



## AGENCY FOR ELECTRONIC COMMUNICATIONS



**Director: MSc Jeton Akiku**

*Mr. Jeton Akiku was born in Malo Turchane, Gostivar, in 1982. He finished primary education at the Primary School "Bratstvo i Edinstvo" in Gostivar. He completed his secondary education at the Yahya Kemal College in Skopje. He graduated in economics from the Boğaziçi University in Istanbul, and earned a master's degree in business administration from the Bahçeşehir University in Istanbul. After completing higher education, he was working at NLB Bank, and in 2014 he was employed at the Agency for Electronic Communications within the Sector of Finance and Accounting, where he became Head in 2015. Since 2021 he has been appointed Director of the Agency for Electronic Communications. Mr. Jeton Akiku is a family man, a husband and father of one child.*

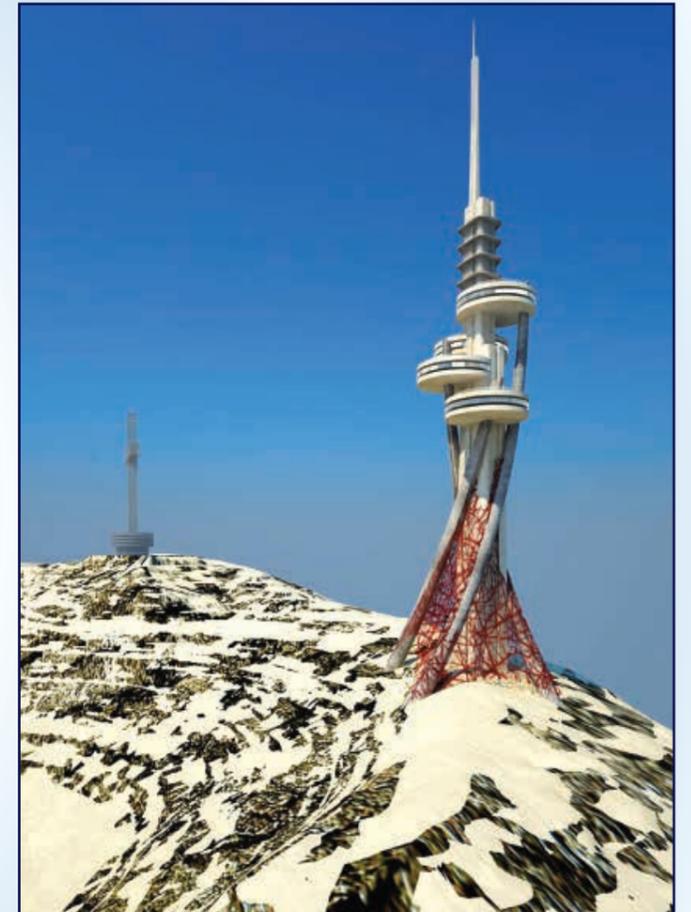
The rights and obligations of the Agency for Electronic Communications arise from the Law on Electronic Communications. The activities that the AEC currently conducts, actually started back in 1978 through the Federal Administration for Radio Connections within Yugoslavia at the time.



With the establishment of Independent Macedonia in 1991, the obligations of the Federal Administration for Radio Connections were taken over by the Ministry of Transport and Communications, and the Sector for Telecommunications started to operate within its structure. With the privatization of the only state-owned operator, Macedonian Telecommunications at the time, i.e. with the commencement of the liberalization of the electronic communications market, the issue of establishing a regulator in the field of electronic communications was naturally imposed. Hence, in 2001, the Telecommunications Administration was established, in accordance with the Law on Telecommunications. With the adoption of the Law on Electronic Communications in 2005, the Agency for Electronic Communications was established.

The mission of the AEC is to create favorable conditions for effective and sustainable competition in the electronic communications market in order to serve the interests of the users, the economy and the communications industry, through effective, transparent, appropriate and proactive application of regulatory tools.

The construction of the Antenna system for radio frequency control and monitoring on the territory of the Republic of North Macedonia, at the location Vodnopeak, is expected to be completed in the near future, which will provide electromagnetic compatibility and greater safety in the aeronautical navigation service and the aeronautical mobile service, and of course, complete avoidance of harmful interference at the Broadcasting Service. At the same time, the country will get a modern facility that will be unique in the Balkans in regard to its construction.



