



Bosna i Hercegovina  
**Regulatorna agencija za komunikacije**  
Босна и Херцеговина  
**Регулаторна агенција за комуникације**  
Bosnia and Herzegovina  
**Communications Regulatory Agency**

# 2021 Annual Report

**COMMUNICATIONS  
REGULATORY AGENCY**

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## INTRODUCTORY INDICATORS

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The work and activities of the Agency in 2021 were characterized by numerous unplanned activities, which required increased engagement of the basic areas of work, independent sectors and all organizational units of the Agency. Everyday activities continued to be limited by the overall pandemic situation, caused by the Covid-19 virus and prescribed epidemiological measures, which meant significant changes and adjustments of employees and organizational units in work priorities set based on annual plans and programs.

In addition to regular activities laid down by the Law on Communications and other regulations, the main areas of work continued to implement priority tasks planned in this reporting period.

Thus, telecommunications focused most of its activities on the implementation of the regulatory procedure of the so-called "Roam Like at Home" (RLAH), which entered into force on 1 July, when citizens of the Western Balkans were able to use voice services (outgoing and incoming calls), text messages and transmission services in roaming when travelling abroad, at domestic traffic prices for the same service, which includes a policy of appropriate use.

The areas of broadcasting and radio communications, in addition to regular work, have shifted the priority of their activities to the issue of switching off analogue TV transmitters in BiH and to the accelerated process of introducing digital signals in commercial and public multiplexes. The scope and forced dynamics of these activities were primarily caused by the request of the Croatian Regulatory Authority for Network Industries (HAKOM) to turn off the largest number of analogue TV transmitters in Bosnia and Herzegovina, which was an internationally ratified obligation previously unfulfilled by mid-2015.

In the past year, the previously established Sector for Licenses and Fees started the process of reissuing 190 radio and TV licenses, whose validity expired on 31 December 2021, which has been completed in the meantime.

The implementation of long-term projects has started in the following areas: telecommunications, broadcasting and radiocommunications according to the previously made medium-term plans of the Agency or within the framework of international strategic cooperation, of which the following should be emphasized: mapping of broadband internet in BiH, the project of launching a web portal of media literacy in BiH and long-term project of measuring electromagnetic radiation on the territory of BiH with the adoption of appropriate rules on limiting electromagnetic radiation and the introduction of a special web portal.

Strengthening the institutional capacities of the Agency, the development of the 2022-2024 Medium-Term Development Plan began and certain changes in the internal organization took place after a new area of work for strategy and planning was formed in the second half of 2021 and after establishing four new internal organizational units (sections) in the regional sectors of Mostar and Banja Luka.

By the decision of the Director General of July last year, introduced was a new visual identity of the Agency, which is successively used on all platforms in coordination with the Public Relations Department and the Information Technology Sector.

The main problem in the work of the Agency was the non-adoption of the 2021 BiH institutions budget, so the functioning of the Agency on the principles of temporary financing significantly limited the implementation of medium and long-term capital investments and employment policy. Such a situation, which also continued in the calendar year 2022, results in the fact that the total number of employees of the Agency is still insufficient to perform important functions, especially in expert and technical positions.

Given the above, the priority in 2022 should be focused on creating an environment for the professional capacity of the Agency, especially on expert assignments in the following key areas of the work: telecommunications, broadcasting and radiocommunications. This should primarily be borne in mind given the dynamic technological environment in the world and the accelerated introduction of new technologies.

The Agency must continue to respond to all technological and regulatory challenges in a clear, predictable and transparent manner, respecting all market specifics, the level of technological development in BiH, and especially modern regulatory trends in the developed world. .

Director General

Dražko Milinović



# 1. AGENCY MANAGEMENT STRUCTURE

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## COUNCIL:

**Nino Ćorić – Chairman**

**Faruk Borić – Vice Chairman**

**Miloš Šolaja – Member**

**Zoran Tomić – Member**

**Ljubo Božović – Member**

## DIRECTOR GENERAL:

**Draško Milinović**

## MANAGEMENT:

**Amela Zametica-Akšamija – Agency Secretary**

**Tijana Milovanović – Assistant Director for Telecommunications**

**Amela Odobašić – Assistant Director for Broadcasting**

**Čedomir Marković – Assistant Director for Radio Communications**

**Zdravko Drakulić – Assistant Director for Legal, General and Financial Affairs**

**Siniša Petrović – Assistant Director for Strategy and Planning**

**Žaneta Begić – Head of the Permits and Fees Sector**

**Boris Kujundžić – Head of the Public Relations Department**

**Predrag Divljan – Head of the Information Technology Sector**

**Vedran Biokšić – Head of the Mostar Regional Sector**

**Ljubiša Tepić – Head of the Banja Luka Regional Sector**

## 2. AGENCY COUNCIL

Under the Law on Communications, the Council of the Agency guides the Agency regarding strategic issues of implementation of the Law on Communications. In addition, the Agency Council functions as an appellate body for decisions issued by the Director General. The Agency Council adopts the budget proposal of the Agency for each fiscal year. The Agency Council holds sessions as needed, at least four times a year.

In 2021, the Agency Council held 14 sessions, of which 6 were regular and 8 extraordinary.

- In 2021, the Agency Council adopted the following acts:
- Agency's 2022 Budget Proposal;
- 2020 Annual Report on the Work of the Agency;
- Rule 93/2021 on the application of the proper use policy and the assessment of the sustainability of abolishing additional charges for regulated retail roaming services;
- Regulation 94/2021 on protection against electromagnetic fields in the frequency range 9 kHz to 300 GHz;
- Rule amending Rule 76/2015 on the provision of radio media services;
- Rule amending Rule 77/2015 on the provision of audiovisual media services;
- Draft Rule on amendments to Rule 66/2012 on performing the activities of operators of public electronic communications networks;
- Code on amendments to the Code on audiovisual media services and radio media services;
- Decision on prices of roaming services in public mobile communication networks, and
- Decision on the rate and value of points for the calculation of the 2022 annual license fee.

. Also, the Agency Council considered 16 pieces of information and three reports.:

- 
- In 2021, the Agency Council resolved a total of 30 appeals in the second instance procedure within the appellate function assigned to it by law, three of which are in the repeated procedure according to the judgments of the Court of BiH. The Council issued a decision postponing the execution of the Agency's decision.
- In 2020, pursuant to the Law on Public Broadcasting Service of BiH, the Agency Council conducted a procedure to determine three ranking lists of candidates for members of the Management Board of the Public Broadcasting Service of BiH from the Bosniak, Croat and Serb peoples and forwarded the lists to the Parliamentary Assembly of BiH, which according to the said Law makes the final appointment of the members of the PBS Management Board. The House of Representatives of the Parliamentary Assembly of BiH sent a letter 01-50-1-15- 16/21 dated 3 February 2021 to the Agency specifying that the House of Representatives of the Parliamentary Assembly of BiH did not adopt

the list of Croat, Serb and Bosniak candidates and the Council of the Agency, in accordance with the above, re-conducted the procedure of determining three ranking lists of candidates for Croat, Serb and Bosniak members of the Management Board of the Public Broadcasting Service of BiH. Also, the Agency Council conducted the procedure to determine the ranking list of candidates for a member of the Management Board of the Public Broadcasting Service of BiH among Others. The Council forwarded the ranking list of candidates to the Parliamentary Assembly of BiH, which, according to the Law, makes the final appointment of members of the PBS Management Board.

## 3. FIELDS OF WORK

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### 3.1. TELECOMMUNICATIONS

The Agency continued its activities to continue the harmonization of the regulatory framework with the current European regulatory framework and best practices, with an emphasis on conducting market analysis procedures and improving the capacity to check the quality of broadband Internet access services.

In October 2021, the Analysis of the Electronic Communications Market according to the EU Methodology project was completed. It began in November 2019 and was implemented in cooperation with the Vafer Consulting GmbH.

The Project analysed five relevant markets that have not been analysed so far and which are determined by Rule 54/2011, and the Test of three criteria was conducted for the following markets: The market for the distribution of audiovisual media services and radio media services - retail level; Broadband Internet Market – retail level; Wholesale market of call access and origination in public mobile networks.

As part of the implementation of the quality measurement system, the Agency actively monitors the application of the RAK NetTest application, through which end users measure and test their Internet connection both in fixed and wireless access. Besides, the Agency monitors the development of mobile networks and the fulfilment of obligations of operators in terms of mandatory coverage prescribed by the license.

As a significant step to encourage the development of broadband networks and services, the project supported by the International Telecommunication Union (ITU) considered the conditions for the establishment of a broadband mapping system in BiH.

#### 3.1.1. FIXED TELEPHONY

##### 3.1.1.1. Users of licenses to perform the activities of fixed public telephony service providers

In 2021, 17 operators used the License to perform the activities of fixed public telephone service providers on the BiH market, of which 12 were from the FBiH and five from the RS. Of this number, a number of licensees did not perform activities (provide services), although they nominally used the license.

Some licence holders are interconnected through the founders, as follows:

- BH Telecom d.d. Sarajevo and JP HT d.d. Mostar through the co-founder, i.e., the FBiH Government;

- Telekom Srpske a.d. Banja Luka is the owner of: Blicnet d.o.o. Banja Luka, ELTA-KABEL d.o.o. Dobož, Logosoft d.o.o. Sarajevo and Telrad Net d.o.o. Bijeljina.

Table 1: Overview of holders of licenses to perform the activities of fixed public telephony service providers in 2021.

OPERATOR	LICENCE NO.	TYPE OF LICENCE
	DFTU-07/13	Licence to perform the activities of fixed public telephony service providers
<b>BH Telecom d.d. Sarajevo</b>	DOFT-TS/01/02	The public fixed telephony operator license also integrates the license to perform activities of operators of public electronic communication networks with the national area of activity and the license to perform activities of fixed public telephone service providers
<b>Blicnet d.o.o. Banja Luka</b>	DFTU-03/13	Licence to perform the activities of fixed public telephony service providers
<b>ELTA-KABEL d.o.o. Dobož</b>	DFTU-09/13	Licence to perform the activities of fixed public telephony service providers
<b>EUROPRONET BOSNIA d.o.o. Sarajevo</b>	DFTU-06/13	Licence to perform the activities of fixed public telephony service providers
<b>JP HT d.d. Mostar</b>	DOFT-TS/02/02	The public fixed telephony operator license also integrates the license to perform activities of operators of public electronic communication networks with the national area of activity and the license to perform activities of fixed public telephone service providers
<b>Logosoft d.o.o. Sarajevo</b>	DFTU-05/13	Licence to perform the activities of fixed public telephony service providers
<b>M&amp;H Company d.o.o. Sarajevo</b>	DFTU-08/13	Licence to perform the activities of fixed public telephony service providers
<b>MISS.NET d.o.o. Bihać</b>	DFTU-16/20	Licence to perform the activities of fixed public telephony service providers
<b>SOFTNET d.o.o. Sarajevo</b>	DFTU-14/14	Licence to perform the activities of fixed public telephony service providers
<b>Teledigital d.d. Sarajevo</b>	DFTU-01/13	Licence to perform the activities of fixed public telephony service providers

<b>Telekom Srpske a.d. Banja Luka</b>	DOFT-TS/03/02	The public fixed telephony operator license also integrates the license to perform activities of operators of public electronic communication networks with the national area of activity and the license to perform activities of fixed public telephone service providers
<b>Telrad Net d.o.o. Bijeljina</b>	DFTU-11/13	Licence to perform the activities of fixed public telephony service providers
<b>TX TV d.o.o. Tuzla</b>	DFTU-12/20	Licence to perform the activities of fixed public telephony service providers
<b>Detel d.o.o. Sarajevo</b>	DFTU-15/18	Licence to perform the activities of fixed public telephony service providers
<b>Telemach BH d.o.o. Sarajevo</b>	DFTU-10/13	Licence to perform the activities of fixed public telephony service providers
<b>Veritel d.o.o. Ugljevik</b>	DFTU-17/20	Licence to perform the activities of fixed public telephony service providers

### 3.1.1.2. Development of fixed telephony services

Concerning the prices of voice telephone services of operators with significant market power, to which the Agency issues approvals, the operators have made the following changes to the fixed telephony price list:

- BH Telecom has introduced a new BizPhone Plus package for business users.
- Telekom Srpske has introduced the following new packages of integrated services: TV+NET+TEL+MOB:Plus, TV+NET+TEL+MOB:PlusNet, TV+NET+TEL+MOB: Top TV+NET+TEL+MOB:Max.
- HT Mostar has introduced new TRIO packages.

The following are the elements of the fixed telephony development for the period 2012-2021 regarding the number of subscribers.

Table 2 Number of fixed telephone network subscriber lines in BiH (2012-2021)

<b>Number of fixed direct telephone lines in operation</b>						
<b>Telecom operator/ year</b>	<b>BH Tele- com</b>	<b>Telekom Srpske</b>	<b>HT Mo- star</b>	<b>Alternative operators</b>	<b>Total</b>	<b>Index</b>
<b>2012.<sup>1</sup></b>	458.721	322.581	121.888	26.263	<b>929.453</b>	97,23
<b>2013.</b>	423.429	308.270	114.785	45.138	<b>891.622</b>	95,93
<b>2014.</b>	379.214	295.680	108.864	65.458	<b>849.216</b>	95,24
<b>2015.</b>	326.738	276.876	103.881	78.260	<b>785.755</b>	92,52
<b>2016.</b>	317.686	263.171	101.132	102.234	<b>784.223</b>	99,81
<b>2017.</b>	290.308	245.350	98.463	125.230	<b>759.351</b>	96,83
<b>2018.</b>	267.222	235.281	98.271	140.021	<b>740.807</b>	97,56
<b>2019.</b>	259.302	226.726	97.701	144.593	<b>728.322</b>	98,31
<b>2020.</b>	246.154	217.407	97.208	146.149	<b>706.918</b>	97,06
<b>2021.</b>	239.157	208.111	97.339	144.968	<b>689.575</b>	97,54

Source: Reports by BH Telecom, Telekom Srpske, HT Mostar and alternative operators

Table 2 shows the total number of fixed telephone lines, which is the sum of active analogue fixed lines, ISDN (digital network of integrated services) channels, the number of public payphones and VoIP (Voice over IP) subscriptions. The growth index (number of fixed direct telephone lines in operation for 2021/number of fixed direct telephone lines in operation for 2020) in 2021 was 97.54.

<sup>1</sup> The number of active fixed telephone lines in 2012 in the 2012 Annual Report differs from the number of active fixed telephone lines in 2012 in this Annual Report. The difference in the number was due to corrections in the data submitted by operators after the publication of the 2012 Annual Report.

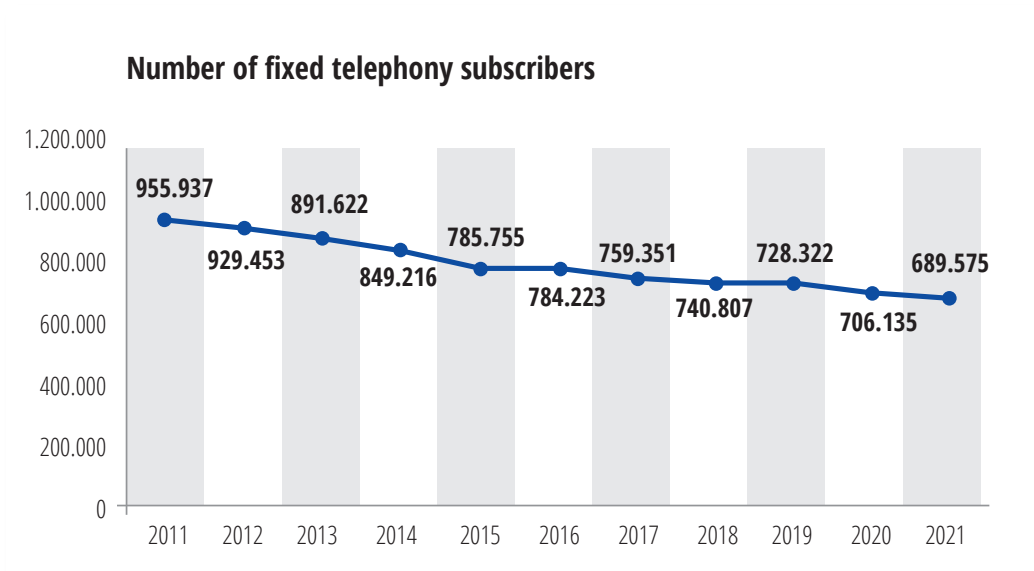


Figure 1 Trends in the number of active fixed telephone lines in BiH (2012-2021)

As illustrated in Figure 1, the number of active fixed telephone lines is declining compared to 2020. The level of penetration in fixed telephony at the end of 2021 was 19.53%. In 2015, penetration was calculated based on population estimates, while since 2016, data from the 2013 census have been used. (BiH population: 3,531,159).

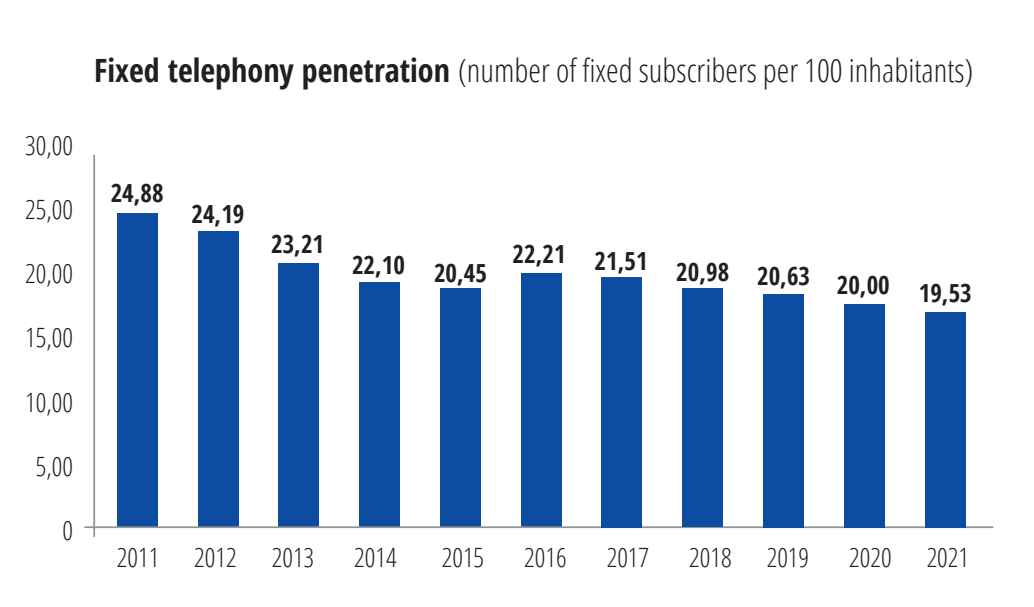


Figure 2 Fixed telephony penetration in BiH (2012 -2021)



## 3.1.2. MOBILE COMMUNICATIONS

### 3.1.2.1. Licence holders for providing GSM/UMTS/LTE services

Three licensed mobile operators operate in BiH:

- BH Telecom d.d. Sarajevo (BH Telecom);
- Telekomunikacije RS a.d. Banja Luka (Telekom Srpske) and
- JP Hrvatske Telekomunikacije d.d. Mostar (HT Mostar).

In accordance with the Decision on Licenses to use the radio frequency spectrum to provide services via mobile access systems ("Official Gazette of BiH", 23/19), on 8 April 2019, the Agency granted Licenses for the use of the radiofrequency spectrum to provide services through mobile access systems to existing licensed mobile operators in BiH. On the day of issuing the new licenses, the Licenses for the provision of GSM services, the Licenses for the use of frequencies within the DCS frequency band and the Licenses for the provision of mobile services on Universal Mobile Telecommunication Systems, previously issued to licensed mobile operators, ceased to be valid.

Sub-clause 2.2. of the policy of the electronic communications sector for 2017-2021 establishes that two years after the commercialization of LTE networks, the Agency, in cooperation with the Ministry of Communications and Transport of BiH and relevant entity ministries, prepares and submits to the Council of Ministers a draft decision allowing mobile virtual network operators (MVNO) on the BiH mobile communications market. In addition, sub-clause 2.2.2. of the Action Plan for the Implementation of the Electronic Communications Sector Policy defines the obligation to adopt a Decision issuing licenses for mobile virtual network operators.

To enact sub-clause 2.2.2. of the Action Plan, at the beginning of 2021, the Agency started preparing the proposal for the Decision to issue licenses for mobile virtual network operators. For that purpose, the Agency held meetings with representatives of the Ministry of Communications and Transport of BiH, the Ministry of Transport and Communications of RS and the Ministry of Transport and Communications of FBiH, as well as meetings with licensed mobile operators.

In consultation with the competent ministries and licensed operators, it was assessed that it is necessary to first complete the procedure of the Three Criteria Test for the wholesale market of access and origination of calls in public mobile telephone networks to determine the existence of permanent obstacles to market entry and if the market strives for sustainable competition. In 2022, the Agency will publish the final version of the Test of Three Criteria and continue fulfilling its obligations regarding the drafting of the Decision.

### 3.1.2.2. Registered mobile service providers

Service providers in BiH can operate through commercial agreements with licensed mobile network operators (MNOs), i.e., holders of the License for the use of radiofrequency spectrum to provide services via mobile access systems.

In late 2021, on the networks of the following three mobile operators: BH Telecom d.d. Sarajevo, Telekom Srpske a.d. Banja Luka and HT Mostar d.d., there were four mobile service providers based on commercial network access agreements, as follows:

- DASTO SEMTEL d.o.o. Bijeljina;
- LOGOSOFT d.o.o. Sarajevo;
- NOVOTEL d.o.o. Sarajevo;
- HALOO d.o.o. Sarajevo.

The company Novotel d.o.o Sarajevo, which concluded "Agreement on access to the Service Provider network to the Mobile Network of Mtel a.d. Banja Luka", to provide mobile telephone services, and which was registered as a public mobile provider on 17 July 2020, started operating on 27 August 2021.

The new registered service provider in 2021 is Haloo d.o.o. Sarajevo, which concluded the "Agreement on the access of the Service Provider to the Mobile Network of JP HT d.d. Mostar " to provide mobile telephone services, and which was registered as an active public mobile provider on 4 January 2021. By the end of 2021, Haloo d.o.o. did not start operating.

### 3.1.2.3 Development of mobile service

In 2021, BH Telecom introduced additional services for subscribers of MojaTV Net-Go and MojaTV Full-Go services.

In 2021, Telekom Srpske introduced new postpaid tariff models.

In 2021, HT introduced new postpaid SMART tariffs and changed the billing unit for tariffs! Hej Slagalica.

Table 2 shows the elements of the fixed telephony development for the period 2016-2021 regarding the number of subscribers.

The number of mobile subscribers in BiH on 31 December 2021 was 3,767,810, which is a growth of 7.35% compared to 2020. This number of subscribers was obtained in accordance with the unique definition of active prepaid and postpaid subscribers for all SMP operators in mobile telephony, which is harmonized with the norms of the European Commission and ITU. The number of prepaid subscribers is still several times higher than the number of postpaid subscribers (Figure 3).

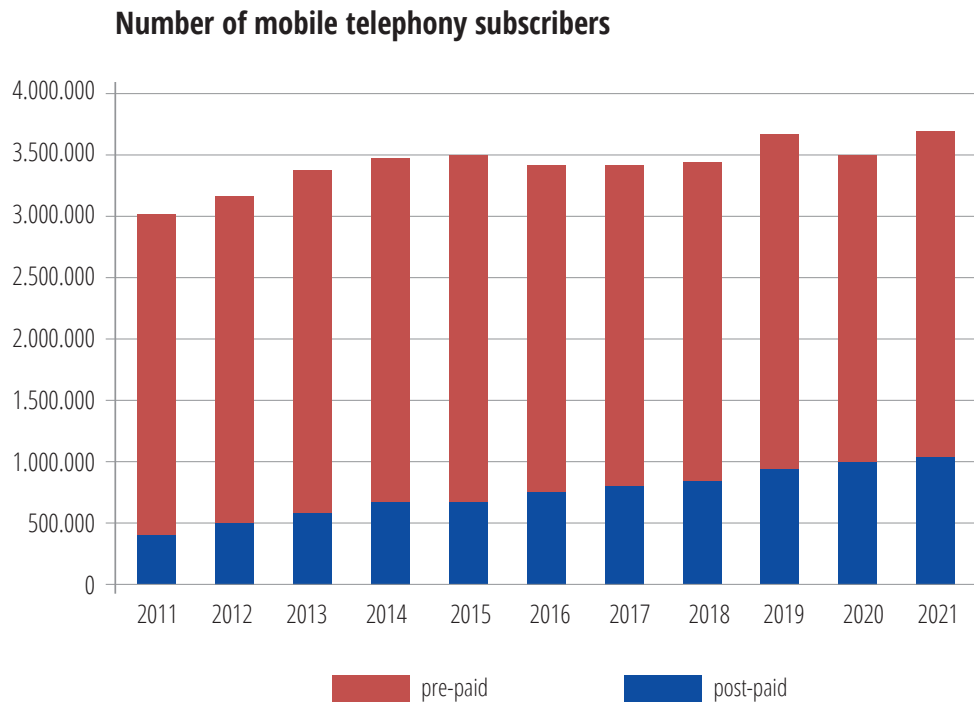


Figure 3 Number of mobile telephony subscribers in BiH (2010-2021.)

The level of penetration (number of mobile subscribers per 100 inhabitants) of mobile telephony in BiH at the end of 2021 was 106.70%.

The diagram in Figure 4 shows the penetration of mobile telephony in the time series from 2010 to 2021. In 2015, penetration was calculated based on population estimates, while since 2016, data from the 2013 census have been used. (BiH population: 3,531,159)

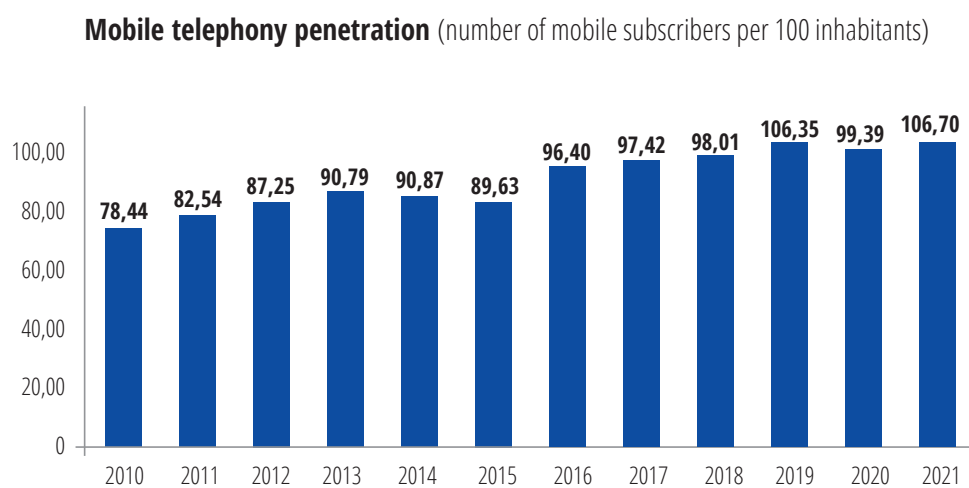


Figure 4 Number of mobile telephony subscribers in BiH per 100 inhabitants (2010-2021)

Table 3 shows the elements of the mobile telephony development for 2016-2021 in terms of installed capacity and number of subscribers.

