy**, Assistant Director, Economic Advisory, Deloitte

12:30 – 14:00

Lunch Break

14:00 – 14:20

Special Address by the Body of European Regulators for Electronic Communications (BEREC)

- **“BEREC’s work on 5G”** by **Mr. Stefan Felder**, BEREC Representative and Telecom Economist at RTR, Austria

14:20 – 16:20

Session 2: Case studies on 5G pilot projects

This session focuses on the implementation of projects based on 5G at the level of Government or by the private sector.

Panel Discussion moderated by Mr. Kirill Oparin, Head, ITU Regional Office for CIS, International Telecommunication Union

- **“Slovenian 5G pilot projects”** by **Mr. Kory Golob**, Secretary at the Ministry of Public Administration, Republic of Slovenia
- **“Turkcell’s 5G Vision as a Digital Operator”** by **Dr. Izzet Saglam**, Senior Expert, 5G R&D Team, Turkcell, Turkey
- **“Findings and follow-up from 5G pilot projects in Russia”** by **Mr. Pavel Mamchenkov**, Megafon





- **“5G Trials: the BBC’s involvement”** by **Mr. David Hemingway**, Senior Distribution Manager, British Broadcasting Corporation (BBC), and Vice-Chairman of ITU-R Working Party 6A
- **“Possible 5G Deployment strategies for Europe”** by **Ms. Silvana Apicella**, Head of Strategic Network Evolution South Europe, Ericsson
- **“The key achievements so far, and plans for the next phase”** by **Mr. Balazs Bertenyi**, Chairman of 3gpp RAN, Nokia
- **“5G pilot projects by Huawei”** by **Mr. Attila Tóth**, Wireless Product Manager, Huawei
- **“Ukraine on the way of 5G implementation”** by **Ms. Iryna Pokhabova**, Head of Department, State University of Telecom, Ukraine
- **“5G case study for the Winter Olympics in Korea”** by **Mr. Turhan Muluk**, Government and Policy Group, Intel Corporation

16:20 – 16:40 Coffee Break

16:40 – 17:15 Experts’ Knowledge Exchange of ITU-D Study Groups on the Daily Subjects
Setting the context and moderation by Ms. Christine Sund, Advisor, ITU-D Study Groups, ITU
Facilitation by

- **Mr. Krisztián Stefanics**, National Media and Infocommunications Authority, Hungary and Vice-Chairman of ITU-D Study Group 1
- **Dr. Vadym Kaptur**, Vice-Rector on Scientific Work, O.S. Popov Odessa National Academy of Telecommunications, Ukraine and Vice-Chairman of ITU-D Study Group 1

Question 1/1 - Strategies and policies for the deployment of broadband in developing countries
Question 1/2 - Creating smart cities and society: Employing information and communication technologies for sustainable social and economic development

19:00- 21:00 Social event

Wednesday, 4 July 2018

8:30 – 9:00 Welcome

9:00 – 10:30 Session 3: Enabling environment for 5G deployment
This session focuses on the enabling factors that need to be put in place and nurtured for successful deployment of 5G. Such enablers would include international and regional technical standards and guidelines as well as national regulatory components
Panel Discussion moderated by Mr. Krisztián Stefanics, National Media and Infocommunications Authority, Hungary

- **“Setting the scene for 5G: Opportunities & Challenges”** by **Mr. Istvan Bozsoki**, Head of Spectrum Management and Broadcasting Division, BDT, ITU



- **“Enabling Environment for 5G Deployment in Poland”** by **Mr. Dominik Kopera**, Deputy Director, Ministry of Digital Affairs, Poland
- **“Organizational and technical aspects of enabling environment creation for 5G deployment in the developing countries”** by **Dr. Vadym Kaptur**, Vice-Rector on Scientific Work, O.S. Popov Odessa National Academy of Telecommunications, Ukraine
- **“Enabling environment for 5G deployment”** by **Dr. Csaba Simon**, Budapest University of Technology and Economics, Hungary
- **“ETSI & 3GPP 5G standardization toward IMT-2020 Radio spectrum and interface”** by **Mr. Srdjan Mihaljević**, ITU Consultant

10:30 – 10:50 Coffee Break

10:50 – 12:30 Session 4: New business models and revenue streams

This session will focus on emerging models that the Industry is adopting to enhance revenue streams from a business perspective. Industry challenges and opportunities in both the developed and developing countries will be discussed.

