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1. ANCOM President's message

One year in 365 words



Looking back on 2015, it seemed a very short year at ANCOM. Critics would say this perception was due to our slow speed of reaction to rapid market developments, while supporters could confirm that time condensed under the pressure of the Authority's many projects and activities.

Truth is, we had numerous projects that required intensive efforts on all our action lines. Regular activities, such as monitoring the services and the equipment markets, the interconnection and authorisation management or the providers' control – despite the fact that they are essential to a functional market – competed for resources with particular improvement initiatives, such as those of the regulations on user information, on the protection of disabled users, of enhanced allocation of the numbering resources and of improving the portability system, or that of cost analyses for the universal postal service.

In 2015, we organised two spectrum auctions resulting in the award of 17 DTT multiplexes and 255 MHz for broadband fixed or mobile communications networks in the 3.5 GHz and 3.7 GHz bands, whereas in the second half of last year, upon the adoption of the national sector policies, we started an ambitious strategic analysis project envisaging the digital communications sector up to 2020.

By all means, last year's spearhead activity was the analysis of competition in the markets for fixed Internet access provision in unguaranteed band and for access to the associated infrastructure elements. An exhaustive, detailed and time-consuming analysis of the competition environment in the field of internet access, in all Romania's localities, confirmed once more the competitiveness of the Romanian market and its upward trend, therefore we withdrew all the existing regulatory obligations in the said markets. This analysis is noteworthy considering both its complexity and effect, and the fact that it sets a strong precedent on the European level, Romania being the first country that has removed all the regulations as regards last mile internet access infrastructure.

2016 seems to be as an even busier year, but I am convinced that the results of our work will keep us motivated – me and my colleagues alike – to deliver best quality public management and regulation services for the communications sector in Romania.

2. ANCOM – mission and objectives



The National Authority for Management and Regulation in Communications is the institution that protects the interests of the communications users in Romania, by promoting competition in the communications market, ensuring the management of scarce resources and encouraging innovation and efficient investments in infrastructure.

Through our activity, we aim at ensuring that all the users in Romania benefit from quality communications services, at fair prices, and that the operators develop based on innovation, while the Authority's employees are trusted and respected, due to their professionalism, responsibility and integrity.

In 2015, ANCOM's main strategic objectives were, mainly: improving the performances of electronic communications networks, enhancing the take-up of broadband internet access services, optimise the usage of the scarce resources within ANCOM's scope of competence, greater benefits and freedom of choice for the end users of electronic communications services and fostering the development of the postal services market.

With a view to fulfilling these objectives, ANCOM's action plan for 2015 included actions and projects such as: continuing the implementation of the infrastructure

law, the multiannual project for a national inventory of the public electronic communications networks and of the associated infrastructure elements, or reviewing the relevant markets corresponding to leased lines-terminating segments. For the efficient management of radio spectrum, the plan provided organising the auction for awarding the rights of use in the 3.4-3.8 GHz band and the auction for the unawarded national multiplexes and for the regional and local multiplexes.

Moreover, the Authority planned a control campaign in 2015 aimed at checking the compliance of the providers of publicly available electronic communications services with the minimum obligations they must insert in the contracts concluded with the end-users and a campaign for verifying the electronic communications providers' compliance with the obligations of informing the end-users.

3. Electronic communications

3.1 Electronic communications market in 2015

3.1.1 General authorisation

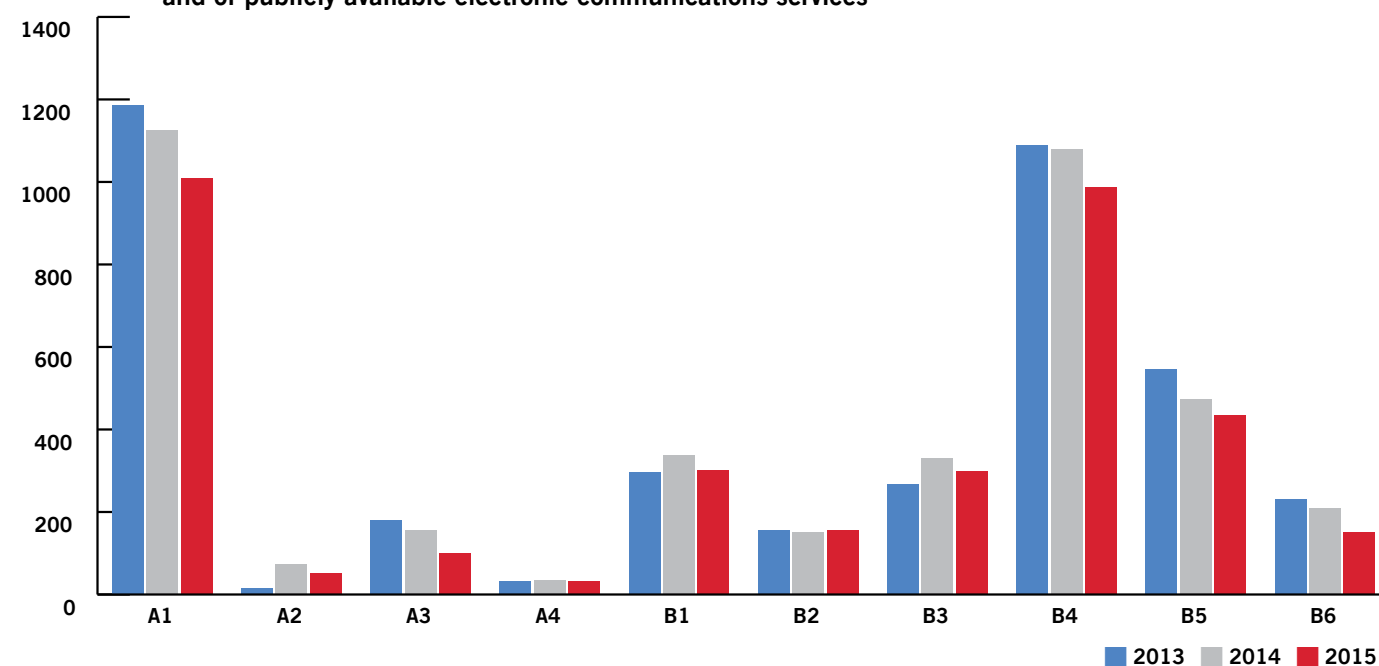
Persons who intend to provide public electronic communications networks or publicly available electronic communications services on the territory of Romania can proceed to this upon submitting – free of charge – a notification in accordance with the provisions of ANCOM President's Decision no.987/2012 on the general authorisation regime for the provision of electronic communications networks and services. Following more than 98% of the notifications, the Authority issued – within the due term – the Standard Certificate authorizing the provision of communications networks and services.

On 31 December 2015, the **Public Record of Electronic Communications Providers** indicated 1,202 providers of public electronic communications networks or publicly available electronic communications services,

13% less compared to the level registered in 2014. The number of providers authorised to provide public electronic communications networks dropped as well, by 14%, while the number of those authorised to provide publicly available telephony services decreased by 11%. Accordingly, the number of providers authorised to offer services of linear audio-visual programme retransmission to the end-users went down by 8% and the number of persons authorised to provide internet access services diminished by 8.5%, compared to 2014.

The decline registered was partially determined by the cessation of commercial activity in the Trade Registry of a number of entities authorised to provide public electronic communications networks or publicly available electronic communications services, i.e. 2% of all the providers, as well as to the sanctions of withdrawing the right to provide public electronic communications networks or publicly available electronic communications services applied by the Authority to 2% of all the providers, due to failure to comply with their legal obligations. (Exhibit 3.1)

Exhibit 3.1 Evolution of the number of providers (FRSCE) by types of public electronic communications networks and of publicly available electronic communications services



Types of electronic communications networks and services

A1 Public terrestrial networks with access at a fixed location or with limited mobility	B2 Leased line services
A2 Public cellular mobile radio networks	B3 Data transmission services
A3 Public access mobile radio networks	B4 Internet access services
A4 Satellite access public networks	B5 Retransmission of linear audio-visual media programmes to the end-users
B1 Publicly available telephony services	B6 Other electronic communications services

3.1.2 Statistical data

3.1.2.1 Fixed telephony

ANCOM's data regarding the fixed telephony services show a downward trend both in the number of access lines (-6%, reaching 4.27 million) and, respectively, in the number of subscribers (-6% to 3.71 million), as well as in the volume of the voice traffic achieved. On 31 December 2015, the fixed telephony penetration rate at population level was 21.5%, whereas the penetration rate at household level was 46.5% per 100 households.

The voice traffic achieved on the fixed networks in the first half of 2015 amounted to 3.8 billion minutes, 16% lower than the previous year. Thus, the voice traffic to fixed networks dropped by 18% to 2.5 billion minutes, traffic to mobile public networks decreased by 14% to 1 billion minutes, whereas outgoing cross-border traffic diminished by 11%, to 286 million minutes.

In 2015, the monthly average of originated traffic over an access line amounted 1 hour and 12 minutes, down by 10 minutes compared to the average of 2014, the average duration of a call being 3 minutes and 6 seconds.

Table 3.1 Dynamics of the number of access lines/subscribers to fixed telephony services¹ during 2013 – 2015. Fixed telephony penetration rates at the population/household level

Indicator	31.12.2013		31.12.2014		31.12.2015	
	subscribers	lines	subscribers	lines	subscribers	lines
Total no of access lines/subscribers (mil.), of which:	4.04	4.71	3.96	4.56	3.71	4.27
- alternative providers (mil.)	1.93	2.32	1.90	2.24	1.90	2.27
Access lines/subscribers dynamic (%)	-	-	-2.0	-3.2	-6.2	-6.4
Fixed telephony penetration rate per 100 inhabitants (%) ²	23.5		22.9		21.5	
Fixed telephony penetration rate per 100 households (%) ³	51.0		49.9		46.5	

3.1.2.2 Mobile telephony

By the end of 2015, 23.1 million people were actively using mobile telephony services, a 1% rise compared to 2014. It should be noted that the number of subscription based users continued to rise to 10.7 million (+8%), whereas the active prepaid cards number fell by 5% (to 12.5 million). The penetration rate of mobile telephony services per 100 inhabitants reached 116.4% by the end of 2015.

Although the number of mobile telephony users is constant, the total traffic achieved rose by 4% in 2015 compared to 2014, to almost 70 billion minutes. Significant rises were recorded in international traffic (+76% to 3.7 billion minutes) and traffic to other mobile telephony networks (+64% to 14.9 billion minutes), the latter case being determined by an increase in lucrative offers on the retail market which contain national minutes, as a result of ANCOM intervention on the wholesale market by regulating the maximum value of termination tariffs in mobile networks. Traffic

to fixed networks rose by 3%, whereas on-net traffic decreased by 9%.

In 2015, over 20 billion SMS were sent, 3% more than in 2014, 85% of these being sent in their own network. Over half of the voice traffic and 40% of the SMS traffic is made by subscription based users.

The average call duration on a mobile terminal in 2015 rose to 2 minutes 32 seconds, while the average monthly voice traffic by an active user was 4 hours 13 minutes, 7 minutes more than the monthly average in registered in 2014. Such active user sends an average of 74 SMS per month.

As regards roaming services, voice traffic continues to register a significant increase by 63%, exceeding 1 billion minutes (of which 361 million minutes were outgoing calls and 690 million incoming calls), while traffic of outgoing roaming SMS rose by 5%, to 129 million SMS. Roaming data consumption also

¹ Through own fixed networks, respectively by access to the local loop; including lines installed for providing fixed telephony services by means of telecentres, access lines/subscribers by managed VoIP technology, „homezone/officezone“ access lines/subscribers; in the calculation of the total number of access lines, ISDN lines were multiplied by the corresponding number of channels (2 channels for ISDN-BRA lines and 30 channels for ISDN-PRA lines);

² Fixed telephony penetration rate per 100 inhabitants = total no. of telephone lines/Romania's population*100; Romania's population, based on NSI estimates: 20,020,074 on 01.01.2013, 19,947,311 on 01.01.2014, respectively 19,870,647 as of 01.01.2015;

³ Fixed telephony penetration rate per 100 households = no. of telephone lines corresponding to residential end-users/total no. of households in Romania*100; no. of households, based on NSI estimates: 7.481.155;

Table 3.2 Dynamics of the total number of „users” („active” SIM cards) during 2013 – 2015.
Mobile telephony penetration rates.

Indicator	31.12.2013	31.12.2014		31.12.2015	
	mil.	mil.	evol. (%)	mil.	evol. (%)
Total number of users (subscribers and „valid” prepaid card users) ⁴ . of which:	25.5	25.2	-1.3	26.2	+4.1
Total number of „active” users (subscribers and „active” prepaid card users) ⁵ . din care:	22.9	22.9	+0.01	23.1	+0.9
- subscription based users. of which:	9.4	9.8	+4.9	10.7	+8.3
- residential subscribers	6.4	6.9	+8.4	7.8	+12.3
- business subscribers	3.0	2.9	-2.5	2.9	-1.2
- „valid” prepaid card users. of which:	16.1	15.3	-4.9	15.5	+1.4
- „active” prepaid card users	13.5	13.1	-3.4	12.5	-4.7
Penetration rate of „valid” SIM cards. per 100 inhabitants ⁶ (%)	127.2	126.1		131.7	
Penetration rate of „active” SIM cards. per 100 inhabitants ⁷ (%)	114.5	114.9		116.4	

rose significantly, three times, from 202 thousand GB in 2014 to 606 thousand GB in 2015.

3.1.2.3 Internet access services

4G connections number increased by more than three times and a half in 2015, from less than 800,000 in 2014 to 2.7 million in 2015.

By the end of 2015, in Romania there were 14.7 million mobile broadband connections, growing by 22% per year. Mobile broadband internet penetration rate per 100 inhabitants reached 74%, an increase by more than 13 p.p. compared to 2014.

Of the 14.7 million mobile broadband connections, 9 million were subscription-based (40% increase over the last year) and 5.7 million were based on prepaid cards i.e. only 1% increase.

Total traffic achieved by these connections doubled in 2015, from 46 thousands TB in 2014 to 99 thousand TB in 2015. Also, the average monthly traffic per connection rose from 0.26 GB to 0.48 GB.

By the end of 2015, the number of fixed broadband connections rose by more than 300,000, mainly ultra-high speed connections. More than half of the 4.3 million fixed broadband connections allow transfer speeds of over 100 Mbps. The traffic achieved through

these connections reached a total of 4.5 million TB, while the average monthly consumption per user reached 91 GB.

Out of the fixed broadband connections, 52% enable speeds of at least 100Mbps -, propelling Romania among the European top performers regarding the share of high speed connections out of the total number of connections. 14% connections enable at least 30Mbps - up to 100Mbps, 20% enable at least 10Mbps – up to 30Mbps, 13% enable at least 2Mbps – up to 10Mbps, the rest of 1% enabling less than 2Mbps. One can remark an ever growing trend of installing fixed internet access connections in rural areas, i.e. by 6.8% (to 1.17 million), while urban connections increased by 5.9% (to 3.1 million connections).

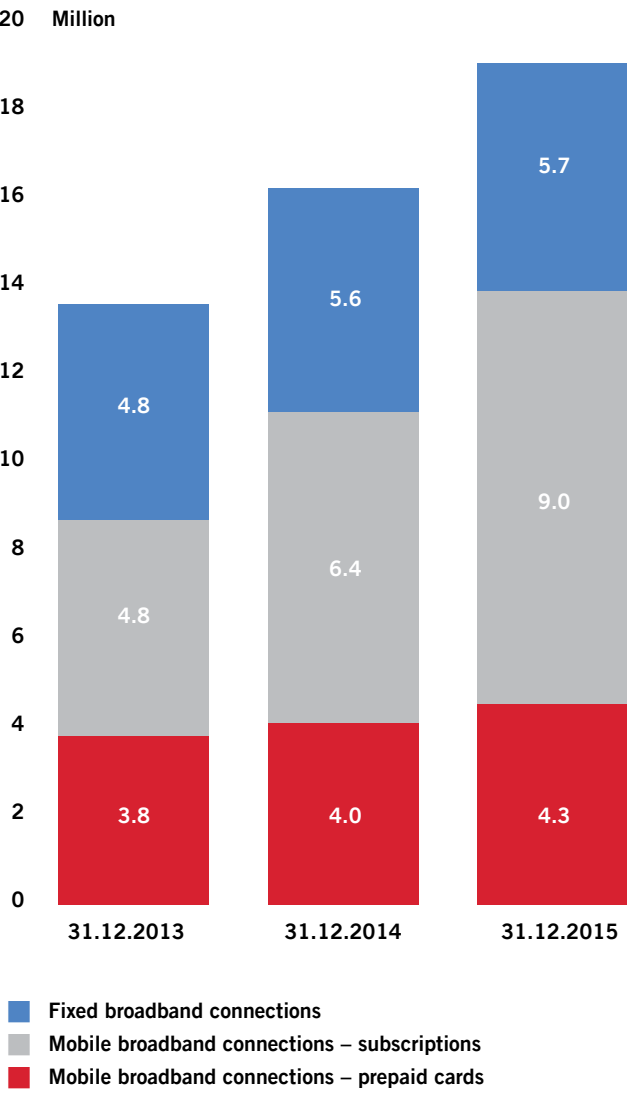
Regarding end-user access infrastructure, at the end of 2015 we witness growth in the number of FTTH connections, which reached 428 thousand (+196%), and of radio, satellite, mobile networks connections which reached 144 thousand (+151%). At the same time, due to the natural trend in upgrading optical fibre networks and investments in new technologies, the xDSL and FTTx connections with end-user access by coaxial cable dropped by over 5% but they continue to have the biggest share out of the total number of broadband internet access connections – FTTx with UTP/FTP cable access 50% and xDSL 23%.

⁴ Valid” prepaid cards represents the number of SIM cards (corresponding to prepaid cards), valid at the end of the reporting period;
⁵ Active prepaid cards represents the number of SIM cards (corresponding to prepaid cards), valid at the end of the reporting period, excluding the number of SIM cards by means of which no chargeable traffic (initiating/receiving calls/SMS services/MMS services/mobile Internet access services was achieved by the end of the reporting period;
⁶ „Valid” SIM cards penetration rate per 100 inhabitants = no. of „valid” SIM cards / population of Romania*100; population of Romania, based on NSI estimates: 20,020,074 on 01.01.2013, 19,947,311 on 01.01.2014 and 19,870,647 on 01.01.2015.;
⁷ Includes fixed Internet access connections provided for a charge, corresponding to the number of internet service subscriptions;

Table 3.3 Dynamics of the number of internet access connections. by connection type: 2013 – 2015

Indicator	31.12.2013	31.12.2014		31.12.2015	
	mil.	mil.	Yearly evolution (%)	mil.	Yearly evolution (%)
FIXED CONNECTIONS ⁸					
Fixed broadband internet access connections ⁹	3.8	4.0	+6.5	4.3	+6.1
ACTIVE MOBILE CONNECTIONS ¹⁰					
Active connections by HSCSD. GPRS. EDGE. CDMA. EV-DO. 3G. 4G. of which:	13.6	16.2	+18.4	18.7	+15.9
- active broadband connections by EDGE. CDMA. EV-DO. 3G. 4G. of which	9.6	12.0	+24.7	14.7	+22.3
- Subscription based	4.8	6.4	+33.3	9.0	+39.9
- Prepaid cards based	4.8	5.6	+17.3	5.7	+1.0

Exhibit 3.2 Structure of the number of broadband internet access connections, by connection type: 2013 – 2015



3.1.2.4 Audio-visual programme retransmission

By the end of 2015, there were over 7 million subscribers to paid audio-visual programme retransmission services in Romania, a 4% growth compared to the end-2014. Of these, nearly 4.6 million are cable network subscribers, 2.4 million are satellite networks (DTH) subscribers and 80 thousand are IPTV subscribers. The penetration rate at the household level exceeded 94%, according to the data the providers reported to ANCOM.

65% of all the subscribers to retransmission services received TV programmes by means of cable networks, i.e. 4.4 million (+3.8% compared to 2014), while 34% of the subscribers, i.e. 2.4 million (+4.3% compared to 2014), benefitted from TV programmes provided through DTH satellite networks. 80 thousand subscribers (+26% compared to 2014), respectively only 1% of all the subscribers, received these programmes through IP technology.

Based on residence area, in 2015, 60% of the more than 7 million subscribers lived in urban areas, while 40% lived in rural areas. Most of the subscribers in the urban area (81%) benefitted from services via cable networks, 17% by means of DTH satellite networks, respectively 2% through IP technology. In rural areas, most of the subscribers, almost 60%, received TV programmes by means of DTH satellite networks, 40% through cable networks, IP subscribers amounting to a negligible value (0.2%).

⁸ Includes fixed Internet access connections with a speed above 144 kbps; Fixed Internet access connections were reported by „best-effort” speed (the maximum speed which may be reached at a given time), specified in the contracts concluded with the end-users, namely, the operators reported the connections for which the channel bandwidth is not guaranteed, but varies due to endogenous or exogenous factors (number of users, traffic achieved, atmospheric conditions etc.); where the contracts concluded with the end-users for the symmetrical band connections specify only the guaranteed speed, the respective connections were reported depending upon it;
⁹ Includes internet access connections provided for a charge, at mobile locations, corresponding to the number of subscriptions to internet services, to the number of active mobile telephony users that had paid for a data extra-option, to the number of prepaid cards for the exclusive access to the internet and, respectively, to the number of subscription/prepaid card -based users of mobile telephony that achieved chargeable data traffic/accessed at least once, for a charge, the internet access services during the reporting period, when activating, free of charge, the data option, by default or upon request;

Table 3.4 Dynamics of the number of subscribers to audio-visual programme retransmission services – overall level and itemised by reception support, respectively, dynamics of the corresponding penetration rates: 2013 – 2015

Indicator	31.12.2013	31.12.2014		31.12.2015	
	mil.	mil.	evol. (%)	mil.	evol. (%)
Total no. of subscribers to audiovisual programme retransmission services, of which:	6.43	6.78	+5.4	7.07	+4.2
No. of subscribers to retransmission services provided on cable networks	4.13	4.39	+6.4	4.56	+3.8
No. of subscribers to services provided on satellite networks (DTH) ¹⁰	2.25	2.33	+3.3	2.42	+4.3
No. of subscribers to services provided over the IP technology (IPTV)	0.05	0.07	+23.5	0.08	+25.7
The penetration of the audiovisual programme retransmission services per households ¹¹ (%)	85.9	90.6		94.4	
The penetration of the audiovisual programme retransmission services per households provided on cable networks ¹² (%)	55.2	58.7		60.9	
The penetration rate of the audiovisual retransmission services provided on satellite networks per households (DTH) ¹³ (%)	30.1	31.1		32.4	
The penetration rate of the audiovisual retransmission services provided over the IP technology (IPTV) networks per households ¹⁴ (%)	0.72	0.88		1.11	

3.1.2.5 Multiple services, value-added services and other communications services

The number of users that benefitted from several electronic communications services from one provider (2-play, 3-play, 4-play, 5-play) increased by 7%, from 4.5 million in 2014 to 4.8 million in 2015.

Concerning calls to value-added services and other services in the retail market, in 2015, one can remark traffic decreases from both fixed and mobile networks to national non-geographic numbers in the OZ = 08 domain, whereas traffic to national non-geographic numbers on the OZ = 09 domain increased.

3.1.3 Market surveys on end-users

With a view to conducting the analysis for identifying the relevant markets in the electronic communications sector, for broadband internet access services and for access to infrastructure elements, ANCOM undertook four market surveys on end-users of fixed and mobile internet access services – business and residential. The surveys were mainly aimed at assessing the services used and the providers chosen, the past behaviour and future intentions, usage approaches and habits, respectively the degree of substitutability of the analysed services.

Table 3.5 Dynamics of the number of users of multiple electronic communications services¹⁶ that benefitted from at least one electronic communications service provided at fixed locations in 2013-2015.

Indicator	31.12.2013	31.12.2014		31.12.2015	
	thousand	thousand	evol. (%)	thousand	evol. (%)
Total number of users of multiple electronic communications users*, of which:	4,133	4,509	+9.1	4,822	+6.9
- 2-play	1,860	1,942	+4.4	1,900	-2.2
- 3-play, 4-play, 5-play	2,272	2,567	+13.0	2,923	+13.8

*excluding telephony, respectively mobile internet access provided as a bundle/as tied services/as individual services to one user.

¹⁰ DTH services subscribers based on prepaid cards inactive for a maximum 90-day period were also taken into consideration;

¹¹ The penetration rate of the audiovisual programme retransmission services per 100 households = total no. of subscribers to audiovisual programme retransmission services/no. of households in Romania*100; no. of households in Romania, based on NSI data: 7,481,155;

¹² The penetration rate of the audiovisual programme retransmission services, provided on cable networks, per 100 households = no. of subscribers to audiovisual programme retransmission services, provided on cable networks/no. of households in Romania*100; no. of households in Romania, based on NSI data: 7,481,155;

¹³ The penetration rate of the audiovisual programme retransmission services, provided on satellite networks, per 100 households = no. of subscribers to audiovisual programme retransmission services, provided on satellite networks/no. of households in Romania*100; no. of households in Romania, based on NSI data: 7,481,155;

¹⁴ The penetration rate of the audiovisual programme retransmission services, provided over the IP technology, per 100 households = no. of subscribers to audiovisual programme retransmission services, provided over the IP technology /no. of households in Romania*100; no. of households in Romania, based on NSI data: 7,481,155;

¹⁶ For multiple services, we considered the indicators corresponding to the users that benefit from two or several electronic communications services from one provider, irrespective of whether they fulfil the conditions for bundles and, respectively, for tied services. Thus, for this category we took into account the users subscribing to two or several electronic communications services from one provider, irrespective of whether those services had been purchased together or separately;

Exhibit 3.3 Structure of the volume of traffic from calls to value-added services and other services in the retail market, by means of fixed public networks in Romania, by call destination: H I 2013 – H I 2015

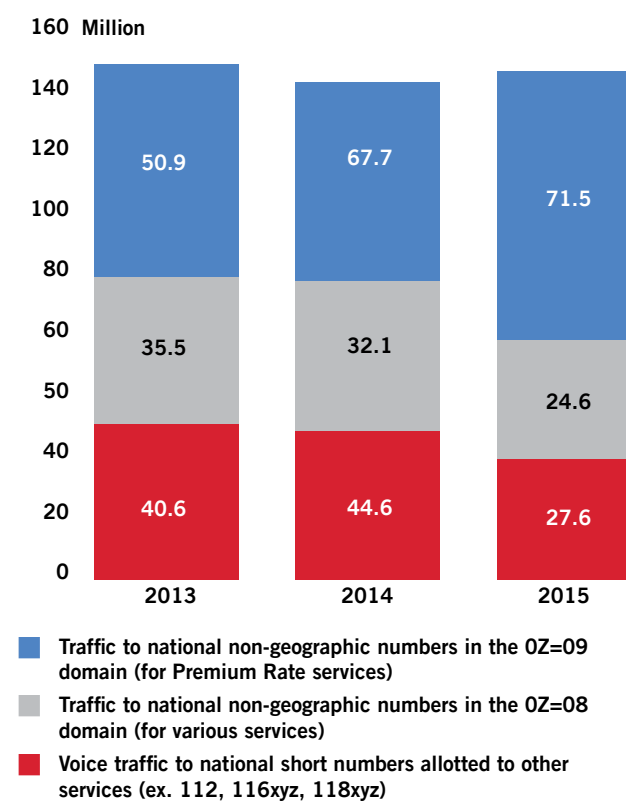
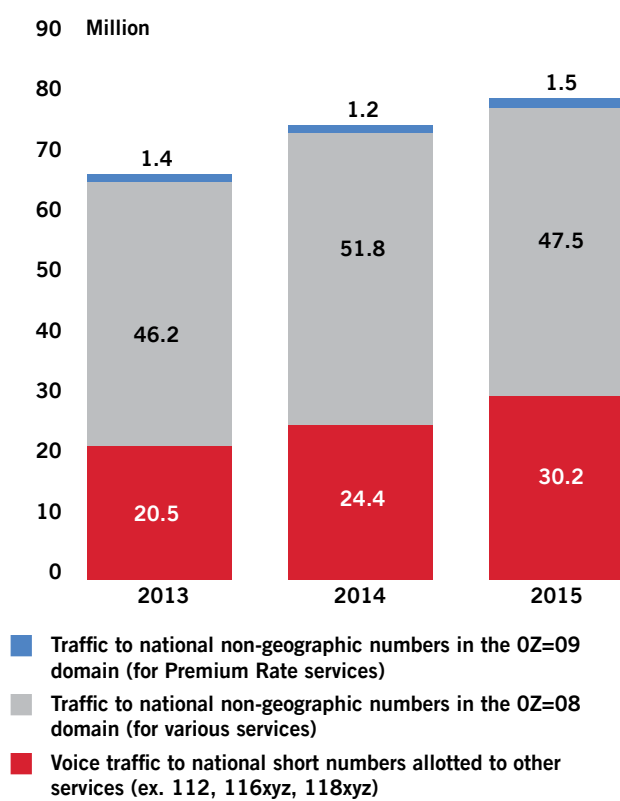


Exhibit 3.4 Volumes of traffic from calls to value-added services and other services in the retail market, by means of public mobile networks in Romania, by call destination. Evolution: H I 2013 – H I 2015



The market surveys on the users of fixed internet access services – business and, respectively, residential ones – were conducted by Mercury Research, between November 2014 and March 2015, on nationally representative samples (1,469 persons, respectively 1,499 companies) and feature a margin of error of +/-2,6%, at a confidence level of 95%.

