

ITUEvents

ITU-EKIP regional regulatory forum for Europe

Future Regulation for Inclusive Connectivity

30 September - 1 October 2019
Budva, Montenegro

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ITU Regional Initiative for Europe on broadband infrastructure,
broadcasting and spectrum management

GIGABIT SOCIETY

5G STRATEGIES

INVESTMENT

REGULATORY TOOLS

EMERGING TRENDS



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OUTCOME REPORT

Future Regulation for Inclusive Connectivity

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ACKNOWLEDGMENTS

This report has been produced by International Telecommunication Union (ITU). ITU would like to express their appreciation to the Agency for Electronic Communications and Postal Services (EKIP) of Montenegro, for hosting the 2-day workshop in Budva. ITU would also like to thank all participants for their presentations contributing to the workshop, the moderators for coordinating proceedings, Ms. Lena Lattion and Ms. Nancy Sundberg from ITU, for putting together this report.



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1. INTRODUCTION

1.1 Background

The ITU Regional Regulatory Forum for Europe on "Future Regulation for Inclusive Connectivity" was organised as a key feature of INFOFEST 2019, in Budva, Montenegro, from 30 September to 1 October 2019. This forum was held within the framework of the ITU Regional Initiative for Europe on Broadband Infrastructure, Broadcasting and Spectrum Management adopted by the ITU World Telecommunication Development Conference 2017 (WTDC-17). Among other objectives, the initiative aims to assist countries in fostering harmonization of approaches across the region. This forum provided a unique opportunity for a high-level dialogue between stakeholders on strategies and policies directed towards broadband development, challenges and opportunities offered by resilient high-speed networks coupled with flexible and collaborative regulatory actions. It also offered an opportunity for setting-up actions to assist countries on regulatory matters.

The Sessions composing the workshop were:

- Session 1 on Global and Regional Trends in the Evolution of ICT Policies and Regulatory Frameworks for Inclusive Connectivity
- Session 2: 5G National Strategies, Policies and Pilot Projects that Drive Inclusive Connectivity
- Session 3: Spectrum Policy Supporting European Gigabit Society Development
- Session 4: Innovative Approaches to Boost Investment in the Gigabit Infrastructure This 2-days forum covered in particular the following aspects:
- Session 5: Emerging Issues in Regulation Fostering Inclusive Connectivity

1.2 Participation

The workshop targeted all stakeholders involved in the regulatory framework of broadband infrastructure in Europe. More than 140 participants from 10 countries took part in the forum including officials from European National Regulatory Authorities (NRAs), Ministries, Operators of electronic communications, Academia as well as representatives and experts of international organizations and institutions in charge of the regulation and development policy of electronic communications.

1.3 Documentation

The workshop was paperless. Relevant documentation, including the agenda, all presentations and background information are available on the event webpage:

<http://www.ekip.me/INFOFEST/index.php> | http://www.itu.int/go/EUR_RRF-19x

1.4 Opening Address

The forum opening address was conducted by Mr. Branko Kovijanic, President of the Council of EKIP of Montenegro, Mr. Jaroslaw Ponder, Head of ITU Europe Office of ITU, H.E. Milan Srzentic, State Secretary of the Ministry of Economy of Montenegro and Ms. Fiona McCluney, UN Resident Coordinator of Montenegro.

The forum was followed by welcoming remarks by heads of National Regulatory Authorities present, Mr. Ilir Zela, Executive Director of the Agency for Electronic Communications and Post (AKEP), Republic of Albania, Mr. Darko Josipović, Deputy President of the Council of the Regulatory Authority for network industries (HAKOM), Republic of Croatia and Mr. Marcin Cichy, President of the Office of Electronic Communications (UKE), Republic of Poland.

This forum has been chosen to be the opportunity to held two agreements signing ceremony. First, a Technical Agreement has been signed between National Frequency Management Authorities of Bosnia and Herzegovina, Montenegro, Republic of North Macedonia and Republic of Serbia. The present representatives were the following:

- **Mr. Predrag Kovač**, Communications Regulatory Agency (CRA), Bosnia and Herzegovina
- **Mr. Sasho Dimitrijoski**, Agency for Electronic Communications (AEC), Republic of North Macedonia
- **Mr. Vladica Tintor**, Regulatory Agency for Electronic Communications and Postal Services (RATEL), Republic of Serbia
- **Mr. Darko Grgurović**, Agency for Electronic Communications and Postal Services (EKIP), Montenegro