Table 3: Installed capacities and number of subscribers of licenced mobile operators in BiH (2016-2021);

Source: Operators' ports

Telecom operator		BH Telecom	Telekom Srpske	HT Mostar	Izi mobil	Blicnet	Logosft	Telrad	Elta Kabel	Dasto Semtel	Novotel	BiH
2016.	numerical range	3,000,000	2,200,000	1,650,000								<b>6,850,000</b>
	post-paid	271,851	345,548	195,706		2,561	1,139	955	925			<b>818,685</b>
	pre-paid	1,323,308	958,328	299,647	4,075							<b>2,585,358</b>
	total subscribers	1,595,159	1,303,876	495,353	4,075	2,561	1,139	955	925			<b>3,404,043</b>
2017.	numerical range	3,000,000	2,200,000	1,650,000								<b>6,850,000</b>
	post-paid	291,847	391,965	207,179		2,633	1,004	975	1,137			<b>896,740</b>
	pre-paid	1,309,615	940,514	293,216								<b>2,543,345</b>
	total subscribers	1,601,462	1,332,479	500,395		2,633	1,004	975	1,137			<b>3,440,085</b>
2018.	numerical range	3,000,000	2,200,000	1,650,000								<b>6,850,000</b>
	post-paid	315,927	379,064	212,638		3,041	919	917	512			<b>2,548,040</b>
	pre-paid	1,310,073	942,563	295,404								<b>913,018</b>
	total subscribers	1,626,000	1,321,627	508,042		3,041	919	917	512			<b>3,461,058</b>
2019.	numerical range	3,000,000	2,200,000	1,650,000								<b>6,850,000</b>
	post-paid	345,383	395,696	224,491		2,263	1,192	129	424			<b>969,578</b>
	pre-paid	1,290,640	959,526	535,777								<b>2,785,943</b>
	total subscribers	1,636,023	1,355,222	760,268		2,263	1,192	129	424			<b>3,755,521</b>
2020.	numerical range	3,000,000	2,200,000	1,650,000								<b>6,850,000</b>
	post-paid	384,484	408,846	231,890			1,322			106		<b>1,026,648</b>
	pre-paid	1,142,475	857,328	483,223								<b>2,483,026</b>
	total subscribers	1,526,959	1,266,174	715,113			1,322			106		<b>3,509,674</b>
2021.	numerical range	3,000,000	2,400,000	1,650,000								<b>7,050,000</b>
	post-paid	410,353	376,380	239,087			1,403			86	800	<b>1,028,109</b>
	pre-paid	1,220,087	961,154	553,266							5.194	<b>2,739,701</b>
	total subscribers	1,630,440	1,337,534	792,353			1,403			86	5.994	<b>3,767,810</b>

### 3.1.3. LTE NETWORK DEVELOPMENT

In 2021, like in the previous years, three mobile operators, i.e., BH Telecom, Telekom Srpske and HT Mostar, in accordance with the obligations prescribed by the Licence for the use of the radiofrequency spectrum to provide services via mobile access systems have continued the activities on the development of the broadband mobile networks.

Mobile operators delivered their reports on the development of LTE networks and services for the period 1 July 2021 - 31 December 2021, i.e., for the second half of 2021.

All three mobile operators prepared their LTE Reports using the Agency template.

#### BH TELECOM

The table below shows the fulfilment of obligations under the Licence:

Table 4

BH Telecom	Status on 1 July 2021	Status on 31 Dec 2021	Growth (%)	Obligations per Licence
Road coverage in BiH with MBB signal (%)	81.20%	84.14%	2.94%	70% (at the end of 3rd year)
Population coverage in BiH with LTE network development	90.50%	93.91%	3.41%	(not defined by the licence)
Minimum average Internet access speed (Mbit /s)	7.42	7.11	-4.18%	3 Mbit/s (at the end of 3rd year)
Voice service territorial coverage (%)	85.50%	86.36%	0.86%	90% (at the end of 5th year)
Voice service road coverage (%)	99.56%	99.57%	0.01%	98% (at the end of 5th year)
RSRP (coverage of the BiH territory by LTE technology together with the specified signal threshold)	42.20%	51.47%	9.27%	≥ -109 dBm

The respective total number of installed LTE base stations in late 2021, late 2020 and mid-2021 was 1091, 923 and 928. In the second half of 2021 alone, an increase of 17.56% was achieved compared to the first half of the same year, which is a big step forward in the development of the LTE network of BH Telecom.

At the end of 2021, BH Telecom had 1,630,440 mobile telephony subscribers, which is a large increase compared to 1,480,139 subscribers at the end of 2020.

The road coverage at the end of 2021 was 62.3% in the LTE network, and 21.8% in the UMTS network, which makes the total broadband road coverage in BiH of 84.18%.

The territorial coverage in BiH by the LTE network at the end of 2021 was 51.47%, together with the UMTS network, which is a broadband territorial coverage of 75.96%.

The LTE population coverage in BiH was 93.91% at the end of 2021.

New services introduced in the observed period are:

- Introduction of RLAH in WB6 under the Agreement on the Use of Roaming in the Western Balkans, Service adoption date: 6 June 2021, applied from 1 July 2021, and
- Introduction of two-direction BULK SMS – interactive communication with users (A2P, P2A), Service applied from 9 Nov 2021

## TELEKOM SRPSKE

The table below shows the fulfilment of obligations under the Licence:

Table 5

Telekom Srpske	Status on 1 July 2021	Status on 31 Dec 2021	Growth (%)	Obligations per Licence
Road coverage in BiH with MBB signal (%)	67.64%	70.10%	2.46%	70% (at the end of 3rd year)
Population coverage in BiH with LTE network development	87.80%	89.80%	2.00%	(not defined by the licence)
Minimum average Internet access speed (Mbit /s)	13.59	9.7	-3.89	3 Mbit/s (at the end of 3rd year)
Voice service territorial coverage (%)	90.20%	90.20%	0.00%	90% (at the end of 5th year)
Voice service road coverage (%)	97.90%	97.90%	0.00%	98% (at the end of 5th year)
RSRP (coverage of the BiH territory by LTE technology together with the specified signal threshold)	-104	-103	0.96%	≥ -109 dBm

The respective total number of installed LTE base stations in late 2021, late 2020 and mid-2021 was 1091, 923 and 928. In the second half of 2021 alone, an increase of 17.56% was achieved compared to the first half of the same year, which is a big step forward in the development of the LTE network of BH Telecom.

At the end of 2021, BH Telecom had 1,630,440 mobile telephony subscribers, which is a large increase compared to 1,480,139 subscribers at the end of 2020.

The road coverage at the end of 2021 was 62.3% in the LTE network, and 21.8% in the UMTS network, which makes the total broadband road coverage in BiH of 84.18%.

The territorial coverage in BiH by the LTE network at the end of 2021 was 51.47%, together with the UMTS network, which is a broadband territorial coverage of 75.96%.

The LTE population coverage in BiH was 93.91% at the end of 2021.

New services introduced in the observed period are:

- Introduction of RLAH in WB6 under the Agreement on the Use of Roaming in the Western Balkans, Service adoption date: 6 June 2021, applied from 1 July 2021, and
- Introduction of two-direction BULK SMS – interactive communication with users (A2P, P2A), Service applied from 9 Nov 2021.

## HT MOSTAR

Ispunjenje obveza zadanih Dozvolom ilustrira tablica kako slijedi:

Tablica 6.

HT Mostar	Status on 1 July 2021	Status on 31 Dec 2021	Growth (%)	Obligations per Licence
Road coverage in BiH with MBB signal (%)	54.08%	57.93%	3.85%	70% (at the end of 3rd year)
Population coverage in BiH with LTE network development	76.17%	81.11%	4.94%	(not defined by the licence)

At the end of 2021, HT Mostar achieved LTE network territorial coverage BiH of 48.64%, while the total broadband coverage, i.e., UMTS and LTE network combined was 66.74%.

LTE Outdoor Road coverage was 57.93%, while the total mobile broadband coverage, together with the UMTS network, was 84.19% of the main roads in BiH.

The number of installed MIMO/800 on 31 Dec 2021 was 231 base stations, an increase of 21.58% compared to the first half of 2021. The number of installed MIMO/1800 on 31 Dec 2021 was 331 base stations, an increase of 5.75% compared to the first half of 2021. This shows that the LTE network is constantly being upgraded and its capacity increasing.

The population coverage percentage is given for 24 cities in BiH, and it is approximately 60%.

No new services were specified in the observed period.



### 3.1.4. PUBLIC ELECTRONIC COMMUNICATION NETWORKS

#### 3.1.4.1. Users of the license for the activities of operators of public electronic communication networks

At the end of 2021, there were 72 active operators in BiH, users of the License to perform the activities of operators of public electronic communications networks. During the year, two new licences were issued, for the Railways of Srpska Doboje and TG d.o.o. Sarajevo and a decision was issued to expand the network coverage area for the operator Telesky d.o.o. Gradačac, as well as the decision to change the name of the user of the license Ćutuk d.o.o. Žepče to Xento d.o.o. Žepče. In 2021, the Agency collected data on the desired ITU codes of network operators in accordance with the "Recommendation ITU T M.1400 operator ID or ITU Carrier Code (ICC)". These codes will be used in the further work of the Agency and the operators to facilitate their identification.

#### 3.1.4.2. Development of electronic communication networks

The biggest problem with further expansion of public electronic communications networks is the insufficiently regulated area of installation and construction of new telecommunications networks, lack of practice and infrastructure sharing obligations, very low level of digitization of cadastral underground installations of entities, lack of transparency of local communities and imposition of unreasonable economic encumbrances, procedures for obtaining approval for the construction of new networks, as well as inconsistent and uneven application of construction regulations.

A special problem is the existing networks of the older generation, built before 1992, which is why there is insufficient documentation on these networks. This problem is less present in recent networks, especially those built in accordance with the law. In addition, these networks are a problem for the citizens themselves because some of them run across private property and prevent the use of citizens' private property, and it is necessary to finally regulate the "right of way" in a fair manner.

In addition, an obstacle to transparency is the lack of mapping of the existing operators' capacities, which largely prevents the sharing of infrastructure and will ultimately lead to unnecessary duplication of network capacities. This situation could significantly slow down the introduction and expansion of new generation networks (5G), which will have a very pronounced need for widely available optical transmission capacities, and in the coming period, it is necessary to pay full attention to this.

There is a noticeable increase in the capacity of public telecommunications networks, which is reflected in increasing Internet access speeds via fixed networks, increasing the number and quality (Full HD, 4K) of programs included in existing cable TV packages, as well as excellent functioning of networks during the Covid-19 pandemic regardless of the increased demand for internet services. It is expected that this trend will improve if additional measures are taken such as enabling and encouraging infrastructure sharing and participation of telecom operators in

construction works and public areas (construction of roads, railways, lines, etc.) to reduce investment prices, then capacity mapping to increase transparency and additional digitization of cadastral installations of municipalities in BiH. It is necessary to reduce administrative procedures for the construction of telecommunications networks and also introduce uniform guidelines for the design of public telecommunications networks, which could then be incorporated into the relevant regulations of the entities and the Brčko District of BiH.

Significant attention should be paid to increasing the resilience of the communications system in case of emergencies, such as the catastrophic floods that take place in BiH in 2014, when a significant number of telecommunications operators were also affected.

### 3.1.4.3. Reporting illegal networks

In 2021, the Agency considered several applications related to potential cases of providing services through an illegally built network.

According to the report of Telekom Srpske a.d. Banja Luka on 22 April 2021, the Agency initiated proceedings ex officio against TrionTel d.o.o. Banja Luka for a violation under Article 114 (Illegal operation of the network) - "Review of violations and appropriate penalties imposed by the Communications Regulatory Agency". On 18 June 2021, a decision was made establishing that the user of the license, TrionTel d.o.o., violated Article 14(1) of Rule 66/2012 on the performance of activities of operators of public electronic communications networks ("Official Gazette of BiH", 85/12), because the user put into operation a public electronic communications network and/or parts of that network without obtaining an appropriate Use Permit, and was accordingly fined BAM 100,000.00 under Article 114(1) of the Review of violations and appropriate penalties imposed by the Communications Regulatory Agency "Official Gazette of BiH", 7/2017 ). This Decision instructed the licensee, the company Trion Tel d.o.o., to suspend the provision of public telecommunications services for 3 months.

On 22 July 2021, the Agency Council issued a decision partially upholding the appeal of Trion Tel d.o.o. Banja Luka. In the repeated procedure, the Agency, by a decision of October 7, 2021, and taking into account the extenuating circumstances warned by the second instance body, imposed the final BAM 50,000 fine, unlike the previously imposed fine of BAM 100,000.00. TrionTel d.o.o. Banja Luka filed a complaint against the decision of 7 October 2021, and the appeal was sent to the Agency Council for consideration.

Following the appeal of TrionTel d.o.o. Banja Luka, the Agency initiated three proceedings ex officio Article 114 (Illegal operation of the network) - "Review of violations and appropriate penalties against Mtel a.d. due to allegations that the company Telekom Srpske a.d. Banja Luka, in the municipalities of Banja Luka, Kneževo and Laktaši, provides services on the telecommunications network that was not built-in accordance with the law. Based on the information received from the competent inspection services, the Agency has determined that there are no final decisions establishing any of the violations described in Article 114, "Review of violations and appropriate penalties imposed by the Communications Regulatory Agency" ("Official Gazette of BiH", 8/17), and accordingly, decisions suspending the proceedings were issued.

In light of these cases, the Agency Council considered the need to amend Rule 66/2012 on the activities of public electronic communications network operators to ensure verification

of compliance with the fulfilment of the licence requirements by the licence holder in terms of compliance with relevant provisions on construction, i.e., mandatory licences for the commissioning of a public electronic communications network. Public consultations on the Draft Rule on Amendments to Rule 66/2012 were held in the period 29 Oct - 13 Dec 2021.

### 3.1.5. INTERNET ACCESS SERVICE

#### 3.1.5.1. Users of licenses to perform the activities of Internet service providers

Table 7 shows the number of users of licenses to perform the activities of Internet service providers (ISP) in the period 2011-2021.

Table 7 Number of ISP licences in BiH (2011-2021)

Year	2011.	2012.	2013.	2014.	2015.	2016.	2017.	2018.	2019.	2020.	2021.
Number of ISP operators	80	75	69	70	70	71	70	67	65	60	60

In 2021, a new license was issued to the company Team Media d.o.o Sarajevo, and the license for the operator Elnet d.o.o Laktaši was revoked, and a decision was issued to change the name of the licensee Ćutuk d.o.o. to Xento d.o.o. Žepče.

#### 3.1.5.2. Development of Internet access service

Table 8 shows the number of Internet users from 2011 to 2021. The number of Internet users is estimated based on the number of subscribers provided by ISPs.

Table 8 Number of Internet users in BiH (2011-2021)

Year	Number of Internet users	Index
2011.	2,113,100	105.66
2012.	2,174,250	102.89
2013.	2,188,429	100.65
2014. <sup>2</sup>	2,648,176	121.01
2015.	2,782,107	105.06
2016.	2,909,236	104.57
2017.	3,064,072	105.32
2018.	3,195,294	104.28
2019.	3,330,502	104.23
2020.	3,336,591	100.18
2021.	3,374,094	101.12

There was an increase in the number of Internet users in 2021 compared to 2020 with a growth index of 101.12.

<sup>2</sup> The number of Internet users 2014 in the 2014 Annual Report differs from the number of active fixed telephone lines in 2014 in this Annual Report. The difference in the number was due to corrections in the data submitted by operators after the publication of the 2014 Annual Report..

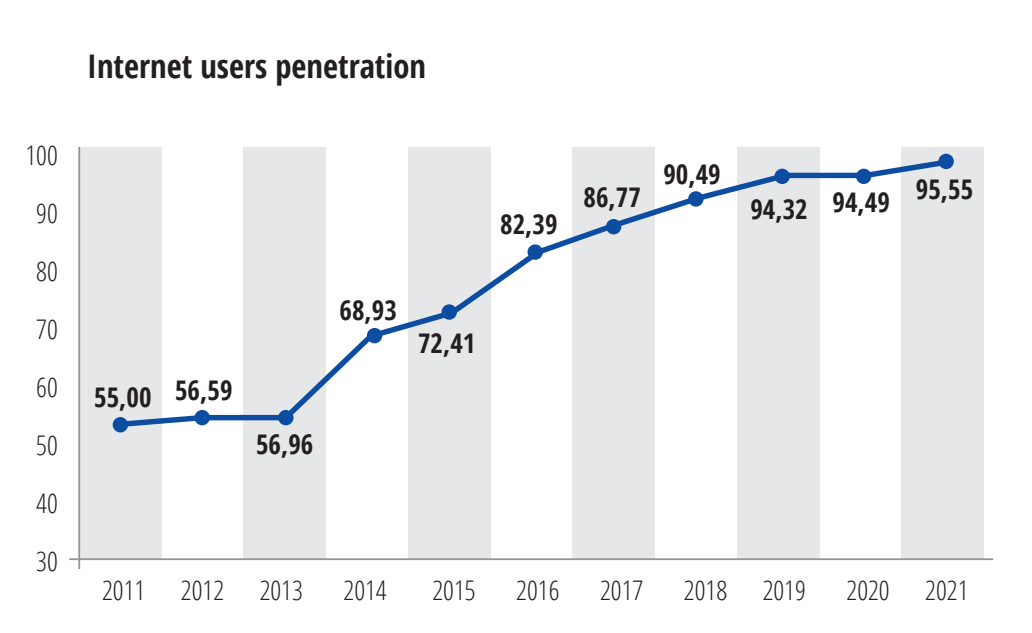


Figure 5: Internet users' penetration in BiH (2011-2021)

The number of broadband subscribers on 31 December 2021 was 792,782. Broadband subscriber penetration, calculated as the ratio of the total number of broadband connections and the total population in BiH according to the 2013 census (3,531,159), is 22.45%. In the structure of broadband connections, xDSL access still leads with 52.54% of the total number of broadband connections, with an increase in cable and FTTH Internet access compared to the previous year.

Table 9: Internet subscribers per type of access in the period 2011-2021

Year	Dial-up	FWA	Cable	xDSL	Rented lines	FTTH	Other	Total
<b>2011</b>	85,046	65,733	114,849	248,006	1,374	27 8	10	<b>515,296</b>
<b>2012</b>	84,314	62,621	127,424	277,295	1,389	315	353	<b>553,711</b>
<b>2013</b>	3,219	65,164	153,544	294,505	1,435	297	498	<b>518,662</b>
<b>2014<sup>3</sup></b>	2,304	61,367	181,753	360,772	1,318	374	348	<b>608,236</b>
<b>2015</b>	1,739	59,326	200,972	372,767	1,254	428	240	<b>636,726</b>
<b>2016</b>	1,447	61,019	213,640	385,316	1,233	960	170	<b>663,775</b>
<b>2017</b>	231	65,335	234,006	398,136	1,144	1,363	363	<b>700,578</b>
<b>2018</b>	319	47,367	244,728	404,795	1,031	17,511	934	<b>716,685</b>
<b>2019</b>	384	60,936	239,551	413,902	980	30,231	287	<b>745,887</b>
<b>2020</b>	351	47,501	249,575	411,850	1,686	44,540	340	<b>755,843</b>
<b>2021</b>	0	51,125	265,029	416,528	2,167	57,908	25	<b>792,782</b>

<sup>3</sup> The number of Internet users 2014 in the 2014 Annual Report differs from the number of active fixed telephone lines in 2014 in this Annual Report. The difference in the number was due to corrections in the data submitted by operators after the publication of the 2014 Annual Report.

In 2021, the number of xDSL subscribers increased, so their number, compared to the previous year, increased by 1.14%. In the same period, there was an increase in cable Internet access by 6.19%, as well as an increase in FTTH connections by 30.01% and fixed wireless connections by 7.63%.

As to access speeds, most subscribers access the Internet at a speed of 2 Mbit / s ≤ 10 Mbit / s (Figure 6).

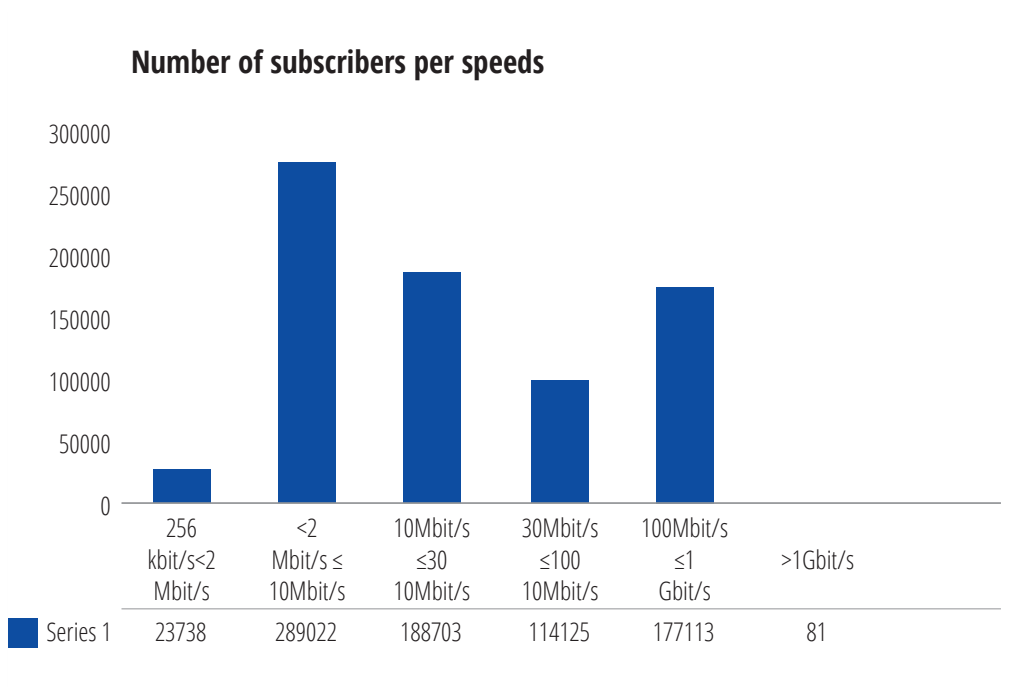


Figure 6: Number of subscribers per access speed in 2021

### 3.1.5.3 Broadband service development

In September 2021, based on the Agency's request to the ITU Office for Europe, the International Telecommunications Union (ITU) launched a project to assist the Agency to create preconditions for mapping broadband access in BiH. The name of the project is "Favourable environment for mapping broadband access in Bosnia and Herzegovina".

The broadband access mapping system is considered a necessary tool for the application of the regulatory framework that encourages investment in the development of high-speed electronic communications networks. To make meaningful regulatory decisions, monitor their implementation and identify new regulatory challenges, it is necessary to have market data, including georeferenced data on the prevalence and quality of existing networks and services.

The ITU recognized the need of Bosnia and Herzegovina for a project the result of which will be a report that will include, inter alia, an overview of the current state of broadband mapping in BiH, the legislative and regulatory framework, a proposal for cooperation between institutions, the scope and format of data to be collected and a technical solution proposal.

As a partner to work on this project and provide consulting services, ITU engaged representatives of the Agency for Communication Networks and Services of the Republic of Slovenia (AKOS). Information on the current situation and other necessary assistance to the consultants was provided by representatives of the Agency, and the project included cooperation with other relevant participants in the process of mapping broadband infrastructure in BiH. Representatives of the Agency organized several online meetings attended by AKOS representatives, representatives of the Ministry of Transport and Communications of BiH, the BiH Agency for Statistics, the Federal Ministry of Transport and Communications, the Federal Bureau of Statistics, the Federal Geodetic and Property Administration, BH Telecom, Croatian Telecommunications Mostar, Telekom Srpske and Telemach. The meetings were held in October and the first half of November and were used to inform all participants about the importance of the broadband infrastructure mapping project and how to implement broadband infrastructure mapping in Slovenia.

It was pointed out at the meetings, as already shown in European practice, that mapping broadband significantly facilitates decision-making when investing in further construction of telecommunications infrastructure while maintaining market competition but also raising the quality of infrastructure and services provided through it.

At the end of December, a draft report was prepared, which contains recommendations for further activities in BiH regarding broadband access mapping for further development of electronic communications networks and services.

In 2022, the activities under this project are expected to continue, first of all, the official completion of the first phase and the publication of the Report followed by the second phase, which will enable the implementation of the given recommendations.

### **3.1.6. NUMERATION**

The regulatory framework for numerical capacities used for telephone services in BiH is established by Rule 38/2008 Numbering Plan for Telephone Services in BiH (Official Gazette of BiH, 105/08, 95/11, 76/16 and 81/19) and Rule 39/2008 Management of the telephone numbering plan in BiH (Official Gazette of BiH, 105/08, 95/11, 47/12 and 76/16).

#### **3.1.6.1. Licenciranje numeracije**

In the period from 1 Jan - 31 Dec 2021, the following activities related to the management, use and monitoring of the use of telephone numbers and signalling codes in BiH and the service of portability of telephone numbers were performed:

- 192 administrative acts were issued at the request of legal entities for the allocation of blocks of telephone numbers, individual telephone numbers and signalling codes in procedures related to the issuing, revocation and renewal of licenses and cases related to the use of these numerical capacities.

- The internal audit reviewed the calculation and collection of fees for issued licenses for the use of telephone numbering. Based on the recommendations of the Internal Audit Department of the Ministry of Transport and Communications of BiH, the Instruction 03-29-3-2174 / 21, dated 25 October 2021, on the procedure for the allocation of numerical resources, the application of which began with its adoption.
- Ex officio, and based on the information obtained by monitoring the permitted use of numbering for the provision of fixed telephone services, a misdemeanour procedure was conducted in which the Agency issued an official verbal warning to the offending telecom operator Agency.

### 3.1.6.2. Phone number portability

The regulatory framework for the telephone number portability service in BiH is determined by Rule 62/2012 on telephone number portability (Official Gazette of BiH, 47/12, 39/13 and 94/15).