The two market surveys on the mobile internet access users – business and, respectively, residential ones – were conducted by International Consulting Expertise together with CCSAS, on nationally representative samples (1,549 residential users, respectively 1,640 business users) in Romania that use mobile internet access services, with a margin of error of +/-2.5%, at

a confidence level of 95%.

3.1.3.1 Fixed and mobile internet access usage – residential users

The market survey on residential end-users revealed that internet access service usage is mainly determined by the end-users' need/desire to stay informed, to communicate, to relax, respectively to perform online transactions. Thus, as regards the need for information, the survey showed that 90% of the fixed internet users in Romania use their internet connection at home in order to find information, read news and stay posted with various events, whereas 77% of them use it for accessing social networks. Regarding the communication

need, 75% of the residential users use the fixed internet to communicate with their family or friends, while 71% of them – to send and receive e-mails. Leisure activities rank third in the areas of interest for which Romanians use their fixed internet at home, as 61% of the respondents watch online TV programmes, videos or movies, 52% of them play online games and 49% download games, music, movies, documents. Nevertheless, the survey indicates that fewer Romanians use the internet for online shopping (39%), and for banking transactions or invoice payments via Internet Banking (22%).

Concerning the usage frequency, a Romanian uses his/her internet at home, on average, 24 days a month. 74% of the respondents access the internet on a daily or nearly daily basis (90%, in the 16-24 year-old category), while 16% declare that they use it 2-3 times a week, and 4% - once a week. The rest of 6% either use the fixed internet at home several times a month or more rarely, or have chosen not to answer the question.

When it comes to terminal choice for the fixed internet at home, the survey shows that in 72% of the households, Romanians use a PC/desktop, 61% use a laptop/netbook, whereas 43% access this service on a smartphone and 32% on a tablet. A further device by means of which fewer residential users have started accessing the internet is represented by Smart TV sets, used in 9 % of the households.

When choosing an internet connection, the main criterion taken into account by the users is the financial one, 66% of the Romanians weighing considerably the subscription price. Moreover, they are interested in the connection reliability: 62% of them mention it as a second criterion for their choice, and 48% take into consideration the maximum transfer rates offered by a provider as the third most important criterion.

Romanian users pay - on average - RON 34 per month for their individually purchased fixed internet service at home. The data show that 47% of the respondents pay a monthly invoice amounting from RON 31 to RON 50, 34% pay from RON 20 to RON 30 per month, whereas 11% of them pay less than RON 20. Only 8% of the respondents declared to have a contract for such services exceeding 51 RON.

As regards the residential users' choice to purchase

fixed internet access services together with other electronic communications services from one provider, in 82% of the households, fixed internet services were purchased together with the TV service, in 56% with the fixed telephony service, respectively in 19% - with the mobile telephony, and with the mobile internet services - in 13% of these. Concerning the purchase of bundles, 91% of the households benefit from bundles including fixed internet and TV services, 64% - fixed internet and fixed telephony, respectively 20% fixed internet and mobile telephony, and 13% - fixed and mobile internet services. Residential users of bundled fixed internet access services pay, on average, RON 70 per month. The main reason why the users prefer a bundle offer instead of individual services is the lower total price, as mentioned by 64% of the respondents. Furthermore, for 42% of the respondents, bundled services are easier to use and to pay.

Most respondents (85%) declare to be satisfied with the fixed internet connection they currently use, 77% of them considering that they can easily contact the Customer Service, in case of connection failure.

As regards the contracted speed, at a national level, 20% of the households benefit from speeds up to 50Mbps, whereas 42% of them have contracted speeds above 50Mbps. The most frequently contracted speed is 100 Mbps. 46% of the urban households feature speeds above 50 Mbps on their fixed internet connection, compared to 32%, in rural areas.

Concerning the availability of mobile terminals in the Romanian households, the survey on the residential users of mobile internet access services indicated that 36% of the households in Romania there is at least one tablet (with an average of 1.1 tablets/household). Moreover, 73% of the households have at least one smartphone (1.5 per household, on average), 55% have at least one laptop or notebook and in 85% there are available mobile telephones, respectively PC/desktops in 61% of them.

As for the usage of mobile internet access services, 50% of the Romanians have access to mobile internet by means of their mobile telephone, based on a telephony subscription with included internet traffic, 9% – by their mobile telephone/smartphone, with a monthly mobile internet option, and only 1% use the internet by means of their mobile telephone/smartphone with payment based on consumption unit.

Moreover, 35% access the internet by their mobile telephone based on a prepaid telephone card with a monthly option for mobile internet, respectively 2% chose to use the internet via a mobile telephone/smartphone with a prepaid telephone card and payment per consumption unit. Regarding the Romanians that access the internet by means of a stick or by a subscription-based USB card, 25% have a subscription, 6% have activated a monthly option and only 1% use a prepaid card for such services. On overall, 67% of the subscription-based users of internet by mobile telephone/smartphone, 70% of users of internet by mobile telephone/smartphone based on prepaid cards, respectively 45% of the users of mobile internet via tablets/USB cards for laptops/PCs feature limited internet traffic, whereas the rest benefit from unlimited traffic, with/without certain restrictions.

For mobile internet services, on average, Romanian users pay RON 58, for individually purchased services, and RON 109 for a bundle containing mobile internet services. Most users pay from RON 23 to RON 45 for an individual service (42%), and, for a service bundle - more than RON 90 (48%).

Furthermore, the survey revealed that Romanians are generally satisfied with their current mobile internet service provider, only 5% of them switching operators in the past year. Among the reasons why the users switch providers, one can notice the will to benefit from a more advantageous bundled service offer (24% of the respondents who gave up their mobile internet service provider in the past year), the preference for offers facilitating the purchase of a new mobile device (mobile telephone/smartphone, tablet or laptop) (17%), the volume of included traffic (17%) and the coverage area that did not answer the users' needs (13%, especially in rural areas).

3.1.3.2 Fixed and mobile internet access usage – business users

The results of the two market surveys conducted for ANCOM with the aim of identifying the business users' consumption behaviour for fixed, respectively for mobile internet services, reveal that mobile internet is used, as well, in 77% of the companies and public institutions that use fixed internet services, and that 91% of the companies that use mobile internet also use fixed internet services.

Regarding the business users of internet access services provided both at fixed locations and at mobile locations, according to the survey on the fixed internet usage, 64% of the respondents generally use the fixed connection installed in the company/institution premises, 18% use the two services equally, only 3% of them preferring mobile internet over the fixed one. Mobile internet is usually accessed when the users go on business trips, when they work on site or travel (57%), or when the fixed internet is out of order (19%).

Business users access the fixed internet especially for e-mail (98%), browsing (87%) and online banking (79%). The main criteria for choosing a fixed internet provider are the availability of the Customer Relations service and the fault repair term (84% of the respondents consider that this is very important or fairly important, this percentage reaching even 94% in companies with more than 50 employees), followed by the subscription price (82%), by the maximum transfer rate (77%) and by the provider's possibility to offer a service bundle including fixed internet services at advantageous tariffs (77%).

A company holds, on average, 10.4 devices capable of ensuring fixed internet access, but only 8.6 of them are actually connected to the internet. Most companies and institutions access the fixed internet from a PC/desktop (85%), from a laptop/notebook (75%) and from a tablet (34%).

Almost three quarters of the respondents (73%) declare that they have not changed anything in the past 12 months as regards the fixed internet services used in the company/institution. Only 8% gave up their provider, and 20% changed the flat rate or tariff plan, while keeping the provider. Furthermore, more than two thirds of the respondents (69%) declared they were willing to keep their fixed internet subscriptions in the next 12 months.

The survey on the mobile internet usage among business users reveals that, in 92% of the companies concerned, this service is accessed by means of a telephone/smartphone with a subscription to mobile telephony, 6% by means of a telephone/smartphone with a prepaid card, while 36% use tablets or USB sticks on their PC/laptop. Tablets/USB sticks are used mainly in companies with a turnover of at least EUR 1 million (64%), as well as in those with at least 50 employees (41%). On average, the organisations in

Romania hold approximately 6 SIM cards connected to mobile internet.

88% of the employees use the mobile internet on a daily or a nearly-daily basis, and in only 4% of the companies, it is used 2-3 times a month. The employees of small companies, commercial enterprises or public institutions answered in a greater share to use the mobile internet occasionally. However, no less than 76% of them use the mobile internet on a daily or almost daily basis. Mobile internet is mainly accessed for e-mail, browsing and file transfer, irrespective of the connection means used.

In selecting a mobile internet provider, companies consider, as main criteria, the mobile network coverage/ service availability in a greater number of locations, the subscription price, and the traffic included – as appreciated by respondents by order of importance (important and very important).

87% of the sampled organisations have not switched their mobile internet service providers in the past 12 months, and 69% of them declared they were likely or very likely to keep their provider in the next 12 months.

3.2 Regulation of the relevant markets in the electronic communications sector

3.2.1 Review of the relevant markets for the services of access to infrastructure elements and for broadband access services

Following analysis, the Authority assessed that the market for fixed broadband Internet access services is dynamic, fluid and in constant growth, Romania featuring the highest degree of infrastructure competition in the European Union, with a total of over 750 providers of fixed broadband Internet access services in 2014, over 60% of the access connections enabling at least 30Mbps, and over 2/3 of the population living in localities covered by at least three networks that can provide fixed broadband internet access.

Upon this analysis, the Authority decided that Telekom Romania Communications S.A. no longer held significant market power in the relevant wholesale market for services of access to infrastructure elements, therefore the regulation of the respective

market was no longer needed. Thus, based on the analysed criteria (a market share below 50 % and in steady decline, reduced barriers to market entry, the existence of a declining minimum demand in the wholesale market, the existence of a competitive retail market, in the absence of regulations for the corresponding wholesale market), ANCOM considered the said wholesale was competitive and withdrew of obligations imposed in 2010 on Telekom Romania Communications S.A. (the obligations of transparency, non-discrimination, granting access, tariff control and accounting separation). Transitionally, for ongoing contracts, these obligations were maintained for one year from the enforcement of ANCOM's decision, while the obligation to keep separate accounts was withdrawn starting with the financial statements for 2015.

Moreover, regarding the relevant wholesale market for broadband internet access services - given the current and forecasted high level of infrastructure-based competition (by means of the providers' on access networks) in the Romanian retail market, the absence of *ex ante* regulations in the wholesale broadband access market imposed so far - ANCOM established that the introduction of *ex ante* regulations regarding wholesale services of access to broadband internet is not a justified and necessary measure, at least in the analysis timeframe.

The decision adopted by ANCOM resulted from a regular process of review of the markets susceptible to *ex ante* regulation in the electronic communications field, market analyses being among the most important instruments for ensuring effective competition for wholesale markets, and for retail ones. Assessing the relevant markets in the electronic communications sector is provided by the European common regulatory framework and is implemented in Romania by ANCOM.

3.2.2 Report on the incidents that affected the security and integrity electronic communications networks and services in 2014

According to the report elaborated and published by ANCOM in 2015, 359 incidents with significant impact affected the security and integrity of the Romanian electronic communications networks and services in 2014. The total number of affected connections (8,836,821) was by more than 50% lower than the one reported in 2013 (19,897,831

connections). Most of the connections affected by these incidents in 2014 were mobile telephony connections (about 4.4 million), followed by mobile Internet (almost 7.5 million connections), audio-visual programme retransmission (approximately 840 thousand connections), fixed telephony (approximately 440 thousand), and fixed Internet (approximately 340 thousand connections affected per service).

According to the data reported to ANCOM by the providers, an incident with significant impact affected

on average approximately 24,615 connections, three times less than in 2013. An incident lasted on average 4 hours, whereas the total duration of the incidents reported in 2014 amounted to 1,420 hours. The most incidents were reported in Bucharest, followed by Constanta, Dolj and Teleorman.

The ANCOM Report was drawn up based on the information reported by the providers for 2014, this being the second year when the Authority collects the respective data, following the entry into force of





Decision no. 512/2013, which imposed on the providers the obligation to notify ANCOM on the existence of an incident with significant impact on the security and integrity of the electronic communications networks and services, namely those incidents which affect more than 5,000 connections for at least one hour.

3.2.3 Report on the quality of the internet access service in 2014

In 2015, ANCOM published the third **Report on the quality of the internet access service**, giving a quarterly overview – throughout 2014 - of the administrative quality parameters established by ANCOM's Decision no.1201/2011.

As regards internet access services, comparing the values of the parameters reported by the first 5 providers of fixed

internet access services for the year 2014 to the values reported for 2013, one can remark a general improvement in the interval of 95% of the fastest solved requests for service provision, the actual installation term being, on average, 8 days. For mobile internet, the committed term is significantly lower. In fact, the installation term for mobile internet is, in most cases, one day.

Most of the complaints received by the providers in 2014 regard faults, the majority of fault repair terms being much shorter than committed by the providers in the contracts concluded with the end-users, this duration being, on average, 25 hours for fixed internet and 21 hours for mobile internet. In 2014, the data transmitted by the 5 fixed internet providers indicate a good declining trend both in the number of total complaints, and in the number of fault-related

complaints, compared to the data reported for 2013.

The Report reveals that frequency of fault-related complaints is lower in case of mobile internet services compared to fixed internet access services. Moreover, as regards the mobile internet, one can remark a rising trend in the total number of complaints on billing accuracy in compared to the values reported for 2013.

3.2.4 Ensuring universal service in the electronic communications field

The universal service in the electronic communications field is the right of every European citizen to have access to a minimum set of electronic communications services, made available upon request, at affordable prices and at a certain quality level, irrespective of their geographic location on the territory of an EU Member State. In order to ensure this right to all the EU citizens, the Member States must intervene where access to the minimum set of communications services is not ensured by the market mechanisms.

To this end, in Romania, a Universal Service Fund was established starting from 2004. It was mainly used for the universal service implementation by means of telecentres (public spaces provided with a telephone and facsimile, as well as a computer connected to the internet), where the population in remote localities could use electronic communications services, as well as for granting subventions to fixed telephony subscribers and for a series of facilities applicable to certain disadvantaged categories of subscribers in case of failure to pay the telephone bill. 2015 was the ninth year in a row when the providers of public electronic communications networks and the providers of publicly available telephone services did not contribute to this fund, the amounts collected throughout these nine years (see Table 3.6) resulting from the enforcement of previously issued decisions. ANCOM manages the financial resources of the Universal Service Fund, highlighting them distinctly within its income and expenditure budget.

Table 3.6 The provisions of the ANCOM budget as regards the amounts collected for the Universal Service Fund

Year	Amount provided in the budget (RON)
2004	57,941,000
2005	32,010,000
2006	39,100,000
2007	0

2008	0
2009	0
2010	0
2011	1,000,000
2012	875,000
2013	0
2014	300,000
2015	200,000

Table 3.7 Total amount of the Universal Service Fund, based on the imposition decisions issued by ANCOM

Year	Amount, pursuant to the imposition decision (RON)
2004	59,704,957*
2005	25,899,285
2006	30,804,478
2007	0
2008	0
2009	0
2010	0
2011	0
2012	0
2013	0
2014	0
2015	0
TOTAL	116,408,720

*For 2004, the initial amount was RON 60,092,948 and was diminished by RON 387,991.00 by decision of the High Court of Cassation and Justice No.5572/22.11.2005.

Table 3.8 Total amount of the payments received to the Universal Service Fund

Year	Amount received (RON)	
	Current year	Previous years
2004	48,321,030.80	0
2005	19,898,996.00	2,509,855.80
2006	30,155,416.50	12,052,224.29
2007	0	669,975.68
2008	0	108,133.49
2009	0	179,106.00
2010	0	214,301.32
2011	0	1,075,951.14
2012	0	562,116.34
2013	0	270,291.60
2014	0	210,000.00
2015	0	1,831,304.20**
TOTAL	98,375,443.30	19,683,259.86

** This amount consists of penalties for delayed payment – by Telecomunicații C.F.R. S.A. - of the amounts specified in the imposition decisions issued in 2004 (RON 916,298.20), 2005 (RON 413,381.20) and 2006 (RON 501,625.00).

Table 3.9 Amounts paid from the Universal Service Fund

Year	Amount paid (RON)
2004	0
2005	20,726,730.00
2006	8,184,683.45
2007	6,100,960.28
2008	1,723,677.24
2009	12,340,672.17
2010	988,979.58
2011	975,238.39
2012	650,845.93
2013	0
2014	0
2015	0
TOTAL	51,691,787.04

3.2.5 Implementation of Infrastructure Law

In 2015, ANCOM continued fulfilling its attributions established by **Law no.154/2012 on the regime of electronic communications networks infrastructure**. This normative act establishes the conditions under which access on the public or private property is performed (including in the areas under joint property in condominium buildings) for the purpose of installing, maintaining, replacing or relocating electronic communications networks or associated infrastructure elements, the manner of sharing infrastructure elements, as well as certain measures related to building electronic communications networks.

It is the year when the Authority initiated the procedure of purchasing an Information System

for a national Inventory of the public electronic communications Networks and of the associated infrastructure elements - ISIN. This information system will enable the providers to send the Authority both GIS (Geographical Information System) and non-GIS information, regarding the elements of public electronic communications networks and their associated facilities, on a national level.

Based on such information, the Authority will make an inventory of the public electronic communications networks and of the associated infrastructure elements, laid down on a digital GIS (Geographical Information System) map. Moreover, the Authority will use this instrument with a view to ensuring an information base in analysing the possibility for the shared use of network infrastructure elements.

According to Law 154/2012 on the regime of electronic communications networks infrastructure, local authorities must request from ANCOM an Advice of Conformity on the technical and economic conditions for access to the projects of deploying electronic communications networks conducted with the participation, support or financing of the central or local public administration authorities. The instrument of the Advice of Conformity enables ANCOM to ensure a coherent and equitable framework for access to infrastructure for all the requesting providers, in compliance with the legal conditions of non-discrimination, proportionality and objectivity.

Throughout 2015, ANCOM analysed a series of conditions for access on the public property established by local authorities. Thus, upon the request of the Mayorality of Timisoara for an unconditional Advice of Conformity for the project "Rehabilitation of public spaces in the historic centre of Timisoara Municipality", the Authority assessed the implementation of the measures in the Advice of Conformity issued at end-2014 and informed the Mayorality of Timisoara on the degree of enforcement of these measures.

Furthermore, ANCOM issued an opinion on the technical and economic conditions proposed by the Mayorality of Constanta (by the draft Regulation on the access of electronic communications providers on public property) and sent the Local Council of the Drobeta Turnu Severin Municipality an opinion on the intention to diminish the access tariffs applicable to electronic communications providers for exercising the right of way.

3.2.6 Settling disputes between providers

In 2015, the Authority received three complaints on disputable situations, two of which referred to amendments of the interconnection architecture between some providers' networks for the purpose of rendering it more efficient and to the need for capacity increases, while one complaint referred to negotiations on a national roaming agreement.

Taking into account that the complaints were introduced about the end of 2015, these will be settled during 2016.

The administrative-jurisdictional procedure for ANCOM's settling the disputes between the electronic communications providers is optional and free of charge. Detailed information on the disputes settled by the Authority, and the procedure applicable for dispute settlement are available on the Authority's website under section Industry/Electronic communications/ Disputes between providers.

3.3 Protect end-users' interest

3.3.1 Enhancing the transparency of telecom offers

Following a complex consultation with the industry and the users of electronic communications services, conducted at the beginning of 2015, ANCOM adopted a new decision on the providers' obligations of informing the end-users, which entered into force on 27 June 2015 and repealed the old regulation on transparency in relationship with the end-users, i.e. Decision no. 77/2009. Decision no. 158/2015 on the obligations of informing the end-users came in the vein of the legislative changes occurred on the European and national levels, and following the complaints received from the end-users and the natural developments of the market, which triggered an update of the transparency obligations incumbent on the providers of public electronic communications networks and on the providers of publicly available electronic communications services.

This decision being aimed at increasing the transparency of telephony, internet and television offers, the Authority imposed on the providers a series of new information obligations.

Table 3.10 Beneficiaries of the amounts paid from the Universal Service Fund

Year	Beneficiary	Amount (RON)	Reason
2004	-	0	-
2005	S.C. Orange Romania S.A. S.C. Romtelecom S.A. S.C. RCS & RDS S.A.	447,436.00 20,279,214.08 79.92	Telecentres Subscription subsidies Subscription subsidies
2006	S.C. Vodafone Romania S.A. S.C. Orange Romania S.A. S.C. Euroweb Romania S.A. S.C. Romtelecom S.A. S.C. Romtelecom S.A.	374,444.00 102,772.00 55,148.00 299,684.37 7,352,635.08	Telecentres Telecentres Telecentres Telecentres Subscription subsidies
2007	S.C. Rartel S.A. S.C. Orange Romania S.A. S.C. Vodafone Romania S.A. Radiocommunications National Company S.A.	2,575,253.00 378,217.60 959,617.00 2,187,872.68	Telecentres Telecentres Telecentres Telecentres
2008	S.C. Rartel S.A. Radiocommunications National Company S.A. S.C. Orange Romania S.A.	108,234.00 1,226,607.04 388,836.20	Telecentres Telecentres Telecentres
2009	Radiocommunications National Company S.A. S. C. Accessnet International S.R.L. S.C. Rartel S.A. S.C. Vodafone Romania S.A.	3,477,490.29 6,605,730.88 648,954.00 1,608,497.00	Telecentres Telecentres Telecentres Telecentres
2010	S.C. Vodafone Romania S.A. S.C. Orange Romania S.A. Radiocommunications National Company S.A.	226,688.00 701,001.38 61,290.20	Telecentres Telecentres Telecentres
2011	Radiocommunications National Company S.A.	975,238.39	Telecentres
2012	S.C. Orange România S.A. Radiocommunications National Company S.A.	462,092.20 188,753.73	Telecentres Telecentres
2013	-	0	-
2014	-	0	-
2015	-	0	-



The main amendment brought by ANCOM's decision is an extension of the obligations of informing the end-users to include the internet and television service providers, in addition to the telephony providers, who were already subject to transparency obligations. Moreover, the decision provides for detailing certain data in the telecom offers, necessary to the end-users' making informed choices, adapted to their actual communication needs.

Thus, the providers of telephony and internet services will have to post - on their websites and to communicate of the users, prior to contract conclusion, - information on the setting of certain ceilings beyond which access to resources contracted by the end-users are subject to certain limits and conditions (data traffic, included minutes), as well as on the consequences of exceeding

these ceilings (such as lower speeds or additional costs).

The providers of internet access services will have the obligation to publish, on their websites, information on the occurrence of certain blockage or limiting of the internet traffic, of the services or of the applications available, if such limitations exist and are allowed under the law (e.g., restrictions to the usage of applications such as Skype or WhatsApp). Furthermore, within the published offers, there will be specified the maximum download and upload speeds, as well as the minimum guaranteed speed, if applicable (where a minimum speed is not guaranteed, this must be specified accordingly).

Moreover, telecom operators will have to post on their websites further information on the geographic **outdoor**

coverage of the services they provide, specifying the localities covered. Therefore, information already available from coverage maps will have to be further clarified or even enriched, to the detail provided in the decision.

Furthermore, telephony operators, as well as internet and television providers will have to post, on the homepage of their websites, a direct and easily detectable link bearing an explicit name towards the framework agreement and the provision terms for prepaid cards, as well as to keep an online archive of the framework agreements and of the tariff plans that are no longer available, but are still used by subscribers.

With a view to ensuring that the end-users in Romania are aware of their new rights in relationship with the communications providers, the Authority conducted a campaign for informing the end-users on the amendments provided by the new ANCOM decision to their benefit, by means of a series of 11 press releases sent to the mass media and posted on ANCOM's website, as well as by updating section InfoCentre on ANCOM's website.

3.3.2 New information obligations regarding Premium Rate calls, SMS and MMS

27 August 2015 was the date of entry into force of new obligations imposed by the Authority as regards the end-users' information on the tariffs for SMS/MMS to numbers enabling the provision of value-added content services, such as games, contests, technical support, horoscope or applications for mobile telephones.

With a view to preventing unwanted charging, abuse or fraud, which one may incur while accessing Premium Rate services, the obligations imposed by ANCOM provide that the users must receive clear information on the applicable tariff and on the charging method for their SMS/MMS both each time they are communicated the internal network or national number or the short code corresponding to the respective value-added service (prior to service provision), and at the initiation moment, as well as during the service usage. The Decision aims at ensuring precise, complete and accurate information throughout the service advertising and provision phases.

Thus, the advertising activities regarding these services must include clear and straightforward information

on the corresponding tariffs, specifying the call/message charging manner SMS/MMS (per minute/per call, per incoming/outgoing SMS, per charged SMS/several SMS).

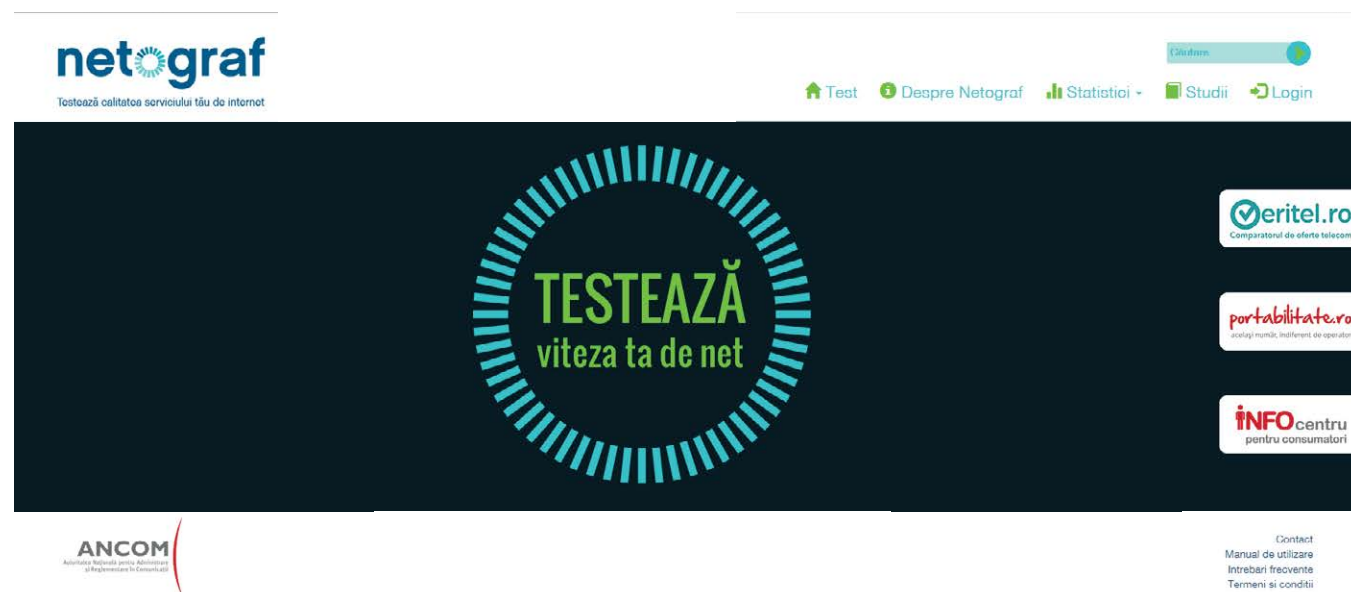
Throughout the service provision, when accessing value-added services by means of voice calls, at the call initiation, prior to the content delivery, the users will listen to a welcome message including information on the applicable tariff, the charging method - per call or per minute -, as well as on the minimum chargeable duration, as applicable. When a user accesses such services by sending several SMS/MMS, the provider will send him/her messages on the tariff of the value-added service and the service details (e.g. service confirmation, period of provision, accessing manner, content access code), as well as other information messages deemed useful for the proper service consumption.

Some obligations envisage services provided by means of recurring SMS/MMS, the users must be informed on the fact that they will incur subsequent charging without taking additional steps, and on the frequency of receiving messages, as well as on the unsubscribing mechanism. In this case, the providers will send the users information messages both before the service accessing, throughout the ordering process, and during the whole activation period of the respective value-added service.

The details regarding the consumption of value-added services must be specified in the itemised invoice issued by the provider.

The information obligations are applicable as regards the services offered by means of internal national short numbers and of SMS/MMS short codes consisting of 3-5 digits, 118(xyz) numbers by means of which subscriber directories are inquired, 19vx or 19vxy numbers (where v=5-9), assigned for general interest services, and as regards the services offered by means of 10-digit numbers in the 02 = 09 domain (entertainment, games, contests, general information etc.).

The information obligations imposed by ANCOM are applicable both to holders of the right to use numbering resources in the above-mentioned categories and to content providers that ensure the actual service provision.



3.3.3 Netograf.ro – an application for measuring the technical quality parameters of the internet access service

In 2015, Romanian internet users performed more than 174,000 tests by means of Netograf.ro – the application for testing and monitoring the quality of the internet access service, of which approximately 136,000 were validated and used in generating statistics.

Based on the users' tests based on this application, ANCOM publishes on Netograf.ro quarterly and annual statistics on the quality of the fixed and mobile internet access service in Romania.

Thus, in 2015, Netograf.ro indicates that the providers of mobile internet access services offered the users the following average download speeds: Orange Romania – 27.49 Mbps indoor and 43.75 Mbps outdoor, RCS & RDS – 2.85 Mbps indoor and 3.43 Mbps outdoor, Telekom Romania Mobile Communications – 10.47 Mbps indoor and 14.11 Mbps outdoor, Vodafone Romania – 19.28 Mbps indoor and 33.01 Mbps outdoor.