Second Agreement has been signed between the International Telecommunication Union and Mr. Predrag Kovač, Communications Regulatory Agency (CRA) from the Communications Regulatory Agency (CRA) of Bosnia and Herzegovina



Agency for Electronic
Communications and
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SESSION 1: GLOBAL AND REGIONAL TRENDS IN THE EVOLUTION OF ICT POLICIES AND REGULATORY FRAMEWORKS FOR INCLUSIVE CONNECTIVITY

The objective of this session, moderated by Mr Jaroslaw Ponder, ITU was to examine global approaches and trends on ICT policy and regulatory framework. The European Approach to ICT policies was further addressed by regional organisations, national ministries and regulatory authorities, and the perspectives of Western Balkans Countries as non-European Union countries shared.

Mr. Marcin Cichy from **UKE**, presented the outcomes of [The State of Broadband 2019, Broadband as a Foundation for Sustainable Development](#), a report published by the Broadband Commission reporting on the Commission's seven targets to be achieved by 2025 and the principles and recommendations made to foster growth of ICTs and broadband access and use for all in a meaningful manner. He highlighted that it is important to assess the regulatory and policy gaps in order to understand the situation and identify measures that can be taken to address those. Concrete objectives such as the needs to develop national strategies and plans, to foster affordability of ICT services and devices, to enhance the development of digital skills, to facilitate the use of digital financial services and enabling small businesses to get online were stressed.

Ms. Nancy Sundberg from **ITU** provided an overview of the growth of the ICT sector and the evolution of regulation and regulatory maturity of markets, globally and in Europe, over the past decade, introducing the concept of generation of regulations. She presented the results of the ITU study on the economic contribution of broadband, digitization and ICT regulation. She further presented the ITU [ICT Regulatory Tracker](#), a unique tool covering 185+ countries to track regulatory progress at the country, regional and global level. In Europe, four in five regulators have reached the fourth generation of ICT regulation and 10 of the 16 countries classifying as part of the fifth generation of regulation (collaborative regulation) are from Europe.

Ms. Sundberg also stressed the need of greater collaboration between ICT regulators and other NRA's such as consumer and data protection authorities, spectrum agencies, broadcasting, financial and energy regulators in the digital transformation process that is taking place across the globe. Finally, she highlighted the [GSR-19 Best Practice Guidelines](#) adopted by the regulatory community to fast forward digital connectivity for all on defining the core principles for collaborative regulation.

Ms. Inga Popovici presented the [Eastern Partnership organisation](#) that assists Eastern Europe countries in developing their digital and 5G connectivity strategies, in the field of spectrum, universal services, investment and broadband development. Ms. Popovici highlighted the preliminary results on an ongoing study conducted in collaboration with the World Bank. The Eastern Partnership has built a strong community of relevant representatives within each of the countries and for each of the specific areas. The organisation aims at connecting the community and integrating the countries of the region with the European Union Member States. In concluding her presentation, she invited all interested European stakeholders to connect with the Eastern Partnership.

Ms. Mzia Gogilashvili from the **Eastern Partnership organisation** presented a project to provide broadband access implemented in Georgia in collaboration with the local communities, external institutions and local governmental organisations, the private sector and academic institutions. This

multi-stakeholder cooperation has led to the implementation of high-speed connectivity in Caucasus Mountains with more than 30 villages connected today.

[Mr. Paul Foley](#) from **tech4i2** presented the outcomes of a study undertaken for 2 years now that monitor progress made by the Western Balkans economies and Turkey towards compliance with the European Union rules for electronic communications and information society services, and convergence with the internal market. In this study, operators were to assess NRAs and vice-versa. The study showed the need to develop surveys for businesses to gather greater information on digital public services, market revenues and the status of connectivity. These in-countries assessments provided a more specific interpretation of global studies on the regulatory status of Western Balkans economies, taking into consideration the specific social, historical, cultural and economic context of the countries.

SESSION 2: 5G NATIONAL STRATEGIES, POLICIES AND PILOT PROJECTS THAT DRIVE INCLUSIVE CONNECTIVITY

Moderated by Ms Sundberg this session focused on the sharing of experience from various stakeholders on challenges and successes with innovative 5G pilot projects.

