
REGULATION, SUPERVISION AND OTHER ACTIVITIES 2019

ANACOM

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NACIONAL
DE COMUNICAÇÕES

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This report provides information on the activity pursued by Autoridade Nacional de Comunicações (ANACOM) during 2019, and has been submitted to the Assembleia da República (Assembly of the Republic) and to the Portuguese Government, in fulfilment of ANACOM's statutory obligations.

This Report complements the information made available by ANACOM in other publications. ANACOM welcomes any comments and suggestions on the scope, content or format of this report, which should be sent to relatorio.regulacao@anacom.pt.

Further information

Additional information about ANACOM and an electronic version of this report is available on our website at www.anacom.pt.

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1. ANACOM MISSION AND ACTIVITY

1.1. ANACOM's mission

ANACOM is the National Regulatory Authority (NRA) in Portugal for the electronic and postal communications sector, with functions that include providing advice and assistance to the Government in the field of communications, especially through the presentation of legislative proposals in areas under its jurisdiction. On a transitional basis, under Decree-Law no. 16/2019 of 22 January, ANACOM also carries out the assigned responsibilities and powers of the Space Authority. ANACOM is a legal person governed by public law, construed as an independent administrative entity with administrative, financial and managerial autonomy and its own assets, not subject to government direction or supervision.

According to ANACOM's statutes, approved by [Decree-Law no. 39/2015 of 16 March](#) (in force since 1 April 2015), ANACOM is an independent administrative entity, in addition to being the National Regulatory Authority (NRA) for communications under European Union law and national law.

In pursuit of its mission, ANACOM is assigned a wide range of responsibilities: to promote the provision of networks and services; ensure access to networks, infrastructure and services; ensure freedom of supply; ensure access to the universal service of electronic communications and of postal services; and protect the rights and interests of consumers and other end-users. It is also incumbent upon ANACOM to contribute to the development of the European Union internal market of electronic communications networks and services and of postal services.

ANACOM is additionally responsible for ensuring efficient management of the radio spectrum, for providing supervision and coordination between civilian, military and paramilitary uses of radiocommunications, and also for giving approval to the PNN - Plano Nacional de Numeração (National Numbering Plan), according to criteria of efficiency.

It is also part of ANACOM's work, as set out in its Statutes, to promote the out-of-court settlement of disputes arising between regulated undertakings and consumers and with other end-users, employing simple and expeditious procedures, and to resolve disputes occurring between undertakings subject to its regulation, as a rule, on a free-of-charge basis.

A further part of ANACOM's work entails following the activities of other regulatory authorities and international experience in regulation, developing relations with other regulatory bodies and with European and international organisations which are relevant to its activity, such as the Universal Postal Union (UPU) and International Telecommunication Union (ITU). It also takes a role in the activities and decisions of regulator bodies, including the Body of European Regulators for Electronic Communications (BEREC) and the European Regulators Group for Postal Services (ERGP).

To accomplish its assigned mission, ANACOM is granted powers of regulation, supervision and oversight, and is also granted sanctioning powers. As such, ANACOM is called on to impose specific obligations on undertakings declared as enjoying significant market power (SMP) and on universal service providers, to issue declarations and titles governing the exercise of activities, and to provide information, guidance and support to consumers and other users. ANACOM examines complaints made by consumers and other users, and, where it is within its remit to oversee observance with the applicable rules, ANACOM issues recommendations or orders corrective measures.

Meanwhile, under the powers assigned to it, ANACOM is called on to implement laws and regulations, as well as European Union acts applicable to the communications sector, and to verify compliance with laws and regulations and with its own guidelines and determinations.

In addition to organising public consultation procedures, ANACOM may also issue determinations and recommendations, publish studies and reports, and release statistical information, including data on the complaints which it receives.

1.1.1. Thirty years of regulation: 1989-2019

In 2019, ANACOM celebrated its 30th anniversary. It all began with the establishment of Instituto das Comunicações de Portugal (ICP) under [Decree-Law no. 188/81 of 2 July](#). ICP was set up to accompany the development of communications and its growing economic, technological and social importance, and also to enact the Government's function of coordinating and supervising the bodies operating communications for public use. ICP was the second regulatory authority to be set up in Europe; it began its activity on 6 November 1989.

In the 30 years that have passed since then, there has been a great deal of change in the communications sector. In direct response to the remarkable transformation and growth occurring in the market it regulates, and in some cases acting in anticipation, the regulator has also undergone considerable change. During the 1990s, there was a focus on the design and promotion of liberalisation in the telecommunications sector, driven in Portugal by ICP, which developed as a regulator and grew in terms of people, competence and expertise. The 1990s gave rise to initiatives such as the allocation of licences to operate GSM cellular telephony (2nd generation mobile) and the regulation of cable television in a context of full accessibility. The decade also saw advances in the process of allocating two new TV channels, the appearance of the first Internet offers and the successful introduction, on 31 October 1999, of the new PNN - Plano Nacional de Numeração (National Numbering Plan), which introduced several important modifications that remain in force today - for example, 9-digit telephone numbers and mobile numbering changing from 0931, 0933 and 0936 to 91, 93 and 96, respectively.

The year 2000 began with a historic milestone: the full liberalisation of the telecommunications market in Portugal, as the last reserved area was opened up to competition: the Fixed Telephone Service¹. In the first decade of the 21st century, the pace of evolution in the sector intensified (for example, launch of public tenders for digital terrestrial television (DTT), implementation of operator portability for fixed and mobile networks, liberalisation of the postal sector, growing importance of the Internet, and appearance of next generation networks, etc.); likewise, there were important developments at the regulator: new statutes created a truly independent regulatory authority named ANACOM, with enhanced powers and procedures. There were also several notable decisions aimed at delivering consumer protection in a context of increasing competition in the communications sector.

The most recent decade was marked by the frequency auctions that took place during 2010 and 2011, paving the way for 4th generation mobile (4G), with greater bandwidth and the consequent expansion of the Internet. At the same time, there were initiatives on consumer rights and consumer protection, such as leading to the expansion of mobile broadband coverage across the country, with the allocation of 4G licenses tied to an obligation to provide coverage in 480 parishes without mobile broadband. The decade also saw the

¹Applying the derogation granted Portugal - in most EU countries, full liberalization occurred in 1998.

launch of ANACOM's consumers' website. In 2012, DTT arrived in Portugal and became available to the population, while, with ANACOM's support, public tenders were launched to select universal service providers, so that the universal service of electronic communications was no longer to be provided exclusively by PT. In April of this same year, the postal service was fully liberalised, shifting the paradigm of postal regulation. ANACOM saw its powers and responsibilities strengthened in three areas: postal network density, postal service pricing and quality of the universal postal service. In 2016, upon renewal of the rights of use of frequencies for UMTS (3G) systems, ANACOM determined mobile broadband coverage for an additional 588 parishes. In recent years, free competition and the range of services available on the market have caused ANACOM to be increasingly attentive to the protection of consumer rights. The issue of protecting communications infrastructure is also a concern of the regulator, and in 2019 ANACOM published the [Regulation on the security and integrity of electronic communications networks and services](#).

Thirty years of regulation have shown the importance of an independent regulatory authority in a sector that has always had a decisive role in the transformation of the economy, the way we communicate and, in short, people's lives.

To mark its 30th anniversary, ANACOM organised a series of initiatives over the course of 2019, including:

- Launch of the collection prepared by 49 members of staff (current and retired) entitled "[ANACOM 30 years - Contributions to the History of Regulation in Portugal](#)". This work relates ANACOM's activity, from a historical perspective with reports of experiences from over the past 30 years, and also by giving a prospective view on various themes and matters that are on the current agenda.
- Conference "The challenges of the Digital Society", which provided opportunity for reflection on the impact of the Digital Society, exploring associated risks and opportunities, as well as the main challenges which we all face, especially as regulators.
- Photography competition "Communicate, connect, unite", organised by ANACOM in partnership with VISÃO magazine with the objective of underlining the role of communications (electronic and postal) in strengthening interpersonal relationships and/or relationships with nature and the environment. The winning images of this

contest formed part of a photography exhibition which opened to the public at Centro Português de Fotografia (Portuguese Photography Centre) and at FPC - Fundação Portuguesa das Comunicações (Portuguese Communications Foundation). The exhibition also included the winning photographs from the competition “30 years focused on people” aimed at ANACOM's staff. Postcard collections were produced with images of the winning photographs from the “Communicate, connect, unite” competition.

- Commemorative ceremony that included the launch of a philatelic issue by CTT - Correios de Portugal (CTT) to mark this anniversary, dedicated to postal services and telecommunications. The issue was created by Portuguese designer, João Machado.
- Renewal of ANACOM's website, giving this platform an up-to-date image with additional features to provide for better communication with consumers, companies and the general public.
- Videos illustrating the chronology of [the most emblematic moments of ANACOM's 30-year history](#) and of the evolution of the communications sector in Portugal, as well as videos with testimonial records from staff about life at ANACOM.
- Adaptation of ANACOM's space at FPC with renewal of the timeline, which now reflects the 30 most notable moments in ANACOM's history, linking to the respective video.

1.2. Principal activities in 2019

With basis in its 2019-2021 Activities Plan, ANACOM's activities in 2019 ranged across the different areas of its work: defence of consumer rights and interests; market analysis and access to networks, infrastructure and services; spectrum management; market oversight/supervision and sanctioning; and activity at an international level. ANACOM's main objectives were to protect the rights and interests of consumers and other end-users, and to ensure a competitive market, as is essential to the development of electronic and postal communications, taking into account the need to ensure Portugal's territorial cohesion and provide an effective response to the needs of different types of users.

Significant work was done on defining the framework to promote the deployment of 5th-generation mobile (5G), which is essential to continue the expansion of broadband Internet coverage across Portugal, as required for the development of the digital economy and society and to promote territorial cohesion. Co-investment and infrastructure-sharing, particularly the possibility of using national roaming in specific circumstances, appear relevant as instruments to accelerate the expansion of national coverage with broadband networks and encourage the appearance of new offers and services, while promoting the sustainability of the investment that will be required.

In view of 5G adoption, the release of the 700 MHz band was a priority. Definition of the timetable and preparation of the process of migrating the network of DTT transmitters to enable release of this band required intense work in 2019, defining all the measures necessary to ensure as little impact as possible on the viewing population. To prepare for the migration process, which began in 2020, ANACOM carried out a pilot test on 27 November 2019, which entailed changing the frequency of the Odivelas Centro transmitter. The objective was to test the effectiveness of the set of measures considered by ANACOM, under its direct management and control, to support the population in this process: ANACOM opened a call centre with a freephone number; formed teams of technicians to support the population on the ground; launched a vast communication plan that included meetings with municipal and parish councils and public information sessions; conducted a roadshow for all parishes covered by the pilot; sent a circular to all households and commercial establishments in the region covered by the pilot; and took out a regular presence in the media. The pilot was concluded successfully, demonstrating the effectiveness of the measures adopted by ANACOM.

In addition, it is important to highlight other important activities carried out by ANACOM in this regard during 2019, to promote development of the sector:

- In terms of protecting the rights and interests of consumers and other end-users, the proposal to amend the [LCE - Lei das Comunicações Eletrónicas \(Electronic Communications Law\)](#), submitted to the Government and Assembleia da República (Assembly of the Republic), set out changes to the rules on early termination of contracts subject to lock-in periods. Meanwhile, following an ANACOM decision, telecommunications operators were required to make bills available to subscribers with a defined minimum level of detail and information - applicable upon request and free of charge, and regardless of whether the bill is issued on paper or electronically.

In terms of pricing, a reduction was approved in the maximum retail prices of calls made to numbers starting with “707” and “708”. The portability validation code (CVP) was created, which speeds up the process of operator switching while keeping the same telephone number, enabling a reduction in rejected portability requests. It was also decided to increase the Internet access speed that operators are required to provide in the parishes where they were obliged to provide coverage following the 4G auction. Finally, protocols were signed with seven *Centros de Arbitragem de Conflitos de Consumo* (Consumer Dispute Arbitration Centres) aimed at faster and simpler resolution of consumer disputes with communications operators. This is a very important aspect, in a sector characterised by high levels of consumer conflict and complaints.

- During the year, intense work was also carried out in relation to the universal postal service: ANACOM ordered CTT to make a set of changes to the system used to measure the quality indicators of the universal postal service, making the system more reliable and robust, and defined new rules on the density of the postal network and the minimum offer of services. ANACOM also ordered CTT to correct the information given to customers at post offices about complaint books and reduced the cost of capital rate applicable to CTT in 2018, thereby contributing to lower postal communications prices. CTT was also subject to the compensation mechanism for non-compliance with two quality indicators of the universal postal service in 2018. Finally, at the end of November, ANACOM launched a public consultation on the provision of the universal postal service, in order to obtain contributions on the terms and conditions that should be associated with this provision, in view of the approaching end of the current concession contract

- With a view to promoting competition, a series of notable measures were adopted by ANACOM in 2019: access to the ducts and poles of MEO - Serviços de Comunicações e Multimédia, S.A. (MEO) by other operators was simplified, streamlining the procedures set out in the Reference Duct Access Offer (RDAO) and Reference Poles Access Offer (RPAO) including, notably, a reduction in the installation period specified in the RDAO and simplification of the procedure. A process was launched to approve a Regulation that defines the conditions applicable to the sub-allocation of numbering resources, to allow providers of electronic communications services to use (under agreement) the numbers that ANACOM has allocated to other providers in the offer of the same service. A draft

Regulation was prepared on the methodology to be used to determine the value of remuneration payable by electronic communications companies for access to and use of infrastructure suitable for carrying electronic communications networks. In terms of communications security, a Regulation was approved on the security and integrity of electronic communications networks and services, establishing the rules applicable to companies of public communications networks or publicly available electronic communications services. In terms of pricing, a reduction in maximum prices was approved for circuits between Mainland Portugal and the Autonomous Regions of the Azores and Madeira and inter-island circuits. Special reference is also made to the work carried out by ANACOM throughout the year, as chair of the working group set up with the aim of “studying and analysing the most suitable technical and financial configuration for the timely replacement of the submarine cables carrying Mainland Portugal-Azores-Madeira connections”, which culminated in December with the delivery of the final report to the Government.

During 2019, ANACOM continued to pursue its regular activity of monitoring the spectrum and of market oversight, litigation and administrative offences, service to the public and provision of information to consumers, publication of statistics, as well as collaboration and dialogue, both at a national level with the Portuguese Parliament, Government, regional governments and local authorities, and at an international level, with other regulators and groups of regulators.

The work carried out by ANACOM, as outlined in its plan, with a view to transposing the European Electronic Communications Code (EECC) is also of note - the code is due to be transposed by December 2020.

In 2019, the Chairman of ANACOM took over the presidency of the ERGP, at a time of important challenges at European level, such as revision of the sector’s regulatory framework and the harmonised implementation of the Regulation on postal parcels, with emphasis on the approval, given at the plenary meeting held in June in the Azores, of the Group's opinion on the review of the European regulatory framework for intra-community postal services.

Within the established timetable and based on a wide consultation with the space sector, ANACOM, as Space Authority, approved the Regulation on access to and exercise of space activities. The Regulation sets out the procedures for the granting of prior qualification and

licensing certificates for the exercise of space activities, including: the launch and return and the command and control of space objects; items to be registered with the Space Authority in respect of space objects; and the transfer of ownership of those objects.

The publication of this Regulation constitutes ANACOM's first step as Space Authority, a role given to it by Decree-Law no. 16/2019 of 22 January. It will contribute to giving Portugal the capacity to assert itself internationally in this highly competitive sector.

Finally, as mentioned above, 2019 was a special year for ANACOM, as it celebrated its 30th anniversary. During these 30 years, Portugal and the communications sector have both evolved significantly - ANACOM made a significant contribution to this change, through its rigorous, impartial and transparent work.

1.3. Internal efficiency and sustainability

Since digital transformation is a national objective, whereby, in 2018, ANACOM established and commenced execution of its 2018-2020 PESI - Plano Estratégico de Sistemas de Informação (Information Systems Strategic Plan), in 2019 the commitment was made to establish a more efficient, effective and sustainable organisation using digital resources. This strategic option would prove to be highly significant to ANACOM's ability to continue to perform its mission in 2020 despite the Covid-19 pandemic and all the resulting contingencies.

In 2019, the process of modifying the organisation's data centres was completed, and improvements were made to the data and voice networks, including total renewal of the resources used, with extensive integration of mobile resources (voice component) with the organisation's fixed telephone network. Meanwhile, following completion of the technological infrastructure migration processes initiated in 2018, the strategic application transformation programme was launched.

In 2019, investment in the mobility component continued, aimed at both the expansion of its user platform and the introduction of productivity software infrastructure to support the resources of technological collaboration, with emphasis on the components of unified data storage, communications and collaboration. Meanwhile, the meeting and training rooms were equipped with new technological resources to support productivity and in line with more agile resources suited to the new paradigms of technological use.

The year was also marked by the planning and start of the change management programme that aims to increase digital skills among the organisation's staff in new paradigms of use, productivity and technological collaboration. We continued to pursue greater levels of dematerialization and digital transformation of the organisation's work processes, especially in its relationship with other stakeholders.

The trend in reducing ANACOM's ecological footprint was also maintained, achieved through a reduction in the number of kilometres travelled by operational vehicles, which resulted in a decrease of 259 thousand kilometres (-24%), as well as an 18% reduction in water consumption (saving of 1034 cubic meters). Meanwhile, energy consumption was approximately the same as in the previous year.

Finally, ANACOM continued the good practice of selecting waste for separate collection, for dispatch to the appropriate recycling point, with delivery made to the social solidarity institution of *Entreajudá* whenever possible. Plastic cups were replaced with paper cups and plastic water bottles replaced with glass bottles.

2. COMMUNICATION WITH STAKEHOLDERS

ANACOM considers clear communication with all stakeholders (regulated companies, users of communications services, consumers, local authorities, government, etc.) to be of great importance to the proper performance of its mission and activities. To guarantee this communication link with all stakeholders, particularly with consumers and users, ANACOM is present on multiple platforms and employs different forms of conveying information. This clear and active communication means that users/consumers are able to make choices that best suit their needs - one of the most effective ways to ensure protection of their rights.

- **Institutional website**

ANACOM's website (www.anacom.pt) contains a wide range of information and content: ANACOM's statutory establishment instrument, its statutes and regulations, composition of its management bodies, plans, budgets and annual reports and accounts, and the regulations, decisions and general instructions issued by ANACOM. ANACOM also publishes public consultations on its website, together with the contributions received and the respective reports, and statistical information, studies and national and Community legislation of relevance to the sector.

In addition to the ongoing updating of information and marking its 30th anniversary, ANACOM renewed its website in 2019, with an up-to-date image and additional functionality. As a result, the website supports better communication with consumers, companies and the general public, and it is adapted to new habits of use and the growing importance of mobile devices. Navigation is now available through a menu that offers the same user experience, regardless of the type of device being used (smartphone, tablet or computer).

In 2019, there were 898,978 visits to ANACOM's website, originated by 572,280 users, and 2,176,262 views of the information content. The forms and surveys in the "Services" area saw a total of 96,866 visits.

ANACOM remains committed to simplifying the consultation of information queries through responsive design - the website automatically adapts to all types of devices, respecting best practices in terms of usability and accessibility.

- **Public consultations**

Public consultations are the favoured instrument of communication with the market. Using public consultations, ANACOM makes its positions known to the market and collects contributions and responses to these positions before making final decisions on a wide range of subjects, thereby increasing regulatory visibility. Since individuals and companies have their lives impacted by the decisions of the regulator, it is important that they are given information about the position of the regulator at the earliest opportunity and are able to comment on and make contributions to its decisions.

In 2019, ANACOM continued to reinforce the dissemination of public consultations launched, issuing invitations to the set of organisations considered relevant in the context of each consultation. This effort is based on the view that broad participation enriches the range of opinions on the which the national regulatory base will be constructed, in some cases with significant international impact.

During the year, 18 public consultations were launched. In 11 of these consultations, where action was taken to increase the level of response, ANACOM made an average of 53 contacts, in addition to official notifications to interested parties. On average, ANACOM received 11 contributions per public consultation, which compares with an average of 6 contributions per public consultation recorded over the last three years².

- **ANACOM's Consumers' Website**

ANACOM's Consumers' Website (www.anacom-consumidor.pt) continued to operate as a platform to convey information about communications services to consumers. Using simple and easy-to-understand language, the different content made available on the Consumers' Website seeks to answer the main questions posed by consumers, specifically through an intelligent system of questions and answers that facilitates the search for information - "*Pergunte à ANACOM*" (Ask ANACOM). The website also offers guides on the main topics of the sector, along with infographics, explanatory areas on more complex subjects, complaint templates, and the contact details of the different operators and support organisations, accompanied by links to relevant webpages, such as forms for cancelling contracts. In addition, the consumers' website is used to periodically highlight news and

² Pursuant to the public consultation on the review of objectives of postal network density and minimum offers of service, all municipal councils in Portugal were consulted, which is why the average number of contacts and contributions received in 2019 was substantially higher than in previous years.

events of importance to consumers, in particular the actions undertaken to protect their rights and interests.

Videos are posted on the website with useful information for consumers and, in 2019, particular emphasis was given to the disclosure of information about changes in the DTT network (changes which are necessary to advance with the deployment of 5G).

In 2019, there were 428,458 visits to the informational content of the consumers' website. These visits originated from 350,271 users, with 792,402 views of informational content. Meanwhile, 8,547 questions were put to the "*Pergunte à ANACOM*" tool.

Through the Consumers' Website, ANACOM provides other useful tools that consumers can use to find answers to their needs, such as the "*COM.escolha*" tariff comparison tool and the Internet access speed measurement tool "*NET.mede*". In 2019, the "*COM.escolha*" simulator received a total of 63,861 visits from 55,215 users. The feature most used by visitors over the period was the mobile tariff query feature. "*NET.mede*" was used to perform about 934 thousand simple speed tests in 2019, as well as 12 thousand traffic shaping tests.

- **Social networks**

ANACOM maintains social network accounts on the Twitter and LinkedIn, supporting the dissemination of information published on its website. In 2019, ANACOM's profiles on Twitter and LinkedIn recorded 10,107 and 1,954 visits, respectively.

The videos published by this Authority on YouTube had 14,563 views.

- **Spectru Newsletter**

The [Spectru](#) newsletter is another communication platform used by ANACOM. Spectru is published monthly and includes information about the Regulator's activity, as well as the most relevant news on the electronic communications and postal services sector at a national and international level.

With a Portuguese version and an English version, both available on ANACOM's website, subscription to the newsletter is free. As on 31 December 2019, there were 772 registered national and foreign subscribers.

- **Publicity campaigns and actions**

Considering the importance of bringing information to consumers for the protection of their rights, ANACOM continued with a series of initiatives in this area in 2019:

- **Digital terrestrial television (DTT)**

As part of the process of migrating the DTT network, ANACOM launched a set of dissemination actions aimed at the population covered by the pilot test involving the Odivelas Centro transmitter (the test took place on 27 November 2019 and covered the municipality of Odivelas, the parishes of Santa Clara, Carnide and Lumiar (Lisbon), and Encosta do Sol (Amadora)). In this context, the following actions are of note:

- conclusion of a Protocol with Câmara Municipal de Odivelas and partnerships with all Parish Councils impacted by the change to the Odivelas Centro transmitter;
- holding of information sessions in day centres indicated by the parish councils involved;
- roadshow passing through all the parishes covered by the change to the Odivelas Centro transmitter, taking place in the week preceding the change and on the day of migration (18 to 27 November) and using a mobile station for the distribution of explanatory material and information;
- Distribution of [an information letter](#) and [explanatory leaflet](#) to all households and commercial establishments (135 thousand in total) potentially covered by the change to the Odivelas Centro transmitter;
- distribution of posters;
- dissemination of the video [DTT has new frequencies](#) on the automatic channel tuning process, made available on ANACOM's website, on social networks, and through the dissemination channels of ANACOM's various partners;
- publication of information on ANACOM's website and creation of a new thematic page [Changes to the DTT network](#).

On 18 October 2019, ANACOM took part in the seminar "DTT - Inclusive step?", organised by ACIST - Associação Empresarial de Comunicações de Portugal (Business

Communications Association of Portugal), where it provided clarifications on this process.

A series of initiatives were also developed with a view to preparing the national migration process, beginning on 7 February 2020, with the aim of ensuring access to clear and accessible information for the entire population.

- **Regular appearances on television programmes**

ANACOM maintained a regular presence on different television channels to disseminate relevant information to consumers, ensuring that consumers are well informed and able to make the best choices. Among other appearances, ANACOM had a regular presence on the programmes *Diário da Manhã* (TVI) and *Madeira Viva* (RTP Madeira). Topics were addressed such as billing, complaint books, cancellation of services, roaming, contracting of electronic communications services, regulation of electronic communications security, reduction of prices for calls to numbers beginning with 707 and 708 and changes to the DTT network.

- **Dissemination of educational videos**

In 2019, ANACOM continued to publish videos aimed at informing consumers on the widest range of topics. On both the institutional website and the consumers' website, videos were published on relevant issues and on issues commonly giving rise to uncertainty: complaint books and exercise of the right to complain; detailed billing and the minimum level of detail in bills defined by ANACOM; international roaming and care to be taken when traveling abroad; CTT mobile customer counter for those who live more than 10 km from a postal establishment; the Suitable Infrastructure Information System (SIIS); the portability validation code; and migration of the DTT network.

- **Information leaflet on ANACOM's spectrum monitoring and control centres**

In order to publicise the activity of ANACOM's four spectrum monitoring and control centres, an [information leaflet](#) was produced. This leaflet was distributed on 24 October 2019 at the inauguration session of the new Northern Spectrum Monitoring and Control Centre, at ANACOM's premises in Porto.

2.1. Promoting knowledge about regulation and the sector

ANACOM collects and disseminates a wide range of information to promote knowledge about regulation and the regulated sector. It regularly publishes statistical reports on trends in the various services (electronic communications, postal services) and on complaints. ANACOM regularly conducts studies and organises seminars and clarification sessions in which various topics are discussed with different stakeholders, fostering improved knowledge about the sector and reinforcing the quality of the decision-making process.

In 2019, ANACOM held three workshops:

- “Connecting Europe Facility 2”, presenting the second tranche of funds for this European Commission programme (This programme will be launched in 2021, covering the period 2021-2027);
- “Draft Regulation on Space Activities”, within the scope of ANACOM's powers and responsibilities as space authority and following a public consultation procedure on this draft Regulation;
- “The Future of Postal Regulation”, with the objective of formulating a position on the future regulatory framework under preparation by the European Commission.

ANACOM also organised the congress of the Portuguese Committee of URSI, seeking to assess the extent to which Space can contribute to the new technological ecosystems of mass communication and scientific research. During the congress, the Best Student Paper Award (2019 edition) was presented to the best article submitted by students and the “ANACOM-URSI Portugal Prize” was awarded, aimed at distinguishing the best research work in the area of radio electricity and containing a relevant contribution to science.

ANACOM also participated in the promotion of the WiFi4EU initiative among municipalities. In partnership with Associação Nacional de Municípios Portugueses (National Association of Portuguese Municipalities), ANACOM held a series of clarification sessions involving local authorities.

Participation in national and international conferences and seminars, as well as attending exhibitions was another way in which ANACOM brought information about its work to the public. In 2019, ANACOM took part, as an exhibitor, in the “XXII National Meeting of SMEs

in the Telecommunications Sector”, organized by ACIST, and in the 5th edition of "Techdays Aveiro" with a space dedicated to the dissemination of its work in radio spectrum management.

Looking to bring the historical patrimony of the communications sector on show at Fundação Portuguesa das Comunicações (Portuguese Communications Foundation), where ANACOM is a founder, to a wider public, ANACOM organised the exhibition "Portuguese Stamps Abroad" at ANACOM's delegation in Funchal and Ponta Delgada. This exhibition forms part of the philatelic collection consisting of stamps issued in the territories of the former colonies of Portugal and are testimonies that document a period of their history, revealing cultural and identity markers of their peoples.

In the context of this exhibition, ANACOM arranged the competition "My favourite stamp", challenging children and young people aged between 6 and 12 years (living in Funchal and São Miguel) to visit the exhibition and draw the stamp they liked the most. This competition was aimed at raising awareness among children and young people about the works on display and at disseminating the value of the stamp as a form of artistic expression that tells stories and conveys culture, encouraging young people to express their creativity.

In 2019, ANACOM launched an initiative for the establishment of partnerships, directed at non-profit organisations working towards the production and dissemination of knowledge and with institutions of the national scientific and technological system, including higher education institutions.

In 2019, ANACOM and GEE - Gabinete de Estratégia e Estudos (Department of Strategy and Economic Research) of the Ministry of Economy launched a prize to distinguish works in the area of regulation on competition in telecommunications and digitisation in the economy. The objective of this prize is to encourage the production of academic articles that contribute to the identification of problems and to the implementation of public economic and regulatory policy solutions in Portugal from the perspective of competition, thereby seeking to strengthen the connection between the academic and business worlds.

Another instrument for providing access to knowledge about the communications sector and related topics is the ANACOM Library, which is also accessible through ANACOM's website. With the aim of providing constantly updated information in its bibliographic catalogue, which comprises a documentary collection of more than 24,500 items, including

books, magazines and newspapers, studies, reports, documentation from national and international bodies, with a special focus on matters of electronic communications, postal services, information technologies, cybersecurity and cyberspace. In 2019, the ANACOM Library served 5,598 users (internal and external) and the bibliographic catalogue registered 1 083 947 searches by external users.

3. PROTECTING CONSUMER INTERESTS AND RIGHTS

It is part of ANACOM's mission to defend the interests and rights of consumers, in accordance with its assigned powers and responsibilities. In cases where ANACOM does not have the competence to act, it reports situations which cause harm to consumer interests to the authorities which have competence. In 2019, ANACOM was engaged in a number of activities with this objective.

3.1.1. Proposed amendment to the LCE - Electronic Communications Law (Lei das Comunicações Eletrónicas) and other sector legislation

In February, ANACOM sent a proposal to Assembleia da República (Assembly of the Republic) and to the Portuguese Government to amend the LCE, incorporating a series of measures aimed at strengthening the rights and interests of consumers and other users.

This proposal, among several measures, sets out an amendment to the rules on early termination of contracts subject to lock-in periods, in order to boost subscriber mobility. In this sense, it contains a review and clarification of the limits on charges payable by subscribers in the event of early termination of contracts subject to lock-in periods, promoting greater transparency and easier access to information on charges arising from early termination of contracts during lock-in periods and enshrining the Impossibility of extending lock-in periods through association with other contracts.

The proposal also aims to reinforce protection for subscribers in situations of unsolicited activation of services or add-on items; suspension of consumer services due to non-payment of bills and access to call recordings and other records related to the conclusion, amendment or termination of contracts. Further measures in the proposal include: protection of subscribers when contracted services are interrupted for reasons beyond their control; clarification of the regime applicable to unilateral contractual amendments made on the initiative of service providers; enshrining the obligation to obtain express authorisation from subscribers before charging for services that do not constitute electronic communications services, as well as services known as WAP billing; and clarification of the obligations of service providers and of ANACOM as regards the handling of complaints.

In this document, ANACOM also proposes: better information for end-users of electronic communications services on the performance of the providers of these services;

dissemination of information on the measurement of Internet access speeds; and oversight of compliance with the rules governing contracts concluded at distance and off-premises.

3.1.2. Definition of the minimum level of detail in bills to be provided to subscribers without charge

ANACOM ordered telecommunications operators to make bills available to subscribers with the minimum detail and information defined by ANACOM, regardless of the medium on which the bill is issued, upon request and free of charge. The required information on the bill includes the date on which the subscriber's lock-in period ends (where a lock-in period is applicable) and the fees payable by the subscriber if they choose to terminate the contract on the date the bill is issued.

The main reason for defining the minimum level of detail and information to be included in bills is to ensure the availability of clearer and transparent information, so that consumers are able to check the services for which payment is being required and to make informed decisions in defence of their rights and interests. The defined level of detail also makes it possible for customers to keep track of expenses associated with services, especially when there is additional consumption.

Operators will also have to state that consumers have the option of disputing the billed amounts, with information on how disputes can be submitted and on the applicable deadlines, making it clear to customers that the service will not be suspended in cases where values are the object of a written complaint, based on the inexistence or non-enforceability of the debt.

3.1.3. Creation of the Portability Validation Code (CVP)

In 2019, the portability validation code was created, which speeds up the process of switching operator while keeping the same phone number, while enabling a reduction in rejected portability requests.

Introduction of the CVP enables an optimisation of resources and provides for a simpler relationship between the new and old provider, contributing to faster and more secure portability processes.

Operators include a CVP on bills sent to customers with post-paid services, or by SMS in the case of pre-paid services. This code can also be obtained in the reserved area of the operators' websites, or by telephone or SMS sent from the number to be ported. Consisting of 12 characters, the CVP allows operators to identify their subscribers and their numbers for the purposes of portability, and is therefore used in the validation of portability requests transmitted electronically between providers.

3.1.4. Review of Internet access speed in 480 parishes

ANACOM reviewed the speed of Internet access that MEO, NOS and Vodafone Portugal - Comunicações Personais, S.A. are required to make available in the 480 parishes subject to mobile broadband coverage obligations arising from the multiband auction where they bid for 4G spectrum (each operator covers 160 parishes). In the case of NOS, this speed was increased from 4 Mbps to 21 Mbps, in the case of Vodafone from 7.2 Mbps to 43.2 Mbps and in the case of MEO, it remained at 43.2 Mbps.

The new speeds enhance the capacity of users to enjoy the full potential of data access via mobile phones, including video streaming.

The established speeds updated the reference values defined in 2016. According to the methodology approved in 2014, the speeds should be reviewed every two years and reflect the speeds made available by each operator in their respective offers, as well as the distribution of customers for each of these offers.

3.1.5. Cooperation with the consumer dispute arbitration network

As in previous years, in 2019 ANACOM remained closely engaged with consumer information organisations and alternative dispute resolution bodies, such as DGC - Direção-Geral do Consumidor (Directorate-General for the Consumer), CIAC - Centros de Informação Autárquicos (Local Authority Information Centres) and CACC - Centros de Arbitragem de Conflitos de Consumo (Consumer Dispute Arbitration Centres) through participation in information sessions and training programmes conducted by these organisations.

Additionally, following the conclusion of cooperation protocols between ANACOM and the Consumer Dispute Arbitration Centres in July 2019, involving provision of specialised technical support to each centre, in December last year, ANACOM started a cycle of visits

to all centres, which included holding the first training course under these protocols. This initiative was begun at the Consumer Disputes Arbitration Centre in Lisbon, continuing at TRIAVE - Centro de Arbitragem de Conflitos de Consumo do Ave, Tâmega e Sousa (Consumer Dispute Arbitration Centre of Ave, Tâmega and Sousa), at CIAB - Centro de Informação, Mediação e Arbitragem de Conflitos de Consumo (Centre for Information, Mediation and Arbitration of Consumer Conflicts), at CNIACC - Centro de Informação, Mediação e Arbitragem de Conflitos de Consumo (National Centre for Information and Arbitration of Consumer Conflicts), at the Centre for Consumer Information and Arbitration in Porto and Central Portugal and the Centre for Information and Arbitration of Consumer Conflicts in the Algarve. The initiative concluded at Centro de Arbitragem de Conflitos de Consumo da Região de Coimbra (Centre for Information and Arbitration of Consumer Conflicts of the Region of Coimbra). The training sessions, which involved 34 trainees, made it possible to enhance and promote defence of the interests of electronic communications users, and to gather data with a view to preparing the training plan for 2020.

3.1.6. Provision of information on contractual clauses on the website

In 2019, ANACOM began publishing information on its website on contractual clauses from contracts governing the provision of electronic communications services where these have made subject to adaptation or elimination because they contravene the provisions of legislation which ANACOM is responsible for enforcing, pursuant to paragraph 20 of article 48 of the LCE.

The eliminated clauses were clauses concerning contractual amendments, suspension of services and contractual termination. By making this information available³, ANACOM seeks to ensure better information for users of services, making it possible for them to react where their contracts contain provisions that do not comply with the requirements of the law.

3.1.7. Additional features for *NET.mede*

Convinced that better informed consumers make better choices, ANACOM provides consumers with *NET.mede*, a service for measuring the speed of both fixed and mobile

³ [User information - Subscription contracts](#)

Internet access. This service, as well as studies for evaluating the quality of service of mobile communications, are part of ANACOM's broader strategy seeking to strengthen and improve information and to provide consumers with means of measuring quality of service. The information obtained through *NET.mede* can be important to users managing their relationship with operators, giving them the ability to question the quality of the service provided on a more informed basis.

Therefore, in order to improve the information made available to consumers, ANACOM has made a series of improvements to *NET.mede*, at both an infrastructure and application level. In November 2019, the user interface of the *NET.mede* app and the *My NET.mede* reserved area were completely refashioned. Additional features were added and the user experience was improved, making both services more friendly and intuitive. In particular, the app's user interface was given a new layout, giving a view of all the parameters evaluated in the test, as well as the final report.