The first five providers of **fixed internet** access services (by number of connections according to the reported statistical data, presented in the text in alphabetical order) offered the following average download speeds in 2015: Digital Cable Systems – 48.38 Mbps wired and 26.91 Mbps wireless, Nextgen Communications – 61.68 Mbps wired and 36.15 Mbps wireless, RCS & RDS – 101.31 Mbps wired and 44.31 Mbps wireless,

Telekom Romania Communications – 31.36 Mbps wired and 16.53 Mbps wireless and UPC Romania – 59.67 Mbps wired and 32.14 Mbps wireless.

Although all the tests performed by the end-users are registered in the Netograf.ro database, in order to obtain accurate and relevant statistics and to avoid possible vitiated results, certain tests are not taken into account, based on some pre-set criteria. Thus, multiple tests performed from one IP, where a certain number of tests per day has been exceeded, tests where the user selects another provider than that selected by default based on the IP, unfinished tests (download, upload speed or jitter amounts to 0), tests where the download or upload speed exceeds the nominal/maximum speed specified in the provider's offer. Additionally, for the purpose of reflecting accurately the situation in the market of internet access services, as regards quarterly statistics, ANCOM reserves the right to analyse in detail the test results – as the case may be – to exclude certain tests from the statistics, in order to prevent fraudulent attempts.

ANCOM developed Netograf.ro as a tool for testing and monitoring the quality of the Internet access service, in order to offer the users in Romania an independent (does not depend on the servers made available by the providers and/or by their location), objective (presents the internet access service quality as it is witnessed by the users, this quality being measured approaching one reference point for all internet users in Romania) and free-of-charge instrument.

By performing these tests, the users are able to verify whether their internet service is up to the contracted

quality, and to compare the registered parameters with the parameters obtained by the subscribers of other providers. Moreover, logged in users can also follow other aspects, such as the performance evolution of their own internet connection over time, respectively the improving or the degrading quality of the respective service.

According to the provisions of ANCOM's Decision no. 1201/2011, the providers authorised to offer internet access by means of fixed or mobile public networks have the obligation to introduce in the application the technical parameters of their active commercial offers, using a web interface, to include in the contracts the administrative and technical parameters they undertake to ensure in relationship with the users (such as nominal/maximum download and upload rates) and to publish, on their own websites, a series of administrative parameters corresponding to a set of administrative quality indicators.

3.3.4 Veritel.ro – an application for comparing telecom offers

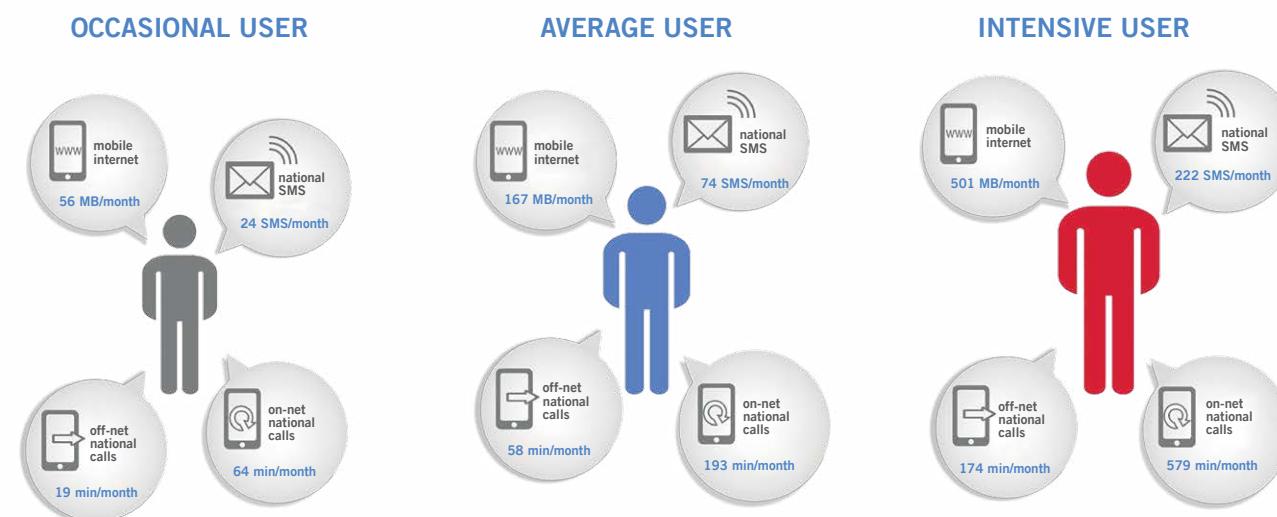
Veritel.ro, the application for comparing telecom offers developed by ANCOM, continued offering the users, in 2015, the possibility to check the extent to which the telephony and internet offer they benefit from is best suited to their consumption needs. Veritel.ro is easy to use, in three simple steps: they choose the category of services, insert their consumption estimates and are provided with a list

of 25 tariff plans, ranked in order of cost. When the results are displayed, other relevant details are also published, such as the minimum contract duration, the termination penalties, or information on the available special offers.

Since the launch of Veritel.ro, in 2013, the number of fixed and mobile internet and telephony offers launched by the providers and available for consultation in ANCOM's application dropped 8 times, from more than 3.5 million offers to almost 430,000. This indicates a lowering in the degree of complexity of the operators' offers, which the Authority deems as a consequence of the operators' adjusting their plans to the changing environment in the Romanian market, due to the regulations issued by ANCOM. Nevertheless, the almost half a million offers available at the moment on a market such as the Romanian one still features a wide range of choices, which makes Veritel.ro remain a relevant instrument for the users.

According to the ANCOM data, in the first half of 2015, an average user of mobile telephony and mobile internet configured on Veritel.ro achieved 167 MB internet traffic every month, sent 74 national SMS (64 on-net and 10 off-net) and talked on average 251 minutes both on-net (193 minutes) and off-net (58 minutes). Moreover, an average fixed telephony user configured on Veritel.ro achieved, every month, 45 minutes on-net and 33 minutes off-net.

MOBILE TELEPHONY AND MOBILE INTERNET USER PROFILE



Source: www.veritel.ro, February 2016

Veritel.ro
Telecom offer comparison tool

Veritel.ro is an independent and non-commercial tool developed by the Authority to the benefit of the telecom users in Romania. Access to this application is free of charge and is not constrained in any way, the users having instant access to all the public offers of all the communications operators in Romania.

3.3.5 Number portability

The telephone number portability, another service made available to the users by ANCOM, enables them to keep their telephone number when shifting to another service provider. The users thus have a greater freedom of choice and are given the possibility to enjoy the benefits of a competitive telephony market.

In 2015, spectacular growth was registered in the amounts of ported numbers – thus, out of the 2,616,550 numbers ported in Romania since the introduction of number portability, 844,477 were ported only in 2015. Furthermore, the monthly average of numbers ported in 2015 witnessed an upsurge, to 70,373, from 47,054 in 2014 and 22,844, in 2013.

By the end of 2015, the amount of ported mobile telephony numbers had exceeded 2 million, whereas ported fixed numbers amounted to 589,016.

In 2015, mobile telephony providers gained 723,443 users through porting. Among these, almost half chose RCS & RDS – 348,328, whereas Vodafone received on their network 153,772 new users, Orange – 128,160, Telekom Romania Mobile Communications – 76,676, and Telekom Romania Communications – 16,459. One

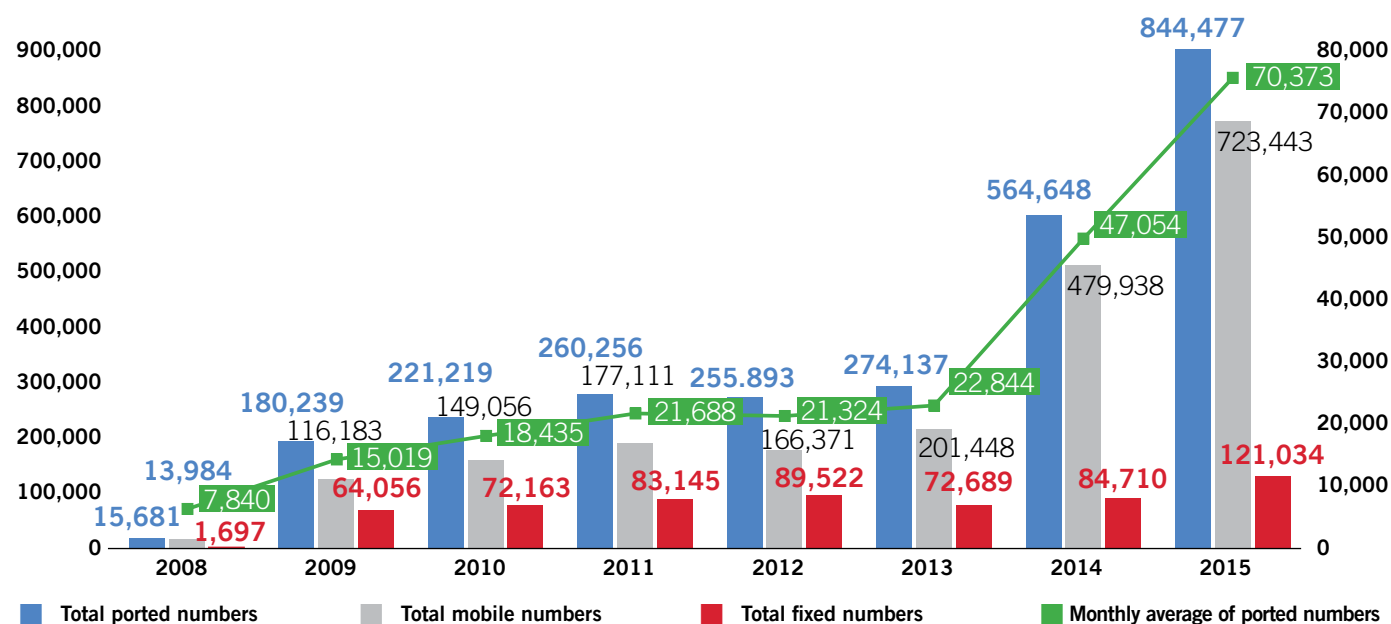
can remark that, again, mobile telephony subscribers are more inclined to benefit from number portability, 52% of those who port their number being subscription-based users and 48% - prepaid card users.

Most of the 121,034 fixed telephony numbers ported in 2015 were shared among the main providers, as follows: Vodafone – 63,983, RCS & RDS – 23,369, UPC Romania – 12,791, Orange – 11,062 and Telekom Romania Communications – 2,404.

The administrative processes associated to number portability are supervised by means of an IT system managed by ANCOM. This is the system through which the providers exchange information throughout the porting process, from the moment the customer submits the request to the porting completion, confirmed by the adequate routing of calls to the ported number. Moreover, the system stores the routing information, the respective centralised database (BDC) being used as a reference for updating the routing information in the providers' own databases. Moreover, the BDC is used for the purpose of providing up-to-date information on the website www.portabilitate.ro. This website contains complete portability-related information and the steps to be followed when a user decides to switch telephony operators. The page also includes a search engine by means of which one can find the network where a number is active, as well as whether the respective number has been ported or not.

ANCOM permanently monitors the operation of the IT system used for portability management and offers

Exhibit 3.5 Evolution of the amount of numbers ported per year, and of the monthly average



support to the operators for managing the porting processes.

3.3.6 Regulating access to the emergency call service – 112

ANCOM elaborates regulations for the emergency service 112, for the purpose of harmonising the operation of this service in Romania with the provisions on the level of the European Union.

Report ECC no.225 “Establishing Criteria for the Accuracy and Reliability of the Caller Location Information in support of Emergency Services” (<http://www.ecodocdb.dk/doks/doccategoryECC.aspx?doccatid=4&alldata=1>), published by the management team for emergency services PT-ES/WG NaN of the European Communications Committee - ECC, coordinated by an ANCOM representative, concludes that the GNSS coordinates offered by the caller's terminal need to be additionally used for caller location, for the purpose of improving the quality of caller location information.

In 2015, documentation following the conclusion of the above-mentioned report continued. ANCOM is to elaborate a study identifying the technical characteristics for the implementation of an advanced 112 caller location solution, this study being a step towards imposing conditions for the provision of GNSS coordinates.

In this context, in 2015, ANCOM initiated consultations with the interested parties regarding the opportunity of amending the provisions on caller location provided in Decision no. 1.023/2008 on performing communications to the Single National Emergency Call System, with the subsequent amendments and completions.

On the occasion of the 112 Day (11 February 2015) the European Commission highlighted that the above-mentioned report was a document providing some conclusions regarding the steps to be taken for improving the accuracy and certainty of the caller location information, especially for calls from the mobile networks.

3.3.7 Access of the disabled to electronic communications services

In 2015, the Authority adopted Decision no. 160/2015, providing a set of measures meant to

ensure the disabled persons' access telephony and internet access services adapted to their specific needs and in conditions equivalent to those applicable to the other users. By the provisions of this decision, the Authority established the obligation of the electronic communications users to design certain telephony and internet offers especially for disabled users, specified the content of these offers, and recommended the providers to set a certain tariff for each such offer.

Thus, starting from 2 November 2015, the providers of publicly available electronic communications services have the obligation to make available to end-users with speech and/or hearing disabilities mobile telephony offers with at least unlimited on-net SMS and 150 national SMS for maximum EUR 4/ month (VAT included), as well as monthly mobile internet traffic of at least 300 MB, at a maximum download speed of at least 2 Mbps, for maximum EUR 2/ month (VAT included). Furthermore, these operators have the obligation to make available offers for services provided at a fixed location, for the said categories of users, with unlimited monthly internet traffic, at a maximum download transfer rate of at least 30 MBps or, where this is not technically feasible, at the maximum speed offered on commercial bases to residential end-users, for a maximum recommended tariff of EUR 7/month (VAT included).

Moreover, mobile communications provider have the obligation to launch offers designed for visually impaired users, that include at least 300 national minutes for a maximum recommended tariff of EUR 2/month (VAT included) and, upon the user's request, monthly national mobile internet traffic of at least 300 MB, at a maximum download speed of at least 2 Mbps, for maximum EUR 2/ month (VAT included). Fixed telephony and internet providers have the obligation to implement the provisions regarding offers designed for visually impaired users with included consumption units of at least 350 monthly national minutes for a maximum recommended tariff of EUR 3/month (VAT included) and - upon the user's request - unlimited fixed internet traffic for a maximum recommended traffic of EUR 7/ month (VAT included).

Moreover, disabled telecom users were offered the legal opportunity to benefit from access to customer relations services using methods adjusted to their needs, including via SMS for the users with hearing disabilities, visually impaired users having the

possibility to interrogate the cost control service by means of an audio message. Furthermore, visually impaired users were granted the right to request and receive by e-mail their contracts, unitemised bills and other documents in a format compatible with most document-reading programmes.

The above-mentioned decision laid down the obligation of the electronic communications providers to ensure the disabled users – by means of their working points where subscription-based services are offered - the possibility to test the services and devices they intend to buy, free of charge, as well as to make available a special section containing information for disabled users, accessible from the main page of their website.

3.3.8 Re-allocation of 116000 – Hotline for Missing Children

Following ANCOM's announcement on opening for allocation the national short number harmonised services of social value 116000, available for “Hotlines for Missing Children”, the electronic communications service provider Telekom Romania Communications S.A. requested and received the right to use this number for a 10-year period, starting from 6 January 2016, in collaboration with the Child Helpline Association, a provider of services of social value.

During 24 November - 23 December 2015, the interested electronic communications service providers could submit applications to ANCOM for the allocation of the national short number for harmonised services of social value 116000. Telekom Romania Communications S.A. was the only operator to submit an allocation request. Previously, the right of use of this number had been granted to the same company, for the period 25 July 2008 – 22 October 2015, the service being provided by **The Romanian Centre for Missing and Sexually Exploited Children - FOCUS**.

By the hotline for missing children, anyone can report children that are going missing - these calls being subsequently forwarded to the police - and guidance and support can be provided to caregivers of a missing child, and information can be offered in support of the investigation. Such services will be provided through the number 116000 on a national level, 24/7, and calls will be available free of charge, to all citizens, without prior registration.

3.3.9 Evaluation of the list of localities with a risk of entering involuntary roaming

In 2015, ANCOM updated and published the list of border localities where the users incur a potential risk of entering involuntary roaming. Such situations of involuntary roaming in border areas were assessed by measurements performed in April 2015, along roads situated close to the border in counties of Arad, Bihor, Botoşani, Caraş Severin, Călăraşi, Constanţa, Dolj, Galaţi, Giurgiu, Iaşi, Mehedinţi, Maramureş, Olt, Satu Mare, Suceava, Tulcea, Timiş, Teleorman, Vaslui.

According to ANCOM's measurements, in most counties situated close to the border, there are localities where mobile handsets may enter involuntary roaming, predominantly in: Satu Mare (63 localities, at the border with Ukraine and Hungary), Botoşani (44 localities, along the border with Ukraine and the Republic of Moldova), Iaşi (42 localities, along the border with the Republic of Moldova), Timiş (39 localities, along the border with Serbia and Hungary) and Bihor (33 localities, along the border with Hungary).

Based on these measurements, the Authority identified the localities with a risk of involuntary roaming, where mobile handsets may temporarily connect to a foreign operator's network - depending on the user's movement -, as well as localities with an increased risk of involuntary roaming, where the mobile equipment may permanently connect to a foreign operator's network, throughout the area of the respective locality.

Following the measurements performed, the Authority warned the users that have activated their roaming service while remaining in the country, yet close to the border, that their mobile telephone may automatically connect to a network in the neighbouring country and the user may use communications services at roaming tariffs, being charged also for incoming calls. As well, ANCOM reminded the users who access data services on their mobile telephone or tablet that they can avoid using data services in roaming by configuring the settings on the telephone/tablet they use when they travel in the localities identified by the Authority as having a potential risk for the users to enter involuntary roaming.

3.3.10 Solving users' complaints

Throughout 2015, ANCOM received and solved 2,003 complaints from the users, 19% more compared to 2014. 1,541 of these were sent by electronic

communications users. The most issues complained about were concerned the execution, extension and cessation of contacts concluded in writing or by distance communications means (39% of the complaints received by ANCOM), as well as service quality – due to the users' increased awareness and exigency. In 2015, ANCOM kept focusing both on settling issues on a case-by-case basis, and on identifying and remedying situations that may affect other users' interests and needs.

Thus, in 2015, ANCOM requested the main providers of mobile telephony services to clarify the manner in which international minutes can be used, taking into account both the complaints received on this issue and the increasing number of offers with included national minutes.

The rise in the number of petitions was mainly determined by the Authority's intense communication activity on the rights of communications users, the various ways of concluding electronic communications contracts and the dynamics of communications services users.

Table 3.11 Petitions received by ANCOM throughout 2015, by issues of interest

Complaints received in 2015	2003
Complaints by domains of interest*	
Fixed telephony	
- invoicing	18
- technical problems	12
- information	2
- contract	69
- distance contract	19
- quality	2
- other	17
Mobile telephony	
- invoicing	125
- technical problems	14
- information	27
- fraud	1
- contract	319
- distance contract	86
- quality	154
- roaming	28
- other	125
Fixed Internet access services	
- invoicing	12
- technical problems	23
- information	1
- contract	100
- distance contract	20

- quality	42
- other	29
Mobile Internet access services	
- invoicing	31
- technical problems	4
- information	4
- contract	38
- distance contract	7
- quality	41
- roaming	11
- other	15
Television	
- invoicing	17
- technical problems	13
- information	1
- contract	101
- distance contract	15
- quality	10
- other	18
Portability	
- distinctive sound	1
- technical problems	25
- information regarding the process	10
- deadline	16
- other	96
Postal services	462
Radio spectrum	28
Pornography	2
Equipment	
- EMF	34
- terminal unlocking	11
- other	38
Infrastructure	36
Tariff comparison tool	1
Other	84

* Certain complaints refer to several domains of interest

Out of the 2,003 complaints received by ANCOM, 1,683 were addressed by residential users, the rest of 320 being sent by business users. In 2015, 47 complaints were not considered, on grounds of the legal provisions in force, and 53 were redirected to other institutions. The complaint handling procedure within ANCOM is a complex one and most of the times it takes requesting further information and documents from the respondents. These additional details are analysed for the purpose of checking compliance with the legislation in the fields of electronic communications and of postal services, so that amicable settlement solutions could be identified to users-providers disputes. The timely response rate exceeded 96% in 2015.

4. Postal services

4.1 Postal market in 2014

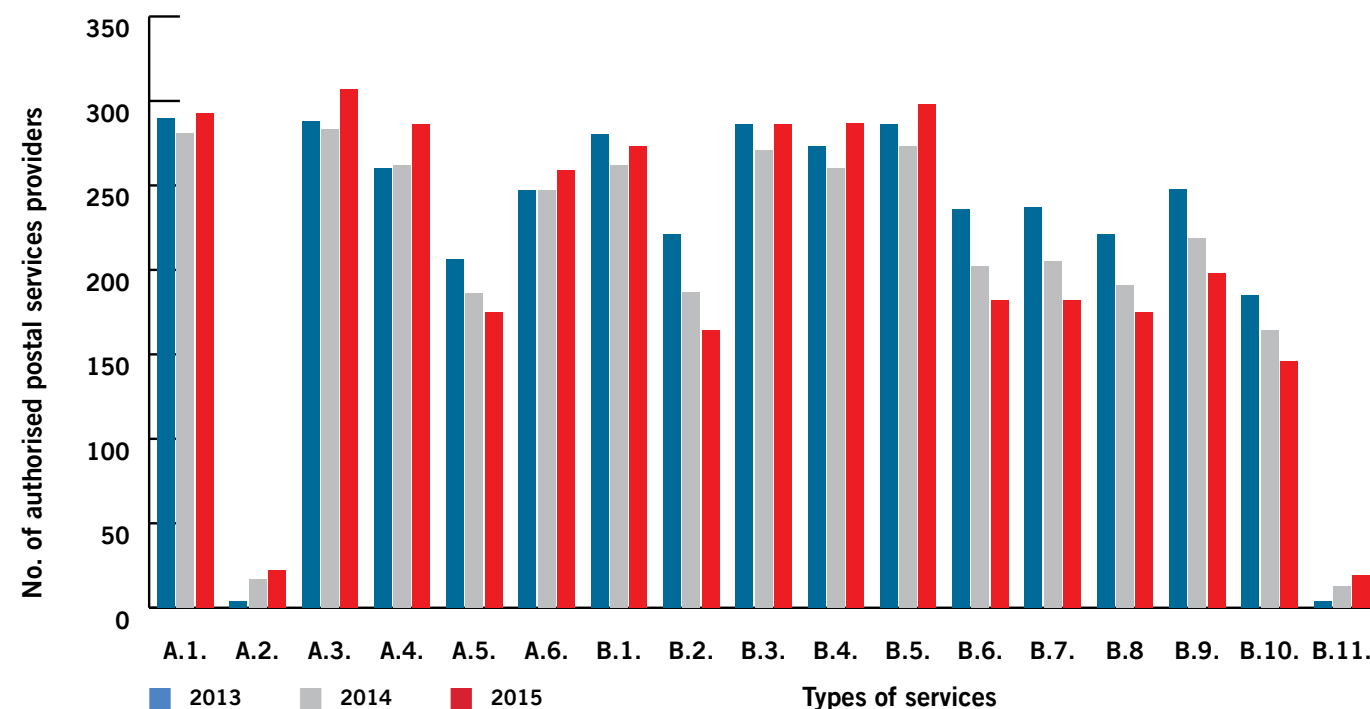
4.1.1 General authorisation

The provision of postal services in Romania is performed under a general authorization regime adopted by the regulatory authority through Decision no. 2.858/2007, as amended and completed by Decision no. 891/2009 and, subsequently, by Decision no. 513/2013, the legal regime establishing a free of charge procedure for the authorization of persons who intend to provide postal services, as well as the conditions in which postal services may be provided. ANCOM solved within the due deadline over 92% of the applications for the authorization of persons who intend to provide postal services.

On 31 December 2015, the Public Register of postal services providers registered a total of 386 postal service providers, by 4% more compared to the level recorded in 2014. Of these, 371 persons were entitled to provide postal services within the scope of universal service, by 5% more compared to 2014 and 381 persons had the right to provide postal services outside the scope of universal service, by 4.3% more compared to 2014.

During 2015, 1.5% of the persons who were authorized to provide postal services had ceased their activities with the Trade Register, and 5.1% of all the providers were sanctioned by ANCOM withdrawing the right to provide postal services as a result of the infringement of the obligations incumbent as postal service providers.

Exhibit 4.1 Evolution of postal providers by types of postal services



Types of postal services

- A.1. Clearance, sorting, transport and delivery of postal items up to 2 kg (correspondence items, printed matter items)
- A.2. Clearance, sorting, transport and delivery of domestic and cross-border cecogrammes
- A.3. Clearance, sorting, transport and delivery of postal parcels up to 10 kg
- A.4. Distribution of postal parcels up to 20 kg sent from outside Romania to an address located on its territory
- A.5. Service for registered items dealing with postal items up to 2 kg
- A.6. Service for insured items dealing with postal items up to 2 kg or postal parcels up to 10 kg, respectively postal parcels weighing between 10 and 20 kg sent from abroad to an address located in Romania
- B.1. Services dealing with postal items above 2 kg (items of correspondence, printed matter items)

- B.2. Direct mail service
- B.3. Services dealing with domestic postal parcels weighing between 10 and 50 kg
- B.4. Services dealing with postal parcels weighing between 10 and 50 kg sent from Romania to an address from located on its territory
- B.5. Services dealing with postal parcels weighing between 20 and 50 kg sent from abroad to an address located on the territory of Romania
- B.6. Pay-on-delivery
- B.7. Change of destination
- B.8. Special delivery
- B.9. Confirmation of receipt
- B.10. Express
- B.11. Paper money order

4.1.2 Statistical data

According to the data collected by ANCOM on the evolution of the postal market in 2014 and published in 2015, the postal market stabilized in terms of numbers of authorised providers and active providers, with fluctuations under 5%. During 2014, 237 providers were actively present on the market (they actually provided networks or services).

2.3 times more postal parcels were processed in Romania in 2014, compared to 2013, 90% of which were processed by private providers. The total postal traffic kept a moderately growing trend in 2014, registering an increase by approximately 10%, i.e. exceeding 600 million items. Out of these, over 95% were processed by the universal service provider and by other ten large

volume private operators.

Out of the total postal traffic processed in 2014 (623,205,073 items), CNPR processed 366,849,865 items (58.86%), whereas the next ten large volume providers of the whole market processed 232,491,221 items (37.31%), while the remaining providers (226) had processed 23,863,987 items (3.83%).

In 2014, the total domestic traffic grew by 11.85%, reaching 592,921,878 items. Of the total domestic traffic, CNPR processed 345,970,400, i.e. a percentage of 58.35%, the next ten large-volume providers in this market segment reaching 231,542,102 items (39.05%). The rest of the providers processed a volume of only 15,409,376 items (2.6%).

Exhibit 4.2 Dynamics of the total postal traffic during 2010-2014

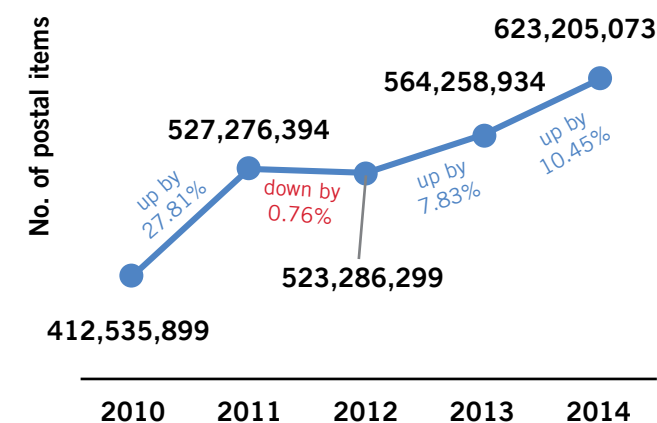
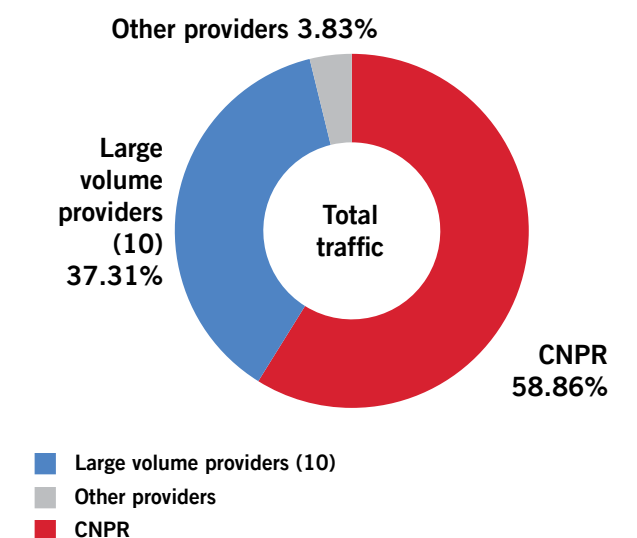
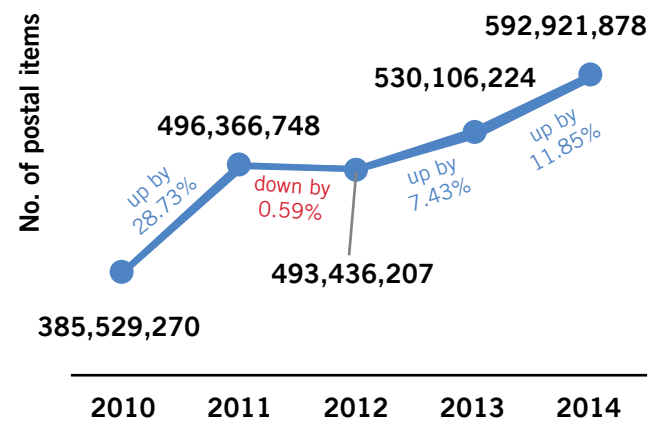


Exhibit 4.3 Distribution of postal market among the postal service providers, in 2014



In 2014, 30,283,195 cross-border items were processed, i.e. a decrease by 11.33% over 2013. Of this, CNPR processed 20,879,465 items, i.e. 68.95%. The next ten large-volume providers in this market segment achieved a traffic of 7,925,649 items (26.17%), while the remaining providers achieved 4.88% - i.e. 1,478,081 items.