[Mr. Marcin Cichy](#), indicated that UKE is currently assessing the potential implementation of 5G technology in Poland. In particular, Mr Cichy described how Poland is taking steps to release space in the 700 MHz, highlighting the critical bands where there is interference from TV services, and noting that they are coordinating such release with neighbouring countries. With regard to the S Band for Regional frequency licenses, it was put forward that a great number of regional governmental entities have taken steps towards licensing but that the risk of interference is high. With regard to 26 GHz, Mr Cichy explained that 75 PP licenses and 174 PMP licenses are in place in Poland and that nine 200 MHz sub bands will be released for 5G. Moreover, he outlined the current timetable for the licensing of C Band frequencies which Poland hopes to grant by mid-2020. Finally, Mr. Cichy mentioned that the country will soon proceed to a public consultation of the 5G strategy.

After a brief introduction on 5G, [Mr. Mazzone, Giacomo](#) from the **European Broadcasting Union, EBU**, outlined the opportunities for Public Service Media (PSM) broadcasting, highlighting how 5G can support the development of a variety of services that can be made easily accessible. He noted that 5G requirements should be framed to ensure that PSM is easily accessible in terms of quality, availability of content, accessibility and cost. Mr Mazzone highlighted how through the newly established 5G Media Action Group (MAG), EBU is facilitating broadcasters' representation in key industry standardization groups dealing with production and distribution of audio-visual media content and services. Within this framework, 5G MAG will engage in a variety of activities in the coming months.

[Mr. Franco Accordino](#), from the **European Commission** presented the ongoing project WIFI4EU that aims at bringing WIFI in villages and rural localities all around Europe. For this program, 4 calls have been made and more than 10'000 localities applied for every calls. Millions of investment have been made by the European Union to deliver connectivity to European Municipalities. In 2021, one more call will be planned. He stressed the need to set up common rules and regulation regarding 5G and the building of the infrastructure. According to the European Commission, the sustainability of spectrum belongs to the population and it should not be privatised.

Ms. Vanesa Čačković from **Ericsson Nikola Tesla** presented 5G as being a non-standalone technology. By 2024, 65 % of the population should be covered by the mobile traffic and even if today only a few mobile phone on the market are supporting 5G, the mobile market needs to think of supporting the 5G on top of servicing 4G. As it was mentioned several time during the conference, Europe is doing quite well in term of connectivity. However, there is, according Ericsson Nikola Tesla, still a real need to develop new business models to ensure return on investment for 5G.

SESSION 3: SPECTRUM POLICY SUPPORTING EUROPEAN GIGABIT SOCIETY DEVELOPMENT

This session, moderated by **Mr. Boris Jevrić** from EKIP focused on the shifting spectrum landscape in the context of the upcoming WRC-19 and 5G rollout. This session addressed the opportunities and challenges encountered by countries in developing high-speed connectivity.

Mr. Daniel Gueorguiev from **GSMA** highlighted the need to change and review the policies for spectrum deployment in Europe. He highlighted that with respect to 5G commercialization, half of the 35 networks available are based in Europe. According to GSMA, the development of 5G in Europe will depend on how Member States will implement it, how spectrum policies will be built, how technical challenges will be handled and, finally, on the policies for deployment. He mentioned in conclusion that today Member States need to find a common agreement, collaborate and cooperate more.

Mr. Sami Walid, from the **EBU** began his presentation by introducing the topic of ensuring Free-to-Air Broadcasting. Considering that TV distribution channels are in constant change and shifting towards Mobile and personal devices, it is important to ensure that content is accessible, present in all distribution platforms and delivered through the latest technologies. To this end, countries' spectrum policy must recognize the importance of Public Service Broadcasters for society and preserve access to required amount of spectrum resources for existing and future broadcasting technologies.

Mr. Elvis Babačić from **EKIP**, Montenegro highlighted that 5G network will be an opportunity to create technical and business innovation but raised the questions of whether the population and the infrastructure would be ready for its implementation and what would be the regulators role in its deployment? Montenegro is currently working on a regulatory framework for spectrum, including the strategy for 5G implementation. Consultation with all relevant stakeholders on a 5G pilot should be completed by 2020. The country is planning its next spectrum auctions in 2021.

Ms. Janja Varšek from **AKOS** in Slovenia mentioned that the regulatory authority is currently preparing a spectrum strategy to be published next year. As part of their objectives, they are aiming to use Radio frequency spectrum to create concrete social-economic benefit.