The improvements made to *My NET.mede* include availability of detailed information on all tests performed by the user, extending the period over which results can be consulted to two years, the option of viewing and exporting results to different formats and the presentation of a qualitative report, which shows, indicatively and depending on the results, examples of uses and services that could be used over the tested connection. Likewise, also in 2019, ANACOM optimised the simple speed test, in line with the natural evolution of browsers, and channelling tests at higher speeds to the *NET.mede* app only. A further characterisation of the tests was carried out, reflected in the aggregated information made available on these tests. Tests can be performed using a computer, smartphone or tablet.

3.1.8. Evaluating the performance of mobile services and GSM, UMTS and LTE coverage

The studies aim to provide the market with impartial information on the performance of these services, and characterise user experience in terms of accessibility, retention and integrity of the services. The intention is to cover all regions of the country.

In 2019, ANACOM began the first of these studies according to the methodology approved in 2017, to evaluate performance of mobile voice and data services and GSM, UMTS and LTE coverage made available by MEO, NOS and Vodafone in the Alentejo region (NUTS II). The tests were carried out between 7 and 28 May 2019, measuring user experience in

terms of accessibility, retention and integrity of services. To this end, calls were made and conversations were simulated to evaluate the voice service, files were transferred, web pages were downloaded and videos were downloaded from YouTube, to evaluate data services, and the presence and levels of the radio network signal was verified to assess coverage.

According to the sampling approach followed, the study universe is considered as the entirety of mobile communications conducted in the mainland territory of Portugal, with mobile voice calls and the mobile data sessions being the statistical units considered. The sample is based on two stratification levels: the first separates the mainland territory into NUTS II regions, followed by a breakdown by NUTS III.

From the main results of the [study on the Alentejo \(NUTS II\) conducted in 2019](#), the following aspects are noted:

- the mobile communications systems analysed reported, on average, good GSM radio coverage, adequate UMTS radio coverage and reasonable LTE radio coverage, although performance varied by typology of urban area⁴, with inferior performance in moderately urban and predominantly rural areas. Performance also varied between operator, with a notably better level of performance reported for Vodafone in UMTS and LTE radio technologies. The measurements conducted to assess radio coverage recorded signal levels of "very good" or "good" quality in most cases, but in some cases readings were below appropriate parameters, notably in LTE, including some significant levels of "non-existent" coverage, in predominantly rural areas.
- voice and file transfer services registered a good level of overall performance, with more visible differences between operators and between typologies of urban areas in terms of download and upload speed. However, in terms of data transfer speeds, a high level of variability was registered, with maximum values exceeding 100 Mbps (download) and 50 Mbps (upload), but with minimums values of around 0.004 Mbps, which make it difficult or impossible to transmit data under appropriate conditions.

⁴Predominantly urban area, moderately urban area and predominantly rural area.

- Internet browsing and YouTube video streaming services, as well as data transmission latency, performed considerably less well than the other indicators under analysis. These indicators also show, in most cases, significant differences between providers and between typologies of urban areas.

ANACOM plans to carry out studies in the other regions (NUTS II) of the Portuguese mainland in 2020.

4. REGISTRATION OF ENTITIES

Under the provisions of its Statutes, ANACOM is responsible for maintaining, updating and reporting the registration data of the undertakings subject to its regulation, specifically:

- a) the register of companies offering electronic communications networks and services, under article 21-A of the LCE and [Regulation no. 6/2018 of 5 January](#);
- b) the register of postal service providers, under article 26 of *Lei Postal* (Postal Law) and [Regulation no. 851/2018 of 21 December](#); and
- c) the register of providers of audiotext service and of value-added services based on message sending, under article 4 of [Decree-Law no. 177/99 of 21 May](#) (current wording).

By maintaining these registers, ANACOM not only ensures compilation and management of the information necessary to exercise its regulatory and supervisory responsibilities, but also, by making this data available on its website and in its publications, supports the transparency of information on market agents and their activity.

As of 31 December 2019, the following undertakings were registered:

- a) 125 companies in the register of companies offering electronic communications networks and services (an increase of 8.7% in relation to the number of registrations on 31 December 2018);
- b) 87 providers in the register of postal service providers (a reduction of 5.4% in relation to the number of registrations on 31 December 2018); and
- c) 29 providers in the register of providers of audiotext services and of value-added services based on message sending (in line with the number of registrations on 31 December 2018).

Figure 1. Registrations - inscriptions and cancellations



Registos

Situação a 31.12.2019



Comunicações Eletrónicas

125 Empresas

▲7,8% | 31.12.2018: 116



51 Banda Larga Fixa



11 Banda Larga Móvel



19 Televisão



21 Voz Fixa



9 Voz Móvel



Serviços Postais

87 Empresas

▼5,4% | 31.12.2018: 92



17 Dentro do âmbito do SU



77 Fora do âmbito do SU



Serviços de Valor acrescentado

29 Empresas

=0,0% | 31.12.2018: 29



6 Audiotexto



23 SVA por mensagem

Inscrições e cancelamentos

No período de 01.01.2019 a 31.12.2019



Comunicações Eletrónicas

✓ 12 Inscrições

ASK4 PORTUGAL - Oferta retalhista de um serviço de acesso à Internet em local fixo acessível ao público.

B-CONNECTED - Oferta grossista de uma rede de comunicações públicas e de um serviço de transporte de tráfego acessível ao público.

CSEB - Oferta grossista de uma rede de comunicações públicas e de um serviço de transporte de tráfego acessível ao público.

CUBIC TELECOM - Oferta retalhista de um serviço de acesso móvel à Internet, de um serviço de transmissão de dados e de um serviço máquina-a-máquina (M2M) acessíveis ao público.

EVOMÉDIA MOBILE - Oferta retalhista de uma rede de comunicações públicas e de um conjunto de serviços de comunicações eletrónicas acessíveis ao público.

LEOSAT PORTUGAL - Oferta grossista e retalhista de uma rede de comunicações públicas móveis por satélite e de um serviço de comunicações móveis pessoais via satélite acessível ao público.

NOS INTERNATIONAL CARRIER SERVICES - Oferta grossista de um serviço de transporte de tráfego acessível ao público.

NUMINTEC COMUNICACIONES - Oferta retalhista de um serviço telefónico nómada acessível ao público.

SOCIÉTÉ LEGOS - Oferta grossista de uma rede de comunicações públicas.

TOWERLINK PORTUGAL - Oferta retalhista de uma rede de comunicações públicas e de um serviço de transmissão de dados acessível ao público.

TRUPHONE - Oferta retalhista de um serviço de transmissão de dados acessível ao público.

TWILIO IRELAND - Oferta retalhista de um serviço telefónico em local fixo e de um serviço telefónico nómada acessíveis ao público.

✗ 3 Cancelamentos

ATENA T

CTT - CORREIOS DE PORTUGAL

FRACTALIA REMOTE SYSTEMS PORTUGAL



Serviços Postais

✓ 5 Inscrições

ANDRÁCIA - Prestação de um serviço postal de correio expresso, de envios de correspondência e de encomendas postais, de âmbito nacional e internacional.

MIHAIL STAVILA - Prestação de um serviço postal de base, de envios de encomendas postais (dentro e fora do âmbito do serviço universal), de âmbito internacional.

OLIVEIRA CONCEIÇÃO - Prestação de um serviço postal de correio expresso, de envios de correspondência, de catálogos, livros, jornais e outras publicações periódicas e de encomendas postais, de âmbito nacional e internacional.

VELVET MORNING - Prestação de um serviço postal de correio expresso, de envios de encomendas postais, de âmbito nacional e internacional.

XL POST - Prestação de um serviço postal de base, de envios de correspondência, de catálogos, livros, jornais e outras publicações periódicas e de encomendas postais (dentro e fora do âmbito do serviço universal) e de um serviço postal de correio expresso, de envios de correspondência, de catálogos, livros, jornais e outras publicações periódicas e de encomendas postais, de âmbito nacional e internacional.

✗ 10 Cancelamentos

AUGUSTO JOSÉ CONCHA ENCARNADO

CÓDIGOS CRUZADOS

EASY POST

GILBERTO SILVA

GLOBE LOGISTICS

IBERPERÍMETRO

NUNO MONTEIRO

PORTA NOTÍCIAS

TRANSPORTA

TRANSPORTES ANTÓNIO GARCIA & CÉSAR

In 2019, the programme to update the registers was continued, in accordance with Regulation no. 6/2018 of 5 January and Regulation no. 851/2018 of 21 December and in conjunction with development of a project to consolidate the respective supporting application system. At the same time and with regard to the register of companies offering electronic communications networks and services, ANACOM began its adaptation of the register with a view to its integration into the European database to be maintained by BEREC, under the terms of point 2 of paragraph 4 of article 12 of the EECC.

5. MARKET ANALYSIS

[European Commission Recommendation 2014/710/EU of 9 October 2014](#) on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation identifies the following markets:

- Market 1: Wholesale call termination on individual public telephone networks provided at a fixed location.
- Market 2: Wholesale voice call termination on individual mobile networks
- Market 3: a) Wholesale local access provided at a fixed location;
b) Wholesale central access provided at a fixed location for mass-market products;
- Market 4: Wholesale high-quality access provided at a fixed location.

In 2019, ANACOM approved measures in the context of the relevant markets previously notified to the European Commission. Specifically, in relation to market 1 and market 2, ANACOM approved updates to the maximum price for terminating calls on public telephone networks at a fixed location and the maximum price for terminating voice calls on individual mobile networks, respectively. These updates, which were approved on 11 April 2019 and which set new prices for these services, result from determinations that gave approval to the imposition of price control obligations in the respective relevant markets.

In fact, the determination on the wholesale markets for voice call termination on individual mobile networks, adopted on 21 June 2018, stipulated, in relation to the price control obligation, that ANACOM would undertake a revision of the maximum wholesale price of this service for the years 2019 and 2020, considering the values which result from the costing model updated in accordance with current and forecast inflation. Determination of 28 September 2018 on the market for voice call termination on public telephone networks at a fixed location also stipulated an update of the maximum prices for this service in 2019 and 2020.

6. REGULATED OFFERS

6.1. Reference Duct Access Offer (RDAO) and Reference Poles Access Offer (RPAO)

By determination of 12 September 2019, ANACOM approved [a final decision on changes to RDAO and RPAO](#) with a set of measures to facilitate access to MEO ducts and poles by other operators, simplifying the procedures set out in these wholesale offers.

It is recalled that the respective draft decision, approved on 25 July 2019, was notified to the European Commission, BEREC and the national regulatory authorities of the other Member States of the European Union⁵. The Commission stated that it had no comments.

These measures will lead to improved competition in the market for electronic communications networks and services, specifically by giving alternative operators competing with MEO (operator identified as enjoying SMP in the fixed access market (market 3a)) a capacity for greater speed and flexibility when expanding and installing very high capacity networks. This will facilitate the offer of high-capacity broadband services to retail end-users.

As such, among the proposed changes to processes and procedures ordered by ANACOM to facilitate the use of MEO duct and pole infrastructure by alternative operators (in terms of equivalence of access) when installing their own networks, the installation prior notice period specified in the RDAO was reduced to 3 working days (versus the situation then in force, where the installation is scheduled by MEO within 15 working days following receipt of the beneficiary's request). Other relevant measures of note in ANACOM's decision of 12 September include provision of information on MEO poles through the Extranet and a reduction in the number and value of penalties applicable to beneficiary operators in the event of non-compliance with the conditions stipulated in the RDAO and RPAO.

Meanwhile, by determination of 25 July, ANACOM approved [a new draft decision on amendments to the wholesale offers](#). Following comments from interested parties on the amendments to the RDAO and RPAO set out in this draft decision, approved in May 2018,

⁵ Previously, the draft decision (approved by determination of 25 May 2018) was submitted to a prior hearing of interested parties and to the general consultation procedure.

and other procedures⁶, ANACOM made significant alterations to its draft decision in some areas. This warranted approval of a new draft decision on amendments to the RDAO and RPAO (not included in the draft decision approved on 25 July 2019⁷).

This new draft decision determined a revision of the prices of access to the Extranet (RDAO and RPAO), the definition of an annual maximum limit for accompaniments to be invoiced by MEO and a maximum limit for the amount payable for non-compliance penalties (payable by MEO or by the beneficiaries).

This new draft decision simplified the procedure governing the installation of RPAO beneficiary customer cable drops (connection of the final section of the network to the customer's house). In the version of the RDAO suspended by ANACOM in 2017, the beneficiary operator was required to make a prior appointment with MEO to install the customer drop cable.

In preparing this draft decision, ANACOM also took into account the [final decision of 25 July 2019 regarding the complaint made by Vodafone in relation to ANACOM's decision of 2 August 2018](#) requesting intervention in the administrative resolution of a dispute between MEO and Vodafone over non-compliance with procedures for installing customer drops within the scope of RPAO - see additional information in the section **Error! Reference source not found.**of this Report.

6.1.1. Reference Duct Access Offer (RDAO)

Since 2017, the annual number of requests submitted by RDAO beneficiaries for access and installation of cables and equipment in MEO ducts has levelled off at around 6 thousand, a trend that persisted into 2019. This value is substantially below the values reported in previous years, especially in 2014 and 2015.

Although Portugal already enjoys significant coverage of its territory with high-speed networks providing alternatives to the incumbent operator's networks, especially cable distribution networks and optical fibre networks, continued RDAO usage indicates that in

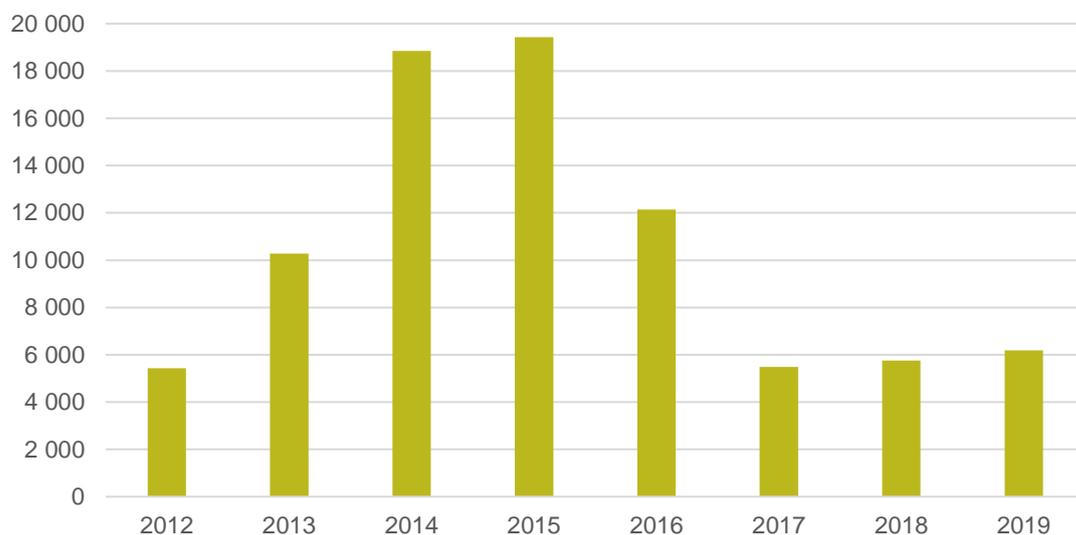
⁶These involved holding meetings with operators, collecting detailed information from various operators about the installation of beneficiary customer cable drops and holding meetings with companies subcontracted to install customer drops identified by RDAO beneficiaries as their main installers.

⁷This draft decision culminated in the final decision approved by determination of 12 September 2019.

more densely populated areas (areas where underground infrastructure is most relevant), alternative operators are continuing to expand their networks, albeit at a slower rate than before.

In a context of continued investment in the expansion of high-speed networks by most operators, the lower level of demand by RDAO beneficiaries could be explained by the fact that most operators are also investing in less densely populated areas of the Portuguese territory and, therefore, in areas with a lower level of coverage by MEO's duct network and where the MEO's aerial routes (pole infrastructure) are predominant.

Graph 1. Number of responses to requests for the installation of cable in MEO ducts



Unit: number of responses to installation requests.

Source: ANACOM based on data from MEO.

6.1.2. Reference Poles Access Offer (RPAO)

As in the case of the RDAO, the RPAO allows alternative operators to deploy their networks using MEO's infrastructure, in this case pole infrastructure.

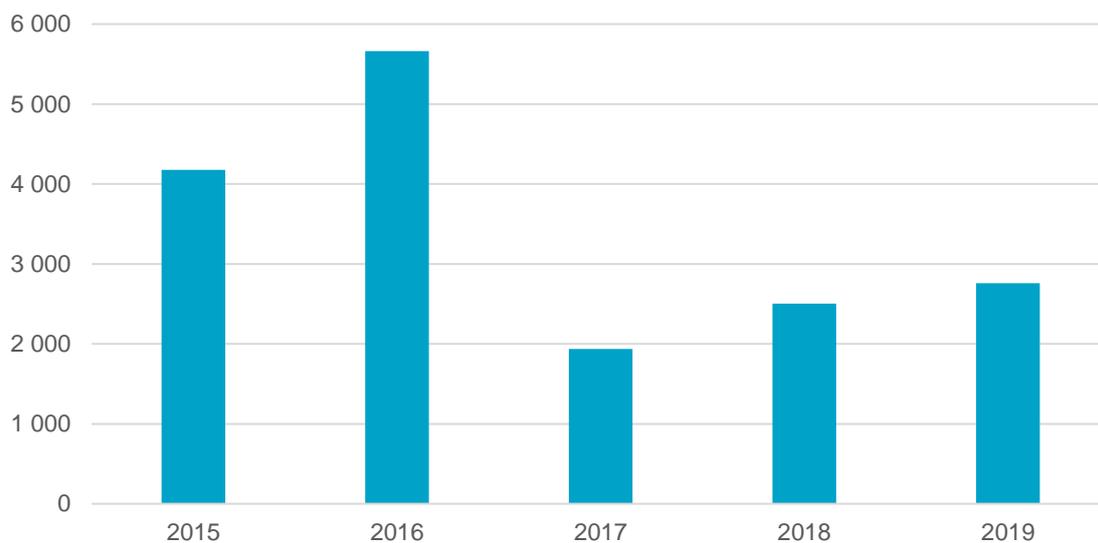
Based on the RPAO, integrated use with the RDAO is possible, guaranteeing continuity of the networks of beneficiary operators through the transition between underground and aerial infrastructure and vice versa, with access to MEO's poles essentially used in less densely populated areas. This has allowed alternative operators to expand their networks, especially high-speed networks, into these lower population areas. The impact, in terms of

the development of the information society and the fight against info-exclusion, is clearly positive.

In addition to accessing MEO's pole infrastructure through the RPAO, several operators have also resorted to pole access offers provided by other entities (e.g. EDP) with a view to deploying and expanding their high-speed networks.

As in the case of the RDAO, the number of responses by MEO to requests to install cables on their poles under the RPAO declined in 2017 and stabilized at around 2,500 per year, a trend that continued in 2019, as shown in the following graph.

Graph 2. Number of responses to requests for cable installation on MEO poles



Unit: thousands of responses to installation requests.

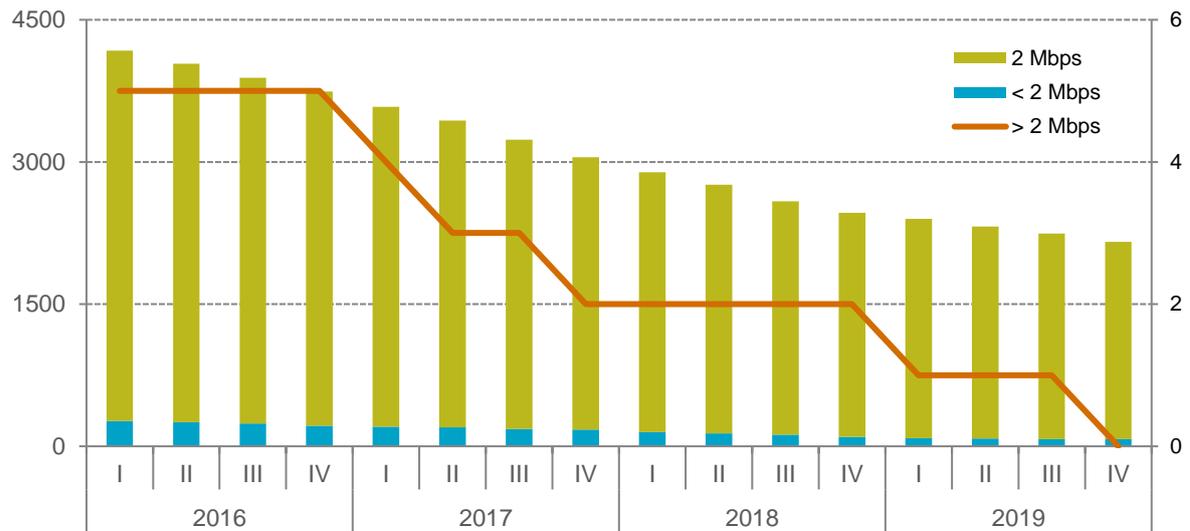
Source: ANACOM based on data from MEO.

6.2. Leased Lines Reference Offer (LLRO) and Ethernet Leased Lines Offer (RELLO)

Although the contracting of leased lines under the leased lines reference offers (LLRO and RELLO) has been slowing in recent years, these circuits remain relevant to alternative operators for certain areas and routes (with special emphasis on Ethernet circuits). These operators use these wholesale offers to complement their own networks or interconnect their networks with the networks of other operators, including MEO's network.

The increase in operator investment in their own networks led to a reduction in demand for leased (digital) lines under the LLRO, a trend that continued through 2019. Demand for Ethernet circuits stabilised in 2016, with a slight reduction from 2017.

Graph 3. the number of leased lines under the LLRO (by class of capacity)

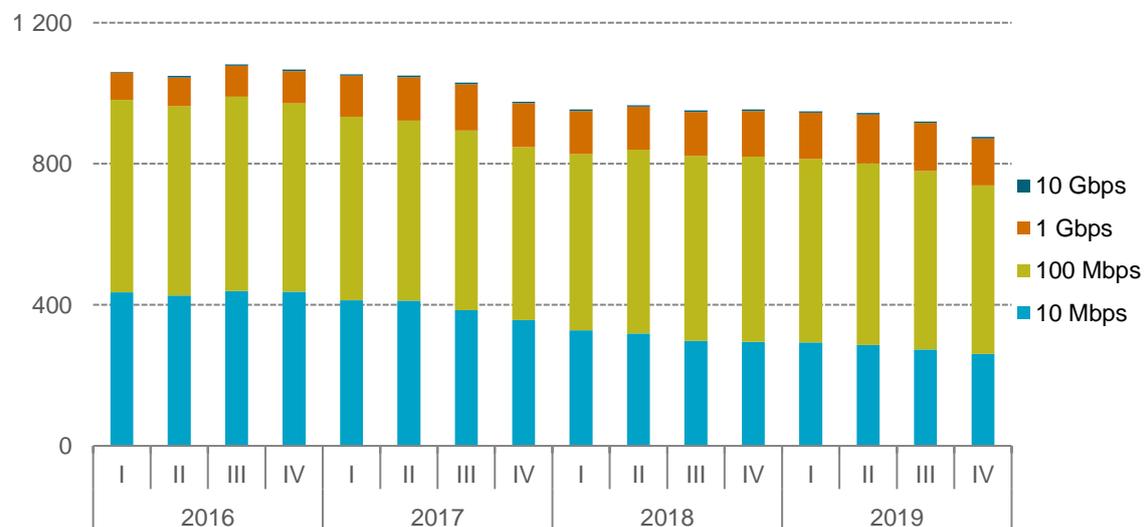


Unit: circuits.

Note: The left-hand scale refers to circuits with a capacity of 2 Mbps or less and the right-hand scale refers to circuits with capacity exceeding 2 Mbps.

Source: ANACOM based on data from MEO.

Graph 4. Trend in the number of RELLO Ethernet circuits (by class of capacity)



Unit: circuits.

Source: ANACOM based on data from MEO.

It should be noted that, based on ANACOM's market analysis, MEO offers are not regulated in certain geographic areas and routes. However, the ring connections between the Portuguese mainland and the Autonomous Regions of the Azores and Madeira (CAM circuits) are regulated, as are the ring connections between the various islands in the Autonomous Region of the Azores (inter-island circuits). These connections are carried over submarine cables owned by MEO, an entity that, in this market, is subject to the price control obligation, including obligations for cost orientation of prices, and other obligations.

In order to verify compliance with this obligation, ANACOM conducted an annual review of CAM and inter-island circuit pricing, and approved a draft decision on the review of these prices by Determination of 17 October 2019 (confirmed by final decision of 14 February 2020).

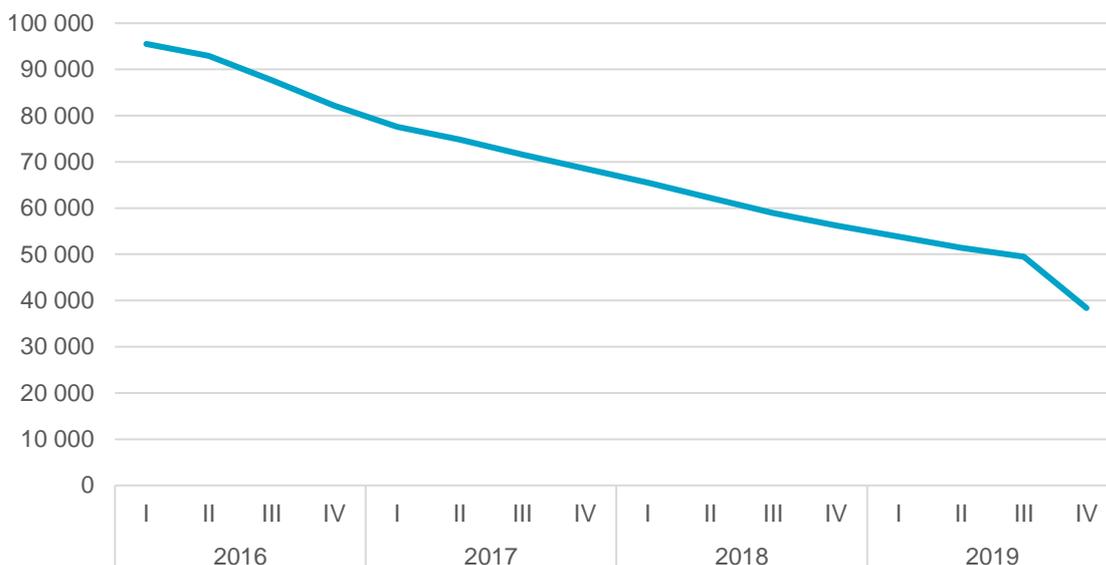
In this draft decision, ANACOM determined a 10% reduction in the (maximum) prices applicable to CAM circuits and a 4% reduction in the (maximum) prices applicable to inter-island circuits in the RELLO, while maintaining the prices of these circuits under the LLRO.

6.3. Reference Unbundling Offer (RUO)

The declining relevance of the Reference Unbundling Offer (RUO) - as a wholesale offer supporting the accesses of alternative operators - is revealed in the increasingly low level of demand for this type of access, as the offer's beneficiaries continue to invest in their own networks (fibre and mobile solutions) and already have coverage in most of the areas where they are co-located.

As such, the declining trend in the number of unbundled loops contracted by RUO beneficiaries, which has been evident since 2008, continued through 2019. At the end of the year, the total number of unbundled loops had fallen below 40 thousand, which represents an annual reduction of about 30%.

Graph 5. Trend in number of unbundled loops



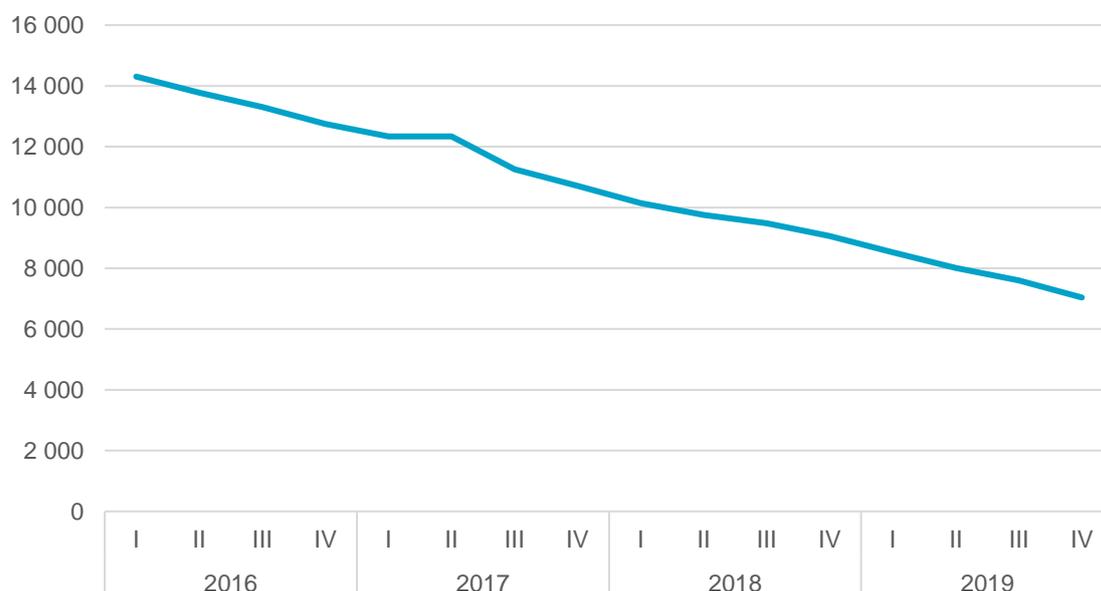
Unit: Thousands of unbundled loops.
Source: ANACOM based on data from MEO O.

6.4. Rede ADSL PT offer

The *Rede ADSL PT* offer is still used by some operators, essentially to serve the corporate market. It allows them to offer integrated offers to customers with premises at multiple locations in Portugal and in areas where operators do not have the infrastructure to provide the service in question. However, the complementary (and even residual) nature of this wholesale offer is increasingly evident in the continuous decline in the number of accesses by alternative operators which it supports (a trend that has been observed since the end of 2007).

At the end of 2019, there were just over seven thousand accesses by alternative operators supported by the *Rede ADSL PT* offer, which represents a reduction of approximately 20% compared to the previous year.

Graph 6. Trend in the number of OSP accesses supported over the *Rede ADSL PT* offer



Unit: accesses.

Source: ANACOM based on data from MEO.

ANACOM continues to monitor the conditions applied in this wholesale offer, especially as regards quality of service. It should be noted, however, that this offer has not been regulated in part of the Portuguese territory since 2010⁸.

6.5. Prices of voice call termination on mobile networks

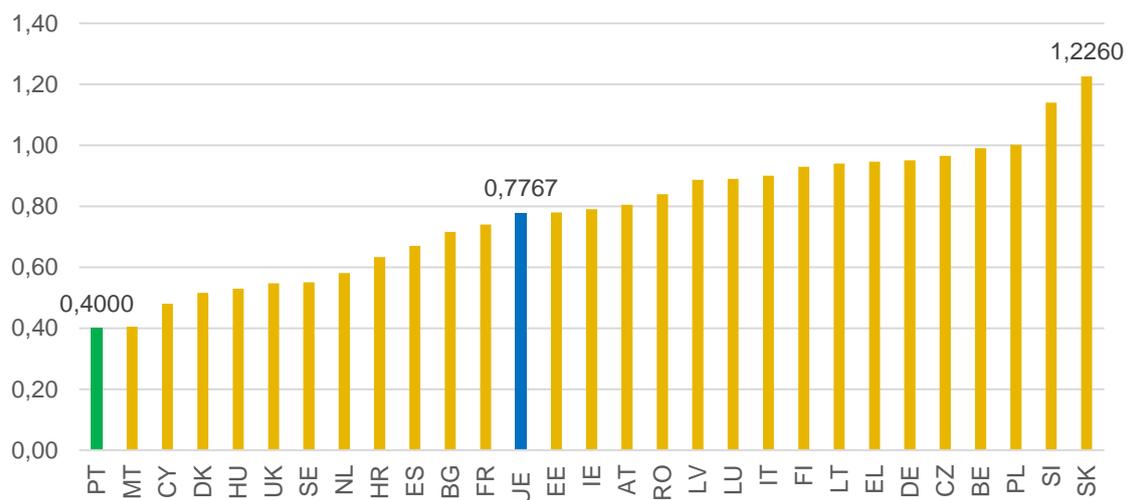
By determination of 11 April 2019, ANACOM determined that the maximum price for terminating voice calls on mobile networks to be applied by mobile operators notified with SMP, as of 1 July 2019, would be 0.40 cents per minute, with billing per second from the first second. Up until that date, the maximum price in force was 0.42 euro cents per minute, a price that had been set by ANACOM's decision of 21 June 2018 on the specification of the price control obligation in wholesale voice call termination markets on individual mobile networks - specification of the price control obligation.

Considering mobile termination rates in European Union countries which, as of 01 July 2019, had set maximum prices based on the results of "pure" BU-LRIC costing models,

⁸The *PT ADSL Network* offer is made commercially available by MEO in the designated competitive areas of the wholesale broadband access market and is regulated on an ex-ante basis in the other areas of country,

prices charged in Portugal are the lowest. Before the change that occurred on 1 July 2019, Portugal had the second lowest price in this set of countries, just above Malta.

Graph 7. Mobile termination prices of EU countries applying "pure" BU-LRIC or benchmarks based on "pure" LRIC prices on 01 July 2019



Note: Prices per minute in euro cents.

Source: BEREC, July 2019, Termination rates at European level. BoR (19) 234Rev.1

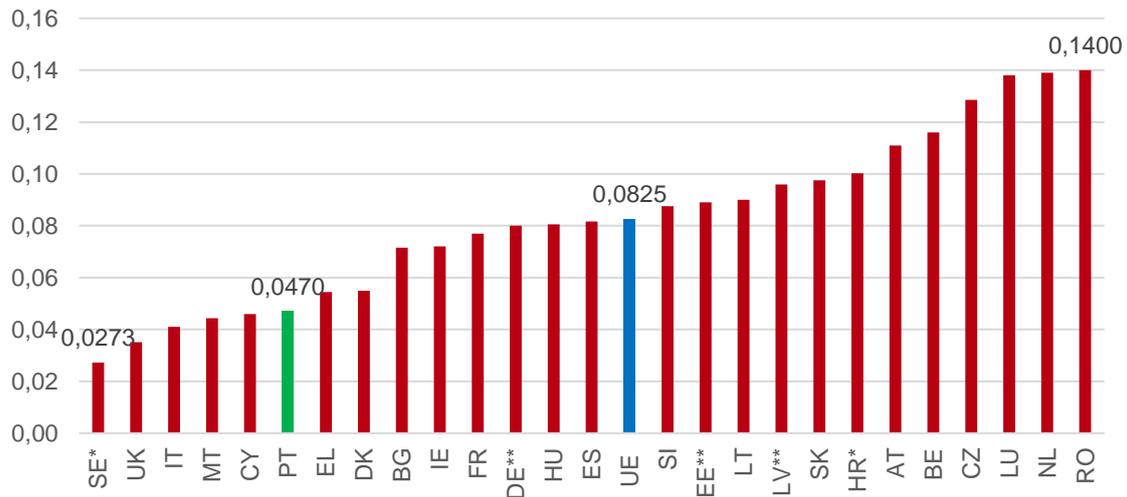
6.6. Call termination prices on fixed networks

On 11 April 2019, ANACOM ordered an update of the maximum prices for calls on public telephone networks at a fixed location. As such, as from 1 October 2019, the maximum price for this service, to be applied by fixed operators notified with SMP, is 0.047 euro cents per minute, with billing per second from the first second. The price previously in force was also 0.047 euro cents per minute (approved by decision of 28 September 2018). The update was made based on the values resulting from the "pure" LRIC costing model updated according to current and forecast inflation; but taking into account the values in question, the updated value does not differ from the maximum value that was already defined.

The following graph shows the Portuguese position in the context of the European Union in terms of call termination prices on the fixed network. In July 2019, Portugal ranked 6th among the countries with the lowest prices. The graph only shows prices in the countries that apply what was established in the European Commission's 2009 Recommendation on terminations (i.e. that pricing be based on "pure" LRIC models). Countries not included in

the chart below set prices according to other methodologies, which, as a rule, result in higher prices.

Graph 8 – Fixed termination prices in EU countries applying “pure” BU-LRIC or benchmarks based on “pure” LRIC prices on 01 July 2019



Note: Prices per minute in euro cents.

The price shown in countries marked * corresponds to the lowest regulated maximum price. The price shown in countries marked ** was fixed using a benchmark of prices determined according to the Pure BU LRIC model.

Source: BEREC, July 2019, Termination rates at European level. BoR (19) 234Rev.1

6.7. Reference Interconnection Offer (RIO)

During 2019, migration from TDM to IP interconnections continued - this migration started in 2018 following an ANACOM decision approved on 5 January 2018.

This decision determined a six-month schedule for migration to IP interconnection for the implementation and configuration of the solution, with 50% of the traffic being migrated to IP over the next 12 months, and the remaining 50% over the following 6 months. MEO was ordered to define an interconnection and testing plan with operators requesting IP interconnection, scheduling tests in the order that interconnection requests were received from the operators and responding to operator requests from the moment that the IP interconnection proposal is included in the RIO.