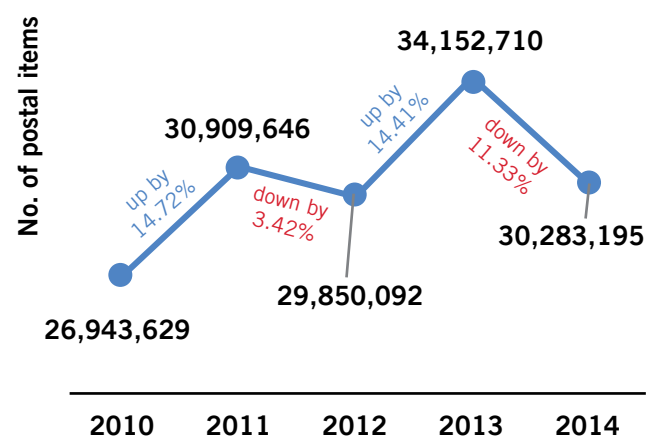
Exhibit 4.4 Dynamics of total domestic traffic: 2010 - 2014



Out of the 623 million postal items registered in 2014, approximately 84% were letter post items (over 521 million), approximately 10% - parcels (62 million), 1.4% - Express items (8.7 million), the rest of 5% direct mail items (18.8 million), money orders (8.3 million), respectively items of correspondence and printed matter weighing more than 2kg (4 million). Almost 593 million were domestic postal items and more than 30 million – cross-border items.

Thus, one can deem that a Romanian sent, on average,

Exhibit 4.5 Dynamics of total cross-border traffic in 2010-2014



almost 32 postal items in 2014, 20% more compared to the previous year. However, one of the grounds of this growth is the decrease in the statistical figures regarding the population considered for the total postal traffic, in 2014.

The traffic of items within the scope of universal service kept falling in 2014, reaching the lowest level in the past 5 years - 227 million items, more than 35% less than in 2013. In 2014, private providers processed 55% more items within the scope of universal service compared to 2013, whereas the traffic processed by CNPR in this market segment dropped by more than 65%.

In 2014, the postal items outside the scope of universal service, representing over 60% of the total postal traffic, continued the upward trend of the past 5 years, the most considerable growth being registered in 2014, i.e. by more than 90% compared to 2013, this market segment being almost totally (more than 95%) disputed by the first ten large volume providers.

In 2014, the total value of the postal services market represented 2,299,842,833 lei, CNPR annual the next ten large-volume providers in this market segment registering more than 85% out of the total.

In 2014, the first 10 providers (others than the National Company Poșta Română) considering the revenues obtained from the postal services are (in alphabetical order): Atlassib S.R.L., Cargus Internațional S.A., Dynamic Parcel Distribution S.A., DHL Internațional S.R.L., FAN Courier Express S.R.L., Nemo Prod Com Impex S.R.L., TNT România S.R.L., UPS România S.R.L., Urgent Curier S.R.L., Zipper Services S.R.L.

Exhibit 4.6 Dynamics of total postal traffic within the scope of universal service in the period 2010 - 2014

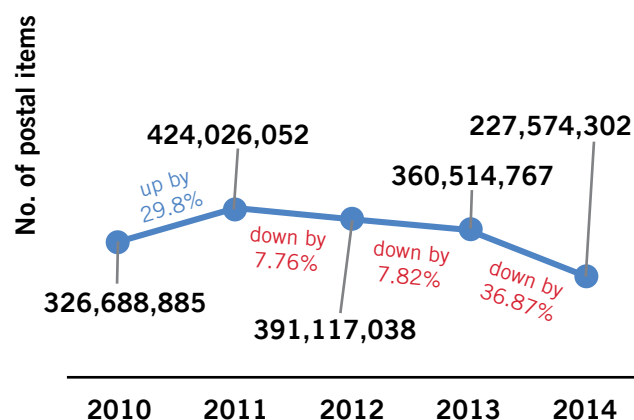


Exhibit 4.7 Dynamics of total postal traffic outside universal service area in the period 2010 - 2014

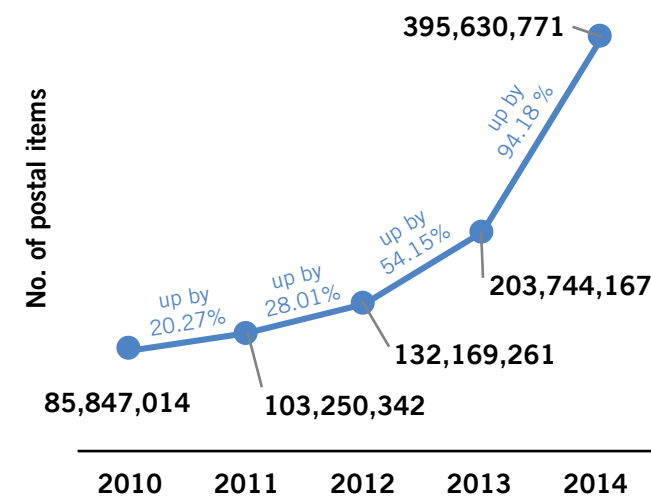
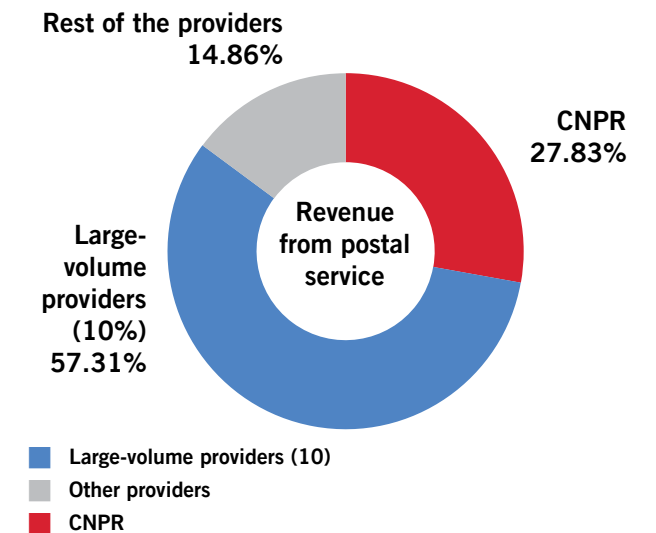


Exhibit 4.8 Distribution of the revenues achieved by postal providers in 2014



4.2. Postal services regulation

4.2.1 The completion of the regulations within the scope of universal service in the postal field

In 2015, ANCOM submitted to public consultation and then adopted two decisions for amending and completing certain provisions regarding the provision of the universal postal service throughout Romania.

ANCOM notified the designated universal service provider on the Decision no. 452 for amending ANCOM President's Decision no. 1158/2013 on the designation of the National Company Romanian Post S.A. as a universal service provider in the postal services field and ANCOM President's Decision no. 1159/2013 on the conditions for conducting and auditing separate financial statements by the National Company Romanian Post S.A.. In its capacity as a designated universal service provider until 31 December 2018, the National Company Romanian Post S.A. (CNPR) benefits from certain rights, such as the one of requesting the compensation of the net cost for the provision of services within the scope of universal service. Through this decision, ANCOM extends the term for submitting the request for compensating the net cost and for CNPR's sending the separated financial accounts, from 1 July to 14 August of the year following the one for which they have been conducted.

Moreover, taking into account the previous experience regarding the duration and the complexity of the process of analysing the compensation request, as well as the duration of the process of collecting and validating the statistical data for the postal services market, ANCOM extends the term within which it has the obligation to decide on the compensation of the net cost and on the amount to be compensated, from 135 to 160 days from the reception of the compensating request.

As well, with a view to improving the legal framework in place, ANCOM completed the secondary legislation in the postal services field and issued Decision no. 451/2015 amending and completing the National Authority for Management and Regulation in Communications President's Decision no. 541/2013 on the conditions and procedure for designating universal service providers in the postal sector, which included the general criteria for assessing the character of unfair burden of the net cost for the provision of universal service. In order to determine the extent to which the net cost is an unfair burden and should be compensated, the Authority will assess two economic indicators: (1) the profitability level of the average capital involved registered in the provision of the services within the scope of universal service, respectively (2) reaching a materiality level of 3% of the revenues registered from the provision of the services within the scope of universal service.

4.2.2 The amendment and the completion of certain regulations for the purpose of sending documents, data and information by the postal services providers by electronic means

At end-2015, the Decision no. 1079/2015 on amending and completing certain regulations for the purpose of sending documents, data and information by the postal services providers by electronic means, as well as for the purpose of using these electronic means in other circumstances, for amending and completing Decision no. 336/2013 and Decision no. 127/2009 entered into force.

The Decision no. 1079/2015 imposes on all the postal services providers to send certain information to ANCOM exclusively by electronic means using an online application and a certified electronic signature.

Among the items of information to be sent exclusively by electronic means, we mention the statistical data that postal service providers have the obligation to report to ANCOM, on a annual basis. These new rules would apply starting with the next reporting period, i.e. that for reporting the statistical data corresponding to 2015, which should be reported not later than 15 March 2016.

The online application for sending such information is available on ANCOM's website, whereas for data reporting, one can use electronic signatures issued by certification service providers from Romania, and, under certain conditions, from another country.

4.2.3 The settling of the request on the compensation of the net cost of the provision of postal services within the scope of universal service in 2014

On August 14th, ANCOM received CNPR's net cost compensation request, accompanied by a statement on the expenditures, the income and the capital employed corresponding to the provision of services within the scope of universal service for the year 2014, as well as the Factual Findings Report on verifying the request for compensation of the net cost of services within the scope of universal service, prepared by an independent auditor. In assessing the unfair burden character based on the above-mentioned conditions, ANCOM extracted relevant information from the separated financial statements kept by CNPR for the year 2014.

The Authority evaluated whether the net cost is an unfair burden for CNPR by calculating the level of return on capital employed for the universal service segment and ascertained that, in 2014, the universal service provider made a profit on the segment of services within the scope of universal service, and that the return on capital employed was above the reasonable level of return established by ANCOM for 2014 at 13.10%. Taking into account that the first criterion had not been met, and thus the second criterion no longer needed to be analysed, the Authority concluded that the amount of the net cost is not an unfair burden for the universal service provider, and therefore it was not to be compensated.

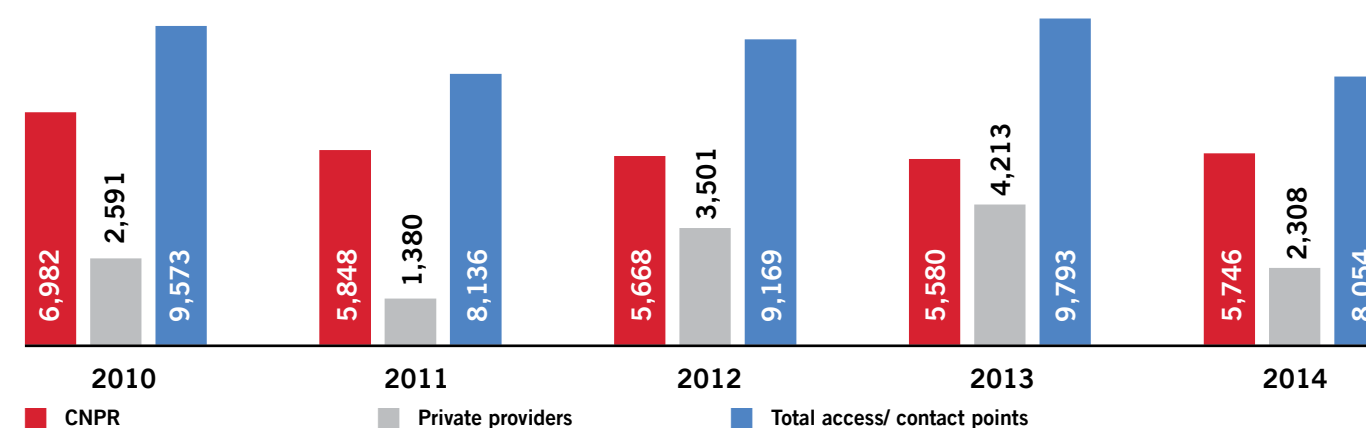
Between 16 December 2015 and 11 January 2016, the Authority placed under public consultation the draft decision regarding the request for compensation of the net cost for the provision of postal services within the scope of universal service in 2014. Having received no comments during this period, on 14 January 2016, ANCOM adopted the respective decision and communicated it to CNPR, and thus the decision entered into force.

CNPR is the designated universal service provider in Romania, therefore it has the right to request the compensation of the net cost for the provision of services within the scope of universal service, which is the difference between the costs incurred by CNPR in fulfilling its universal service obligations and the provider's net cost in the scenario that it conducted its activity exclusively on commercial bases, without universal service obligations. According to the new provisions which entered into force starting from 2015, the net cost is deemed an unfair burden if it cumulatively meets two conditions regarding the level of the return of capital employed and the materiality threshold of the incomes from the provision of services within the scope of universal service.

4.3 Protection of the postal services users

In 2014, the Romanian postal network consisted of **8,054** access and contact points served by human personnel with public working hours, belonging to universal service provider and other providers as well, which means that - on average one access/contact point served by human personnel was made available to 2,437 inhabitants.

Exhibit 4.9 The number of access/contact points served by personnel owned by CNP and private providers during 2010 - 2014



In 2014, 180,000 complaints on postal services were registered, 30% of which were found grounded. In 18,700 cases, the complainants were paid damages amounting to RON 4,175,261. Statistically, considering the total number of postal items by the number of complaints, 2014 featured one complaint per 3,505 postal items, respectively one grounded complaint per 12,329 postal items, and - on average - one in three grounded complaints was settled by damage payment.

The Authority received and solved during 2015, 462 complaints regarding the quality of postal services. Most of them were not addressed directly to ANCOM and concerned the delayed delivery of postal items, mainly in case of products ordered online in the context of certain discount campaigns organised by retailers. Also, some user complaints concerned damaged parcels and delayed reception of the payment for goods shipped by the cash on delivery service.

5. Scarce resources

ANCOM manages and administrates scarce resources by planning, assigning, supervising and assessing their use. The scarce resources administrated and managed by the Authority are the radio spectrum, the numbering resources and the associated technical resources for electronic communications networks and services.

The document grounding the use of the radio spectrum in Romania is **the National Table for Frequency Allocations (NTFA)**, while the document establishing the structure and destination of the numbering resources used in Romania is **The National Numbering Plan (NNP)**, these documents being available for consultation on the Authority's website. In 2015, the Authority issued in due time all the transmission licences, licences for the use of numbering and technical resources, whereas the rate of timely issuance of authorisations for the assignation of radio frequencies was 99.8%, while that of issuing licences for the use of radio frequencies through direct awarding was 98.9%.

5.1 Administration of scarce resources

5.1.1 Awarding spectrum resources in the 3400 – 3800 MHz bands

After having published a questionnaire on the future use of the 3400-3600 MHz and 3600-3800 MHz bands in Romania, at end-2014, in general, and the channelling arrangement to be adopted in Romania for the 3400-3600 MHz band, in particular, at the beginning of 2015, and upon analysing and processing the resulting data, ANCOM launched for public consultation **the Strategy for the Implementation and Development of BWA systems at a national level, in the 3400-3800 MHz band, for the period 2015-2025**. This document was aimed at establishing the principles, the terms and the procedure for awarding the rights to use the radio spectrum in the 3410-3800 MHz band, with a view to implementing and developing mobile/fixed communications systems (MFCN), including BWA systems, on a national level.

Following an extended public consultation, the strategy and the action plan for the implementation and development of broadband communications systems on a national level in the 3400-3800 MHz band, for

the period 2015-2025, were adopted by Decision no. 390/2015. This normative act implemented the basic provisions of the European Commission Decision no. 2014/276/UE amending the European Commission Decision no. 2008/411/CE.

With a view to developing the national broadband communications sector, in the elaboration of the strategy, ANCOM took into account objectives aimed to:

- increase of broadband communications penetration at a national level;
- foster competition in the broadband communications market;
- encourage efficient investment in the national radiocommunications infrastructure;
- develop the national radiocommunications infrastructure for the purpose of reducing the digital gap between urban and rural areas;
- ensure the predictability of the regulatory act and the certainty of rules applicable in the radio spectrum management process, in general.

Furthermore, the Authority took into account objectives that concerned especially the 3.4 – 3.8 GHz, band, such as to:

- promote innovation and new technologies that use the radio spectrum of the said band in a more efficient and rational way;
- integrate the specific requirements imposed by the national context, by means of the rights to use the radio frequencies already awarded in this frequency band;
- award radio spectrum resources in an efficient manner, to those operators that use them intensively;
- ensure the conditions for equitable and non-discriminatory access to the radio spectrum resource;
- ensure a transparent and non-discriminatory transition from the existing rights for the use of the radio spectrum to the new usage rights awarded based on the strategy;
- the efficient and rational use of the radio spectrum, by removing excessive fragmentation in the process of awarding the rights of use in the above-mentioned frequency band.

In accordance with the strategy provisions, the new channelling arrangements valid in Romania starting

from 2016 are: FDD-type (frequency division duplex) in the 3410-3600 MHz band, with 2x5 MHz wide channels, respectively TDD-type (time division duplex) in the 3600-3800 MHz, with 5 MHz wide channels.

The strategy document provided the organisation, in 2015, of one competitive selection procedure with a view to awarding new rights for the use of the radio spectrum in both bands, for the provision of broadband public networks and electronic communications services on a national level (observing the technological neutrality principle and that of the neutrality of the provided services). The Authority established the new rights for the use of spectrum to enter into force from 1 January 2016, for a 10-year period (until 31 December 2025).



The strategy provided for the selection procedure to make available 16 paired blocks (2x5 MHz) in the 3.5 GHz (3410-3600 MHz) band and 36 unpaired 5 MHz blocks in the 3.7 GHz (3600-3800 MHz) band to be awarded on a national level. Thus, the dimension of an available block was provided to equal the dimension of each radio channel, in each of the two frequency bands under the selection procedure. Nevertheless, the strategy provides the obligation of each winner in the selection procedure to purchase a minimum quantity of radio spectrum, i.e. 2x10 MHz in the 3.5 GHz band, respectively 10 MHz in the 3.7 GHz band.

Immediately after the adoption of the aforementioned strategy, the Authority elaborated the technical documentation on the selection procedure

for awarding the right to use the radio spectrum on a national level in the 3410-3600 MHz and 3600-3800 MHz bands. This documentation consisted of the draft decision on the organisation of the selection procedure and of the draft Terms of Reference based on which the procedure was organised. Following public consultation with all the stakeholders, Decision no. 686/2015 on the organisation of the selection procedure for awarding the rights of use of the radio frequencies in the 3410-3800 MHz band was adopted. At the beginning of September 2015, the Terms of Reference of the selection procedure were adopted, including all the technical elements from the European Commission Decision no. 2014/276/UE that had not been mentioned in the previously adopted strategy for this band.

Regarding the financial aspects related to the above-mentioned selection procedure, both the reserve price for auctioning each block in the two bands, and the tariff for the use of the radio spectrum in the 3.4-3.8 GHz bands, valid starting from 2016, were established by public consultation with the industry. Thus, the reserve price equalled the minimum amount of the licence fee, established by Government Decision no. 702/2015 on establishing the amount of the minimum value of the licence fee for awarding the rights of use in the 3410-3800 MHz band. Thus, the starting price was EUR 370,000 for the blocks in the 3.5 GHz band, respectively EUR 185,000 for the blocks in the 3.7 GHz band.

The tariffs for the use of the radio spectrum corresponding to the channels in the 3.4 – 3.8 GHz band, to be paid by the holders of the new licences awarded in the above-mentioned selection procedure, are available in section 5.1.5 of this annual report.

The selection procedure was launched on 7 September 2015, five offers being submitted and qualified, from 2K Telecom, Orange Romania, RCS&RDS, The National Radiocommunications Company and Vodafone Romania. Following the analysis of the initial bids submitted by the five applicants, ANCOM Auction Commission announced that the initial aggregated channel demand did not exceed the radio spectrum available in the auction, in any of the bands, therefore each operator won the number of blocks requested in the initial bid. Thus, the auction stage of the selection procedure started directly by the additional primary round, a bidder requesting and winning additional

spectrum during this round. The auction stage ended by the assignment rounds for the two bands, on 26 October. At the end of the auction procedure, the winning bids and bidders were established, as well as the total spectrum amount won by each of them.

Following the auction for awarding the rights of use of the radio frequencies in the 3410-3600 MHz and 3600-3800 MHz bands, 255 MHz were assigned, 65% more than awarded by the licences in force at the respective moment in the two frequency bands (i.e. 154 MHz).

Thus, 2K Telecom S.R.L. won 2 paired 2x5 MHz blocks in the 3410-3600 MHz band, for a licence fee amounting to EUR 740,100. Orange Romania S.A. won 5 paired 2x5 MHz blocks in the 3410-3600 MHz band and 9 unpaired 5 MHz blocks in the 3600-3800 MHz band. For the spectrum resources acquired in the auction, Orange Romania S.A. paid a licence fee amounting to EUR 3,924,000. RCS&RDS, which had not had a licence in the 3.4 – 3.8 GHz, was awarded 10 unpaired 5 MHz blocks in the 3600-3800 MHz band, for a licence fee amounting to EUR 1,880,000. The National Radiocommunications Company won 10 unpaired 5 MHz blocks in the 3600-3800 MHz band. For these spectrum resources, the National Radiocommunications Company paid a licence fee amounting to EUR 1,850,001. Vodafone Romania S.A. was awarded 4 paired 2x5 MHz blocks in the 3410-3600 MHz band, for which it paid a licence fee amounting to EUR 1,730,000. The licence fees paid by these operators to the state budget reached a total of EUR 10,124,101.

By this selection procedure, 11 paired 2x5 MHz blocks were awarded at a national level in the 3.5 GHz band, 5 such blocks remaining unawarded, and 29 unpaired 5 MHz blocks were awarded a national level in the 3.7 GHz band, 7 such blocks remaining unawarded.

5.1.2 Awarding spectrum resources for transition to digital terrestrial television

Starting from 17 June 2015, terrestrial radio transmission of television services in analogue system in the 470 – 790 MHz (UHF) band was switched off, whereas terrestrial radio transmission of public and private television services in analogue system, in the

174-230 MHz (VHF) band, will continue, according to the provisions adopted by the Government, on temporary bases, until 31 December 2016.

With a view to the digital switch-over, ANCOM organised – by the end of 2015 – three auctions for awarding digital multiplexes. Following the first auction completed in 2014, three national multiplexes were awarded to the National Broadcasting Company, this company winning the free to air multiplex and two other multiplexes in the UHF band, for a licence fee of EUR 1,020,002.

Nine regional digital multiplexes were awarded following the second auction completed in February 2015. The winning companies were: Regal, that won 1 regional multiplex (Râmnicu Vâlcea) for EUR 8,010, Cargo Sped, that won 1 regional multiplex (Sibiu) for EUR 8,001, 2K Telecom, that won 5 regional multiplexes (4 in Bucharest and one in Ploiești) for EUR 52,000, Radio M Plus, that won 1 regional multiplex (Iași) for EUR 10,000 and Digital Video Broadcast, that won 1 regional multiplex (Satu Mare) for EUR 8,000.

Following the third auction organised by ANCOM, completed in May 2015, 5 new regional and local multiplexes were awarded. The winning companies were: Info Total Press S.A., which won 3 multiplexes (2 regional ones in Suceava and Botoșani and a local one in Bacău) for EUR 18,200, TV Sat 2002, which won 1 regional multiplex in Buzău for EUR 8,000 and Grup Est Security S.R.L., which won 1 multiplex in Piatra Neamț for EUR 41,600.

5.1.3 Amending the procedure for authorising the provision of audio-visual programme services

In 2015, the Authority consulted and adopted Decision no. 344/2015 amending and completing Decision no. 629/2010 on the procedure of authorisation of the audio-visual programme service provision. By this decision, the Authority clarified the issuance, amendment and extension of the transmission licence and of the licence for the use of the radio spectrum in digital terrestrial system, including the technical authorisation and the frequency assignment authorisation. Thus, where a provider's transmission licence is amended following the modification of the respective provider's identification data, ANCOM will consequently update, within 15 days, the provider's technical authorisation.

Moreover, the term for completing the technical verifications for authorisation purposes will be calculated starting from the date of the holder's submitting the full documentation, whereas the term for submitting the requests for extending the transmission licence validity will be 45 calendar days. By this decision, the Authority also proposes a new approach related to the amendment and extension of the rights of use, meant to facilitate the issuance of the administrative acts.

5.1.4 Procedure for awarding the radio frequency usage rights for diplomatic missions, consular offices and representation offices of international organizations accredited in Romania

In 2015, Decision no. 512/2015 on the Procedure for awarding the radio frequency usage rights for diplomatic missions, consular offices and representation offices of international organizations accredited in Romania and the conditions for temporary use of the radio frequency spectrum during visits of foreign officials to Romania entered into force.

Thus, diplomatic missions, consular offices and representation offices of international organizations accredited in Romania that are interested in using the radio spectrum must obtain a licence. For this purpose, they will have to transmit a Note Verbale and two notification standard forms with specific information about the radio service and the requested application type to the Ministry of Foreign Affairs – Protocol Division. The Ministry of Foreign Affairs – Protocol Division will transmit to ANCOM this request for awarding the licences for the use of the radio frequency spectrum, within 10 working days, and ANCOM will issue the licence and the frequency assignment authorisation within 6 weeks.

ANCOM may reject a licence application from a diplomatic mission if the requester had not submitted all the documents, there is no radio spectrum available under the required conditions, the technical or legal conditions within the electronic communications field are not fulfilled or if the allocation of the spectrum resource requested is not justified, objectively, for reasons of rational and efficient use of radio spectrum.

The draft decision establishes the procedure for awarding the temporary use of radio frequencies during the visits of certain foreign officials to Romania, as well.

5.1.5 Amending the radio spectrum usage fees

The amount of the annual spectrum usage fee for certain radiocommunications networks and stations was amended in 2015, by Decision no. 687/2015. The most important amendment envisages the spectrum tariff for using the 3.4-3.8 GHz band, and was needed in the context of the auction organised by ANCOM in 2015 for awarding the spectrum in this band. The Authority established that the tariff for the paired 2x5 MHz paired blocks awarded on a national level in the 3.5 GHz band should be the RON equivalent of EUR 72,000/block, while the annual tariff for the unpaired 5 MHz blocks awarded on a national level in the 3.7 GHz band should be the RON equivalent of EUR 36,000/block, starting from 2016.

Another amendment proposed by ANCOM regards a tariff reduction for certain satellite communications stations situated on ground or on board of ships and aircrafts, as this is one of the Authority's action lines with a view to stimulating the development of satellite radiocommunications applications.

5.1.6 Consultation on licence-exempt radio frequencies or radio frequency bands

In 2015, the Authority launched for public consultation a draft decision identifying several frequency bands that could be used “freely” – without undergoing a prior licence issuance procedure –, for operating certain radio equipment categories. This regulation will repeal ANCOM's decision no. 1722/2011 on this issue, currently in force, and will implement the provisions of the European Commission Decision no. 2013/752/UE (amending CE Decision no. 2006/771/CE) and 2014/702/UE (amending CE Decision no. 2007/131/CE).

Such equipment includes transmitter-receiver stations used in vehicles in the **citizen band** (26.960-27.410 MHz), location, tracking and data acquisition devices, alarms, various remote controls, door opening or model vehicle control devices, radio frequency identification (RFID), active medical implants, cordless (DECT) telephone sets, automotive short-range radar systems or various radio equipment using ultra wideband technology for specific purposes.

Although such equipment may be used in the licence-free bands, the users must observe the technical regulations in force, in order to avoid the risk of



producing harmful interference on other services that use the radio spectrum in accordance with the legal provisions. Moreover, the use of this equipment does not benefit from radio protection, may the interferences be produced by similar users or by radiocommunications stations functioning according to the regulations in force.

5.1.7 Public consultation on the future use of the 410 MHz and 450 MHz bands

In 2015, ANCOM launched a public consultation on the future use of the 411-415 MHz/421-425 MHz (the 410 MHz band) and 453-457.5 MHz/463-467.5 MHz (the 450 MHz band) frequency bands in Romania, in order to find the operators', the users' and other interested parties' opinion on the best solutions for the use of these frequencies, including on the network type, radio services and applications to be used in these bands, or the type of procedure applicable for granting the rights of use in these bands.