### **Management of the radio-frequency spectrum**

One of the important obligations of the AEC is the management of the radio-frequency spectrum. The radio-frequency spectrum, as a limited natural resource, has significant social, cultural and economic value, and the AEC aims to protect the diverse interests of the users of the radio-frequency spectrum in order to optimize the use of the radio-frequency spectrum and to avoid harmful interference. The AEC conducts the management of the radio-frequency spectrum in a legally prescribed, objective, transparent, non-discriminatory, and proportionate manner. There are two organizational units for management of the radio-frequency spectrum in the AEC: Sector for Radio Communications where all future allocations are planned and policies for development of radio communications are created, and Sector for Radio Frequency Control and Monitoring, where continuous monitoring of all broadcasts is performed in accordance with the allocated radio frequencies, but also of all broadcasts that have not been allocated in accordance with the Law on Electronic Communications.

In its operation, the Sector for Radio Communications uses a Spectrum Management System by means of which all analyses and calculations are performed, as well as preparation of approvals for the use of radio frequencies and collection of the fee for their use.

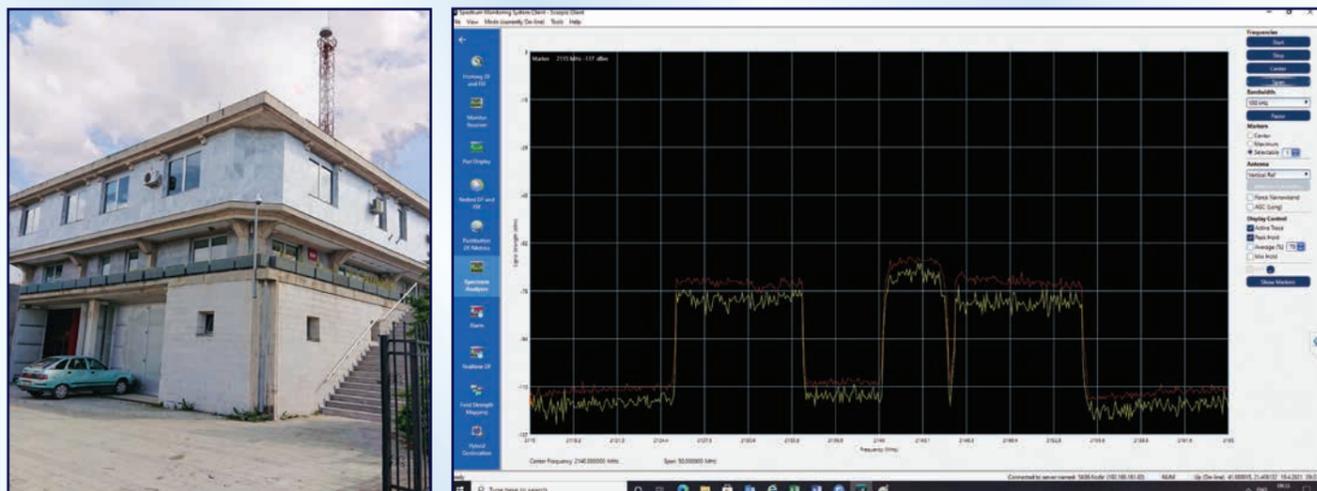


The most important goal of the Sector for the next period is to encourage the development of public electronic communication networks by introducing the next generation of public electronic communication networks (5G), and of course, efficient use of the radio frequency spectrum by issuing approvals for the use of radio frequencies.

The second organizational unit in the AEC which is in charge of the spectrum management, the Sector for Radio Frequency Control and Monitoring, conducts its competencies by using sophisticated measuring equipment for radio monitoring which consists of 8 fixed RF (radio frequency) monitoring stations, 75 RF monitoring sensor stations, and 4 mobile monitoring stations.



Measuring monitoring equipment is installed in all major cities in Macedonia which can be managed locally from the very location, but it can be accessed from any of the three Control and Measurement Centers of the AEC in: Skopje, Shtip and Bitola.

