Outcome report: Adoption of 5G in the Region, future opportunities (ITEC)

Session Date and Time: Session 6, Wednesday, 7 July 2021 (17:30 – 19:00 (CEST)). 90 minutes.

Numer of Participants: The session counted with 115 participants from them we there was 83 participants in average.

Master of ceremony: Pablo Palacios, Programme Officer, ITU Regional Office Chile.

Moderator: Julissa Cruz, Executive Director, Dominican Institute of Telecommunications (Indotel).

Speakers:

- Gaston Gonzalez, Regulatory Strategies Department of the Authority of Public Services (ASEP), Panama.

- Agostinho Linhares, Spectrum and Orbit Manager National Telecommunications Agency (Anatel), Brazil.

- Adolfo Oliva, Head of the Regulatory Policy Division Undersecretariat of Telecommunications (Subtel), Chile.

- Martín Olmos, Undersecretary of Information and Communication Technologies, Secretariat of Public Innovation, Head of Cabinet of Ministers, Argentine.

- H.E. Teodoro Willink, Vice-Minister of Telecommunications, Ministry of Science, Technology and Telecommunication (MICITT), Costa Rica.

1. **Session summary:**

   This session offered the space for discussion on the deployment of 5G in the AMS Region, the further projections, needs, national 5G plans, national digital plans, etc.

   Some countries in the Region have already implemented trials for 5G Networks in the main cities, some others have implemented national studies to define the applications to the national industry, and some others have already defined national 5G strategies.

   The session discussed these main questions:

   - Considering that there are still users on 2G, 3G and 4G networks; What projections has your country considered for the adoption of new networks such as 5G?

   - What population sectors have been mainly identified where to deploy 5G?

   - Considering that the global situation of the pandemic has produced a change towards all-digital, demanding greater broadband access, what actions have been implemented to accelerate the deployment of national infrastructure?

- What sectors of industry, business, services, have been initially identified to adopt 5G?

- By 2030, how are the projections of interconnecting rural sectors with new generation networks?

2. **Main outcomes highlighting the following:**

- Argentina has been working in setting up the conditions to launch an auction or a process of designation of the spectrum. Aregentina is setting up standards from the Public Innovation Secretariat with the National Telecommunications body.

- Argentina has an industrial orientation, like many countries in the region, they don't see 5G as an upgrade of mobile broadband for the final consumers, but it's an opportunity to push forward the industry in our economy.

- Argentina is enthusiastic about the potential that will be offered by 5G in terms of automization in agriculture, in industry, in mining, and a whole series of vertical uses.

- Argentina works towards ensuring inclusion, therefore they are looking at having fixed access wireless broadband, even for areas and parts of cities that are vulnerable and also in rural areas, this will be an important aspect for the implementation of 5G.

- Since 2019, Anatel from Brazil has approved the structural plan for telecommunications networks, ever since Brazil has been working in the implementation of 5G, they expect to have an auction this year 2021.

- Brazil has fiber optics to reach which municipalities and districts, to connect 2G, 3G, and 4G.

- Brazil wil have an auction for the spectrum that will be one of the largest in the world, the bands of 700 MHz, 2.5 GHz, and 26 GHz. One of the first areas to cover are the Business to Business and new applications.

- In the band of 3.5 gigahertz, Brazil will have national blocks with 8 megahertz and one regional block of 8 megahertz. Brazil will be implementing fiber optics backhaul infrastructure with a minimal capacity of 1 Gbps to reach municipalities with a population below 20,000 inhabitants or 10 Gbps with cities with a population above 20,000 inhabitants. This implementation will be between 2022 and 2027.

- The auction rules for the spectrum will consider the opportunity to extend coverage to reach less attractive areas, therefore auction rules about the 90% of the spectrum value will be converted into obligations instead of economical contribution.

- Chile thanked ITU for helping them before the pandemic to start the technical assistance for the implementation of 5G. From October to December 2019 ITU implemented an study of the applications of 5G for the Chilean industry.

- Chile has 470 megahertz for public services for voice and data and in the coming years it will be increased about 50% for traditional public services in the band of 5 GHz from 470 to 680 MHz.

- Chile has a different model from other countries, since this model is based on administrative allocation, as a beauty contest with parameters for coverage.This hybrid model gathered a little more than USD 70 million, and this time we beat a record with almost USD 454 million.

- The aution model has consideres to establish productive centers that would have to be covered, roads, ports, airports, areas of specific productive interest, public hospitals, etc. will be provided with 5G coverage.

- In the next two to three years, Chile has considered to invest around USD 4 billion and the operators will have a license for 30 years, which means between 6 000 to 9 000 antenna transmission and data transmission stations.
- One important aspect is the quality of service that is included in the process of bidding and selection. The State requires that providers meet internal standards on cybersecurity and technological security for the 5G, and a model of open access model to interconnect public networks at affordable prices.
- One important aspect for Chile is roaming, the use of third party networks. Chile is working to develop a law about roaming access.
- Costa Rica highlighted the important aspects to implement 5G as well being of users through education, health, abilities, skills, entertainment, communication, etc. and the economic recovery with services, export, mobility.
- For Costa Rica, 5G is an emerging technology for the implementation of services and other public goods.
- For Costa Rica, 5G is considered in two fields, for the consumer of 5G services ann the corresponding capacity building, and the development of those services.
- Costa Rica has the social vision of not leaving anyone behind.
- Costa Rica has considered bands in high frequency, 26 GHz and 28 GHz. Costa Rica has recently assigned the band of 6 GHz for WiFi 6 and with 28 GHz shared with satellite and mobile services.
- Costa Rica has the FONATEL, which is a solidarity fund in Costa Rica to support the operators in the implementation of telecommunication networks, now is oriented to the implementation of 5G.
- Costa Rica is focused in digital literacy for citizens and businesses. Costa Rica is exploring the regulatory aspects to offer incentives for the deployment of 5G with innovation, investment, and regional coordination towards smart cities and smart villages.
- Panama has enhanced the coverage and internet access to the AWS frequency band, and we could that way have the population informed through e-education programs.
- Panama is working in a formula to evaluate the spectrum for mobile operators.
- Panama does not have auctions, their model identifies the frequency band that is going to be available for mobile operators, and then is distributed equally between the six operators.
- Bands in Panama are distributed eqally between different operators per MHz.
- Panama has the Universal Service Fund to support telecommunications projects and reduce the digital divide.

3. **Panellists contributions to the outcome reports**

- All speakers highlighted the challenges and opportunities that they have for the implementation of 5G networks.

- Most of the countries has challenges has implemented national studies for the identification of the relevant industries that can be benefit from 5G networks.

- Most of the countries has already some work in the valoration of the spectrum for a further auction.

- The problematic is the contest for the assignation of the spectrum, but the main issue is the provision of the services to remote areas and underserved communities.

- All the participants recognized the need to implement campaigns on digital literacy, since is necessary to deploy 5G networks and teach the population how to benefit from the applications offered through those networks.

- All participants recognized that the implementation of 5G is not only an update from 4G, but it implies the participation of several national stakeholders and the development of a national implementation plan to identify main sectors to be benefited and the corresponding frequencies to be assignd.

- All participants highlighted the big changes that 5G will contribute to national production, industry, services, digital economy.

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