The obligation to migrate traffic to IP interconnection applies to call termination traffic on public telephone networks at a fixed location. The migration of call origination traffic on fixed networks to IP interconnection is subject to negotiation between operators, as this market was deregulated following ANACOM's decisions of 17 December 2017 and 14 October

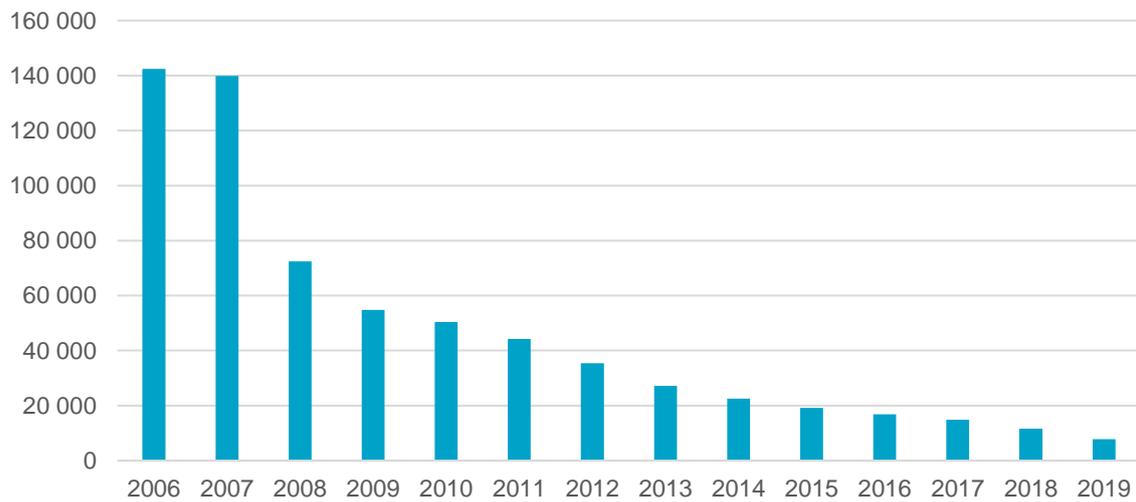
2018. However, there are no reasons why this migration should not occur in parallel or shortly after the migration of terminating traffic is concluded.

6.8. Wholesale Line Rental Offer (WLRO)

Under ANACOM's decision of 4 October 2018, which deregulated the wholesale market for call origination on the public telephone network provided at a fixed location for the provision of retail telephone services, the obligations imposed on MEO in this market, including the obligation to provide the WLRO, ceased to apply. Nevertheless, MEO is required to maintain the WLRO for active accesses, under the conditions then in force, including associated pricing, for a period of eighteen months (until mid-2020).

At the end of 2019, there were 7,843 accesses with WLRO active, comprising 5,657 analogue accesses, 2,122 integrated Services Digital Network (ISDN) accesses with basic services, 59 ISDN plus accesses, 3 fractional ISDN accesses and 2 primary ISDN accesses. The following graph shows the trend in the number of accesses with WLRO active.

Graph 9 – Trend in number of accesses with WLRO active



Source: ANACOM based on data from MEO.

7. COSTING SYSTEMS

7.1. SCA - Sistema de Contabilidade Analítica (Analytical Accounting System) used by MEO

7.1.1. MEO's SCA for financial year 2017

Under applicable law, MEO is required to maintain an SCA for regulatory purposes, comprising complete information about costs and the accounting of costs, respecting the principles, determinations and recommendations defined and issued by ANACOM.

It is the responsibility of ANACOM to approve the system implemented by MEO, examine its correct application and publish an annual statement affirming the conformity of the SCA and its results.

During 2019, MEO's 2017 SCA results were audited. ANACOM took note of the conclusions of the audit carried out by Grant Thornton & Associados, Lda. (Grant Thornton), and in early 2020 approved a draft decision: (i) approving the draft declaration of conformity to be issued in respect of the 2017 results of MEO's SCA, declaring that the results were produced in accordance with the provisions of article 71 of the LCE; and (ii) updating the determinations issued by ANACOM in respect of the SCA, to apply in future financial years and to the results of financial year 2019.

On 19 March 2020, ANACOM approved the final decision on the audit of MEO's SCA results⁹ and issued the declaration of conformity in respect of the SCA in force in 2017 and the results produced by it, while updating the determinations in this regard, to apply in future years.

7.1.2. MEO cost of capital to be applied in the SCA results

It is set out in the LCE (Article 74, paragraph 2) that, in imposing obligations of cost amortisation and price controls, including obligations for cost orientation of prices and obligations concerning cost accounting systems, ANACOM shall take the investment made by the operator into account, allowing that operator a reasonable rate of return on the capital employed and taking into account any associated risks.

⁹ [MEO cost accounting system \(2017 financial year\)](#)

In this context, and to give better support to ANACOM's intervention in the context of these powers, the company Mazars & Associados, SROC S.A. (Mazars) was contracted to assist in the determination of the parameters for the calculation of the rate to be applied in the 2018 and 2019 results of the SCA used by MEO.

Therefore, based on the report issued by Mazars, on 9 May 2019¹⁰ and on 3 October 2019¹¹, ANACOM approved the value of the cost of capital rate at 8.0660% and 7.4021%, respectively, applicable to the results of the SCA used by MEO in respect of financial years 2018 and 2019.

7.2. SCA - Sistema de Contabilidade Analítica (Analytical Accounting System) used by CTT

7.2.1. SCA used by CTT in respect of financial years 2016 and 2017

[Lei Postal \(Postal Law - Law no. 17/2012 of 26 April\)](#), in its current wording, gives ANACOM, as regulator of the postal sector, power and responsibility to approve and supervise correct application of the SCA which CTT is required to maintain as universal service provider. ANACOM is required to publish an annual declaration affirming the conformity of the SCA and of the results obtained.

In 2019, and following the audit of the results of CTT's SCA in respect of financial year 2016, which found an improper allocation of expenses between the company's postal activity and banking activity at the level of its retail network (post offices), on 18 June 2019¹², ANACOM ordered CTT to correctly separate expenses related to its postal activity and banking activity at the level of its post offices, in order to bring this separation into line with the rules of the SCA. At issue was an overstatement of expenses allocated to the postal activity and a countervailing undervaluation of expenses charged to the banking activity, especially with respect to staff costs. depreciation, amortization, rent and lease of tangible assets (fixed and current), cost of capital, rents, insurance, building maintenance fees, water, electricity and various consumables. On the same date, considering that the misallocation of

¹⁰ [MEO cost of capital rate applicable to financial year 2018.](#)

¹¹ [MEO cost of capital rate applicable to financial year 2019.](#)

¹² [Action resulting from the audit of the results of CTT's SCA \(Financial year 2016\).](#)

expenses between the banking and postal activity ascertained in 2016 would persist in 2017, ANACOM additionally ordered the reformulation of the results of CTT's SCA for 2017.

This is all the more relevant since, under the current regulatory framework, the pricing of postal services included within the provision of the universal service is partly subject to the principle of cost orientation, whereby prices should encourage efficient provision of the universal service. In this respect, as universal service provider, CTT is required to employ an analytical accounting system permitting the separation of accounts between each of the services and products that comprise the universal service and those outside the scope of the universal service and, additionally, separation between the costs associated with the various basic operations making up the postal services (collection, handling, transportation and distribution).

Consequently, ANACOM has granted CTT a period of 40 working days to send the 2016 results of its SCA, duly reformulated in accordance with its determination, while granting an additional period of 20 working days for the resubmission of the reformulated results for financial year 2017.

7.2.2. Cost of capital to be applied by CTT in the results of the SCA

[Directive 2008/6/EC of 20 February](#), which amends [Directive 97/67/EC of 15 December](#) (Postal Directive), establishes that the universal service provider has the right to obtain a reasonable profit and incentives to profitability. *Lei Postal* (Postal Law), which transposes this Directive into Portuguese law, reinforces this point in considering that the calculation of the net costs of universal service provision should envisage the achievement of a reasonable profit, taking into account the risk incurred in the investments made in provision of the universal service.

Lei Postal (Postal Law) also establishes that universal service providers are required to employ an analytical accounting system permitting separation of accounts between each of the services and products that comprise the universal service and those outside the scope of the universal service, enabling calculation of the net cost of the universal service (article 15). The law also makes ANACOM responsible for approving the SCA of the universal service providers and for ensuring its correct application (points a) and b) of article 16).

In this context, and to give better support to ANACOM's intervention in the context of these powers, Mazars was contracted to assist in the determination of the parameters to be used in calculating the rate to be applied in the 2018 and 2019 results of the SCA used by CTT.

Therefore, and based on the report issued by Mazars, on 4 April 2019¹³ and on 4 July 2019¹⁴, ANACOM approved the value of the capital cost rate at 10.1845% and 10.2879%, respectively, applicable to the results of CTT's SCA in respect of financial years 2018 and 2019.

7.3. European Commission draft on the costing model for roaming and mobile terminations - "Wholesale roaming and mobile voice termination cost study"

In the context of regulating the wholesale roaming service and in order to assess the effects of roam like at home (RLAH), the European Commission developed a costing model for roaming and mobile terminations - "Wholesale roaming and mobile voice termination cost study¹⁵". The Commission may, if it is deemed appropriate, promote legislative measures applicable to the wholesale price of these services. ANACOM followed this work closely, contributing with the information requested to model a hypothetical operator, with analysis of the model and its results, and with comments submitted to the public consultations on the model and participation in workshops promoted by the Commission on the subject in question. National operators were also given the option of participating in this process and were kept informed of developments, contributing data and submitting responses to public consultations, which were sent, on a timely basis to the European Commission.

7.4. European Commission draft on the cost of providing wholesale voice call termination services on fixed networks in EU/EEA countries

The European Commission launched a project¹⁶ to assess the cost of providing fixed wholesale voice call termination rates in EU/EEA countries. If deemed appropriate, it will

¹³ [CTT cost of capital rate applicable to financial year 2018.](#)

¹⁴ [CTT cost of capital rate applicable to financial year 2019.](#)

¹⁵ Project information available at [Finalisation of the mobile cost model for roaming and the delegated act on a single EU-wide mobile voice call termination: SMART 2017/0091](#)

¹⁶Project information available at [Finalisation of the fixed cost model for the delegated act on a single EU-wide fixed voice call termination](#)

prepare legislative measures in respect of the wholesale price of this service by December 2020. For this purpose, the Commission selected the consultant AXON Partners Group Consulting for the development of a fixed termination costing model. ANACOM followed this project closely, contributing with requested information to model a hypothetical operator, with analysis of the model and its results and with comments submitted to the public consultations on the model and participation in workshops promoted by the Commission on the subject in question. It should be noted that national operators were given the option of participating in this process and were kept informed of developments, contributing data and submitting responses, which were sent to the Commission.

8. UNIVERSAL SERVICE

8.1. Universal service of electronic communications

In 2019, the contracts that were in force governing provision of the universal service of access to the public communications network and provision of a publicly available telephone service through that connection (fixed telephone service) and governing provision of the universal service of public pay-telephones were terminated.

The Portuguese Government considered that it was necessary to continue to adopt all procedures necessary in order to fully guarantee the continuity of the fixed telephone service and the provision of public pay-telephones within the scope of the universal service. As such, as set out by order of the Secretary of State for Infrastructure of 17 September 2018, ANACOM launched a public consultation on these two services on 7 February 2019, with a view to obtaining contributions in relation to the designation procedure and the specifications to be defined.

New specifications were approved by ANACOM on 4 April 2019, whereas in relation to the fixed telephone service, the Assistant Secretary of State and for Communications determined, in April 2019, not to renew the contract governing provision of the fixed telephone service (which would cease on 1 June 2019), nor to open a new tender to select a universal service provider for this universal service component. Therefore, since 1 June 2019, there has been no provider designated to provide the fixed telephone service within the scope of the universal service.

In the case of public pay-telephones, the specifications approved in April 2019 introduced changes in terms of the number of public pay-telephones to be made available and maintained by the contracted provider. In this way, ANACOM established a national stock of 175 universal service public pay-telephone, limited to predominantly rural parishes and on all the islands that comprise the Autonomous Regions of the Azores and Madeira, with an obligation to apply the criterion of one public pay-telephone per parish in the parishes identified for this purpose.

The selected parishes correspond, on Mainland Portugal, to those whose unemployment rates and average age are cumulatively located in the last quartile of these indicators. In the Autonomous Regions of Madeira and the Azores, parishes on each of the islands have been identified based on equivalent criteria.

The contract governing the universal service provision of a comprehensive telephone directory service and comprehensive directory enquiries service ended back in 2018.

8.1.1. Telephone access and service at a fixed location (FTS)

Until 01 June 2019 and following a tender procedure, provision of access to a public communications network at a fixed location and a publicly available telephone service through that connection was being undertaken by NOS.

In 2019, demand for this universal service component remained negligible, and at the end of the contract, in June 2019, there were only four customers reported to be using this service. During the five years in which provision of this service was provided by NOS, there was no subscription to the “Retirees and Pensioners” tariff¹⁷, and a lack of take-up of specific offers for customers with special needs¹⁸.

In 2019, ANACOM continued to verify compliance with the obligations that were applicable to NOS, as universal service provider of this component of the universal service.

As regards the universal service tariff, NOS maintained the tariff applied in 2018 for as long as the contract governing the provision of the universal service remained in force.

In terms of fulfilment of the quality of service requirements, NOS, as universal service provider, was required to provide the service in accordance with certain established parameters of quality, as set out in the contract concluded with the Portuguese State.

In this context, NOS had an obligation to submit annual information on performance levels to ANACOM, and to publish this information on its website. In 2019, the fifth year of provision of the service ended (01 June 2018 to 01 June 2019). According to information published by NOS, during this period, the following levels of quality of service were recorded.

¹⁷The “*Reformados e Pensionistas*” (Retiree and Pensioners) tariff entails a 50% discount on network line rental for eligible retirees and pensioners.

¹⁸ In order to guarantee access by disabled end-users to services in a manner equivalent to other users, NOS provides specific offers, such as handset amplifier equipment and simple bills in Braille.

Table 1. Universal Service quality of service parameters - FTS

Universal Service - quality of service parameters	Target	5th year of provision
QSP1. Supply time for initial network connection (a) Supply time for connection when customer does not specify a date (days) (a1) which corresponds to the 95% percentile of the fastest installations (a2) which corresponds to the 99% percentile of the fastest installations (b) Percentage of requests for the supply of connections satisfied on or before the date agreed with the consumer in cases where the consumer specifies a target date (c) Ratio between the number of initial connections provided where a target date is specified by the consumer and the total number of initial connections supplied	21 43 85% n.a.	- - 100% 100%
QSP2. Fault rate per access line Total number of faults reported per access	0,10 n.a.	0 -
QSP3. Fault repair time (hours) (a) Repair times of faults on local access network (a1) corresponding to the 80% percentile of fastest repairs (a2) corresponding to the 95% percentile of fastest repairs (b) Repair times for other faults (b1) corresponding to the 80% percentile of fastest repairs (b2) corresponding to the 95% percentile of fastest repairs (c) Percentage of faults repaired within the deadline established by the universal service provider as objective for offers to its customers	72 165 47 108 80%	- - - - -
QSP 4. Unsuccessful calls (a) No. of calls eligible for the calculation of QSP4 - national calls - international calls (b) Percentage of unsuccessful national calls (c) Percentage of unsuccessful international calls	n.a. n.a. n.a. n.a.	54 1 0% 0%
QSP 5. Time taken to establish calls (a) Total number of calls eligible for the calculation of QSP5: - national calls - international calls (b) Time taken to establish national calls (seconds) (c) Time taken to establish national calls (seconds) corresponding to the 95% percentile of fastest calls (d) Time taken to connect calls for international calls (seconds) (e) Time taken to connect calls for international calls (seconds) corresponding to the 95% percentile of fastest calls	n.a. n.a. n.a. n.a. n.a.	54 1 5,2 26,0 15,0 15,0
QSP 6. Bill correctness complaints Percentage of bills resulting in complaints compared to the total number of bills issued	0,04%	0,00%

Source: NOS

Note: 5th year of service provision: 01 June 2018 to 01 June 2019.

8.1.2. Public pay-telephone service

In accordance with the provisions of the contract concluded between MEO and the Portuguese State governing provision of the public pay-telephone service of the universal service, MEO ensured availability of this universal service component until 9 April 2019.

In line with previous years, in 2019, ANACOM undertook verification of compliance with obligations in relation to stock, price affordability, quality of service and the reporting of information to ANACOM.

According to the information provided by MEO, in 2019, the maintained stock of public pay-telephones was in accordance with the contract: 8,222 pay-telephones, comprising 6,229 pay-telephones under the geographic dispersion criteria (one public pay-telephone per parish and one additional public pay-telephone for each parish with more than 1000 inhabitants) and 1,993 public pay-telephone under application of the requirement to make public pay-telephones available in places of social interest¹⁹.

In compliance with its publication obligations, in 2019, MEO published detailed information on the public pay-telephones that are available, by geographical area and detailed by parishes, respective municipalities and districts. In addition, it also made information available on its website detailing the location of the universal service public pay-telephones and the existing stock of public pay-telephones with reference to 1st quarter 2019.

ANACOM also undertook actions to verify the data sent by MEO on the provision of public pay-telephones, especially as regards traffic originating on universal service public pay-telephones, and sought clarifications from the company on the submitted data.

Based on information provided by MEO, with complete data for 2018 on traffic originating on universal service public pay-telephones, it can be seen that traffic originating on pay-telephones has been declining (falling 6% between 2017 and 2018). According to the most recent data reflecting actual use of public pay-telephones (referring to 2018), which excludes the routine calls made to the fault management systems, there were around 2.6 million calls originated on universal service public pay-telephones and terminating in

¹⁹ The following are deemed places of social interest for the purposes of public pay-telephone installation: (i) airports; (ii) educational establishments; (iii) prisons; (iv) underground stations; (v) hospitals and health centres; (vi) railway terminals; (vii) bus terminals; (viii) courts; (ix) *Lojas do Cidadão* (Citizen's Bureaux).

Portugal, corresponding to 8.3 million minutes. This data corresponds, on average and per day, to less than 1 call (about 0.85 calls) terminated in Portugal per universal service public pay-telephone. The data held by ANACOM for 2019 (period from 1 January to 9 April 2019) also reflects a reduction in traffic originating from universal service public pay-telephones (a reduction of around 3% compared to 2018).

As regards affordability, since there was no change in the prices charged for the service in 2019 and since MEO is not obliged to make price reductions²⁰, there was compliance with the price cap.

In terms of the quality of service in the provision of public pay-telephones, a target of 96% was set for the parameter "Percentage of coin and card public pay-telephones in good working condition"²¹.

For the entire country, for the 5th year of the contract's execution (1 April 2018 to 31 March 2019), MEO reported values of 96.66% and 97.11% (the latter discounting situations that affected performance). According to the company, the performance level was influenced by the forest fires that occurred in 2017, with longer than normal periods of unavailability. Regardless of whether or not these situations are discounted, the values on quality of service communicated by MEO are above the established target.

8.1.3. Comprehensive telephone directory and directory enquiry service

Provision of the universal service provision of a comprehensive telephone directory and comprehensive directory enquiries service by MEO, as universal service provider designated by tender procedure, ended on 13 September 2018. It was incumbent upon MEO, as universal service provider, to deliver a printed telephone directory on an annual basis to all end-users who expressly request it within a defined period using a telephone number established for the purpose or using a specific website²².

²⁰ In accordance with the provisions of the Contract, MEO was required to comply with an annual price cap not exceeding CPI-2.75%, applicable to the pricing component of communications to the same network and to other fixed and mobile networks. Compliance with this rule is checked on an annual basis.

²¹ The defined indicator is "Percentage of complete days for which existing public pay-telephones are in working order with respect to the potential number of days of service of the average total stock of public pay-telephones".

²² It should also be noted that delivery of the printed telephone directory to users who have expressly requested it and covering the end-user's area of residence must be provided fee-of-charge at the address indicated by the

In 2019, and in view of the Government's request for ANACOM to arrange an audit in relation to the printed universal service telephone directories delivered by MEO in 2018, ANACOM arranged an audit which it carried out with internal resources.

Following the audit performed in 2018 to check the number of directories delivered in 2018, a final value of 4,777 directories was reported, 30 fewer directories than reported by MEO, with an impact on the variable financing value (a reduction of 13.53 euros versus the financing that would result from the number of directories indicated by MEO).

8.1.4. Determination of Net Costs of Universal Service (NCUS)

In 2019, ANACOM determined the 2018 NCUS for the financing of providers designated by tender; these costs were calculated according to the calculation method and overall amount of financing established under the contracts concluded between the Government and the respective designated providers. As regards the provision of a comprehensive telephone directory service and a comprehensive directory enquiries service, the value of the variable component was calculated based on the sum of 4,777 directories registered in the completed audit.

The following table shows the values of the NCUS of 2018, as determined by ANACOM in relation to each of universal service components.

Table 2. Final values - NCUS 2018

	2018
FTS provision	1 920 000.00
Public pay-telephones offer	2 466 600.00
Provision of telephone directories and 118	446 355.35
Total NCUS	4 832 955.35

Unit: Euros.

Source: ANACOM.

user or at one of the two existing physical outlets. MEO is also required to deliver other directories, when these exist, which delivery may be subject to the payment of shipping and handling expenses, except those that have been requested for delivery in one of said two locations.

8.1.5. Universal service financing

ANACOM is responsible for carrying out all acts necessary to ensure proper administration of the universal service compensation fund (set up under the LCE), and is responsible for identifying the undertakings required to contribute to the Compensation Fund and setting the exact amounts of their contribution.

In accordance with *Lei do FCSU* (Fund Law - Law no. 35/2012 of 23 August²³), ANACOM is required to submit a list containing the following information to a prior hearing, under the terms of the *Código de Procedimento Administrativo* (Administrative Proceeding Code):

- a) Undertakings required to contribute to the compensation fund;
- b) Eligible turnover for calculation of the contributions due to the compensation fund;
- c) The amount of the contributions due from each undertaking, plus any compensatory interest that may be due pursuant to paragraph 7 of article 11 of the above law;
- d) Amount of compensation payable to universal service providers;
- e) Amendments and adjustments that may be warranted, in particular in view of the data obtained in relation to the eligible turnover actually determined, where applicable.

As such, in the first quarter of 2019, ANACOM completed the procedures associated with putting the Universal Service Compensation Fund into operation in respect of the NCUS of 2017 (as incurred by the designated universal service providers) and initiated procedures for the financing of the NCUS of 2018.

In 2019, as Universal Service Compensation Fund manager, ANACOM published the fourth report and accounts, pursuant to article 98 of the LCE and article 5, paragraph 1, point d of *Lei do Fundo* (Fund Law).

8.1.5.1. Contributions in respect of 2017 (paid in 2019)

On 17 January 2019, ANACOM adopted the final decision on the identification of the undertakings required to contribute to the universal service compensation fund and setting

²³ Law which established the Electronic Communications Universal Service Compensation Fund, subsequently amended and republished by [Law no. 149/2015 of 10 September](#).

out the amount of the contributions relating to the NCUS to be compensated in respect of 2017.

Given that the 2018 Regulation Report explains the process followed in more detail, a summary table is presented in this report, identifying the companies and undertaking that have been identified as contributors to the Universal Service Compensation Fund and the value of their contributions.

Table 3. Value of the contributions of undertakings required to contribute to the compensation fund in respect of the NCUS 2017 incurred by the universal service provider pursuant to the contracts

Companies	NOS (FTS provision)	MEO (Public pay- telephones)	MEO (Directories and 118)
Grupo NOWO/ONI	€ 49 388.76	€ 63 449.12	€ 16 361.68
NOWO Communications, S.A.	€ 32 961.44	€ 42 345.15	€ 10 919.58
ONITELECOM - Infocomunicações, S.A.	€ 16 427.32	€ 21 103.97	€ 5 442.10
Grupo NOS	€ 609 112.25	€ 782 518.89	€ 201 788.93
NOS Comunicações, S.A.	€ 590 928.91	€ 759 158.98	€ 195 765.08
NOS AÇORES COMUNICAÇÕES, S.A.	€ 6 353.55	€ 8 162.33	€ 2 104.83
NOS MADEIRA COMUNICAÇÕES, S.A.	€ 11 829.79	€ 15 197.58	€ 3 919.02
Grupo VODAFONE	€ 434 448.22	€ 558 130.20	€ 143 925.59
VODAFONE PORTUGAL - Comunicações Pessoais, S.A.	€ 434 448.22	€ 558 130.20	€ 143 925.59
VODAFONE Entreprise Spain, SL - Sucursal em Portugal	€ 0.00	€ 0.00	€ 0.00
MEO – Serviços de Comunicações e Multimédia, S.A.	€ 825 139.43	€ 1 060 046.32	€ 273 355.20
Total	€ 1 918 088.66	€ 2 464 144.53	€ 635 431.40

Unit: Euros.

Source: ANACOM calculations based on statements provided by the companies and on audit results.

In relation to the NCUS 2017 and following requests from MEO and NOS, ANACOM authorised a waiver of the requirement to remit the contribution amount due from these companies, since the amounts they were due to receive exceeded the amounts payable.

All contributions relating to NCUS 2017 incurred by the universal service providers were duly remitted to the universal service compensation fund, and the fund transferred the amounts to the respective universal service providers under the terms of the *Lei do Fundo* (Fund Law).

8.1.5.2. Contributions in respect of 2018 (payable in 2020)

In 2019, ANACOM approved selection of Grant Thornton & Associados, SROC, Lda., as an independent external entity, to carry out auditing of eligible turnover reported by network operators and providers of electronic communications services for the year 2018.

23 companies were selected by ANACOM for auditing, comprising: i) those with the most significant levels of annual turnover; ii) those with significant reductions in turnover compared to the previous year; iii) companies which identity activities unrelated to the offer of publicly available electronic communication services and which, by their nature, might be classified as electronic communication activities; and iv) others selected randomly,

The value of the eligible turnover of the audited companies accounted for more than 99% of total sector eligible turnover, and the audit included all entities that came to be identified as contributors.

For other non-audited companies, ANACOM verified the consistency of the amounts reported in the statements and made corrections, including by comparing the overall value presented with the values presented under the various headings. In specific cases, inaccuracies were detected and ANACOM corrected them, submitting the alterations to prior hearing procedures.

In view of the audit results and procedures followed by ANACOM, a draft decision was approved on 5 December 2019 identifying the undertakings required to contribute to the electronic communications universal service compensation fund and determining the amount of the contributions due in relation to the NCUS to be compensated in respect of 2018.

This draft decision determined the value of the sector's overall eligible turnover (4,158 663,358.75 euros) for 2018, for the purposes of *Lei do Fundo* (Fund Law), and the list of undertakings required to make payments to the Universal Service Compensation Fund in respect of NCUS 2018, determined pursuant to the tenders to designate the universal service providers.

Considering that there are deductions established by *Lei do Fundo* (Fund Law) in respect of the amount of the NCUS to be distributed, ANACOM verified the applicability of each

deduction and determined that the final value to be considered for purposes of setting the value of contributions corresponds to the value of the NCUS

The following table shows the contributions to the NCUS of 2018, as determined for each undertaking identified as contributor.

Table 4. Value of contributions from undertakings required to contribute to the compensation fund in relation to NCUS 2018 incurred by universal service providers under contracts

Companies	NOS (FTS provision)	MEO (Public pay- telephones)	MEO (Directories and 118)
Grupo NOWO/ONI	47 907.77	61 546.52	11 137.44
NOWO Communications, S.A.	32 308.89	41 506.83	7 511.06
ONITELECOM - Infocomunicações, S.A.	15 598.88	20 039.69	3 626.38
Grupo NOS	628 361.25	807 247.84	146 079.38
NOS Comunicações, S.A.	610 130.54	783 827.08	141 841.16
NOS AÇORES COMUNICAÇÕES, S.A.	6 462.05	8 301.71	1 502.28
NOS MADEIRA COMUNICAÇÕES, S.A.	11 768.66	15 119.05	2 735.94
Grupo VODAFONE	460 392.03	591 459.88	107 030.44
VODAFONE PORTUGAL - Comunicações Pessoais, S.A.	460 392.03	591 459.88	107 030.44
VODAFONE Entreprise Spain, SL - Sucursal em Portugal	0.00	0.00	0.00
MEO – Serviços de Comunicações e Multimédia, S.A.	783 338.95	1 006 345.76	182 108.09
Total	1 920 000.00	2 466 600.00	446 355.35

Unit: Euros.

Note: The values were determined in accordance with the provisions of the Fund Law, and rounded to the nearest cent. The aggregate contributions of each of the groups are calculated as a result of the sum of the individual contributions of each of the undertakings, the latter being considered for payment purposes to the universal service compensation fund.

Source: ANACOM calculations based on statements provided by the companies and on audit results.

The final decision on this matter was approved in January 2020, with no changes to the contribution amounts of each undertaking.

8.2. Universal postal service

As set out in [Lei Postal \(Postal Law\)](#) (paragraph 1 of article 10), the universal postal service consists of the supply of postal services of a specified quality and permanently available

throughout the territory, at affordable prices for all users, aiming to meet the communication needs of the population and those of economic and social activities.

In particular, the universal postal service comprises a postal service, of a national and international scope, for postal items, excluding direct mail, and also for catalogues, books, newspapers and other periodicals up to 2 Kgs and postal parcels up to 10 Kgs, as well as services for registered items and insured items. The universal service also comprises delivery within the national territory of parcels received from other EU Member States weighing up to 20 kg, as opposed to the situation of express mail services²⁴.

Provision of universal service must ensure²⁵, in particular, provision of the postal service at affordable prices to all users, the accomplishment of adequate quality standards, the provision of the service under conditions of equality and non-discrimination, and continuity of the provision of the service, except in cases of force majeure. In addition, the service must also ensure that provision of the service evolves in line with the technical, economic and social environment and with the needs of users, while also ensuring fulfilment of obligations inherent to the provision of the universal service that result from the international commitments of the Portuguese State.

CTT, as universal service provider²⁶, is required to properly advertise and provide users and providers of postal services with accurate and updated information on the characteristics of the universal service, specifically as regards general conditions of access and use of the service, pricing and levels of quality²⁷.

8.2.1. Universal postal service price proposal

By decision of 22 May 2019, ANACOM did not oppose the proposal for the universal postal service tariff for 2019 submitted by CTT, considering the proposal to be in compliance with the principles and criteria governing the formulation of pricing applicable to the postal services of universal service in 2019.

²⁴ As established in paragraphs 1 to 3 of article 12 of *Lei Postal* (Postal Law).

²⁵ According to paragraph 1 of article 11 of *Lei Postal* (Postal Law).

²⁶ Under paragraph 1 of article 57 of *Lei Postal* (Postal Law).

²⁷ Paragraph 2 of article 11 of *Lei Postal* (Postal Law).

ANACOM's decision was based on the conclusion that the price proposal presented by CTT resulted in an average annual variation in the basket of prices formed by the services of correspondence, editorial mail and parcels, of 1.15%, not exceeding the applicable maximum variation in pricing (also 1.15%) The price proposal also complied with the maximum variation of 1.15% defined for the price of postal delivery of items weighing up to 20 grams (national service) paid through stamps or franking at postal establishments (since CTT's proposal represented an average annual variation of 0.16%). It was further concluded that the proposal presented by CTT for 2019 resulted in a global average annual variation in the prices of reserved services service of legal summons and notifications by post) of - 3.41%, complying with the applicable minimum price reduction.

It should be noted that, on the basis of this decision, the proposal was also considered to be in compliance with: (i) the obligation to apply the principle of tariff uniformity to national mail items weighing less than 50 grams and sent by occasional users; (ii) the principle of cost orientation of prices, taking into account the information available, based on the estimates and forecasts of cost trends; (iii) the principle of affordability for all users.

Given that under paragraph 1 of article 8 of the price formation criteria, prices are to be notified to ANACOM no later than 30 working days prior to the date of their entry into force and taking into account the interest and protection of users and the possibility, as under paragraph 8 of article 7 of the price formation criteria, of specifying a minimum period of advance notice of price changes, ANACOM further decided that the 2019 prices could apply only as from 4 June 2019 (inclusive), and that disclosure and advertising of new prices, including discounts and application conditions, should occur at least five working days prior to their entry into force.

8.2.2. Cross-border single-piece parcel tariffs

[Regulation \(EU\) 2018/644 of the European Parliament and of the Council of 18 April](#) (Cross-Border Regulation), which aims to improve cross-border parcel delivery services, establishes specific provisions as regards (a) the regulatory oversight of parcel delivery services, (b) tariff transparency and assessment of tariffs for certain cross-border parcel delivery services, in order to identify tariffs that are excessively high, and (c) the information provided to consumers about cross-border parcel delivery services.

In this respect, and as established in paragraph 1 of article 6 of this Regulation, the national regulatory authority shall identify, for each of the single-piece postal items listed in the Annex, the cross-border tariffs of the parcel delivery service provider that originates in its Member State and that are subject to a universal service obligation that the national regulatory authority objectively considers necessary to assess.

Table 5. Postal items listed in the annex to the Cross-Border Regulation

Service	Weight (in grams)
Standard letter	500, 1000 and 2000
Registered letter	500, 1000 and 2000
Track and trace letter	500, 1000 and 2000
Standard parcel	1000, 2000 and 5000
Track and trace parcel	1000, 2000 and 5000

Source: Cross-Border Regulation

In this context, and taking into account Commission Communication COM (2018) 8384 of 12 December 2018, which establishes guidelines for national regulatory authorities in assessing cross-border parcel tariffs under this Regulation, ANACOM identified the tariffs to be submitted to assessment through the application of an objective pre-evaluation filtering system. This filtering was based on a ranking of cross-border tariffs for all Member States for each of the 15 categories of single-item shipments listed in the annex to the Cross-Border Regulation, based on tariffs reported by providers (obtained under Article 5 of the Regulation), corrected according to the purchasing power parities established by Eurostat.

Following application of the pre-evaluation filtering system identified in the above Commission Communication, it was identified as objectively necessary to assess the tariffs charged by CTT for the following shipments:

- Track and trace parcels of 1kg [to all destinations reported under Article 5 of the Cross-Border Regulation (EU, Iceland, Liechtenstein and Norway) - corresponding to "Zone 1" and "Zone 2" of CTT's international parcel tariff];
- Track and trace parcels of 2kg [to all destinations reported under Article 5 of the Cross-Border Regulation (EU, Iceland, Liechtenstein and Norway) - corresponding to "Zone 1" and "Zone 2" of CTT's international parcel tariff];

- Track and trace parcels of 5kg (to all EU member states - except Austria, Belgium, Germany, Spain, France, Italy, Luxembourg and Holland - and also to Iceland and Norway - corresponding to "Zone 2" of CTT's international parcel tariff);

Within this framework, and taking into account the provisions of paragraph 2 of article 6 of the Regulation, ANACOM performed an objective assessment of the tariffs identified in order to identify possible cases of excessively high tariffs, in accordance with the principles set out in article 12 of [Directive 97/67/EC](#), and taking into account, in particular, the following:

- national tariffs and other relevant tariffs for comparable parcel delivery services in the originating and destination Member State;
- application of a single tariff to two or more Member States;
- bilateral volumes, specific transport or handling costs, other relevant costs and service quality standards;
- the likely impact of cross-border tariffs applicable to individual users and small and medium-sized enterprises (SMEs), in particular those located in remote or sparsely populated areas, as well as users with disabilities or reduced mobility, where this is possible and does not impose disproportionate burdens.

In view of the results of the assessment carried out, by decision of 26 June 2019, ANACOM approved the assessment of single-item cross-border tariffs (2019), as resulting from article 6 of the Cross-Border Regulation and respective communication to the European Commission. In this decision it was found that there was no evidence to conclude that the tariffs in question were excessively high, given in particular that:

- these tariffs are part of the price basket analysed by ANACOM under the universal service pricing criteria for the 2018-2020 three-year period, established by ANACOM decision of 12 July 2018 and complemented by the decision of 5 November 2018, whereby it was concluded that the prices comply with the principles and criteria governing the pricing applicable to postal services of the universal service.
- the level of tariff aggregation practised by CTT, with only two tariffs for EU Member States, Iceland, Liechtenstein and Norway, may contribute to greater territorial

cohesion, interpreted from a European perspective, also bringing the benefit of greater transparency (and less complexity) for users of the service;

- it was estimated that the margins obtained by CTT, in unit terms and for each type of shipment under analysis, are close to zero, while noting the impact that Portugal's geographic location may have on the costs incurred (and, consequently, on the prices charged) in shipping to other countries, and that the tariffs associated with the sending of cross-border parcels have not changed significantly over the 2014-2018 period, with an average annual variation of less than 1.1%;
- CTT's tariffs are lower than the average tariffs practised in the market, and are also closer to national tariffs, when compared with those of the other providers (notwithstanding possible differences in the characteristics of the services provided);
- the comparison of the assessed tariffs with the sum of their (corresponding) national tariff, with the national tariff of the universal service provider in the destination Member State, and with the tariffs applied within the scope of the universal service in the destination Member State (for shipments to Portugal), does not lead unequivocally to the conclusion that the tariffs applied by CTT for cross-border shipments are excessive. This takes into account the different regulatory frameworks and the differences in the cost structures of the various operators, resulting from the different characteristics of the situations in which they operate and even from the manner in which their infrastructure and networks have evolved;
- there are no known cases of abuse of a dominant position in the market by the universal service provider in the shipment of cross-border parcels.