Previously, the usage rights for the radio spectrum in these bands had been granted to Telemobil, which held the licence for the use of the 450 MHz band until 24 March 2013, respectively to Telekom Romania Communications (former Romtelecom), which held the licence for the use of the 410 MHz band until 31 December 2014.

In the context of the availability of the radio spectrum in the 410 MHz band starting from the beginning of 2015, ANCOM aimed at analysing, in an aggregated

manner, the options regarding the use of the radio spectrum in the two bands, for the purpose of identifying the most adequate services that ensure the optimum usage of the available spectrum resources, taking into account both the current demands of the electronic communications market, and the future spectrum requirements for harmonised European applications in the two frequency bands.

The opinions expressed in the consultation process will help the Authority ground its proposal on the future destination of the 410 MHz and 450 MHz bands, and subsequently, upon updating the NTFA, ANCOM will award the usage rights in these bands according to the legal provisions.

In accordance with the NTFA in force, the 410 MHz and 450 MHz bands can be used for broadband cellular public networks. Moreover, according to the European regulations in force, ANCOM may propose the designation of the 410 MHz and 450 MHz bands for broadband and narrowband digital mobile systems (PMR/PAMR), or for broadband digital radio applications for public protection and disaster relief (PPDR).

5.1.8 New regulations on number porting, numbering resources and technical resources

In 2015, the Authority reviewed a series of previously issued decisions in the field of numbering, technical resources and number portability, with the aim to

update existing decisions, thus bringing the regulatory framework, in line with the market developments.

Due to the significant rises in the number of porting processes during the periods when telephony operators launch attractive offers, ANCOM decided to increase the minimum daily processing capacity of each donor provider (FD), both for fixed telephony numbers (from 200 to 300 in the case of telephone numbers for Bucharest and the county of Ilfov and from 100 to 150 for the rest of the counties), and for mobile telephony numbers (from 1,200 to 2,000). Moreover, ANCOM provided a new mechanism by which this processing capacity should be further extended where the new minimum limits prove to be insufficient.

Furthermore, ANCOM created the regulatory framework enabling the providers that are beneficiaries of numbering resource transfers from a licence holder to implement number portability, as well. So far, only licence holders could implement the portability functionalities for the recipients of the transferred numbers. This alternative is still valid, but the beneficiary providers (FB) also have the possibility to implement number portability themselves, which would empower them to operate in a market with greater independence from the licence holder.

Another new development is lessening the interdiction of subsequent transfers, i.e. a convention may be concluded between the LUNR holder and the beneficiary provider, by which the latter is granted the right to transfer the numbering resources obtained from a LUNR holder. Such a convention must be explicit, not tacit or presumed from other factual circumstances, its absence implying the beneficiary provider's interdiction to transfer to other beneficiary providers the numbering resources obtained from another LUNR holder. By this new framework, ANCOM aimed at widening the range of electronic communications service providers' options for access to numbering resources and at fostering the emergence of new market players, that could cover currently underserved market segments. Thus, market entry is facilitated for light mobile virtual networks operators (light MVNO), for example, or for enablers (MVNE).

Decision 651/2015 amends and completes the provisions of six previously issued normative acts: **Decision no. 321/2008 on the allocation and use of national short numbers for public interest services**

or for general interest services at a national level, Decision 376/2013 on the procedure of requesting and issuing licences for the use of numbering resources, Decision no. 379/2013 on the allocation and use of national short numbers for public interest services or for general interest services at a national level Decision 380/2013 on awarding and using technical resources, Decision no. 144/EN/2006 on implementing number portability and Decision no. 3444/2007 on adopting the technical and commercial conditions for implementing number portability.

5.2 Radio spectrum management

Radio spectrum is a limited natural resource of the Romanian State required for the provision of electronic communications networks and services, the efficient management of this resource being of strategic importance at a national level, for the purpose of satisfying the country's public, social and defence interests.

5.2.1 Radiocommunications in the land mobile service

ANCOM manages the non-governmental frequency bands allocated to radiocommunications in the land mobile service according to the NTFA. The Authority aims mainly at ensuring radio-electric compatibility between the radiocommunication networks that use radio frequencies allocated to the land mobile service, to ensure the reasonable and efficient use of the radio spectrum allocated to the land mobile service and to prevent the occurrence of harmful interferences in the authorised land mobile radiocommunication networks.

5.2.1.1 Professional mobile radiocommunications (PMR) and public access mobile radiocommunications (PAMR)

In the field of professional mobile radiocommunications for private use, serving the internal needs of organisations, the Authority issued in 2015:

- 274 new licences for the use of radio frequencies for private use radiocommunication networks – professional mobile radiocommunications (PMR);
- 318 frequency assignment authorisations, which are annexes to the licences for providing private use radiocommunication networks – professional mobile radiocommunications (PMR);
- 782 frequency assignments for stations of authorised PMR networks.

The specific users of professional mobile radiocommunication (PMR) networks of private use are both small entrepreneurs and big companies operating in various sectors of the national economy which require their own radiocommunication networks: industry, manufacturing, transport and supplying of public utilities on a national level, transports, public construction and civil works, agriculture, hydrographical network management, safety and security of persons and of private property, public protection, public health, public management services etc.

With a view to the provision of networks and/or services of radiocommunications in the land mobile service, the Authority also issued in 2014:

- 141 temporary licences for the use of the radio spectrum for providing public access mobile radiocommunication (PAMR) networks and services;
- 142 radio frequency assignment authorisations, which are annexes to the temporary licences for the use of radio frequencies for providing public access mobile radiocommunication (PAMR);
- 228 frequency assignments for stations of authorised PAMR networks.

The holders of licences for the use of radio frequencies with a view to providing public access mobile radiocommunication (PAMR) networks and services are public operators that provide mobile communications

services to professional user categories or dedicated groups of users.

Moreover, during 2015, the Authority issued:

- 229 licences for the use of the radio spectrum on an occasional basis for providing public access mobile radiocommunication (PAMR) networks and services, and professional mobile radiocommunications (PMR) networks;
- 238 radio frequency assignment authorisations, which are annexes to the licences for the use of the radio spectrum on an occasional basis for providing public access mobile radiocommunication (PAMR) networks and services, and professional mobile radiocommunications (PMR) networks.
- 316 frequency assignments for stations of PMR and PAMR networks authorised on an occasional basis.

Moreover, the Authority handled the frequency assignment requests transmitted, through the Ministry of Foreign Affairs, by foreign diplomatic missions accredited to Bucharest, on the occasion of high-level official visits to Romania, issuing therefor 81 temporary frequency assignments in the land mobile service, during 2015.

The Authority permanently managed the licences for the use of the radio spectrum and the frequency assignment authorisations:

Table 5.1 Number of licences for the use of the radio spectrum and frequency assignment authorisations amended by ANCOM in 2014

Entity in charge	Licences for the use of radio frequencies for providing professional mobile radiocommunication (PMR) networks and public access mobile radiocommunication (PAMR) networks and services amended in 2015	Frequency assignment authorisations, which are annexes to the licences for the use of radio frequencies for providing professional mobile radiocommunication (PMR) networks and public access mobile radiocommunication (PAMR) networks and services amended in 2015	Licences for the use of radio frequencies for providing professional mobile radiocommunication (PMR) networks and public access mobile radiocommunication (PAMR) networks and services extended in 2015	Frequency assignment authorisations, which are annexes to the licences for the use of radio frequencies for providing professional mobile radiocommunication (PMR) networks and public access mobile radiocommunication (PAMR) networks and services extended in 2015
ANCOM Executive Division for Radio Spectrum and Numbering Management	38	112	32	89
Bucharest Regional Division	127	138	-	-
Cluj Regional Division	32	61	65	111
Iasi Regional Division	10	37	82	82
Timiș regional Division	19	21	32	34

5.2.1.2 International coordination of radio frequency usage in the land mobile service

In the international coordination of the use of radio frequencies allocated to the land mobile service with the communications administrations of the neighbouring countries with which Romania concluded frequency coordination agreements (Hungary and Ukraine), the Authority pursued mainly: compliance with the provisions of the international agreements and protocols regarding the coordination of radio frequencies in border areas to which Romania is a party; internal coordination with the government institutions as regards frequency use in the frequency bands with governmental use or in the frequency bands with shared governmental/ non-governmental use; protection of the national interests as regards the use, in border areas, of the radio spectrum allocated to the land mobile service and prevention of harmful interferences in the land mobile radiocommunication networks operating in border areas.

Thus, during 2015, ANCOM's activity of international coordination of the spectrum use in the land mobile service resulted in 222 international coordination actions as regards the frequency assignments with the communications administrations from the neighbouring countries, i.e. Hungary and Ukraine, in frequency bands allocated to the land mobile service.

An important activity conducted by ANCOM in the vein of international coordination for the use of radio frequencies was preparing the conclusion and participating the conclusion of a bilateral technical agreement with the communications administration of Ukraine on the coordination of frequencies use in border areas, in the 694-790 MHz band.

Thus, ANCOM specialists took part in drafting and negotiating the final text of a **“Technical Arrangement concerning the use of frequency band 694-790 MHz for terrestrial systems in border areas of Romania and Ukraine”**, concluded during the bilateral expert meeting between ANCOM and the Ukrainian spectrum management authority (the Ukrainian State Centre for Radio Frequencies), held in Bucharest, between 21 and 22 October 2015.

This technical arrangement paves the way to ensuring the technical and regulatory conditions for

the use of the 694-790 MHz band by the mobile service - excepting the mobile aeronautical - in Romania, as regards the compatibility between the mobile service on the Romanian territory an date aeronautical radionavigation service on the territory of Ukraine, in pursuit of item 9.21 of ITU's Radio Regulations, in accordance with Resolution 232 (WRC-12).

The conclusion of the technical arrangement marks the fulfilment of an important objective for preparing the settlement of Agenda Item 1.2 of the 2015 World Radiocommunications Conference (WRC-15) – **“to examine the results of ITU-R studies, in accordance with Resolution 232 (WRC-12), on the use of the frequency band 694-790 MHz by the mobile, except aeronautical mobile, service in Region 1 and take the appropriate measures”**.

During 2015, the ANCOM specialists also took part in the meetings of the Technical Working Group of the HCM Agreement (TWG-HCM) and of the Working Subgroup for the land mobile service (SWG-MS) of TWG-HCM. Considering the obligations of the Romanian communications administration as a signatory party in the HCM Agreement, as well as the Authority's attributions regarding the enforcement of the international agreements in the electronic communications field in which Romania is a party, the Authority took an active part in the sessions of the working group mandated to review the Agreement, supporting Romania's position as regards the frequency coordination in border areas in the land mobile service.

5.2.2 Radiocommunications in the fixed service

In its daily activity in the field of radiocommunications in the fixed service, the Authority manages the frequency bands assigned by the NTFA to the fixed service, with exclusive or shared non-governmental use. The main goals of this activity envisage the rational and efficient use of the radio spectrum allocated to the fixed service and ensuring the radio-electric compatibility between the radiocommunication networks in this service.

In 2014, the Authority carried out the objectives provided in the **Strategy for the Implementation and Development of BWA systems at a national level, in the 3400-3800 MHz band, for the period**

2015-2025 (strategy for the use of the 3400-3800 MHz band), adopted by ANCOM President's Decision no. 390/2015. Further details on this document are available in section 5.1.1 of this annual report.

Thus, upon the conclusion of the selection procedure conducted based on the strategy for the use of the 3400-3800 MHz band, in 2015, after the payment of the licence fees by the winners of the selection procedure, three licences were issued for the use of radio frequencies in the 3410-3600 MHz band and three licences – for the use of radio frequencies in the 3600-3800 MHz band. By these licences, the Authority awarded the sub-band allocations acquired by each winner in each of the two frequency bands under the selection procedure.

With a view to providing for the logical sequence of the solutions included in the strategy for the use of the 3400-3800 MHz band, ANCOM adopted Decision no.687/2015 amending Decision no.551/2012 on establishing the spectrum usage fee. On this occasion, the Authority made some adjustments, meant to reflect the Strategy approach, on the tariff for the usage of spectrum resources, for public electronic communications networks in the 3400-3800 MHz band. Further details on this issue are available in section 5.1.5 of this annual report.

In 2015, the Authority issued the following:

- 4 licences for the use of radio frequencies for radio relay links, for permanent radio transmissions;
- 6 radio frequency assignment authorisations, for 6 radio relay links destined to ensure the feeder links for sound radiobroadcasting transmitters;
- 2,454 frequency assignment authorizations for 2,454 radio-relay links for voice/data transmissions which are part of the national networks of radio infrastructure (these infrastructure networks ensure the transport of the traffic generated on the cellular mobile communications public networks using various technologies, as well as on the public multipoint networks for data transmissions by fixed wireless access (FWA), nomadic wireless access (NWA) or broadband wireless access (BWA), as the case may be);
- 4 licences for the use of radio frequencies and 4 radio frequency assignment authorizations for temporary radio transmission;
- 1 licence for the use of radio frequencies and

1 radio frequency assignment authorization for occasional radio transmission.

In 2015, among the spectrum management activities for the bands allocated to the fixed service, the Authority performed frequency assignments, as follows:

- 9 prior agreements, containing frequency assignments for 88 radio-relay links grouped by complex networks intended for voice/data transmissions;
- 5 prior agreements, containing frequency assignments for feeder links corresponding to sound radiobroadcasting transmitters.

5.2.3 Sound and TV broadcasting

2015 is a milestone for the Authority in the audio-visual field, being the analogue switch-off year.

Apart from the organising the auctions for awarding the DTT multiplexes (Chapter 5.1.2), the Authority's activity in the field focused on the management of the radio spectrum for sound broadcasting and for the retransmission of audio-visual programmes by means of MMDS (Multipoint Multichannel Distribution System). Given the development of fibre optic communications, in 2015, further operators gave up MMDS in areas where fibre optic infrastructure was available. Thus, out of the total of 28 licences for the use of frequencies for MMDS valid at the beginning of the year, in 2015, ANCOM issued 7 new licences and cancelled 10 licences.

In 2015, the Authority managed the following documents:

Analogue television

- 56 amended transmission licences;
- 168 cancelled transmission licences.

Sound broadcasting:

- technical analysis on the assignment of 54 broadcasting frequencies, the list of which has been sent to the NAC for selection organisation purposes;
- 599 transmission licences were issued or amended
 - 62 new transmission licences
 - 537 amended transmission licences (including extended ones)
- 65 cancelled transmission licences.

Table 5.2 Number of new/amended technical authorisations and number of TV stations for which technical measurements were performed

	New technical authorisations	Amended technical authorisations	Total technical authorisations*	No. of stations for which technical measurements were performed
Bucharest Regional Division	-	18	290	-
Cluj Regional Division	14	40	264	5
Iasi Regional Division	4	10	224	3
Timiş Regional Division	-	7	170	-

*starting from 17.06.2015, all the technical authorisations of the television stations were cancelled due to the digital switch-over

Table 5.3 Number of new/amended technical authorisations and number of sound broadcasting stations for which technical measurements were performed

	New technical authorisations	Amended technical authorisations	Total technical authorisations	No. of stations for which technical measurements were performed
Bucharest Regional Division	20	267	278	43
Cluj Regional Division	24	141	266	56
Iasi Regional Division	17	189	183	42
Timiş Regional Division	10	140	165	30

As regards the international coordination for the use of frequencies during 2015, 393 requests from neighbouring countries were analysed and solved, both through BRIFIC (UIT - BR International Frequency Information Circular (Terrestrial Services)), and by direct mail:

- BRIFIC (AUT, BUL, CZE, HNG, MDA, RUS, SVK, SVN, TUR, UKR) – 253 stations (151 sound broadcasting, 102 DVB-T)
- direct mail (HNG, POL, SVK, UKR) – 150 stations (33 sound broadcasting, 23 DVB-T, 84 T-DAB)

5.2.4 Specialized radiocommunications

5.2.4.1 Radiocommunications in the fixed- and mobile- satellite services

I. Radiocommunications in the fixed satellite service (FSS)

An important segment of this radiocommunications service, with significant impact on the end-user, is represented by the conveyance of sound radio broadcasting and/or television programmes towards the satellite, in view of their controlled distribution to CATV networks or terrestrial transmitters for audio or TV broadcasting or for the purpose of direct broadcasting to the public. At the end of 2015, ANCOM was managing **21 licences for the use of frequencies for satellite communications stations designed for uploading sound and/or TV broadcasting programmes**, serving 130 radio and television programme services from Romania.

The 2 direct-to-home (DTH) platform operators, offering satellite television services on the Romanian

market and having installed up-link stations for which they hold licences for the use of radio frequencies on the Romanian territory are: RCS&RDS (Digi TV) and Romtelecom (Dolce TV).

As for nomadic DSNG (Digital Satellite News Gathering), stations destined to occasional, temporary transmissions towards the studio of reportages, news, cultural/sports events and of other audio-visual productions from outside the studios, ANCOM was managing, at the end of 2015, 52 frequency assignment authorisations for the 16 operators holding licences for the use of frequencies for SNG applications. Furthermore, ANCOM issued 4 temporary licences for the use of frequencies for 5 DSNG stations owned by foreign operators, used for occasional, temporary transmissions towards studios outside Romania of reportages, news, cultural/sports events and of other audio-visual productions from Romania.

Another important segment within the radiocommunications service is public or private satellite networks, providing for the transmission of data, voice and Internet services. At end-2015, ANCOM was managing 17 licences for the use of radio frequencies in the fixed satellite service (3 for satellite networks, and the rest for individual VSAT terminals) and 107 radio frequency assignment authorisations for HUB stations and Very Small Aperture Terminals (VSAT) in to the architecture of such networks and 2 licences for the use of frequencies for ESV (Earth Stations on Vessels) terminals.

Globally, in the recent years, new satellite networks in the Ka bands (17.0-30.0 GHz) have been launched. At end-2015, the provision of satellite communications services, destined to data transmissions in Ka bands on the territory of Romania, was ensured by two operators - INMARSAT Global Limited (INMARSAT network) and Skylogic SPA (Eutelsat network) – that held the corresponding licences for the use of frequencies. In the coming years we expect requests for the authorization of ESOMP stations (Earth Stations on Mobile Platforms) operating in Ka bands. These are terminals with small and directional antenna used for broadband communications, which can be mounted on aircraft, vessels, land vehicles or portable platforms used both in motion and temporarily, at fixed locations. These terminals mounted on vessels or aircraft can be operated in both national airspace and territorial waters and in international airspace or international waters.

II. Radiocommunications in the mobile-satellite service (MSS)

Currently, the following operators provide Satellite Personal Communications Services (S-PCS) across Romania: Iridium Satellite LLC (by means of IRIDIUM), Global Communications Services Romania (by means of THURAYA), Rokura (by means of ORBCOMM) and INMARSAT Global Limited (by means of INMARSAT).

During 2015, ANCOM was managing 9 licences for the use of frequencies for users holding 14 mobile terminals in various INMARSAT standards.

By their very nature, satellite communications transcend national borders and, consequently, they may be addressed by international and regional regulations, in addition to national regulations. In order to facilitate the development of a competitive internal market for satellite mobile services (MMS), throughout the Community and to gradually ensure the coverage in all Member States, the European Commission has set up a community procedure for selecting mobile satellite operators using the 2 GHz band which comprises radio frequencies from 1980 MHz to 2010 MHz for Earth-to-space communications and from 2170 MHz to 2200 MHz for space-to-Earth communications. Inmarsat Ventures Limited and Solaris Mobile Limited were the two winners at European level. In 2014, ANCOM offered the first

licence for the provision of satellite personal mobile communications services (satellite component) to Inmarsat Ventures Limited, and in 2015, the Authority was requested and issued the second licence for the provision of satellite personal mobile communications services (satellite component), to Echostar Mobile Limited.

5.2.4.2 Radiocommunications in the maritime mobile and maritime mobile-satellite services, including on inland waterways and maritime radionavigation

ANCOM constantly manages the radio frequency portfolio – i.e. all the existing licences and authorisations, not only the new ones – which involves different actions such as additions/removals/name changes, changes in emission parameters (bandwidth/satellite changes/ frequency modifications), transfers, changes to licenses / authorizations, validity extension etc. Throughout 2015, ANCOM efficiently managed the ship radiocommunication services covering maritime mobile and maritime mobile-satellite services, including on inland waterways and maritime radiocommunications.

The maritime mobile and maritime mobile-satellite services, including for the vessels on inland waterways and maritime radionavigation, unfold their activity based on a wide range of radio stations: (state- or private-owned) on-shore or coastal radio stations, GMDSS stations for sea area A1 belonging to Romania in the Black Sea, as defined by the SOLAS Convention of 1974, with the subsequent amendments, sailing stations, ship stations, radiolocation stations, radionavigation stations.

ANCOM's activity provided for maximum effectiveness of radiocommunications that ensure the safety and security of ships and ports, as well as the operations of search and rescue of life at sea.

ANCOM acted intensively towards the complex development of maritime communications systems and, on the occasion of WRC-15, took part in actions for the development and implementation of:

- digital communications in VHF, respectively the introduction of a new concept VDES – VHF Data Exchange System, based both on a terrestrial, and on a satellite component;
- digital communications in the MF/HF maritime bands;

- radio beacons for signalling fishing nets at sea (Fish Net Buoys);
- Man-Over-Board (MOB) equipment and future/ experimental developments;
- Digital technologies based on a CTCSS/DCS system (selective reception system based on Continuous Tone Coded squelch and Digital Coded Squelch) on board of sea vessels.

ANCOM was closely involved in the elaboration and adoption of important decisions during WRC-15, from the position as a vice-president of Committee 6, in charge of setting the agenda items for WRC-19, of outlining the agenda for WRC-23, as well as of the formal coherence of ITU's Radio Regulations. Moreover, ANCOM is involved in the progress of the study cycle at ITU level, having been elected as one of the vice-presidents of Study Group 5 (SG 5), a group that covers all the terrestrial and specialized satellite radiocommunications.

ANCOM has always aimed at upholding a position that should provide fair access for the providers of maritime radio equipment. Furthermore, the Authority placed great emphasis on compliance with the R&TTE Directive of the European Commission as regards maritime radiocommunications equipment. Therefore, it proposed the necessary measures for the vessels to be endowed with adequate radio equipment and for the required procedures to be performed, with a view to sending and receiving – with maximum efficiency – distress, security and emergency communications, as well as search-and-rescue related communications.

Among the great ship owners and spectrum users in the ANCOM portfolio are the Romanian Naval Authority together with the Maritime Rescue Coordination Centre (MRCC) and the Vessel Traffic Management Information Centre (VTMIS), National Company of Naval Radiocommunications RADIONAV, River Administration of the Lower Danube Galati, the River Shipping Company NAVROM, Midia Marine Terminal, as well as a large number of private ship owners.

Moreover, ANCOM kept an eye on ship stations for new constructions, more precisely for those ships built in shipyards in Romania and operating “home” and “high” tests in real conditions and therefore their authorization during the tests is needed. The validity of these experimental authorizations is additionally limited to the period of displaying the Romanian flag, bearing in mind

that all authorized vessels were made for export.

In 2015, ANCOM analysed and issued 51 experimental licences and 57 frequency assignment authorisations for shipyard trial stations.

As well, in 2015, ANCOM analysed and issued 68 licences for the use of frequencies and 173 frequency assignment authorisations for the maritime mobile and maritime mobile-satellite services, for the radiotelephone service on inland waterways and for maritime radionavigation, whereas for maritime radionavigation, the Authority issued 5 licences for the use of frequencies and 24 frequency assignment authorisations.

5.2.4.3 Radiocommunications in the aeronautic mobile and aeronautic mobile-satellite services, including aeronautic radionavigation

In 2015, ANCOM continued managing the aeronautic mobile and aeronautic mobile-satellite services, including aeronautic radionavigation, ensuring that both the requirements imposed by ITU RR and by Annex 10 to the Convention on International Civil Aviation (ICAO) are observed.

Through its activity in this field, ANCOM aimed at improving the use of the radio spectrum allotted to the aeronautic mobile service by continuing the gradual introduction of digital communications, as well as by other measures meant to reduce the congestion of communications in the aeronautic frequency bands.

ANCOM conducted spectrum management activities in respect of the frequencies awarded to the main participants in this radiocommunication service critical for the safety and security of aircraft, passengers and goods/ luggage, during the procedures of preparation/ taking off (engine start, pushing, taxi), effective flight, landing and parking at the final parking position. Moreover, ANCOM together with the Romanian Civil Aviation Authority (AACR) have prepared the introduction, at a national level, of the European concept of a national coordinator for the aeronautic radio frequency spectrum.

Another important part of ANCOM's activity was marked by aeronautic radionavigation, which includes VOR systems (VHF radionavigation and flight route setting equipment), ILS-GL and ILS-LOC/LLZ (landing guidance equipment), MB/NDB (radio locator beacons)



and DME (electronic distance measuring equipment). All this equipment can be found in one form or another both on board of aircraft and on the ground.

ANCOM is actively involved in the correct spectrum management allocated to this specialized equipment,

together with specialists from the Romanian Civil Aviation Authority, permanently taking into account that any error caused by radio interference may endanger human lives.

During 2015, ANCOM worked closely with CEPT administrations, but also with other regional organizations, contributing to a great extent to identifying a frequency band for "Global flight tracking for civil aviation" (GFT), during the WRC-15. ANCOM is also involved in the elaboration and implementation of GADSS (Global Aeronautical Distress and Safety System), both in its position as a vice-president of Committee 6 at WRC-15, and as a participant in the aeronautic frequency management group of ICAO.

Among the most important users of the aeronautic radio spectrum in the ANCOM portfolio we count TAROM Company, Henri Coanda Otopeni International Airport, the Romanian Administration of Air Traffic Services, Aeroclubul Romaniei, Regional Airport Services, Globe Ground, Menzies, etc., and a large number of private airline operators.

For these radiocommunications services, ANCOM constantly performs spectrum portfolio management, as well. This portfolio management involves various actions such as additions/removals/name changes, changes in emission parameters (bandwidth/satellite changes/ frequency modifications), transfers, changes in licenses/ authorizations, validity extension etc.

In 2015, ANCOM considered and issued 36 licences for the use of frequencies and 58 frequency assignment authorisations for the aeronautic mobile and aeronautic mobile-satellite services.

5.2.4.4 Alpha-numerical identification of ship stations and aircraft stations

With a view to an efficient radio traffic that should ensure the performance of aeronautic and/or maritime radionavigation at the highest standards, ITU's Radio Regulations provided for all the ships and aircrafts to be identifiable by a unique code and standardisable by a call sign that maritime and aeronautic traffic controllers could use for an exact image of the guided ship or aircraft both in respect of its dimensions, and in respect of its weight and of its available facilities.

In 2015, ANCOM efficiently managed the data base of numerical and alpha-numerical identifications and

made the necessary allocations for the operation of the radio stations communicating in the maritime, aeronautical and inland waterways services.

The method of generating the numeric and alpha-numeric identifications, as well as the distribution of these identifications by countries are set out both in the special provisions of the ITU RR and in the ITU-R M.585-7 Recommendation. ANCOM reports on a regular basis the identifications allocated to maritime ship stations to ITU's specialised database, the Maritime mobile Access and Retrieval System - MARS ITU.

ANCOM also reports, on a regular basis, the identifications allocated to ship stations on the inland waterways to the ATIS (Automatic Transmitter Identification System) and Inland-MMSI (Mobile Maritime Service Identification) databases set up at a European level, being managed by the Belgian administration (BIPT).

As well, analyses were made concerning the allocation of identifications dedicated to virtual means of navigation support.

In 2015, ANCOM managed 1,299 ATIS, MMSI and call-sign identifications.

5.2.5 Certification of radio operators in the aeronautic and maritime radiocommunication services

The operating personnel of radio stations in the maritime mobile and maritime mobile-satellite services (including on inland waterways) and in the aeronautic mobile and aeronautic mobile-satellite services is certified according to the provisions of ITU's Radio Regulations (RR) that establishes the necessity of certification, the manner of issuance of certificates and their content, as well as the requirements to be observed by administrations in the process of certifying radio operators.

ANCOM coordinates this activity in Romania and aims at ensuring a high competence standard for the operating personnel in watch keeping crews of ships and aircraft, as well as for the personnel in the centres for managing ship movement and air traffic control, since radio operators ensure both radiocommunications, in general, and radiocommunications for search and rescue missions, in particular.

Holding a radio operator certificate in the aeronautic and/or maritime services is a mandatory requirement for legally conducting the current activity of the personnel in command of ships and aircraft, the personnel in charge of managing the ship movement and air traffic control, as well as the personnel of the maritime and aeronautic authorities.

During 2015, a complex team consisting of experts of the interested European administrations, led by ANCOM, reviewed the harmonised European examination syllabi for radio operators in the maritime mobile and maritime mobile-satellite services, in the GMDSS system, provided by Decision ERC/DEC (99)01. ANCOM has overtly upheld this Decision that lays the grounds for the mutual recognition of radio operator certificates issued by any of the 48 CEPT member states, while constituting the reference base for the course models proposed by the International Maritime Organisation (IMO) to maritime training centres.

In 2015, ANCOM continues the guidance of the natural persons who own leisure boats or private jets and volunteer to participate in the radio traffic achieved by means of specialised systems.