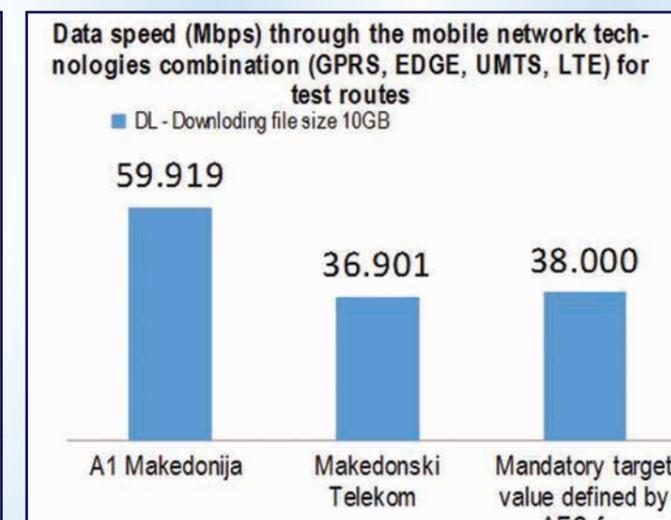
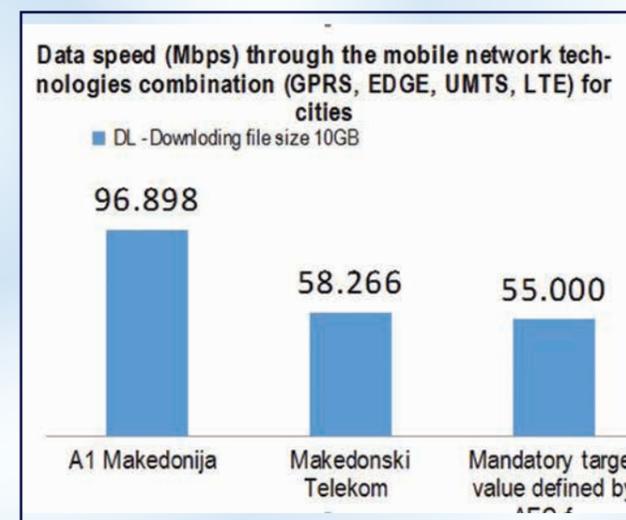


With such distribution and positioning of the radio monitoring stations and with the technical possibility, in terms of hardware and software of the equipment, the AEC is able to continuously monitor the spectrum in Macedonia, 24 hours a day, every day of the week.

It is particularly important to continuously monitor the quality parameters of the public electronic communication services provided through the public wireless radio communication networks. The measuring equipment that is being used for this purpose is installed in an appropriately adapted vehicle for that purpose.