Panel Discussion moderated by Mr. Jaroslaw Ponder, Head of the ITU Office for Europe, International Telecommunication Union

- **“Proving Ground Zalaegerszeg: a unique opportunity both for classic tests and autonomous vehicle validation”** by **Dr. András Háry**, Automotive Proving Ground Zala Ltd, Hungary.
- **“5G Business Potential from Industry Digitalization”** by **Ms. Silvana Apicella**, Head of Strategic Network Evolution South Europe, Ericsson
- **“Monetizing 5G – the disruption of traditional telco business models”** by **Mr. Balint Vegh**, Telecommunication Consulting Group, PwC Hungary
- **“Behind the use cases: Dad I want a Pony!”** by **Mr. Ákos Bóna**, Digital Champion of Hungary to the EU

12:30 – 13:45 Lunch Break

13:45 – 14:45 Session 5: Electromagnetic fields and 5G roll-out

This session will continue work initiated in 2017 on an exchange of views and experiences to identify current practices and proposed future collaborative actions in addressing Electromagnetic Field (EMF) levels without slowing down 5G deployment. Country cases as well as specialized actors will be called to share experience and expertise.

Panel Discussion moderated by Mr. Peter Walop, ITU Expert

- **“Setting the scene on EMF and 5G”** by **Mr. Istvan Bozsoki**, Head of Spectrum Management and Broadcasting Division, BDT, ITU
- **“EMF and 5G: Challenges and Opportunities”** by **Mr. Dominik Kopera**, Deputy Director, Ministry of Digital Affairs, Poland
- **“Before 5G roll-out: Microenvironment and personal RF exposure measurements in Hungary”** by **Dr. György Thúröczy**, Head of Department, National Public Health Institute, Hungary



14:45 – 15:45 Session 6: Effective use of the digital dividend

This session will focus on issues of Digital Dividend ranging from the background provision of its definition to the specific features of future utilization of 470 – 790 MHz band in the EU. Particular attention was given to the anticipated implementation of IMT2020 systems in 700 MHz band.

Panel Discussion moderated by Mr. Krisztián Stefanics, National Media and Infocommunications Authority, Hungary

- **“Digital switchover and digital dividend: The European experience”** by **Mr. Juan Castro**, Broadcasting Engineer, Radiocommunication Bureau, ITU
- **“Spectrum management decisions on the digital dividend”** by **Mr. Peter Walop**, ITU Expert
- **“Strategies and Policies Enabling New Growth Opportunities: Effective Use of DD”** by **Mr. Fotjon Kosta**, Head of ICT at Ministry of Industry and Energy, Republic of Albania
- **“Making the most of the Digital Dividend”** by **Mr. David Hemingway**, Senior Distribution Manager, (British Broadcasting Corporation (BBC) and Vice-Chairman of ITU-R Working Party 6A

15:45 – 16:00 Coffee Break

16:00 – 16:30 Session 7: New services in digital broadcasting

Panel Discussion moderated by Mr. Krisztián Stefanics, National Media and Infocommunications Authority, Hungary

- **“Drivers for new digital broadcasting services”** by **Mr. Peter Walop**, ITU Expert
- **“The evolution of Digital Broadcasting”** by **Mr. David Hemingway**, Senior Distribution Manager, (British Broadcasting Corporation (BBC) and Vice-Chairman of ITU-R Working Party 6A

16:30 – 17:20 Experts’ Knowledge Exchange of ITU-D Study Groups on the Daily Subjects

Setting the context and moderation by Ms. Christine Sund, Advisor, ITU-D Study Groups, ITU