The reference elements permanently maintained as a target, in 2015, were:

- ensuring open and fair access of candidates for obtaining various types of radio certificates;
- permanent alignment of the procedures concerning the issuance of the radio operator's certificates in line with the requirements of the ITU Radio Regulations, taking into account the fact that the holders of such certificates conduct operations on ships or aircraft under a wide variety of pavilions;
- implementation in the national examination syllabi of the European syllabi harmonised by Decision ERC/DEC (99)01, with the subsequent amendments;
- continuous guidance of the examiners from the delegated examination centres.

In 2015, ANCOM authorised 3,090 radio operators for the aeronautical mobile and aeronautical mobile-satellite services, maritime mobile and maritime mobile-satellite services, as well as for radiocommunications on inland waterways.

5.2.6 Authorisation and certification in the radioamateur service, certification of radio operators in the land mobile service

The authorisation and certification activity in the radioamateur service continued in 2015, ANCOM monitoring compliance with the provisions of ITU's RR and of CEPT recommendations, with a view to better integrating the Romanian radioamateurs in the international community.

During ITU's WRC-15, extending the radioamateurs'

involvement in emergency intervention activities was discussed, by extending their access to various frequency bands used therefor. Moreover, at CEPT level, ANCOM kept upholding the extension of recognition of radioamateur certificates and authorisations issued according to the harmonised CEPT syllabi, to countries situated outside Europe.

The documents issued in the amateur radiocommunications service and in the operator certification for the land mobile service are listed below:

Regional Divisions	Bucharest	Cluj	Iasi	Timisoara	Total
Radioamateurs					
1. Radioamateur authorisations issued in 2015 (new and extended):	185	84	94	54	417
2. Radioamateur certificates issued in 2015:	58	21	93	21	193
3. Sessions (ordinary and extraordinary) held for awarding radioamateur certificates in 2015:	4	2	4	3	13
4. Radioamateur authorisations in force at end-2015:	1,728	802	730	788	4,048
5. Radioamateur certificates in force at end-2015:	2,013	3,044	2,691	2,385	10,133
Certification of radio operators in the land mobile service					
1. Certificates issued in the land mobile service in 2015:	615	135	388	289	1,427
2. Sessions (ordinary and extraordinary) held for awarding certificates in the land mobile service in 2015:	5	12	8	7	32
3. Certificates in the land mobile service in force at end-2015:	4,753	1,370	1,615	1,722	9,460

5.3 Management of numbering and of technical resources

ANCOM offers the providers of publicly available electronic communications services and the providers of public electronic communications networks numbering or associated technical resources for providing services or operating networks. Numbering and technical resources are managed taking into account the following objectives: compliance with the principle of fair treatment for all the providers, assignment of adequate numbering or associated technical resources for all categories of publicly available electronic communications services and the rational and effective use of the numbering resources and of the associated technical resources.

5.3.1 Management of numbering resources

5.3.1.1 Assignment of numbering resources

In 2015, ANCOM registered 24 applications for the assignment of numbering resources, issuing 21 licences.

Moreover, ANCOM settled 10 applications for the renewal of licences with a validity term until 2015.

The analysis of the applications submitted during 2015 reveals that:

- 4 applications were submitted by providers requiring numbering resources for the first time, resulting in the issuance of 3 licences.
- 20 applications referred to the allotment of additional numbering resources to the previously allotted ones, resulting in the issuance of 18 licences.

Following the settlement of the above-mentioned applications, the table below presents the volume of the numbering resources assigned in 2015 in the various domains of the NNP:

Table 5.4 Numbering resources assigned by blocks

NNP domain	Assigned numbers
OZ=02 10-digit geographic numbers	10,000

NNP domain	Assigned numbers
OZ=02 7-digit geographic numbers intended for local interest services	70
OZ=03 10-digit geographic numbers	100,000
OZ=03 7-digit geographic numbers for local interest services	40
OZ=03 non-geographic numbers (location-independent)	140,000
OZ=07 mobile non-geographic numbers	2,300,000
OZ=08 non-geographic numbers for various services	2,000 - - - -
OZ=09 non-geographic numbers for Premium Rate services	1,000 1,000 -

In 2015, no numbering resources were assigned by unit (national short numbers and carrier selection codes).

5.3.1.2 Release of numbering resources by LUNR waiver or amendment

During 2015, certain numbering resources were released, upon the Authority's receiving requests for full or partial waiver of the LUNR from certain holders, due to the cessation of the right to provide electronic communications services for which numbering resources were assigned, as well as due to withdrawal of numbering resources for failure to pay the tariff for the use of numbering resources.

Thus, with a view to settling the full or partial waiver



requests submitted by the LUNR holders, in 2015 ANCOM, issued 10 decisions on the full or partial cessation of the right to use the numbering resources.

Among these, ANCOM registered 3 partial waiver cases for 3 holders and 7 full waiver cases for 7 LUNR holders.

Furthermore, there was one case of cessation of the right to provide the publicly available electronic communications services for which the numbering resources had been assigned, due to the holders' request, settled by a decision on the full waiver of the LUNR.

Also, in two cases, ANCOM withdrew the assigned numbering resources, by two decisions of full waiver for two LURN holders, for failure to pay the tariff for the use of the assigned numbering resources.

Thus, the following numbering resources were released:

Table 5.5 Numbering resources released by blocks

NNP Domain	Released numbers
OZ=02 10-digit geographic numbers	-
OZ=02 7-digit geographic numbers	-
OZ=03 10-digit geographic numbers	440,000
OZ=03 7-digit geographic numbers	-
OZ=03 non-geographic numbers (location-independent)	80,000
OZ=07 mobile non-geographic numbers	-
OZ=08 non-geographic numbers for various services	2,000 - - 2,000 -
OZ=09 non-geographic numbers for Premium Rate services	2,000 2,000 2,000

Table 5.6 Numbering resources released by unit (national short numbers and carrier selection codes)

Categories	Released numbers / codes
10xy codes	1
16xy codes	4
116xyz national numbers	1
118xyz national numbers	-
19vx national numbers	-

5.3.1.3 Merging or amending licence provisions

In 2015, ANCOM analysed requests for numbering resources or issued licences, in a number of various cases which do not affect the total volume of assigned numbering resources.

a) *mergers*

In 2015, ANCOM received announcements on mergers of companies, based on which it issued one decision and one new licence.

b) *amendments of identification data*

In 2015, ANCOM settled one request for amending a provider's LUNR due to a change in the company name, by issuing a new licence. Moreover, following the reception of announcements on changing the registered headquarters, ANCOM amended **ex officio** 2 LUNRs for a provider.

At end-2015, there were 72 LURN holders.

Table 5.7 Overview of the LURN holders by categories of numbering resources held

10-digit geographic numbers starting with 02	9
7-digit geographic numbers starting with 02	8
10-digit geographic numbers starting with 03	46
7-digit geographic numbers starting with 03	9
Location independent numbers starting with 037	42
Mobile non-geographic numbers starting with 07	9
Non-geographic numbers for various services starting with 08:	
■ freephone access (starting with 0800)	36
■ shared cost services (starting with 0801)	5
■ bursty traffic services (starting with 0805)	8
■ indirect access to services (starting with 0808)	20
■ access to data transmission and Internet access services (starting with 0870)	6
Non-geographic numbers for Premium Rate Services starting with 09:	
■ entertainment, games and contests (starting with 0900)	17
■ various information (general, business, marketing, useful etc.), entertainment, games and contests (starting with 903)	17
■ adult entertainment (starting with 906)	14
Two-step dialling carrier selection codes, within the 10xy range	4
One-step dialling carrier selection codes, and carrier preselection codes within the 16xy range	17

National short numbers for the provision of directory enquiry services, within the 118xyz range	6
National short numbers for the provision of European harmonised services, within the 116xyz range	2
National short numbers for the national provision of public interest services, within the 19vx range	2

The total amount of NNP numbering resources assigned between 2003 and 2015:

Table 5.8 Numbering resources assigned by blocks

NNP Domain		Assigned numbers
OZ=02 10-digit geographic numbers		11,410,000
OZ=02 7-digit geographic numbers		3,470
OZ=03 10-digit geographic numbers		12,926,000
OZ=03 7-digit geographic numbers		370
OZ=03 non-geographic numbers (location-independent)		3,420,000
OZ=07 non-geographic mobile numbers		62,800,000
OZ=08	0800	141,000
	0801	104,000
	0805	9,000
	0808	123,000
	0870	55,000
OZ=09	0900	27,000
	0903	27,000
	0906	24,000

Table 5.9 Numbering resources assigned by unit (national short numbers and carrier selection codes), by 31 December 2015:

Categories	Assigned numbers/codes
10xy code	4
16xy code	17
116xyz national numbers	2
118xyz national numbers	10
19vx national numbers	5

5.3.2 Management of technical resources

5.3.2.1 Management of the right to use SS7 national and international signalling point codes

In 2015, ANCOM issued 4 individual decisions for the allotment of SS7 national (NSPC) and international (ISPC) signalling point codes. Through these decisions, a total amount of 3 NSPC blocks (respectively 24 codes) and 1 ISPC.

As well, 4 individual decisions revoking the right to use the national (NSPC) and international (ISPC) SS7 signalling point codes were issued. These decisions revoked the right of use for 3 NSPC blocks (respectively 24 codes) and for 1 ISPC code.

At the end of 2015, the overall status of the national (NSPC) and international (ISPC) signalling points assignments was as follows:

- 62 providers were assigned NSPCs.

- 22 providers were assigned ISPCs.

Table 5.10 Overview of NSPC and ISPC assignments

Domain	Total no. of blocks allocated to Romania	Total no. of codes allocated to Romania	Total no. of blocks assigned by ANCOM	Total no. of codes assigned by ANCOM
ISPC	7	56	-	53
NSPC	-	-	269	2,152

5.3.2.2 Management of the right to use mobile network codes

The providers of mobile public networks use Mobile Network Codes (MNC) with a view to establishing international mobile subscriber identity (IMSI).

In 2015, ANCOM issued one decision for cancelling the right to use one MNC, for one provider.

Table 5.11 MNC assignments as of 31.12.2015

Domain	No. of providers	Total MNCs assigned by ANCOM
MNC	11	12

5.3.2.3 Management of the right to use network identification codes

The network identification code (NIC) is a 17xy code that identifies the originating network of a call, and is used when the interconnection between the originating network and the terminating network is achieved by switched transit, through a third party's services.

In 2015, ANCOM issued 2 decisions for the assignment of 2 NICs and one decision withdrawing the right to use one NIC.

Table 5.12 NIC assignments

Domain	No. of providers	Total NICs assigned by ANCOM
NIC	36	36

5.3.2.4 Management of the right to use routing numbers

Routing numbers (RN) are assigned to the providers of publicly available telephone services that are acceptor providers in the number portability process. Based on the network structure, a RN can identify either the acceptor provider or a switch in the acceptor provider's network.

In 2015, the Authority issued 9 decisions for granting the usage right for a total number of 9 RN and 3 decisions for withdrawing the right to use a RN for a total number of 3 RNs.

Four decisions were issued as a result of the change in two provider's names.

Table 5.13 RN assignments

Domain	No. of providers	Total RNs assigned by ANCOM
IIR	64	268



6. Monitoring, control and equipment market surveillance

6.1 Monitoring the radio frequency spectrum

In monitoring non-governmental spectrum, ANCOM pursues settling the cases of harmful interference on a local, regional or global level, identifying, tracking and taking the necessary steps for removing unauthorised emissions for the purpose of avoiding harmful interference, supporting the process of efficient spectrum management and the activities of surveillance and control – by monitoring the technical transmission parameters, for the purpose of identifying deviation from the authorised values, identifying breach of the international and/or bilateral agreements on the parameters of received transmissions in border areas and originating from the neighbouring countries.

The Authority uses the data collected following the spectrum monitoring activity for determining the actual occupancy of frequency bands, identifying and tracking unauthorised emissions and for identifying deviation of the technical parameters from the authorised values.

ANCOM is endowed with a National Spectrum Monitoring System (SNMS) consisting of:

- 38 fixed and transportable monitoring stations (the transportable stations can be operated as fixed monitoring stations and relocated if necessary)
- 10 mobile monitoring stations (installed on special vehicles).
- In order to extend the geographical coverage, the monitored service range and the capture band, ANCOM uses additional equipment:
 - a spectrum monitoring and goniometry system, comprising 4 mobile spectrum monitoring stations allowing for measurements up to 26.5 MHz,
 - 12 transportable monitoring stations,
 - 5 transportable monitoring and goniometry stations,
 - 19 direction detection and monitoring stations,
 - handheld receivers,
 - spectrum analysers.

ANCOM conducts its spectrum monitoring activity mainly based on the Annual Monitoring Plan (AMP), on the monitoring campaigns or following the requests and complaints received during the year. In 2015, ANCOM achieved 98% of its AMP.

Transmissions in the frequency spectrum allocated

Exhibit 6.1 Frequency spectrum for the 87.5 – 108 MHz band on an ANCOM monitoring station

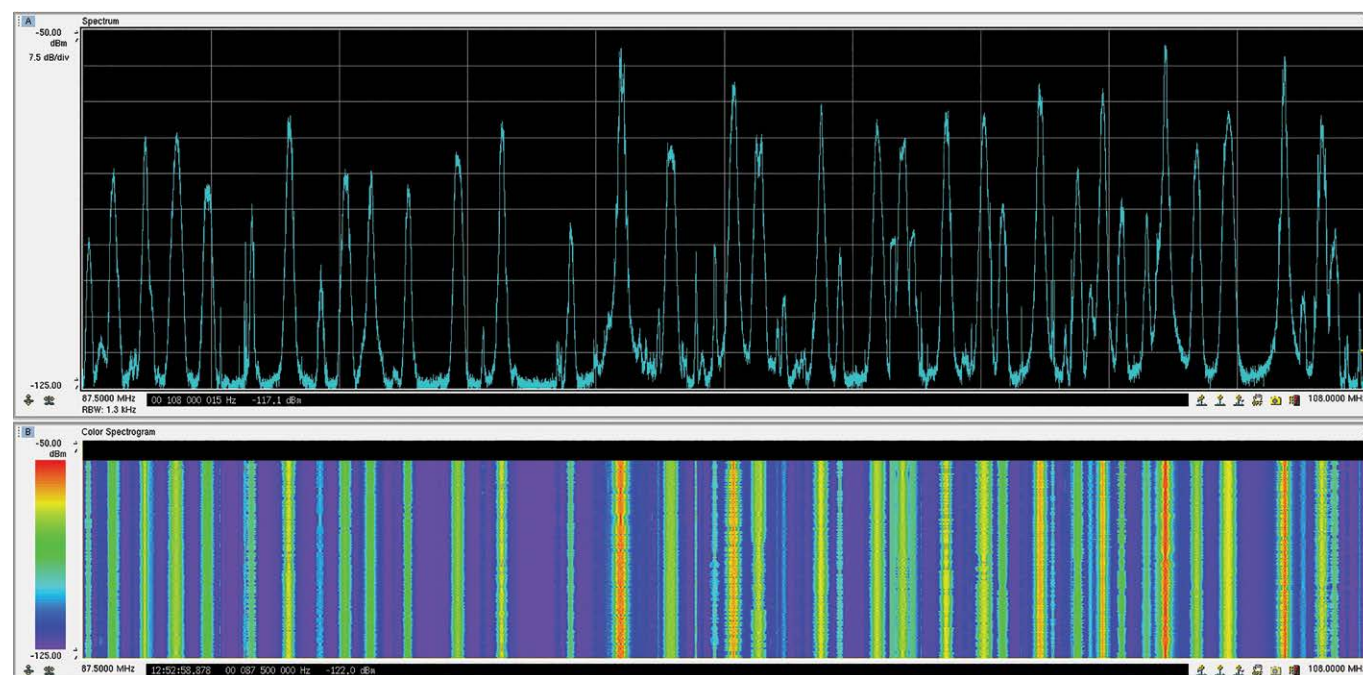
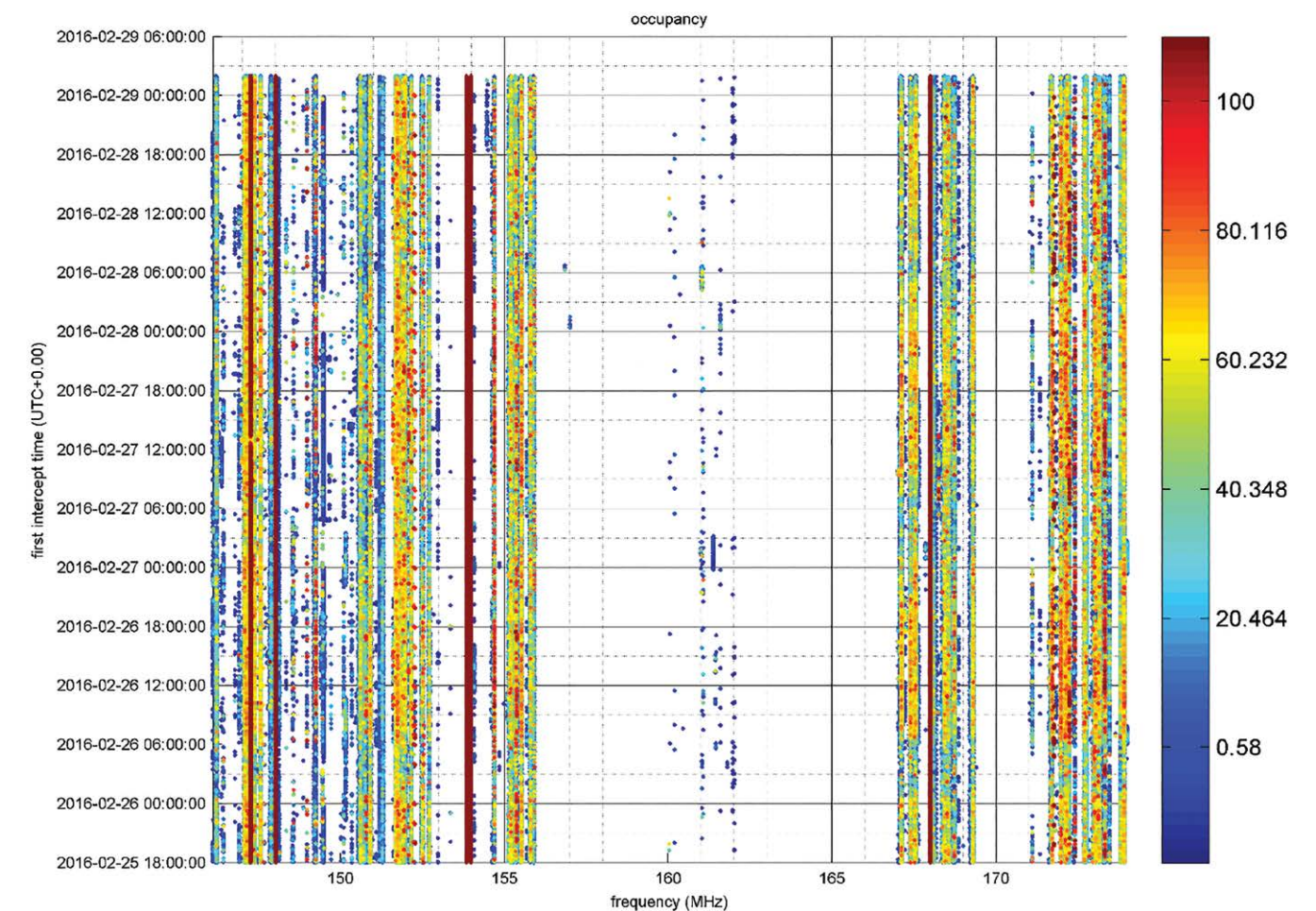


Exhibit 6.2 Occupancy for the band allocated to the mobile terrestrial service on an ANCOM's monitoring station



to sound and TV analogue broadcasting, to the mobile terrestrial service and in the frequency bands corresponding to Digital Dividends 1 and 2, was permanently monitored by means of fixed stations. The data collected during 2015 grounded:

- 207 monitoring reports according to the AMP, of which:
 - 96 reports for sound and TV analogue terrestrial broadcasting;
 - 63 reports for the land mobile service (excepting mobile electronic communications);
 - 48 reports on monitoring the bands corresponding to Digital Dividends 1 and 2;
- 72 monitoring reports upon the request of various ANCOM units.

In the localities uncovered by fixed stations, as well as in border areas, the above-mentioned transmission were monitored by means of mobile stations. Thus, 118 localities and 45 spots in border areas were monitored, resulting in the following reports:

- 324 reports for analogue terrestrial sound and TV broadcasting;

- 209 reports for the land mobile service (excepting electronic mobile communications) as well as for monitoring the band corresponding to Digital Dividends 1 and 2;
- 56 reports on monitoring the emissions received in border areas, originating from neighbouring countries;
- 21 monitoring reports upon the request of various services within ANCOM.

The analysis of the collected data revealed **160** infringements, following adequate legal steps were taken. These are detailed in chapter 6.2.

In order to determine the **coverage with electronic mobile communications services** in cities and municipalities, on national and county roads and in border areas, the Authority conducted measurements along 60,000 km using special trucks endowed with network scanners, GPS receivers and a computer running a software designed for data acquisition and processing. The measurements were performed by choice, according to AMP.

Moreover, during 2015, the Authority conducted a series of **monitoring campaigns** among which the EGSM measurements campaign by the border, the campaign for the surveillance of the mobile operators' migration, the HF measurements campaign, the campaign for verifying the switch-off of analogue terrestrial television transmission in the UHF band, the campaign for verifying the CDMA temporary licence, the campaign for measuring the frequency deviation parameter for sound broadcasting and the campaign of measurements by the border, for identifying the areas with a risk of involuntary roaming.

In 2015, ANCOM identified and removed **309** sources of armful interference, i.e. 90% of all the registered requests, which affected the operation of the following services, systems or applications:

- the land mobile service (PMR), professional remote controls and telemetry systems
- public mobile networks (GSM/UMTS/LTE/PAMR)
- the fixed service
- terrestrial video broadcast in the VHF band
- terrestrial sound broadcast
- (civil) terrestrial and satellite radionavigation and radiolocation systems
- aeronautic services (communications, navigation and surveillance)
- amateur service
- SRD applications, including PMSE
- other radio applications

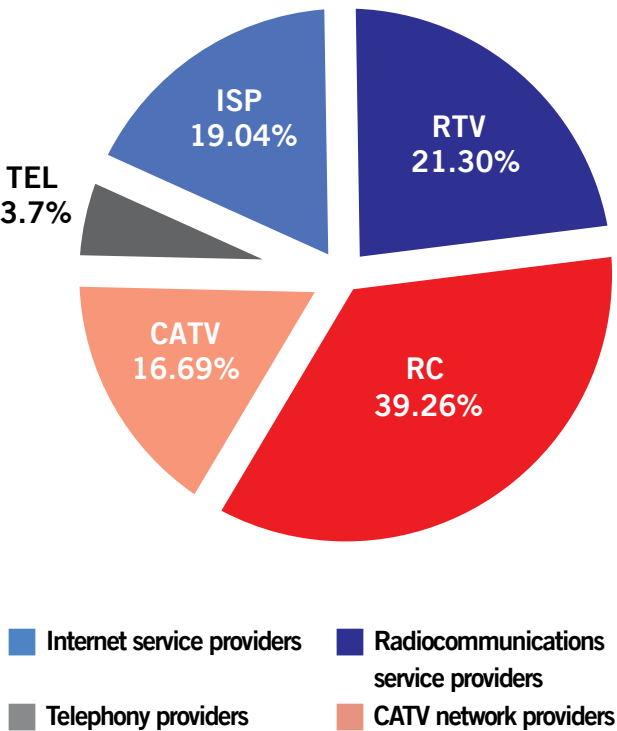
Moreover, the Authority performed **239** measurements, most of which aimed at determining coverage with electronic mobile communications services, following the complaints received.

6.2 Control of the electronic communications and postal service providers

With a view to ensuring compliance with the legal provisions and with the regulations in the electronic communications market, ANCOM conducted **3,905** control actions in 2015, thus achieving 100% of its plan for controlling compliance with the legal obligations, of the electronic communications networks and services and of the postal service providers. As a result of these control actions, the Authority transmitted 323 notifications and applied 546 warnings and 54 fines, totalling RON 313,000.

In order to verify the use of radio frequencies by the radiocommunication service providers in accordance with the provisions of **Government Emergency Ordinance no.111/2011 on electronic communications, approved with amendments and completions by Law no. 140/2012**, ANCOM conducted 1,418 control actions. The control personnel identified a series of cases where the providers failed to observe the legal provisions specified in the **Licences for the use of radio frequencies** and in the **Radio frequency assignment authorisations**, issuing 80 notifications. Furthermore, the Authority applied 165 warnings and 19 contravention fines amounting to RON 87,900. The identified breaches regarded mainly the non-observance of the provisions under the authorisation documents (licences for the use of frequencies and frequency assignment authorisations), as well as of those concerning the operation of the radiocommunication stations.

Exhibit 6.3 Control actions in the field of electronic communications conducted in 2015



ANCOM conducted 783 control actions on the providers of radio and TV (RTV) services, with a view to verifying compliance with the provisions of the **Audiovisual Law no.504/2002, with the subsequent amendments and completions**. Following these control actions, 160 warnings were given and 5 contravention

fines amounting to RON 27,000 were enforced.

546 control actions were conducted on the CATV network providers, with a view to verifying compliance with the provisions of **Government Emergency Ordinance no.111/2011 on electronic communications**. In order to remedy the deficiencies identified, ANCOM sent 128 notifications and, subsequently, applied 97 warnings and 29 contravention fines amounting to RON 194,400.

In 2015, the ANCOM control personnel conducted 129 control actions on the fixed and mobile telephony providers¹⁶, resulting in 16 notifications on the intention to enforce a sanction. As well, the Authority gave 30 warnings.

1017 control actions were conducted in the market for data transmission and Internet access services with a view to verifying compliance with the provisions of **Government Emergency Ordinance no.111/2011 on electronic communications** and with the conditions under the general authorisation regime. As a result of the assessed failures, 99 notifications on the intention to enforce sanctions were transmitted, whereby the Authority gave the infringing providers the possibility to formulate an opinion. As well, 94 warnings were given and one contravention fine amounting to RON 5,000 were enforced.

Moreover, ANCOM conducted 12 control actions on the universal service providers in the electronic communications sector.

In order to ensure that the legal provisions are respected in the postal market, ANCOM conducted 1,321 control actions in 2015, resulting in 6 notifications, 122 warnings and 23 fines, totalling RON 65,000. 601 control actions were conducted on the National Company Romanian Post (CNPR), in its capacity as a universal service provider. Following these controls, CNPR was sanctioned by 47 warnings and 9 fines totalling RON 28,000. The most frequent irregularities concerned non-compliance with the obligations imposed under the general authorisation regime.

¹⁶ Part of control actions are encompassed within the control campaigns envisaging the providers which had the obligation to correctly and completely report, to ANCOM, until 10 February 2014, the localities where they actually provided networks or services between 1 July and 31 December 2013.

6.3 Surveillance of the equipment market

One of ANCOM's basic roles is to enforce the national policy in the fields of electronic communications, audio-visual communications, radio equipment and telecommunications terminal equipment, electromagnetic compatibility, domains which are subject to the European Union harmonised legislation.

With a view to observing Romania's information and communications obligations pursuant to Article 17(1) and 18(5) of (EC) Regulation no. 765/2008, ANCOM drew up the **Sectoral programme for surveillance of the equipment market for 2015** corresponding to the applicable European legislation (Directive 1999/5/EC and Directive 2004/108/EC), published it on the Authority's website and sent it to the European Commission.

Based on the Sectoral Programme, in 2015, ANCOM conducted 991 control actions for verifying compliance with the provisions of GD no. 57/2015 on electromagnetic compatibility and of GD no. 130/2015 on radio equipment and electronic communications terminal equipment and the mutual recognition of their conformity. With a view to remedying the failures assessed during the control actions, ANCOM sent **9 notifications**, and applied **131 warnings and 19 contravention fines** amounting to RON 70,000.

Directive 1999/5/EC of the European Parliament and of the Council on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity, transposed in the national legislation by GD no. 130/2015, admits that in the European Union, the radio frequency spectrum is not fully harmonised and, therefore, Member States have national regulations on its usage. According to the above-mentioned, ANCOM elaborated, in the first half of 2015, draft technical regulations for radio interfaces (an objective proposed with a view to implementing Commission Decision 2014/702/UE), which it notified to the European Commission, in accordance with the provisions of Directive 98/34/CE.

Moreover, ANCOM has elaborated and is using a procedure regarding the notification of the radio equipment using frequency bands whose usage is not harmonised within the European Union, adopting the EU-harmonised electronic notification form, according to the agreement reached by the Members States within TCAM.

In 2015, **690 equipment notifications** were registered through the **One Stop Notification (OSN)** electronic system, proposed by the Commission and accessible via **Growth E-Services Portal** to which Romania adhered. For the interested parties, the system simplifies the notification for the radio equipment using frequency bands the usage of which is not EU-harmonised, as provided for in Article 6.4 of Directive 1999/5/EC.

Another system used by ANCOM in the market surveillance activity is the ICSMS - **Information and Communication System on Market Surveillance**, an information system developed by the European Commission collecting information on the non-conforming equipment in the European market, for the Member States to access such information rapidly and efficiently, and enabling them to exchange information and experience, to conduct joint actions and to coordinate their activities more effectively, thus contributing to maintaining a climate of trust and coherence in the enforcement and application of European legislation.