According to the data obtained from the Manager of the Central Administrative Database of Transferred Numbers (CADB Manager), in the period 1 Jan – 31 Dec 2021, the total number of transferred telephone numbers in the telephone network of BiH was 21,789, as follows:

- 6,534 in the fixed telephone network, which is 26.19% more than in 2020,
- 15,255 in the mobile telephone network, which is 16.41% more than in 2020.

The total number of transferred telephone numbers from the establishment of the telephone number portability service until 31 Dec 2021 was as follows:

- 100,033 in the fixed telephone network,
- 105,999 in the mobile telephone network.

The percentage of transferred telephone numbers compared to the total number of users of telephone services on telephone networks in BiH is:

- 14.51 % in the fixed telephone network, which is 9.59 % more than in 2020,
- 2.81% in the mobile telephone network, which is 8.91% more than in 2020.

### 3.1.7. MARKET ANALYSIS

In 2021, the activities on the third phase of the project Analysis of the Electronic Communications Market according to the EU methodology (Project) were completed. The agency started the project in November 2019 in cooperation with the Vafer Consulting company. In 2019 and 2020, the first two phases of the Project were implemented, which included data collection & processing, drafting proposals for analyses/tests of three criteria and referring those to public consultations. The third phase of the Project included creating answers to questions and comments received in the process of public consultations, preparation of final versions of analysis documents/Tests of three criteria and training of Agency employees. Due to objective circumstances caused by the COVID 19 pandemic, the third phase of the Project was extended and ended in October 2021.

The Project analysed five relevant markets that have not been analysed so far and which are established by Rule 54/2011:

1. The market of access to the public telephone network at a fixed location for individuals and legal entities – retail level;
2. The market of calls originating from the public telephone network (call generation) and provided at a fixed location – wholesale level;
3. Wholesale network access market (including shared or fully unbundled location access) - wholesale level;
4. Broadband market – wholesale level;
5. Terminal segments of leased lines, regardless of the technology used to provide leased or allocated capacity – wholesale level;

In addition to the analysis of the relevant markets specified in the List, the Project conducted the three criteria tests for three relevant markets not determined by Rule 54/2011:

6. The market for distribution of audiovisual media services and radio media services;
7. Broadband market – retail level;
8. The wholesale market of access and initiation of calls in public mobile telephone networks.

In 2019 and 2020, the first two phases of the Project were implemented, which included creating questionnaires, data collection & processing, drafting proposals for analyses/three criteria tests and referring those to public consultations for eight relevant markets.

The initial deadline for completion of analyses/three criteria tests for all eight relevant markets was the end of 2020. However, due to the extension of deadlines for public consultations due to the COVID19 pandemic, the third phase of the Project was extended, and it was ne-



cessary to update the proposals of analyses/three criteria tests with data for the fourth quarter of 2019 and 2020. To update the data, a single shortened questionnaire was created for all eight relevant markets, based on which data for 2019 and 2020 were collected.

During the preparation of the final versions of the analysis documents/the three criteria tests, the Agency considered the received comments in the public consultation process for all eight relevant markets, prepared answers and took them into account in the preparation of the final versions. Besides, the final versions of the documents have been updated with data for 2019 and 2020.

In the period September-October, Vafer held the last training cycle for the Agency's employees. This cycle of Agency staff training is related to the final versions of the analysis/ three criteria tests and responses to comments from public consultations for all eight relevant markets. In addition, the training covered topics from the EU regulatory framework: market analysis in accordance with the EU regulatory framework, regulation of MVNO and OTT in the EU, review of Directive (EU) 2018/1972 on the European Electronic Communications Code (EECC) and Directive 2014/61/EU on measures to reduce the cost of setting up high-speed electronic communications networks.

### 3.1.8. ROAMING AGREEMENT IMPLEMENTATION

Pursuant to the Decision on prices of roaming services in public mobile communications Networks of 20 June 2019 and in accordance with the Agreement on Reducing the Prices of Roaming Services in Public Mobile Communications Networks in the Western Balkans, the Agency approved operators, until RLAH rules take effect, i.e., until 30 June 2021, to apply the model of the single domestic retail price of roaming services, to which the roaming fees from the Decision are added.

In the period 1 June 2020 - 30 June 2021, mobile operators applied the following average retail prices for roaming services (excluding VAT):

- outgoing calls: BAM 0.27 KM/min BH Telecom, Telekom Srpske and HT Eronet;
- incoming calls: BAM 0.05/min BH Telecom; BAM 0.05/min Telekom Srpske and BAM 0.08 KM/min HT Eronet;
- BAM 0.10 /SMS BH Telecom, BAM 0.11/SMS Telekom Srpske, BAM 0.11 KM/SMS HT Eronet.

The average retail unit price for mobile internet service for all users in the period 1 June 2020 - 30 June 2021 was BAM 0.11/MB (unit price BAM 0.08/MB, plus additional fee BAM 0.0293/MB).

Pursuant to Article 1 and Article 6 of the Agreement, in 2021 the Agency adopted the Rule on the application of the policy of appropriate use and assessment of the sustainability of the

abolition of additional fees for regulated retail roaming services and the Decision establishing the prices of roaming services in public mobile communications networks.

The Rule on the application of the fair use policy and the sustainability assessment of the abolition of additional fees for regulated retail roaming services sets out detailed rules to ensure consistent application of the fair use policy that operators can apply to the consumption of regulated retail roaming services at applicable domestic retail prices. To prevent abuse, the rule defines fair use, transparency and control of fair use policy as well as the manner of submitting requests and a methodology for assessing the sustainability of the abolition of additional retail roaming fees.

The decision establishing the prices of roaming services in public mobile communication networks determined the maximum average wholesale prices of roaming services in the Western Balkans as of 1 July 2021, as well as the dynamics of lower prices. Also, the Decision establishes the maximum wholesale price of call termination services in mobile networks for regulated roaming calls in the Western Balkans as of 1 July 2021. To protect end-users, the Decision defines the obligations of operators regarding the offer of alternative tariffs, the method of informing users, and the protection of users from excessive consumption.

Following the Rule on implementing the policy of proper use and assessment of the sustainability of abolishing additional fees for regulated retail roaming services, operators have defined Special conditions for using roaming services in mobile electronic communications networks in the Western Balkans. Special conditions for the use of roaming services determine the conditions and prices for the use of roaming services in the Western Balkans region.

According to the submitted data for the second and third quarters of 2021, there was a significant increase in roaming traffic in the Western Balkans in the second and third quarters of 2021 compared to the same period in 2020.

Table 10 Increase in roaming traffic in the Western Balkans for Q2 and Q3 2021.

Service	Q2 21/Q2 20	Q3 21/Q3 20
Outgoing calls	72%	179%
Incoming calls	72%	182%
Sent SMS messages	129%	114%
Mobile internet	305%	520%

### 3.1.9. END-USER PROTECTION

As part of measures to protect users, in 2021, the Agency paid special attention to measures to ensure the safety of children on the Internet. Protecting children and young people in the online world is as important as protecting them in reality, especially given that children and young people nowadays spend a lot of time on the Internet using all available technologies, devices and networks.

In January 2021, the Agency published on its website the Guidelines for ICT companies regarding the safety of children on the Internet issued in 2020 by the ITU and sent a letter to all Internet access providers inviting them, as socially responsible companies, to implement the given recommendations within their competences.

As part of further activities, a questionnaire on the safety of children on the Internet (Questionnaire) was created and sent to operators in October 2021. The purpose of the Questionnaire is to review the current situation in terms of activities, steps taken, possible measures and procedures that Internet access service providers have implemented regarding the safety of children on the Internet. In accordance with the above answers to the Questionnaire, it can be said that Internet service providers have undertaken a number of activities concerning the safety of children on the Internet, such as the implementation of the campaign for the safety of children on the Internet, promotion of safety of children on the Internet through the providers' websites, promotion of tools and applications of parental control/supervision of children on the Internet developed by companies dealing with protection and safety on the Internet, and various technical solutions as a child protection mechanism on the Internet.

### 3.1.10. MONITORING OF NETWORKS AND SERVICES

To monitor the speed and quality of the Internet access service, the Agency implemented the RAK NetTest measurement system for users to test the speed and quality of the Internet access service and monitor the results of other users who performed measurements. All measurement results are provided to the user in customized and detailed graphical and statistical views and are mapped. The measurement results are shown on the map within the selected period and the parameters to be displayed. The individual measurement points are coloured according to the traffic light scale where green indicates very good measurement results, red indicates poor measurement results and colour gradation indicates results between these extreme values. RAK NetTest enables the use of the system in fixed and wireless Internet access.

RAK NetTest enables the use of the system in fixed and wireless Internet access. For fixed Internet access, RAK NetTest is launched via a browser at <https://nettest.rak.ba>. For wireless Internet access, the RAK NetTest application needs to be installed on your mobile device from the Play Store or App Store (depending on the device's operating system). The installed RAK NetTest application provides the ability to measure speeds in mobile and WLAN networks with all the provided parameters. When starting the RAK NetTest for fixed access or installing the RAK NetTest application for wireless access, the end-user must confirm that they are familiar with the Terms of Use provided, along with other detailed information, in the RAK NetTest application.

The data used to prepare the report were generated from the CRA NetTest measurement system based on all user measurements in 2021. The report includes the results of measuring the speed and quality of Internet access service in fixed, mobile and WLAN networks.

The results of measurements performed by end-users are influenced by the user environment in which the measurement was initiated and performed. The quality of service and measurement results can be affected by various factors, such as user location (open or closed space), user distance from a base station, the system configuration of the device through which the measurement is performed, LAN load, etc. Therefore, the measurement results obtained through the RAK NetTest system are informative and represent the current state of quality of user access to the Internet.

Using the RAK NetTest system for measuring the quality of Internet access service in fixed, mobile and WLAN networks, users performed a total of 13,667 measurements in 2021. Below is a graph of all measurements in all networks per all technologies.

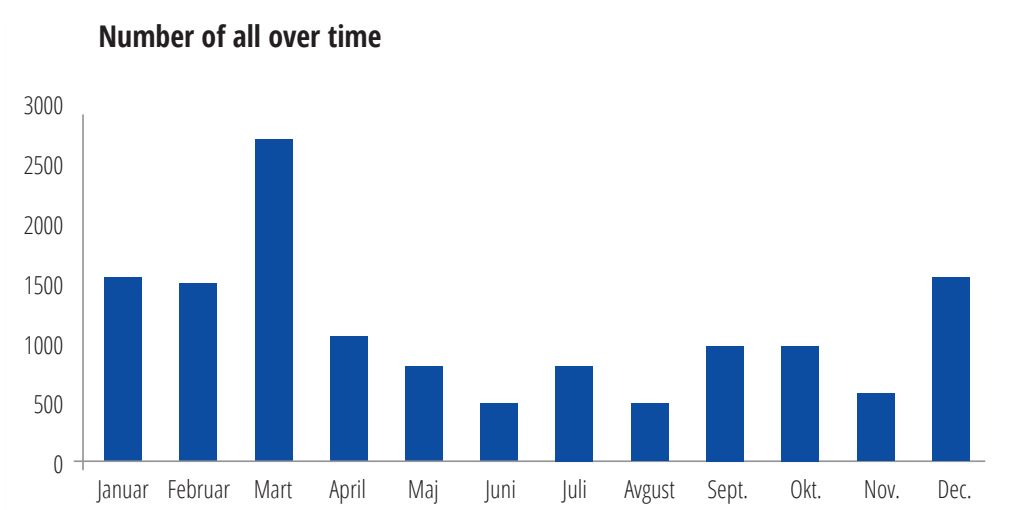


Figure 7: Number of all measurements over time in 2021

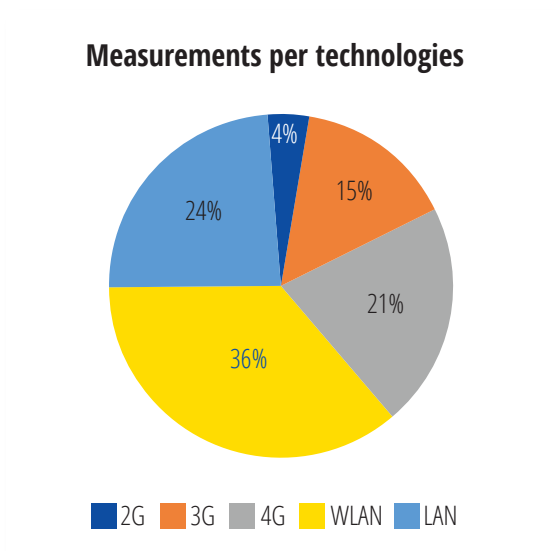


Figure 8: Measurements per technology in 2021

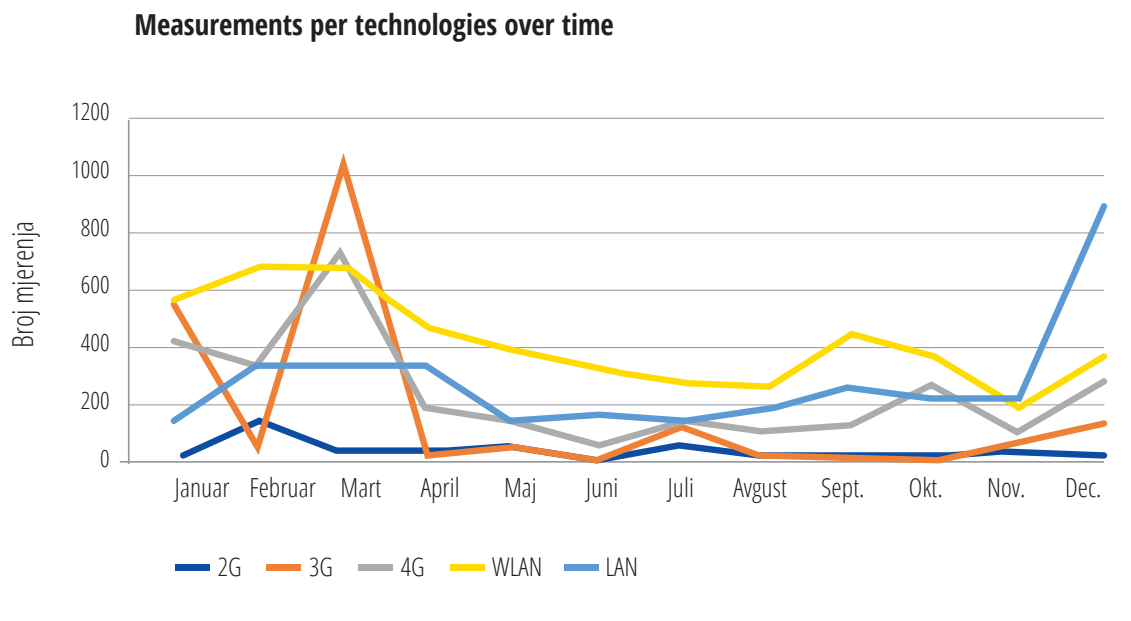


Figure 9: Measurements per technology over time in 2021

Using the RAK NetTest system for measuring the quality of Internet access service in fixed networks, users performed a total of 3321 measurements in 2021. In the observed period, the average download speed (DL) was 51.06 Mbit/s, the average upload speed (UL) was 24.26 Mbit/s, and the average Ping (the time required for packets to reach the measurement server and to return to the device) was 29.31 ms.

Using the RAK NetTest system for measuring the quality of Internet access service in mobile networks, users performed a total of 5412 measurements in 2021. The number of measurements refers to all measurements (2G, 3G, 4G) performed in all mobile networks. Using the RAK NetTest system for measuring the quality of Internet access service in 4G mobile networks, users performed a total of 2861 measurements in 2021. In the observed period, the average download speed (DL) was 29.73 Mbit/s, the average upload speed (UL) was 17.8 Mbit/s, and the average Ping (the time required for packets to reach the measurement server and to return to the device) was 42.97 ms.

Using the RAK NetTest system for measuring the quality of Internet access service in WLAN networks, users performed a total of 4934 measurements in 2021. In the observed period, the average download speed (DL) was 29.36 Mbit/s, the average upload speed (UL) was 8.96 Mbit/s, and the average Ping (the time required for packets to reach the measurement server and to return to the device) was 37.12 ms.

### 3.1.11. COOPERATION WITH INTERNATIONAL INSTITUTIONS

In 2021, the Agency started cooperation with the Body of European Regulators for Electronic Communications (BEREC) as an observer. With this arrangement, the Agency's representatives get the opportunity to attend the meetings of the Board of Regulators (BoR) and the Contact Network (CN), and the Agency's experts have the opportunity to actively participate in the work of BEREC expert task groups.

In 2021, the Agency continued its active participation in the work of the European Mediterranean Regulators Group (EMERG) as a member of the Permanent Secretariat of the organization and by participating in the work of expert task groups and attending professional webinars.

On 4 November 2021, the Agency, together with the Italian regulator AGCOM, chaired a joint EMERG-BEREC workshop on the regulation of digital platforms in the light of the new regulatory package of the European Commission for digital services. The workshop was held virtually and was attended by 60 participants from 15 countries of the European Union, MENA countries and countries in the region.

The Agency also attended the four-party summit of regulatory platforms BEREC-EMERG-EaPaReg-Regulatel, held in Dubrovnik (Croatia) on 28 and 29 September 2021, as part of the EMERG delegation. EMERG is a platform initially established by the European Commission, which brings together electronic communications regulators of Mediterranean countries, including EU member states. EMERG's basic goal is to bring member states closer to the EU regulatory framework.

## 3.2 BROADCASTING AREA

### 3.2.1. AUDIOVISUAL MEDIA SERVICES AND RADIO MEDIA SERVICES

#### 3.2.1.1. Users of licenses for terrestrial television and radio broadcasting

In 2021, within the licence renewal process, an analysis was performed and an expert assessment was given of 149 applications for the programme part of licences, as follows: 111 for users of the General License for terrestrial radio broadcasting, 3 for users of non-profit radio license and 35 for users of the license for terrestrial television broadcasting.

In 2021, seven approvals were issued to change the ownership structure: four for the users of the General License for terrestrial radio broadcasting and three for the users of the terrestrial television broadcasting license.

#### 3.2.1.2. Users of licenses for television and radio broadcasting via other electronic communication

According to Rule 77/2015 on the provision of audiovisual media services in 2021, two approvals have been issued to change the ownership structure of users of television broadcasting licenses via other electronic communications networks. In addition, an analysis was performed and an expert assessment was given of 16 applications for the program part of the Television Broadcasting License via other electronic communication networks (of which four are applications for obtaining a license and 12 are license renewal requests). In the mentioned period, there were no requests regarding the program part by the users of the Radio Broadcasting License via other electronic communication networks.

#### 3.2.1.3. Approval to provide on-demand audiovisual media services

In accordance with Rule 77/2015 on the provision of audiovisual media services during 2021, there were no requests for new Approval to provide on-demand audiovisual media services. On 31 December 2021 inclusive, there were 12 active users of this Approval, of which 3 were state-owned and 9 in private ownership.

#### 3.2.1.4. Ownership structure

In 2021, four approvals were issued to change the ownership structure of users of terrestrial radio broadcasting licenses (Radio Kristal d.o.o. Lopare, BL PLAVI 2013 d.o.o., Radio Njoy d.o.o. Bijeljina and ZOS d.o.o. In addition, three approvals were issued to change the ownership structure of two users of terrestrial radio broadcasting licenses, and two approvals to Alternativ-

na televizija d.o.o. Banja Luka and one to NTV „JASMIN“ d.o.o. Vitez, and two approvals to users of the licence for television Broadcasting via other electronic communication networks (Balkan Entertainment d.o.o.Sarajevo and RA – TV d.o.o. Tešanj).

The table and diagram below show the status of licensees in audiovisual media services and radio media services in 2021, based on the ownership structure of legal entities of licence users (private and public).

Table 10 Licence users' status in audiovisual media services and radio media services (public and private stations)

Status	Providers of audiovisual media services			Radio media service providers				Public service (Radio and TV)
	License for terrestrial television broadcasting	License for television and radio broadcasting via other electronic communication	Approval to provide on-demand audiovisual media services	General radio broadcasting licence (FM)	General radio broadcasting licence (MW)	License for radio broadcasting via other electronic communication	Non-profit radio	
<b>Public</b>	<b>14</b>	<b>6</b>	<b>3</b>	<b>65</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6</b>
<b>Private</b>	<b>24</b>	<b>61</b>	<b>9</b>	<b>83</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>-</b>

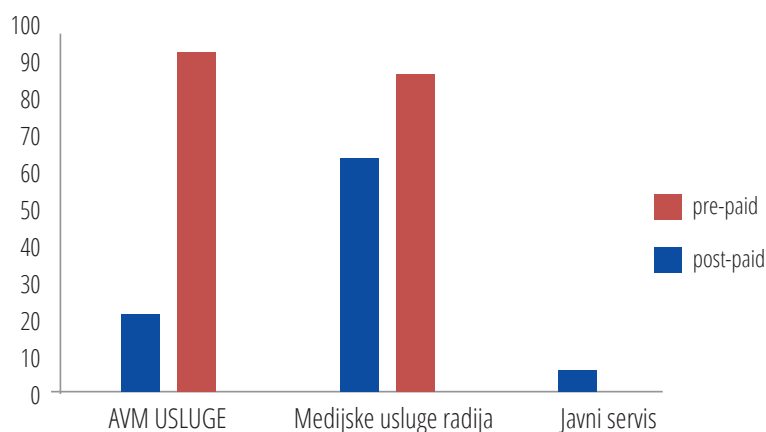


Figure 10: Licence users' status in audiovisual media services and radio media services (public and private stations)



### 3.2.1.5. Users of licences for the distribution of audiovisual media services and radio media services

In accordance with the issued licenses for the distribution of audiovisual media services and radio media services (License), and the license requirements prescribed by Rule 79/2016 on licenses for the distribution of audiovisual media services and radio media services (Rule 79/2016), a total of 30 operators has the right to distribute AVM services and radio media services. Considering only the share of platforms used by licence users in the provision of audiovisual media distribution services, seven operators or 22% provide services through the IPTV platform, 23 operators or 72% provide services through the KDS platform and two operators or 6% within issued licenses provide services through DTH (direct-to-home) platforms.

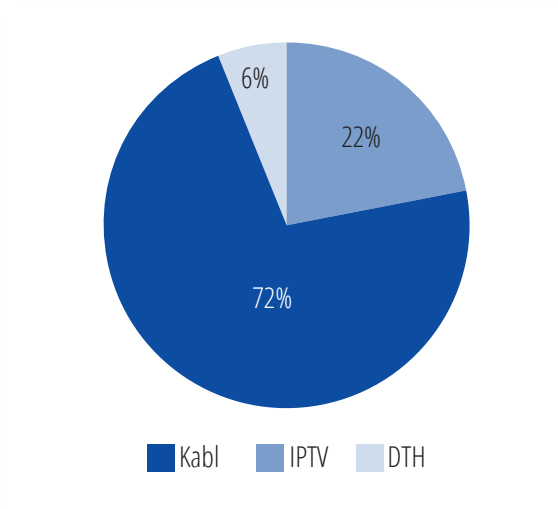


Figure 11: Method of distribution of licence users for the distribution of audiovisual media services and radio media services

Although most operators provide services through the KDS platform, looking at the number of subscribers, IPTV technology is more widespread in BiH, so the share of the IPTV platform in the total number of subscribers in BiH is 42.2% (373,536 subscribers using the IPTV platform), the share of the KDS platform is 39.3% (348,107 subscribers using the KDS platform) and the DTH platform 18.5% (163,977 subscribers using the DTH platform).

On 31 December 2021 inclusive, the number of subscribers to the distribution of audiovisual media services and radio media services using services via various platforms (IPTV, KDS and DTH) was 885,620. Compared to 2020, when the number was 858,360, the number of subscribers increased by 27,260, or 3.2%. The overall penetration of the distribution of audiovisual media services and radio media services, i.e., the coverage of BiH households with the distribution of audiovisual media services and radio media services is 76.6%.

The growth in the number of subscribers in 2021, compared to 2020, was reported by 20 operators, of which the newest subscribers were reported by Mtel a.d. Banja Luka, 25,065 or 21.4% more than the number of subscribers registered in the previous year. Following is BH

Telecom d.d.Sarajevo with 4535 subscribers or 2.2% and Telemach d.o.o. Sarajevo with 1164 subscribers or 0.4%. Other operators reported a negligible increase in subscribers. However, 9 operators reported fewer subscribers in 2021, compared to 2020. The largest decrease in the number of subscribers in the amount of 5.2% was recorded by Blicnet d.o.o. Banja Luka, which lost 1601 subscribers, followed by M&H Company d.o.o. Sarajevo with 30.2%, or 843 subscribers, and TX TV d.o.o. Tuzla with 2.5% and 571 subscribers.

One operator reported the same number of subscribers as in the previous year, while one operator, Dinnet d.o.o. Gračanica, submitted data on the number of subscribers in 2021 because the license was issued at the end of 2020.

Out of a total of 30 operators operating in BiH, 90% of the market share belongs to the three largest cable/IPTV distributors with their affiliates (10 in total), while only 10% is shared by the other 20 cable/IPTV operators. The largest percentage share in the distribution market, although it decreased compared to last year, has Telemach d.o.o. Sarajevo, which provides services through the KDS and DHT platforms (34.45%) as an independent holder of the License, but this percentage is higher (39.26%) when taking into account its affiliates (HKB net d.o.o. Sarajevo, M&H Company d.o.o. Sarajevo and HS d.o.o. Sarajevo) followed by BH Telecom, whose market share is 23.64%, which is a slight increase compared to the previous year, while Mtel a.d. Banja Luka, as an independent licence holder, which provides distribution services through IPTV and DTH platform, achieved significant growth compared to the previous year with a market share of 16.05%, and the total market share of Mtel with its affiliates (Blicnet d.o.o. Banja Luka, Elta-Kabel d.o.o. Dobo, Telrad Net d.o.o. Bijeljina and Logosoft d.o.o. Sarajevo) is 27,1%.