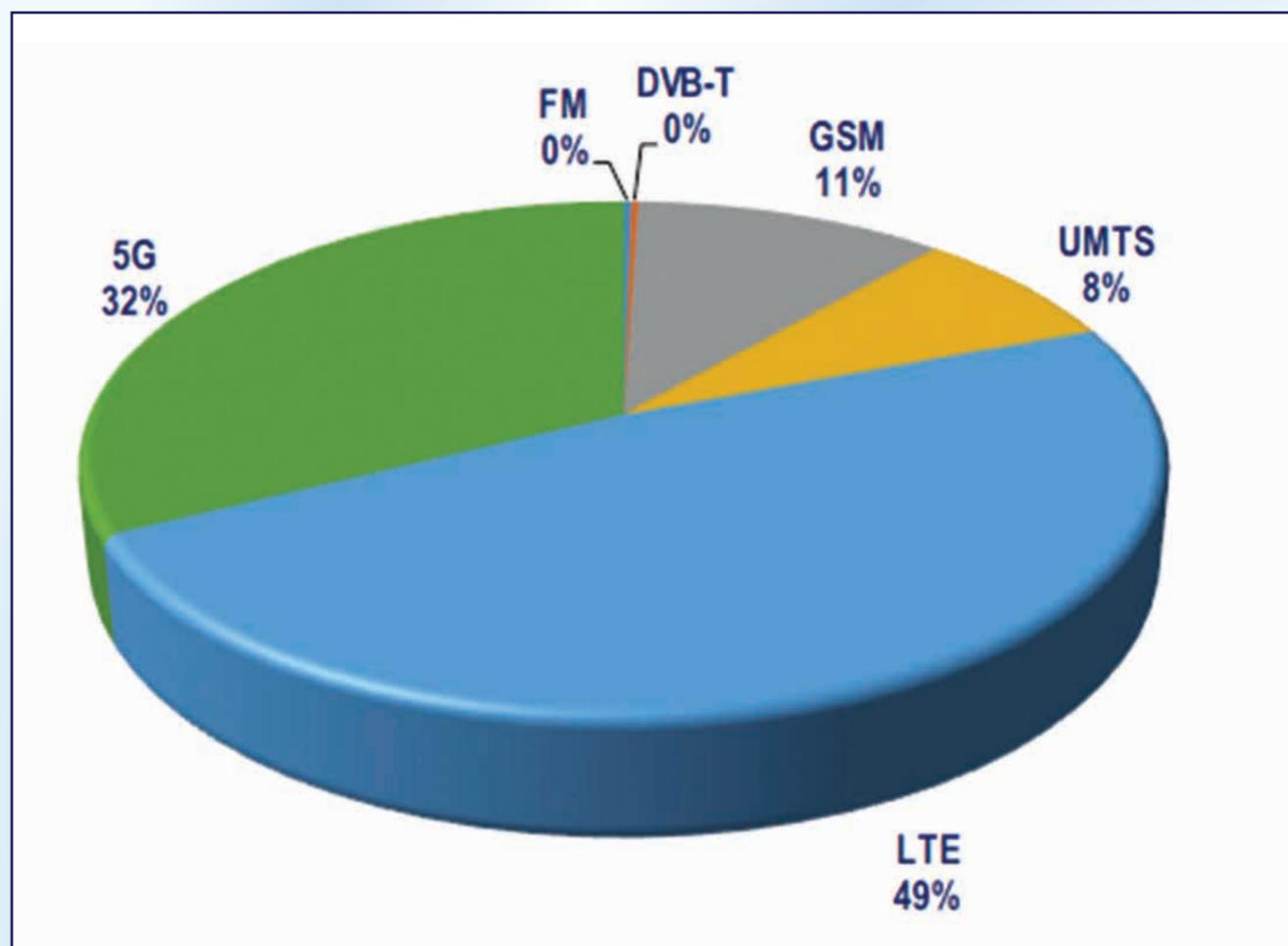


From the last campaign for measuring the quality parameters that was conducted in 2020, the following average values were obtained in regard to the parameter-speed of data transfer:



The imposition of obligations on the operators through the bylaws in accordance with the Law on Electronic Communications and the implementation of the laws and bylaws by the AEC was also confirmed by the specialized German portal [www.connect.de](http://www.connect.de) in the section Top Topic. On 05/05/2020, a ranking by countries in Europe was published, in terms of the quality of services provided by operators through the radio communication network where Macedonia is positioned in the high second place with 913 points, right after the Netherlands with 914 points, and before Austria (902) and Switzerland (899). The AEC also regularly controls the values of non-ionizing radiation in the immediate vicinity of the base stations of the public radio communication networks. With the emergence of 5G technology, A1 Macedonia and Macedonian Telekom started testing this technology by installing 5G test base stations. For the purpose of conducting this testing, the AEC issued them temporary approvals with a duration of 12 months. In order to determine the value of non-ionizing radiation that originates from this technology as well as the contribution of this technology to the

total values of non-ionizing radiation, the AEC conducted appropriate measurements. The following figure shows the results of the measurement of 5G test base stations by Macedonian Telekom in the center of Skopje in terms of the contribution of the technologies in the total coefficient of exposure to non-ionizing radiation:



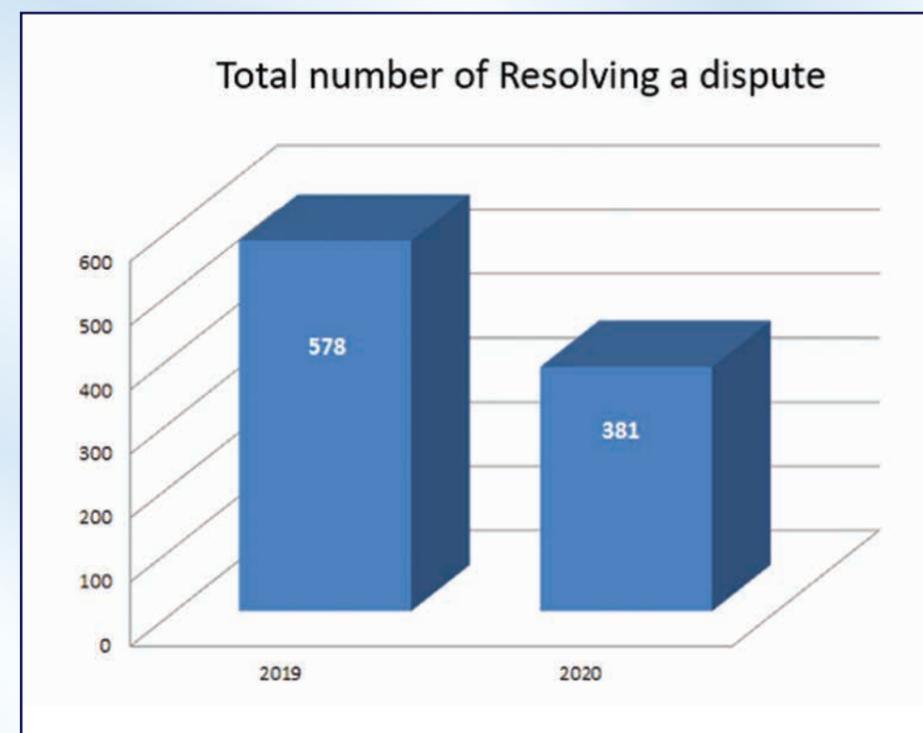
The complete measurement report can be seen at: <https://aek.mk/izvestaj-od-merenje-na-nejoniziracko-zracenje-5g-test-mreza/>