8.2.3. CTT price reduction in 2019 due to non-compliance with QSI in 2018

By determination of 11 July 2019, ANACOM approved a final decision on the quality indicators of the universal postal service reported by CTT - Correios de Portugal (CTT) in 2018, in which it was concluded that in that year: (i) CTT accomplished the performance targets established for seven of the eleven quality of service indicators; (ii) CTT failed to accomplish the performance targets established for the remaining four quality of service indicators, and failed even to accomplish the minimum defined values in the case of two of

these indicators²⁸; (iii) the global quality of service indicator exceeded the target value (100 points), reaching 155.

As such, having ascertained non-compliance with the minimum values of two quality of service indicators, and based on the rules applicable in 2018 (established in the decision of 12 July 2018), ANACOM determined application of the defined user compensation mechanism.

However, ANACOM decided not to consider the value reported for the quality indicator on cross-border intra-community mail (QSI7) for the purposes of applying the user compensation mechanism. This decision took account of the same decision of 12 July 2018 and the grounds cited therein (for disregarding, with effect from 01 January 2019, the values calculated for the QSI of cross-border intra-community mail); these grounds remain valid, regardless of the reference period for the quality assessment of the universal postal service provided by the concessionaire.

As such, application of the user compensation mechanism entailed a reduction of 0.06 percentage points in the weighted average variation permitted for 2019 in the prices of the basket of letter, parcel and editorial mail services (reduction from 1.15% to 1.09%).

CTT implemented ANACOM's decision by reducing the prices of national priority mail between 1 September and 30 November 2019.

8.2.4. Use of transponders to measure quality of service indicators

On 22 January 2020, approval was given to ANACOM's decision to partially grant CTT's request to use RFID (radio frequency identification) transponders to measure indicators on mail transit time.

It is recalled that, by decision of 28 December 2018, on the results of audits of quality levels of the universal postal service provided by CTT - Correios de Portugal (CTT) in 2016 and 2017, ANACOM prohibited the use of test objects with transponders in the context of

²⁸ Indicators QSI2 ("Priority mail transit time in Mainland Portugal - % delivered within one working day") and QSI7 ("Transit time of cross-border intra-Community mail - % delivered within 3 working days")

measuring quality of service indicators on transit times, except with ANACOM's prior authorisation.

In particular, in its decision of 22 January 2020, ANACOM:

- a) prohibited the use of semi-active RFID transponders, given that their characteristics allow identification of the test objects and the panellists taking part in the measurement system, also enabling identification of the points where the test objects entered the postal network and of the point of delivery to the recipient;
- b) granted the request to use passive technology RFID transponders and allowed the use of equipment that enables identification of the moment when postal items containing these transponders are deposited in the recipients' letter boxes, provided that full compliance with the following set of requirements is ensured:
 - transponders are used solely for the purpose of validating the information reported by the panellists;
 - they do not permit identification of the point where the test object entered the network or identification of the point of delivery to the recipient;
 - since they aim to validate the information reported by the panellists, within the scope of the QSI measurement system, CTT cannot have access to any information associated with the transponders, nor any information associated with the equipment that allows it be known when postal items containing the transponders are deposited in the recipient's letter box. This information can only be available and used by the entity that measures the values of the quality indicators - an entity that is external to and independent from CTT;
- c) rejected CTT's request for authorisation to access information on specific points in the network with RFID coverage where the test object with the transponder circulated.

8.2.5. CTT requests for deduction of mail shipment records for calculating 2019 QSI

According to the "Parameters of quality of service and performance objectives associated with provision of the universal postal service for the period 2018-2020", established by the

decision of 12 July 2018, in the event of force majeure or phenomenon situation taking place, the burst and evolution of which are clearly outside the control of CTT, and have an impact on the quality of service provided by CTT, the latter may request, for the purpose of calculation of the quality of service indicators (QSI) comprised hereto, the deduction of the inputs for the concerned periods of time and geographic flows.

In 2019 and also during 2020, ANACOM analysed various requests made by CTT for the deduction of records for purposes of calculating the 2019 QSI values. In this context:

- a) by decision of 4 July 2019, a request submitted by CTT - Correios de Portugal (CTT) to deduct records referring to shipments of priority mail and registered mail was rejected. The records in question were affected by the breakdown of the transport vehicle, on 23 January 2019, used to transport Priority Mail from CPL-S - Centro de Produção e Logística Sul (South Production and Logistics Centre) to CPL-N - Centro de Produção e Logística Norte (North Production and Logistics Centre), which was not considered as an event qualifying as force majeure or as a phenomenon situation taking place, the burst and evolution of which are clearly outside the control of CTT,
- b) by decision of 18 July 2019, ANACOM approved a request for the deduction of posted mail records for normal mail, normal postage of magazines and periodicals published more than weekly from 22 to 25 March 2019 (inclusive), first-class post, registered postage of magazines and periodicals published up to and including weekly on 25 March, which were directly affected by disruptions to air traffic caused by strong winds across the Madeira Autonomous Region (MAR), with the exception of mail posted within the MAR;
- c) by decision of 13 February 2020, ANACOM allowed deduction of the records of postage of standard mail, standard orders and newspapers and periodicals published more than weekly, dispatched to or from the islands of the Central and Western groups of the Autonomous Region of the Azores (ARA), from 30 September 2019 to 2 October 2019 (inclusive) and priority mail, newspapers and periodicals with a periodicity published up to and including weekly and registered mail, dispatched from or to the islands of the Central and Western groups of ARA, on 1 and 2 October 2019 (inclusive) directly affected by disruptions to air traffic in the airports of the ARA caused by hurricane Lorenzo;

- d) by decisions of 19 March 2019, the following deductions were granted:
- a. standard mail and parcels, shipped from 28 to 30 October (inclusively), and priority mail and registered mail shipped on 30 October, affected by the closure of the A1 motorway near Póvoa da Isenta (Santarém) between 7:00 pm on 30 October 2019 and 5:37 am on 31 October 2019 in a north-south direction, following a collision between two heavy goods vehicles;
 - b. records of shipments of standard mail, bulk mail, standard parcels, and newspapers and periodic publications with more than weekly periodicity, from 3 to 5 December 2019 (inclusively) and priority mail, registered mail, and newspapers and periodic publications with equal to or less than weekly periodicity, from 4 to 5 December 2019 (inclusively) directly affected by the air traffic disruptions at Funchal airport caused by strong winds, in the flows to and from the Autonomous Region of Madeira;
- e) by decision of 2 April 2020, ANACOM allowed deductions of following shipments:
- i. standard mail, standard bulk mail, standard parcels and periodic publications with more than weekly periodicity, from 17 to 19 December 2019 (inclusively) in inbound or outbound flows of the Autonomous Region of the Azores, with the exception of intra-island flows, and from 20 to 23 December 2019 (inclusively) in inbound and outbound flows of the islands of Corvo, Faial, Flores, Graciosa, Pico, Santa Maria and São Jorge, with the exception of intra-island flows;
 - ii. priority mail, newspapers and periodic publications with periodicity with weekly periodicity or less, from 18 to 19 December 2019 (inclusively) in inbound or outbound flows of the Autonomous Region of the Azores, with the exception of intra-island flows, and from 20 to 23 December 2019 (inclusively) in inbound and outbound flows of the islands of Corvo, Faial, Flores, Graciosa, Pico, Santa Maria and São Jorge, with the exception of intra-island flows.

8.2.6. Postal network density and minimum offers of service

As mentioned in the 2018 Report on Regulation, Supervision and Other Activities, with a view to ensuring the quality of the customer service provided at post offices in relation to the provision of postal services, as well as the conditions necessary to guarantee the secrecy and inviolability of postal items, the confidentiality of information transmitted or stored and the protection of personal data and privacy, particularly in municipalities that do not have post offices, in 2018 ANACOM carried out an analysis of the provision of postal services. This work culminated with the adoption of a decision on 10 January 2019 requiring CTT to submit a proposal which complements the postal network density targets and the minimum offer of services currently in force (established by ANACOM decision of 15 September 2017). The proposal would be subject to a framework of reference as follows: the postal establishment in each parish which, pursuant to the postal network density targets and minimum offer of services in force, is required to provide the full range of concession services (and is open every working day for a minimum daily period of 6 hours in 99% of the country's municipalities and every working day for a minimum daily period of 3 hours in the remaining 1% of municipalities) must be:

- i. a post office; or
- ii. a postal services office with characteristics that are equivalent to those at post offices. (related, for example, to training, customer service and infrastructure and equipment, etc.).

The conclusion of this review procedure culminated in the approval, on 21 August 2019, of the final decision on CTT's proposal complementing the above postal network density objectives and minimum offer of service, whereby it is ANACOM's view that the proposal corresponds to user needs.

8.2.7. Prior disclosure, to users and ANACOM, of the closure of postal establishments or of a reduction in opening hours

Within the scope of the above process, complementing the above postal network density objectives and minimum offer of service and taking into account the impact on users when postal establishments (post offices and postal service offices) close or when their opening hours are reduced, and considering it important to guarantee that users and ANACOM

receive good notice of any changes foreseen in this regard, by decision of 24 April 2019, ANACOM ordered CTT:

- a) to inform users and ANACOM as to the closure of postal establishments or a reduction in their opening hours, giving no less than 20 working days prior notice;
- b) to provide the above information to users by means of a notice posted on the door to the establishment, in a position that is visible even when the establishment is closed. This notice must include the following information:
 - i. in the case of postal establishment closure: indication of the postal establishment's last day of operation, details of the two nearest postal establishments providing at least the concession services that are guaranteed in the postal establishment subject to closure, their respect addresses and hours of operation.
 - ii. in case of reduced opening hours: information about the new opening hours and the date on which they will take effect.

9. NUMBER PORTABILITY

9.1. Amendment to the Portability Regulation

By determination of 9 January 2019, ANACOM approved a Regulation amending [Regulation no. 257/2018 of 8 May](#), which changes the date of entry into force of the provisions governing the new mechanism to validate electronic portability requests, performed using the Portability Validation Code, as under the exception regime set out in article 6. The new date of entry into force was 11 May 2019.

This change arose after a number of constraints were reported to ANACOM in relation to the complexity of implementing the CVP and making it available for use as under the new article 12-A of the *Regulamento da Portabilidade* (Portability Regulation). These constraints were especially related to the need for service providers with portability obligations to make changes in various information systems which interact with each other, which can, in a worst case, impact the right to portability and consumer confidence in this new process of validating electronic portability requests.

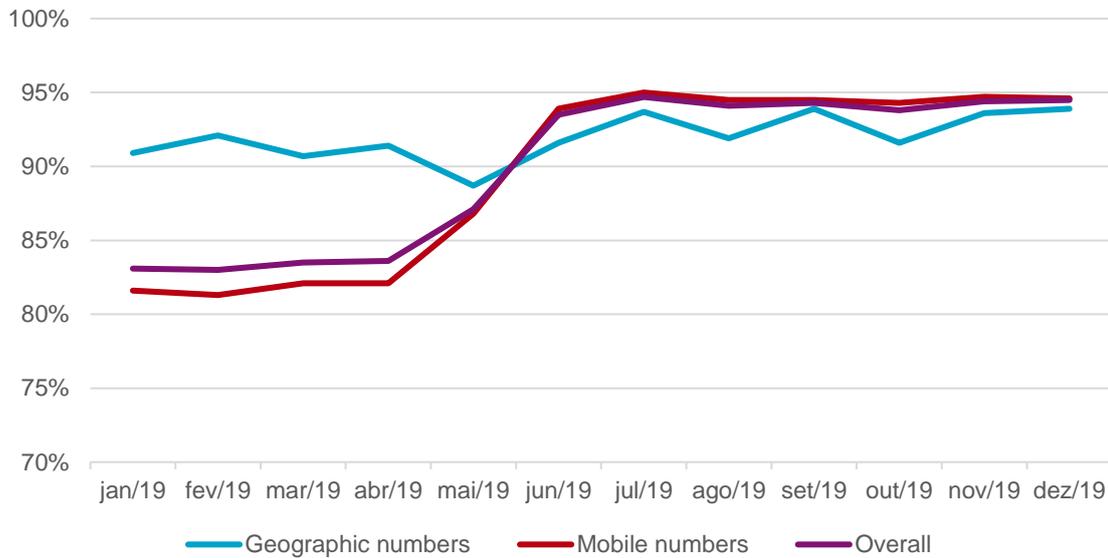
For this reason, a procedure to amend Regulation no. 257/2018 of 8 May was initiated (approved by ANACOM on 14 November 2018 and published on 15 November 2018), with a view to amending article 6. This was to be followed by the respective regulatory consultation procedure, approved by decision of 30 November 2018 (published in 2nd series of *Diário da República* (Official Journal) - [Notice no. 18570/2018](#) - on 12 December).

On 9 January 2019, the public consultation report to which the respective draft Regulation had been submitted was also approved. In response to this consultation, contributions were received from APRITEL - Associação dos Operadores de Comunicações Eletrónicas (Association of Electronic Communications Operators), MEO and NOS, SGPS (on its own behalf and on behalf of its subsidiaries NOS Comunicações, NOS Açores Comunicações e NOS Madeira Comunicações).

Essentially, [Regulation no. 85/2019, published on 21 January](#), published in 2nd series of the *Diário da República* (Official Journal), extends the period established in point b) of paragraph 1 and paragraph 2 of article 6 of Regulation no. 257/2018 of 8 May, whereby the provisions listed therein came into force on 11 May 2019.

Accordingly, following introduction of the CVP, from 11 May 2019, the success rate of portability appears to have improved significantly, as can be seen in the graph below.

Graph 10. Portability success rate during 2019

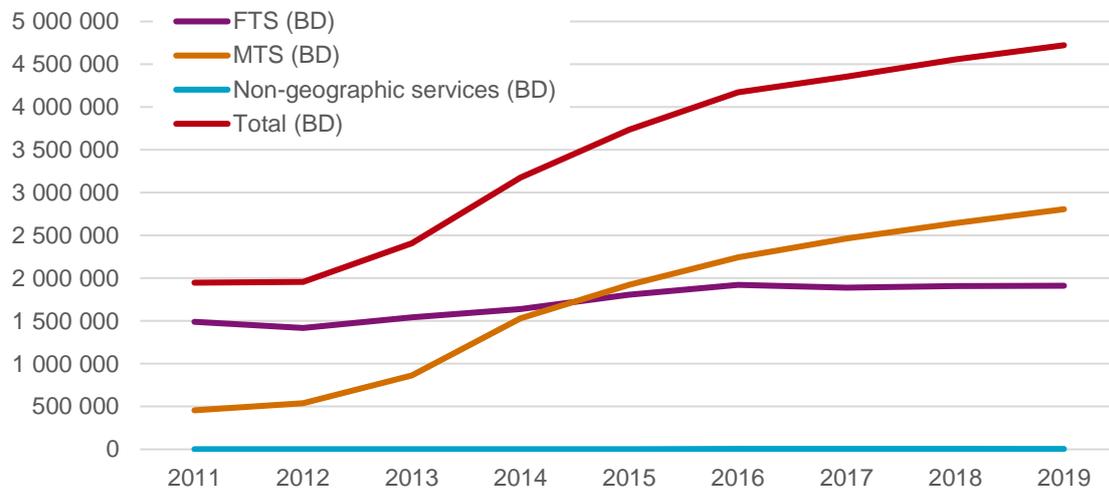


Source: Reference Entity

9.2. Trends in ported numbers

According to data from the Reference Entity's Portability database, at the end of 2019 there were 4,722,392 ported numbers, comprising 1,910,985 geographic numbers (FTS), 2,806,416 mobile numbers (MTS) and 4,991 non-geographic numbers, including 1,553 nomadic numbers. The trend in this data is shown in the following graph:

Graph 11. Trend in volume of actual ported numbers in the database



Source: Reference Entity

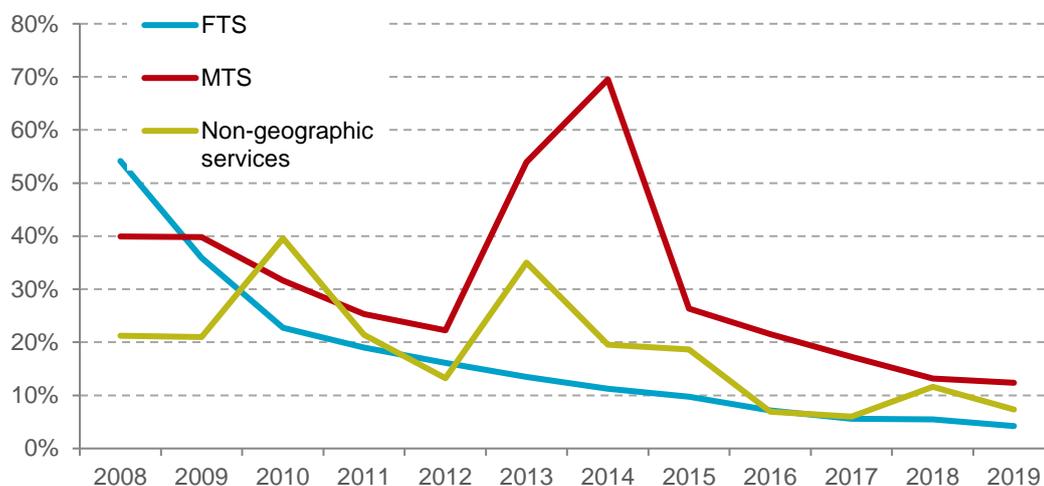
This indicator counts the quantity of numbers that, at the end of the period being reported, were ported, not including numbers returned to their initial provider (number donor). A number that is ported again to another provider after its first portability is counted only once.

At the end of 2019, 9,766,772 numbers had already been ported, comprising 4,596,508 geographic numbers, 5,163,659 mobile numbers and 6,605 other non-geographic numbers, including 1,657 numbers in the PNN “30” numbering range (nomadic VoIP service).

In terms of growth rates, mobile number portability rose 12% in 2019, well above the growth rate in geographic number portability (4%). The portability of non-geographic numbers (including nomadic numbers) also increased by around 8%.

The following graph illustrates the growth rate of portability.

Graph 12. Trend in the growth rate in the accumulated volume of ported numbers



Source: Reference Entity

9.3. Trends in portability prices

ANACOM collects information from MTS providers (including MVNO), from FTS providers and nomadic VoIP service providers; this information is also published on ANACOM's website.

At the end of 2019, out of 6 MTS providers, only 2 charged for portability. In one of these cases portability was free for subscribers subject to contract lock-in periods with a charge of 16.26 euros (excluding VAT) per ported number for subscribers who subscribe to offers without lock-in periods. The other operator charged 12.20 euros (excluding VAT) per ported number, but this value is also usually waived in campaigns.

In the FTS, it was found that, at the end of 2019, only two of the eight providers operating in the residential segment charged customers who choose to keep their number (12.20 euros and 16.26 euros excluding VAT per number ported for subscribers who subscribe to offers without contract lock-in periods). In the non-residential segment, only for three of the fifteen providers charged for portability (one charged 12.20 euros, another charged 15 euros and the other 20 euros, but the latter only to subscribers who subscribe to offers without a lock-in period - values excluding VAT).

With respect to the nomadic VoIP service, only two providers operating in the residential segment charged their customers for portability (the highest amount, 20 euros excluding

VAT per ported number, was charged only to subscribers of offers without lock-in periods). In the non-residential segment, only three of the fifteen providers charged for portability (one charged 4.59 euros, the other 15 euros and the other 20 euros, but the latter only to subscribers who subscribe to offers without a lock-in period - values excluding VAT).

10. COMMUNICATIONS SECURITY

10.1. Security and integrity of networks and services

10.1.1. Security Regulation

By decision of 14 March 2019, ANACOM approved [Regulation no. 303/2019, published on 1 April](#) on the security and integrity of electronic communications networks and services, establishing:

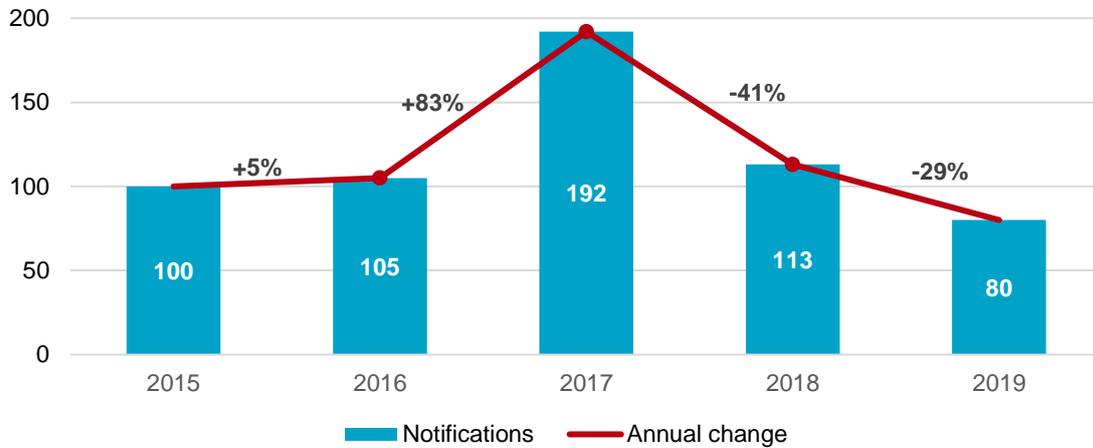
- a) the technical implementing measures and additional requirements applicable to undertakings providing public communications networks or publicly available electronic communications services as regards security and integrity;
- b) the circumstances, format and procedures governing reporting requirements in respect of security breaches or losses of network integrity with significant impact on the operation of networks and services by undertakings providing public communications networks or publicly available electronic communications services;
- c) the conditions governing disclosure to the public, by undertakings providing public communications networks or publicly available electronic communications services, of security breaches or losses of integrity with significant impact on the operation of networks and services;
- d) obligations to perform network and service security audits and to submit the respective reports, applicable to undertakings providing public communications networks or publicly available electronic communications services, as well as the requirements applicable to audits and auditors.

While entering into force on 2 April 2019, the Regulation provides companies operating on this date with an extended transitional period.

10.1.2. Notifications of security breaches and integrity losses

In 2019, CRN - Centro de Reporte de Notificações (Notification Reporting Centre) received 80 notifications regarding incidents of security breaches or loss of integrity with a significant impact on the operation of networks and services, 29% fewer than in 2018 (Graphs 13). The number of reported notifications has been decreasing in the last two years, as illustrated in the [Annual Report on Security Breaches and Losses of Integrity - 2019](#).

Graph 13. Notifications of security breaches and losses of integrity (2015-2019)

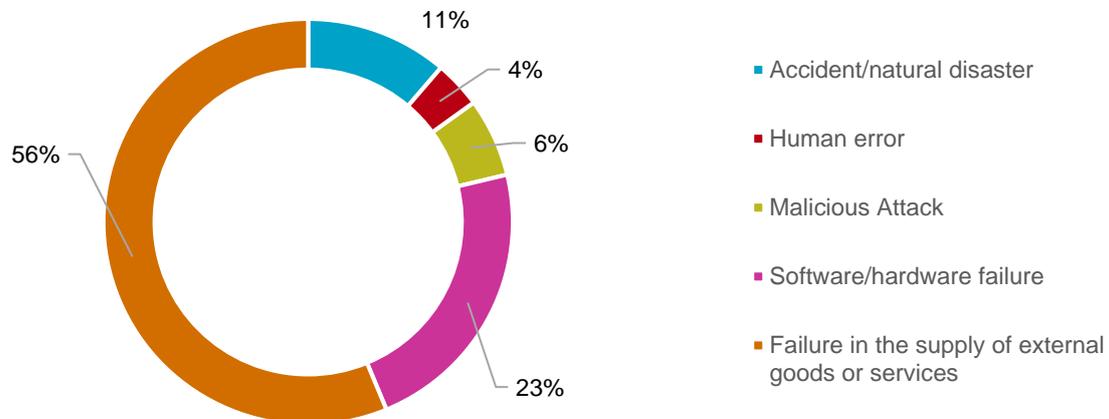


Unit: number of notifications

Source: ANACOM

Graph 14 reports on the root cause of security breaches or losses of integrity occurring in 2019, in percentage terms.

Graph 14. Causes of notified security breaches or losses of integrity - 2019.



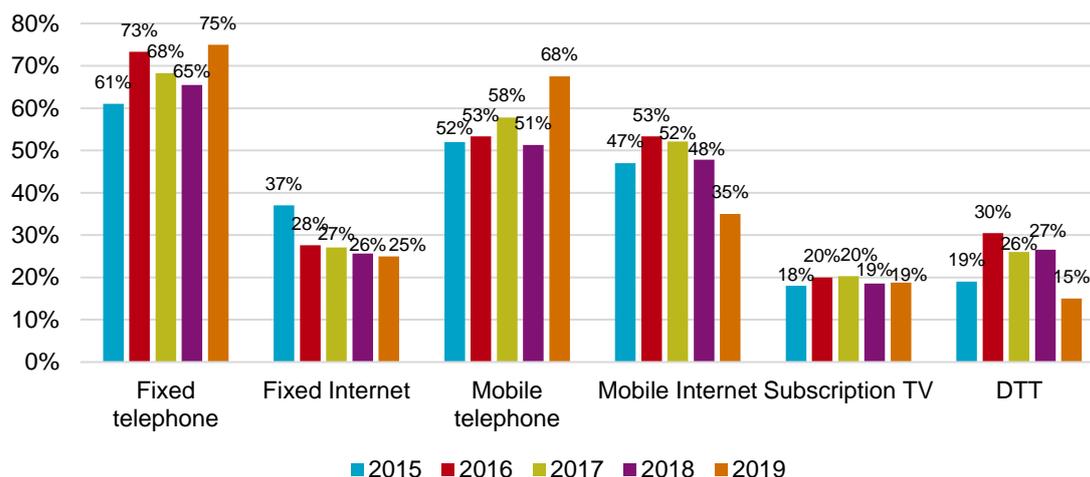
Unit: % of notifications.

Source: ANACOM.

In terms of failure in the supply of external goods or services, and regarding the interdependence between the electricity sector and the communications sector, meetings continued between ANACOM and ERSE - Entidade Reguladora dos Serviços Energéticos (Energy Services Regulatory Authority), and also with companies from both sectors.

It is also important to verify the impact of incidents in terms of services and affected subscribers/accesses. Graph 15 details the notifications received by affected service over the three-year period.

Graph 15. Causes of notified security breaches or losses of integrity - 20199



Unit: % of notifications.

Source: ANACOM.

Note: Since most notifications impact more than one service, the sum of percentages in the graph exceed 100% for each year.

The majority of notifications had an impact on two or more publicly available electronic communications services, with fixed and mobile telephony the services most severely impacted in 2019.

To obtain a more detailed analysis of the most significant security breaches and losses of integrity reported in 2018, ANACOM held meetings over the course of 2019 to review the results of the previous year’s activity with all the companies that issued notifications of security breaches or losses of integrity during that year. The analysis at these meetings focused on the main causes and their impact, in terms of number of subscribers/accesses affected, access to emergency and island services, as well as on obtaining additional information and improving information processes.

10.2. Single European emergency number - 112

In 2019, following meetings with companies which reported security breaches and losses of integrity in 2018, where ANACOM paid special attention to notifications related to 112, a meeting was held with the services responsible for answering and handling calls received at 112 - PASP - Pontos de Atendimento de Segurança Pública (Public Safety Answering

Points) - and with the company that delivers all calls made nationally to 112. At this meeting, relevant issues were addressed in relation to associated infrastructure, contingency plans and technological evolution, with the objective of improving quality of service.

ANACOM continued its cooperative work with the Ministry of Internal Administration, principally with regard to the legal and regulatory framework related to and necessary for the execution of planned improvements to emergency service access through 112.

In this context, in mid-2020, more accurate information should be made available to Public Safety Answering Points about the person contacting 112 through mobile networks, using AML - Advanced Mobile Location functionality, in addition to the current system based on the location coordinates of the associated mobile base station. This entails using Google and Apple operating systems, without any intervention from end-users, by means of various location sensors supported by mobile terminal equipment, including via satellite, to make the user's location available to the Public Safety Answering Point in the event of a communication to 112. It is estimated that this functionality will provide accuracy of up to 50 meters for about 85% of communications (according to data from British Telecom, United Kingdom 2016) with respect to Google.

After its full implementation in 2018, ANACOM continues to monitor the eCall functionality, in which a 112 communication can be manually or automatically triggered from a vehicle.

Finally, it should be noted that ANACOM continues to participate actively in the NaN3 work group (formerly WG ES) – a specific CEPT group on emergency services.

10.3. Forest fires working group - actions developed

Following the work developed by the Forest Fires Working Group, the widely disseminated Report "Forest Fires - Protection and Resilience Measures for Electronic Communications Infrastructure" identified 27 measures to mitigate the impact of forest fires on electronic communications infrastructure.

ANACOM considers that implementation of the 27 measures identified in this Report - measures which are notable for their innovative character and vast strategic scope - will contribute decisively to enhancing the protection and resilience of electronic communications infrastructure.

With a view to implementing the measures identified by the Working Group, in 2019, ANACOM:

- continued to take part in the work related to the measure “Free + agile services for Communications services”, which was included in the plan of SIMPLEX+ Measures for 2019;
- proposed a reduction in spectrum fees to the Government to encourage the use of radio links;
- set up a working group to analyse and implement an emergency national roaming solution;
- held meetings with electronic communications companies in order to obtain additional information;
- held meetings with entities outside the sector which were seen to have information or to have been engaged in relevant actions.

10.4. Population warning system

Population warning systems are used when a major accident or disaster has occurred or is imminent (forest fires, tsunamis, adverse weather, floods, dam breaks, radiological emergencies, industrial accidents, terrorist attacks, etc.) to provide information on the event concerned and the self-protection measures to be taken.

In 2019, eleven meetings of the working group were held with representatives of the Ministry of Internal Administration, ANEPC- Autoridade Nacional de Emergência e Proteção Civil (National Emergency Civil Protection Authority) and the electronic communications companies (Altice, NOS, Vodafone and NOWO). The group was formed in 2018 with a view to analysing alternative solutions and deploying the population alert system. At the beginning of 2019, the working group also brought in representatives from Centro de Coordenação das Comunicações, Tecnologias de Informação e Inovação (Communications, Information Technologies and Innovation Coordination Centre - Government of the Azores), the Regional Civil Protection and Fire Service of the Autonomous Region of the Azores and the Regional Civil Protection Service of the Autonomous Region of Madeira.

In 2019, improvements were made to the system in operation, based on the transmission of warnings by Short Message Service (SMS), providing a web-service type interface based on Common Alerting Protocol (CAP), which allows more rapid and secure communication between Civil Protection Authorities and electronic communications companies at the moment a warning is sent out to the population.

In legal terms, publication of [Decree-Law no. 2/2019 of 11 January](#) instituted *Sistema Nacional de Monitorização e Comunicação de Risco, de Alerta Especial e de Aviso à População* (National Risk Monitoring and Communication, Special Alert and Population Warning System) on Mainland Portugal, while similar legislation is pending from the Governments of the Autonomous Regions of the Azores and Madeira.

In the future, the system will be adapted to enable the sending out of warnings to the population in the Autonomous Regions of the Azores and Madeira, with each Civil Protection Authority using a system that is expected to be centralised, but adjusted to each region.

Meanwhile, ANACOM took part in the BEREC Wireless Network Evolution working group. This group produced a document with guidelines addressed to Member States on population warning systems, entitled “BEREC guidelines on how to assess the effectiveness of public warning systems transmitted by different means”, prepared in response to article 110(2) of the new European Electronic Communications Code. This document was presented by BEREC on 11 December 2019 and submitted to public consultation.

10.5. Emergency national roaming

In 2019, ANACOM, carrying out one of the 27 measures contained in the report of the Forest Fires Working Group, set up a working group with representatives from the office of the Assistant Secretary of State for Communications (SEAC) and electronic communications companies (Altice, NOS, Vodafone and NOWO), with a view to establishing a plan for the development and implementation of a national roaming solution in an emergency or catastrophic situation. The objective is that any citizen in an emergency situation can connect and use any mobile network when their own operator’s network is down or no longer available in their current location, for example, as a result of an incident causing serious disruption to its operation.

Initially, the members of the working group shared knowledge, experiences and cases of use from other countries, which resulted in the identification of several potential technical solutions. Among these solutions, a single group was unanimously selected, as a result of a process that included the characterisation of each solution individually, comparison and debate.

The working group drew up an action plan, even after Altice left in November 2019 and, in December, a timetable was established for the implementation of the chosen national emergency roaming solution.

10.6. 5G National Risk Analysis - European Recommendation (5G network cybersecurity)

On 26 March 2019, after receiving support from the European Council, the European Commission adopted Recommendation (EU) 2019/534 on Cybersecurity of 5G networks, calling on Member States to complete national risk assessments and carry out a review of measures. It is also intended that Member States work together at EU level in undertaking a coordinated risk assessment and on a common toolbox of mitigation measures.

At a national level, the 5G Working Group was set up, where ANACOM has been working together with Gabinete Nacional de Segurança/Centro Nacional de Cibersegurança (National Security Office/National Cybersecurity Centre), within the scope of the Conselho Superior de Segurança do Ciberespaço (Higher Cyberspace Security Council) created under the terms of [Law no. 46/2018 of 13 August](#), which establishes the legal regime governing cyberspace security and transposes [Directive \(EU\) 2016/1148 of the European Parliament and of the Council of 6 July 2016](#) concerning measures for a high common level of security of network and information systems across the Union (NIS Directive).

In addition to the legal regime governing cyberspace security, there is also the legal regime governing electronic communications, including [Law no. 5/2004 of 10 February](#), which transposes [Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002](#) on a common regulatory framework for electronic communications networks and services.

The European Commission recognised deployment of the 5th generation of network technologies as an essential component in facilitating future digital services, constituting a priority of the Digital Single Market Strategy. The European Commission adopted the 5G

Action Plan to ensure that the Union has the connectivity infrastructure necessary for its digital transformation from 2020.

In order to support the development of a Union approach to ensuring cybersecurity for 5G networks, the Recommendation identified a set of actions that should be taken to enable:

- a) Member States to assess the cybersecurity risks affecting 5G networks at national level and take necessary security measures;
- b) Member States and relevant Union institutions, agencies and other bodies to jointly develop a coordinated Union risk assessment that builds on the national risk assessment.
- c) The Cooperation Group set up under Directive (EU) 2016/1148 (Cooperation Group) to identify a possible common set of measures to be taken to mitigate cybersecurity risks related to infrastructures underpinning the digital ecosystem, in particular 5G networks.

In a common European approach to the security of 5G networks, 24 EU Member States have completed the first phase and submitted national risk assessments (by 30 June 2019), having reported the results to the European Network and Information Security Agency (ENISA) (by 15 July 2019).

In this context, ANACOM arranged meetings with the three mobile operators, seeking information from the companies for preparation of the national risk assessment.

On 9 October, based on the contributions of the Member States and with the support of the European Commission and ENISA, the cooperation group published a high-level report on the coordinated risk assessment of 5G networks, which identifies the main threats and threat actors, the most sensitive assets, the main vulnerabilities and a series of strategic risks.

Moving on to the third phase of the Recommendation, the cooperation group set out a series of possible risk reduction measures (toolbox) to mitigate the cybersecurity risks identified at national and EU level.

By 31 December 2019, the NIS Cooperation Group had agreed on a toolbox for mitigating cybersecurity risks identified at national and Union level - to be published in January 2020.

10.7. Emergency policies in the communications sector

Within the scope of Action 1.23 of ANACOM's Activities Plan for the period 2018-2020 - Contribute, in collaboration with ANEPC, to the definition and updating of emergency policies - ANACOM conducted the 1st phase of a study identifying a set of potential gaps in knowledge about the use of electronic communications in the design of current emergency policies.

The next phase of the study will include interactions with both ANEPC and with other relevant actors in the sector, especially those that provide electronic communications networks and services to the public, in order to obtain feedback on the relevance of the study and to promote debate on the issues raised, seeking the formulation of guidelines to focus on and accomplish the objective of the action.

The action, which includes the study, should be completed by the end of 2020, with the presentation of a summary report containing a contribution to the definition and updating of emergency policies related to the electronic communications sector.

10.8. Standardisation

In 2019, ONS ANACOM undertook 215 consultations, principally answered by the four national constituted technical commissions:

- CTE 210 - Electromagnetic compatibility;
- CTE 209 - Cable networks for television signals, sound signals and interactive services;
- CTE 215 - Electrotechnical aspects of telecommunications equipment;
- CTE 46 - Cables, wires and wave guides for telecommunication equipment.

Consultations were also made on other subjects, such as: postal standardization, CEMAH - electromagnetic fields in the human environment, ECEI - audio, video, multimedia systems and equipment and ETR - Transmission equipment for radiocommunications.