Facilitation by

- **Mr. Krisztián Stefanics**, National Media and Infocommunications Authority, Hungary and Vice-Chairman of ITU-D Study Group 1
- **Dr. Vadym Kaptur**, Vice-Rector on Scientific Work, O.S. Popov Odessa National Academy of Telecommunications, Ukraine and Vice-Chairman of ITU-D Study Group 1

Question 7/2 - Strategies and policies concerning human exposure to electromagnetic fields

Question 2/1 - Strategies, policies, regulations and methods of migration and adoption of digital broadcasting and implementation of new services





Thursday, 5 July 2018

8:30 – 9:00 Welcome

9:00 – 10:20 **Session 8: National regulatory, policy measures on spectrum management and spectrum monitoring**

This session will focus on discussions of the basic principles of regulation and policy making relevant to spectrum management and broadcasting in the region. Current activity of ETSI in European market access regulation will be highlighted

Panel Discussion moderated by Mr. Istvan Bozsoki, Head of Spectrum Management and Broadcasting Division, BDT, ITU

- **“5G Spectrum Monitoring”** by **Mr. Thomas Krenz**, Product Manager, Spectrum Monitoring Systems Rohde & Schwarz GmbH & Co.
- **“Economic Aspects of Redeployment in 3400 – 3800 MHz Spectrum Band”** by **Mr. Pavel Mamchenkov**, ITU Consultant
- **“Spectrum Management in Kyrgyz Republic”** by **Ms Aichurok Maralbekkyzy**, Chief specialist of Spectrum Management Department, State Communications Agency under the State Committee of Information Technologies and Communications of Kyrgyz Republic

Round table discussion with participation of all representatives of institutions in charge of spectrum

10:20 – 10:40 Coffee Break

10:40 – 12:15 **Session 9: ITU-R works on preparations for WRC-19 concerning 5G**

The session focus will be on issues of primary importance in the development of radio technologies and in allocation of spectrum bands for those ones are included in the agendas of forthcoming WRC 2019.

Panel Discussion moderated by Mr. Istvan Bozsoki, Head of Spectrum Management and Broadcasting Division, BDT, ITU

- **“Towards the World Radiocommunication Conference 2019”** by **Mr. Juan Castro**, Broadcasting Engineer, Radiocommunication Bureau, ITU

Round table discussion with participation of all representatives of institutions in charge of spectrum

12:15 – 12:30 Closing ceremony

12:30 – 14:00 Lunch

Experts’ Knowledge Exchange Related to ITU-D Study Group 1 and 2 Study Topics

14:00 – 14:15 Opening and Setting the Context

14:15 – 15:30 Experts’ Knowledge Exchange on topics related to ITU-D Study Group 1





Moderation by Ms. Christine Sund, Advisor, ITU-D Study Groups, ITU

Facilitation by

- **Mr. Krisztián Stefanics**, National Media and Infocommunications Authority, Hungary and Vice-Chairman of ITU-D Study Group 1
- **Dr. Vadym Kaptur**, Vice-Rector on Scientific Work, O.S. Popov Odessa National Academy of Telecommunications, Ukraine and Vice-Chairman of ITU-D Study Group 1

Question 1/1 - Strategies and policies for the deployment of broadband in developing countries

Question 2/1 - Strategies, policies, regulations and methods of migration and adoption of digital broadcasting and implementation of new services

15:30 – 16:00 Coffee Break

16:00 – 17:20 Experts’ Knowledge Exchange on topics related to ITU-D Study Group 2

Setting the context and moderation by Ms. Christine Sund, Advisor, ITU-D Study Groups, ITU

Facilitation by

- **Mr. Krisztián Stefanics**, National Media and Infocommunications Authority, Hungary and Vice-Chairman of ITU-D Study Group 1
- **Dr. Vadym Kaptur**, Vice-Rector on Scientific Work, O.S. Popov Odessa National Academy of Telecommunications, Ukraine and Vice-Chairman of ITU-D Study Group 1

Question 1/2 - Creating smart cities and society: Employing information and communication technologies for sustainable social and economic development

Question 7/2 - Strategies and policies concerning human exposure to electromagnetic fields

17:20 – 17:30 Closure of the meeting