Mr. Goran Laovski from **RATEL**, Republic of Serbia mentioned that by the end 2020, the primary bands suitable for 5G implementation is forecasted to be ready in the country. The government has planned 5G Smart Cities projects in the biggest cities of Serbia. In addition, the country conducted a study to assess the market condition for spectrum allocation and is planning to launch the 5G spectrum auction by the end of 2020. Recommendation of that study are available in the [presentation](#).

Ms. Galya Blateva, Communications Regulation Commission, **CRC**, of Bulgaria presented her country's plans for managing 5G spectrum. Ms. Blateva highlighted that CRC took measures to harmonize the

use of the 5G bands in order to be compliant with Art. 54 of the EEC by 31 December 2020. Moreover, 5G tests in neutral bands have been overseen by CRC to assess a variety of technical issues. Results showed the following 1.47 Gbps in download speeds and 6ms for latency. In addition, CRC is looking at how to create a sustainable, high quality and competitive environment to support business development by carrying out public consultations and meetings with stakeholder.

[Ms. Julijana Jančula Bauer and Mr. Krešimir Mazor](#) from **HAKOM**, Republic of Croatia are currently working on the allocation of bands to cover at least one major city. Cities has been invited to request assistance and to show interest to be the first ones to implement 5G. HAKOM is also hosting several events around the country, such as the 5G day, considering awareness raising as a priority for population to familiarize with 5G can get to know and discover academia, businesses and startups with innovative ideas.

Panelists further shared their views on what are the advantages of 5G for the people.

SESSION 4: INNOVATIVE APPROACHES TO BOOST INVESTMENT IN THE GIGABIT INFRASTRUCTURE

This session, moderated by **Mr. Pavle Mijušković** from EKIP discussed the status of investment and the gaps in telecommunications in Europe. Practical case studies on policies aimed at fostering investment in connectivity were described and discussed.

[Mr. Vitomir Dragaš](#), from **EKIP** in Montenegro highlighted that internet penetration rate increased last year and now ranks higher in his country than the average of European Union countries. 4G coverage is very high in Montenegro. The country is encouraging competition in fixed broadband internet access with more than 90 % of the population having access to more than 3 operators. In addition, EKIP developed an [open source system](#) for QoS Internet access measurement for mobile and web clients. The country objectives for 2020 is to deliver fast broadband access to all the country and encourage households to subscribe by preparing a draft law to reduce the cost of deploying high-speed electronic communication networks and mapping broadband access to the country.

[Mr. Domagoj Jurjević](#) from **M2E savjetovanje**, Republic of Croatia, briefed the participants on the advantages that *Dark fiber* and the 5G will bring to higher speed connectivity, fostering the IoT market, allowing the development of autonomous vehicles and in increasing medical services. He raised questions regarding the roles and assignments of regulators and operators in this future era of 5G, the pros and cons of possible regulations, and the lack of European Union best practices on which NRAs can rely on. Mr. Jurjevic concluded that to foster investment opportunities, regulation should be developed in view of fostering competition and facilitating the development of new technologies, highlighting that NRAs strategies should be built according to their main goals. Finally, the growth of big data should lead to the development of a data collection tool. If it is to be regulated, then the combination of regulation and co-investment could be taken into consideration.

[Mr. Tomaž Šturm](#) from **AKOS**, Slovenia introduced the background of mapping in Slovenia, highlighting that the country possesses specific articles for mapping in their Electronic Communication Act and that in 2015, AKOS created its own database for mapping, called Geoportal. This database aims at reducing the cost of building very high-speed networks and encouraging the joint construction

of infrastructure. This portal gathers various types of electronic communications infrastructure, descriptions and analysis and comparisons between the providers, fixed broadband coverage, mobile coverage according to the technology used. In addition, this tool allows to drive tests and to measure the strength of mobile signals on the road network for example. This tool has also the opportunity to include the further planned infrastructure constructions such as in the electricity, gas, water supply, railways and other infrastructure and help combine the data.

Mr. Nedžad Eminagić from **RAK**, Bosnia and Herzegovina expressed that today, technologies and telecommunication are the fundamental means of our daily life. However, he raised the growing risk of being excluded from the digital society which can derive from the lack of experience, being poor, having personal constraints (deaf, blind etc) or being part of any discriminated minority. ITU's work on digital inclusion is highly important for ensure access to the online world to all. Mr. Eminagić presented a case study on the Rom community in Bosnia and Herzegovina showing that, even if they have digital access, due to language barrier, lack of economic means and access to education, the Rom population, considered as an excluded group do not use the devices safely. According to Mr. Eminagic, Bosnia needs to prioritize the investment in creating the regulatory framework to include socially vulnerable and neglected populations into digital environment.