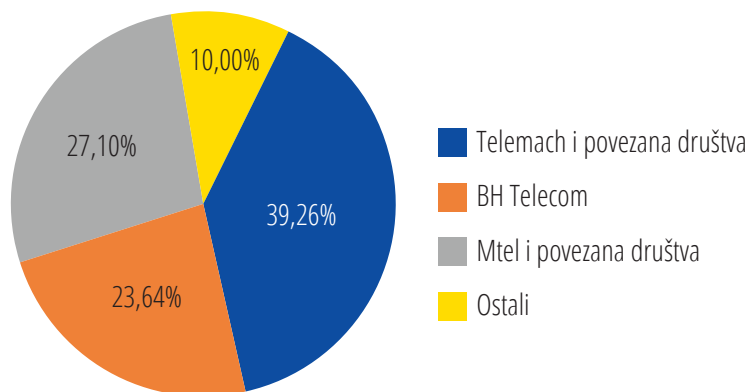


Figure 12 Share of the number of subscribers in the market of distribution of audiovisual media services and radio media services

In addition to distribution services, the following six operators also provide Video on Demand service (VoD): Hrvatske telekomunikacije d.d. Mostar, BH Telecom d.d. Sarajevo, Telemach BH d.o.o. Sarajevo, HS d.o.o Sarajevo and HKB Net d.o.o. Sarajevo.

The number of TV channels at the end of the observed period that licence users offer to their subscribers is a minimum of 9 TV channels (Telesky d.o.o. Gradačac) to 311 TV channels (Mtel a.d. Banja Luka). In addition to offering basic program packages, some distributors also offer additional (mostly thematic) packages: sports, music and film. Also, some licence users offer radio programs from BiH and neighbouring countries.

In compliance with Rule 79/2016, in 2021, based on the request, 153 program lists were issued to the users of the License for the Distribution of Audiovisual Media Services and Radio Media Services. An analysis was performed and an expert opinion was given on a request for the distribution of audiovisual and radio media services (SIGMA Hlorogen d.o.o. Banja Luka) regarding the refusal thereof, having in mind that the request pertained to the distribution using OTT technology, i.e., via open internet, which has not been regulated in Bosnia and Herzegovina as yet.

Table 11: Number of subscribers of CATV / IPTV / DTH operators in BiH (on 30 November 2021 inclusive, and number of channels distributed in cable / IPTV systems)

No.	Name of CATV/IPTV/DTH operator	No. of subscribers	Distribution technology	No. of programmes
1	<b>AMB net d.o.o. Živinice</b>	512	CATV	137 TV programmes
2	<b>BH Telecom d.d. Sarajevo</b>	209,418	IPTV	226 TV programmes 46 Radio programmes
3	<b>Blicnet d.o.o. Banja Luka</b>	29,054	CATV	270 TV programmes 17 Radio programmes
4	<b>DSL Elektronika d.o.o. Modriča</b>	332	CATV	16 TV programmes
5	<b>Elta-Kabel d.o.o. Doboj</b>	47,500	CATV	223 TV programmes
6	<b>ELTA-MT d.o.o. Tuzla</b>	82	CATV	109 TV programmes
7	<b>HKB net d.o.o. Sarajevo</b>	26,985	CATV	Analogue: 59 Digital: 244 Expanded packages: 42 Radio programmes: 29
8	<b>HS d.o.o. Sarajevo</b>	13,697	CATV	Analogue: 59 Digital: 244 Expanded packages: 42 Radio programmes: 29
9	<b>JP Hrvatske telekomunikacije d.d. Mostar</b>	41,186	IPTV	151 TV programmes
10	<b>KG-1 d.o.o. Goražde</b>	1764	CATV	121 TV programmes
11	<b>KTV EGE d.o.o. Matuzići</b>	5582	CATV	139 TV programmes 5 Radio programmes
12	<b>Logosoft d.o.o. Sarajevo</b>	4 733	IPTV	278 TV programmes

13	<b>M&amp;H Company d.o.o. Sarajevo</b>	1946	CATV	Analogue: 59 Digital: 243 Expanded packages: 42 Radio programmes: 29
14	<b>Mediasky d.o.o. Živinice</b>	1957	IPTV	117 TV programmes
15	<b>MISS net d.o.o. Bihać</b>	5400	CATV	123 TV programmes
16	<b>Max TV d.o.o. Brčko</b>	234	IPTV	125 TV programmes Start+PINK: 55 Arabian: 16 Radio programmes: 4
17	<b>Neon Solucije d.o.o. Kalesija</b>	4132	CATV	123 TV programmes Radio programmes: 3
18	<b>Ortak d.o.o. Šipovo</b>	780	CATV	42 TV programmes 61 Pink package
19	<b>Stokić d.o.o. Doboj</b>	620	CATV	66 TV programmes
20	<b>Mtel a.d. Banja Luka</b>	IPTV: 115,936 DTH: 26,290 TOTAL: 142,226	IPTV/DTH	IPTV: 311 DTH: 148 Radio: 9
21	<b>Telemach BH d.o.o. Sarajevo</b>	CATV: 167,434 DTH: 137,687 TOTAL: 305,121	CATV/DTH	Analogue: 89 Digital: 263 Expanded packages: 42 Radio programmes: 30  <b>TOTAL platforma</b>  Start: 54 Extra: 69 HBO: 3 Chinama: 2 Cinestar: 2 Club X: 4 Film Bo: 12 BN: 3 PINK: 40
22	<b>TELRAD Net d.o.o. Bijeljina</b>	16,501	CATV	278 TV programmes 14 Radio programmes
23	<b>Tel-net d.o.o. Ključ</b>	410	CATV	41 TV programmes
24	<b>Telesky d.o.o. Gradačac</b>	64	CATV	9 TV programmes
25	<b>Terc Trade Company d.o.o. Prnjavor</b>	1886	CATV	100 TV programmes
26	<b>Teonet d.o.o. Tuzla</b>	324	CATV	19 TV programmes
27	<b>TX TV d.o.o. Tuzla</b>	21,579	CATV	173 TV programmes
28	<b>ZipZap d.o.o. Zenica</b>	291	CATV	171 TV programmes
29	<b>WIRAC.NET d.o.o. Gračanica</b>	1232	CATV	144 TV programmes
30	<b>Dinnet d.o.o. Gradačac</b>	72	IPTV	49 TV programmes 1 Radio programme
<b>Total subscribers</b>		<b>885,620</b>		

### 3.2.1.6. Distribution of audiovisual media services and radio media services

According to the Collective Agreement concluded between the Film Industry Association (UFI) and the Association of Cable Distributors (AKOP) on cable retransmission of audiovisual copyright works in BiH for the period 2016-2018 (Official Gazette of BiH, 4/19), in 2019, the Agency, acting within the powers referred to in Article 3(4) of the Law on Communications, Article 7(I) of Rule 79/2016 on Licenses for the Distribution of Audiovisual Media Services and Article 26 of the Law on Collective Exercise of Copyright and Related Rights fulfilled its obligations in terms of taking reasonable measures to resolve the obligations of distribution licence users regarding proving resolved copyrights in respect of audiovisual works by obtaining from all Collective Agreement holders of licenses for the distribution of evidence of resolved copyright (signed individual agreements based on the Collective Agreement for 2016-2018 or evidence of payment/deposit of funds with the court or notary public), and according to licence users who did not submit the required evidence imposed appropriate penalties.

After the expiration of the Collective Agreement for the period from 2019 onwards, no new Collective Agreement has yet been concluded between UFI and AKOP.

Consequently, in the described situation of the non-existence of tariffs and the new Collective Agreement for 2019 and beyond, according to which licensees could fulfil their obligation under royalties and given the absence of the Copyright Council, which is formally competent under ZKOAiSP to resolve the current situation, further activities of the Agency in 2021, on the protection of copyright has been called into question concerning all holders of distribution licenses issued by the Agency because the obligations of cable distributors to the Agency have remained unsettled since 2019.

### 3.2.1.7. Administrative proceedings against distributors regarding the unauthorized distribution of sports events

a) ) Acting upon the Judgment of the Court of BiH, No. SI 3 U 033550 19 U dated 17 Dec 2020, upholding the lawsuit of United Media S.a.r.l. Luxembourg against the final decision of the Agency Council, number: UP2-03-29-7-3 / 19 of 25 June 2019, in the administrative matter of recognizing the capacity of an interested party, the procedure against the cable operator TXTV d.o.o. Tuzla was repeated to investigate possible violations of license requirements and rules of the Agency, i.e., possible unauthorized distribution of sports events on the channels RTV SLO2 and RTL.de.

As part of the retrial, a preparatory hearing was held at which the interested party (United Media S.a.r.l Luxembourg) and the party to the proceedings (TXTV d.o.o. Tuzla) submitted the requested information, statements and proposals of the list of issues, witnesses and other evidence they think should be examined and discussed at the oral hearing. After the oral hearing (1 July 2021) and the continuation of the oral hearing (19 November 2021), all case documents were prepared to schedule a meeting of the Agency's Internal Commission to issue an expert opinion and draft a final decision to end the case.

b) United Media S.a.r.l. Luxembourg has filed charges against IPTV operator Logosoft d.o.o. Sarajevo and BH Telecom d.d. Sarajevo for unauthorized distribution of sports events on RTL.de As part of these trials, preparatory hearings were held at which the interested party (United Media S.a.r.l. Luxembourg) and the party to the proceedings (Logosoft d.o.o. Sarajevo and BH Telecom d.d.) submitted the requested information, statements and proposals of the list of issues, witnesses and other evidence they think should be examined and discussed at the oral hearing. After the preparatory hearing, oral hearings were held for both proceedings. After the completion of the proceedings, the Internal Commission of the Agency evaluated all the presented evidence and considered the issues at the meeting, and on 10 December 2021, the Director-General adopted the following Conclusions:

- In case UP1 05-29-1-524 / 21 the proceedings were suspended against BH Telecom d.d. Sarajevo, the holder of the License for distribution of audiovisual media services and radio media services because it was established that no violation was committed of Article 7 (1), (4) and (6) of Rule 79/2016 on licenses for the distribution of audiovisual media services and radio media services.
- In case UP1 05-29-1-523 / 21 the proceedings were suspended against Logosoft d.o.o. Sarajevo, the holder of the License for distribution of audiovisual media services and radio media services because it was established that no violation was committed of Article 7 (1), (4) and (6) of Rule 79/2016 on licenses for the distribution of audiovisual media services and radio media services..

United Media S.a.r.l. Luxembourg lodged appeals to the above Conclusions UP1 05-29-1-523 / 21 and UP1 05-29-1-524 / 21, which were forwarded to the Agency Council for further resolution.

c) Acting upon the Judgement of the Court of BiH, No. S1 3 U033547 19 U dated 13 May 2021 and S1 3 U033549 19 U of 08 June 2021, upholding the lawsuits of United Media Sarl Luxembourg and Nova TV dd Zagreb against the final Decisions of the Agency Council, UP2 03-29-7-5/19 of 25 June 2019 and UP2 03-29-7-4/19 dated 25 June 2019, the proceedings against the cable operator Elta-Kabel doo Doboje were repeated to investigate possible violations of license requirements and rules of the Agency, i.e., possible unauthorized distribution of sports events on the channels Nova TV d.d. And Das Erste HD.

As part of the retrial, a preparatory hearing was held on 21 July 2021 at which the interested party United Media S.a.r.l. Luxembourg and Nova TV d.d. Zagreb, and the party to the proceedings Elta-Kabel d.o.o. Doboje submitted the requested information, statements and proposals of the list of issues, witnesses and other evidence they think should be examined and discussed at the oral hearing. On 31 August 2021, the Agency issued a Conclusion merging the cases UP1 05-29-1-614 / 21 and UP1 05-29-1-795 / 21 into one procedure. After the oral hearing (27 Dec 2021) all case documents were prepared to schedule a meeting of the Agency's Internal Commission to issue an expert opinion and draft a final decision to end the case.

### 3.2.1.8. Cases of violation of program standards and licence requirements

Out of the total number of processed broadcasting cases in 2021, in 16 cases enforcement measures were imposed based on established violations of relevant provisions of applicable rules and codes of the Agency and the Election Law of BiH, as follows:

- 7 violations of the Code on audiovisual media services and radio media services;
- 4 violations of the Commercial Communications Code;
- 2 violations of the rules and regulations related to the broadcasting license requirements and the Law on Communications as well as the rules on the distribution of audiovisual media services;
- 3 violations of Chapter 16 of the Election Law of BiH and the Rulebook on media representation of political entities in the period between calling and holding the elections.

Out of the total number of imposed fines, a total of BAM 24,000.00<sup>4</sup> fines were imposed in 4 cases of violation, as well as 11 written and 1 oral warning.

Table 12: Number and type of executive measures in 2021

Type of penalty	Number of executive measures
Fines	4
Written warnings	11
Oral warnings	1
Suspensions	-
Licence withdrawal	-
<b>Total</b>	<b>16</b>

<sup>4</sup> After one decision of the Agency was changed in the second instance procedure, the total amount of fines imposed was BAM 20,000.

Below is an overview of violations and measures imposed per violated regulations..

Table 13: Violations of the Code on audiovisual media services and radio media services:

<b>VIOLATOR</b>	<b>EXECUTIVE MEASURE</b>	<b>PROVISION</b>
<b><u>NOVA BH</u></b>	Written warning	Article 20 (Participation of minors in shows of media service providers), paragraph (4)
<b><u>OBN</u></b>	BAM 9,000.00 fine	Article 16 (Participation of minors in shows of media service providers), paragraph (2) (Fake or misleading audiovisual and radio programs)
<b><u>RTV BN</u></b>	Written warning	Article 18 (Marking of reruns, recordings and archival material), paragraph (1), Article 25 (Timing and marking of shows for protection of minors)
<b><u>Alternativna televizija</u></b>	Oral warning	Article 6 (Right of reply), paragraph (3) in connection with paragraph (1)
<b><u>O Kanal</u></b>	Written warning	Article 10 (Reality and pseudo-reality shows)
<b><u>RTV Herceg Bosne</u></b>	Written warning	Article 3 (Basic principles), para. (2), (3) and (4)
<b><u>Face TV</u></b>	Written warning	Article 17 (Privacy protection), para. (1)

Table 14: Violations of the Commercial Communications Code

<b>VIOLATOR</b>	<b>EXECUTIVE MEASURE</b>	<b>PROVISION</b>
<b><u>RTV TK</u></b>	BAM 3,000.00 fine	Article 3 (General principles of commercial communications), para. (1) and (2)
<b><u>RTV BN</u></b>	Written warning	Article 16 (General sponsorship principles), para. (1), (3) and Article 18 (General product placement principles)
<b><u>Face TV</u></b>	Written warning	Article 9 (Duration of television advertising and infomercials) paragraph 5
<b><u>Face TV</u></b>	BAM 6,000.00 fine	Article 9 (Duration of television advertising and infomercials) paragraph 5



Table 15: Violations of the Rules on providing audiovisual media services and the Rules on providing radio media services

<b>VIOLATOR</b>	<b>EXECUTIVE MEASURE</b>	<b>PROVISION</b>
<b><u>RADIO ZOS</u></b>	Written warning	Article 21(3) (Licence transfer) of Rule 76/2015 on providing radio media services
<b><u>OBN TV</u></b>	Written warning	Article 13(5) (Programme requirements) of Rule 77/2015 on providing radio media services

Table 16: Violations of Chapter 16 of the Election Law of BiH and the Rulebook on media representation of political entities in the period between calling and holding the elections.

<b>VIOLATOR</b>	<b>EXECUTIVE MEASURE</b>	<b>PROVISION</b>
<b><u>BHT1</u></b>	BAM 6,000.00 fine <sup>5</sup>	Articles 16.3, 16.4 and 16.6 of the BiH Election Law within Chapter 16 Media in the election campaign
<b><u>ALJAZEERA BALKANS</u></b>	Written warning	Article 9 (Implementation) paragraph (2) of the Rulebook on media representation of political entities in the period between calling and holding the elections.
<b><u>Studio 078</u></b>	Written warning	Article 9 (Implementation) paragraph (2) of the Rulebook on media representation of political entities in the period between calling and holding the elections.

Regarding violations of program standards contained in the Code of audiovisual and radio media services, the largest number of identified violations related to provisions on the protection of minors: the protection against potentially harmful and inappropriate audiovisual content (incorrect content rating and broadcasting time, broadcasting of reality programs outside the prescribed time limit), and related to the participation of minors in the content of media service providers and the protection of their privacy.

Violations of the Commercial Communications Code were also identified, indicating insufficient knowledge of applicable rules on the recognition and identification of commercial communications, insufficient knowledge of illicit practices in terms of preserving the editorial independence of media service providers concerning commercial content and illicit influence on consumers.

<sup>5</sup> Changed to BAM 2,000.00 in the second instance procedure

Executive measures imposed in 2021 in connection with established violations of Chapter 16. The media in the election campaign of the Election Law of BiH and the Rulebook on media representation of political entities in the period between calling and holding elections refer to the media coverage of the local elections in BiH held on 15 Nov 2020 and local elections for the City of Mostar held on 20 Dec 2020.

Violations of rules and regulations on conditions of the broadcasting license in 2021 related to non-compliance with program conditions, i.e., insufficient representation of own programme and production in the total broadcast program and violation of the obligation to seek the prior consent of the Agency to change ownership structure above 5% share in the licensee.

In addition to annual reports on violations of rules and regulations, the Agency, to increase the transparency of regulatory measures, continued to publish periodicals – reviews of broadcasting cases. These publications aim to, through analysis and illustration of cases, present educationally and transparently processed cases of potential violations of broadcasting rules and codes, as well as the Agency's actions on complaints of individuals or legal entities.

### **3.2.1.9. Monitoring of obligations related to European works and European works of independent producers**

Under Rule 77/2015 on providing audiovisual media services, and following the Instruction on the manner of reporting on the share of European works and European works of independent producers in audiovisual content, the Agency has prescribed the obligation to keep records of the share of European works and European works of independent producers in their audiovisual content, in the prescribed form of a template.

The Agency has ex officio, in accordance with the relevant regulations, designated seventeen (17) licence users who are obliged to submit reports to the Agency. These are: BHT1, RTRS, FTV, Alternativna televizija, FACE TV, Al Jazeera Balkans, TV TK, TV USK, TV SA, TV Goražde, TV BN, TV BN SAT, Nova BH, TV Hayat, TV Hayat +, O Kanal and OBN.

### 3.2.2. MEDIA AND INFORMATION LITERACY

In 2021, one of the central activities of Broadcasting was the establishment of a thematic page [www.medijskapismenost.ba](http://www.medijskapismenost.ba), developed by the Agency in cooperation with and with the support of UNESCO. The website is intended for Bosnia-Herzegovina general public and contains information and materials of actors from the governmental and non-governmental sector and international organizations active in media and information literacy (MIL) and its additional networking through the SEEMIL web platform will enable continuous access and exchange of information and materials in this field. Since the establishment of the website, more than 70 texts on various MIL topics have been published. Website [www.medijskapismenost.ba](http://www.medijskapismenost.ba) has been publicly available since the second half of 2021.

Last year for the first time, in the period 24 - 31 Oct 2021, the Agency organized a campaign "Days of Media and Information Literacy" within the activities to promote media and information literacy in cooperation and with the participation of organizations and institutions active in media and information literacy under the motto Opportunities and challenges in the digital environment. The purpose of the campaign was to jointly promote MIL, encourage social debate on its importance, especially in education, and promote specific resources developed in this area such as various studies, materials for teachers, children and parents, and all citizens. Two online events were held within the campaign, the MIL Fair (25 October 2021), where, among other things, the website [www.medijskapismenost.ba](http://www.medijskapismenost.ba) was presented, as well as numerous resources on topics in MIL partner organizations. In cooperation with the Council of Europe, at the online event on 27 October 2021, the results were presented of the research "Media Habits of Adults in BiH" conducted at the initiative of the Council of Europe and the Agency.

In cooperation with Mediacentar Sarajevo, Guidelines were drafted on the use of media, information and communication technologies and the time children spend in front of the screen, with the participation of experts in child development, psychology, pedagogy, communicology and information and communication technologies. During the reporting period, the Facebook profile named Media and Information Literacy was continued, including contents of various formats on various topics in media and information literacy, as well as a closed Facebook group called "Media and Information Literacy - a group of experts in BiH". Special attention was paid to Safer Internet Day and online security, a campaign was conducted on the representation of women in leadership positions in the media, as well as a campaign on differences in media use between girls and boys based on data from the Agency's research in cooperation with UNICEF. During the campaign, with the assistance of a hired digital marketing agency, 18 posts with a total reach of 104,000 and 1,487 engagements were published on social networks. In addition, two events with a total reach of 25,000 were published. This year, 113,450 people saw the publication with a total number of links to 1,700 pages.

### 3.2.3. REGULATORY CHANGES AND HARMONIZATION WITH EU LEGISLATION

In May 2021, the Agency Council adopted the Code on amendments to the Code on audiovisual media services and radio media services. The amendments to the Code refer to the abolition of the time limit for broadcasting content not intended for minors under 12. These contents are still subject to obligatory parental guidance.

At the beginning of 2021, the Agency performed a mapping of the content provided by television stations in BiH via the Internet. Based on the collected information, it was concluded that a significant number of licence users publish content under their logo on the Internet as well. Although the regulation of the Internet portal is not within the competence of the Agency, when it comes to content created by users of Agency licenses, the Agency has noticed in practice that such content is often associated with the broadcast program, whether the content is referred to in the program or whether it deals with certain news presented in a broadcast program in more detail.

In this regard, the need was identified to oblige licence users to a basic level of editorial responsibility to prevent the provision of the most harmful content such as discrimination and hatred, endangering public order and peace, and violating the welfare of minors. Consequently, draft Rules were prepared to amend Rule 77/2015 on the provision of audiovisual media services and Rule 76/2015 on the provision of radio media services, which proposed extending the liability of licensees of the Television and Radio Broadcasting Agency for content published on websites under the logo of licence users.

Given the complexity of online content regulation, two rounds of public consultations were held on the draft of these rules, as well as a webinar on "Regulation of harmful online content". Based on the reactions of experts, the need for a wider public debate and a more comprehensive solution to the issue of online content regulation in BiH was pointed out, which is a process to be continued in 2022.

In 2021, drafting amendments to codes and rules on broadcasting to harmonize them with the revised EU Directive on Audiovisual Media Services was continued (EU 2018/1808).

### **3.2.4. PROCUREMENT OF INFORMATION SYSTEM FOR MACHINE RECOGNITION OF VOICES AND WORDS IN THE AUDIOVISUAL MEDIA SPACE AND THE RADIO MEDIA SPACE IN BIH**

In accordance with the strategic goal 5.18 of the Medium-Term Development Plan 2019-2021, the Agency procured an information system for machine recognition of voices and words in the audiovisual media space and the radio media space in BiH. To fully implement the project, tests and additional improvements in the functioning of the part of the project related to the conversion of speech into text and applications for monitoring business processes are being carried out.

After it becomes fully functional, the new system will enable qualitative and quantitative monitoring of the media space in BiH, and significantly increase the level of monitoring compliance with licensing conditions, rules and regulations of the Agency, for further professionalising the media. .

### **3.2.5. PROCUREMENT OF A CENTRALIZED SYSTEM FOR MONITORING THE NUMBER OF USERS WITH CABLE OPERATORS IN BOSNIA AND HERZEGOVINA**

In terms of improving regulatory activities and control of licensees for distribution of audiovisual media services and radio media services, and following strategic goal 5.19 of the Medium-Term Development Plan 2019-2021, the Agency initiated a procedure for procurement of a centralized system for monitoring the number of cable operators in BiH for the Agency. To fully implement the project, activities are being carried out to create a service and provide appropriate addresses for data collection by license users.

The centralized system will enable monitoring of the actual number of users with all cable operators under the competence of the regulator. The data will be used to verify the number of users with each operator.

### 3.2.6. SWITCHING FROM ANALOGUE TO DIGITAL TERRESTRIAL BROADCASTING

For many years, the Agency has been undertaking all activities within its competence to implement projects of the transition from analogue to digital terrestrial broadcasting in BiH, i.e., since 2004, when it began activities before the signing of the GE 06 Agreement in Geneva in 2006. Since the day of signing the agreement, the Agency has been informing and implementing many projects to instruct the public in BiH on the importance of introducing digital broadcasting in BiH. The Agency participated in the adoption of the Strategy for the transition from analogue to digital broadcasting in BiH, in campaigns that promoted the need to introduce a digital signal, and was the bearer of activities in certain segments of the implementation of the First Phase of digitalization. During this period, the Agency pointed out the importance of the implementation of the finalization of the project, primarily because the frequencies on which analogue television operates in BiH, since 17 June 2015 have not been part of GE06, the Master International Frequency Register (MIFR) and cannot be used for analogue television. The Agency warned that interference reports from neighbouring administrations would lead to shutting down analogue transmitters, thus calling into question the survival of television stations in BiH.

The first international complaint about harmful interference was filed on 1 April 2021 by the Croatian Regulatory Agency (HAKOM). The Agency was informed about interference in the 700 MHz band by analogue television, which Croatia intends to allocate for the needs of 5G services. The frequencies on which analogue television operates in BiH have not been part of the GE06 and MIFR plans since 17 June 2015 and therefore have no right to operate. According to the request, the list includes a total of 171 transmitters, which are operated by both public services in BiH and commercial TV stations.

Since the Agency prematurely revoked the license of the Multiplex Operator "Multiplex Service BiH" for MULTIPLEX C on 19 June 2021 due to failure to fulfil the license requirements, to continue the activities for the transition from analogue to digital terrestrial broadcasting, on 27 May 2021, the Agency announced a Public Invitation for granting a license for the use of radiofrequency spectrum to provide electronic communications network management services in digital terrestrial broadcasting in BiH - MULTIPLEX D.

Following the procedure, the Agency granted the Multiplex D License to the legal entity "Dasto-Semtel d.o.o. Bijeljina. The license entered into force on 22 November 2021, with a validity period of 15 years. After granting the License to Multiplex D, the Agency issued a Public Call for applications from audiovisual media service providers for access to Open Multiplex D on 16 Dec 2021 in all nine digital regions for digital television signal coverage (First Public Call). Within the deadline for submitting applications for the First Public Invitation, on 24 December 2021, the Agency received 13 requests from audiovisual media service providers for access to the open Multiplex D. In the coming period, the Agency will continue to carry out activities to ensure the smooth operation of television stations in the best interests of the citizens of BiH.

## 3.3. RADIO COMMUNICATIONS

### 3.3.1. FIXED SERVICE

#### 3.3.1.1. Microwave links

In the transmission networks of dominant telecom operators, most of the activities are recorded on links for infrastructure support to mobile networks. The activities of the operators are mainly related to significant increases in the width of the used radio frequency channels, which depends on the requirements for higher transmission speeds of mobile 4G networks, as well as increasing use of dual signal transmission functionality (simultaneous transmission of horizontally and vertically polarized waves). The largest increase in the number of connections is recorded in the 23 GHz and 26 GHz bands and the use of the so-called E band (70/80 GHz) is increasing, which allows large transmission capacities on short radio sections with radiofrequency channel widths of 250 MHz and 500 MHz.