10.9. Other aspects

In addition to the above, ANACOM cooperated with a number of entities in the area of communications security, specifically: within the scope of the working group for the presentation of technological solutions for emergency communications in Portugal from 1 July 2021 (set up by [Order no. 3458/2019 of 28 March](#) of the Secretaries of State for Civil Protection and Assistant and of Communications); in the meetings of Conselho Superior de Segurança do Ciberespaço (Higher Cyberspace Security Council); Estratégia Nacional de Adaptação às Alterações Climáticas 2020 (National Strategy for Adaptation to Climate Change 2020); participation in exercises; and participation at an international level in the Article 13 Expert Group and at BEREC.

11. INFRASTRUCTURE

11.1. Suitable Infrastructure Information System (SIIS)

The Suitable Infrastructure Information System (SIIS) is a platform providing articulation between the different operators and/or holders of infrastructure suitable for carrying public electronic communications networks, specifically in the areas of road, rail, port, airport, water infrastructure, gas and electricity. The system also provides information about existing networks at any given location, enabling identification of their location and their protection in case of emergency.

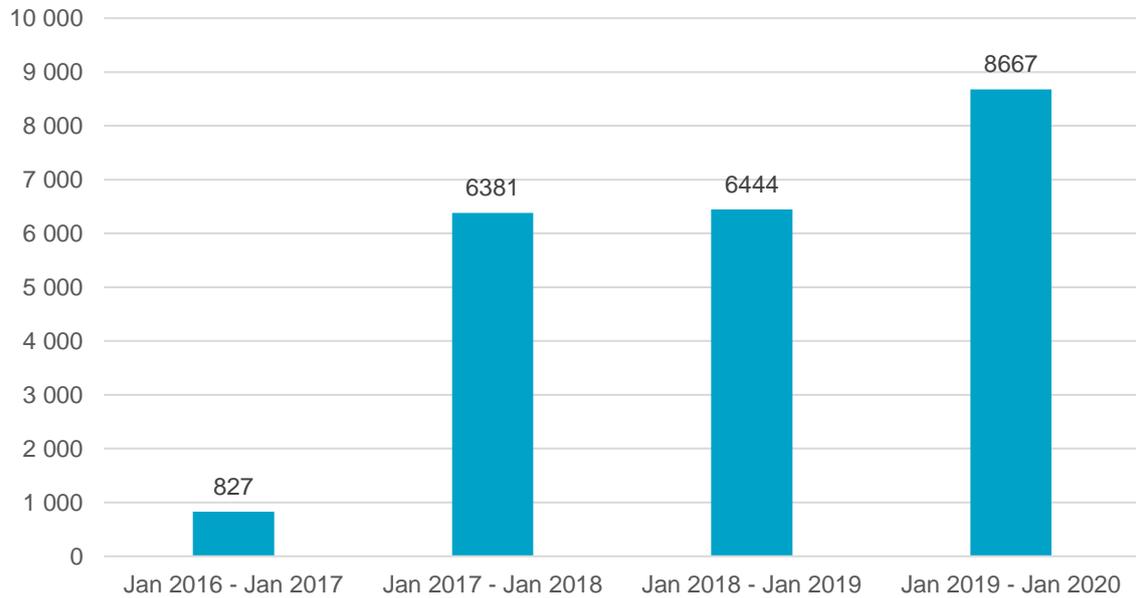
SIIS is a tool used on a daily basis in the work of many organisations - its users. As of April 2019, a development of the SIIS went into production, giving the system capacity to support new record objects - masts and building entrances – in line with the concept of suitable infrastructure established by [Decree-Law no. 92/2017 of 31 July](#).

In 2019, ANACOM also approved a decision on a new development of the system, with a view to improving the Maps module, which is used to consult and research existing infrastructure in a given area of the country. Improvements will also be made to other existing features, with the development of new features. With this continuous improvement to the system, the platform is being constantly updated to better respond to the requests demanded by its users.

It is important to highlight how use of the SIIS by its users has evolved and grown between January 2016 and January 2020.

There are 424 registered entities and 1,138 users who access the SIIS, with increased frequency and across the system's different aspects (consultation; research, data loading, construction notices, etc.). This is shown in the following graph.

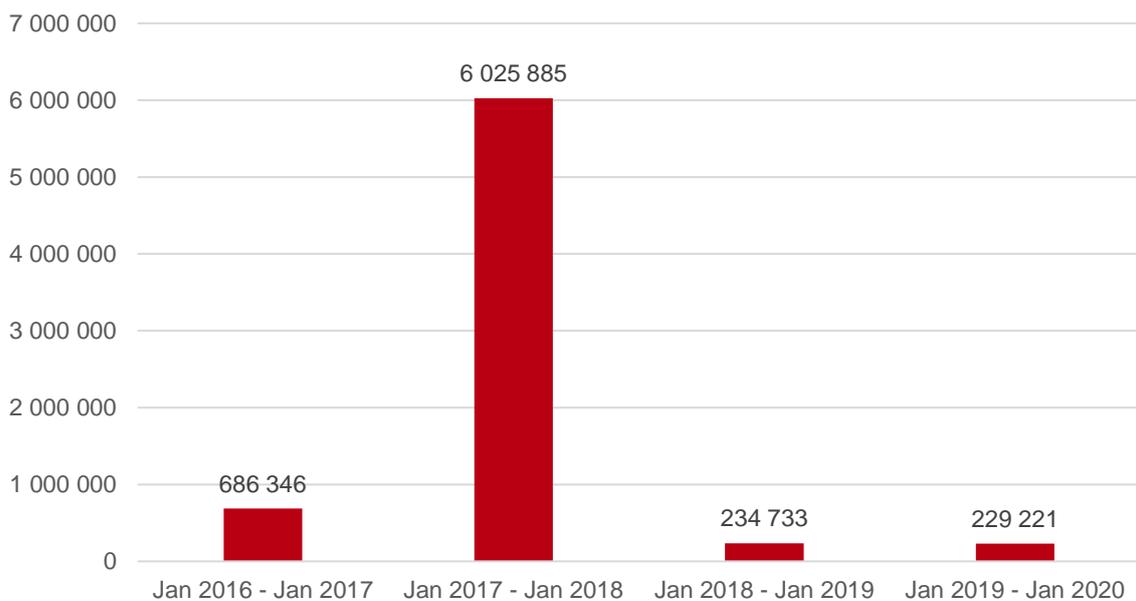
Graph 16. SIIS accesses



Unit: Access to SIIS by user entities
Source: ANACOM based on SIIS data

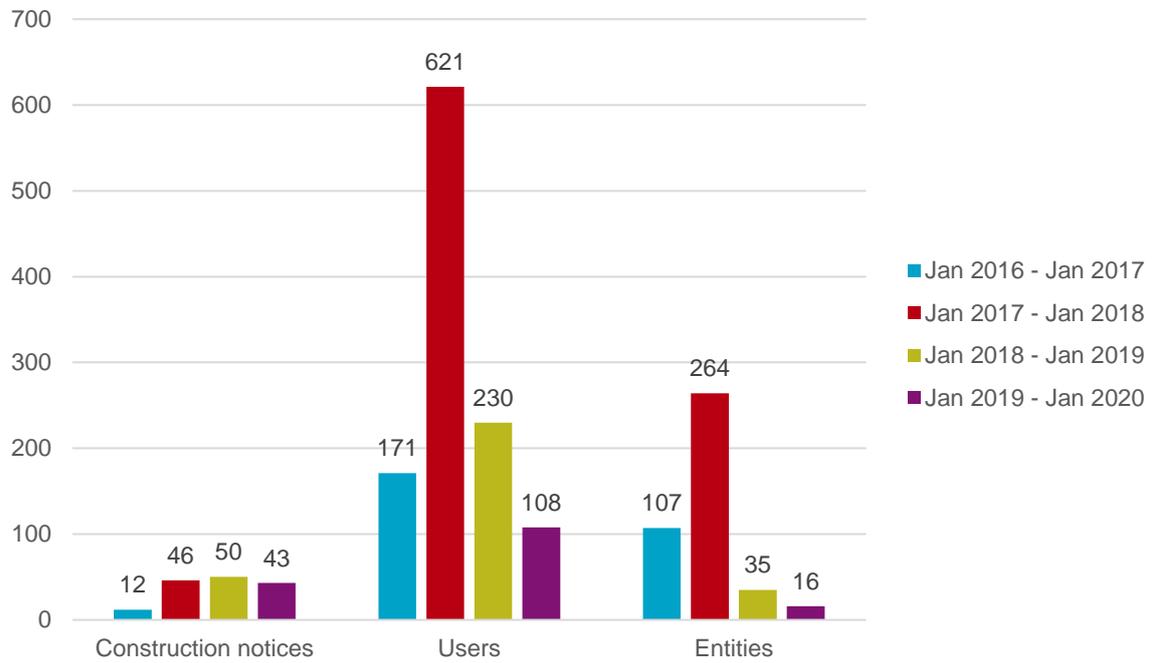
Some indicators on the use and evolution of the SIIS, from its entry into use in January 2016 until January 2020 are presented below.

Graph 17. Registered objects



Unit: Number of registered objects
Source: ANACOM based on SIIS data

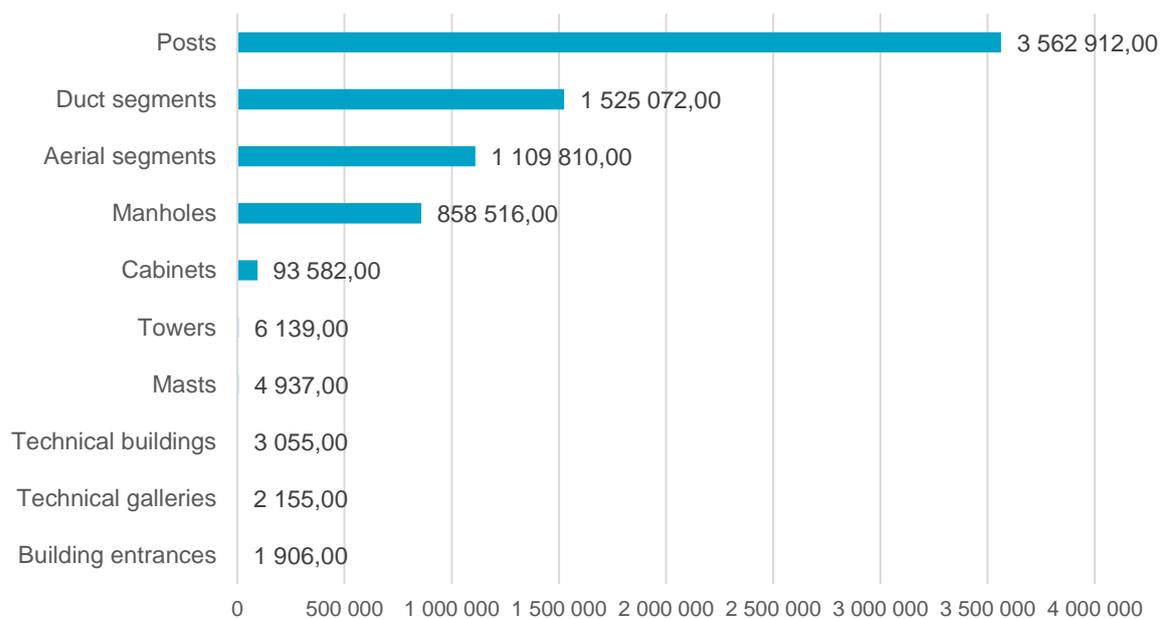
Graph 18. Construction notices, users and entities



Unit: Construction notices; users and entities

Source: ANACOM based on SIIS data

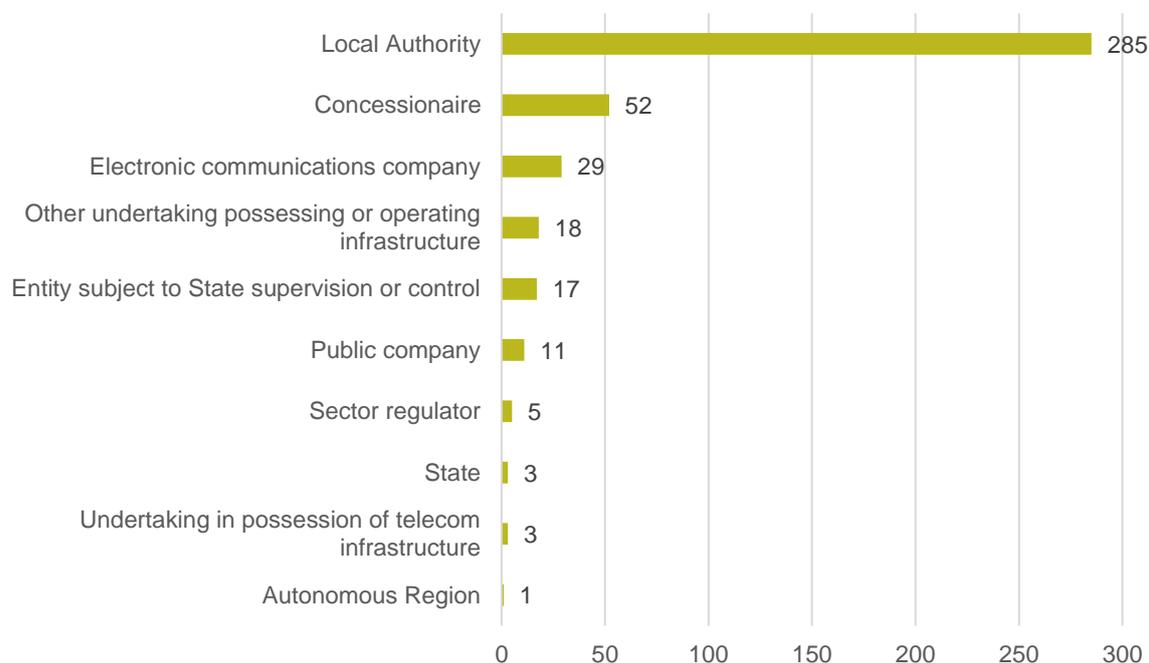
Graph 19. Type and number of objects registered on the SIIS



Unit: Type and number of objects registered on SIIS

Source: ANACOM based on SIIS data

Graph 20. Types of entity using SIIS



Unit: Type of entities using SIIS

Source: ANACOM based on SIIS data

11.1.1.Regulation on the methodology to be used to determine the remuneration payable in consideration for access to and use of suitable infrastructure

By determination of 12 December 2019, ANACOM approved [Draft regulation on the methodology to be used to determine the remuneration payable by electronic communications companies in consideration for access to and use of suitable infrastructure](#) for carrying electronic communications networks (suitable infrastructure).

In preparing this draft Regulation, the benefits arising from its application were evaluated, weighed and considered; it is expected that standardisation of the methodology will contribute to greater transparency and equity in access to suitable infrastructure held by different entities, as well as increasing the agility and effectiveness of ANACOM's intervention within the scope of the powers conferred under [Decree-Law no. 123/200, of 21 May](#) (current wording), in particular, in situations where ANACOM is asked to ascertain the appropriateness of requested remuneration.

ANACOM took into account that this methodology will be applied by different types of entities (owners or managers of suitable infrastructure), having considered the respective

impact in terms of investment incentives, competition and economic and financial sustainability of the various entities that own or manage this type of infrastructure. From ANACOM's perspective, the defined methodology constitutes the most proportional, adjusted and non-discriminatory solution, also safeguarding the principle of non-cross-subsidisation between sectors, avoiding situations where significantly different prices are set for similar services.

In this context, with the aim of discussing the main aspects of the Regulation, ANACOM held meetings between April and May 2019 with the main users of suitable infrastructure, with the main entities holding suitable infrastructure outside the electronic communications sector, with ERSE and with AMT - Autoridade da Mobilidade e dos Transportes (Mobility and Transport Authority).

In the methodology then specified, ANACOM considered it necessary and justified to proceed with a greater consolidation of the rules applicable to ducts, poles, towers and masts, given the relevance of such infrastructure to the installation and development of electronic communications networks in Portugal, in particular high-speed, fixed and mobile broadband networks. However, in the particular case of towers and masts, given the diversity of installable radiating elements, it was understood that the definition of a methodology for setting levels of remuneration for occupation by a radiating element could not be properly consolidated.

This draft Regulation was submitted to regulatory consultation for a period of 30 working days, as from the date of its publication in 2nd series of *Diário da República* (Official Journal). At the end of this period, ANACOM will assess the contributions submitted by interested parties and approve the final version of the Regulation.

11.2. Telecommunications infrastructures in buildings (ITED and ITUR)

The mandatory existence of telecommunications infrastructure in buildings (ITED), as well as in housing developments, urban settlements and concentrations of buildings (ITUR), especially copper, coaxial cable and optical fibre, allows greater access to communications services and choice between providers.

This regime provides consumers with greater freedom of choice, increasing competition in the sector.

On 25 July 2019, ANACOM approved drafts for the new technical rules to apply: ITED Manual (4th edition) and ITUR Manual (3rd edition).

The need to respond to the constant technological development occurring in the sector, the inevitable updates in the face of European regulatory developments, the clarification and improvement of existing solutions in previous editions, expected cost reduction and the responses to difficulties experienced by the various agents in the infrastructure market led to the changes made in the new manuals.

ANACOM also sought to enhance building infrastructure in support of emerging technologies, such as, for example, those relating to PoE (Power over Ethernet), in support of systems that may require remote power, the resizing of the Top Aerial Passage and the restructuring of the optical fibre cabling networks in the Privileged Access Zone, providing for future access needs, including 5G.

Some technical solutions related to urban rehabilitation were introduced, especially in terms of the design and installation of piping and cabling networks, in order to facilitate the progressive removal of cables from facades.

Wiring tests were simplified (mainly coaxial, CATV and MATV cables) without compromising their quality, with harmonisation of the criteria for calibrating the testing equipment used.

In order to facilitate access to the services of the various operators, the rules relating to Multi-Operator Manholes were also reformulated, with the introduction of a new figure, Multi-operator (Access) Box.

The establishment of specific standards for various types of projects, including townhouses and buildings without common parts, the implementation of ITED for long distances and the characterization of access to buildings and interconnection to customer networks in new and refurbished buildings are some of the matters that have been the subject of new standards in these manuals.

These draft technical standards were put to public consultation, with very active participation by the various recipients: project owners; designers; installers; electronic communications service providers; municipal councils; Ordem dos Engenheiros (Order of Engineers) and Ordem dos Engenheiros Técnicos (Order of Technical Engineers) and sector associations.

The draft technical regulations were legally notified to the European Commission in November 2019. Given that final approval cannot take place until three months have

elapsed from the date of receipt by the Commission, which did not present any objection, the standards came into force on 1 April 2020.

12. RADIO SPECTRUM MANAGEMENT

12.1.1. Television broadcasting - migration of the DTT network (700 MHz)

Continuing the work carried out in this area in 2016, detailed coordination of the network alteration process with the DTT network operator (MEO) was concluded in 2019.

On 21 August 2019, a draft decision on changes to the DTT network (MUX A) was approved in the context of the release of the 700 MHz band, with the development plan and timetable. The draft decision was submitted to a prior hearing of MEO and to the general consultation procedure.

Subsequently, by final decision of 4 October 2019, ANACOM approved changes to the DTT network (MUX A) in the context of the release of the 700 MHz band (development plan and timetable).

As part of this decision and in line with the position expressed in the National Roadmap, ANACOM confirmed maintenance of the technology currently used [DVB-T/MPEG-4 (H.264/AVC)] without any simulcast period. As such, during the resynchronisation of each transmitter station, a portable transmitter will be put into operation on the radio channel being altered to ensure continuity of transmission while resynchronizing work is conducted on the main transmitter. In this way, prolonged periods of service unavailability are avoided, resulting in the least possible impact on DTT users.

As regards the timetable, the beginning of the migration process was set for the period between the 3rd week of January 2020 and the 1st week of February 2020, ending on 30 June 2020. The decision established that the process would proceed from south to north across the territory of mainland Portugal, as opposed to the draft decision which had envisaged a north-south process. This change was motivated by weather conditions²⁹.

The decision set the date of 15 November 2019 for MEO to present a detailed plan for the network change, containing the date for changing each transmitter station and, consequently, the effective date of the beginning of the migration process. On 14

²⁹The winter months are more severe in the northern part of the country, so this allows migration in the northern part of the country to take place during the spring period.

November, MEO presented its detailed plan which, however, did not comply with the timetable, neither as regards the start date, nor the end date.

After some contacts with MEO, the company presented a new detailed plan to change the DTT network, on 13 December 2019, in which it established the commencement of the migration process on 7 February 2020, in compliance with ANACOM's instruction, but envisaging conclusion of the process after the date established by ANACOM (30 June 2020).

The decision of 4 October 2019 also required a pilot test to be carried out, with the resynchronization of the Odivelas Centro transmitter (from channel 56 to channel 35), providing a controlled and limited environment to evaluate the methodology of the migration process, user support actions and the communication campaign. These could then be adapted, if necessary, for the remainder of the process.

The user support actions centred on a free telephone line managed by ANACOM (800 102 002), which consumers could call to obtain information and for help with tuning. Where users were unable to tune their equipment with the telephone help offered, ANACOM provided teams of technicians who, by appointment and free of charge, conducted on-site visits to complete tuning operations.

To raise awareness about the DTT network migration process and the availability of this support, ANACOM launched a communication campaign (referred to in section 2).

The pilot test took place on the established date - 27 November 2019 - and was concluded without any recorded complaints from the population. The availability of the free telephone line and the presence of teams on the ground made a significant contribution to the success of this operation. During the pilot test in Odivelas, the DTT call centre received 841 calls and home support for equipment tuning was needed in 64 situations.

12.2. Preparation of the spectrum allocation procedure in the 700 MHz band, among other frequency bands

The procedure for the allocation of rights of use of frequencies in the 700 MHz band and in several other bands was under preparation throughout 2019, and was based initially on the results of the public consultation held by ANACOM in 2018. The consultation in question, which covered the 700 MHz band, as well as the 450 MHz, 900 MHz, 1500 MHz, 1800 MHz,

2.1 GHz, 2.6 GHz, 3.6 GHz and 26 GHz bands, led ANACOM to conclude that there was widespread market interest, especially in the 700 MHz, 900 MHz, 1800 MHz, 2.6 GHz and 3.6 GHz bands and in their allocation by means of a single, open and competitive process, i.e. through an auction.

Specifically in relation to the 700 MHz band and within the framework of the European Union strategy for the Digital Single Market, [Decision \(EU\) 2017/899 of the European Parliament and of the Council of 17 May 2017](#), determined use of the band for systems capable of providing wireless broadband electronic communications services as of 30 June 2020.

On the other hand, the European Electronic Communications Code determines the need for Member States to reorganise the 3.6 GHz band, providing for a coordinated allocation schedule by 31 December 2020.

Both bands have been identified as relevant or pioneering for 5G systems.

With this context in mind and, at a national level, taking reference from the objectives of the Portugal Digital Agenda and the measures that make up PNPOT - Programa Nacional de Planeamento e Ordenamento do Território (National Program for Territorial Planning and Management - updated by Law no. 99/2019 of 5 September), the objectives of broadband network development, especially in rural areas - and the development of support networks for wireless broadband electronic communications services, in view of the implementation of the 5G system, on 22 October 2019, ANACOM approved a draft decision³⁰ on the assignment of the 700 MHz band to electronic communications services, the limitation on the number of rights of use of frequencies to be allocated in the 700 MHz, 900 MHz, 1800 MHz, 2.1 GHz, 2.6 GHz and 3.6 GHz bands and definition of the respective allocation procedure.

Within the framework of this draft decision, a reflection on the conditions governing access to and use of the spectrum to be put up for auction was also submitted to the market, with a view to ensuring greater contestability of the mobile market and, at the same time, to create conditions which enable an improvement, through provision of digital access, in the living conditions of the population in general and in Portugal's economic fabric, while strengthening social and territorial cohesion.

³⁰ [Consultation on the definition of the procedure for allocation of the 700 MHz band and other bands.](#)

Specifically, ANACOM carried out a characterisation and analysis of the mobile market, revealing a competitive dynamic which results from the difficulties faced by new players attempting to enter the market, with an impact on the market's level of contestability. In this context, ANACOM stressed that one of the public interest objectives to be pursued within the scope of the allocation procedure is to create conditions that allow the emergence of new entities to further stimulate market development, driving the launch of new offers with competitive prices and positively impacting competition and end-users.

The imposition of limits on the allocation of spectrum and the possibility that caps may be applied differently to new entrants and companies already in possession of rights of use of frequencies was especially considered. The intention is to accomplish the public interest objectives, in particular to safeguard competition in the market, enabling conditions which support different operations in the market, including potentially the operations of new entrants, while not blocking expansion by existing operators, but at the same time preventing spectrum hoarding, in particular in view of the counterproductive effect this may have on foreclosure of the market.

Given that the spectrum is a scarce resource and that its allocation has a significant impact on the market, there is a need for obligations which seek to promote competition, specifically by ensuring that competition is not undermined by distortions or barriers, and which encourage effective and efficient use of the spectrum and the defence of citizen interests. In this context, ANACOM considered the imposition of network access obligations to create conditions supporting new market entrants, benefiting companies without rights of use of frequencies in the bands allocated to electronic communications services. These entrants could be companies which acquire spectrum to support the viability of MVNO-type business models or based on national roaming.

On the other hand, taking into account the gaps in mobile network coverage that persist, including not only in the broadband service, but also in the voice service, and which are the subject of frequent complaints by citizens, companies and institutions and local authorities, it was also considered essential to consider applying coverage obligations. The widespread presence of mobile networks across the country will also contribute to boosting competition and guaranteeing the diversity of the offer, both essential in creating benefits for end-users. The development of mobile networks in more remote areas will contribute decisively to greater social and territorial cohesion. In this context, incentives for infrastructure-sharing solutions were also considered, as especially relevant in the context of investment in 5G

systems, including the possibility of using national roaming in specific circumstances, such as to achieve compliance with coverage obligations, especially in areas of low population density. For ANACOM, these solutions may be relevant to the accomplishment of social and economic inclusion objectives.

During the consultation procedure on the draft decision, which contains ANACOM's analysis of the conditions to be imposed on the allocation procedure, by decision of 31 October 2019³¹, ANACOM approved the commencement of the procedure for preparing the auction regulation for the allocation of rights of use of frequencies in the 700 MHz, 900 MHz, 1800 MHz, 2.1 GHz, 2.6 GHz and 3.6 GHz bands, in accordance with the provisions of its Statutes and the LCE.

In parallel with the approval of the draft decision on assignment of the 700 MHz band to electronic communications services, on 22 October 2019, ANACOM also approved a draft decision³² on amending the right of use of frequencies currently held by Dense Air Portugal in the 3.4 -3.8 GHz band and on future use of the band.

This amendment, requested by the company, led to a reconfiguration and relocation of the spectrum held by the company. The sizes of the regional blocks have been reduced (in the case of Lisbon and Porto from 168 MHz and 112 MHz, respectively, to 100 MHz and, for the remaining blocks, from 56 MHz to 55 MHz), the spectrum was relocated to the lower end of the band and the technical conditions of use set out in Implementing Decision (EU) 2019/235 were applied. With this draft decision, subsequently approved after a public consultation and prior hearing procedure, defragmentation of the 3.6 GHz band was accomplished, permitting more efficient use of the spectrum, for the benefit of all entities that may come to access this band.

As a band that is considered a priority for the implementation of 5G services and applications, ANACOM also decided there were grounds for making the entire 400 MHz existing in this band available to the market in the allocation procedure that is being prepared; as such, the right of use of frequencies held by Dense Air will cease to have effect as from the date of its expiry (5 August 2025).

³¹ [Approval of the start of the regulatory procedure of the auction for allocation of frequency user rights in the bands of 700 MHz and other bands.](#)

³² [Consultation on amending the RUF allocated to Dense Air Portugal and future use of 3.4-3.8 GHz band.](#)

The operation in question involves a series of initiatives, especially at wholesale level, and partnerships that may have some relevance in the context of 5G networks and services, albeit still at an early stage, in part due to the circumstances associated with the availability of 5G equipment and infrastructure. As such, the consideration of a possible early revocation of the right of use of frequencies held by Dense Air appeared disproportionate at this stage. ANACOM concluded that there are other mechanisms available to ensure a level playing field in the market with less impact on the company's position; such is the case of the present decision to make all 400 MHz in the 3.4-3.8 GHz band available in the future procedure to allocate rights of use of frequencies.

This decision allows Dense Air to continue to operate its Right of Use of Frequencies until 2025. This right will still be subject to a new amendment (which is being implemented in 2020, following approval of a draft decision with this purpose) to proportionately reflect the conditions of use in the 3.6 GHz band established in the draft auction regulation for the allocation of the 700 MHz band and other bands.

Alongside approval of these two draft decisions on the assignment of the 700 MHz band to electronic communications services and the amendment of the right of use of frequencies held by Dense Air and the future use of the 3.4-3.8 GHz band, on 22 October 2019, ANACOM also approved a draft decision³³ regarding a request from NOS for spectrum allocation in the 900 MHz and 2.1 GHz bands and a decision³⁴ revoking the Right of Use of Frequencies held by MEO, for operation of the fixed radio access system (FWA), after the company opted to discontinue this operation.

Final decisions on the assignment of the 700 MHz band to electronic communications services, the cap on the number of rights of use of frequencies (to be allocated in the 700 MHz, 900 MHz, 1800 MHz, 2.1 GHz, 2.6 bands GHz and 3.6 GHz) and the definition of the respective allocation procedure, the change in the right of use of frequencies held by Dense Air Portugal, the request from NOS for spectrum allocation in the 900 MHz and 2.1 GHz

³³ [Consultation regarding the allocation of frequencies in the 900 MHz and 2100 MHz bands to NOS.](#)

³⁴ [Revocation of right of use of frequencies held by MEO for operation of FWA system](#)

bands, as well as reports of the respective consultation procedures, were approved on 23 December 2019³⁵.

It was therefore decided that the allocation of rights of use of frequencies in the bands in question should be subject to an auction procedure. This is a procedure that is potentially more transparent and objective for all interested parties and less intrusive in terms of their business plans, since it allows each entity, with its own spectrum needs, to acquire the amount of spectrum it actually needs and values.

With this decision, two of the relevant 5G bands are also made available to the market: 700 MHz and 3.6 GHz, entailing a simultaneous amount of spectrum that is unparalleled in any other European country and also including a set of other frequency bands that can be equally important for mobile operations.

Although an indicative timetable for the entire allocation procedure had also been published, which envisaged approval of the auction regulation and its commencement in April 2020, the exceptional situation caused by the pandemic experienced in 2020 means that the timetable may not be accomplished.

Nevertheless, following the launch of the regulatory procedure and based on the analysis previously carried out and the contributions received, the draft auction regulation was prepared and was submitted to public consultation in early 2020. The new draft decision on the amendment of the right of use of frequencies held by Dense Air has also been approved and submitted to the consultation procedure, in order to bring about what was decided on 23 December 2019, whereby the right of use of frequencies reflects, in a non-discriminatory and proportional manner, the conditions associated with use of the 3.4-3.8 GHz band until the right's expiration in 2025.

12.3. National WRC-19 preparation group

In 2019, preparations for the World Radiocommunication Conference (WRC-19) were completed. The conference took place from 28 October to 22 November and addressed

³⁵Reports and decisions in: [Consultation on the definition of the procedure for allocation of the 700 MHz band and other bands](#), [Consultation on amending the RUF allocated to Dense Air Portugal and future use of 3.4-3.8 GHz band](#) and [Consultation regarding the allocation of frequencies in the 900 MHz and 2100 MHz bands to NOS](#)

over thirty issues with implications for almost all radiocommunications services and applications.

In national terms, ANACOM led a group in the preparation of the national position at WRC-19 (WRC-19 Working Group). As well as ANACOM, over 20 external entities took part.

Based on the work that has been ongoing since 2016, ANACOM prepared the proposal for a national position to WRC-19, framed by a brief description of each topic and respective impact at national level. The proposal was brought to the attention of the Portuguese Ministry of Infrastructure and Housing (SEAC) and the Ministry of Foreign Affairs - these were the positions defended by Portugal during WRC-19.

The national WRC-19 preparation group was an essential forum for debate and made a key contribution to the consolidation of Portugal's positions at the Conference.

12.4. Radio broadcasting

12.4.1. Requests to discontinue programme services and their licenses

Under *Lei da Rádio* (Radio Law)³⁶, ERC - Entidade Reguladora para a Comunicação Social (Media Regulatory Authority) submitted requests put by operators in relation to the discontinuation of programme services and respective licences to ANACOM for decision as regards the transfer of rights of use of frequencies.

Under the law, ANACOM published ERC's requests on its website and opinions were requested from AdC - Autoridade da Concorrência (Portuguese Competition Authority).

ANACOM decided not to oppose the transfer of rights of use in the 87.5-108 MHz frequency band and of the respective radio broadcasting licences, nor of the authorisations granted for operation of the radio data system (RDS) as follows:

- from PopQuestion - Unipersonal to the title of PopQuestion II - Comunicação;
- from Mallorca FM - Produções Radiofónicas to the title of Record FM - Sociedade de Meios Audiovisuais de Sintra Unipessoal;

³⁶ [Law no. 54/2010 of 24 December](#).

- from Radioeste - Cooperativa de Radiodifusão Loca to title of Narrativas e Ficções, Unipessoal.

12.5. Radio Licensing

The licensing of networks and stations of the various radiocommunication services makes it possible to ensure compliance with technical standards and to ensure that the use of the radio spectrum is without interference, in accordance with the provisions of [Decree-Law no. 151-A/2000 of 20 July](#). In this context, 4,156 requests were handled during 2019 as follows:

Table 6. Distribution of requests handled, by service

Broadcasting service	Mobile services and radiodetermination	Fixed service	Services by satellite	Temporary Licensing
815	1 057	1 258	107	919

Source: ANACOM.

The breakdown of radio licensing activities among the different radiocommunication services is detailed below (table 25).

Table 7. Radio licensing activities by radiocommunication service in 2019

Radiocommunications service		New licenses		Amendment of licences		Temporary licenses / applications	
		Station	Network	Station	Network	Station	Network
Mobile	Terrestrial Private Networks	-	114	-	115	-	672
	Terrestrial Public networks	-	-	-	191	-	2
	Hecto/decametric wave stations	-	-	-	-	-	-
	Maritime	25	-	14	-	-	-
	Aeronautical	18	-	20	-	2	-
Fixed	Fixed stations in hecto/decametric waves	-	-	-	-	-	-
	Point-to-Point Networks (<1 GHz)	-	1	-	5	-	1
	Point-to-point networks (> 1 GHz)	-	9	-	1 098	-	12

	Point-to-multipoint networks (< 1 GHz)	-	1	-	2	-	-
	Studio-emitter connection networks	-	1	-	15	-	-
Satellite services	Fixed Satellite Earth Stations	1	-	1	-	-	-
	Fixed Satellite SNG Stations ³⁷	1	-	1	-	83	-
	Fixed Satellite VSAT Networks ³⁸	-	-	-	-	-	-
	Mobile Satellite MSS 2GHz Systems	-	-	-	-	-	-
Broadcasting	Radio (analogue)	2	-	37	-	49	-
	Television (digital)	-	-	2	-	-	-
Radiodetermination	Radiodetermination Stations	5	-	2	-	4	-
SAP / SAB Applications ³⁹		1	-	-	-	-	233

Source: ANACOM.

At the end of 2019, the number of stations registered by operators of terrestrial electronic communications services was as follows: MEO had 4,600 registered stations, Vodafone 4,541 and NOS 3,073 registered stations. For the fixed service above 1 GHz, nine licences were allocated and 1,098 licence amendments were made. In particular, the radio link networks of NOS, Vodafone and MEO together accounted for the activation of 1,028 new point-to-point links, out of a total of 1,029 new links. Meanwhile, 1,066 point-point links were deactivated, 1,062 of which formed part of these operator networks. There were 4,894 active point-point links reported in total, corresponding to 9,788 radio links. As regards the FM radio broadcasting service, and with regard to the issuance of RDS titles, no new authorisations were issued and 19 were amended.

There were also temporary licences granted to support the performance of short duration events, such as festivals (e.g. Paredes de Coura, NOS Alive, Super Bock Super Rock, MEO Sudoeste, Marés Vivas, NOS Primavera Sound, Andanças, Festa do Avante) as well as

³⁷SNG Stations - satellite news gathering stations.

³⁸ VSAT networks - satellite communication networks consisting of very small terminal stations.

³⁹ SAP/SAB applications - applications in context of Services Ancillary to Programme making/ Broadcasting

sporting events (e.g., *Volta a Portugal* bicycle race and various motor sport rallies taking place around the country, as well as football and futsal matches).

In addition, it is important to note the coverage of the final stage of the UEFA Nations League (54 licences were issued, comprising 89 applications, resulting in the assignment of 214 frequencies), motor-racing tournaments, television programmes and coverage of international football matches.

As such, in 2019, 807 temporary licences were awarded, comprising 83 Satellite news gathering (SNG) station applications, 233 SAP/SAB applications and 1,200 private networks of the terrestrial mobile service. In addition, there were a further 49 temporary station licences of the Frequency Modulation (FM) broadcasting service, the renewal of six licences for studio-transmitter links (STL), four station licences of the aeronautical mobile service, 12 licences for point-to-point links of the fixed service, two station licences of the radiodetermination service and four licences for terrestrial electronic communications services. There were also 48 authorisations granted for use of frequencies by foreign military vessels.