In fulfilling its attributions pursuant to Regulation (EC) no. 765/2008 and based on the collaboration protocol in force, ANCOM, as an authority for the surveillance of the equipment market, permanently cooperates with the National Customs Authority, the administration in charge of controlling the entry of goods at Romania's external borders, in order to ensure that the equipment put in circulation on the national market and – implicitly – on the Community market complies with the legislation in force and does not pose serious risk to public health, safety and other public interest aspects. Furthermore, in 2015, the two institutions organised specific actions, e.g. a workshop where ANCOM's specialists presented and explained the Customs representatives all over the country the details of implementing the provisions of Regulation (EC) 765/2008 that are relevant in the relationship between the two institutions or in their coordinated intervention on the occasion of the mission to Romania of EC's DG TAXUD (Directorate-General for Taxation and Customs Union).

Thus, in 2015, ANCOM settled **93 notifications** from the National Customs Authority, during regular verifications of the Customs offices or of the control campaigns organised at the border, on various issues, most of the notifications concerning drones and tablets.

Another important element in the equipment field is keeping in touch with the market surveillance authorities in the other EU Member States, both by direct contact

and within the speciality working meetings, for the final purpose of contributing to a better functioning of the European internal market.

6.3.1 Electromagnetic Compatibility Laboratory

The Laboratory for Electromagnetic Compatibility and Radio Equipment Testing (LECRET), one of the most modern in Europe, launched in November 2014, was designed according to the highest standards in the field for the accredited types of trials. It is situated in a locality in the centre of Romania, considered an area of 'electromagnetic silence', which is favourable and recommended for this type of tests.

In this laboratory, ANCOM can verify whether the products on sale or in use observe the provisions of the European directives in force. It features a flexible testing environment, which enables the performance of a wide range of tests. Currently, in this laboratory, ANCOM can verify in detail whether the radio equipment and the terminal electronic communications equipment on the Romanian market – mobile telephones, GSM repeaters etc. – meet the essential requirement on the protection of the users and of any other person (SAR- Specific Absorption Rate) and the essential electromagnetic compatibility requirement, as provided by Directive 1999/5/EC (R&TTE Directive). Furthermore, the Authority can verify whether electric and electronic tools and devices (home appliances, lighting fixtures, medical devices etc.) comply with the essential requirements of Directive 2004/108/EC (EMC Directive). To this end, the specialized personnel uses thorough and rigorous test methods, established in relevant standards, subsequently the results in the trial reports being analysed and interpreted so as to complete, from a technical perspective, the market surveillance and control activity.

In 2015, the Authority prepared and obtained the Laboratory accreditation for the first 5 trials, the Accreditation Body in România – RENAR – certifying that the Laboratory fulfils the requirements of the quality system SR EN ISO/CEI 17025:2005 and that it can conduct such activities. The first accredited trials are: measurement of harmonic current emissions, measurement of voltage fluctuations and flicker, measurement of radiated disturbances, measurement of radio disturbance transmitted by conduction, and measuring the specific absorption rate (SAR).

Moreover, until the end of 2015, the Authority prepared the Laboratory accreditation for 8 more trials, to be evaluated by RENAR at the assessment visit in 2016.



7. Communication

7.1 Communication with the users – access to public information, information campaigns

In 2015, the end-users sent 591 information requests to ANCOM and, unlike in the previous years, the share of requests addressed by business users (40%) neared that of the residential users' requests. Residential users requested information mainly on certain issues encountered in relationship with their mobile telephony providers, and on number portability, whereas business users were interested in the conditions for the use of frequencies in certain activities, statistical data on the electronic communications market, as well as on the conditions or – as applicable – on the need to obtain ANCOM's authorisation regarding the respective activities. Although by most of the requests in this category, the users asked for consultancy in various activities, ANCOM answered within the 10-day term to more than 96% of the information requests received in 2015.

Table 7.1. Information requests received during 2015

Requests received by ANCOM in 2015	591
Information requests by domains of interest *	
Electronic communications	
– telephony	111
– Internet access	27
– television	33
– market analyses/tariffs	45
– authorisation (general authorisation, audio-visual, endorsement)	77
– interconnection	2
– radio frequencies	38
– equipment	35
Comparison tool	0
Infrastructure	6
Portability	89
Postal services	22
Other	129
Not-considered requests	0
Rejected requests	0
Re-directed requests	0
Written requests	191

Requests addressed on telephone	400
Requests submitted by residential users	361
Requests submitted by business users	230
Administrative complaints	0
Complaints in Court	0
Total costs	0

* Some requests cover several domains of interest.

Since the end-users' satisfaction with their electronic communications services is directly linked to the users' level of information, this year ANCOM kept updating and completing the **InfoCentre for consumers** section available on the Authority's website, www.ancom.org.ro. The new information, structured in such a way as to enable the users to easily read and understand it, refers to the information measures imposed to the operators, following the entry into force of ANCOM's Decisions no. 158/2015 and no. 1131/2014 on the adoption of the Code of Conduct on the usage of internal national short numbers and of SMS/MMS short codes. Thus, the users can search ANCOM's Infocentre for information on their rights in concluding contracts and when using content services.

Moreover, in 2015, ANCOM conducted several information campaigns for the electronic communications users. Thus, between March and May 2015, ANCOM conducted an online information campaign on the existence and usefulness of the instruments created by ANCOM: ANCOM's InfoCentre, Veritel.ro – a telecom offer comparison tool, Netograf.ro – an application for testing the internet service quality, Portabilitate.ro – a portal with information about porting telephone numbers. The campaign was aimed at increasing the public awareness of the instruments created by ANCOM and their confidence in using them, and thus to consider these instruments as their main information source on the electronic communications services in the Romanian market. With a view to ensuring that the end-users in Romania are informed on their new rights in relationship with the communications providers, according to Decision 158/2015, the Authority conducted an information campaign by means for a series of 11 press releases sent to the mass media and posted on ANCOM's website, reflected in 1,600 media occurrences.

7.2 Public consultation

In order to ensure decisional transparency, ANCOM continued in 2015 an open and permanent dialogue with the industry representatives, both through the public consultation process and in the Consultative Council, and also during the numerous consultation and project work meetings organized upon the initiative of ANCOM or of the industry.

Thus, the Authority held 15 public consultations in 2015. In the process of public consultation, ANCOM received a total of over 200 recommendations, both in writing and during the five meetings of the Consultative Council. 56 of the comments received were considered grounded and led to amending or completing the draft decisions.

Table 7.2. Public consultation in 2015

1. Normative acts adopted in 2014	12
2. Individual acts communicated in 2014	1
3. Drafts publicly announced in 2014:	15
- on the Authority's website	15
- by posting, at the Authority's headquarters	15
- in mass-media	15
4. Number of projects consulted but not adopted until the end of 2014	2
5. Non-normative projects	5
6. Number of persons designated in charge of relations with the civil society	3
7. Total number of recommendations received	204*
8. Total number of recommendations included in decisions	56
9. Number of participants in the consultations with the industry	170
10. Meetings of the Consultative Council	5
11. Decisions issued by the Authority, challenged in court for non-observance of the public consultation procedure in 2014	0
12. Law suits against the public administration, for breaking the provisions of the law on decisional transparency	0

* includes the number of received and included recommendations on 2 draft decisions consulted in 2014, adopted in 2015 (these recommendations were not included in the 2014 transparency report).

7.2.1 Analysis and dialogue for outlining ANCOM's strategy for 2020 digital communications

In 2015, ANCOM launched a complex process of analysis and dialogue on a discussion paper presenting the Authority's preliminary perspective on the evolutions in the electronic communications

sector, aimed at outlining a strategy for 2020 digital communications.

In 2015, the Authority made a series of steps towards the elaboration of the future strategy: ANCOM ordered a survey on the users' perception of the electronic communications services and their consumption needs, then it published and launched for public consultation of the discussion paper that presents the Authority's preliminary perspective on the evolutions in the Romanian digital communications sector up to 2020 and organised a public event presenting the contributions received during the public consultation and listening to opinions from the sector representatives (providers of networks, services, content and applications), from the civil society and from other regulatory authorities.

Thus, in September 2015, ANCOM launched for public consultation the discussion paper presenting the strategic priorities identified by ANCOM – i.e. promote network competitiveness, maximize service availability and capitalize IP network benefits.

ANCOM deems that, although digital services demand will remain uneven and deeply heterogeneous in Romania, in the 2020 timeframe, fixed internet will continue ensuring high transfer rates, mobile internet will witness intensive growth, based on traffic growth spurred by tariff reduction and quality improvement, while the border between traditional electronic communications services and “applications” or “content services”, will gradually fade out, generating new regulatory challenges.

These trends have been perceived, as well, by the end-users participating in a survey ordered by ANCOM, aiming to establish a set of relevant information on the users' perception of the electronic communications services and their consumption needs.

The respondents deem that mobile internet will prevail in the realm of electronic communications services. Young residential users (up to 30 years of age) and rural ones think that fixed internet usage will decrease while mobile internet grows, and only business and media representatives, along with those of the authorities and of the academia believe in the fixed internet growth.

According to the users' perception, mobile telephony use will keep growing once with the ever younger age of first

use, with the release of high performance terminals at lower prices and with the growing usage of mobile internet. On the other hand, some of the interviewed groups consider that data services will inevitably replace mobile telephony, once with the advance of applications enabling real time communication using the internet (Facebook, WhatsApp, Skype calls). The users perceive fixed telephony and linear television as being on a downward trend or even on the way to extinction, and see their replacement by mobile and, respectively, by internet access services as imminent.

The results of this survey, as well as the strategic objectives that should shape the regulation of the electronic communications sector in the next five years have been extensively debated during this year's edition of ANCOM's international conference, together with representatives European regulatory authorities, of the operators and of their associations, with representatives of the Romanian users' associations, as well as with representatives of OTT and content service providers.

Taking into account all the recommendations received during the exhaustive analysis and dialogue process, the Authority will launch for public consultation – by the end of 2016 – the Strategy Paper that will guide ANCOM's activity until 2020 and will offer the industry the predictability and certainty necessary for investment and innovation.

7.3 Communication with the mass-media

An important role in the process of **communication with the industry and with the consumers** is played by

ANCOM's website and by the information materials submitted by the Authority in electronic format, as well as by maintaining an open dialogue with the media representatives through responses to press requests. In 2015, the Authority's web page has been accessed on average by nearly 18,000 users each month, exceeding by 181% the Authority's target.

The Authority's information materials, available in Romanian and English, were sent by e-mail to approximately 2,700 people (representatives of the industry, of the users, of the mass-media in Romania and abroad, of the European Commission and of the regulatory authorities in Europe).

Table 7.3 The Authority's activity reflected by the mass-media, January – December 2015

Total number of mentions in the media in 2015	12,412
Total number of mentions in the written press	451
- positive	66
- negative	6
- neutral	379
Total number of on-line occurrences	11,792
Total number of occurrences on radio and TV	169
Number of press releases in 2015	81

The media representatives interested in the Authority's work, during 2015, received a total of 81 press releases and submitted 222 requests for information, which were reflected in over 12,400 press materials about the Authority's work, 99% of them having a positive connotation – more than in 2015.

Table 7.4 Information requests from the mass-media, January - December 2015

Total number of requests	222
Requests by domains of interest (the most frequent)	
- market statistical data	24
- digital TV	17
- users – D158/2015	14
- Veritel	7
- roaming	6
- ANCOM auctions	6
- portability	6
- Vodafone interconnection campaign	5
- monitoring, control and fines	5
- Netograf	4
- spectrum	4
- statistical data – postal services	4
- Internet quality parameters	4
- security incidents	3

- other	113
Solved requests	222
Unsolved requests	-
Re-directed requests	-
Withdrawn requests	-
Written requests	94
on paper	0
electronically	94
Requests addressed over telephone	128
Requests addressed personally	0
Total costs	no additional resources were required
Average answering timeframe	4,66 (h)
Maximum answering timeframe	48 (h)
Minimum answering timeframe	0 (h)

8. International Relations

8.1 International relations – 2015 objectives

ANCOM's international relations represented a major chapter of the institution's activity in 2015, as well. Thus, at the end of 2015, 13 ANCOM specialists (+260% compared to the target established for 2015) were involved in important European and international projects as chairs of working groups, drafters, members in the managing bodies of international organisations, with an eye to achieving ANCOM's general objectives, respectively promoting competition and protecting end-users' interest. In 2015, ANCOM's international relations activity continued on the global, European and regional levels, while preserving the national cooperation component, by permanently collaborating with the partner institutions in Romania – the Ministry for Information Society, the Ministry of Foreign Affairs etc.

On the international level, ANCOM acted according to the international foreign policy objectives established on the national level, as an autonomous public authority with regulatory powers in the electronic communications and postal services fields and with attributions regarding the administration and management of limited resources in the electronic communications sector.

Already a tradition in the Authority's work, the international conference of 2015 was dedicated to debating the strategic objectives that should guide the regulatory activity in the following years. The event gathered a wide range of international participants – representatives of the regulatory authorities in Belgium, Sweden, Poland, and Norway, representatives of international operators active in the Romanian market and representatives of prestigious consultancy companies in the telecommunications field. These guests' participation gave the debates a consistent international and European dimension, placing the development of the Romanian electronic communications market in the wider context of the global development of the electronic communications market worldwide.

8.2 ANCOM on a global level

On a global level, for the IT&C community, 2015 was the year of the World Radiocommunications Conference (WRC-15), the most important event in the field, organized by the International Telecommunication Union every three to four years, with the aim to review the Radio

Regulations, the international treaty governing the use of the radio-frequency spectrum and the geostationary-satellite and non-geostationary-satellite orbits.

ANCOM was actively involved in the WRC-15 preparation, including by participating in the working group that drafted Resolution 185 and led to the exceptional introduction on the Agenda Items list of the working item on global flight tracking of civil aircrafts (GFT). During the Conference, ANCOM's representative, Mr. Aurelian Calinciuc, was elected Vice-Chair of Committee 6 in the WRC management structure, the committee which – among others – establishes the agenda items of the next conferences.

WRC-15 worked on more than 40 agenda items and sub-items regarding the allocation and sharing of frequencies for the efficient use of the spectrum and of the orbital resources. Negotiations held during the conference fostered the achievement of results that ensure high-quality radiocommunications services for mobile and satellite communications, for maritime and aeronautic transport, for road and aviation safety, as well as in for scientific purposes related to the environment, meteorology and climatology, and disaster prediction.

On the ITU level, apart from the WRC-15 activity, ANCOM's specialists were involved on all the activity levels of this organisation, from technical working groups dedicated to radiocommunications or to standardization issues, to the Council working groups dedicated to discussing less technical aspects and from ITU workshops on specific topics, to wide-breadth events, where strategic decisions are taken. ANCOM's specialists enjoy wide recognition within the ITU for their professionalism, which was proven by the election of our colleague, Mr. Aurelian Calinciuc, as vice-president of ITU-R Study Group 5.

In addition to the intense activity carried out within the ITU, 2015 was marked by ANCOM's vice-chairmanship of the francophone network of telecommunications regulators, FRATEL. The Authority's active involvement was carried out by its representatives' participating in network events as speakers, moderators or guests of honour and by their participation in the Steering Committee meetings. ANCOM's active participation within FRATEL was useful not only in terms of Romania's representation in the network of the telecom regulators



from the French-speaking countries, but also in terms of increasing the Authority's visibility on the European and international level, of enhancing bilateral cooperation with the network members and obtaining support for its representatives' projects and candidatures in other international bodies.

8.3 ANCOM on a European level

The European dimension of ANCOM's international relations activity is, by far, the most complex and elaborate, given Romania's status as a member of the European Union and the direct impact that the developments in the European ICT sector have on the Romanian market. As a public authority of a Member State of the European Union, ANCOM is involved in decision-making at European level. Thus, in 2015, ANCOM continued cooperating directly with the structures of the European Commission, with the Ministry for Information Society and with Romania's Permanent Representation in Brussels, with a view to promoting national interests by a consistent and coherent national position towards the EU legislative projects. Under the obligations rising from Romania's status as a member of the European Union, ANCOM continued its involvement

in the European specialized structures – the Radio Spectrum Committee, the Radio Spectrum Policy Group, the Communications Committee, the Postal Directive Committee, ENISA, TCAM etc. Meanwhile, ANCOM met the representation obligations required by the national mechanism for the coordination of European affairs.

In the Body of European Regulators for Electronic Communications (BEREC), the main structure for coordinating communications regulation in Europe, ANCOM specialists participated in all the entity's activities during 2015, contributing to the development of common regulatory practices. Thus, ANCOM's experts participated in working meetings on regulatory issues, being involved in data collection, analysis and drafting BEREC reports. Thus, ANCOM's specialists were directly involved in drafting BEREC's common opinion concerning the analysis of oligopoly markets in the electronic communications sector, of the common position paper on service bundles, or the BEREC opinion on the regulatory framework review.

ANCOM continued its involvement in the work of the European Regulators Group on postal services, ERGP,

whose vice-chairmanship was held by the Authority in 2015. In this capacity, ANCOM directly participated in adopting the strategic decisions regarding the group activity, being involved – among others – in adopting the Group's Action Plan for 2015, the Report on the legal framework applicable on a domestic and on a cross-border level for the delivery of postal parcels generated by e-commerce and, especially, on possibly conflicting provisions, the 2014 Report on service quality, complaint handling and consumer protection, as well as the Report on the main indicators for monitoring the European postal service market.

ANCOM had an active role in the BEREC/ERGP joint working group on cross-border parcel delivery, set up in order to better analyse the limits and opportunities as regards the application of telecom regulation models in the parcel delivery field, which gave its advice to the Commission therefor. The joint working group made a report showing that not only parcel delivery arises as a problem for e-commerce, but also the cost of cross-border delivery, the lack of integration of postal networks, the lack of transparency, service quality, the lack of information, the different complaint settling procedures etc.

In 2014, ANCOM continued its involvement – where relevant for its scope of activity – in the technical structures of the European Conference of Postal and Telecommunications Administrations (CEPT) – a European organization founded in 1959 that brings together the communications and regulatory authorities from 48 European countries, Romania being one of the members. ANCOM's specialists participated in working groups on issues regarding spectrum engineering, numbering resources management, spectrum management, emergency communications, etc. Among ANCOM's achievements in this organization, we count the review of Decision ERC/DEC (99) 01, which harmonizes the European examination syllabus of candidates for general radio operator certificate and the restricted radio operator in the Global Maritime Distress and Safety System - GMDSS, an activity coordinated by ANCOM's specialist, Aurelian Sorinel Calinciuc – an activity which was initiated in 2014 and completed in 2015. Moreover, ANCOM's Florin Dragomir, as Chair of the project team on matters related to emergency services (PT ES) and Vice-Chair of the Working Group Numbering and Networks (NaN) of the European Communications Committee (ECC) within CEPT – the organization that regulated for the first time the European harmonized use

of 112 for emergency services –, was directly involved in the activity of this structure, which in 2015 agreed on the harmonised implementation, on a European level – of the A-GNSS emergency caller location method and conducted a feasibility study on the setup of a database with the long contact names of European PSAPs.

Another important structure for ANCOM's international activity is the "HCM Agreement on the coordination of frequencies between 29.7 MHz and 39.5 GHz for land mobile and fixed service", the Authority ensuring the secretariat of the Technical Working Group for the Harmonized Calculation Method within this structure.

8.4 ANCOM on a regional level

In Central and South-Eastern Europe, ANCOM's priority remained contributing to the development of the communications market in the region by engaging in the CEE RWG regional group, therefore ANCOM launched a new portal dedicated to the group activity to informing all those interested in the evolution of regulations in the field of radio spectrum management in the region. Moreover, ANCOM organised the fifth Group meeting, on 22 April 2015, in Bucharest.

During 2015, the Authority continued collaborating with its partner NRAs in the region on the basis of the Memorandums of Understanding in place. Among these, the cooperation with the communications authority of the Republic of Moldova (ANRCETI) was the most intense, both on the technical, expert level and on international issues of common interest. Thus, the two parties held bilateral meetings and participated in larger regional events.

Another important regional component of ANCOM's activity, intensified during 2015, was the participation in events organised by the Regulators Network of the Member States of the Eastern Partnership (EaP), a regional cooperation structure founded in 2009, with the EU support, in order to create the necessary conditions to accelerate political association and economic integration of partner countries in Eastern Europe within the European community. ANCOM supported this initiative by attending working meetings, providing direct dissemination of regulatory practices and expert information through questionnaires, or upon the request of EaP members interested in the Romanian experience in certain areas of electronic communications regulation.

9. Enhancing institutional capacity and developing human potential

9.1 Improving the internal/management control system

In 2015, ANCOM's management continued its efforts to improve the system of internal/management control, in accordance with the applicable legal provisions and principles, so as to set the premises for the public funds managed by the Authority to be used in conditions of legality, regularity, effectiveness, efficiency and economy.

ANCOM's orientation toward continuous quality improvement and excellence in the fulfilment of its role and functions was confirmed by maintaining the certification of conformity with the requirements of international standard ISO 9001:2008.

In accordance with the organizational development strategy for the medium term, in 2015, ANCOM continued its efforts to simplify procedures, integrate the information systems in conducting the internal processes and in the interaction with its customers (communication service providers). As well, a constant concern has been to increase the security of the IT and communication systems within the organization.

9.2 Orientation towards a constructive organizational culture and development of human potential

Orientation towards a constructive organizational culture and development of the human potential are strategic priorities on the ANCOM management's agenda, people being the Authority's most valuable resource.

In 2015, ANCOM's efforts to improve the cultural and organizational climate continued, by implementing organizational change projects in order to increase employee motivation, cultivate a sense of belonging to the group and improve communication and team collaboration.

The topics of these projects targeted the review and the implementation of a new professional performance evaluation system, the use of meetings as a means

to facilitate communication between departments and the organization of work by projects.

Highlights:

- **613** employees at the end of 2015.
- **90%** of employees have higher education, of which:
 - 57% - technical background;
 - 25% - economic background;
 - 10% - legal background;
 - 8% - other background.
- **57%** of the employees participated in training programs, the average duration of the training being **6 days**/participant.

9.3 Professional Ethics and Conduct

ANCOM intends to develop and maintain trust-based relationships with all the groups of public involved and interested in its activity – end-users of communications services, communications service providers, its own employees, other state institutions, the media, foreign organizations etc. Therefore, in 2015, the Authority carried out a series of actions with a view to popularizing the internal Code of Ethics and Professional Conduct, in order to foster an accurate and clear understanding of the concept of ethics within the organization.

9.4 Health and safety at work

Throughout 2015 ANCOM's management undertook actions necessary to protect the health of employees, their adequate information on measures and principles for a healthy life, safety and health at work. There were no work accidents.

9.5 More efficient internal processes

In accordance with ANCOM's organisational development strategy for the medium term, in 2015, the Authority continued its efforts of enhancing the information systems and of integrating them in the interaction with the communications providers, extending the functionalities of the system for collecting and processing statistical data.



Moreover, a constant concern was improving the security of IT&C systems in the organisation, so the recent years' modernisation of these systems and the investments in new IT security technologies proved their effectiveness in ensuring the normal flow of all the institution's regular activities, especially in the context of emerging and manifest new security risks, such as complex cyber-attacks.

In November 2015, ANCOM faced a **ransomware** cyber-attack, which affected and encrypted various shared areas on the folder servers in the institution's network and, although it proved difficult to stop in the first instance, the working procedures and the security

systems provided for a limited impact of this incident, therefore no files were affected or encrypted on any of the Authority's work stations. The affected files on the servers were recovered using the daily saved versions in the backup systems of the recently modernised IT infrastructure.

Subsequently, the security systems started detecting and barring this **ransomware** trojan, so the during the recurring attacks, the trojan was isolated and analysed. The event was reported to CERT-RO, which took code samples for analysis and send them to producers of security solutions for updating their alert system databases.

10. Financial data

Balance sheet as of 31.12.2015

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No	Indicators	Row Code	Balance account at the beginning of the year	Balance account at the end of the year
A	B	C	1	2
1.	ASSETS	01	x	x
2.	NON-CURRENT ASSETS	02	x	x
3.	Intangible fixed assets (ct. 2030000+2050000+2060000+2080100+2080200+2330000- 2800300-2800500-2800800-2900400-2900500-2900800-2930100*)	03	2,757,192	6,057,323
4.	Technical installations, transport means, animals, plantations, furniture, bureaucratic and other tangible assets (ac.2130100+2130200+2130300+2130400+2140000+2310000 -2810300-2810400-2910300-2910400-2930200*)	04	124,068,866	134,498,447
5.	Land and buildings (ac.2110100+2110200+2120000+2310000-2810100-2810200-2910100-2910200-2930200*)	05	78,802,391	76,347,262
6.	Other non-financial assets (ac.2150000)	06		
7.	Non-current financial assets (long-term investments) – over 1 year (ac.2600100+2600200+2600300+2650000+2670201+2670202+ +2670203+2670204+ 2670205+2670208-2960101-2960102-2960103 - 2960200), of which:	07	39,154	39,154
8.	Participation titles (2600100+2600200+2600300-2960101-2960102-2960103)	08		
9.	Non-current debts – amounts to be received after more than 1 year (ac. 4110201+4110208+4130200+4280202+4610201+4610209- 4910200-4960200), din care:	09		
10.	Non-current commercial debts - amounts to be received after more than 1 year (ac. 4110201+4110208+4130200+ 4610201- 4910200- 4960200)	10		
11.	TOTAL NON-CURRENT ASSETS (rows 03+04+05+06+07+09)	15	205,667,603	216,942,186
12.	CURRENT ASSETS	18	x	x
13.	Stocks (ac. 3010000+3020100+3020200+3020300+3020400+3020500+ 3020600+3020700+3020800+3020900+3030100+3030200+ 3040100+3040200+3050100+3050200+3070000+3090000+ 3310000+3320000+3410000+3450000+3460000+3470000+3490000+3510100+3510200+3540100+3540500+3540600+ 3560000+3570000+3580000+3590000+3610000+3710000+ 3810000 +/-3480000 +/-3780000 -3910000-3920100-3920200- 3930000-3940100-3940500-3940600-3950100-3950200-3950300-3950400-3950600-3950700-3950800-3960000-3970000-3980000)	19	6,569,197	7,528,569
14.	Current debts – amounts to be received in less than 1 year	20	x	X
15.	Debts from commercial operations, prepayments and other offsets (ac. 2320000+2340000+4090101+4090102+4110101+4110108+ 4130100+4180000+4250000+4280102+4610101+4610109+ 4730109**+4810101+4810102+4810103+4810200+4810300+ 4810900+4820000+4830000+4890000-4910101-4960100+5120800), of which:	21	1,795,838	343,014
16.	Offsets regarding the conclusion of the state budget execution of the current year (ct. 4890000)	21.1	x	
17.	Commercial debts and prepayments (ac.2320000+2340000+4090101+4090102+4110101+4110108+ 4130100+4180000+4610101-4910100-4960100), of which:	22	1,669,379	207,503
18.	Prepayments granted (ct.2320000+2340000+4090101+4090102)	22.1		
19.	Budgetary debts (ac.4310100**+4310200**+4310300**+4310400**+4310500**+ 4310700**+4370100**+4370200**+4370300**+4420400+ 4420800**+4440000**+4460000**+4480200+4610102+4630000+ 4640000+4650100+4650200+4660401+4660402+4660500+4660900+ 4810101**+4810102**+4810103**+4810900**+4820000**-4970000), of which:	23	101,370,083	97,353,321
20.	Debts of the general consolidated budget (ct.4630000+4640000+4650100+4650200+4660401+4660402+ 4660500+4660900-4970000)	24		
21.	Debts from operations with non-refundable external funds and budget funds (ac.4500100+4500300+4500501+4500502+4500503+4500504+ 4500505+4500700+4510100+4510300+4510500+4530100+ 4540100+4540301+4540302+4540501+4540502+4540503+ 4540504+4550100+4550301+4550302+4550303+4560100+ 4560303+4560309+4570100+4570201+4570202+4570203+ 4570205+4570206+4570209 +4570301+4570302+4570309+ 4580100+4580301 +4580302+4610103+4730103**+4740000+ 4760000), of which:	25		30,814