The number of licenses issued per operator in 2021:

- BH Telecom d.d. Sarajevo, 93 (16 amended, 77 new)
- JP HT d.d. Sarajevo, 24 (11 amended, 13 new)
- Telekom Srpske a.d. Banja Luka, 90 (45 amended, 45 new)

The number of licenses revoked per operator in 2021:

- BH Telecom d.d. Sarajevo, 17
- JP HT d.d. Mostar, 42
- Telekom Srpske a.d. Banja Luka, 42

In 2021, the trend of decreasing activity in the transmission networks of commercial network operators, Internet service providers, closed user groups, Public RTV services and RTV stations continued. Activities in the networks of these users are mainly limited to extending the validity of permits and partial amendments.

Of these users:

- 54 permits were issued (45 extensions, 4 new, 5 amended);
- 2 permits were revoked.

After the signing of the amended Annex to the Agreement between the Ministry of Security of BiH and the Agency on the Use of Spectrum for the Ministry and its administrative organizations in 2020, no significant activities have been recorded in the network of the Ministry of Security of BiH. In 2021, a request was submitted for approval of two new connections.

At the request of the BiH Ministry of Defence for the use of part of the spectrum intended for civilian users, the BiH Ministry of Defence extended the approval for the use of radio channels in the frequency band 10.15-10.65 GHz to establish seven microwave links between

the main points of the EUFOR air communication network. The approval was extended for an additional period of one year. After the expiration of the given period, the Agency will treat the further extension of the consent for the new period equally with the requests of other users, i.e., issue permits with a validity period of five years with the collection of fees in accordance with the applicable regulations of the Agency. EUFOR, as well as the BiH Armed Forces and the BiH Ministry of Defence, have been instructed to use the military part of the spectrum.

Total activities in the networks of security and defence bodies in 2021:

Approvals issued:

- IDDEEA, approvals for two connections in the 18 GHz band;
- Ministry of Defense of BiH, approval extended for seven microwave links in the band 10.15-10.65 GHz for the use by the EUFOR air communication network.

Withdrawn approvals:

- IDDEEA, approvals for one connection in the 7 GHz band;

Table 17 below provides a numerical overview of microwave connections by frequency bands and different categories of users (dominant telecom operators, other network operators, public service broadcasters, commercial broadcasters, special categories of users) in late 2021:



Table 17: Number of microwave links \* by user's categories and bands

RF range:	Dominant telecom operators	Other telecom operators	Public RTV services	RTV stations	Special categories**	TOTAL
up to 400 MHz				92/92	2/2	<b>94/94</b>
up to 1.5 GHz				58/58	8/8	<b>66/66</b>
2 GHz			13/32	7/7		<b>20/39</b>
3.4-3.8 GHz			4/13		2/2	<b>6/15</b>
3.8-4.2 GHz			19-/44			<b>19/44</b>
6L (5.9-6.4 GHz)	4/14	2/4	2/5		36/36	<b>44/59</b>
6U (6.4-7.1 GHz)	11/38	18/32				<b>29/70</b>
7L (7.1-7.4 GHz)	10/15		1/2		14/19	<b>25/36</b>
7U (7.4-7.7 GHz)			5/10		64/94	<b>69/104</b>
8 (7.7-8.5 GHz)	80/117	6/6	11/38			<b>97/161</b>
10-10.68 GHz			4/11	52/53	7/7	<b>63/71</b>
11(10.7-11.7GHz) GGH-GH) GHz)			14/26	20/20	98/98	<b>132/144</b>
13 GHz	138/141	8/9			17/21	<b>163/171</b>
15 GHz	258/261				5/5	<b>263/266</b>
18 GHz	722/732	7/7			58/58	<b>787/797</b>
23 GHz	814/817	3/3			1/2	<b>818/822</b>
26 GHz	294/294				14/14	<b>308/308</b>
38 GHz	48/48					<b>48/48</b>
70 GHz	19/22					<b>19/22</b>
Mobile links			6/6		6/6	<b>12/12</b>
<b>TOTAL:</b>	<b>2398/2499</b>	<b>44/61</b>	<b>79/187</b>	<b>229/230</b>	<b>332/372</b>	<b>3082/3349</b>

\* The table shows the number of radio routes/number of radio channels.

\*\* Individual radio licenses are not necessarily issued to special categories of users. This group includes the Armed Forces, the Ministry of Security of BiH, IDDEEA (ex CIPS), the police, state security services, EUFOR, EUPM, closed user groups and the like.

Table 18 shows a comparative overview of the number of links in the period 2016-2021 on characteristic backbone bands (6L, 6U, 8G) and infrastructure bands (13 GHz, 18 GHz, 23 GHz, 26 GHz, 70/80 GHz). From the comparative presentation, it is obvious that there are no major fluctuations, which confirms that the activities in the transmission networks have steady annual dynamics with somewhat more significant use of the 70/80 GHz band.

Table18: Comparative display of the number of links in the 6-80 GHz bands in the period 2016-2021

RF range/ year	6L (5.9- 6.4 GHz)	6U (6.4- 7.1 GHz)	8G (7.7- 8.5 GHz)	13 GHz	18 GHz	23 GHz	26 GHz	70/80 GHz
2016	14/46	39/113	108/190	125/136	811/822	726/736	212/212	0/0
2017	14/46	39/111	107/189	129/140	838/848	750/762	243/243	0/0
2018	45/74	32/82	105/177	147/158	829/839	799/809	256/256	8/8
2019	43/61	31/79	103/177	153/161	834/844	780/788	260/260	9/9
2020	44/59	29/70	94/141	162/170	822/833	778/782	287/287	14/14
2021	44/59	29/70	97/161	163/171	787/797	818/822	308/308	19/22

The graph in Figure 13 shows the dynamics of the number of links in the ten years 2011-2021, for three groups of users (dominant/mobile telecom operators, other network operators, special categories of users). From the presented dynamics, it is evident that there are no significant variations among different categories of users.

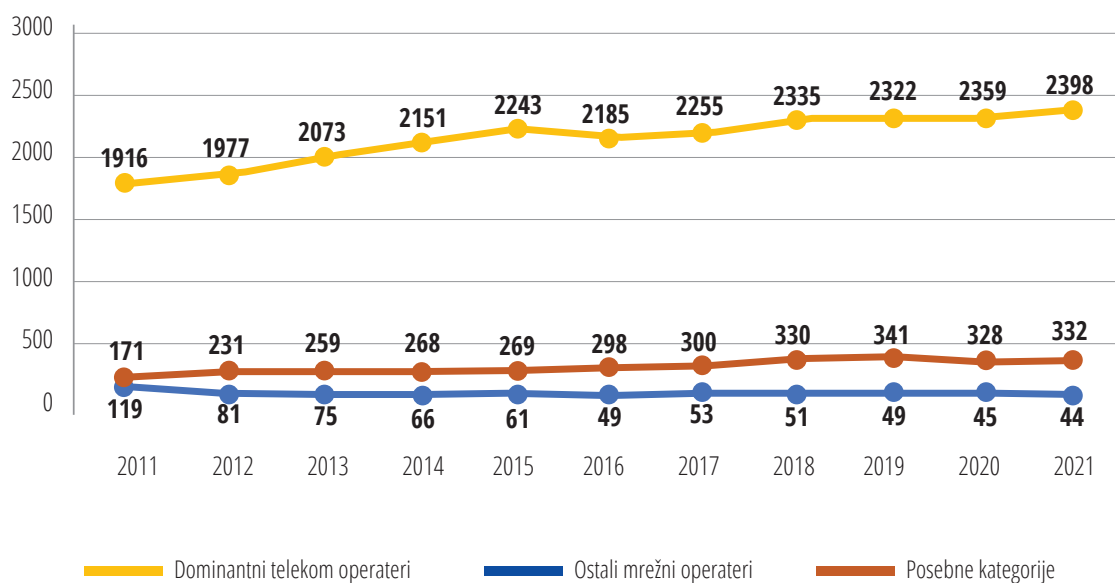


Figure 13 Microwave links – growth in the period 2011-2021 for three categories of users

### 3.3.1.2. Multimedia distribution systems (MMDS) in the range 11.7 – 12.5 GHz

As part of the activities on licensing MMDS systems in the band 11.7-12.5 GHz, in 2021, applications were submitted for:

- termination of licenses for the use of frequency blocks in ten municipalities and termination of licenses for thirteen base stations at the request of three users (ELTA-KABEL d.o.o. Dobož, TELINEA d.o.o., TXTV d.o.o. Tuzla);
- one licence application (NEON SOLUCIJE d.o.o. Kalesija).

In the use of the band 11.7-12.5 GHz for MMDS systems, the trend of stagnation and decommissioning is evident. The causes of such processes are multiple, among others: negligible use in Europe, which leads to a lower supply of devices on the market, wide use of satellite service in this range and the presence of interference between MMDS base stations and receiving satellite stations on common facilities, the way of providing one-way service and no return channel by users, as well as the relatively high cost of spectrum usage fees.

Given the listed aggravating factors, it is estimated that the trend of stagnation will continue until the probable complete termination of the service.

### 3.3.1.3. Satellite communications

In 2021, there was no increase in the number of licenses for satellite communications; licences with changed technical parameters for terrestrial satellite stations were issued to ALJA-ZEERA Balkans, 011TTC001 and 011TTC002, Radio Television of Bosnia and Herzegovina BHRT: 001TTC001 and the new license for the SNG station Hayat TV 014TTC002, and the license for the terrestrial satellite station Hazat TV 014TTC001 was revoked on 22 January 2021. Other users continued to use this type of communication under the same conditions.

- The response was sent to SES regarding the implementation of ECC decision (15)04 regarding the use of ESOMP NGSO FSS - Ka scope;
- The response was sent to OneWeb regarding authorization and licensing of satellite communication networks in BiH;
- Analysis of extended bands intended for fixed and mobile satellite systems in accordance with the European Purpose Plan, ECA and the Final Act of the World Radio Conference WRC-19;
- Analysis of requirements for two-way satellite Internet and the possibility of using frequency bands intended for terminal equipment and terrestrial satellite stations;
- Analysis of new CEPT decisions related to the use of satellite systems;

#### 3.3.1.4. BSS and FSS plans

- After the analysis of the ITU proposal regarding the new orbital position of the FSS network, the application was made in BRIFIC 2941 on 9 Mar 2021. AP 30B/A&A/607 data were published on the new BIH FSS network BIH00000 at orbital position 46E, which began the four-month coordination period of this network.
- Letters were sent via the ITU e-communication platform for the coordination of the BIH\_SAT network in the orbital position 26.5W to the administrations of the following countries: Qatar ART 4 and R2 FSS, Spain ART 4 and R2 FSS, France ART 4 and ART. 2A, Luxembourg ART 4 and R2 FSS, Sweden ART 4, Iran ART 2A, Israel R2 FSS, Japan Art.4, Libya Art 4 and Morocco Art. 4 In line with the instructions of the ITU Radiocommunication Bureau, in this way the coordination of work with the networks of the mentioned countries was initiated to reach an agreement for the smooth operation of the BIH\_SAT network;
- Analysis of the responses of the administrations that sent comments by regular correspondence and through the e-communications platform of the ITU for the commissioning and coordination of the BSS network BIH\_SAT at 26.5W;
- Analysis of the responses of the administrations that sent comments for the coordination of the FSS network BIH00000 to 46E, published in ITU Special Section no. AP30B / A6A / 607 ITU BR IFIC 2941 of 9 March 2021.
- Analysis of software tools ITU-R, Space Com related to the process of coordination of BSS and FSS plans that enable monitoring, analysis and calculation of compatibility of satellite systems.

### 3.3.2 MOBILE SERVICE

#### 3.3.2.1. Land mobile service

In 2021, activities continued on the regulation of the radio frequency spectrum for the land mobile service, which includes analysis, planning and issuing of licenses in accordance with Rule 50/2010 on the use of bands 29.7 - 68 MHz, 68 - 87.5 MHz, 146 - 174 MHz, 380-399.9 MHz, 406.1 - 430 MHz, 440 - 470 MHz, 862 - 876 MHz, 915 - 921 MHz FOR PMR / PAMR. Most of the activities on user licensing are performed in the bands from 29.7 MHz to 470 MHz in accordance with the harmonized use prescribed by the recommendation ECC T / R 25-08.

In the 52 proceedings initiated in 2021, a total of 233 permits were issued to 33 users. Figure 14 shows the dynamics of licensing for the land mobile service in the period 2015-2021. The uneven number of issued permits per year is the result of issuing permits in five-year cycles in accordance with the prescribed 5-year validity of licences.

#### Land mobile service

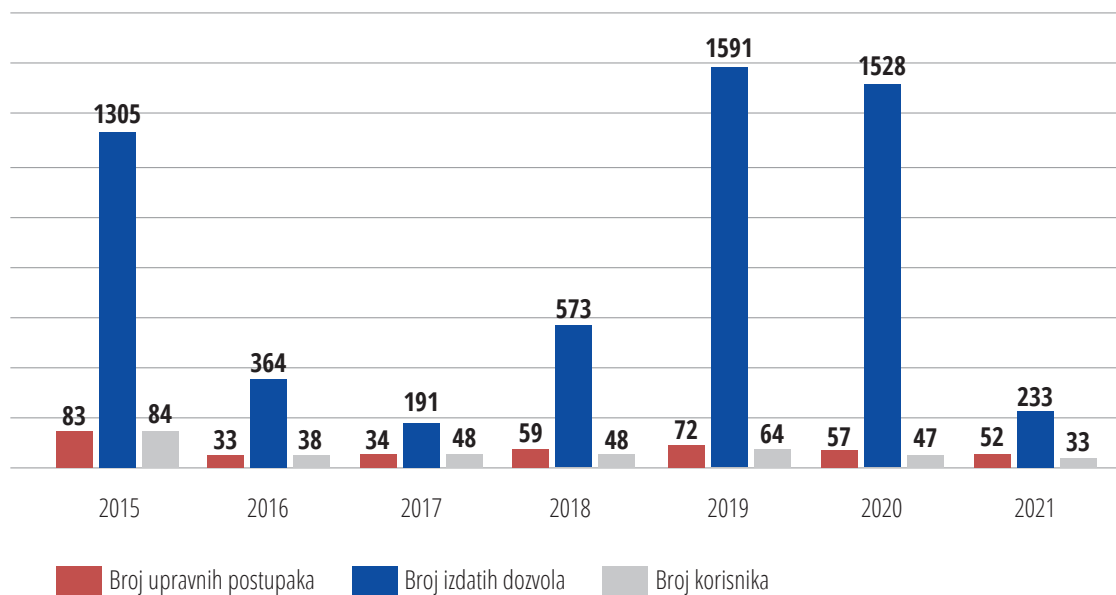


Figure 14: Dynamics of licensing in the land mobile service in the period 2015-2021.

Until the end of 2021, the Agency's database contains 2688 active licenses including 9363 licensed radio devices in the land mobile service. Figure 15 shows a comparative overview of the number of licences and licensed devices in the period 2015 - 2021.

### Number of licences and licensed devices

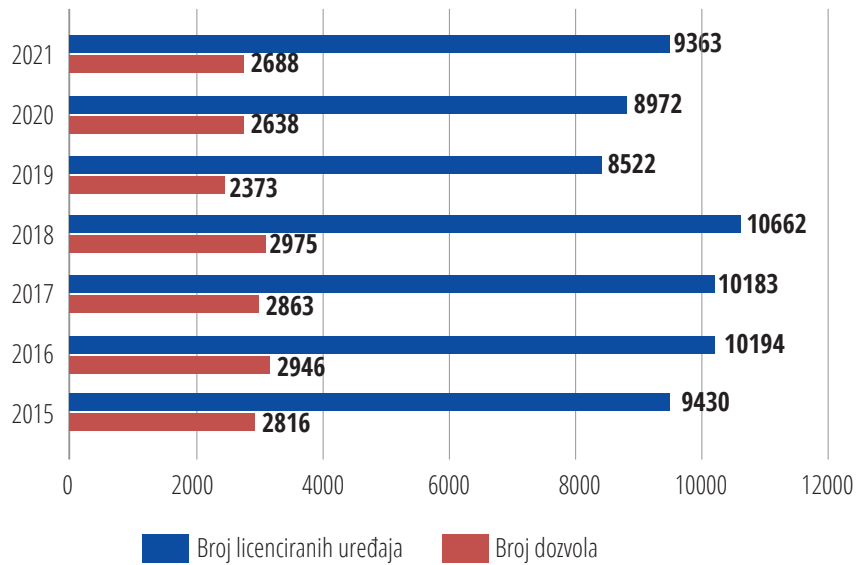


Figure 15: Number of licenses and licensed devices in the land mobile service in the period 2015-2021

### 3.3.2.2. Air, Maritime and Radio Termination and Radio Navigation Service

In 2021, 16 administrative procedures were initiated in which 22 licenses were issued for 15 users in the air service, maritime service and radio-determination and radio-navigation service. Figure 16 shows the dynamics of licensing in the period 2015-2021.

#### Air service, maritime service, radio-determination and radio-navigation service

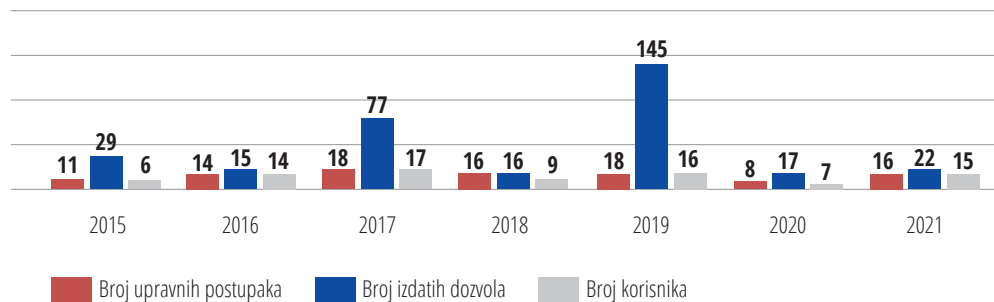


Figure 16: Dynamics of licensing in the air service, maritime service, radio-determination and radio-navigation service in the period 2015-2021

Until the end of 2021, the Agency's database contains 235 active licenses in the aviation, maritime, radio-determination and radio-navigation services.

### 3.3.3. RADIO BROADCASTING SERVICE

#### 3.3.3.1. Analogue broadcasting – Radio

Better utilization of allocated resources – for 2 stations.

Modified technical conditions for 20 stations at 29 locations.

456 new licenses for broadcasting transmitters for 134 FM radio stations were issued. On that occasion, an RDS PI code was assigned to all stations that use these additional services within the FM signal.

All providers of radio media services received a circular letter via terrestrial broadcasting regarding the cessation of the use of links in the band 370-380 MHz.

A procedure was initiated to resolve violations of license requirements of 10 users of radio broadcasting licenses (Radio FBiH, Kalman radio and two notifications Bobar radio, BH radio 1, Open Network, Radio Glas Drine, Radio Herceg Bosna, RSG radio) subject to the results of measurements launched within a campaign to verify the parameters of broadcasting licenses.

#### 3.3.3.2 Analogue broadcasting – TV and shutting down analogue TV transmitters in BiH

Although the GE-06 agreement envisages the complete shutdown of analogue television on 17 June 2015, television stations in BiH continued with analogue broadcasting.

The Agency received a notification from the Croatian Administration that in the 700 MHz band, intended for 5G, there were several analogue transmitters in BiH (a total of 171) that can cause unwanted interference, and which have not been an integral part of the international frequency plan GE06 since 17 June 2015, and are therefore not entitled to operate.

A list of all transmitters expected to cause unwanted interference was submitted accompanied by a shutdown plan. Transmitters are divided into three priorities, depending on the shutdown date:

- 1 July, 1 September and 1 October 2021,
- 31 December 2021, and
- at the request.

The analysis showed that the list included transmitters currently used by public services BHRT - BHT 1, RTRS - Television RS, and RTVFBiH - Television FBiH, as well as commercial TV stations Al Jazeera Balkans, Alternative Television, Hayat, Herceg Television, Croatian Television Oscar -C, MTV Igman, Nezavisna televizija 101, Nezavisna televizija Amna, Nezavisni TV-Studio Arena, NOVA BH, O Kanal, Obiteljska TV Valentino, Radiotelevizija Herceg-Bosne, Televizija Alfa,

Televizija Bel Kanal, Televizija BN, Televizija Cazin, Televizija Goražde , Television Kanal 3, Television of Sarajevo Canton, Television OBN, Television OSM, Television Prijedor, Television Slon Extra, Television of Tuzla Canton and Una-Sana Canton TV.

In addition to the mentioned shutdown, due to unwanted disturbances in the service zone of MULTIPLEX D from Kozara by analogue signals in operation, the signals TVBEL and VIKOM were shut down in Banja Luka.

Due to multiple coverages, i.e., double coverage with digital and analogue signals, the shutdown was ordered of the following analogue transmitters:

- BHT1: Kozara, Banja Luka, Mostar Potoci, Velež, Hum, Trebević and Sarajevo,
- RTRS: Kozara, Banja Luka, Banja Luka Šibovi and Trebević,
- FTV: Velež, Mostar 1, Kijevo and Hum,
- HAYAT: Sarajevo Grdonj and Pale H,
- NOVA BH: Trebević,
- O KANAL: Mostar Fortica,
- OBN: Mostar, Sarajevo, Trebević and
- TELEVIZIJA BN: Banja Luka.

Despite these shutdowns, about 600 analogue TV transmitters that are not in line with the 2006 international agreement GE06 are still operating in BiH. In this regard, these transmitters are sources of possible interference, both in BiH and in neighbouring countries. All received complaints were resolved by temporarily shutting down or changing the broadcast parameters.

The Agency issued a System Licence consisting of Licenses for the Public Broadcasting Service of Bosnia and Herzegovina (BHRT), Licenses for the Radio and Television of the Federation of Bosnia and Herzegovina (RTV FBiH) and Licenses for the Radio and Television of Republika Srpska (RTRS) stating that all frequencies for analogue terrestrial television broadcasting services assigned to the Technical Conditions for Broadcasting until the day of issuing of the License are not in compliance with the Plan of purpose and use of radiofrequency spectrum in BiH and as such shall not be protected in accordance with the Final Acts of the Regional Conference (RRC-06). The Agency will allow broadcasting according to the parameters specified in the Technical Conditions for Broadcasting until the complete shutdown of analogue television, only if they do not cause harmful interference to spectrum users licensed by the Agency. Otherwise, as in the case of an international complaint, the Agency shall order the cessation of operation on frequencies causing interference.

The licenses of commercial television stations for terrestrial broadcasting have been extended until 31 December 2022 provided that they can continue to use the analogue television broadcasting frequency until harmful interference to other spectrum users occurs or until the possibility of a complete shutdown of analogue broadcasting.



### 3.3.3.3. Medium wave broadcasting

In December 2021, renewed licenses were issued for transmitters of medium-wave radio stations for the next 10 years:

- Radio 1503 Zavidovići, frequency 1503 kHz and
- Public Institution Centre for Culture and Information Banovići, frequency 792 kHz.

Based on bilateral international coordination, the BiH administration received only one request from the Italian administration to modify the technical parameters of a medium-wave transmitter at the frequency of 1.584 MHz, which is included in the GE75 Plan.

### 3.3.3.4. Digital broadcasting – TV

In 2021, there was no significant shift in the transition from analogue to digital terrestrial broadcasting, although the deadline for the transition from analogue to digital terrestrial television broadcasting expired on 16 July 2015.

According to the Strategy for the transition from analogue to digital terrestrial broadcasting, on 10 May 2010, the Agency issued a Decision on the manner of using MUX-A for terrestrial digital television broadcasting in BiH in the transition period. This decision entitled and obliged the Public Radio and Television Services to digital terrestrial broadcasting on the entire territory of BiH through joint construction and use of synchronous networks in digital areas, according to the prescribed technical conditions.

However, the Public Broadcasting Services did not fulfil their obligations, and the DVB-T test signal was partially released on 14 October 2016 in three of the nine BiH regions, i.e., Sarajevo, Banja Luka and Mostar, while MUX A has not yet started broadcasting in the remaining six digital regions.

In 2016, the Council of Ministers of BiH adopted a decision envisaging the application of DVB-T2 standards. To ensure the necessary resources for public RTV services of BiH and other radio and television stations in BiH, public RTV services of BiH were awarded MUX B. The Board of the Public Broadcasting System of BiH shall register a body under the Law on Public Broadcasting System of BiH within 30 days from the entry into force of this Decision, which will ensure coordination of use and management of technical resources of transmission and broadcasting infrastructure MUX A and MUX B. However, the public services did not reach an agreement on the establishment of a joint body to coordinate the use and management of technical resources of the transmission and broadcasting infrastructure of MUX A and MUX B, i.e., they did not comply with the Decision of the BiH Council of Ministers.

To support the implementation of the transition in the terrestrial broadcasting of television signals in BiH, after the public call, the Agency granted the License on 1 Nov 2019 for the use of the RF sector for the provision of electronic communications network management services in digital terrestrial broadcasting in BiH - MULTIPLEX C, to the legal entity "MULTIPLEX SERVICE

BH" d.o.o. Sarajevo. However, due to the non-fulfilment of the licence requirements, the Agency adopted a Decision on early termination of the MUX C License on 19 Aug 2021.

Following a public call, on 15 Nov 2021, the Agency issued a license to the company Dasto Semtel d.o.o. for the use of radiofrequency spectrum for the provision of electronic communications network management services in digital terrestrial broadcasting (MULTIPLEX D) for digital broadcasting of DVB-T2 television signals in open access SFN networks, which allows unencrypted broadcasting and free reception by end-users. For the implementation of MULTIPLEX D, the necessary radio frequency resources have been allocated per digital region to achieve the total coverage of BiH. According to the submitted dynamics, the start of broadcasting in all regions is planned within 6 months, as well as reaching 50% coverage in about 9 months and 90% in two years.

### **3.3.3.5. Replanning VHF III ranges**

The Geneva Plan GE06 provides for one TV coverage (DVB-T) and three radio coverage (T-DAB) in the considered area of BiH. EU member states have launched a process of replanning this band in line with new technologies.

The replanning takes place in parallel in two groups: The Adriatic-Ionian group (ALB, BIH, GRC, HRV, ITA, MNE, SVN) and groups of countries (AUT, BIH, HNG, HRV, ROU, SRB, SVN).

For replanning of the allocations within the VHF band, a campaign of measurements in the VHF band was launched on the entire territory of BiH. The first part of the campaign pertains to measuring the influence of Italy and Croatia from the south on BiH.

The lack of a strategic decision on how to use the 174-230 MHz VHF band makes resolving this issue difficult as no targets have been set for coverage needs.