### Protection of the rights of end users

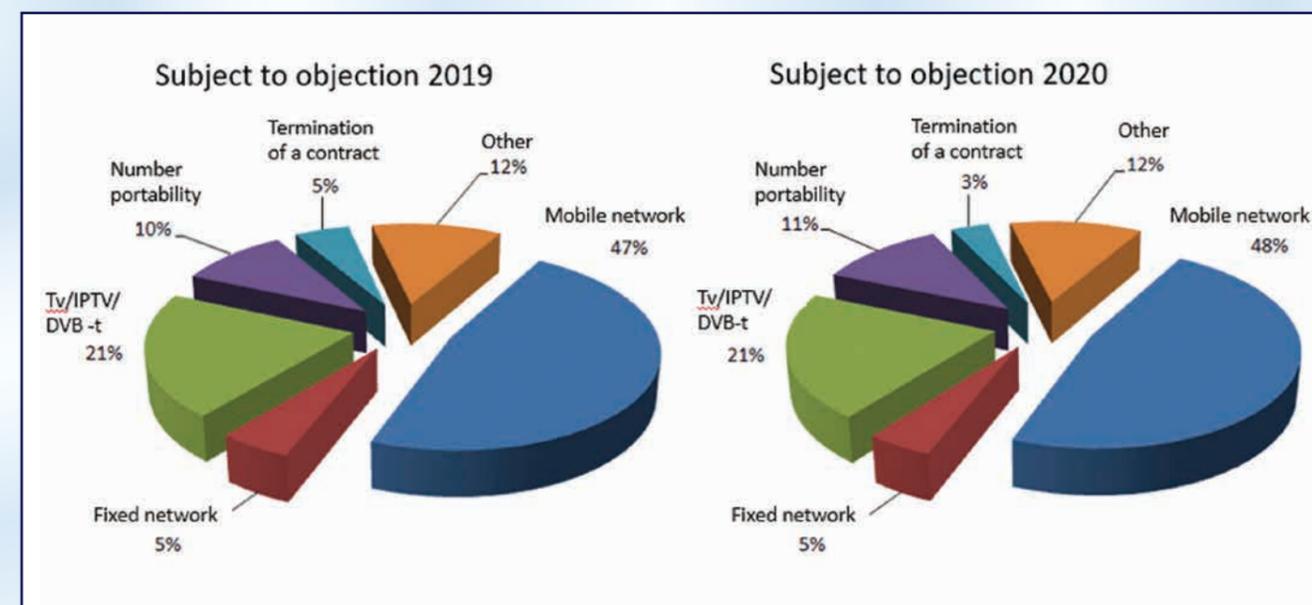
The employees at the Sector for Protection of the Rights of End Users are fully engaged and committed to informing the end users of public electronic communication services, so that they can become familiar with their rights, as well as the rights and obligations of the operators.

The operation within the Sector is divided into dispute resolution and customer care. In the part of dispute resolution, in accordance with the provisions of the Law on Electronic Communications, the subscriber has the right to a written complaint to the operator, and then to the AEC. If the user receives a negative response from the Operator or does not receive a response at all, he/she addresses the AEC. Then, a dispute resolution procedure is organized and coordinated at the Department of Dispute Resolution, between the Operator and the end user. Each dispute is monitored by an employee of the Sector who ensures that the procedure is complete and timely. In this segment of operation, the user has the right to obtain an expert opinion on specific issues related to the dispute resolution procedure and in the event of a submitted complaint, traceability of his/her case in all stages of resolution.

The following figure shows a comparative representation of the Dispute Resolution Request in 2019 and 2020.



Below is a comparative representation of a subject of complaints by the users in 2019 and 2020.



In the part of customer care, where users are more extensively protected, the communication between a user and an employee from the AEC, for the purpose of greater availability, takes place in several ways: electronically (at: [www.komuniciraj.mk](http://www.komuniciraj.mk), [contact@aek.mk](mailto:contact@aek.mk)), by telephone communication (on the contact telephone numbers, the employees' mobile phone numbers and the toll-free telephone number 190 at the Contact Center of the AEC), as well as in person, at the premises of the AEC, where users get suggestions and legal assistance regarding their rights in the disputes with Operators - providers of public electronic communication services.