ANACOM has also been issuing authorisations for the use of radio spectrum for the purpose of conducting technical tests and scientific studies using different technologies, especially those that will contribute to the deployment of 5G in Portugal - see paragraph 3 of article 5 of Decree-Law no. 151-A/2000, of 20 July (current wording).

Tests and technical studies of this type provide a high level of added value, since they allow researchers, manufacturers and operators of electronic communications to test the various functionalities and capabilities of these technologies, as well as refine their theoretical models, before advancing to the deployment of future 5G networks, with the consequent provision of services to consumers.

During 2019, electronic communications operators MEO, NOS and Vodafone carried out a series of technical tests, scientific studies and demonstrations in the context of practical use, based on 4G technologies and also using new 5G technologies, in order to test their potentialities and new features. These tests and studies, with a wide territorial scope and covering diversified geographical areas, mainly made use of the spectrum at 3.6-3.8 GHz, one of the pioneering bands for 5G which is harmonised across Europe, following prior coordination between stakeholders and ANACOM.

During 2019, 1,030 licences were renewed for an additional period of five years, and 110 licences were revoked, as shown in the table below.

Table 8. Renewal and revocation of licences per service

	Mobile	Fixed	Broadcasting	Radiodetermination	Satellite
Renewed licenses	282	79	352	30	5
Revoked licenses	94	13	2	-	1

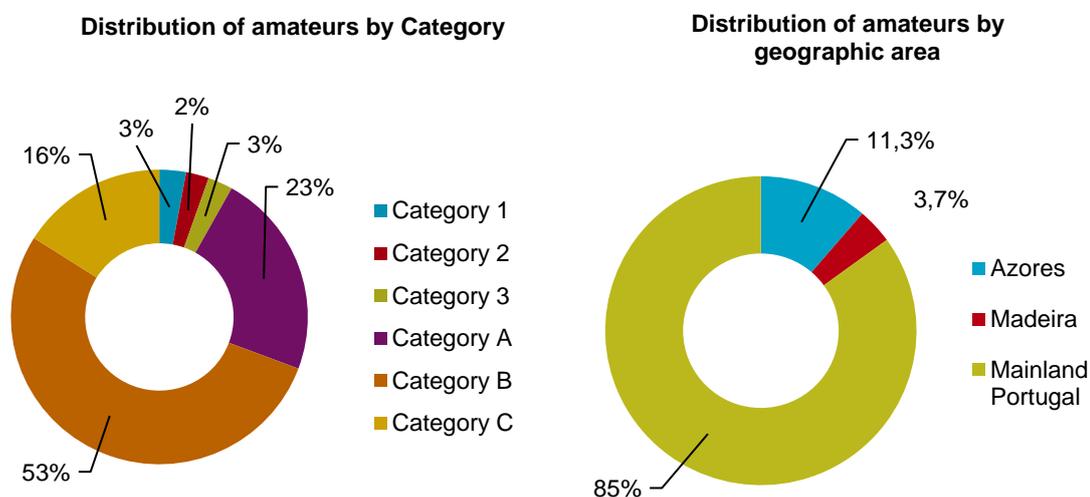
Unit: Licences.

Source: ANACOM

12.6. Management of amateur services and amateur satellite services (SAAS)

With regard to the management of amateur and amateur satellite services, there were around 5,800 amateurs at the end of 2019 (active and suspended), with the following breakdown by category⁴⁰ and geographic area (see following graph):

Graph 21. Distribution of amateurs (active and suspended)



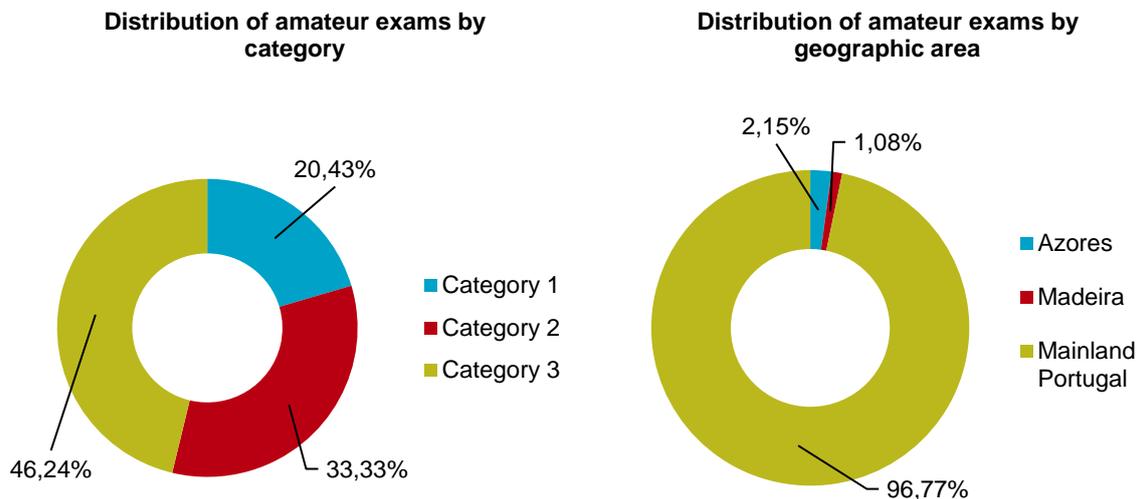
Source IGE-SAAS

⁴⁰Amateur categories: 1, 2, 3 - categories under the current regulations.

Amateur categories: A, B, C - categories under the regulations prior to 1 June 2009.

In 2019, 93 amateur aptitude exams were held (with an 83% pass rate) with the following distribution by category and geographic area:

Graph 22. Distribution of amateur exams



Source IGE-SAAS

In terms of legislative and regulatory reform, additional steps were undertaken with the Government, as necessary, to amend [Decree-Law no. 53/2009 of 2 March](#).

At an operational level, ANACOM received 1,680 requests - amendments, national amateur certificates, authorisations, clarifications, common use station licences and temporary call signs - of which about 99% were dealt with and completed. The average response time was about two days.

It is also important to note the special authorisations granted to uses of amateur and amateur satellite services:

- a) in the 1850-1965 kHz band, for participation in [contests](#);
- b) in the 5 MHz band, for carrying out ionospheric propagation tests (32 authorisations);
- c) in the 2.3-2.4 GHz, 2.4-2.45 GHz and 5.65-5.85 GHz band for scientific studies, experiments and various activities of interest to amateur radio, including use of the geostationary satellite Es'hail-2 and lunar reflection and meteorite tests (55 authorisations).

12.7. Protection of radio stations and networks

Some registered or licensed radio links and stations enjoy special protection through the creation of administrative easements to guarantee their operation without interference, pursuant to [Decree-Law no. 597/73 of 7 November](#). These easements place restrictions on the construction and location of obstacles in areas defined in such easements. ANACOM is asked to give an opinion on the feasibility of installing buildings and infrastructure in these areas, and on the creation of areas subject to detailed planning and land development plans, installation of wind farms and energy transmission lines, construction of roads, rail and hydroelectric plants, operation of quarries, etc. Additionally, within the scope of [Decree-Law no. 11/2003 of 18 January](#), ANACOM analyses projects and issues opinions on the feasibility of installing radiocommunications infrastructure in restricted areas.

ANACOM also participated in various oversight committees to review PDM - Planos Diretores Municipais (Municipal Director Plans), attending the meetings of these Committees, contributing to the drafting of these PDM and issuing opinions thereon. In addition, ANACOM responded to requests for data on PDM reviews from 18 other municipalities.

In 2019, 472 requests were received in this area and 460 were processed.. The number of requests per type is shown in the following table:

Table 9. Distribution of requests processed

Type of request	No. of requests Processed
General	17
Referring to PDM, PU and PP (opinions and meetings)	96
Referring to power lines	26
Referring to installation of radio infrastructure in restricted areas	6
Referring to urbanisation projects (buildings, hydropower plants, quarries, roads, etc.)	269
Installation of wind farms	44
Constitution of radio easements	2
TOTAL	460

13. NUMBERING

13.1. Allocation of rights of use of numbering for electronic communications services

In 2019, fixed-line telephone service providers continued to request the allocation of new geographic numbering blocks, with a total allocation of 250 thousand new numbers (the majority in areas outside Lisbon and Porto). This continued need for new geographic numbers is in line with the increase in the number of accesses associated with the fixed telephone service, which is partly explained by the fact that this service is bundled in the tripe/quadruple/quintuple-play offers which continue to see an increase in subscribers. In 2019, the number of subscribers to bundles of services reached 4.1 million, 186 thousand more than in the previous year. Penetration of these offers is currently 98 per 100 households.

Table 10. Compared to 2018

Year	Assigned (A) or Recovered (R)	Geographic numbers					
		Lisbon area	Porto area	Remaining geographic areas	Annual totals	A - R	Total allocated
2018	A	90 000	50 000	70 000	210 000	190 000	29 650 001
	R	0	20 000	0	20 000		
2019	A	20 000	20 000	210 000	250 000	250 000	29 900 001
	R	0	0	0	0		

Source: ANACOM

Non-geographic numbering, which includes mobile numbers (level “9” of the National Numbering Plan), was impacted by the discontinuation of activity by CTT as MVNO and the (re)allocation of numbers held to other providers.

Table 11. Comparison with 2018

Year	Allocated (A) or Recovered (R)	Mobile numbers		
		Mobile Telephone Service	A - R	Total allocated
2018	A	300 000	-200 000	36 500 000
	R	500 000		
2019	A	300 000	0	36 500 000
	R	300 000		

Source: ANACOM

In terms of short numbers, one 10xy number and one 18xy number were recovered and one new short number (147) was allocated to the *iCidadão* line.

In 2019, 36.5 million mobile numbers were allocated, together with about 30 million geographic numbers, more than 1 million non-geographic numbers (most for private network services), and about 690,000 nomadic numbers.

13.2. Allocation of numbers to Audiotext services and message-based valued added services

In 2019, no numbers of the audiotext service or of the value-added services based on message sending were allocated or recovered - these numbers are given specific codes in PNN - Plano Nacional de Numeração (National Numbering Plan).

13.3. Creation of a specific numbering range in the national numbering plan for machine-to-machine services

Subsequent to decision of 30 May 2019, ANACOM gave approval to the commencement of a regulatory procedure for the creation of a specific numbering range in the PNN - Plano Nacional de Numeração (National Numbering Plan) for machine-to-machine (M2M) services, and to define the conditions governing their allocation and use. Notice of this procedure was published on ANACOM's website on 4 July 2019.

Following a request from NOS Comunicações, S.A., ANACOM decided to extend the deadline granted for the receipt of contributions and suggestions under this regulatory procedure by an additional period of 5 working days.

In 2019, ANACOM analysed the contributions received with a view to preparing a draft Regulation to be submitted for public consultation.

13.4. Regulation on the conditions governing the sub-allocation of E.164 resources of the National Numbering Plan

By decision of 17 October 2019, ANACOM approved commencement of a procedure to draw up a Regulation on the conditions governing the sub-allocation of E.164 resources of the PNN - Nacional de Numeração (National Numbering Plan).

ANACOM took the position that it should define the conditions applicable to the sub-allocation of E.164 resources (ITU-T recommendation E.164) of the PNN - Plano Nacional de Numeração (National Numbering Plan) on terms compatible with the current allocation model (i.e., with the primary and secondary allocations, as currently set out in the criteria and principles governing the management and allocation of numbering resources), commonly adopted by numbering plan managers, particularly in Europe.

The objective is to enable certain business models based on the offer of electronic communications services which, while supported by agreement on the networks and services already offered by other companies, would also make use, in this context, of the rights of use numbering held by these companies. In this way, competition is promoted in the provision of electronic communications networks and services, along with freedom of choice for consumers, while the regime applicable to companies offering networks and services based on E.164 resources of the PNN is made more transparent.

13.5. Allocation and recovery of rights of use of numbering following termination of the mobile communications services of CTT - Correios de Portugal

By decision of 11 April 2019 and following the discontinuation of CTT's mobile communications services under the *Phone-ix* brand, ANACOM approved the allocation of rights of use of numbering in the "92" range held by CTT to MEO and Vodafone. Approval was also given to the recovery of the remaining numbering resources allocated on a primary basis by ANACOM to CTT.

14. COMPLAINTS

14.1. Communications sector complaints in 2019

In 2019, ANACOM registered around 100,600 complaints, 4% more than in the previous year, as detailed in the [2019 report on complaints in the communications sector](#). The recorded rise was driven by an increase in the volume of complaints about postal services (+18%, totalling 28 thousand), while complaints about electronic communications fell (-1%, totalling 71.8 thousand complaints).

The electronic complaints book was the most used medium for submitting complaints (48% of total complaints), followed by physical complaint books (46%). ANACOM received 6% of the total complaints registered directly.

Table 12. Number of complaints of the communications sector – 2018/2019

	2018		2019		Var. 2018/2019 (%)	Var. 2018/2019 (p.p.)
	No.	%	No.	%		
Complaint books	86,8	90%	94,3	94%	9%	4
Physical Book	38,2	39%	48,3	48%	26%	9
Electronic Book	48,6	50%	46	46%	-5%	-4
Direct complaints	10,2	10%	6,3	6%	-38%	-4
Email	7,3	8%	4,9	5%	-33%	-3
Letter	2,9	3%	1,4	1%	-51%	-2
Fax	0	0%	0	0%	-21%	0
Total	97	100%	100,6	100%	4%	-
Electronic Communications	72,4	75%	71,8	71%	-1%	-3
Postal services	23,7	24%	28	28%	18%	3
Other/ unidentified ⁴¹	0,9	1%	0,8	1%	-1%	0

Unit: 1000 complaints, %, p.p.

Source: ANACOM

Note: Other/Unidentified complaints includes complaints in which the service provider was not identified by the complainant and complaints filed against other unregulated companies.

⁴¹ Includes complaints filed against non-regulated companies.

14.1.1. Electronic communications services

The electronic communications sector was the object of 71,800 complaints. Information on the trends in the number of complaints per provider and the main issues giving rise to complaints is given below.

- **Volume of complaints by provider**

As regards electronic communications services, MEO was the provider with the most complaints (36%), followed by NOS (32%), Vodafone (28%) and NOWO/ONI (4%). Among the providers getting the most complaints, only MEO saw the volume of complaints against it decrease (-21%), receiving 26 thousand complaints in total. Vodafone, on the other hand, stood out with an increase in complaints, receiving 19.9 thousand complaints (+34% compared to 2018). The proportional increase reported for this provider was registered, not only in overall terms (+7 p.p.), but also in the vast majority of subjects.

- **Subjects of Complaints**

In 2019, “billing” was the most cited issue in complaints (29% of sector total) and was the issue that gave rise to most complaints against all providers (MEO 31%, Vodafone and NOWO/ONI 29%, and NOS 27%). In second place, “contracting of services” was the subject of 25% of sector complaints.

Table 13. Issues most cited in complaints about electronic communications services

	2018 (%)	2019 (%)	Variation (p.p.)
Billing	30	29	-1
Contracting of services	22	25	3↑
Technical assistance	20	19	-1↓
Service failures	21	19	-2↓
Complaint handling	18	18	0
Cancellation of services	14	16	2↑
Customer service	12	15	2↑
Equipment malfunction and sale	10	10	-1
Initial connection of fixed services	5	7	2↑
Internet access speed	5	5	-1↓

Unit: % of complaints, p.p.

Source: ANACOM

14.1.2. Postal services

The postal sector was the subject of 28 thousand complaints. Information on the trends in the number of complaints per provider and the main issues giving rise to complaints is given below.

- **Volume of complaints by provider**

In 2019, CTT was the provider receiving the most complaints (83% of complaints in the postal sector, -4 p.p. versus 2018), followed by DPD (11%, + 3 p.p.) which, in line with other providers, has seen a proportional increase in complaints within the sector. Despite a proportional decrease in the sector, the total volume of complaints about CTT rose by 12%, reaching 23.2 thousand.

- **Subjects of Complaints**

Complaints about postal services were related, above all, to delays in delivery of postal items, the issue with the biggest proportional increase, representing 32% of sector complains (up from 28%). The second subject giving rise to most complaints was the delivery of postal items at home (27%), followed by customer service (23%), complaint handling (18%) and loss of postal items (12%).

The proportion and volume of complaints about customs clearance of postal items decreased, from 7% to 4%, while complaints about customer service fell from 27% to 23% of complaints about postal services.

Table 14- Issues most cited in complaints about postal services

	2018 (%)	2019 (%)	Variation (p.p.)
Delay in delivery of postal items	28	32	3↑
Home delivery	24	27	2
Customer Service	27	23	-3↓
Complaint handling	16	18	1
Loss of postal items	11	12	1
Conditions of postal distribution	8	8	1
Delivery to wrong address	7	8	0
Return of postal items	5	5	0
Violated or damaged postal items	4	4	0
Customs clearance of postal items	7	4	-4↓

Unit: % of complaints, p.p.

Source: ANACOM

15. MARKET AND SPECTRUM OVERSIGHT

15.1. Electronic communications

The main focus of ANACOM's enforcement actions in the area of electronic communications services is to prevent situations which may generate distortions in the normal functioning of markets. The oversight activity also seeks to make fitting contributions to the search for solutions aimed at resolving disputes between operators and/or between operators and consumers, and seeks accomplishment of the obligations contained in the qualifying titles that govern exercise of activity and compliance with applicable legislation by the authorised undertakings.

Actions were also carried out to detect and eliminate the exercise of activity and offer of services by undertakings which lack proper qualifying title for the purpose – an occurrence that has become notably less common in recent years.

In 2019, ANACOM's enforcement activity was focused particularly on: the functioning of call centres operated by electronic communications service providers; on the practices of electronic communications providers as regards minimum content in bills; practices adopted in the field of contractual complaints initiated by consumers; procedures adopted in relation to the suspension and termination of the provision of services and number portability. The auditing of the universal service of telephone directories was also a notable part of this work.

In total, and in terms of electronic communications services, 84 enforcement actions were carried out, including 92 inspections. Irregular situations detected following these enforcement actions were forwarded for assessment with a view to sanctioning.

Upon the request of the courts and the criminal police, technical expert opinions were given and reports issued on digital television signal reception equipment (around a dozen devices), and reports were issued. These inspections and expert interventions occur as part of judicial processes to verify and validate the existence of practices associated with card-sharing or other forms of illegal access to content protected by conditional access.

15.2. Postal services

In the postal sector, enforcement entailed actions to ascertain compliance with the obligations laid down in titles governing exercise of activity, to verify situations reported in

complaints made by consumer and/or by providers of postal services and to assess the accomplishment of objectives related to the density of the CTT postal network.

In 2019, 18 enforcement actions were undertaken in the postal services market, entailing 115 inspections. These actions focused on the activities carried out at sites dedicated to provision of services by the concessionaire, CTT, aiming to verify accomplishment of postal network density objectives, checking alleged anomalies in the distribution of correspondence and counter waiting times at post offices.

At the same time, four companies were inspected following indication that postal services were being provided without the corresponding qualifying titles.

All irregular situations detected following these enforcement actions were forwarded for assessment with a view to sanctioning.

15.3. ITED and ITUR

In the context of verifying compliance with rules applicable to ITED - Infraestruturas de Telecomunicações em Edifícios (Telecommunications Infrastructure in Buildings) and ITUR - Infraestruturas de Telecomunicações em Loteamentos, Urbanizações e Conjuntos de edifícios (Telecommunications Infrastructure in Housing Developments, Urban Settlements and Concentrations of Buildings)⁴², 526 actions were carried out, divided as follows:

- ITED: 403 inspections focusing on infrastructure in buildings and 85 inspections of documentation (design and operating test reports);
- ITUR: 57 documentary analyses (designs).

Infrastructure inspections entail checking the infrastructure's conformity with the designs on which it was based, as well as its conformity and the conformity of the materials used with the applicable standards. Additionally, ANACOM verifies the documentation issued by the

⁴² [Decree-Law no. 92/2017 of 31 July](#) enacted the fourth amendment to Decree-Law no. 123/2009 of 21 May, which established the legal regime governing the construction of infrastructure suitable for carrying electronic communications networks, the installation of electronic communications networks and the construction of telecommunications infrastructure in housing developments, urban settlements and concentrations of buildings. This transposes [Directive 2014/61/EU](#) of the European Parliament and of the Council of 15 May 2014 on measures to reduce the cost of deploying high-speed electronic communications networks.

installing technicians and the results presented in the compliance verification records, performed when the declarations of execution responsibility are issued.

As a result of these enforcement actions, infractions were detected, with regard to both ITED and ITUR, and 110 processes were forwarded for analysis with a view to sanctioning.

Since applications for authorisation to use buildings or building divisions must include ITED execution responsibility declarations (essential for subsequent connection to the public network), ANACOM also performs inspections in the municipal processes of permit issuance (construction and usage).

The ITED declaration of execution responsibility, issued by the installer technicians, must be submitted to ANACOM through its website. In 2019, 14,692 ITED declarations of execution responsibility were received.

Collaboration between ANACOM and Municipal Councils has led to the detection of a set of telecommunications infrastructure where accomplishment of obligations by the various agents was not guaranteed.

In this context, ANACOM performed 79 inspections at local authorities to collect data on licencing processes for subsequent analysis.

Due to various questions raised by agents in this sector, 168 responses were given to requests for information on various matters, which in many cases involved technical and/or legal analysis of the issues raised.

15.4. Equipment market (RED and CEM)

In terms of the radio equipment⁴³ and electronic communications equipment⁴⁴ market, 182 inspection actions were carried out focusing on various economic operators (manufacturers,

⁴³ [Decree-Law no. 57/2017 of 9 June](#) (repealing Decree-Law no. 192/2000 of 18 August), which establishes a framework for the making available on the market, putting into service and use of radio equipment.

⁴⁴ [Decree-Law no. 31/2017 of 22 March](#) which sets out the rules applicable to electromagnetic compatibility of equipment, transposing Directive 2014/30/EU, relating to the placing on the market and putting into service of equipment, including apparatus and fixed installation.

agents, importers and distributors) and 265 devices were collected for analysis, 70 of which were seized due to immediate verification of legal non-compliance.

Upon placement on the market, ANACOM detected a number of infringements of these legal regimes, such as: non-compliance with European CE conformity marking, absence of instruction manuals and EU declaration of conformity, among others. 196 processes were forwarded for analysis with a view to sanctioning.

At the same time, laboratory tests (carried out in the ANACOM laboratory) and analyses of technical documentation were conducted to verify compliance of equipment with essential requirements - relating to electromagnetic compatibility and effective use of the radio spectrum. In this context, 255 cases were opened, and as a result of detected non-conformities, 121 case were submitted to sanctioning procedures.

ANACOM participated in a European market surveillance campaign focusing on IoT (Internet of things) equipment (household appliances). The main objective of this 10th market surveillance campaign, within the scope of [the RED Directive](#), was to verify the administrative compliance of equipment that would not traditionally have had installed radio components, but which, with the advent of IoT and other means of connectivity, have had radio functionalities introduced. Of the appliances inspected by ANACOM as part of this campaign, only 17% were in compliance (marking and technical documentation).

- **Laboratory activities**

Since enforcement work often entails sending devices to the laboratory for testing, ANACOM's enforcement activity in the equipment market is complemented by its laboratory activity. However, the activity of LEC - Laboratório de Ensaios e Calibração (Testing and Calibration Laboratory) is not limited to supporting inspections; it also performs electromagnetic compatibility tests, radioelectric testing and equipment calibrations for third parties.

In 2019, the LEC was subject to annual assessment by the accrediting entity, IPAC - Instituto Português de Acreditação (Portuguese Institute of Accreditation), resulting in maintenance of accreditation in accordance with standard NP EN ISO/IEC 17025 of 2018.

In accordance with the requirements of accreditation standard NP EN ISO/IEC 17025 as regards quality assurance in testing and calibration results, LEC engaged in several inter-laboratory comparison exercises.

In the area of radioelectric testing and electromagnetic compatibility, bilateral comparison exercises were undertaken with the National Media and Infocommunications Authority (NMHH) of Hungary and with the Communications Regulatory Authority of the Republic of Lithuania (RRT).

From the analysis of results obtained in the areas of calibration and electromagnetic compatibility, it was concluded that there is high reproducibility of the methods used in the respective test areas.

In the area of calibration, an interlaboratory comparison was organised by Relacre - Associação de Laboratórios Acreditados de Portugal (Portuguese Association of Accredited Laboratories). The results, which are pending, will assess the maintenance of accredited technical competence for the calibration of Voltage (continuous and alternating), Current (continuous and alternating) and Resistance Meters.

The main actions undertaken to provide technical support in terms of oversight of the market for radio and telecommunications terminal equipment, as well as the work carried out in the LEC are detailed below.

- **Technical support in context of radio and telecommunications terminal equipment market**

In 2019, market and industry control actions were carried out to verify the technical conformity of equipment with legal requirements of electromagnetic compatibility and effective use of the spectrum⁴⁵.

Inspections were also carried out in various parts of the country and technical expert opinions were given upon the request of the courts and the judicial police in relation to more than two dozen digital television signal reception devices. These inspections and expert

⁴⁵ EMC Directive (2014/30 / EU) - Annex I to [Decree-Law no. 31/2017 of 22 March](#), R&TTE Directive (1999/5/EC) - Articles 4.1-b and 4.2 of [Decree-Law no. 192/2000 of 18 August](#) and RED Directive (2014/53/EU) - Articles 4.1-b and 4.2 of [Decree-Law no. 57/2017 of 9 June](#).

interventions occur as part of judicial processes to verify and validate the existence of practices associated with card-sharing or other forms of unlawful access to content protected by conditional access.

- **Radio Testing Area (RAD)**

In this area, 189 radiocommunications devices were tested: 151 devices within the scope of market surveillance, 32 seized devices and 6 devices within the scope of inter-laboratory testing. Non-conformities were found in 31 devices (about 16%).

Test procedures have been developed, with a view to measuring various technical characteristics in digital terrestrial television receivers, in accordance with standard EN 303 340.

In the context of comparisons with the laboratories of regulators in Lithuania and Hungary, a “WIFI router”, a device of the terrestrial mobile service (private networks) and a radio frequency reference source were tested.

- **Electromagnetic Compatibility Testing Area (EMC)**

In 2019, this area managed to maintain its level of the activity, having tested 186 devices, the majority of them (136) tested for the purposes of market surveillance under the CEM, RED and R&TTE Directives. Non-conformities were found in 15 of these devices and results were inconclusive for 3 devices (faulty, damaged, without conditions to be tested). In addition, devices were tested at the request of customers and external entities. Meanwhile, under the agreement between ANACOM and IST, EMC tests were performed on ISTSat-1, the first Portuguese CubeSat developed by the ISTnanosat team, from IST - Instituto Superior Técnico (Higher Technical Institute).

Laboratory comparisons with regulators in Hungary (flexible competence CEM.01, from 1 GHz to 6 GHz) and Lithuania (flexible competence CEM.07, 150 kHz to 30 MHz) were successfully completed. Given the scope of LEC's flexible accreditation for standardised testing methods, we participated in two international CENELEC meetings of CLC/TC210 (one organised in Lisbon by ANACOM), while close collaboration with ONS-ANACOM's Specialised Technical Committee CTE210 was maintained at a national level.

Within the scope of LEC's flexible accreditation and with the publication of harmonised standard EN 55035:201 in the OJEU on 6 August 2019, applicable to electromagnetic compatibility and developed in support of [Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014](#), this was included in the list of tests accredited for the electromagnetic susceptibility (EMS) testing of multimedia equipment.

Continuing the 2017 upgrade for radiated emission tests (EMI) up to 6 GHz, the upgrade to 6 GHz of the electromagnetic susceptibility system (EMS) of the anechoic chamber was successfully completed (since 1996, capability had been limited to 1 GHz).

- **Calibration area (CAL)**

In 2019, the Calibration Area carried out 235 equipment calibrations, 220 from ANACOM and 15 from external customers. Revisions were made to the technical procedures for calibrating attenuation, power, voltage (continuous and alternating), current (continuous and alternating), resistance, amplitude modulation and frequency modulation. After being audited, these revisions were accepted by IPAC - Instituto Português de Acreditação (Portuguese Institute of Accreditation) and are included in Technical Accreditation Annex no. M0053-1, edition no. 19 of 16 October 2019.

The detection of faults in the Barcarena and Madeira Frequency Standards led to the acquisition of 2 new devices to ensure operation of the LEC's standard frequency and the standard frequency of the monitoring centres of Barcarena, Porto, Madeira and the Azores.

Taking into account the scope of accreditation granted to LEC, this area participated in 2 meetings of Working Group GT2 - Electricity, Time and Frequency, associated with the Metrology Technical Committees of RELACRE - Associação de Laboratórios Acreditados de Portugal (Association of Accredited Laboratories of Portugal).

15.5. MCE - Monitorização e Controlo Do Espectro (Monitoring and Control of the Spectrum)

During 2019, ANACOM engaged in 2,491 preventive operations, 1,449 remote operations, conducted from its monitoring centres, and 1,042 on-the-ground operations, involving all operators and spectrum users and their radio networks and stations.

Both activities are part of ANACOM's daily routine and aim to ensure proper use of the radio spectrum, preventing potential future problems, including harmful interference caused to the services used by the general population.

In addition, and at a reactive level, ANACOM had to respond to 1,674 requests. The requests submitted to ANACOM cover a range of topics:

- non-ionizing radiation and its impact on health;
- national search and rescue resources which, temporarily, may see their activity impacted;
- problems with air and sea traffic communications;
- DTT;
- interference caused to the networks of public operators;
- cooperation with other authorities and official bodies at a national and international level, most notably other regulatory bodies, law enforcement and consumer dispute arbitration centres.

ANACOM's agents were also present at numerous national and international events, with the primary objective of ensuring that use of all radio ("wireless") communication media occurred without interference, in addition to monitoring potentially unlawful situations in the use of communication systems.

As a result of the protocol established with the municipality of Terras de Bouro, during the 1st half of 2019 ANACOM surveyed the type of DTT coverage existing throughout the municipality territory, through joint actions with the parish councils, carried out on the ground among the local population.

In 95% of the television reception installations assessed by ANACOM (743), serving 1,958 users, it is concluded that access to the television service is possible without problems.

The difficulties reported in about 25% of these installations were solely due to anomalies in their installation (poor installation practices and deficiencies) and the fact that they are not appropriate for the type of coverage provided by the operator (use of terrestrial reception infrastructure in "DTT Zones - Complementary/DTH").

In the remaining 5% of the installations (36) that cover 88 residents of Terras de Bouro, there were indications that there may be problems with coverage.

Of the sum of requests that make up the MCE's reactive activity, 24% were related to interference and, in some cases, culminated with the issuance of technical amendment orders to restore normal conditions. Of the remaining requests, about 46% were related to enforcement actions specifically targeting radiocommunications stations and networks.

The following table details the reactive activity developed across the territory of Portugal in 2019.

Table 15. MCE activity in 2019

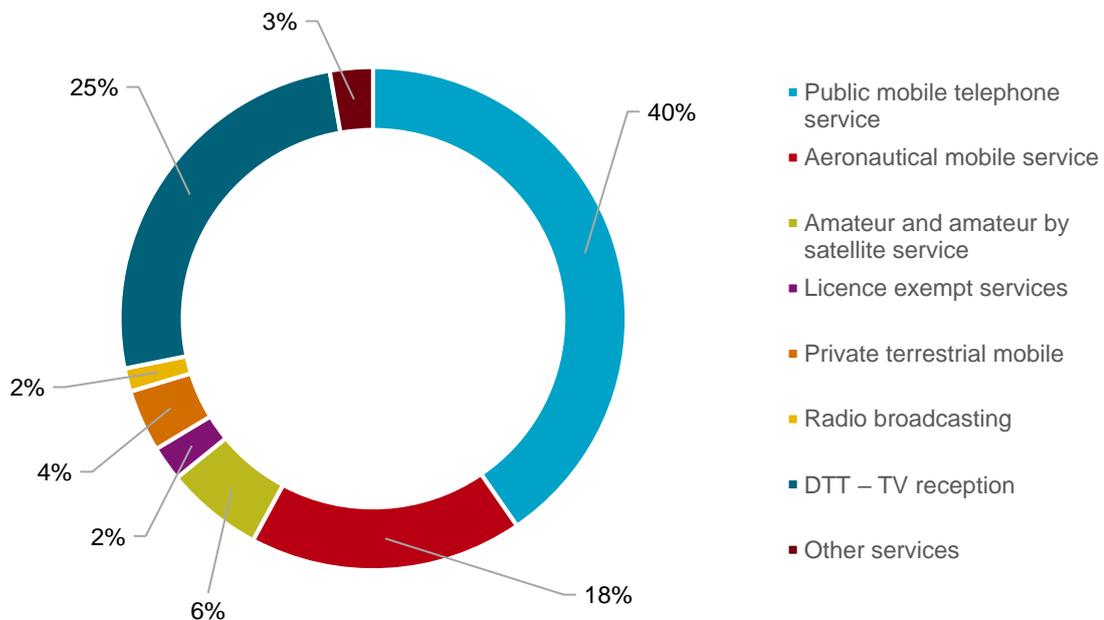
1 674 cases	401 cases of interference (24%)	162 cases of interference - public terrestrial mobile service - public operators (40%)		
		102 cases of interference - television broadcasting (DTT) - television reception (25%)		
		70 cases of interference - aeronautical mobile service (18%)		
		25 cases of interference - amateur and amateur by satellite service (6%)		
		16 cases of interference - terrestrial mobile service - private networks (4%)		
		9 cases of interference - licence exempt (2%)		
		6 cases of interference - radio broadcasting (FM and shortwave) (2%)		
		11 cases of interference - other services (3%)		
	1,273 other requests (76%)	587 direct inspection actions targeting radiocommunication stations and networks (46%)		
		437 requests for collaboration with other national and international agencies (34%)	248 requests for international collaboration - other regulators (57%)	
			189 Requests for collaboration from national entities (operators, regulators, PSP, GNR, ERC, Consumer Dispute Arbitration Centres...) (43%)	
		185 coverage study actions (15%)		
		64 complaints /requests about non-ionizing radiation (5%)		

Source: ANACOM.

Among the 401 situations of interference that ANACOM was called upon to resolve, 40% were situations related to complaints about the terrestrial electronic communications service networks of NOS, MEO and Vodafone. ANACOM's objective is to guarantee conditions of spectrum usage that allow operators to achieve the quality of service which they are obliged to provide their customers.

ANACOM's intervention was also sought to investigate, identify and eliminate the causes associated with difficulties in DTT signal reception (102 situations) and interference reported by aeronautical operators (70 situations), supporting the successful and safe operation of this activity.

Graph 23. Interference resolution requests



Unit: %
Source: ANACOM

As regards cooperation with other entities, 248 international cooperation processes were undertaken with counterpart entities and 189 cooperation processes with PSP, GNR, PJ and ERC.

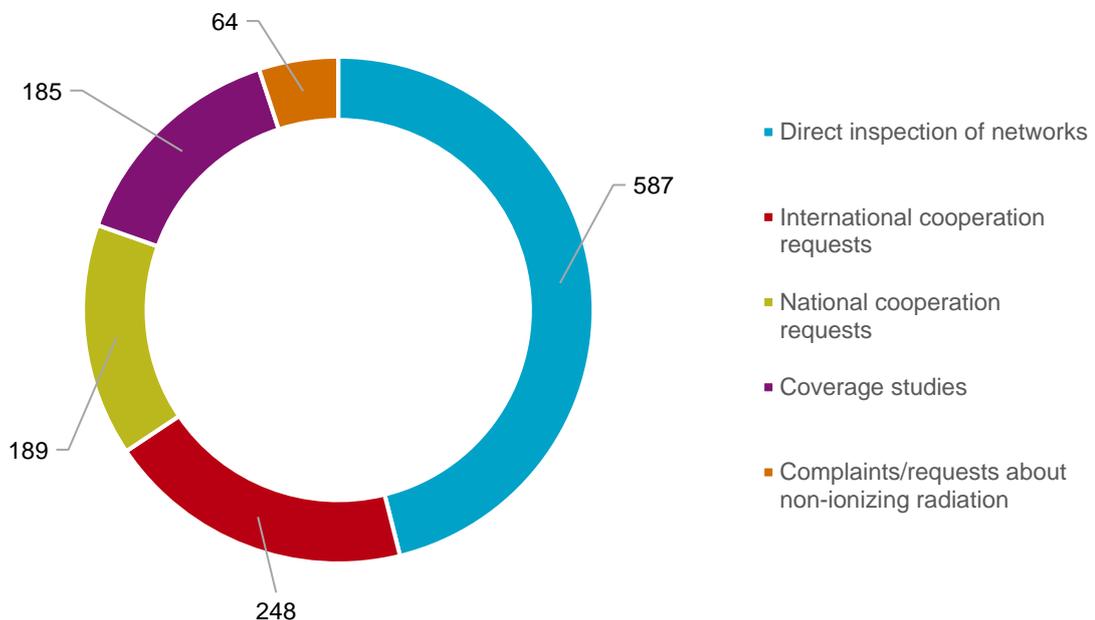
The legal issues associated with the location of these antennas and the authorised levels of electromagnetic radiation emission are most evident among the concerns expressed by the general public, whether individuals or different institutions.