### **3.3.3.6. Amateur radio service**

At the beginning of 2021, the new Rule 92/2020 on amateur radio service came into force, which replaced the previous Rule 28/2007. The new Rule defines the manner of assigning amateur radio call signs in BiH permanently, without restrictions.

In 2021, a total of 517 licenses for amateur radio signs and 13 licenses for special and competition signs were issued, as well as two HAREC certificates for BiH radio amateurs abroad. Two solutions for one-letter signs and 10 licenses for amateur repeaters were also issued.

### 3.3.4. INTERNATIONAL FREQUENCY COORDINATION

#### 3.3.4.1. International coordination, broadcasting

To ensure equal rights to access the RF spectrum as a limited natural resource, international coordination of radio frequencies is one of the basic segments of radio frequency spectrum management. The ITU and CEPT documents are the basis for international coordination carried out at the bilateral, multilateral or regional levels. A constant activity of the Radiocommunications is checking the compatibility of the work of stations from neighbouring countries that have stations in BiH and checking the compliance of our stations with the operation of planned stations of neighbouring countries and stations that are put into operation or that modify technical parameters, as well as analysis of published databases of stations in ITU-Ra BRIFIC information system in terms of checking joint operation without harmful interference. In 2021, BRIFIC analyses of the numbers from 2937 to 2961 were made. The regular activities include the registration and sending of our stations to the process of coordination with neighbouring countries, as well as registration of frequency allocations in the ITU Master Register of Frequencies.

Following the above, and based on the received requests for frequency coordination and analysis of the impact on the operation of BiH stations, requests were processed and responses sent to neighbouring administrations and ITU as shown in Table 19:

Table 19: Requests and complaints to neighbouring administrations

Administration	FM BC	AM BC	T-DAB	DVB-T
	(number of stations)	(number of stations)	(number of stations)	(number of stations)
Croatia				52
Slovenia	37			
Montenegro	1			88
Austria	28			3
Hungary	1			
Italy	1	1		206
Bulgaria	106			
Germany	4			
Ukraine	4			
Macedonia	290			
Romania	1			
Switzerland	11			

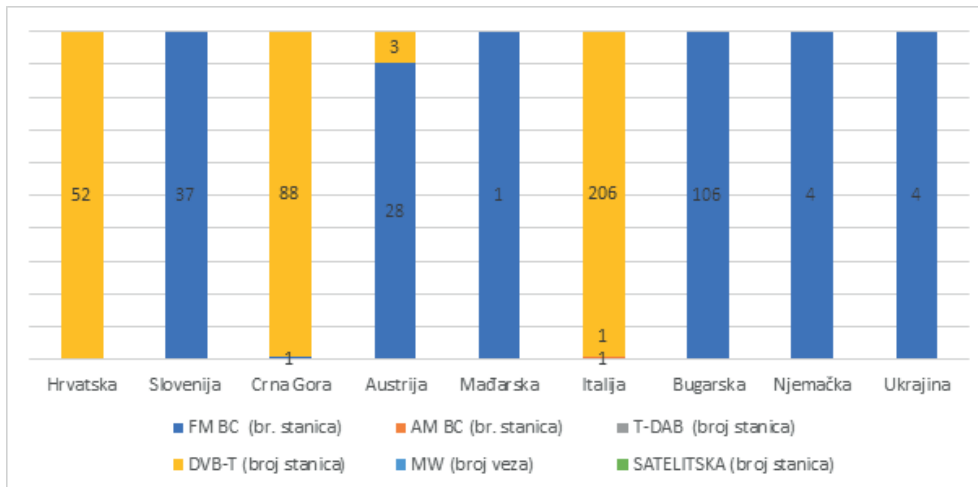


Figure 17: Neighbouring countries' requests for frequency coordination

In addition to processing and analysing the requests of neighbouring administrations, BiH has initiated the process of international coordination of 73 FM BC stations at locations in BiH.

### 3.3.4.2. International coordination, satellite

After analyzing the potential impact of satellite networks published in the information databases of the ITU Radiocommunication Bureau, BRIFICs 2937-2961, which published data for satellite networks in the coordination zone of our country, letters were sent to the ITU Radiocommunication Bureau in response to requests for the BSS plan that affects the existing 56E orbital position of the following networks:

- NSS-BSS-G3 57E satellite network;
- F-SAT-BSS 28W satellite network;
- NSS-BSS-G3 22W satellite network.

A letter was sent to the ITU Radiocommunication Bureau and the Spanish administration regarding the inclusion in the service area of the HISPASAT-1-61W satellite network published in BRIFIC 2936 under Article 4 of Annexes 30 and 30A of the ITU RR;

A letter was sent to the ITU Radiocommunication Bureau and the Dutch administration regarding the impact of the NSS-BSS G3 22W satellite network on the operation of the BIH\_BSS 26.5W network in BiH and potential interference whose data were published in BRIFIC 2936 under Article 4 of Annexes 30 and 30A ITU RR;

The coordination procedure with the administrations of Romania and Denmark regarding the coordination of BSS network BIH\_SAT at 26.5W based on resolution 559 has been completed;

Responses were sent to the administrations F, UAE, D, UK and IND regarding ITU RR App 30B, Article 6.6., Inclusion of the following satellite networks in the service zone: YAHSAT-FSS2-52.5E (UAE), F-SAT-30B-1-10E (F), ODYSSEY FSS-68.5E (D), UK FSS-18W-A (UK), IDRSS-PFSS-42.5E (IND), F-SAT-E-30B-7E (F), F-SAT-E-30B-9E (F) and F-SAT-E-30B-28.5E (F);

A letter was sent to the Serbian administration accepting the proposal and initiative to be a co-signatory of the contribution for Agenda Item 7, Topic E for WRC-23 regarding the FSS plan and the working document "Allotment in the RR Appendix 30B FSS plan". After the adoption of the joint initiative, on 7 July 2021, a document of 7 countries with a detailed technical analysis of the coverage of all networks was published, as well as a proposal to adopt the procedure valid until 2007 and amended at WRC-19 regarding the accession of new countries to the FSS plans. In addition, consent was sent to the Serbian administration to participate in the contribution to the needs of the ITU meetings of the WP4A group, which refers to changes in the coordination criteria for the new FSS plans.

Continued is continuous monitoring and analysis of the responses of the administrations that sent comments by regular correspondence and via the e-communications platform of the ITU for the coordination of the BSS network, BIH\_SAT at 26.5W and the FSS network BIH00000 at 46E.

The analysis has been completed of frequency coordination procedures for satellite systems in accordance with ITU Radio Regulations Appendix 30, 30A and 30B..

### **3.3.4.3. International interference and objections**

A letter was sent to the Hungarian regulator regarding the elimination of interference on the frequency 379.2 MHz.

Based on the report of the interference of the Croatian administration, after the analysis and measurements, a letter was sent to HAKOM regarding the activities on the elimination of interference on the frequency 122 MHz intended for aeronautical radio navigation.

A letter was sent to HAKOM regarding the interference on TV channel 43, location Slavon-ski Brod.

Based on the report of the interference by the Hungarian administration, after the analysis and measurements, a letter was submitted to the NMHH regarding the activities to eliminate the interference on the frequency 5635 MHz intended for meteorological radars.

A response was sent to the Croatian regulator HAKOM regarding the reporting of interference on the VHF III band due to interference caused by analogue TV transmitters to the T-DAB digital radio signal.

### 3.3.5. INTERNATIONAL MEETINGS

Monitoring the work of CEPT working groups (task group meetings in 2021 held as web-based online meetings due to the coronavirus pandemic):

- Working Group PT1 (group working on the preparation of decisions, recommendations, compatibility studies and reports related to mobile access systems): 67th meeting (January 2021), 68th meeting (April 2021), 69th meeting (September 2021);
- WGFN Working Group (umbrella CEPT spectrum management group): 98th meeting (February 2021), 99th meeting (May 2021), 100th meeting (October 2021);
- Participation in the Workshop of the ITU Radiocommunications Bureau from 9-12 March 2021 for ATU Res. 559 submissions adapted to countries that have applied for a new orbital position under Resolution 559 – Special Workshop on Satellite Frequency Coordination for Resolution 559 (WRC-19) Submissions;
- Participation in the ITU BR meeting of the ITU-R Working Group 4A - Efficient orbit/spectrum utilization for the fixed-satellite service (FSS) and broadcasting-satellite service (BSS) in the period 22 Feb - 3 Mar 2021.
- Participation in the WEBINAR of the ITU Radiocommunication Bureau related to ART 7 RR regarding the application for the FSS network;
- Participation in the meeting of the ITU working group WP4A (Efficient orbit/spectrum utilization for the fixed-satellite service (FSS) and broadcasting-satellite service (BSS)) in the period 14 - 28 July 2021; 2021
- Participation in the meeting of the ITU working group WP4A (Efficient orbit/spectrum utilization for the fixed-satellite service (FSS) and broadcasting-satellite service (BSS)) in the period 27 Oct 2021 - 5 Nov 2021 and
- Participation in a web meeting regarding the use of the 6GHz band for 5G.

### 3.3.6. OTHER ACTIVITIES

- Preparation of proposals for amendments to the Rules on licences, Rules on submission of applications and Rules on fees (activity holder is the Licensing and Fees Department) and submission of comments on the prepared Drafts by the Licensing and Fees Department;
- Preparation of proposals in radiocommunications for the new Communications sector policy
- An analysis of the new proposal of the Rules on licenses was performed - views and opinions were sent to the Licensing and Fees Department;
- A letter was sent to the Institute of Civil Engineering "IG" Banja Luka regarding the submission of data for the preparation of the Plan of the Special Purpose Area "Trebinje Airport";
- After the analysis of the implementation of the decision ECC/DEC (16)02, a response was sent to the German administration regarding the use of the scope for PPDR in BiH;
- Work on the revision of the Plan for the use of radio frequency spectrum in BiH following the conclusions of WRC-19 and the new version of the common European ECA table, and the implementation of new CEPT/ECC decisions.

RF spectrum control and monitoring activities are performed in accordance with relevant technical regulations and domestic and international standards, in compliance with the decisions and recommendations of the ITU, the European Conference of Postal and Telecommunications Administrations (CEPT) and other relevant international organizations and institutions.

In accordance with the above, the planning, development and improvement of the control system and monitoring of the RF spectrum, which consists of a network of stationary, portable and mobile control and measurement stations, sensors, signal monitoring and goniometry equipment, software, information and communication equipment and other equipment necessary for the operation of the system.

To protect human health from the effects of non-ionizing electromagnetic fields generated by fixed radio stations in the frequency range 9 kHz-300 GHz, monitoring, measurements and appropriate calculations are performed to verify compliance with the limits of certain electromagnetic field values in compliance with applicable regulations.

In 2021, activities were conducted independently and in cooperation with other organizational units of the Agency. A summary of the published activities of the Monitoring Division is shown in the chart (Figure 18).

### Share of performed activities within the competence of the Sector in 2021

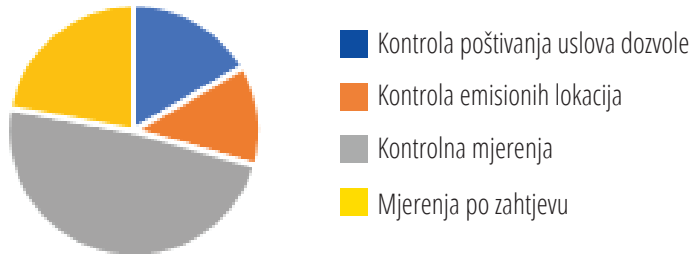


Figure 18.



### 3.3.7. RADIO MONITORING

Radiofrequency spectrum monitoring activities are carried out based on a defined plan including the following: regular measurements, campaign monitoring and control of broadcasting locations. In addition, monitoring is performed based on requests such as applications, complaints, requests of organizational units within the Agency, the Agency Council, etc.

A very important segment in the operation of the Division is the preparation of employees for the use of measuring devices, updating the database and collecting data of interest for monitoring, analysis of results, staff training and learning about new technologies and measurement procedures.

The total number of activities carried out in resolving cases in radio monitoring in 2021 is 136. These activities include multi-day measurements and analytical processing of measurement results to draw adequate conclusions. 34 (thirty-four) requests/complaints were received regarding interference in/by:

Table 21

TYPE OF SERVICE	NUMBER OF APPLICATIONS
FM broadcasting	9
Radio navigation aviation communication	2
Amateur radio	1
Mobile land service (PMR)	1
Terrestrial broadcasting (TV signal)	4
Mobile radio-communication service	6
Short-range devices, ERC Rec. 70-03 (RLAN)	1
Broadcasting Satellite Service (Multipoint Microwave Distribution Systems, MMDS)	1
Electromagnetic radiation	5
Other inquiries (electromagnetic radiation, solar power plants)	4
<b>TOTAL</b>	<b>34</b>

In addition, the remaining requests from 2020 regarding interference in the range allocated to the mobile service and correspondence related to electromagnetic radiation have been completed. Two responses were prepared regarding the requests of individuals for access to information.

The mentioned activities include multi-day measurements and analytical processing of measurement results to draw adequate conclusions.

In addition to the above measurements, after the campaign of control of broadcasting locations and measurement of RF signals of users of terrestrial broadcasting licences and the Agency's measures imposed on stations, and based on requests by the Radio Frequency Spectrum Division in the first quarter of 2021, the Radio Monitoring Department performed the control of 21 broadcasting locations.

It is especially important to point out that after the order of the Agency to stop broadcasting the terrestrial analogue television signal from the transmitter, the control of the licence users began and 79 measurements were made throughout BiH. Among other things, the control of the MUX-A operation was performed, which included an inspection of the multiplexing and broadcasting equipment and measurement of the broadcast DVB signal.

The percentage share of radio monitoring activities by type of radiocommunication services in 2021 is shown in the chart (Figure 19).

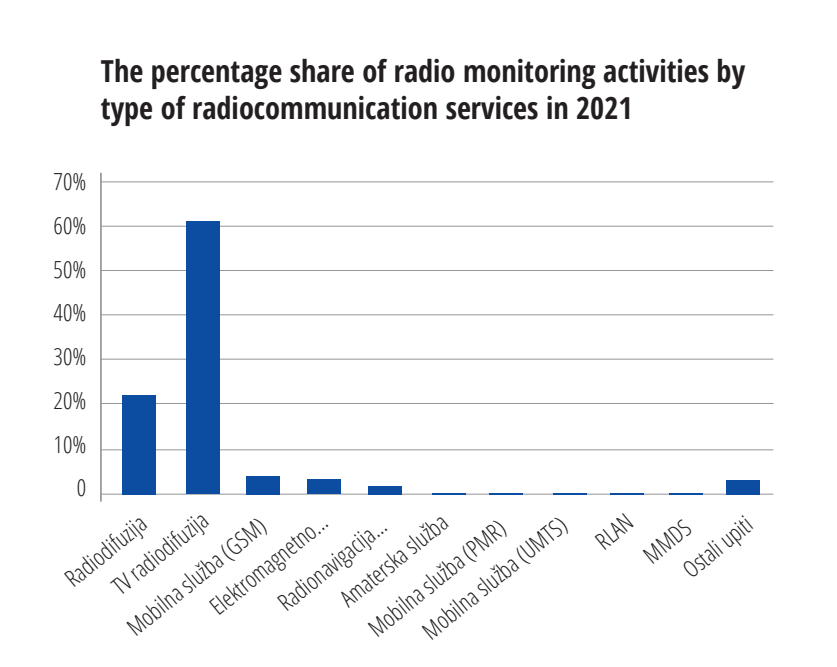


Figure 19

### 3.3.7.1. BiH monitoring stations network

Following the defined plans for the construction and maintenance of the monitoring stations network, a number of activities were initiated to maintain the existing functionality and improve the network. A procedure has been initiated for the public procurement of services for the ongoing maintenance of the network of radio monitoring stations. This is a very important project for the Agency, given that technical inspection, repair and/or the calibration of several devices in the system is required for the system to be put into use. An agreement on the current maintenance of the network of radio monitoring stations has been signed and will be implemented in the coming period.

In 2021, an agreement was signed regarding the project to build a sensor network (15 RF sensors) to increase the capacity of the Agency for measuring the occupancy of the radio frequency spectrum, interference detection and broadcasting geo-location.

In addition, a contract was signed regarding the project to procure and install a system for controlling non-ionizing electromagnetic radiation, which significantly improves the existing system for the control of compliance with the limitation of values of electromagnetic field, aiming to protect human health from effects of the non-ionizing electromagnetic field created by immobile radio stations within the 9 kHz - 300 GHz frequency range. 25 broadband and 3 selective measuring sensors were procured and installed on school buildings throughout BiH. In the next period, it is planned to put the EMP portal into operation, in the first phase for users within the Agency, and then for external users, and if necessary, to move the sensors to new locations.

In this way, the Agency will increase its control capacities and perform tasks within its competence more efficiently..

### **3.3.7.2. Regulations in measurement and control**

As part of regular activities, the received Measurement Reports were processed and verified, i.e., the Statement on compliance with conditions for limiting electromagnetic radiation of holders of issued licences under Rule 37/2008 on Limiting electromagnetic radiation emissions (Official Gazette of BiH, 80/08). In the mentioned period, 1335 certificates were issued confirming compliance with conditions on limiting electromagnetic radiation for the holder of the Agency's license. Breakdown by the number of issued Certificates by services: Mobile radio communication service – 1296, FM broadcasting – 36 and TV broadcasting – 3.

Activities on drafting the new Rule 94/2021 were finalized, which included a series of working meetings, preparation of materials, clarifications, reports to the Agency Council and responses to the Directorate for European Integration. Rule 94/2021 on protection against electromagnetic fields in the frequency range 9 kHz to 300 GHz enters into force on 1 Apr 2022. The rule prescribes special conditions for the use of fixed radio stations, which transmit a radio signal in the frequency range from 9 kHz to 300 GHz to limit the exposure of the population to electromagnetic fields to protect health.

Applying regulations and educating the population on the effects of non-ionizing electromagnetic fields in the range from 9 kHz to 300 GHz will enable better health protection and build greater public confidence in the system of protection against the effects of exposure to electromagnetic fields. Rule 94/2021 is in line with ITU recommendations on human exposure to electromagnetic fields as well as domestic, European and international standards, and as such is not intended to be a restrictive regulation that will impede technological progress, especially the development of telecommunications and other infrastructure.

In 2021, several meetings were held and many activities were carried out on the drafting of bylaws on the procedure of supervision and control carried out by the Agency and another bylaw that prescribes in detail the technical and operational conditions under which radio stati-

ons with frequency modulation (FM) can be used to provide radio media services via terrestrial broadcasting, and drafting bylaws of internal procedures for more efficient database management data within the Department.

### **3.3.7.3. Control of compliance with licence requirements**

Seven controls of license holders for the distribution of audiovisual media services and radio media services were performed to check the programs distributed to end-users and to inspect documents directly related to the licenses in use.

As part of regular activities, 20 off-site controls for the distribution of audiovisual media services and radio media services were performed.

The execution of the adopted decisions on the licence users was monitored, as well as the review of the received complaints and correspondence and the regular control of the compliance of the operation of the users with the legislation continued.

## 3.4. GENERAL, LEGAL AND FINANCIAL AFFAIRS

### 3.4.1. FINANCIAL REPORT

#### 3.4.1.1. Revenues

The total generated revenues of the Agency for the period 1 Jan - 31 Dec 2021 shown on Form 1 are BAM 10,181,922 or 96% compared to planned revenues. Part of these revenues totalling BAM 8,537 KM was paid to the JRT and according to the Law on Communications does not represent the revenues of the Agency. The second part of these revenues totalling BAM 10,173,385 represents the Agency's revenues paid into the Agency's transaction account.

The total generated revenues in 2021 are lower than the total generated revenues in 2020 by BAM 194,560, the reason for which is the reduction of the amount of calculated and invoiced fees for the Agency's licenses as a consequence of the current situation in the telecommunications and electronic media market.

The Review does not include collected revenues based on the fee for the use of radio-frequency spectrum and fines because they represent the revenues of the Budget of BiH institutions and are paid into the Treasury Single Account. Revenues from fees for the use of the frequency spectrum, generated in 2021 total 23,757,553 KM or 99.24% compared to the plan.

Revenues from fines were BAM 142,500 and were by BAM 100,000 higher compared with the same revenues generated in 2020.

#### 3.4.1.2. Expenditures

The total Agency expenditures in 2021 totalled BAM 8,451,076, of which BAM 5,953,449 were general expenditures, while BAM 2,497,627 were expenditures of the special-purpose program.

The percentage of general expenditures incurred was 84.1% compared with the approved expenditures in accordance with the Decisions on temporary financing of BiH institutions.

The funds spent for travel expenses in 2021 total BAM 51,832. Concerning the planned and approved funds in accordance with the Decisions on temporary financing, these costs were lower by BAM 31,168 or 62.4% of the approved expenditures, which was affected by the Covid-19 pandemic and the inability to attend planned conferences, seminars, working meetings, etc. The 2021 expenditures for travel expenses were lower by 3.9% than those in 2020.

The percentage of expenditures for current maintenance is 46.2% compared to approved general expenditures, i.e., 169.4% compared to the previous year. The largest deviation was in the items "Material for repair and equipment maintenance" (4.7% compared to the plan) and "Services for repair and equipment maintenance (11.4% compared to the plan) because in 2021

an ongoing maintenance of special monitoring equipment contract was signed, valid until the end of May 2022.

The total number of employees on 31 Dec 2021 was 124. The Law on the Budget of the Institutions of Bosnia and Herzegovina and the International Obligations of Bosnia and Herzegovina granted the Agency a total of 126 employees. The lower number of employees at the end of the year compared to the approved number is a consequence of the retirement of three employees in the fourth quarter. The total number of employees on 31 Dec 2020 was 125.

### **3.4.1.3. Audit of material and financial operations of the Agency**

#### *Information on the implementation of internal audit recommendations*

The internal audit of the Agency is performed by the Internal Audit Unit of the Ministry of Communications and Transport of BiH. In 2021, three internal audits were performed, as follows: "Audit of calculation of fees based on issued numbering licenses", "Audit of calculation of fees for use of radio frequency spectrum/Revenue control" and subsequent "Audits of calculation of fees based on issued numbering licenses". The report of the Internal Audit Unit established that all recommendations were harmonized and implemented except for those whose implementation would be determined by a subsequent audit.

According to the 2020 Financial Audit Report of the Communications Regulatory Agency, performed by the Audit Offices of BiH Institutions, financial reports of the Agency present fairly and truthfully, in all material aspects, the state of assets, liabilities and sources of funds on 31 Dec 2020 and budget execution for the year that ends on the specified date in accordance with the accepted financial reporting framework.

Along with the audit of the Agency's 2020 financial statements, performed was an audit of the compliance of activities, financial transactions and information with the relevant laws and other regulations. The Audit Office of the Institutions of Bosnia and Herzegovina gave an opinion that the 2020 activities, financial transactions and information of the Agency comply, in all material aspects, with laws and other regulations defined as the auditing criteria.

### 3.4.2. LEGAL AFFAIRS

Within the coordination of activities with the Directorate for European Integration in order to act following the Decision on instruments for harmonization of BiH legislation with the Acquis Communautaire (Official Gazette of BiH, 75/16 and 2/18) and providing professional assistance to the organizational units of the Agency that are drafting new regulations in line with the Acquis Communautaire, coordination and correspondence were established within the Agency with the Directorate for European Integration on harmonization of the Rules on applying the policy of appropriate use and assessing the sustainability of the abolition of additional fees for regulated retail roaming services and the Decision on roaming prices in public mobile communications networks in the Western Balkans, and the Rules on protection against electromagnetic fields within the range of 9 kHz to 300 GHz. Following the Decision on instruments for harmonization of BiH legislation with the Acquis Communautaire, obtained was the opinion of the Directorate for European Integration on their harmonization with the Acquis Communautaire.

According to the requests of the organizational units of the Agency regarding the issues of application of laws and other regulations, as well as in the most complex legal issues within the competence of the Agency, the Sector for Legal Affairs gave 18 legal opinions.

Within the activities of providing professional assistance to the organizational units of the Agency regarding methodological uniformity in drafting rules and other general acts, the Legal Affairs Department prepared, reviewed and nomologically processed two draft laws and 56 other internal regulations and other acts. Compliant with the Rules of Procedure of the Council of Ministers of BiH and other acts related to the drafting of acts adopted by the Council of Ministers of BiH at the proposal of the Agency, three acts for which the prescribed procedure was carried out were submitted to the Council of Ministers of BiH for consideration and adoption. In addition, prepared were several acts related to the implementation of public procurement procedures within the projects implemented by the Agency and several letters were sent to other BiH institutions and organizations in BiH related to performing tasks within the Agency's competence. Pursuant to Article 9(4) of the Instructions for procurements of the Communications Regulatory Agency, 34 contracts on public procurement were controlled and initialled in 2021.

In 2021, a total of 122 enforcement proposals were initiated based on license fees, fees for the use of radiofrequency spectrum and fines totalling approximately BAM 773,000.00, of which 20,000.00 were claims regarding license fees, BAM 750,000.00 were fees for the use of radiofrequency spectrum and BAM 3,000.00 were fines.

Out of the total amount of the aforementioned debt, the Agency collected approximately BAM 250,017.00 by forced execution in 2021, of which BAM 235,902.00 was the debt for the use of radiofrequency spectrum charge, BAM 14,115.00.00 KM was issued licenses charges BAM 3,000.00 for fines and BAM 3,000.00 KM for claiming legal default interest on the unpaid amount of principal debt, from the due date until payment of principal debt.

192 draft Decisions on the amount of debt (approximately BAM 1,370,000.00) were prepared regarding license fees and the charges for using the radiofrequency spectrum.

Prepared were 19 Decisions on the return of incorrectly paid funds.

In 2021, a total of 138 proceedings were initiated on complaints by end-users of telecommunications services, as well as 376 individual complaints (within complaints by users of Telemach d.o.o. Sarajevo, 228 individual complaints were filed due to the suspension of the broadcasting of the television channels "Arena Sport", and 12 users filed complaints against Mtel a.d. Banja Luka because of the suspension of broadcasting of "Sport Club" TV channel), and 127 cases and 365 individual complaints were resolved.