Mr. Boris Arsov from **AEC**, Republic of North Macedonia, explained that the North Macedonian government aims at providing ICT infrastructure own by the state. The country created a network of stakeholders that have EU obligations to map the black, white and grey zones. North Macedonia objective will be to create a mapping application and strengthen its use through the law. The country will now be working on a new layer for mapping. They are planning to adopt a tool for analysing the data collected in mapping as currently only data collection is done and no analysis can be conducted.

SESSION 5: EMERGING ISSUES IN REGULATION FOSTERING INCLUSIVE CONNECTIVITY

This session, moderated by Ms Sundberg, addressed emerging issues of domain names in local languages, the role of the regulator in dealing with cybersecurity issues and the challenges faced by some regulators in complying with the EC laws and directives for some regulators.

Ms. Vera Julia Major explained that **ICANN** works closely with various technical partners to make the Internet work and ensures the stable and secure operation of the Internet's unique identifier system. In particular, ICANN works on the internationalized domain names (IDNs). As an exponential growth of connected people is expected in the coming years, it is important to ensure that people all around the world can access domain names in their local languages, which IDNs allow. With the Universal Acceptance (UA), people from every part of the globe will be able to effectively use any domain name, email address and application for their personal and business use. There will be no more need to use the Latin script; Cyrillic, Chinese and Japanese will also be part of the script. Finally, she encouraged all the tech community to get ready and create systems which are UA ready.

Ms. Ana Skočić, Ms. Nataša Vučelić from **RATEL**, Republic of Serbia, described the importance of the regulator's independence and the challenges RATEL faces in complying with the EECC in terms of its independence. Being independent means power and resources are guaranteed by the law. Regulators must be separated from Ministries and Governments and independent in their decisions making, financially and in managing its resources. RATEL is protected against political and external pressure

and intervention. The decisions taken by the Authority are to be final and cannot be unmade unless the disagreement is brought to the court. In addition, they face issues in complying with EU rules in terms of financial, functional and operational independence of RATEL.

[Ms. Vesna Gaspar and Ms. Željka Kadrum Ban](#) from **HAKOM**, Republic of Croatia talked about the Regulators' role regarding the security of networks and services in the electronic communications sector. In Croatia, the regulator is in charge of developing the National Cybersecurity Strategy in collaboration with other governmental institutions. In the cybersecurity field, HAKOM has built a strong cooperation with CERT. Their role is also to apply and decide obligations for the telecom sector. Operators have several obligations such as a yearly audit. For instance, they are working on implementing more obligations addressed to operators and financial institutions such as the obligation to provide data. There is a need for regulation in the ICT field, especially in the cybersecurity one. For now, computer incidence are reported in a voluntary basis. Hakom is not only collaborating at a national level, they set agreements with international organisations also. For example, in case of cyber incident, HAKOM has to inform ENISA.

Ms. Sabine Lobnig from the **Mobile & Wireless Forum** presented the [GARI database](#), a free online tool that helps consumers to find a device with accessibility features. The database disposes of several filters to access better find the appropriate tools such as the type of disability, the region, the manufacturer etc. GARI is currently used by 9 governments and more than 40 organisations. In addition, it is also used and adapted for telecom providers, therapist, universities, consumers, foundations etc. As of today, Latin America is the region accessing the most this database followed by the United States and Europe. By the end of the year, the 5th GARI feature review will be carried out and all accessibility stakeholders are invited to give their feedback on the list.

CLOSING SESSION: KEY TAKEAWAYS

Ms Sundberg from ITU and Mr Darko Grgurovic, Executive Director of EKIP closed the meeting.

- Europe region has a various and diverse levels of maturity regarding the regulatory and policy framework in Broadband Infrastructure, Broadcasting and Spectrum Management. Regulatory authority role and mandates, the regulatory framework and the established strategies and policies differ in their way of being implemented and prioritized.
- Countries, International and Regional Organizations and Private sector in Europe Region expressed the need to create a better collaboration process
- More attention should be given in building harmonized regulations, taking into account regional and international recommendations in addition to adopt the relevant standards.
- It was recommended that additional work should be done at the Europe region level to help regulators in adapting their regulations and policies to allow the development of broadband sector.
- Participants recognized the need for coordination of assistance in the Europe region.