Up to the end of 2019, in cumulative terms, ANACOM was requested to intervene in response to 2,007 requests about non-ionizing radiation. ANACOM completed 2,004 processes involving analysis at 253 schools, usually the sites giving rise to greatest concern among the population and society in general.

The results obtained indicated values which were at least 50 times lower than the reference levels of power density stipulated in [Administrative Rule no. 1421/2004 of 23 November](#). 65 situations were found which did not guarantee levels 50 times lower than the reference levels. However, in all cases, compliance with the reference levels set out in the Administrative Rule was guaranteed.

It should also be noted that the 185 coverage inspections carried out include those aimed at ascertaining fulfilment of the obligations established in the rights of use of frequencies in all 10 parishes of the Azores archipelago, which are included in the 480 parishes identified as tending to lack mobile broadband - see section 15.6.6.

Graph 24. Enquiries other than enquiries about interference



Unit: Number of Requests
Source: ANACOM

15.6. Oversight of obligations

15.6.1. Oversight of compliance with open internet rules

As part of the monitoring and supervisory activities carried out during 2019, and in light of the TSM Regulation⁴⁶, ANACOM gave particular attention to the commercial practices of Internet access service providers, in particular to zero-rating and similar practices.

In order to assess the potential impacts of zero-rating and similar practices on the open Internet (especially as regards the exercise of end-user rights as under the TSM Regulation and as regards the request for information addressed to the most representative Internet access service providers in the market), a number of requests were initiated in February 2019. Specifically related to zero-rating and similar offers, these requests were aimed at better understanding how these offers are evolving and at obtaining a view of the consumption patterns of their users and alternatives to these offers.

In addition, ANACOM has sought to ensure compliance with the obligations regarding the guarantee of open Internet access in terms of transparency. To this end, several questions about the information published on the websites of Internet access service providers were included in the “Electronic Communications Annual Questionnaire (2019)”. As well as the information made available on the websites, ANACOM has been monitoring the information that is made available by Internet access service providers in their contracts.

As a result of this monitoring, ANACOM detected a number of deficiencies and shortcomings in contracts and in the information published online on the transmission speeds of Internet access services. Seeking correction of these deficiencies, in May 2019, ANACOM sent out specific communications to providers, notwithstanding any corrective and sanctioning procedures as may be applicable – the purpose of these communications was to ensure prompt accomplishment of the requirements of the TSM Regulation regarding the availability of the information in question. Internet access service providers were also asked to send ANACOM information about measures they had taken or would be taking in

⁴⁶ [Regulation \(EU\) 2015/2120 of the European Parliament and of the Council of 25 November 2015](#), which lays down measures concerning open internet access and amends Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services, and [Regulation \(EU\) no. 531/2012 of the European Parliament and of the Council of 13 June 2012](#) on roaming on public mobile communications networks within the Union.

order to ensure compliance. The providers targeted by these communications responded (responses received within the stipulated period and under the terms requested), reporting that they had already initiated (or that they intended to initiate) a set of actions in this regard.

During 2019, ANACOM monitored the websites of Internet access service providers and their contracts while the proposed changes were being implemented, alerting providers as necessary when additional corrections were required. This work resolved many of the aspects identified in the communications sent to providers, with some improvements made to the information provided on speeds. However, some providers reported that some actions will not be concluded until early 2020.

ANACOM will continue to monitor the information that Internet access service providers publish and include in contracts, to verify compliance with the provisions of the Open Internet Regulation and to assess whether intervention is appropriate and proportionate.

It is also important to mention that, by decision of 26 June 2019, ANACOM approved the report on net neutrality as regards application of articles 3 and 4 of the TSM Regulation, which sets out the monitoring and oversight actions undertaken by ANACOM in the period between 01 May 2018 and 30 April 2019. The report highlights the July 2018 decision on zero-rating and similar commercial practices in Portugal. The report also refers to the monitoring and supervision work carried out as regards transparency, as well as the efforts made in seeking compliance by Internet access service providers with the transparency measures stipulated in the TSM Regulation.

Throughout 2019, a series of bilateral meetings were also held with other National Regulatory Authorities, including ANATEL (Brazil) and Teleoff (Slovakia). These cooperation actions gave opportunity for the exchange of knowledge and experiences as regards net neutrality and other topics.

15.6.2. Oversight of Roaming Rules

As mentioned above, the Open Internet Regulation also caused alteration to some of the provisions of [Regulation \(EU\) no. 531/2012 of the European Parliament and of the Council of 13 June 2012](#) on roaming on public mobile communications networks within the Union (Roaming Regulation).

In the context of roaming, the regulation covered the implementation, since 15 June 2017, of the Roam Like at Home (RLAH) principle, to drive the elimination of differences between domestic tariffs and roaming communications tariffs between countries of the EEA. Nevertheless, operators are permitted to specify a fair use policy for the roaming service - the detailed rules governing this fair use policy are laid down in the Roaming Regulation and in Implementing Regulation (EU) 2016/2286 of 5 November 2016.

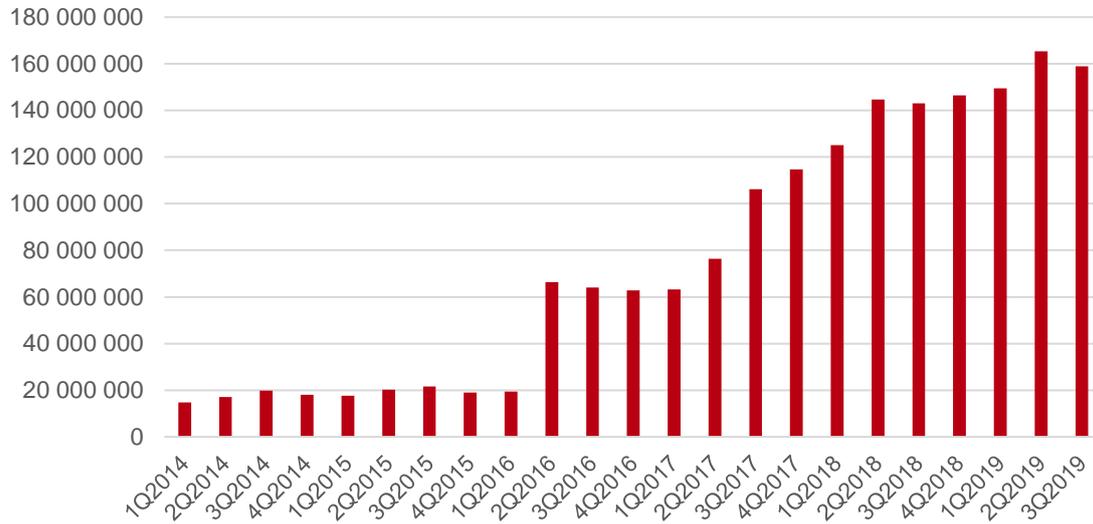
In 2019, and in the framework of overseeing application of this Regulation, further to the intervention described in section 15.6.1, ANACOM continued to compile data from mobile operators, reporting data in aggregated form to BEREC. This data contributes to the preparation of reports on roaming produced by BEREC on aggregate trends in traffic and in retail and wholesale roaming revenues, as well as on the transparency and comparability of the tariffs charged for these communications. Due to changes in roaming rules on 30 April 2016, it is no longer possible to analyse the evolution of average retail prices applicable to roaming between EEA countries.

In accordance with instructions from the European Commission, the individual responses of mobile operators (MNO and MVNO) to BEREC's international roaming information forms were also uploaded to CIRCA⁴⁷ (with due safeguards as regards the confidential treatment of data by ANACOM and the European Commission). Provision of these individual responses was requested by the Commission from National Regulatory Authorities so that, by 15 December 2019, the Commission could prepare the biannual report on the abolition of roaming surcharges at retail level, as under paragraph 3 of article 19 of the Regulation.

The trends in aggregate traffic from national mobile operators between 1st quarter 2014 and 3rd quarter 2019 for the various types of intra-EEA roaming communications are illustrated below.

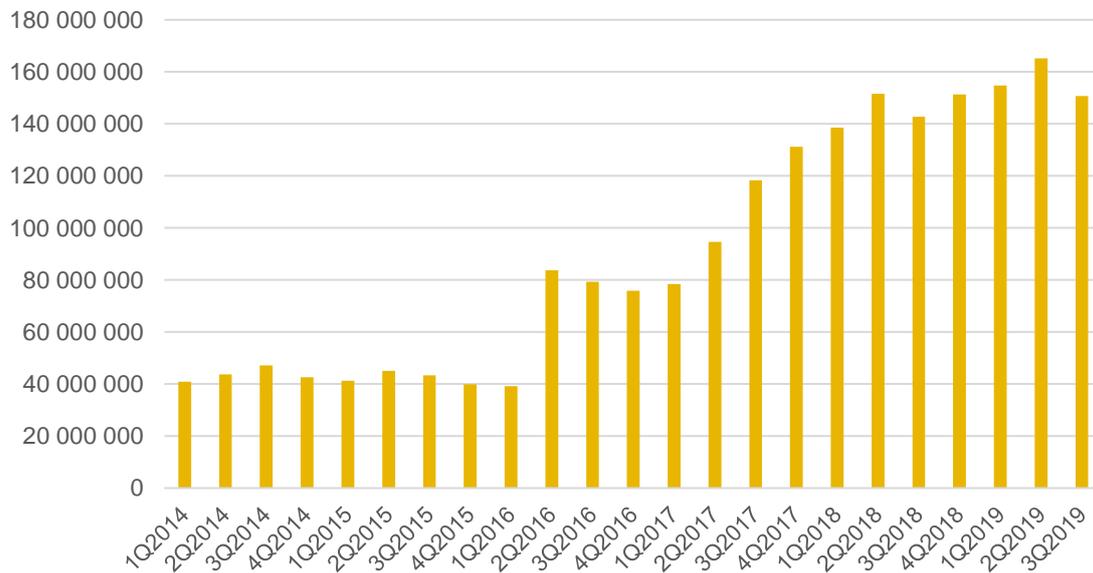
⁴⁷ European Commission Communication and Information Resource Centre Administrator

Graph 25. Trend in intra-EEA roaming traffic - outgoing calls



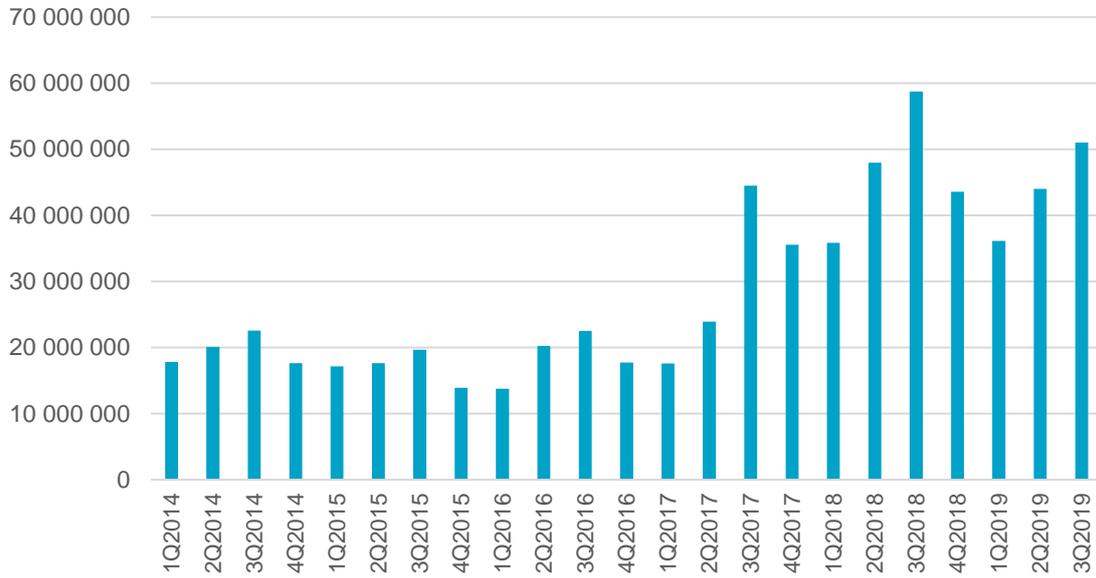
Unit: Number of Calls
Source: ANACOM.

Graph 26. Trend in intra-EEA roaming traffic - incoming calls



Unit: Number of Calls
Source: ANACOM.

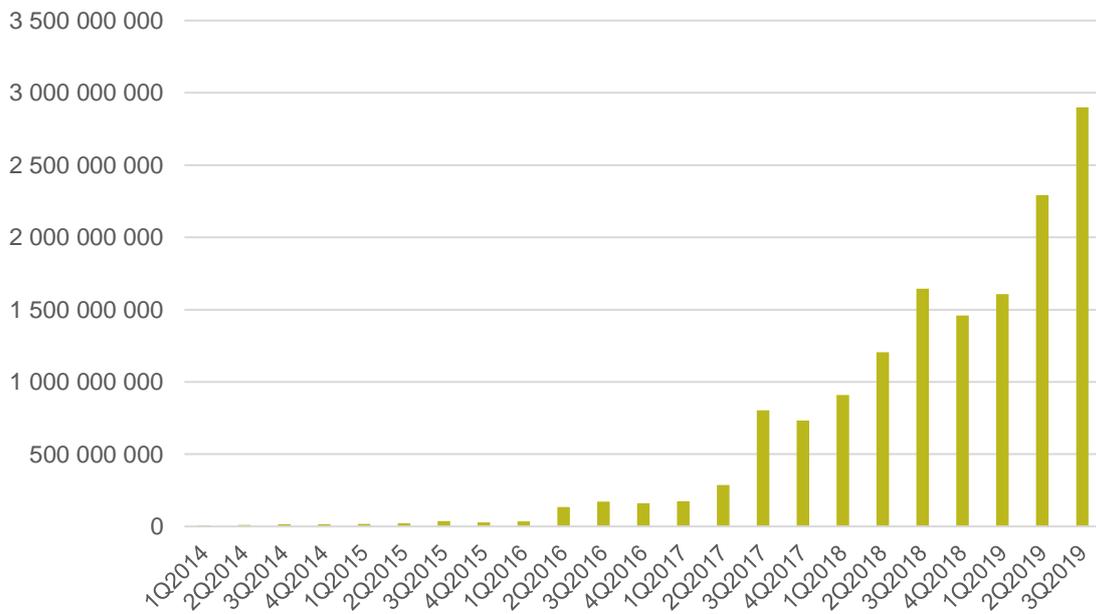
Graph 27. Trend in intra-EEA roaming traffic – SMS



Unit: Number of SMS messages

Source: ANACOM

Graph 28. Trend in intra-EEA roaming traffic - data



Unit: Megabytes of Internet traffic

Source: ANACOM

ANACOM complied and analysed the information reported by the operators, under the terms defined by BEREC, to verify average tariffs at wholesale level and check compliance with the maximum values specified in the Roaming Regulation. In 2019, the caps on wholesale and retail tariffs were as follows:

- 3.2 cents per minute for voice calls;
- 1 cent per call for SMS;
- 4.5 euros per GB for data.

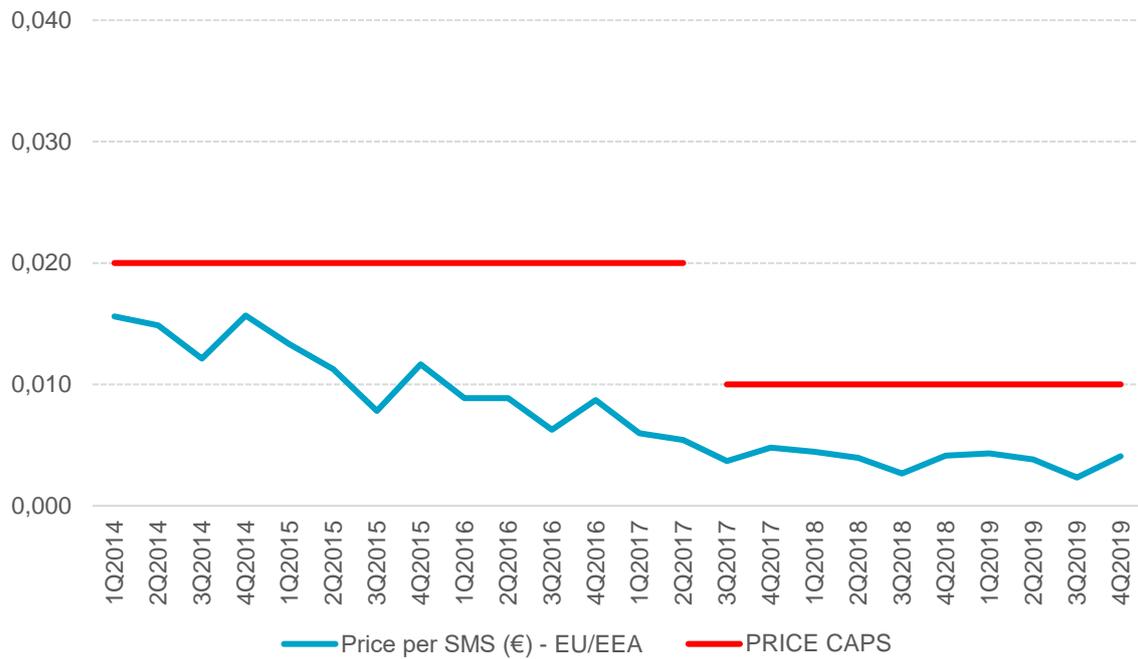
The following graphs illustrate the trend, between 1st quarter 2014 and 4th quarter 2019, in established maximum prices and average wholesale prices (voice, SMS and data) for roaming communications (aggregated data based on revenues and traffic reported by the different mobile operators operating in Portugal).

Graph 29. Inbound voice wholesale price per minute (Roaming)



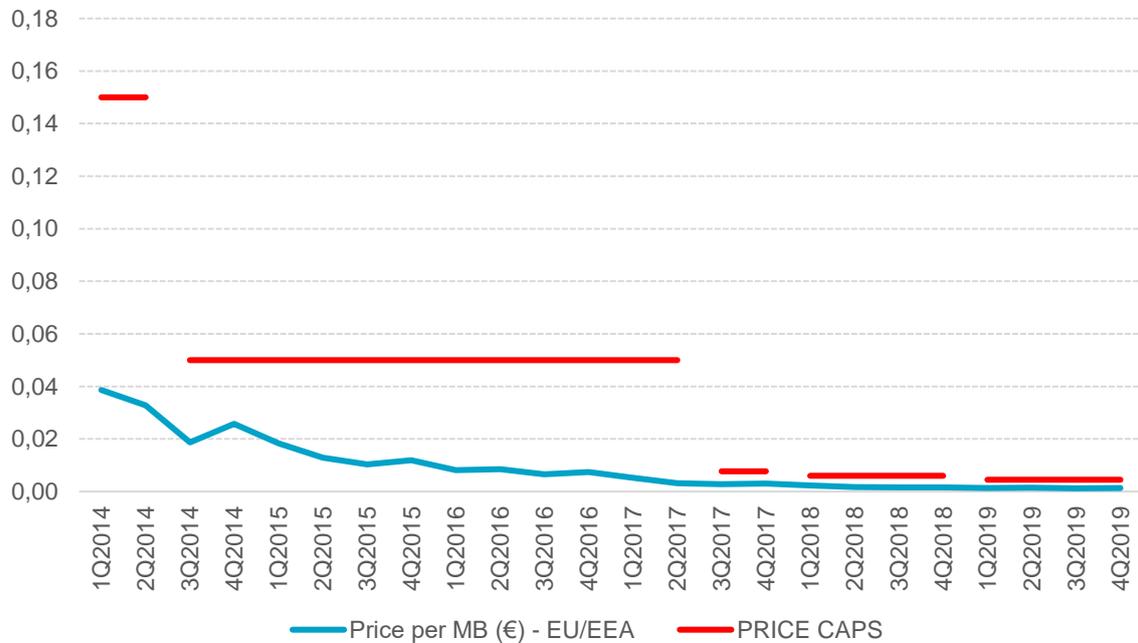
Unit: Euros.
Source: ANACOM.

Graph 30. SMS wholesale price (Roaming)



Unit: Euros.
Source: ANACOM.

Graph 31. Wholesale price of data services per MB



Unit: Euros.
Source: ANACOM.

As shown in the above graphs, there is a downward trend in the unit prices of the various services at wholesale level, which follows the reduction in regulated maximum prices.

15.6.3. Oversight of the rules governing intra-EEA international communications

Regulation (EU) 2015/2120 of 27 November (as amended by [Regulation \(EU\) 2018/1971 of 11 December](#)) establishes common rules to ensure that consumers are not charged excessive prices for interpersonal communications based on numbers originating in the Member State where the consumer's home provider is based and ending with a fixed or mobile number in another Member State.

As such, as from 15 May 2019, the retail price (excluding VAT) billed to consumers for regulated intra-European communications cannot exceed 0.19 euros per minute for calls, and 0.06 euros per SMS. These rules are applicable, by transposition, in each of the other countries of the European Economic Area (EEA) - Iceland, Norway and Liechtenstein. Furthermore, according to the same article 1, National Regulatory Authorities are required to monitor the trends of the market and in the prices of regulated intra-European communications, submitting a report to the European Commission.

In this respect, BEREC approved the “1st Questionnaire on intra communications - European Economic Area¹”, referring to the period between 1 October 2018 and 31 March 2019.

The questionnaire was to be completed and sent to ANACOM by mobile and voice fixed service providers. ANACOM checked the information received and forwarded it to BEREC on 25 June 2019. Subsequently, on 8 November 2019, ANACOM responded to a request for information from BEREC, in order to determine the proportion of:

- a. regulated intra-EU minutes originating on the fixed service, in relation to total minutes originating on the fixed service for each operator;
- b. regulated intra-EU minutes originating on the mobile service, in relation to total minutes originating on the mobile service for each operator;
- c. regulated intra-EU SMS messages, in relation to total SMS messages for each operator.

Upon analysing this information, operators were asked to provide further clarifications, with some operators correcting responses previously sent. The individual responses of the operators were sent to BEREC, and ANACOM guaranteed their confidentiality. The BEREC report on this matter is to be submitted to the 3rd BEREC plenary session of 2020.

15.6.4. Oversight of the rules governing the parcel delivery service

On 22 May 2018, [Regulation \(EU\) 2018/644 of the European Parliament and of the Council of 18 April 2018](#) entered into force. With the objective of promoting better cross-border parcel delivery services, the Regulation imposed a set of reporting obligations.

At a national level, these obligations are initially imposed only on providers of parcel delivery services, which::

- a) are established in more than one Member State; or
- b) while only established in Portugal, over the previous calendar year had on average 50 or more persons working for them and involved in the provision of parcel delivery services in Portugal (excluding personnel working for its subcontractors).

Accordingly, any company covered by one of the two situations above must comply with the requirements in reporting information to ANACOM, as set out in this Regulation:

- a. obligation to report its identification and contact details, together with a description of the characteristics and general conditions of its services, communicating any subsequent changes to this information within 30 days;
- b. obligation to report, on an annual basis no later than 30 June each calendar year;
- c. only in the case of intra-European Union cross-border service providers, an obligation to submit, on an annual basis no later than 31 January each calendar year, the public list of tariffs applicable as on 1 January of that year for shipments considered in the annex to the Regulation.

As regards the first two obligations [points a) and b) above], the European Commission approved the respective reporting forms under [Commission Implementing Regulation \(EU\) 2018/1263 of 20 September 2018](#).

With regard to the public tariff list [point c) above], the European Commission has developed a web-based platform for use by service providers, to which National Regulatory Authorities and the Commission also have access in order to exercise their responsibilities.

In this context, companies subject to the above obligations:

- i. Provided ANACOM with the data of the users that they wished to register on the European Commission platform, where they would report, no later than 31 January 2019, their public list of tariffs applicable on 1 January of the same year to shipments covered by the annex to the Regulation;
- ii. Reported the annual information defined in Annex II of the Implementing Regulation to ANACOM, no later than 30 June 2019.

ANACOM carried out a verification of the data reported by the operators, requesting corrections and clarifications as appropriate.

15.6.5. Oversight of compliance with the obligations laid down in the rights of use of frequencies for DTT

In 2019, using its network of 390 probes, ANACOM continued its permanent monitoring of the integrity and quality of the DTT signal that is made available by the operator.

ANACOM makes the data collected by the DTT probe network available on its website, giving the public a daily view of the DTT broadcast network's performance.

In this same context, measurements were performed on the ground to evaluate DTT coverage, notably in Terras de Bouro.

In 2019, ANACOM continued to monitor the functioning of the Complementary DTH Equipment Reimbursement Programme, which MEO is required to operate. The reimbursement programme entails a total of 16.8 million euros according to the winning proposal that MEO submitted to the tender.

This programme, which operates until expiry of the right of use of frequencies for DTT (9 December 2023), aims to ensure that the costs of migrating to digital television for people living in areas with terrestrial coverage are in line with the costs incurred by those residing

in areas with complementary (satellite) coverage. ANACOM's oversight is conducted based on information that MEO is required to send to it periodically.

The following tables provide a summary of information about this programme.

Table 16. Total MEO expenditure on reimbursement programme (estimate) - Annual cumulative total

Complementary DTH equipment reimbursement programme	Total expenditure (accumulated total since the beginning of programme)							
	Up until	Up until	Up until	Up until	Up until	Up until	Up until	Up until
	31-12-2012	31-12-2013	31-12-2014	31-12-2015	31-12-2016	31-12-2017	31-12-2018	31-12-2019
	2 196 523	2 748 793	3 091 715	3 303 951	3 463 780	3 593 124	3 701 130	3 783 850

Unit: Euros.

Source: ANACOM

Table 17. Number of beneficiaries of the reimbursement programme - Annual cumulative total

Complementary DTH equipment reimbursement programme	Number of beneficiaries (total accumulated since the beginning of programme)							
	Up until	Up until	Up until	Up until	Up until	Up until	Up until	Up until
	31-12-2012	31-12-2013	31-12-2014	31-12-2015	31-12-2016	31-12-2017	31-12-2018	31-12-2019
Reimbursement a posteriori ^[1]	10 472	12 513	13 467	13 958	14 222	14 406	14 576	14 679
Reimbursement a priori ^[2]	20 362	26 996	31 451	34 373	36 707	38 648	40 268	41 604

Source: ANACOM

[1] Where the customer supported payment of the complementary DTT kit and the reimbursement value established under the reimbursement programme was refunded subsequently.

[2] Where the complementary DTT kit Complementary DTT was sold at reimbursed cost, having been delivered to the customer at a MEO retail outlet (with or without prior order) or by post.

15.6.6. Oversight of remaining coverage obligations associated with rights of use of frequencies

In 2019, ANACOM also carried out verification of compliance with other obligations associated with rights of use of frequencies:

- the verification of compliance with coverage obligations was concluded in 480 parishes which tended to lack mobile broadband coverage (these parishes were

distributed under the terms and conditions set out in [ANACOM's determination of 22 August 2013](#));

- by [final decision of 21 November 2019](#), ANACOM released the report on the verification of the obligations associated with the 800 MHz band, presenting the results of the coverage studies for the 480 parishes tending to lack mobile broadband. According to the methodology established by ANACOM, this work made use of information about each parish provided by MEO, NOS and Vodafone through a questionnaire, and a set of actions was undertaken, including;
 - a. analysis of the descriptive and technical information submitted by mobile operators;
 - b. request for clarifications from mobile operators;
 - c. analysis of clarifications provided by mobile operators;
 - d. conducting theoretical studies on mobile network coverage, based on the technologies and frequency bands used by these networks to provide the transmission speeds that are required;
 - e. detailed analysis of the results of the theoretical coverage for the total of 480 parishes, obtained in each parish town;
 - f. field measurements were carried out in 130 parishes in mainland Portugal and in all 10 parishes in the Azores.

These actions led to the following conclusions:

1. The information sent by the operators is consistent and suggests, from a theoretical point of view, that they are deploying technological solutions that enable accomplishment of the applicable coverage obligations;
2. Theoretical coverage studies indicate that 480 parish towns have a signal level that allows access to the mobile broadband service (at the reference speed imposed on each operator);
3. As regards the set of 140 parishes where ANACOM carried out measurements (130 in Mainland Portugal and 10 in the Azores), it was concluded that, in the parishes subject to the coverage obligations:

- i. in parishes covered by MEO, maximum speeds exceed, on average, 52.9 Mbps (versus the imposed reference speed of 43.2 Mbps);
 - ii. in parishes covered by NOS, maximum speeds exceed, on average, 20.6 Mbps ((versus the imposed reference speed of 4 Mbps);
 - iii. in parishes covered by Vodafone, maximum speeds exceed, on average, 29.3 Mbps (versus the imposed reference speed of 7.2 Mbps).
- obligations related to provision of the data service in the 2100 MHz band (pursuant to point a) of paragraph 1 of article 32 of the LCE and the respective right of use of frequencies for terrestrial electronic communications services, MEO, NOS and Vodafone are required to ensure, in the provision of data services in the 1920-1980 MHz / 2110-2170 MHz sub-band, minimum coverage at municipal level, both in terms of population and geographic distribution, which is not inferior to the coverage which was in effect as on the date that their right of use of frequencies was renewed - on 21 April 2018, 4 June 2018 and on 5 May 2018, respectively);
- obligations related to provision of voice and data services up to 9600 bps (in the 900 MHz and 1800 MHz band), nationally, per municipality and per location with more than 10 000 inhabitants: ensure minimum coverage not less than that provided on 17 May 2012 (NOS), and on 8 July 2010 (MEO and Vodafone);
- quality of service obligations associated with the services provided using the GSM and UMTS system.

ANACOM analysed the information sent and complemented this analysis with theoretical coverage studies and field measurements, as appropriate.

15.6.7. Oversight of compliance with portability obligations

To oversee the evolution of portability and to verify compliance with the obligations set out in *Regulamento da Portabilidade* (Portability Regulation) by companies providing electronic communications services, information was collected through the "semi-annual portability questionnaire".

In terms of monitoring tariff transparency obligations, information was obtained on the numbers provided to users to access information on the pricing of calls to ported numbers and on the procedures used by MTS providers for deactivation/reactivation of the online portability message. This information, as well as information relating to portability prices, was released on ANACOM's website.

15.6.8. Oversight of information on quality of service laid down in the RQS - Regulamento sobre Qualidade de Serviço (Quality of Service Regulation)

In the context of the Quality of Service Regulation⁴⁸, ANACOM receives quarterly information from companies with FTS offers aimed at the residential segment and with standardised FTS offers⁴⁹ aimed at the non-residential segment. This information on the quality of service of the FTS that they make available is provided on a quarterly basis.

The information sent by the companies in 2019 was used to compile quarterly reports made available on ANACOM's website and on the Consumers' Website. In general, it was concluded that providers were complying with their obligation in terms of reporting information to ANACOM and its release to end-users.

In general terms, it can be concluded that the determined levels of quality of service are consistent with the performance objectives defined by each of the providers for the year 2019.

Nevertheless, some situations are highlighted in which the determined levels of quality did not accomplish the performance objectives proposed by the companies:

- for the parameter "Time taken to provide an initial connection", two providers reported performance levels that did not accomplish the performance objectives defined by them for standardised FTS offers directed at the non-residential segment;
- for the parameter "Time taken to repair faults", two providers reported performance levels that failed to accomplish the performance objectives defined by them, as

⁴⁸ [Regulation no. 46/2005 of 14 June](#), as amended by [Regulation no. 372/2009 of 28 August](#).

⁴⁹ Offers in which the conditions governing the provision of the service are not contracted on a client-by-client basis, but which are defined, a priori, through a standard contract and which conform to a criterion of uniformity for all customers who subscribe to such a contract.

regards offers directed at the residential segment and as regards standardized FTS offers aimed at the non-residential segment. One of these providers recorded performance levels that fell short of the self-proposed performance objectives, both when considering the totality of repairs that occurred or only those repairs not associated with the volatile atmospheric conditions that affected Portugal during the second half of 2019 (heavy rainfall and depressions).

15.6.9. Oversight of information made available to end-users

15.6.9.1. Oversight of compliance with the new rules governing contract lock-in periods resulting from the amendment of the LCE

Once again, ANACOM collected information from providers on links to pages on their websites where they publish offers with different lock-in periods.

In 2019, ANACOM continued to monitor the offers published on provider websites, with regard to the evolution of the benefits granted to customers contracting services with associated lock-in periods.

15.6.9.2. Oversight of compliance with provision of access to the digital complaint book platform

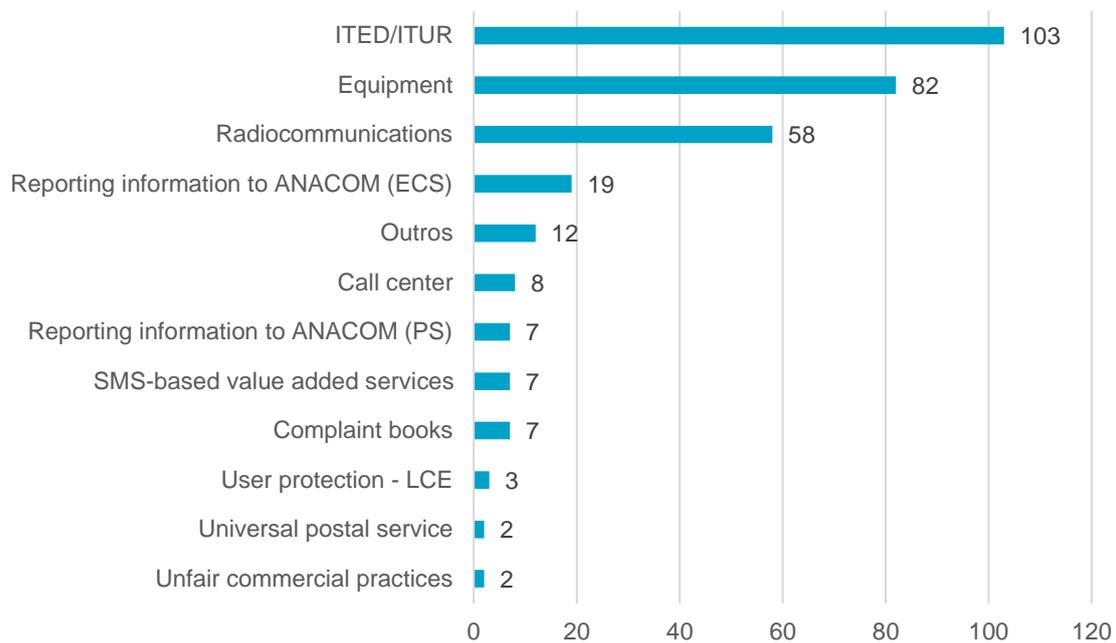
As detailed in the 2018 Regulation Report, in 2019, ANACOM continued to monitor compliance with the legal obligation of providers to disclose, in a prominent and visible place on the homepage of their websites, access to the digital platform which allows users to complain through the electronic format of the complaint book.

16. BREACHES AND OFFENCES

16.1. New processes

In 2019, ANACOM opened 310 new cases based on reports of breaches on the following topics.

Graph 32. New cases (by subject)

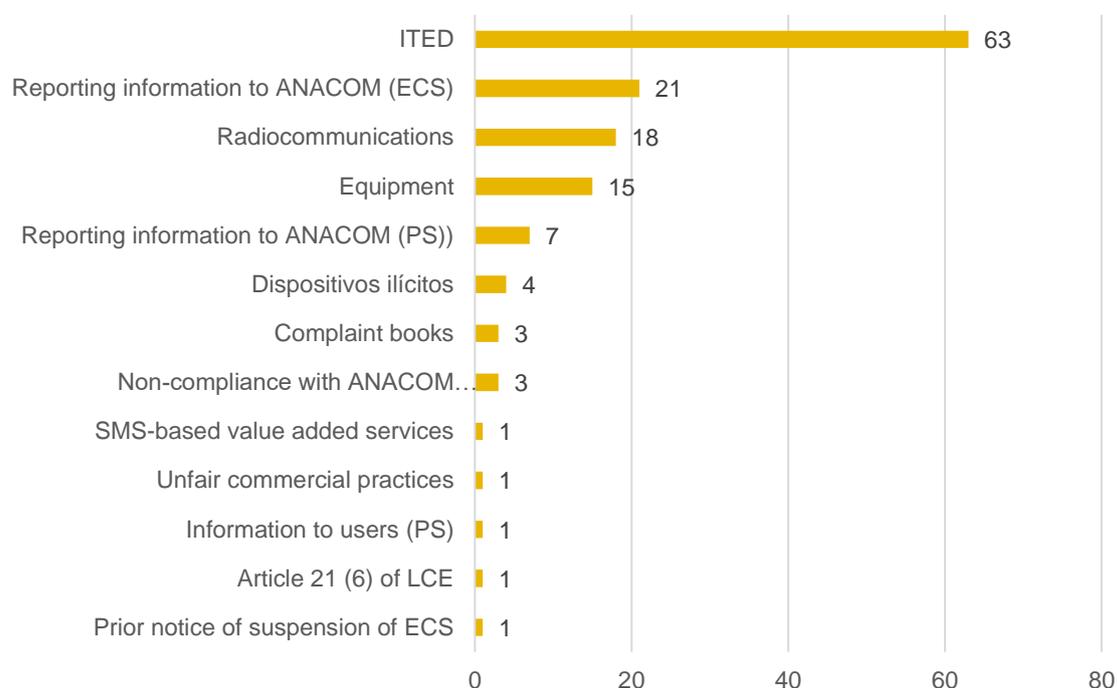


Source: ANACOM

16.2. Initial analysis of breach reports

During 2019, 191 breach reports were subject to initial analysis, and administrative offence proceedings were opened in 139 cases where there was sufficient indication that a breach had been committed in an area where ANACOM has sanctioning responsibility. The proceedings initiated refer to the issues below.