Table 21 - OVERVIEW Revenues per sources 1 Jan 2021 - 31 Dec 2021

<i>R.b.</i>	<i>Izvor prihoda</i>	<i>Ekonomski kod</i>	<i>Planirani prihodi za 2021. godinu</i>	<i>Rebalans (+,-)</i>	<i>Korigovani plan (4+,-5)</i>	<i>Ostvareno u tekućem periodu</i>	<i>Index (7/6)</i>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1	Ostali prihodi od fin. i nemater. imovine	721219				1.251	-
2	Prihodi od pozitivnih kursnih razlika	721511				5	-
3	Prihodi od zahtjeva, molbi i dr. podnesaka	722101				2.010	-
4	Prihodi od žalbi protiv rješenja	722102				225	-
5	Prihodi od rj.za koje nije propisana pos.nak	722103				5.530	-
6	Prihodi od izdatih uvjerenja	722104				30	-
7	Prihodi od ovjere potpisa i pečata	722105				62	-
8	Naknade od dozvola za emitovanje	722501	390.000		390.000	335.370	86 %
9	Naknade od doz. za operatora fix.telefonije	722502	9.268.000		9.268.000	8.674.998	94 %
10	Naknade za adm.-teh. obradu zahtjeva	722503				95.064	-
11	Naknade za dozv. u radiokomunikacijama	722504	979.000		979.000	1.027.672	105 %
12	Nakn.za dozv. davaoca pristupa internetu	722505					
13	Nakn.za dozv. operatora elek.-kom. mreža	722506					
14	Nakn.od dozv. operatora mob.komunikacija	722507					
15	Nakn.od dozv. za blokove u mobil.mreži	722508					
16	Nakn.od dozv. za pruž.audio viz.medij.usl.	722509					
17	Nakn.od dozv. za negeograf. i kr. brojeve	722510					
18	Nakn.od dozv. za blokove u fix. telefoniji	722511					
19	Nakn.od dozv. za pruž.fiks.telefon. usluga	722512					
20	Nakn.od dozv. za TV emit. el.-kom.mreža	722513					
21	Nakn.od dozv. za pruž.usluga na UMTS	722514					
22	Naknade po Zakonu o slobodi pristupa informac.	722577				10	-
23	Ostali prihodi	722791				27.013	-
24	Novčane kazne za prekršaje	723104				550	-
25	CRA-Prihodi od kazni za prekršaje	723107				120	-
26	Prinici od prodaje prometnih vozila	811114				12.012	-
	<b>UKUPNO</b>		<b>10.637.000</b>		<b>10.637.000</b>	<b>10.181.922</b>	<b>96 %</b>



Table 22 - OVERVIEW Expenditures per economic categories 1 Jan 2021 - 31 Dec 2021

R.b.	Vrsta Rashoda	Ekonomski kod	Budžet za 2021. godinu	Izmjene: Odluka VM, prestrukturizacija (+,-)	Korigovani Budžet (4+,-5)	Ostvareni iznos rashoda 01.01.-31.12.	Index (7/6)
1	2	3	4	5	6	7	8
<b>I</b>	<b>Tekući izdaci</b>		<b>6.260.000</b>	<b>91.000</b>	<b>6.351.000</b>	<b>5.953.449</b>	<b>93,7%</b>
1.	Bruto plate i naknade	6111	4.550.000	76.000	4.626.000	4.612.026	99,7%
2.	Naknade troškova zaposlenih	6112	428.000	47.000	475.000	471.393	99,2%
3.	Putni troškovi	6131	183.000	-100.000	83.000	51.832	62,4%
4.	Izdaci telefonskih i poštanskih usluga	6132	116.000	0	116.000	81.886	70,6%
5.	Izdaci za energiju i komunalne usluge	6133	116.000	0	116.000	87.940	75,8%
6.	Nabavka materijala	6134	75.000	-20.000	55.000	39.456	71,7%
7.	Izdaci za usluge prevoza i goriva	6135	54.000	0	54.000	39.252	72,7%
8.	Unajmljivanje imovine i opreme	6136	95.000	0	95.000	77.775	81,9%
9.	Izdaci za tekuće održavanje	6137	290.000	0	290.000	133.879	46,2%
10.	Izdaci osiguranja bank.usl.i plat. prom.	6138	70.000	20.000	90.000	42.879	47,6%
11.	Ugovorene i druge posebne usluge	6139	283.000	68.000	351.000	315.131	89,8%
<b>II</b>	<b>Kapitalni izdaci</b>		<b>817.000</b>	<b>-91.000</b>	<b>726.000</b>	<b>0</b>	<b>0%</b>
1.	Nabavka građevina	8212	80.000	-80.000	0	0	0%
2.	Nabavka opreme	8213	571.000	-11.000	560.000	0	0%
3.	Nabavka stalnih sredstava u obliku prava	8215	166.000	0	166.000	0	0%
<b>III</b>	<b>Programi posebne namjene</b>			<b>4.251.741</b>	<b>4.251.741</b>	<b>2.497.627</b>	<b>58,7%</b>
1.	Metodologija rač.odvajanja i troš.rač	0704180		233.975	233.975	210.585	90,0%
2.	Kontrola i provjera poštivanja uslova dozvole i benchmarking mobilnih mreža u Bosni i Hercegovini - Mobilne mreže	0704190		37.331	37.331	19.761	52,9%
3.	Mjerenje kvaliteta širokopojasnog pristupa Internetu u Bosni i Hercegovini	0704200		345	345	0	0%
4.	Centralizovani sistem za monitoring broja korisnika usluga kod svih kablovskih operatera	0704210		1.100.000	1.100.000	1.023.750	93,1%
5.	Informacioni sistem za elektronsko praćenje mrežnih resursa i korisnika	0704220		650.000	650.000	-	-
6.	dozvoila u telekomunikacijama u nadležnim institucijama putem Geografskog informacionog sistema (GIS)						
6.	Zaštita djece na Internetu u sistemima korisnika dozvola Regulatorne agencije za komunikacije	0704230		450.000	450.000	-	-
7.	Centralizovani DMS sistem (Document Management System)	0704240		300.000	300.000	116.953	39%
8.	Izgradnja senzorske mreže za pokrivanje urbanih sredina u velikim gradovima u Bosni i Hercegovini za mjerenje zauzetosti radiofrekvencijskog spektra, detekciju interferencija i geolociranje izvora emisije	0704250		145.550	145.550	5.453	3,7%
9.	Kontrola nivoa nejonizirajućeg elektromagnetnog zračenja u cilju zaštite ljudi	0704260		84.540	84.540	42.312	50%
10.	Izrada regulatornog okvira za radiofrekvencijske opsege koje koriste dronovi radi zaštite postojećih korisnika frekvencija	0704270		100.000	100.000	-	-
11.	Informacioni sistem za mašinsko prepoznavanje glasova i riječi u medijskom TV i radio prostoru Bosne i Hercegovine	0704280		1.150.000	1.150.000	1.078.813	93,8%
	<b>UKUPNO</b>		<b>7.077.000</b>	<b>4.251.741</b>	<b>11.328.741</b>	<b>8.451.076</b>	<b>74,6%</b>

### 3.5. STRATEGY AND PLANNING

The Agency's Strategy and Planning Area was established at the beginning of the last quarter of 2021, with the scope of work defined in the Rulebook on the internal organization of the Communications Regulatory Agency. Accordingly, in the 4th quarter of 2021, the Area carried out activities as follows:

Preparation of the Agency Medium-Term Work Plan proposal for 2022-2024.

To develop the plan for the period 2022-2024, the Director General was presented with the Initiative for drafting a medium-term work plan with a proposal of methodology on the manner of drafting, which is in line with the Decision of the BiH Council of Ministers on medium-term planning, monitoring and reporting in the institutions of Bosnia and Herzegovina (Official Gazette of BiH, 62/14) and the Methodology in the process of medium-term planning, monitoring and reporting in the institutions of Bosnia and Herzegovina. The Director General adopted the proposal and a Task Group was formed to draft the Agency's Medium-Term Work Plan for 2022-2024.

The task group finalized all activities within the deadlines and submitted a proposal for the Agency's Medium-Term Work Plan for 2022-2024.

Preparation of the Agency Annual Work Plan proposal for 2022-2024.

After completing the activities on the preparation of the Medium-Term Work Plan, the Area started drafting the 2022 Annual Plan and Work Program of the Agency, applying the methodology from the Decision on annual work planning and the manner of monitoring and reporting on work in institutions of Bosnia and Herzegovina (Official Gazette of BiH, 94/14). The annual plan and program are in line with the previously adopted the 2022 Agency budget. In addition to the restrictions caused by the Covid-19 pandemic, this activity was carried out within the set deadlines.

Preparation of the Agency Council Annual Work Plan proposal for 2022-2024.

The preparation of this document runs in parallel with the 2022 Annual Plan and Work Program of the Agency. The established methodology and structure of the 2022 Annual Work Plan of the Agency Council are harmonized with the Agency Medium-Term Work Plan and the Agency Annual Plan, which establishes efficiency in planning activities, monitoring the implementation of planned activities and reporting on (un)implemented activities. The proposal will be submitted to the Agency Council for consideration.

Establishing and updating the database of all Agency licence holders

In accordance with its scope of work on establishing and updating the database of all Agency licence holders, the Strategy and Planning Department has developed a proposal for a software model to consolidate data in the Agency. At the proposal of the Strategy and Planning Area, on 15 December 2021, the Director General issued an Instruction on the establishment, structure, and manner of maintaining and updating a single database of the Communications Re-

gulatory Agency license holders. On 16 Dec 2021, the Strategy and Planning Area published the initial version of the database in the form of a register of licence holders and a detailed register of licence holders issued by the Agency.

After analysing data sources on licence holders, categories of data specific to each organizational unit of the Agency were identified. The first results after data consolidation are expected to be available in the first quarter of 2022. In this way, for the first time since the establishment of the Agency, a unified overview of all users and their licences will be formed. At the same time, software modules are being developed to enable continuous verification of all data on license holders and their licences.

## 4. INDEPENDENT SECTORS

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### 4.1. LICENCES AND FEES SECTOR

The Licensing and Fees Sector is a sector within the Agency that has taken over the issuing, modification, suspension, transfer and/or early termination of the license use.

All procedures related to issuing, amending, transferring or premature terminating the license have been initiated and conducted in accordance with the relevant laws and rules of the Agency governing these procedures. Depending on the area from which the request was submitted, it was forwarded to the broadcasting area and the telecommunications area for expert opinion, and the radio communications area for expert technical analysis and technical processing of the request. The licences were issued in cooperation and coordination with the competent areas of the Agency concerning the technical parameters of the licence and the audiovisual content.

In accordance with this, the calculation of fees for administrative and technical processing of applications, calculation of fees for licenses in accordance with Rule 89/2018 on fees for Agency licenses (Official Gazette of BiH, 92/18 and 50/19) and point III of the Decision establishing the amount and value of scores used to calculate the annual license fee (Official Gazette of BiH, 86/19 and 22/20), and the calculation of fees for the use of radiofrequency spectrum in accordance with the Decision of the Council of Ministers of BiH on the fee for the use of radiofrequency spectrum in BiH (Official Gazette of BiH, 15/14).

In 2021, a total of 730 administrative proceedings were initiated, of which 285 ex officio proceedings for the calculation of annual fees for Agency licenses and 445 proceedings at the request of a party to issue, amend or prematurely terminate licenses in broadcasting, telecommunications and radiocommunications.

The calculation of fees for administrative and technical processing of applications was performed within issuing new licenses or amending the existing ones according to each request of the party, subject to payment of the prescribed fees. Based on the new licenses issued in 2021, licences were charged from the licence issuing date to the end of the current year. In addition, licences for using the radiofrequency range during the licence validity were charged to the licence holders subject to payment. The fees were calculated and 511 individual invoicing orders were issued.

The Agency issued decisions to the users of licenses subject to the advance payment of the fee for licenses in telecommunications. The Agency also issued decisions calculating the amount of the total 2021 annual license fee in telecommunications and broadcasting. Compliance with the deadlines for the payment of fees by licence users, established by the decisions calculating annual license fees for licence users in broadcasting and telecommunications was continuously monitored. 50 decisions were forwarded to Legal Affairs Division to initiate proceedings for forced collection of receivables before the Court of BiH.

For licenses in radiocommunications, the Division calculated the annual fees for 2021 through a collective invoicing order.

### 4.1.1. LICENCES

In 2021, the Licensing Department conducted 445 administrative proceedings at the request of the parties, which resulted in issuing licenses for radiocommunications, broadcasting and telecommunications. For the said permits, performed was the calculation of fees for administrative and technical processing of applications and fees for issuing thereof.

#### 4.1.1.1. Broadcasting licences

In 2021, the Licensing Department reissued a large number of radio and television broadcasting licenses because the largest number of licenses expired on 31 Dec 2021.

190 licence renewal requests were received, of which 38 were requests by TV stations, 18 requests by users of licences for TV broadcasting via other electronic communications networks, 130 requests from FM radio stations, and requests by two AM mid-range radio stations and three non-profit radio stations.

All requests were processed in correspondence with the area of broadcasting and the area of radiocommunications. By completing this procedure, the preconditions for uninterrupted work and broadcasting of programs of licensees in the field of broadcasting for the next multi-year period have been provided.

In 2021, the Agency did not issue new licenses for television broadcasting conducted through terrestrial broadcasting but issued six changes to the technical parameters within the technical requirements for broadcasting. All licences valid until 31 Dec 2021 were renewed and the Agency allowed the licence users to broadcast according to previously assigned parameters without assigning new or changing the technical requirements for broadcasting.

In July 2021, the Agency was notified by the Croatian Regulatory Agency (HAKOM) that Croatia was planning to allocate 700 MHz of spectrum for new generation mobile networks - 5G and that the operation of TV stations in BiH that broadcast analogue signals in the 700 MHz band would cause harmful interference to the operation of these networks.

Based on the received notification, the Division issued decisions and shut down 106 analogue transmitters to 21 users of terrestrial television broadcasting.

By 31 December 2021, in addition to the public RTV services of BiH, there were 38 users of terrestrial television broadcasting.

In addition to the public RTV services of BiH, there are currently 149 users of the general radio broadcasting license, of which 2 are on medium waves. In addition, by 31 Dec 2021, there were a total of 3 users of the Non-Profit radio license.

Table 22: Total number of television and radio broadcasting licence users

TV	General radio broadcasting licence (FM)	General radio broadcasting licence (MW)	Non-profit radio	PUBLIC SERVICE (radio and TV)	General licences for television broadcasting via other communication networks	General licences for radio broadcasting via other communication networks
38	149	2	3	6	67	1

Until 31 December 2021 inclusive, there were 67 users of the licences for television broadcasting via other communication networks.

In accordance with Rule 77/2015 on providing audiovisual media services, in 2021, four new Licenses for television broadcasting via other communication networks were issued, while three licenses ceased to be valid at the request of users and one due to violations of rules and regulations of the Agency.

In accordance with Rule 76/2015 on providing radio media services, and until 31 December 2021 inclusive, there was one user of the licence for radio broadcasting via other communication networks.

In accordance with Rule 79/2016 on licenses for the distribution of audiovisual media services and radio media services, in 2021 there were no new licenses for the distribution of audiovisual media services and radio media services, and 3 licenses ceased to be valid at the request of users. Until 31 December 2021 inclusive, the total number of licence users for the distribution of audiovisual media services and radio media services was 31.

#### 4.1.1.2. Telecommunication licences

In 2021, there were no new licenses for fixed public telephone service providers, and at the end of 2021, 14 fixed public telephone service providers were operating in the BiH market.

Three licensed mobile operators operate in BiH:

- JP BH Telecom d.d. Sarajevo (BH Telecom);
- Telekomunikacije RS a.d. Banja Luka (Telekom Srpske) and
- JP Hrvatske Telekomunikacije d.d. Mostar (HT Mostar).

In addition to the three dominant operators, other mobile service providers have the opportunity, by concluding commercial contracts, to provide mobile telephone services with holders of GSM / UMTS / LTE licenses in BiH. Until 31 Dec 2021 inclusive, there were four active operators in the mobile telephony market.

In 2021, two new licenses were issued to public electronic communications network operators, two extensions of the existing licenses to public electronic communications network operators were made, and the number of network operators operating in BiH on 31 Dec 2020 was 72 operators.

The Agency issued a new license to Internet access providers, and until 31 Dec 2021 inclusive, there were 61 operators of Internet access providers operating on the territory of BiH.

The license for the use of radiofrequency spectrum for the provision of electronic communications network management services in digital terrestrial broadcasting MULTIPLEX C was revoked because the licensee did not meet the requirements, i.e., the multiplex operator never started digital television broadcasting.

Following the Public Invitation, the License for the use of radiofrequency spectrum for the provision of electronic communications network management services in digital terrestrial broadcasting in Bosnia and Herzegovina was granted to MULTIPLEX D.

#### **4.1.1.3. Radio communication licences**

In 2021, a total of 514 licenses were issued and 26 applications processed, while 230 licenses for point-to-point microwave links were revoked. As part of the licensing activities of 11.7-12.5 GHz band MMDS systems in 2021, decisions were issued terminating licenses of three users for the use of frequency blocks in the area and terminating licenses for nine base stations at the request of three users.

In 2021, 28 applications were processed in the land mobile service, of which 2 were rejected, 210 licenses were issued to 24 users and two licenses were revoked.

In 2021, 16 applications were processed in the aviation service, of which 12 licenses were issued, two licenses were revoked and two applications were refused.

Regarding the broadcasting service, 445 licenses were issued to 130 users as part of re-issuing renewed licenses for radio broadcasting and 50 licenses in the year as part of the relocation of transmitters, change of location, change of licenses, etc.

In 2021, three new terrestrial satellite radio station licenses were issued.

Economic analyses were performed on applications for the allocation of broadcasting via other electronic communications licenses and the economic analyses of the financial operations of licensees within the transfer of the Agency's license.

In addition, in 2021, documentation on evidence for resolved property-legal relations of point-to-point microwave link licence users for each base and broadcasting station was continuously collected. Reviewed were 2100 documents, land registry excerpts and owner's approvals.

All listed documentation on resolved property legal matters for the mentioned licenses was additionally recorded in ICS Manager/Network licenses.

## 4.2. PUBLIC RELATIONS SECTOR

### 4.2.1. MEDIA AND PUBLIC

In 2021, the Public Relations Department performed ongoing tasks that included communication with journalists, licence users and end-users. Regular support was provided to the Office of the Director General, areas, sectors and departments of the Agency. 42 press releases were published, which included regular activities of the Agency, preparation of the Agency's Annual Report, preparation of quarterly reports, Review of cases in broadcasting, publication of Reports on processed cases in the Agency, publication of public consultations on draft rules adopted by the Agency Council. In 2021, more than 4,000 media announcements were published about the Agency in the print media, on internet portals and TV and radio stations in BiH.

In 2021, the Public Relations Department responded to 34 requests for access to information under the Law on Free Access to Information and 12 questions by members of parliament.

### 4.2.2. Cooperation in projects, integrations and activities on social networks

During the reporting period, the Public Relations Department participated in the activities of the Project Advisory Team/Committee named "Stop violence against children: prevent sexual exploitation and abuse of children in the digital environment in BiH", implemented by UNICEF, MFS Emmaus and Save the Children (BiH Consortium for Child Protection). The Agency is a partner in this project. The Agency's website was constantly being improved to best meet the needs of end-users and promote the Agency's activities on social networks (LinkedIn, Facebook). In 2021, the Agency published information distributed on its website, information distributed to the media through press releases and information about important events organized or participated in by the Agency, (including the preparation, processing and publishing of the text about activities of the Agency). In 2021, the Agency continuously published announcements and daily press clippings via the "Intranet" portal.

Activities concerning European integrations were coordinated, including the submission of data for preparing annual reports in line with the Action Plan for the implementation of priorities contained in the European Commission's analytical report including the preparation and submission of written documents for the Subcommittee/Committee on Innovation and Information Society and Social Policy EU and BiH.

In 2021, support was provided to the Radiocommunication Area during the implementation of the project for control of non-ionizing electromagnetic radiation levels to protect people (formation and sending letters for temporary installation of measuring sensors at primary schools in BiH to measure non-ionizing radiation intensity).

Consultations were held regularly within the Agency's web editorial office together with authorized representatives of divisions and the Licence and Fee Sector.



### 4.2.3. AGENCY'S VISUAL IDENTITY

In July 2021, the Director General of the Agency issued a Decision establishing the abbreviated name, logo and official memorandum of the Agency, based on which the Public Relations Department started creating the Book of Graphic Standards (KGS) for the Agency's new visual identity in all software and hardware applications used by the Agency. The application of the new visual identity continued until the end of the calendar year 2021, which will be continued in the first half of 2022 when this activity is to be complete according to the dynamic plan.

## 4.3. INFORMATION TECHNOLOGY SECTOR

In 2021, the Information Technologies Sector, in addition to regular activities, conducted many special activities related to the process of development, upgrade and modernization of the Agency's information system.

### 4.3.1. HARDVERSKA/MREŽNA INFRASTRUKTURA

Reconstruction of the complete computer network at Sime Milutinovića 4 in Sarajevo has been completed.

A new network infrastructure has been implemented at Mehmed Spaha 1 in Sarajevo. After scanning the existing network infrastructure settings, creating a schedule for the implementation and delivery of equipment, the following activities were completed:

- installation of network equipment and Access Point, and connection via RJ45 and optical cables,
- upgrading network equipment to the latest firmware version,
- delivery and installation of other components (cables, connectors, etc.),
- connecting patch panels, server infrastructure and storage with new network equipment,
- configuration of VLANs and security policies for communication between VLANs, including migration of existing configurations from old to new equipment,
- configuration of spanning-tree protocol for fast convergence of STP by VLANs in the central location,
- configuration of STP priorities,
- configuration of redundant links to the core switch and increase in throughput,
- configuration of access switches for user access and connection to patch panels,
- configuration of data centre switches for server access,
- configuration of access to network devices,
- configuring network security access via port security,
- configuring security policies to combat unauthorized DHCP servers,
- NetFlow Protocol configuration on the core switch,
- Syslog configuration,
- booting and configuration of Network Monitoring server,
- redirecting Syslog and Netflow to the monitoring server,
- testing and detailed analysis of the operation of all new devices,
- wireless access point configuration,
- creating VLANs for wireless networks and setting access policies to the internal network,
- optimization of room coverage by a wireless radio signal at 2.4 GHz and 5 GHz,
- installation and customization of network monitoring software solution;

With the completed analysis of the information system status, recommendations were given for upgrading servers and Windows licenses, reviewing network infrastructure and upgrading IOS on network equipment. The operation was analysed and additional configuration of the OP Manager software solution was performed.

Additional configuration of firewall and network infrastructure and exchange server configuration has been completed: configuring DMARC, DKIM and SPF verifications, firmware updates on the complete server infrastructure and creating Reverse Lookup Zones on all VLANs. The following configurations have been made: EndPoint protection rules, clients and policies, Reporting services on SCCM and creating VPN tunnels for remote access ESXi hosts have been relocated to the new VLAN and host access has been further configured. SSL VPN groups with two-factor authentication were created and server VLAN was re-addressed and service switching was performed.

Reconfiguration of the service availability via public IP addresses was performed so that RDP (remote desktop) was closed on all Windows servers, and SSH access on Linux servers; to increase the security of the Agency's Information System, FTP, HTTP and HTTPS access to IP addresses from BiH has been limited on all services that do not require access from a wider geographical area, and additional online security services (ACL, DHCP snooping, Port security, DTP and DAI) have been implemented.

Services enabling the management, implementation and security of devices and applications (creation of collections and software libraries, configuration and management of operating system updates on servers and workstations, Endpoint Protection Definition) have been configured on the new version of Microsoft Endpoint Configuration Manager. In the same period, the configuration and testing of the system for recording TV content were completed (setting up recorders, adding sources, updating user groups and their roles, adding new TV channels).

Activation and implementation of the TAMC license were completed, firepower services were tested and verified, and analysis and monitoring of Standby Failover mode were completed.

Replication of user data from Office to Fileserver server infrastructure was performed using DFS replication and IP address reservation with the creation of an external RDP connection to the ETL device that uses the Radiocommunication Area for various types of measurements.

### 4.3.2. SOFTWARE

#### Backup and replication software

The implementation of backup and replication software has been completed. Within these activities, the following was delivered:

- Veeam Backup & Replication universal license for 10 virtual machines (2 pieces),
- Veeam Backup for Microsoft Office 365 (160 user accounts),

and the following services:

- Connecting Veeam with hypervisors,
- Backup repository configuration,
- Tape device configuration (Note: a detailed plan for subsequent connection of the device and its backup method has been developed),
- Backup I/O control configuration,
- Configuration of e-mail notifications,
- Configuration of backup tasks for virtual machines,
- Preparing Microsoft Active Directory for backup
- Protection group settings,
- Creating Agent backup tasks,
- Creating Recovery Media for Bare Metal Recovery,
- Creating backup copy tasks,
- Configuring SureBackup tasks,
- Backup configuration for Office 365 accounts.

#### Invoicing software

The development of the conceptual design and definition of specific functionalities for the invoicing software has been completed. Meetings were held to define the specifics of each process. After that, a test and production environment for software installation was implemented, virtual machines, VPN connections and user accounts for access to the system vendor were created, and additional instances on SQL Server and the assignment of necessary access rights to users were completed (through group policy). The implementation of invoicing software in the production environment has been completed and the system has been officially launched, which enables a complete transition to the recording of invoices and monitoring of the collection of receivables electronically in the Financial Accounting and General Affairs Department.

### **4.3.3. INTRANET**

After creating the conceptual design of the Intranet portal and launching the test phase of the portal in the production environment, additional instances were installed on the SQL server, VPN connection and user accounts for access to the system vendor were created, and access rights were established (through group policy).

All the necessary contents were entered (news, legal acts, newspaper clippings, holiday requests, telephone directory, etc.) and the Intranet portal was officially launched on 19 August 2021. In addition, the Intranet portal was configured and updated, new user accounts and access rights were created, and the necessary changes and modifications were made to optimize the portal.

### **4.3.4. CENTRALIZED SYSTEM FOR MONITORING THE NUMBER OF CLIENTS OF CABLE OPERATORS**

The project establishing the Centralized system for monitoring the number of users of cable operators, which took place in three phases, has been completed.

In the first phase, the procedure for selecting a test operator was completed, as well as activities related to establishing the REST API service over the billing database, the service was successfully established and NDA Agreements were signed.

The second phase included installing and testing a hardware and software solution.

The third phase of the project included training for Agency employees.

Thus, the complete project was successfully completed and the system was put into operation in July 2021.

### **4.3.5. INFORMATION SYSTEM FOR MACHINE RECOGNITION OF VOICES AND WORDS IN THE AUDIOVISUAL MEDIA SPACE AND THE RADIO MEDIA SPACE IN BIH**

In the first phase, hardware with accompanying software was delivered to the Agency's premises. In addition, the procedure for selecting a supplier of TV channel content, the content of which will be monitored and recorded through this system, was successfully completed.

The second phase included installing and testing a hardware and software solution.

The third phase of the project included training for Agency employees.

Thus, the complete project was successfully completed and the system was put into operation in July 2021.