No	Indicators	Row Code	Balance account at the beginning of the year	Balance account at the end of the year
22.	Amounts to be received from the European Commission/ other donors (ac.4500100+4500300+4500501+4500502+4500503+ 4500504+4500505+4500700)	26		
23.	Short-term loans granted (ac.2670101+2670102+2670103+2670104+2670105+2670108+ 2670601+2670602+2670603+2670604+2670605+2670609+ 4680101+4680102+4680103+4680104+4680105+4680106+ 4680107+4680108+4680109+4690103+4690105+4690106+ 4690108+4690109)	27		
24.	Total current debts (rows 21+23+25+27)	30	103,165,921	97,727,149
25.	Short-term investments (ac.5050000-5950000)	31		
26.	Accounts in treasury and credit institutions:	32	x	x
27.	Accounts in treasury, cash (ac. 5100000+5120101+5120501+5130101+5130301+5130302+5140101+5140301+5140302+5150101+5150103+5150301+5150500+ 5150600+5160101+5160301+5160302+5170101+5170301+5170302+5200100+5210100+5210300+5230000+5250101+5250102+ 5250301+5250302+5250400+5260000+5270000+5280000+5290101+5290201+5290301+5290400+5290901+5310101+ 5500101+ 5520000+5550101+5550400+5570101+5580101+5580201+5590101+5600101+5600300+5600401+5610100+5610300+5620101+ 5620300+5620401+5710100+5710300+5710400+5740101+5740102+5740301+5740302+5740400+5750100+5750300+5750400- 7700000)	33	404,633,249	579,330,299
28.	Receivable interest, other valuables, treasury prepayments (ac.5180701+5320100+5320200+5320300+5320400+ 5320500+5320600+5320800+5420100)	33.1	37,708	3,679
29.	Deposits	34	x	x
30.	Accounts in credit institutions, BNR, cash (ac.5110101+5110102+5120102+5120402+5120502+5130102+5130202+5140102+5140202+5150102+5150202+5150302+5160102+ 5160202+5170102+5170202+5290102+5290202+5290302+ 5290902+5310402+5410102+5410202+5500102+5550102+5550202+5570202+5580102+5580202+5580302+5580303+ 5590102 +5590202+5600102+5600103+5600402+5620102+5620103+ 5620402)	35	71,045	87,795
31.	Receivable interest, treasury prepayments (ac.5180702+5420200)	35.1	8,964	12,669
32.	Deposits	36	x	x
33.	Total liquid assets (rows. 33+33.1+35+35.1)	40	404,750,966	579,434,442
34.	Liquid assets accounts of the Central Treasury(ac. 5120600+5120700+5120901+5120902+5121000+5240100+ 5240200+5240300+5550101+5550102+5550103-7700000)	41		
35.	Receivable interest, other values, treasury prepayments (ac. 5320400+5180701+5180702)	41.1		
36.	Expenditure in advance (ac. 4710000)	42	283,233	483,425
37.	TOTAL CURRENT ASSETS (rows 19+30+31+40+41+41.1+42)	45	514,769,317	685,173,585
38.	TOTAL ASSETS (rows 15+45)	46	720,436,920	902,115,771
39.	DEBTS	50	x	X
40.	NON-CURRENT DEBTS – amounts to be paid after more than 1 year	51	x	x
41.	Non-current payables – amounts to be paid after more than 1 year (ac.2690200+4010200+4030200+4040200+4050200+4280201+4620201+4620209+5090000) of which:	52		
42.	Commercial debts (ac. 4010200+4030200+4040200+4050200+ 4620201)	53		
43.	Long-term loans (ac.1610200+1620200+1630200+1640200+1650200+1660201+ 1660202+1660203+1660204 +1670201+1670202+1670203+ 1670208+1670209-1690200)	54	11,478,774	7,979,672
44.	Provisions (ac. 1510201+1510202+1510203+1510204+1510208)	55		
45.	TOTAL NON-CURRENT DEBTS (rows 52+54+55)	58	11,478,774	7,979,672
46.	CURRENT DEBTS – amounts to be paid within less than 1 year	59	x	x
47.	Commercial debts, prepayments and other offsets (ac.2690100+4010100+4030100+4040100+4050100+4080000+ 4190000+4620101+4620109+4730109+4810101+4810102+ 4810103+4810200+4810300+4810900+4820000+4830000+ 4890000+5090000+5120800), of which:	60	1,572,338	1,942,438
48.	Offsets regarding the conclusion of the state budget execution of the past year (ac.4890000)	60.1	x	
49.	Commercial debts and prepayments (ac.4010100+4030100+4040100+4050100+4080000+4190000+ 4620101), of which:	61	1,435,840	1,796,859
50.	Prepayments received (ac.4190000)	61.1		

No	Indicators	Row Code	Balance account at the beginning of the year	Balance account at the end of the year
51.	Debts to budgets (ac.4310100+4310200+4310300+4310400+4310500+4310700+ 4370100+4370200+4370300+4400000+4410000+4420300+ 4420800+4440000+4460000+4480100+4550501+4550502+4550503+4620109+4670100+4670200+4670300+4670400+4670500+ 4670900+4730109+4810900+4820000) of which:	62	3,057,952	3,057,826
52.	Debts of public institutions to budgets	63	x	x
53.	Social contributions (ac.4310100+4310200+4310300+4310400+4310500+4310700+4370100+4370200+4370300)	63.1	1,790,533	1,915,731
54.	Amounts owed to the budget from non-refundable external funds (ac. 4550501+4550502+4550503)	64		
55.	Debts from operations with non-refundable external funds and budget funds, other debts to other international bodies (ac.4500200+4500400+4500600+4510200+4510401+4540402+ 4540409+4510601+4510602+4510603+4510605+4510606+4510609+4520100+4520200+4530200+4540200+4540401+4540402+ 4540601+ 4540602+4540603+4550200+4550401+4550402+4550403+4550404+4560400+4580401+4580402+4580501+4580502+4590000+4620103+4730103+4760000)	65		
56.	Of which: amounts owed to the European Commission / other donors(ac. 4500200+4500400+4500600+4590000+4620103)	66		
57.	Short-term loans – amounts to be paid within less than 1 year (ac. 5180601+5180603+5180604+5180605+5180606+5180608+5180609+5180800+5190101+5190102+5190103+5190104+5190105+ 5190106+5190107+5190108+5190109+5190110+5190180+ 5190190)	70		
58.	Long-term loans - amounts to be paid during the current financial year (ac. 1610100+1620100+1630100+1640100+1650100+1660101+1660102+1660103+ 1660104+1670101 +1670102 +1670103 +1670108+ 1670109+1680100 +1680200 +1680300+1680400 +1680500 +1680701+1680702 +1680703+1680708 +1680709-1690100)	71	4,140,276	4,934,104
59.	Employees' salaries (ac. 4210000+4230000+4260000+4270100+4270300+4280101)	72	3,187,417	3,435,435
60.	Other rights of other categories of persons (pensions, unemployment indemnities, grants) (ac. 4220100+ 4220200+4240000 +4260000 +4270200 +4270300+4290000 +4380000), din care:	73		
61.	Pensions, unemployment indemnities, grants	73.1	x	x
62.	Revenues in advance (ac. 4720000)	74	12,862	17,471
63.	provisions (ac. 1510101+1510102+1510103+1510104+1510108)	75		
64.	TOTAL CURRENT DEBTS (rows 60+62+65+70+71+72+73+74+75)	78	11,970,845	13,387,274
65.	TOTAL DEBTS (rows. 58+78)	79	23,449,619	21,366,946
66.	NET ASSETS = TOTAL ASSETS - TOTAL DEBTS = OWN CAPITALS (row 80= row 46 – 79=row 90)	80	696,987,301	880,748,825
67.	OWN CAPITALS	83	x	x
68.	Reserves, funds (ac. 1000000+1010000+1020101+1020102+1030000+1040101+1040102+1050100+1050200+1050300+1050400+1050500+1060000+ 1320000+1330000+1390100)	84	26,306,087	19,970,790
69.	Reported result (ac. 1170000-credit item)	85	492,898,746	676,976,807
70.	Reported result (ac. 1170000-debit item)	86		
71.	Patrimony result of the financial year (ac. 1210000 – credit item)	87	177,782,468	183,801,228
72.	Patrimony result of the financial year (ac. 1210000 – debit item)	88	0	0
73.	TOTAL OWN CAPITALS (rows 84+85-86+87-88)	90	696,987,301	880,748,825

Execution account of the public institution budget – expenses
As of 31.12.2015

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INDICATORS	Indicator code	Engagement credits	Budgetary credits		Budgetary engagements	Legal engagements	Payments	Legal engagements to be paid	Effective expenditure
			Initial	Final					
A	B	1	2	3	4	5	6	7= 5-6	8
TOTAL EXPENSES (01+70 +79+ 83+85)	85.10.	11,160,000	388,405,000	388,405,000	185,979,261	185,979,261	173,679,009	12,300,252	160,036,491

INDICATORS	Indicator code	Engagement credits	Budgetary credits		Budgetary engagements	Legal engagements	Payments	Legal engagements to be paid	Effective expenditure
			Initial	Final					
CURRENT EXPENSES (10+20+30 +40 +50 +51+55+56+ 57+58 +59+65)	01	0	225,669,000	225,069,000	134,710,766	134,710,766	123,072,298	11,638,468	123,072,201
TITLE I PER-SONNEL EXPENSES (code 10.01+10.02+ 10.03)	10	0	83,443,000	83,443,000	82,133,739	82,133,739	77,507,609	4,626,130	77,680,429
Cash wage expenses (code 10.01.01 to 10.01.16 + 10.01.30)	10.01	0	66,043,000	66,043,000	65,595,881	65,595,881	62,116,690	3,479,191	62,358,112
Basic wages	10.01.01	0	58,807,000	58,307,000	58,307,000	58,307,000	54,855,206	3,451,794	55,316,511
Other bonuses	10.01.06	0	0	200,000	184,302	184,302	180,851	3,451	32,296
Prize fund	10.01.08	0	4,705,000	4,705,000	4,664,560	4,664,560	4,664,560	0	4,664,560
Vacation bonus	10.01.09	0	1,588,000	1,588,000	1,472,337	1,472,337	1,472,337	0	1,455,771
Management indemnity	10.01.13	0	443,000	743,000	558,240	558,240	557,373	867	542,208
Other cash wage rights	10.01.30	0	500,000	500,000	409,442	409,442	386,363	23,079	346,766
Wage expenses in kind (code 10.02.01 to 10.02.06 + 10.02.30)	10.02	0	1,700,000	1,400,000	1,172,729	1,172,729	1,172,729	0	1,164,212
Lunch tickets	10.02.01	0	1,700,000	1,400,000	1,172,729	1,172,729	1,172,729	0	1,164,212
contributions (code 10.03.01 to 10.03.06)	10.03	0	15,700,000	16,000,000	15,365,129	15,365,129	14,218,190	1,146,939	14,158,105
Contributions to state social insurance	10.03.01	0	11,000,000	11,000,000	10,585,303	10,585,303	9,781,432	803,871	9,823,432
Contributions to unemployment insurance	10.03.02	0	350,000	350,000	337,778	337,778	313,288	24,490	314,128
Contributions to social health insurance	10.03.03	0	3,600,000	3,600,000	3,600,000	3,600,000	3,335,693	264,307	3,350,009
Contributions to labour accidents and professional diseases	10.03.04	0	150,000	150,000	147,852	147,852	136,960	10,892	137,530
Contributions to vacation and indemnities	10.03.06	0	600,000	900,000	694,196	694,196	650,817	43,379	533,006
TITLE II GOODS AND SERVICES (code 20.01 to 20.07 + 20.09. to 20.16 + 20.18 to 20.25 + 20.27 +20.28 + 20.30. la 20.36)	20	0	57,193,000	56,573,000	38,315,017	38,315,017	31,475,175	6,839,842	30,945,284
Goods and services (code 20.01.01 to 20.01.09 + 20.01.30.)	20.01	0	29,201,000	28,901,000	19,819,652	19,819,652	15,841,687	3,977,965	16,040,712

INDICATORS	Indicator code	Engagement credits	Budgetary credits		Budgetary engagements	Legal engagements	Payments	Legal engagements to be paid	Effective expenditure
			Initial	Final					
Office furniture	20.01.01	0	511,000	511,000	207,994	207,994	207,994	0	236,434
Cleaning materials	20.01.02	0	180,000	180,000	94,599	94,599	94,599	0	117,577
Heating, electricity and motive power	20.01.03	0	2,890,000	2,890,000	2,477,537	2,477,537	1,663,692	813,845	1,720,916
Water, sewerage and waste	20.01.04	0	195,000	195,000	118,447	118,447	93,577	24,870	97,266
Fuel and lubricants	20.01.05	0	2,002,000	2,002,000	1,261,686	1,261,686	1,066,726	194,960	1,044,462
Spare parts	20.01.06	0	156,000	156,000	47,167	47,167	47,167	0	54,067
Transport	20.01.07	0	20,000	20,000	1,014	1,014	1,014	0	1,014
Post, telecommunications, radio, TV, Internet	20.01.08	0	2,324,000	2,324,000	2,082,383	2,082,383	1,767,507	314,876	1,885,174
Materials and services with functional character	20.01.09	0	7,608,000	7,608,000	5,802,895	5,802,895	4,566,244	1,236,651	4,277,111
Other goods and services for maintenance and operation services	20.01.30	0	13,315,000	13,015,000	7,725,930	7,725,930	6,333,167	1,392,763	6,606,691
Current repairs	20.02	0	1,787,000	1,787,000	818,252	818,252	578,760	239,492	597,309
Goods such as inventory object (code 20.05.01 + 20.05.03+ 20.05.30)	20.05	0	1,457,000	1,457,000	1,026,496	1,026,496	932,784	93,712	229,952
Bed clothes and accessories	20.05.01.	0	0	0	0	0	0	0	37,052
Other inventory objects	20.05.30	0	1,457,000	1,457,000	1,026,496	1,026,496	932,784	93,712	192,900
Internal delegations, secondments, transfers (code 20.06.01 + 20.06. 02)	20.06	0	3,433,000	3,133,000	1,940,348	1,940,348	1,827,254	113,094	1,882,783
Internal delegations, secondments, transfers	20.06.01	0	1,733,000	1,733,000	903,958	903,958	881,596	22,362	894,490
Abroad delegations	20.06.02	0	1,700,000	1,400,000	1,036,390	1,036,390	945,658	90,732	988,293
Books, publications and documentary materials	20.11	0	51,000	31,000	5,635	5,635	5,635	0	3,969
Consultancy and expertise	20.12	0	6,138,000	6,138,000	2,224,998	2,224,998	1,082,275	1,142,723	1,128,583
Professional training	20.13	0	1,500,000	1,500,000	600,257	600,257	597,843	2,414	597,425
Workplace safety	20.14	0	241,000	241,000	150,241	150,241	121,698	28,543	115,305
Allowances and other costs generated by loans (code 20.24.01 la 20.24.04)	20.24	0	20,000	20,000	8,226	8,226	8,226	0	8,175
Allowances and other costs generated by external loans	20.24.01	0	20,000	20,000	8,226	8,226	8,226	0	8,175

INDICATORS	Indicator code	Engagement credits	Budgetary credits		Budgetary engagements	Legal engagements	Payments	Legal engagements to be paid	Effective expenditure
			Initial	Final					
Legal and extra-legal expenses derived from representing state interests, according to the legal provisions	20.25	0	337,000	337,000	78,826	78,826	2,000	76,826	2,000
Other expenses (code 20.30.01 to 20.30.04 + 20.30.06 la 20.30.09 + 20.30.30)	20.30	0	13,028,000	13,028,000	11,642,086	11,642,086	10,477,013	1,165,073	10,339,071
Advertisement and publicity	20.30.01	0	276,000	276,000	99,144	99,144	99,144	0	99,144
Protocol and representation	20.30.02	0	1,960,000	1,960,000	1,450,741	1,450,741	1,192,606	258,135	1,197,129
Non-life insurance	20.30.03	0	1,260,000	1,260,000	1,226,099	1,226,099	1,032,475	193,624	901,537
Rents	20.30.04	0	9,094,000	9,094,000	8,591,537	8,591,537	7,897,174	694,363	7,884,012
Forced execution of budgetary debts	20.30.09	0	26,000	26,000	0	0	0	0	0
Other expenses with goods and services	20.30.30	0	412,000	412,000	274,565	274,565	255,614	18,951	257,249
TITLE III INTERESTS (code 30.01+ 30.02+ 30.03+ 30.04)	30	0	150,000	150,000	99,435	99,435	99,435	0	98,338
Interest related to the internal public debt (code 30.02.01 la 30.02.05)	30.02	0	150,000	150,000	99,435	99,435	99,435	0	98,338
Interest related to the external debt contracted by the credit principal	30.02.02	0	150,000	150,000	99,435	99,435	99,435	0	98,338
TITLE VI TRANSFERS BETWEEN BODIES OF THE PUBLIC ADMINISTRATION (code 51.01+51.02)	51	0	80,000,000	80,000,000	10,000,000	10,000,000	10,000,000	0	10,000,000
Current transfers (code 51.01.01 to 51.01.28 + 51.01.30 to 51.01.32 + 51.01.34 to 51.01.59 + 51.01.62)	51.01	0	80,000,000	80,000,000	10,000,000	10,000,000	10,000,000	0	10,000,000
Transfers to public institutions	51.01.01	0	80,000,000	80,000,000	10,000,000	10,000,000	10,000,000	0	10,000,000

INDICATORS	Indicator code	Engagement credits	Budgetary credits		Budgetary engagements	Legal engagements	Payments	Legal engagements to be paid	Effective expenditure
			Initial	Final					
TITLE VII OTHER TRANSFERS (code 55.01 to 55.04)	55	0	985,000	1,005,000	982,769	982,769	982,769	0	972,249
B. Current transfers to abroad (to international organisations) (code 55.02.01 to 55.02.06)	55.02	0	985,000	1,005,000	982,769	982,769	982,769	0	972,249
Contributions and dues to international bodies	55.02.01	0	985,000	1,005,000	982,769	982,769	982,769	0	972,249
TITLE VIII PROJECTS FINANCED FROM POST-ACCESSION NON-REFUNDABLE EXTERNAL FUNDS (code 56.01 to 56.31 + 56.35 to 59.40)	56	0	0	0	0	0	0	0	283,550
European Regional Development Fund (ERDF) Programmes (code 56.01.01 to 56.01.04)	56.01	0	0	0	0	0	0	0	283,550
National financing	56.01.01	0	0	0	0	0	0	0	45,762
Non-refundable external financing	56.01.02	0	0	0	0	0	0	0	182,907
Non-eligible expenses	56.01.03	0	0	0	0	0	0	0	54,881
TITLE IX. SOCIAL WELFARE (code 57.01+57.02)	57	0	3,298,000	3,298,000	3,096,966	3,096,966	2,924,470	172,496	3,092,351
Social aid (code 57.02.01 + 57.02.04)	57.02	0	3,298,000	3,298,000	3,096,966	3,096,966	2,924,470	172,496	3,092,351
Cash social aid	57.02.01	0	3,298,000	3,298,000	3,096,966	3,096,966	2,924,470	172,496	3,092,351
TITLE XI OTH- ER EXPENSES (code 59.01 la 59.28 + 59.30 la 59.36)	59	0	600,000	600,000	82,840	82,840	82,840	0	0
Civil compensations	59.17	0	600,000	600,000	82,840	82,840	82,840	0	0
CAPITAL EXPENSES (code 71+72+75)	70	11,160,000	158,486,000	158,486,000	46,956,476	46,956,476	46,294,692	661,784	35,201,355
TITLE XIII NON-FINANCIAL ASSETS (code 71.01 to 71.03)	71	11,160,000	158,486,000	158,486,000	46,956,476	46,956,476	46,294,692	661,784	35,201,355

INDICATORS	Indicator code	Engagement credits	Budgetary credits		Budgetary engagements	Legal engagements	Payments	Legal engagements to be paid	Effective expenditure
			Initial	Final					
Fixed assets (code 71.01.01 to 71.01.04 + 71.01.30)	71.01	11,160,000	158,486,000	158,486,000	46,956,476	46,956,476	46,294,692	661,784	35,201,355
Constructions	71.01.01	0	10,445,000	10,445,000	717,757	717.,757	618,747	99,010	3,073,876
Cars, equip-ment and means of transport	71.01.02	11,160,000	119,598,000	119,598,000	40,974,227	40,974,227	40,509,811	464,416	30,235,645
Furniture, bu-reaucratic and other tangible assets	71.01.03	0	1,169,000	1,169,000	18,047	18,047	18,047	0	332,886
Other fixed assets	71.01.30	0	27,274,000	27,274,000	5,246,445	5,246,445	5,148,087	98,358	1,558,948
FINANCIAL OPERATIONS (code 80+81)	79	0	4,250,000	4,850,000	4,517,638	4,517,638	4,517,638	0	1,762,935
TITLE XVII LOAN REPAYMENTS (code 81.01 to 81.03)	81	0	4,250,000	4,850,000	4,517,638	4,517,638	4,517,638	0	1,762,935
Loan of external debts (code 81.01.01 + 81.01.02 + 81.01.05 + 81.01.06+ 81.01.07)	81.01	0	4,250,000	4,850,000	4,517,638	4,517,638	4,517,638	0	1,762,935
Repayment of external debts contracted by the credit principal	81.01.01	0	4,250,000	4,850,000	4,517,638	4,517,638	4,517,638	0	1,762,935
TITLE XIX PAYMENTS MADE IN THE PREVIOUS YEARS AND RECOVERED IN THE CUR-RENT YEAR (code 85)	85	0	0	0	(205,619)	(205,619)	(205,619)	0	0
Payments made in the previous years and recovered in the current year (code 85.01.03. +85.01.04. +85.01.05.)	85.01	0	0	0	(205,619)	(205,619)	(205,619)	0	0
Payments made in the previous years and recovered in the current year related to current expenditures and financial operations of other public institutions	85.01.03	0	0	0	(205,619)	(205,619)	(205,619)	0	0
TITLE XX REZERVES, SURPLUS / DEFICIT	90	0	0	0	0	0	174,687,968	0	0

INDICATORS	Indicator code	Engagement credits	Budgetary credits		Budgetary engagements	Legal engagements	Payments	Legal engagements to be paid	Effective expenditure
			Initial	Final					
Surplus	92.01	0	0	0	0	0	174,687,968	0	0
Deficit	93.01	0	0	0	0	0	0	0	0

Execution account of the public institution budget – revenues
As of 31.12.2015

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Indicators	Code	Initial budgetary provisions	Final budgetary provisions	Rights acknowledged	previous years	current year	Payments received	Liquidation through other means than payments received	Payments to be received
				Total, of which:					
A	B	1	2	3=4+5	4	5	6	7	8=3-6-7
Total revenue		388,405,000	388,405,000	448,439,463	102,985,730	345,453,733	348,366,977	2,719,165	97,353,321
Other taxes on goods and services	12.10	200,000	200,000	4,854,383	4,854,383	0	1,831,304	271,012	2,752,067
Revenue from the share of the turnover achieved in the electronic communications sector	12.10.08	200,000	200,000	4,854,383	4,854,383	0	1,831,304	271,012	2,752,067
Property rev- enue	30.10	340,150,000	340,150,000	436,748,118	92,272,299	344,475,819	344,358,424	1,735,276	90,654,418
Rates from use of spectrum and numbering resources	30.10.14.	340,150,000	340,150,000	436,748,118	92,272,299	344,475,819	344,358,424	1,735,276	90,654,418
Interest reve- nues	31.10	1,000,000	1,000,000	455,036	20,512	434,524	455,036	0	0
Other interest revenues	31.10.03	1,000,000	1,000,000	455,036	20,512	434,524	455,036	0	0
Revenue from administrative fees, permit releases	34.10.	10,000	10,000	2,125,902	2,121,331	4,571	50,959	406,190	1,668,753
Monitoring rates	34.10.03.	10,000	10,000	2,125,902	2,121,331	4,571	50,959	406,190	1,668,753
Fines, penalties and confisca- tions	35.10.	15,000	15,000	2,516,443	2,061,293	455,150	11,458	227,100	2,277,885
Revenues from fines and other applicable penalties by other institutions according to legal provisions	35.10.01	15,000	15,000	2,516,443	2,061,293	455,150	11,458	227,100	2,277,885
Revenues from fines and other penalties applied by other specialized institutions	35.10.01.02	15,000	15,000	2,516,443	2,061,293	455,150	11,458	227,100	2,277,885
Other revenues	36.10	106,000	106,000	1,737,103	1,655,912	81,191	1,688,331	48,772	0
Revenues from the production of insured risks	36.10.04.	6,000	6,000	0	0	0	0	0	0
Other revenues	36.10.50	100,000	100,000	1,737,103	1,655,912	81,191	1,688,331	48,772	0
Revenues from the sale of goods	39.10	1,000	1,000	2,478	0	2,478	2,280	0	198

Indicators	Code	Initial budgetary provisions	Final budgetary provisions	Rights acknowledged	previous years	current year	Payments received	Liquidation through other means than payments received	Payments to be received
				Total, of which:					
Revenues from the sale of goods belonging to public insti- tutions	39.10.01	1,000	1,000	2,478	0	2,478	2,280	0	198
Cash from the loan reimburse- ment	40.10	46,923,000	46,923,000	0	0	0	0	0	0
Amounts re- ceived from the surplus of the previous year for expenditure	40.10.15	46,923,000	46,923,000	0	0	0	0	0	0
Amounts paid by other institu- tions from the surplus of the previous year	40.10.15.03	46,923,000	46,923,000	0	0	0	0	0	0
Subsidies from the state budget	42.10	0	0	0	0	0	-5,664	5,664	0
Subsidies from the state budget to public institutions financed entirely or partially from own revenues for projects financed from post-accession non-refundable external funds	42.10.39	0	0	0	0	0	-5,664	5,664	0
Amounts re- ceived from the EU on account of the payments made	45.10	0	0	0	0	0	-25,151	25,151	0
European Regional Devel- opment (ERDF) Programmes	45.10.01	0	0	0	0	0	-25,151	25,151	0
Amounts received on account of the payments made in the previous year	45.10.01.02	0	0	0	0	0	-25,151	25,151	0

11. List of the ANCOM President's Decisions adopted in 2015

1. Decision no. 158/2015 on the obligations of informing the end-users
2. Decision no. 160/2015 on establishing measures designed for disabled end-users
3. Decision no. 353/2015 on the procedure of granting the rights to use the radio frequencies
4. Decision no. 390/2015 on adopting the Strategy and the Action Plan for the implementation and development of broadband communications systems on a national level in the 3400-3800 MHz band, during 2015-2025
5. Decision no. 451/2015 on amending and completing the ANCOM President's Decision no. 541/2013 on the conditions and procedure for the designation of universal service providers in the postal services field
6. Decision no. 452/2015 on amending the ANCOM President's Decision no. 1158/2013 on the designation of the National Company Romanian Post as a universal service provider in the postal services field and the ANCOM President's Decision no. 1159/2013 on the conditions for conducting and auditing separate accounts by the National Company Romanian Post.
7. Decision no 512/2015 on the procedure for granting the rights of use for the radio frequencies to diplomatic missions, consular offices and representative offices of international organisations accredited in Romania
8. Decision no. 344/2015 on amending and completing ANCOM President's Decision no. 629/2010 on the procedure for authorising the provision of audio-visual programme services
9. Decision no. 651/2015 for amending and completing certain regulations in the field of numbering resources, technical resources and number portability
10. Decision no. 686/2015 on the organisation of the selection procedure for granting the rights of use for the use of radio frequencies in the 3410-3800 MHz band
11. Decision no. 687/2015 for amending and completing Decision no. 551/2012 on establishing the spectrum usage tariff
12. Decision no. 1079/2015 for amending and completing certain regulations for the purpose of transmitting documents, data or information by the providers of postal services through electronic means, as well as for the use of such electronic means in various situations
13. Decision no. 1145/2015 regarding the identification of the relevant market for the services of access to infrastructure elements

12. Terms and Abbreviations

AP	Acceptor Provider
ANCOM	National Authority for Management and Regulation in Communications
ATIS	Automatic Transmitter Identification System
BEREC	Body of European Regulators for Electronic Communications
BP	Beneficiary Provider
BWA	Broadband Wireless Access Systems
CATV	Cable TV
CE	European Commission
CDB	Central Data Base
CEE RWG	Central Eastern Europe Regional Working Group
CEPT	Conference of the European Administrations for Post and Telecommunications
CNPR	Romanian Post National Company
DSNG	Digital Satellite News Gathering
DTH	Direct-to-home
GADSS	Global Aeronautical Distress and Safety System
GMDSS	Global Maritime Distress Safety System
GMPCS	Global Mobile Personal Communications by Satellite
HDTV	High Definition Television
HCCJ	High Court of Cassation and Justice
IARU	International Amateur Radio Union
ICAO	International Civil Aviation Organisation
IMO	International Maritime Organisation
NIC	Network Identification Codes
NSI	National Statistics Institute
ISPC	International Signalling Point Codes
LUNR	Licence for the use of numbering resources
MARS	Maritime Mobile Access and Retrieval System
MFCN	Mobile/Fixed Communications Networks
MCSI	Ministry of Information Society
MMDS	Multipoint Multichannel Distribution System
MSS	Mobile Satellite Service
MNC	Mobile Network Codes
MVNO	Mobile Virtual Network Operator
MVNE	Mobile Virtual Network Enabler
NSPC	National Signalling Point Codes
NTFA	National Table of Frequency Allocations
PAMR	Public Access Mobile Radiocommunications
PMR	Professional Mobile Radiocommunications
NNP	National Numbering Plan
PPDR	Public Protection and Disaster Relief
PVR	Personal Video Recorder
RAINWAT	Regional Arrangement for INland WATERways
RCAA	Romanian Civil Aviation Authority
RN	Routing Numbers
RSC	Radio Spectrum Committee
RSPG	Radio Spectrum Policy Group
S-PCN	Satellite-Personal Communication Networks
S-PCS	Satellite Personal Communications Services
SNR	Radiocommunications National Company – S.A.
VDES	VHF Data Exchange System

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Article 9 of the Rules of Organisation and Procedure of the National Authority for Management and Regulation in Communications, approved by Decision no.593/2015, amended and completed by decision no. 23/2016, provides the following:

„Art.9. – (1) ANCOM shall publish on its own website, no later than the 30th of April each year, a detailed report regarding its activity during the previous year.”

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A clear statement having the same meaning as the above.

The preliminary version of the Annual Report was published on the ANCOM website on 30 April 2016.

The full version of the ANCOM Annual Report - 2015 is available for consultation on the ANCOM website as well: www.ancom.org.ro

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