#### 4.3.6. Centralised Document Management System

In the reporting period, the first two phases of the project were successfully completed and the implementation of the third phase of the project is underway.

The first phase included activities to prepare project documentation and project team and define the working group and key beneficiaries.

As part of the second phase of the project, workshops were held on the implementation of the Centralized DMS system. Objectives, characteristics, tasks, application solution design (UML diagram), tables and metadata were defined, as well as user roles, structures of all code-books, group and type documents, and conceptual system design was made and minutes were submitted.

The third phase, which began in October 2021 and is currently underway, includes the development and implementation of a software application.

#### 4.4. REGIONAL SECTORS OF BANJA LUKA AND MOSTAR

During the reporting year 2021, the regional sectors of Banja Luka and Mostar continued to support all key segments of the Agency's work, both in basic areas of work (telecommunications, broadcasting and radiocommunications) and all other activities involving contacts with parties and licensees, government institutions and organizations, the media and the NGO sector.

A special part of the regular activities was the amateur radio report in the Regional Sector of Banja Luka, as a detached report of the Radiocommunications, outside the Agency headquarters.

The activities of the Mostar Regional Sector included joint coordination of work at the Gubavica monitoring station (control and measurement of the RF spectrum, coordination of frequency resource planning, field monitoring, etc.).

In both regional sectors, employees were engaged in individual working groups and commissions of the Agency, formed by the Director General, or those working groups that were active in telecommunications, broadcasting and radiocommunications.

With the changes in the internal organization of the Agency, which occurred in the mid-2021, these two regional sectors received four new internal organizational units, namely departments of:

- Telecommunications
- Broadcasting
- Radiocommunications
- General and financial affairs

Changes in the internal organization of the two regional sectors intensified their organizational capacity building, intending to raise the professional capacity and daily presence of the Agency concerning licensees and the public, which should represent the continuity of the Agency's regional presence in the future.

## 5. OVERVIEW OF LAWSUITS, COURT PROCEEDINGS AND JUDGEMENTS

In 2021, a total of 17 lawsuits were initiated against the Agency, of which: one before the Constitutional Court of BiH, 15 before the Court of BiH, of which 14 administrative disputes before the Council for Administrative Disputes and one procedure before the Council for Appeals and Extraordinary Legal Remedy at the request for review of the first instance verdict, and one civil procedure before the Municipal Court in Sarajevo.

According to the lawsuits in 2020, another civil procedure is currently pending before the Municipal Court in Sarajevo.

### 5.1. OVERVIEW OF ACTIVE COURT PROCEEDINGS ON 2021 LAWSUITS

- Following the lawsuit dated 18 January 2021 of the plaintiff United Media S.a.r.l Luxembourg represented by attorneys Nihad Sijerčić, Mirna Milanović - Lalić and Jasmina Suljović, lawyers from Sarajevo, an administrative dispute was initiated before the Administrative Department of the Court of BiH due to administrative silence, i.e., due to failure to reach a decision on the plaintiff's appeal of 18 Sept 2020 and the urgency for resolving the appeal of 19 Nov 2020 stated against the first instance ruling, UP1 ref. no: 03-29-5-1190/19 of 31 Aug 2020. The first-instance ruling, issued in the repeated procedure according to the judgement of the Court of BiH, ref. no: S1 3 U 29156 18 U of 30 Oct 2019, the proceedings were suspended against the cable/IPTV operator TX TV d.o.o. Tuzla to investigate possible violations of the license requirements or regulations of the Agency regarding the broadcasting of Eurobasket 2017 matches;
- Following the lawsuit dated 18 January 2021 of the plaintiff United Media S.a.r.l Luxembourg represented by the same attorneys, the administrative dispute was initiated before the Administrative Department of the Court of BiH due to administrative silence, i.e., due to failure to reach a decision on the plaintiff's appeal of 18 Sept 2020 and the urgency for resolving the appeal of 19 Nov 2020 stated against the first instance ruling, UP1 ref. no: 03-29-5-1194/19 of 31 Aug 2020. The first-instance ruling, issued in the repeated procedure according to the judgement of the Court of BiH, ref. no: S1 3 U 29156 18 U of 30 Oct 2019, suspended the against the cable/IPTV operator Telrad Net d.o.o. Bijeljina to investigate possible violations of the license requirements or regulations of the Agency regarding the broadcasting of Eurobasket 2017 matches;
- Following the lawsuit dated 18 January 2021 of the plaintiff United Media S.a.r.l Luxembourg represented by the same attorneys, the administrative dispute was initiated before the Administrative Department of the Court of BiH due to administrative silence, i.e.,



due to failure to reach a decision on the plaintiff's appeal of 18 Sept 2020 and the urgency for resolving the appeal of 19 Nov 2020 stated against the first instance ruling, UP1 ref. no: 03-29-5-1190/19 of 31 Aug 2020. The first-instance ruling, issued in the repeated procedure according to the judgement of the Court of BiH, ref. no: S1 3 U 29156 18 U of 30 Oct 2019, suspended the proceedings against the cable/IPTV operator Blicnet d.o.o. Banja Luka to investigate possible violations of the license requirements or regulations of the Agency regarding the broadcasting of Eurobasket 2017;

- Following the lawsuit dated 18 January 2021 of the plaintiff United Media S.a.r.l Luxembourg represented by the same attorneys, the administrative dispute was initiated before the Administrative Department of the Court of BiH due to administrative silence, i.e., due to failure to reach a decision on the plaintiff's appeal of 18 Sept 2020 and the urgency for resolving the appeal of 19 Nov 2020 stated against the first instance ruling, UP1 ref. no: 03-29-5-1196/19 of 31 Aug 2020. The first-instance ruling, issued in the repeated procedure according to the judgement of the Court of BiH, ref. no: S1 3 U 29156 18 U of 30 Oct 2019, suspended the proceedings against the cable/IPTV operator Elta - Kabel d.o.o. Dobož to investigate possible violations of the license requirements or regulations of the Agency regarding the broadcasting of Eurobasket 2017;

In all administrative disputes following United Media lawsuits, the Agency first informed the competent court that the Agency's Council, as the defendant's second instance body, resolved a number of complaints received at the 54th session of 22 December 2020 due to epidemic measures and the situation caused by the Covid-19 virus. and that the remaining appeals will be resolved at the next session scheduled for 11 February 2021.

After issuing, signing and submitting second instance decisions to the plaintiffs' attorneys, the Agency informed the court about thereof, proposing that in all disputes, pursuant to Article 27 of the Law on Administrative Disputes of Bosnia and Herzegovina, invite the plaintiff to state whether the plaintiff is satisfied with the decisions or retains the lawsuit and to what extent, or whether the plaintiff extends the lawsuit to new administrative acts (second instance decisions). According to the said proposal, the Court informed the Agency that the plaintiff in all disputes extended the lawsuit to subsequently adopted final administrative acts, ordering the Agency to submit responses to lawsuits with the documents of first and second instance proceedings;

- Following the lawsuit of 9 March 2021 of the plaintiff Radio Television of the Republic of Srpska, represented by attorney Saša Grabež, a lawyer from Banja Luka, before the Administrative Department of the Court of BiH, an administrative dispute was initiated against the final decision of the Agency Council, No. UP2: 03-29-7-18 / 19 of 11 Feb 2021, rejecting as unfounded the plaintiff's appeal against the first instance decision, No. UP1-03-29-7-18/19 of 11 Feb 2021, with the modification of the originally imposed fine of BAM 10,000.00. The first-instance decision imposed a single fine of BAM 16,000.00 on the plaintiff for violating Articles 3 and 5 of the Code of Conduct on Audiovisual Media Services and Radio Media Services (Official Gazette of BiH, 3/16);

- Following the lawsuit of 9 March 2021 of the plaintiff Radio Television of the Republic of Srpska, represented by attorney Saša Grabež, a lawyer from Banja Luka, before the Administrative Department of the Court of BiH, an administrative dispute was initiated against the final decision of the Agency Council, No. UP2: 05-29-8-1/20 of 22 Dec 2020, rejecting as unfounded the plaintiff's appeal against the first instance decision, No. UP1-03-29-5-1299/19 of 24 Dec 2019 rejecting as unfounded the plaintiff's appeal against the letter of the Broadcasting Assistant Director No. 03-29-774-8/19 of 19 Nov 2019 following the plaintiff's request for issuing a decision determining the cost of the proceedings;
- Following the lawsuit dated 29 March 2021 of the plaintiff "Elta Media Group" d.o.o. Banja Luka, represented by Director Dejan Rakita before the Administrative Department of the Court of BiH, an administrative dispute was initiated against the final decision of the Agency Council, No. UP2-05-29-8-7/20 of 22 Dec 2020, rejecting as unfounded the plaintiff's appeal against the first instance decision, No. UP1-05-29-1-528/20 of 5 May 2020 establishing that the plaintiff does not meet the economic criteria in the competition for the allocation of frequency resources, i.e., obtaining the General License for terrestrial radio broadcasting. The decision was issued in the repeated procedure according to the judgement of the Court of Bosnia and Herzegovina No. S1 3 U 028159 18 U of 6 Feb 2020 upholding the plaintiff's lawsuit against the Council's final decision No. UP2: 03-29-7-17/17 of 14 Dec 2017 rejecting the plaintiff's appeal against the first instance decision, No. UP1-03-29-2-789/17 of 28 Aug 2017, rejecting the plaintiff's application to the Public Invitation to the competition for the allocation of available frequency resources for terrestrial radio broadcasting Performed in the VHF band 87.5-108 MHz;
- Following the lawsuit dated 9 Apr 2021 of the plaintiff "TXTV" d.o.o. Tuzla, represented by the attorney Mirza Telalović, a lawyer from Tuzla, an administrative dispute was initiated before the Administrative Department of the Court of BiH to annul the final decision of the Agency Council, number UP2: 05-29-8-13720 of 11 Feb 2021, to reject as unfounded the plaintiff's appeal against the first instance decision, No. 03-29-5-1190/19 of 31 Aug 2020. The first-instance ruling, issued in the repeated procedure according to the judgement of the Court of BiH, No. S1 3 U 29156 18 U of 30 Oct 2019, the proceedings against the plaintiff were suspended at the request of United Media S.a.r.l Luxembourg in order to investigate a possible violation of the conditions of the license requirements or the Agency regulations regarding the broadcasting of Eurobasket 2017 matches;
- Following the lawsuit dated 4 June 2021 of the plaintiff RTV BN d.o.o. represented by the attorney Miodrag Stojanović and other attorneys from Bijeljina, an administrative dispute was initiated before the Administrative Department of the Court of BiH against the final decision of the Agency Council, No. UP2: 04-29-8-2/21 of 9 March 2021 to reject as unfounded the plaintiff's appeal against the first instance decision, No. UP1-04-29-1-1099/20 of 25 Jan 2021 with the modification of the originally imposed fine of BAM 3,000.00. The first-instance decision imposed a single fine of BAM 4,000.00 on the plaintiff for violating the technical requirements under Articles 16 (1) and (2) of Rule 76/2015 on providing radio services (Official Gazette of BiH, 3/16);

- Following the appeal dated 12 July 2020 filed by Radio Television of Republika Srpska, represented by attorney Sasa Grabež, a lawyer from Banja Luka, a procedure was initiated before the Constitutional Court against the first instance verdict of the Court of BiH, No. S1 3 U 027913 18 U of 21 May 2019 and the appeal judgement of the same court No. S 1 3 U 027913 19 Uvp of 11 Dec 2019, rejecting the lawsuit and subsequent extraordinary legal remedy - request for review first instance verdict by the plaintiff against the final decision of the Agency Council, number UP2: 03-29-22/17 of 14 Dec 2017 rejecting as unfounded the plaintiff's appeal against the first instance decision suspending the proceedings, No. UP1: 03-29-5-733717 of 27 Nov 2017;
- Following the lawsuit dated 9 Sept 2021 of the plaintiff RTV BN d.o.o. represented by the attorney Miodrag Stojanović and other attorneys from Bijeljina, an administrative dispute was initiated before the Administrative Department of the Court of BiH against the final decision of the Agency Council, No. UP2: 04-29-8-2/21 of 5 July 2021 rejecting as unfounded the plaintiff's appeal against the first instance decision, No. UP1-04-29-1-210/21 of 2 Apr 2021 with the modification of the originally imposed fine of BAM 7,000.00. The first-instance decision imposed a single fine of BAM 12,000.00 on the plaintiff for violating the technical requirements under Articles 16 (1) and (2) of Rule 76/2015 on providing radio services (Official Gazette of BiH, 3/16);
- Following the lawsuit dated 9 Sept 2021 of the plaintiff RTV BN d.o.o. represented by the attorney Miodrag Stojanović and other attorneys from Bijeljina, an administrative dispute was initiated before the Administrative Department of the Court of BiH against the final decision of the Agency Council, No. UP2: 04-29-8-4/21 of 5 July 2021 rejecting as unfounded the plaintiff's appeal against the first instance decision, No. UP1-04-29-1-131/21 of 23 March 2021 with the modification of the originally imposed fine of BAM 5,000.00. The first-instance decision imposed a single fine of BAM 6,000.00 on the plaintiff for violating the technical requirements under Articles 16 (1) and (2) of Rule 76/2015 on providing radio services;
- Following the lawsuit dated 20 Sept 2021 of the plaintiff Trion Tel d.o.o. represented by the attorney Plamenko Ćustović from Sarajevo, an administrative dispute was initiated before the Administrative Department of the Court of BiH against the final decision of the Agency Council No. UP2: 04-29-8-11/21 of 22 July 2020, rejecting as unfounded the plaintiff's appeal against the first instance decision, No. UP1-03-29-1-567/21 of 25 June 2021. The first-instance decision rejected the plaintiff's requests for termination and suspension of the proceedings, No. 03-29-1-567/2,1 which was ex officio initiated against the plaintiff for violation of Article 14(1) of Rule 66/2021 on activities of public electronic communications network operators (Official Gazette of BiH, 85/12);
- Following the lawsuit dated 8 Oct 2021 of the plaintiff Trion Tel d.o.o. represented by the attorney Plamenko Ćustović from Sarajevo, an administrative dispute was initiated before the Administrative Department of the Court of BiH against the final decision of the Agency Council No. UP2: 04-29-8-8/21 of 22 July 2020, partially accepting the plaintiff's appeal against the first instance decision, No. UP1-03-29-1-567/21 of 18 June 2021 and

the first instance decision annulled in points (2), (3), (4), (5), (6) and (7) of the enacting terms, in which respect the case was returned to the first instance court for retrial, while in respect of point (1) of the enacting terms, the appeal was rejected as unfounded. The first-instance decision fined BAM 100,000.00 for the violation of Article 14(1) of Rule 66/2012 on the activities of operators of public electronic communications networks (Official Gazette of BiH, 85/12), with an order of a three-month suspension of the provision of public telecommunications services through the relevant parts;

- Following the extraordinary legal remedy - the request for reconsideration of the court decision dated 13 Oct 2021, the plaintiff Radio Television of the Republic of Srpska, represented the attorney Sasa Grabež, a lawyer from Banja Luka, before the Appellate Division of the Court of BiH, a procedure was initiated to review the first instance verdict of the same court, no. Bosnia and Herzegovina No. S1 3 U 035020 20 U of Sept 2021 rejecting the plaintiff's lawsuit against the Council's final decision No. UP2: 03-29-7-8/19 of 20 Nov 2019, rejecting the plaintiff's appeal against the first instance decision, No. UPI 03-29-5-814/18 of 2 July 2019 with the modification of the originally imposed fine of BAM 25,000.00.

The first-instance decision imposed a single fine of BAM 35,000.00 on the plaintiff for violating Articles 5 (2) and (3) of the Code of Conduct on Audiovisual Media Services and Radio Media Services (Official Gazette of BiH, 3/16) and Articles 16.2, 16.3 and 16.4 of the Law on Elections of Bosnia and Herzegovina;

- Following the lawsuit dated 12 Nov 2021 of the plaintiff 1) Nova BH d.o.o. Sarajevo and 2) Radio and television BN d.o.o. Bijeljina, represented by attorneys Nihad Sljerčić, Amira Đugum Lejla Popara, Nihad Odobašić, Alma Hot and Fuad Kapidžić from Sarajevo, before the Administrative Division of the Court of BiH, an administrative dispute was initiated to review the general act of the Communications Regulatory Agency - Rules amending Rule 77/2015 on the provision of audiovisual media services (Official Gazette of BiH, 67/21). In the lawsuit, in addition to the repeal of the said Rule, a request was made for the Court to issue an urgent decision to postpone the implementation of the disputed rule until the end of the administrative dispute, in order to prevent damage to the plaintiffs;
- Following the lawsuit dated 9 Apr 2021 of the plaintiff "S-LIST" d.o.o. Sarajevo represented by attorney Bojan Veselinović from Sarajevo a legal procedure was initiated before the Municipal Court in Sarajevo against the Agency for the payment of a debt of BAM 2,340.00 for the uncontracted delivery of 2019 laws and regulations on CDs. On 24 December 2021, the Agency notified the Attorney General's Office of BiH of the lawsuit, in its capacity as the legal representative of BiH institutions in civil proceedings before the competent courts, with the submission of a statement on the lawsuit with relevant evidence.

## 5.2. OVERVIEW OF ACTIVE COURT PROCEEDINGS INITIATED FOLLOWING LAWSUITS FROM PREVIOUS YEARS

- Following the lawsuit dated 25 June 2020 of the plaintiff "S-LIST "d.o.o. Sarajevo represented by attorney Damir Kočo from Sarajevo a legal procedure was initiated before the Municipal Court in Sarajevo against the Agency for the payment of a debt of BAM 2,340.00 for the uncontracted delivery of 2018 laws and regulations on CDs. Considering the type of procedure, the Agency timely notified the Attorney General's Office of the lawsuit, with the submission of a statement on the lawsuit with relevant evidence..

## 5.3. OVERVIEW OF COMPLETED PROCEEDINGS AND COURT DECISIONS

In 2021, a total of 13 court decisions were made following disputes against the Agency and lawsuits of the Agency, of which were 10 judgements of the Court of BiH (one judgement of the Appellate Division on extraordinary legal remedy – request for review of the first instance verdict, 4 verdicts following lawsuits in administrative disputes, 5 verdicts following lawsuits and appeals in civil proceedings and 3 decisions of which: one decision of the Council for Administrative Disputes of the Court of BiH following the request to postpone the execution of the challenged act until the end of the administrative dispute, one decision of the Higher Commercial Court in Banja Luka and one decision of the District Commercial Court in Banja Luka within the same litigation, as follows:

- Judgment of the Administrative Disputes Council of the Court of BiH, No. S1 3 U 033470 19 U dated 21 January 2021, refused was the lawsuit of the plaintiff JP Radio Televizija Republike Srpske, represented by attorney Saša Grabež, a lawyer from Banja Luka, against the conclusion of the Agency Council, No. UP2: 03-29-7-11/17 of 25 June 2020, rejecting as unfounded the plaintiff's request for reimbursement of the costs of the proceedings;
- A Decision of the Basic Court in Banja Luka, No. 57 0 Mals 094843 11 Mals of 4 May 2021, a request of the defendant Republika Srpska - the Ministry of Finance from Banja Luka (hereinafter: the Ministry of Finance) for reimbursement of the costs of the proceedings following the Agency's lawsuit was rejected as unfounded. On 19 May 2021, the defendant filed an appeal against the said decision through the Republika Srpska Attorney's Office, submitted in response to the Agency by the court.

The considered procedure was originally initiated by the Agency's lawsuit dated 28 July 2011 against the Ministry of Finance for the payment of a debt of BAM 707.20 KM. The lawsuit was withdrawn immediately after paying the entire amount of the debt, which was decided upon by the District Commercial Court in Banja Luka on 11 May 2012, ordering each party to

bear the costs of the proceedings. The defendant filed an appeal against the decision, which was rejected by the decision of the same court on 25 March 2013 against which the defendant also filed an appeal, upheld by the decision of the Higher Commercial Court in Banja Luka dated 14 Nov 2014, revoking the first instance decision and returning the case to the first instance court for retrial. In the retrial, the District Commercial Court issued the above-mentioned decision of 4 May 2021 by which the defendant was again rejected and requested to reimburse the litigation costs. The defendant filed a new appeal on 19 May 2021, which was rejected by the final decision of the Higher Commercial Court in Banja Luka, No. 57 0 Mals 094843 21 Pž 2 dated 16 Nov 2021;

- Following the judgement of the Administrative Disputes Council of the Court of BiH, No: S1 3 U 033547 19 U dated 13 May 2021 adopted was the lawsuit dated 13 Sept 2021 of the plaintiff "NOVA TV" d.d. Zagreb, Croatia, represented by attorneys Maida Čampara and Mirsad Crnovršanin from Sarajevo, lawyers from Sarajevo, and revoked was the Agency Council's decision No. UP2: 03-29-7-5/19 of 25 June 2019, refusing the plaintiff's appeal against the first instance decision No. UP1: 03-29-5-379/19 of 5 March 2019 and the case was returned to the Agency for retrial, and the plaintiff was to be reimbursed for costs of the administrative procedure. The first-instance conclusion did not recognize the plaintiff as an interested party in the proceedings, ex officio, against Elta - Kabel d.o.o. Doboj;
- Following the judgement of the Administrative Disputes Council of the Court of BiH, No: S1 3 U 033549 19 U dated 8 June 2021, the lawsuit dated 13 September 2019 was adopted by the plaintiff United Media S.a.r.l Luxembourg represented by attorneys by attorneys Maida Čampara and Mirsad Crnovršanin, lawyers from Sarajevo, annulled was the decision of the Agency Council, No. UP2: 3-29-4-379/19 of 25 June 2019 refusing the plaintiff's appeal against the first instance decision No. UP1: 03-29-5-956/18 of 5 March 2019 and the case was returned to the Agency for retrial, and the plaintiff was to be reimbursed for costs of the administrative procedure. The first-instance decision did not recognize the plaintiff as an interested party in the proceedings, ex officio, against Elta - Kabel d.o.o. Doboj;
- Following the Judgement of the Court of BiH, No. S1 3 P 035137 20 P of 1 May 2021, following the lawsuit of 18 March 2020 by the plaintiff Grant Thornton d.o.o. Banja Luka represented by attorneys Zoran Bubić and Bojana Bubić - Duka, lawyers from Banja Luka, against the Agency, represented by the Office of Attorney General of Bosnia and Herzegovina, the lawsuit being filed to claim the debt (BAM 136,539.00) following the concluded Contract on procurement of services for the development and implementation of accounting separation and cost accounting methodology in 2017, the plaintiff's claim was accepted regarding the defendant's obligation to pay the plaintiff the total amount of BAM 136,539.00 with statutory default interest on the principal debt as of 30 Jan 2020 until the final payment, as well as to reimburse the costs of litigation totalling BAM 14,982.12. Regarding the request for payment of legal default interest on the awarded amount for the period 8 Nov 2019 - 30 Jan 2020, the claim was rejected. On 21 June 2021, the Agency filed an appeal against the aforementioned verdict through the Attorney General's Office of BiH;

- Following the judgement of the second instance Council of the Court of BiH, No. S1 3 P 035137 21 Pž dated 13 Sept 2021, the appeal of the Agency against the first instance judgement No. S1 3 P 035137 20 P dated 21 May 2021 of the same Court was rejected, and the disputed part of the first instance judgement (see the previous paragraph for more details) was confirmed.
- Following the judgement of the Administrative Disputes Council of the Court of BiH, No: S1 3 U 035020 20 U dated 21 Sept 2021, refused was the lawsuit of the plaintiff JP Radio Televizija Republike Srpske, represented by attorney Saša Grabež, a lawyer from Banja Luka, against the conclusion of the Agency Council, No. UP2: 03-29-7-8/19 of 20 Nov 2019 rejecting as unfounded the plaintiff's appeal against the first instance decision, No. 03-29-5-814/18 of 2 July 2021, with the modification of the originally imposed fine of BAM 25,000.00. The first-instance decision imposed a single fine of BAM 35,000.00 on the plaintiff for violating Article 5 (2) and (3) of the Code of Conduct on Audiovisual Media Services and Radio Media Services (Official Gazette of BiH, 3/16) and Articles 16.2, 16.3 and 16.4 of the Law on Elections of Bosnia and Herzegovina;
- Following the Judgement of the Court of BiH, No. S1 3 P 036619 20 P of 15 Oct 2021, in civil proceedings following the lawsuit of the plaintiff Predrag Kovač represented by attorneys Edina Jahić and Sanja Bećirović - Zijadić, lawyers from Sarajevo, against the defendant Bosnia and Herzegovina - Council of Ministers at al., represented by the Office of Attorney General of Bosnia and Herzegovina, and intervenor Draško Milinović, represented by attorney Bogdan Golubović, a lawyer from Banja Luka, in order to annul the Decision of the Council of Ministers of BiH confirming the appointment of the Director General of the Communications Regulatory Agency, the plaintiff's claim was rejected as unfounded and paying the costs of the proceedings was imposed. On 1 November 2021, the attorneys filed the plaintiff's appeal against the aforementioned judgement, which the BiH Attorney's Office submitted to the Agency in response on 10 November 2021. Following the second instance judgement of the Court of BiH, No. S1 3 P 036619 21 Gž of 8 Dec 2021, the appeal was rejected and the first instance verdict confirmed;
- Following the judgement of the Appellate Division of the Court of BiH, No. No. S1 3 U 035020 20 U dated 21 September 2021, filed by JP Radio Televizija Republike Srpske, represented by attorney Sasa Grabež, a lawyer from Banja Luka, dated 13 October 2021 S1 3 U 035020 21 Uvp of 15 November 2021, the extraordinary legal remedy was rejected - the request for review of the court decision, i.e., the first instance judgment of the same Court, (for more details, see para. I.15) I.15);
- Following the decision of the Administrative Disputes Council of the Court of BiH, No. S1 3 U 041637 21 U dated 9 Sept 2021 rejected was the request dated 13 Sept 2021 of the following plaintiffs: 1) Nova BH d.o.o. and 2) Radio i televizija BN d.o.o. Bijeljina, represented by attorneys Nihad Sijerčić and others, lawyers from Sarajevo, to postpone the application of the Rules amending Rule 77/2015 on the provision of audio-visual media services until the end of the administrative dispute (for more details, see para. I.16). The proceedings are in progress

Polazeći od naprijed navedenog, predlaže se Vijeću ministara Bosne i Hercegovine da, nakon razmatranja Godišnjeg izvješća Regulatorne agencije za komunikacije za 2021. godinu, donese slijedeći:

### **ZAKLJUČAK**

1. Usvaja se Godišnji izvještaj Regulatorne agencije za komunikacije za 2021. godinu.





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