Graph 33. Breach proceedings instigated



Source: ANACOM

Of particular note are the proceedings which have been instigated due to breaches of the rules requiring providers of electronic communications services and of postal services to report information to ANACOM (a total of 28 cases), as well as those brought for breaches of the rules of the ITED regime (63 cases).

Within the scope of the LCE, four processes initiated for indications of possession and use of unlawful devices (point d) of paragraph 1 of article 104) are noted, as well as three processes initiated due to indications of non-compliance with the following ANACOM decisions:

- Determination of 28 October 2010 setting out that the Reference Ducts Access Offer (RDAO) include updated and correct indication, in the extranet, of the ducts and infrastructure and the respective occupancy rate;
- Determination of 22 May 2014 requiring reformulation and resubmission, within 25 working days, of the results of the analytical accounting system of the entity with significant market power in the markets of narrowband access to the public telephone network at a fixed location and publicly available telephone services at a fixed location (accounts referring to financial years 2010 and 2011), and requiring,

within a period of a further 5 works following the period of 25 working days) information on accounting separation to be sent to ANACOM;

- Determination of 16 May 2002, which imposes an obligation on operators/providers of telecommunications services that provide voice-mail service to ensure that, a period of not less than five seconds is granted, from the start of the message of this service, so that users can choose whether or not to use this feature without incurring any cost.

In the area of consumer protection, proceedings were instigated in three cases for breach of the legal framework governing complaint books ([Decree-law no. 156/2005 of 15 September](#)): one for the adoption of unfair commercial practices prohibited by [Decree-Law no. 57/2008 of 26 March](#); one for breach of rules under the LCE applicable to prior notice of suspension of the electronic communications service; and another for breach of the obligation to send the information message stipulated in [Decree-Law no. 177/99 of 21 May](#).

16.3. Concluded proceedings

In 2019, ANACOM concluded 180 offence procedures opened or initiated on the basis of reports of breaches brought to its notice (see details of the decisions taken in the table below).

Of these cases, 110 resulted in the conviction of the accused party, with fines totalling 3.712 million euros. Voluntary payments of fines were also made (remitted following notification of the accusations), totalling around 41 thousand euros.

Table 18. Decisions issued in breach proceedings

Decisions issued in breach proceedings			180
Reports of offences which did not lead to instigation of separate breach proceedings	52	Preliminary closure	23
		Incorporation into pending cases, criminal proceedings and referral to other authorities	29
Decisions taken in respect of breach proceedings	128	Application of fine, additional sanction or order of forfeiture of equipment	84
		Admonishment	14
		Absolution/case archived	18
		Consolidation in the decision, summary decisions or proceedings terminated upon voluntary payment.	12

Source: ANACOM

Among the 98 decisions with sentences issued, the following are noted⁵⁰:

- decision applying a single fine of 30 thousand euros to Vodafone⁵¹ for breach of two obligations as under article 46 of the LCE regarding contracting prevention mechanisms;
- three decisions sanctioning non-compliance with a number of obligations as under ANACOM decision of 9 March 2012 on the “Procedures required for the termination of contracts, where upon the initiative of subscribers, in respect of the offer of public networks or publicly available electronic communications services”:
 - single fine of 635 thousand euros applied to NOWO⁵² for commission of forty-four offences;

⁵⁰ The following notes refer to the judicial decisions issued up to 31 December 2019, following the filing of judicial challenges against ANACOM’s decisions, noting whether those decisions were the subject of new appeals, albeit filed subsequent to 31 December 2019.

⁵¹ Following a judicial challenge filed by Vodafone, on 12 December 2019, Tribunal da Concorrência, Regulação e Supervisão (Court of Competition, Regulation and Supervision) and Tribunal da Relação de Lisboa (Lisbon Appeal Court) reduced the single fine to 20,000 euros.

⁵² This decision was subject to judicial challenge.

- single fine of 2.605 million euros applied to NOS⁵³ for commission of one hundred and eighty-six offences;
- single fine of 23,750 applied to NOWO⁵⁴ for commission of two offences;
- two decisions sanctioning non-compliance with obligations as under article 48 of the LCE, relating to contracts governing the provision of electronic communications networks or services:
 - single fine of 30 thousand euros applied to MEO⁵⁵ for commission of three offences;
 - single fine of 67,500 euros applied to NOS⁵⁶ for commission of eight offences;
- decision to apply a fine of 7,500 euros to MEO⁵⁷ for the adoption of a deceptive commercial practice prohibited by [Decree-Law no. 57/2008 of 26 March](#);
- two decisions sanctioning non-compliance with obligations related to complaint books, as under [Decree-Law no. 156/2005 of 15 September](#):
 - fine of 6 thousand euros applied to MEO⁵⁸ for commission of one offence;
 - a single fine of 14 thousand euros applied to CTT for commission of three offences;

⁵³ Following a judicial challenge, on 17 December 2019, Tribunal da Concorrência, Regulação e Supervisão (Court of Competition, Regulation and Supervision) declared a procedural nullity and ordered the return of the case records to ANACOM. ANACOM filed an appeal against this judgment.

⁵⁴ This decision was subject to judicial challenge.

⁵⁵ By ruling of 13 December 2019, Tribunal da Concorrência, Regulação e Supervisão (Court of Competition, Regulation and Supervision) dismissed MEO's appeal as entirely without basis and upheld ANACOM's decision.

⁵⁶ This decision was subject to judicial challenge.

⁵⁷ This decision was subject to judicial challenge.

⁵⁸ ANACOM's decision was challenged and, by ruling of 20 December 2019, Tribunal da Concorrência, Regulação e Supervisão (Court of Competition, Regulation and Supervision) reduced the fine to 3,000 euros. MEO appealed to the Lisbon Court of Appeal.

- decision to apply a single fine of 56.500 euros to MEO⁵⁹ for two breaches of obligations as under ANACOM's determination of 28 October 2010, which determined the introduction of amendments to the RDAO;
- decision applying a fine of 45 thousand euros to MEO⁶⁰ for two breaches of the obligation to block access to value added services based on message-sending, as under paragraph 3 of article 45 of the LCE;
- decisions sanctioning breaches of the obligation to provide information to ANACOM, as under article 108 of the LCE:
 - single fine of 14 thousand euros applied to Atena T⁶¹ for commission of two offences;
 - single fine of 4,500 euros applied to on Nacacomunik for commission of two offences;
 - fine of 4 thousand euros applied to Viasat for commission of one offence;
 - single fine of 2,250 euros applied to Associação de Moradores do Litoral de Almancil for commission of two offences.
- decisions sanctioning non-compliance with the obligation to provide information to ANACOM, as under article 45 of the LSP:
 - fine of 1,500 euros applied to Normaprazo for commission of one offence;
 - a fine of 750 euros applied to Levado à Letra for commission of one offence;
 - fine of 625 euros imposed on Polientrega for commission of one offence.

16.4. Judicial challenges to ANACOM decisions

In 2019, thirteen of ANACOM's decisions were subject to judicial challenges. Appeals (at first instance) were decided in respect of thirteen ANACOM decisions (issued in 2019 or in previous years). One of these appeals was rejected, in another case the appeal was fully upheld, in seven cases the appeals were partially upheld and in four cases Tribunal da

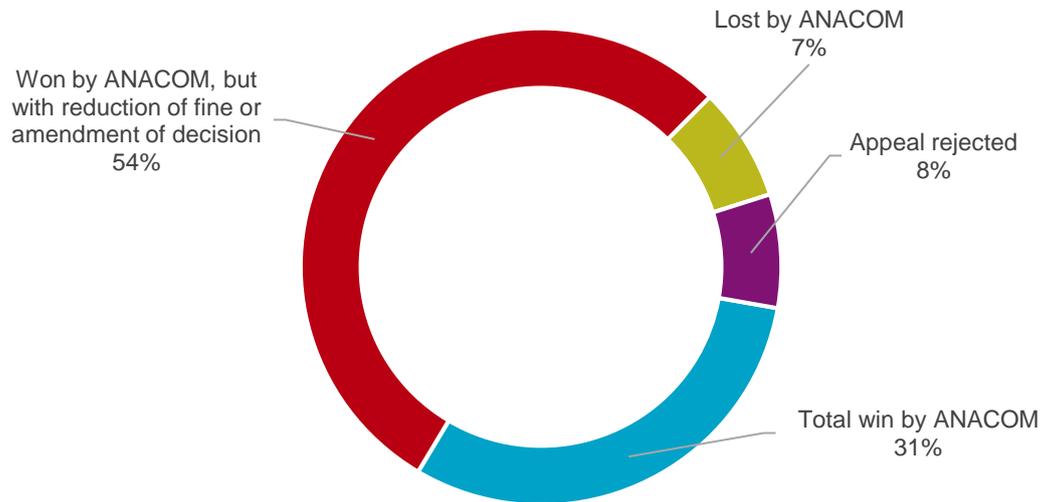
⁵⁹ This decision was subject to judicial challenge.

⁶⁰ This decision was subject to judicial challenge.

⁶¹ This decision was subject to judicial challenge.

Concorrência, Regulação e Supervisão (Court of Competition, Regulation and Supervision) fully confirmed ANACOM'S decisions.

Graph 34. First Instance Rulings in Judicial Challenges



Source: ANACOM

17. RESOLUTION OF DISPUTES

17.1. Request by MEO for intervention against Vodafone due to non-compliance with customer drop installation procedures pursuant to the RPAO

Not satisfied with ANACOM's decision of 2 August 2018 on MEO's request for intervention due to alleged improper conduct by Vodafone as regards the installation of customer drops under the RPAO, on 27 August 2018 Vodafone submitted an administrative complaint under the provisions of articles 184 et seq. and articles 191 et seq. of the Administrative Proceedings Code, seeking revocation or annulment of the decision.

In July 2019, ANACOM approved the final decision on the complaint submitted by Vodafone, in which it determined:

- a) to dismiss Vodafone's complaint as regards the request for annulment of ANACOM's decision of 2 August 2018, as it is a fully valid decision;
- b) to uphold Vodafone's complaint as regards the request to revoke ANACOM's decision of 2 August, determining cessation of its effects, with retroactive application, insofar as non-disposable rights or interests are not involved;
- c) to determine, under the provisions of article 38 of the CPA, suspension of the administrative dispute resolution procedure until adoption of a decision to amend the RPAO.

17.2. Request by Fibroglobal to intervene in the context of a dispute with Infraestruturas de Portugal and IP Telecom as regards pricing of access to infrastructure and services of the technical road channel

In February 2019, Fibroglobal – Comunicações Electrónicas (Fibroglobal) sought ANACOM's intervention with the aim of obtaining a decision ordering Infraestruturas de Portugal (IP) and IP Telecom (IP Telecom) to apply the conditions set out in the most recent version of the ORIP-CTR. Fibroglobal sought application of these conditions to its access and use of the suitable infrastructure which, at the time, was being governed by the conditions applicable to the use of technical channel in roads established by then EP - Estradas de Portugal.

IP and IP Telecom made application of the desired conditions subject to the conclusion of a contract which, in annex, included suitable infrastructure contracted by Fibroglobal from another undertaking.

After consulting the interested parties on the draft decision (approved in August 2019), by decision of 31 October and based on analysis of the facts and reasoning put to it, ANACOM ordered IP Telecom and IP, as the entities responsible for operation of the Technical Channel in Roads (CTR), to apply the tariff in the ORIP-CTR on the terms sought by Fibroglobal. ANACOM further determined that application of these tariffs could not be made subject to the contracting of a larger set of routes further to those that Fibroglobal - Comunicações Electrónicas S.A. actually seeks to contract from IP Telecom, S.A.; therefore, it cannot be demanded that the contract to be concluded or its annexes include, even without attached measures, the identification or mere mention of suitable infrastructure being used under another contractual relationship.

This Decision was notified to AMT - Autoridade da Mobilidade e dos Transportes (Mobility and Transport Authority) and to IMT - Instituto da Mobilidade e dos Transportes (Transport Mobility Institute).

18. INTERNATIONAL ACTIVITY

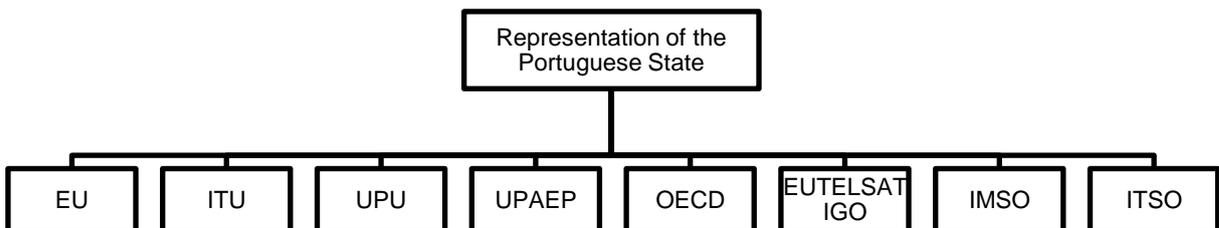
International representation is one of ANACOM's priority areas of work, given the growing challenges of regulation, particularly in the context of the EU single market, which has direct relevance to regulation of the sector nationally.

ANACOM's international representation, exercised within the scope of its responsibilities, is undertaken in its own name (technical representation) and in representation of the Portuguese State, involving a wide range of international entities, bodies and organisations. Alongside its representation work, ANACOM is also highly active in international affairs in the context of advising the Government, in particular by issuing opinions and responding to requests on sector-specific and cross-sector issues with an impact on the sector.

18.1. Representation of the Portuguese State

ANACOM provides representation of the Portuguese State at a wide range of organisations (see figure below). In some cases, representation is at both levels (institutional and technical representation).

Figure 2. Representation of the Portuguese State



18.1.1. European Union

- **Council of Transport, Telecommunications and Energy Ministers (TTE)**

ANACOM participated in the Telecommunications and Information Society Group and in the Postal Services Group, providing representation at meetings, issuing opinions and presenting/negotiating proposals. ANACOM also provided the Government with support in negotiations at COREPER and at the TTE Council meetings held in 2019, especially as follows:

- Proposal for a Regulation of the European Parliament and of the Council concerning the respect for private life and the protection of personal data in electronic communications - The proposed Regulation has been under discussion at the Council (within the Telecommunications and Information Society Group) since February 2017, and has already been the object of numerous meetings. In the first half of 2019, the Romanian presidency reviewed this proposal on nine occasions, including at a joint meeting with DAPIX (Friends of Presidency - Data retention). In the second half of 2019, under the Finnish presidency, the working group examined this proposal on ten occasions and the presidency issued a series of new compromise texts. Discussions were difficult and revealed different views and priorities among Member States on different aspects of the proposal, which did not allow formulation of a general position.
- Council Conclusions on the significance of 5G to the European Economy and the need to mitigate security risks linked to 5G - In October 2019, the Finnish Presidency presented draft Council conclusions on the significance of 5G to the European Economy and the need to mitigate security risks linked to 5G; these were approved by the TTE Council in December 2019.
- Council decision on the position to be taken, in the name of the European Union, at the 2019 ITU World Radiocommunication Conference - The draft Decision was presented by the Commission at the Telecom Group meeting in February 2019 and approved by the Council after eight meetings.
- Proposal for a Regulation creating the Connecting Europe Facility (CEF2) - Portugal participated actively in the framework of negotiating the proposal for a CEF2 Regulation, especially in terms of the works of the CONS, leading to the dialogues; a common position was reached and confirmed by COREPER in March. This proposal is highly relevant to the national telecommunications sector, not only because it refers to the objectives, forms and values of financing to support deployment of very high-speed digital networks, 5G systems, a new WiFi4EU programme, but also because it provides for the financing of basic networks, including by means of submarine cables. In this context, ANACOM was also part of the “Friends of the Presidency” group on the CEF, as an alternate member.
- Proposal for a Regulation establishing the Digital Europe Programme (DEP) - During 2019, the final negotiation of the proposal took place, with a common position

resulting from the dialogues confirmed by COREPER in March. As in the case of the CEF2, this programme still depends on the results of the MFF 2021-2027 budgetary conciliation procedure. ANACOM also took part in the DEP expert group, set up in 2019 to start preparation of the annual and multi-annual work programmes of this Programme.

- **European Commission committees and groups**

ANACOM represents the Portuguese State at a set of European Commission committees and groups established pursuant to the regulatory framework for electronic communications, postal services and e-commerce. This includes the Communications Committee (COCOM), responsible for implementation of the regulatory framework for electronic communications, the Radio Spectrum Committee (RSC) and the Postal Policy Committee. In 2019, ANACOM also participated in the Radio Spectrum Policy Group (RSPG) and in the Group of Experts on Electronic Commerce.

- **Communication Committee (COCOM)**

In 2019, ANACOM participated in the three meetings held by COCOM, in particular entailing approval of implementing acts relating to wireless access points for small areas (article 57 of the Code), the .eu top-level Internet domain and the summary of electronic communications contracts, as under article 102(3) of the Code. By written procedure, COCOM also approved the Commission Implementing Regulation which establishes the weighted average of maximum mobile termination rates across the Union and which repeals [Implementing Regulation \(EU\) 2018/1979](#).

COCOM also discussed other topics related to the implementation of the regulatory framework, including: security of 5G networks; implementation of 112; review of roaming rules (fair use policy and derogation for sustainability purposes); implementation of the Broadband Cost Reduction Directive ([Directive 2014/61/EU](#)); implementation and transposition of the EECC; implementation of “116” numbers; mobile satellite services; WiFi4EU initiative; functioning of national justice systems; implementation of the Connecting Europe Facility - CEF 2 and broadband.

- **Radio Spectrum Committee (RSC)**

In 2019, seeking harmonisation of technical conditions governing availability and efficient use of the spectrum, the following European Commission Decisions were adopted by the RSC:

- [Implementing Decision \(EU\) 2019/1345 of 2 August 2019](#) on amending Decision 2006/771/EC and updating harmonised technical conditions in the area of radio spectrum use for short-range devices (SRD).
 - [Implementing Decision \(EU\) 2019/784 of 14 May 2019](#) on harmonisation of the 24.25-27.5 GHz frequency band for terrestrial systems capable of providing wireless broadband electronic communications services in the Union;
 - [Implementing Decision \(EU\) 2019/785 of 14 May 2019](#) on the harmonisation of radio spectrum for equipment using ultra-wideband technology in the Union and repealing Decision 2007/131/EC;
 - [Implementing Decision 2019/235 of 24 January 2019](#) on amending Decision 2008/411/EC as regards an update of relevant technical conditions applicable to the 3400-3800 MHz frequency band.
- **Telecommunications Conformity Assessment and Market Surveillance Committee (TCAM)**

In 2019, ANACOM participated in a TCAM meeting, where, in addition to technical issues, issues were analysed such as the universal charger, data protection and privacy and protection against fraud; these issues require further study in order to prepare the delegated acts in the context of [Directive 2014/53/EU](#) (RED).

The report of the 9th European market surveillance campaign was also presented, on the DFS requirements of 5 GHz WLAN, which presented a total of 88% of non-conformities (administrative and technical). Thirteen Member States participated in this campaign and 40 products were examined (25 indoor/15 outdoor). These products were placed on the market under the R&TTED/RED.

The next European market surveillance campaign will be to verify compliance of PMR Professional/Private Mobile Radio (PMR) equipment, including PMR446 type equipment.

- **Radio Spectrum Policy Group (RSPG)**

This high-level advisory Group, which assists and advises the European Commission on radio spectrum policy issues, adopted the following Opinions in 2019:

- Opinion on EU coordination at ITU-R Radiocommunication Conferences;
- Opinion on 5G implementation challenges (3rd opinion of RSPG on 5G). The two fundamental points of this Opinion are “Defragmentation of the 3.4-3.8 GHz frequency band” and “connectivity of vertical industries”.

In 2019, the RSPG also concluded the two following reports:

- European Spectrum Strategy;
- Impact of the EECC on the work of RSPG as a result of [Directive \(EU\) 2018/1972](#).

It should be noted that on 11 June 2019, the European Commission approved the [Commission Decision setting up the Radio Spectrum Policy Group and repealing Decision 2002/622/EC](#) (previous Decision that had established the Group).

Taking into account the new Decision and also reflecting the changes to the new European framework, in 2019 the RSPG approved a revision of its rules of procedure, which, among other objectives, aims to:

- provide for the peer review procedure (cooperation procedure between Member States), concerning the allocation of Rights of Use of Frequencies for terrestrial systems capable of providing wireless broadband electronic communications services; and
- to recognise and reinforce the RSPG's intervention within the scope of cross-border coordination.

It should be noted that, at the level of cooperation between Member States, the fundamental objective of this high-level group was to continue the practice started in 2017 of sharing information on spectrum allocation processes, anticipating the provisions of the new European regulatory framework that will come into force at the end of 2020. The group organised a series of workshops for this purpose, focusing, in 2019, on allocation processes for the bands identified by RSPG as pioneer bands for 5G.

During the year, the future RSPG work programme for the 2020-2021 period was put to public consultation - it is due to be adopted at the Group's first Plenary in 2020.

- **Postal Policy Committee**

ANACOM attended two meetings of the Postal Policy Committee in 2019 where discussions were held on the future of the regulatory framework for postal services and on implementation of the regulation on cross-border delivery of e-commerce parcels. The European Commission's study on consumer needs and the assessment of the regulatory framework was presented and the topics of postal statistics and postal standardisation were discussed. The preparation and conclusions of the UPU Extraordinary Congress were also discussed at the meetings, along with the activities carried out at ERGP level, while ANACOM presented the activities conducted under its presidency.

- **CEF Coordination Committee - Telecom**

As an alternate member of the CEF Coordination Committee - Telecom, ANACOM participated in the meetings of January and October, as well as in the June meeting of the CEF Telecom Expert Group. In 2019, ANACOM took part in negotiations of the following procedures:

- proposal to amend the draft CEF 2019-2020 work programme;
- three Member State Opinions on the WiFi4EU initiative - one on the September 2018 call (CEF-WIFI-2018-2), another on the April 2019 call (CEF-WIFI-2019-1) and the third on the September 2019 call (CEF-WIFI-2019-2).

In the context of CEF and the negotiation of the next Multiannual Financial Framework, ANACOM also participated in the meetings held with the European Commission in June and July. The objective of these meetings was, in particular, to identify financing instruments to support the deployment of basic networks, including over submarine cable (in particular the Mainland Portugal -Azores-Madeira ring). In this context, the CEF2 workshop took place in Lisbon. Co-organised by ANACOM and the European Commission, the essential aim of this event was to present the investment opportunities for broadband networks under CEF2 to interested national entities.

- **Expert group on electronic commerce**

ANACOM attended the October 2019 meeting of the Expert Group on Electronic Commerce, which addressed the status of the new European Commission, as well as the entry into force of the Regulation on promoting fairness and transparency for business users

of online intermediation service ([EU Regulation 2019/1150 of 20 June 2019](#)). A link was also made between this Regulation and the review exercise of the Electronic Commerce Directive (ECD), a process which was initiated by the European Commission with the drafting of the proposed Digital Services Act. In this context, there was also an exploratory exercise for ideas on the main challenges to be addressed with the ECD review.

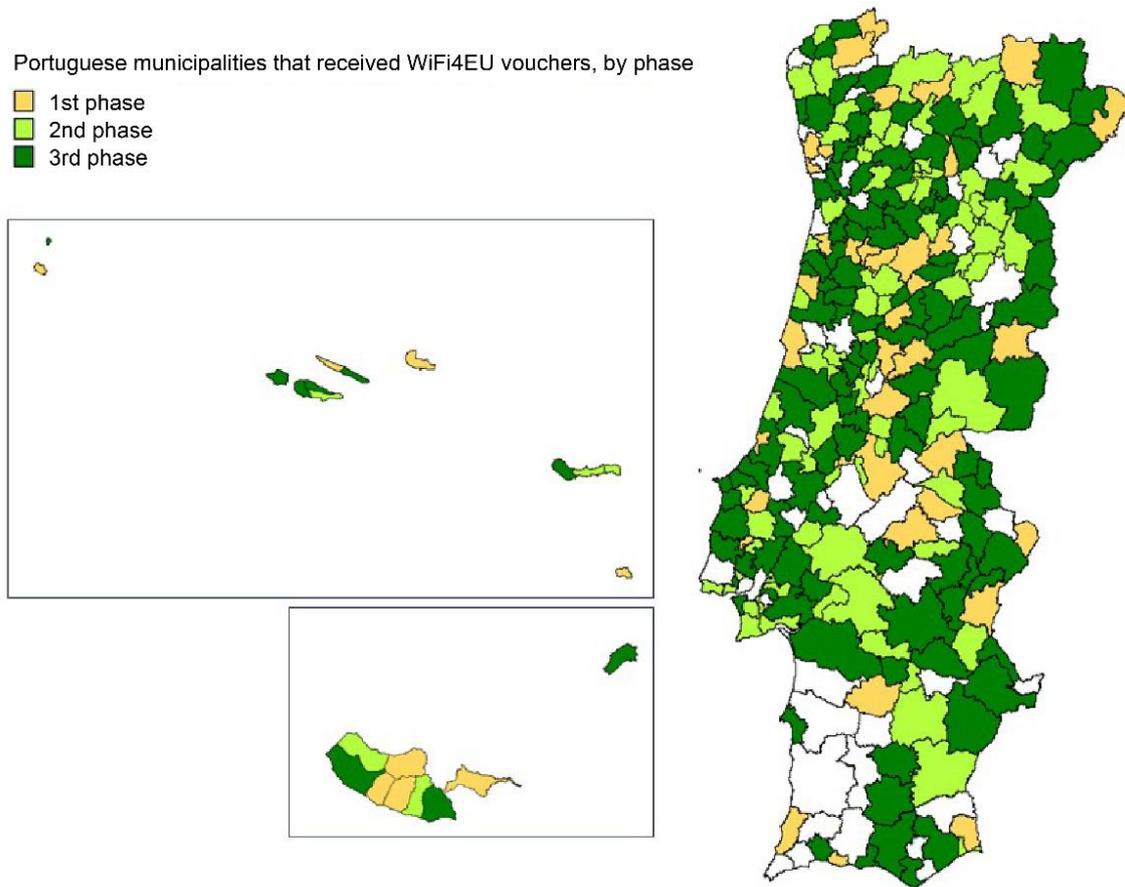
- **European Broadband Competence Offices (BCO) Network**

By [Order of SEAC, no. 7145/2019, published on 12 August](#), ANACOM provides the function of BCO Portugal within the scope of the European Broadband Competence Offices (BCO) Network. In 2019, the following activities were of note:

WiFi4EU Initiative - two calls were launched in 2019 (April and September) for the allocation of WiFi4EU vouchers. ANACOM undertook dissemination of these calls, including through the publication of information on its website. In addition, it responded to 370 requests for information from municipalities and companies, through the email address set up for that purpose (wifi4eu@anacom.pt), and about 50 requests for information received by telephone. In cases where more direct involvement by the European Commission was necessary, ANACOM provided that contact, seeking the speedy resolution of problems found at the level of the municipal registers. In the context of the WiFi4EU calls, ANACOM worked in articulation with the Government to confirm the reference data/units to be considered.

This dissemination effort will have contributed to the high level of take-up from municipalities in Portugal, as well as a high rate of voucher allocation - municipalities that have received vouchers cover about 78% of the resident population and 83% of the national territory. This fact was noted by the European Commission itself, which highlighted the Portuguese example as a success story.

Figure 3. Portuguese municipalities that received WiFi4EU vouchers



Source: ANACOM, based on data from the European Commission and INE (Statistics Portugal).

Workshops - ANACOM organised a workshop (held in Lisbon on 25 November) on the second generation of funds under the Connecting Europe Facility 2 (CEF2)⁶². The CEF2 initiative, to be launched in 2021, covers the period 2021-2027, with a proposed budget estimated at 42.3 billion euros (of which three billion euros is in the digital area).

ANACOM also took an active part in a set of activities organised by the BCO Network, with emphasis on the annual BCO conference, which took place in Brussels on 26 September 2019. At this meeting, it was recognised by DG Connect of the European Commission that connectivity in the Azores and Madeira and the connection to mainland Portugal, with potential submarine cable extensions to the Americas and Africa, is a strategic issue for the

⁶² Programme and presentations available at [Workshop "Connecting Europe Facility 2"](#)

European Union, not only in terms of the benefit of broadband access, but also from a geopolitical point of view.

ANACOM was also involved in the following activities: workshop in Brussels on 1 October 2019 focused on the presentation of the main preliminary conclusions of the study CEF2 - Smart Investments for Smart Communities; meeting of the Investment Models for Rural Areas Working Group that took place in Brussels on 23 October 2019, where best practices of Germany's broadband website were discussed, on the [European Broadband Mapping portal](#); of BCO Varmland in collaboration with the Swedish national regulatory authority (PTS) and BCO Ireland; and the European Commission workshop "B Day - Boosting Connectivity Investments", held in Brussels on 3 December 2019.

ANACOM took part in two webinars: one on financing the deployment of 5G networks and services (on 11 April 2019) and another on the WiFi4EU initiative (on 11 December 2019).

In addition to the activities summarised above, ANACOM responded to various requests for information from national and foreign entities.

- **CENELEC - TC46X and respective SC 46XA and SC 46XC subcommittees**

ANACOM participated in the annual meeting of this technical committee, held in Brussels on 16 and 17 April 2019, where the most recent developments were presented as regards the formulation of new standards and the revision of current standards; the lists of exceptions to the harmonisation of standards were updated and the current standards map was revised. Finally, a presentation was made on the MICE (Mechanical, Ingress, Climatic/Chemical and Electromagnetic) classification system and its application in ITED technical rules, in addition to other technical topics.

18.1.2. International Telecommunication Union (ITU)

- **ITU Council**

The 2019 session of the ITU Council, the body which provides operational management of the organisation between Plenipotentiary Conferences (PP), was held in June. This session, which ANACOM attended as an observer, was essentially focused on reviewing the results of the 2018 Plenipotentiary Conference and approved the reports of the various dependent working groups. The Council also considered preparation of the World Telecommunications

Policy Forum (WTPF-21), the World Telecommunication Standardization Assembly (WTSA-20) and the World Telecommunication Development Conference (WTDC-21). Progress in implementing the Strategic Plan was reviewed and the Union's operational plan for 2020-2023 was approved.

- **World Summit on the Information Society (WSIS) Forum**

ANACOM participated in the 2019 edition of the World Summit on the Information Society Forum (WSIS Forum), which took place in April. João Miguel Coelho, vice-chairman of ANACOM, was a speaker at the high-level session on the theme “Inclusiveness - access to information and knowledge for all”.

18.1.3. Universal Postal Union (UPU)

ANACOM was present at the meetings of the UPU Council of Administration of April 2019, where proposals on the remuneration system for format E postal parcels were analysed. The Council agreed to proceed with a postal vote on the scheduling of an extraordinary congress to discuss the topic, where it received the necessary support.

ANACOM took part in this third UPU Extraordinary Congress, held in Geneva (Switzerland) in September 2019, with a specific mandate: to find a compromise solution acceptable to the majority of members that would enable the United States of America to remain in the organization. After intense debate, complemented by regional coordination actions, a proposal was approved by acclamation to revise the remuneration system for format E parcels, guaranteeing the continuity of the United States in the UPU.

18.1.4. UPAEP - União Postal das Américas, Espanha e Portugal (Postal Union of the Americas, Spain and Portugal)

ANACOM continued to monitor the issues under discussion and to contribute at the level of the working groups where it is a member in the UPAEP, having also actively participated in the preparation and analysis of proposals to take to the UPU Extraordinary Congress. Indeed, with the objective of promoting debate on the most controversial topic at the time - the pending withdrawal of the United States from the UPU in October, if the UPU Extraordinary Congress failed to revise the system of terminal dues to allow for self-declared format E parcel fees - ANACOM hosted the UPAEP Postal Regulation Forum 2019, which took place in Ponta Delgada (Azores), in June. In addition to the regulators and

government entities from the Latin American region, ANACOM was able to bring the delegations of the United States and China (opponents on this topic) together at the same table, thereby ensuring that arguments would be addressed. It is recognised that this effort led to the scenario that gave rise to one of ideas that would work as a factor in unblocking the impasse during the Extraordinary Congress.

Taking advantage of the occasion of ERGP meetings with the same date and place, ANACOM arranged a joint seminar between the UPAEP and ERGP, under the theme “Challenges of Regulation in Europe and the Americas”. This initiative gave opportunity for the exchange of experiences and for debate on the different realities of postal regulation in the two regions. The Seminar was highly acclaimed by all participants.

18.1.5. Organisation for Economic Cooperation and Development (OECD)

- **Committee on Digital Economic Policy (CDEP)**

ANACOM participated in the 80th meeting of the Committee on Digital Economic Policy (CDEP), the OECD body whose purpose is to develop policy and regulatory frameworks to support competition, investment and innovation in the digital economy, along with measures to foster the potential of information and communication technologies (ICT) as a driver of inclusive and sustainable growth. 2019 was marked by the continuation of the cross-cutting project for digitising the economy “Going Digital”, which addresses topics such as Artificial Intelligence, “blockchain” and the role of “regulatory sandboxes” (regulatory testing environments) in promoting flexibility and innovation in the digital age. The 2019 edition of the publication "Digital Economy Outlook" was also launched.

18.1.6. European Telecommunications Satellite Organization (EUTELSAT IGO)

Representing Portugal, ANACOM participated in the Advisory Committee meeting held in February, as well as in the 41st Assembly of Parties held in April. In view of the impossibility of reaching a consensus on the revision of the organisation's personnel rules and pension system, led by the Executive Secretary, work will continue over the next two years.

18.1.7. International Mobile Satellite Organization (IMSO)

ANACOM followed IMSO's activity, specifically in matters related to monitoring of the implementation of satellite services by IRIDIUM, the second and new operator of the Global

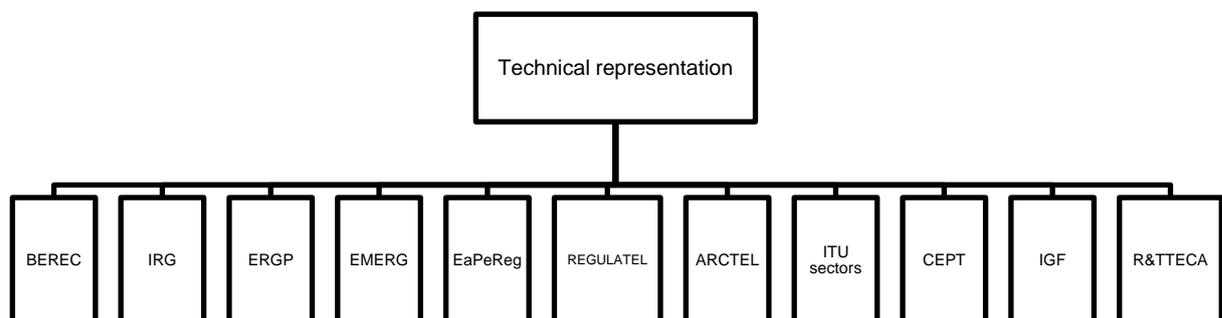
Maritime Distress Safety System (GMDSS), which, in March, signed a public service agreement in this context. In April, the Director-General of IMSO began a second four-year term.

18.1.8. International Telecommunications Satellite Organization (ITSO)

In 2019, ANACOM followed ITSO's activity from a distance, specifically the 22nd meeting of its Advisory Committee, which took place in May. The Committee recommended to the Director General of ITSO that the organisation should continue negotiations with a view to its financing by the operator IINTELSAT, while obtaining the information due from the operator. If the organisation is not successful in this, the Committee recommended opening a process of arbitration in accordance with Article 6 of the public service agreement. The future of the ITSO Agreement remains under discussion.

18.2. Technical representation

Figure 4. Technical representation



Source: ANACOM.

Figure 4 illustrates the entities where ANACOM provides technical representation.

18.2.1. Regulator Organisations

Regulator organisations and associations represent one of the most effective means of accomplishing regulatory cooperation and establishing a harmonised framework across the countries and regions with which ANACOM and Portugal have close relations. In this context, ANACOM took part in the work of BEREC, IRG and ERGP (European region), EaPeReg (Eastern Europe), EMERG (Mediterranean region), REGULATEL (Latin America region) and ARCTEL-CPLP (Community of Portuguese Speaking Countries).

18.2.1.1. Body of European Regulators for Electronic Communications (BEREC)

In 2019, ANACOM was present at all meetings of the Board of Regulators (BoR), including pre-meeting workshops and the meetings of the BEREC Office Management Committee. ANACOM also participated in all meetings of the Contact Network (CN), the intermediate operational group of NRA representatives which prepares the BoR plenaries.

ANACOM continued to co-chair the Statistics and Indicators Expert Working Group (formerly Benchmarking), which presented a document on BEREC Guidelines on Geographical surveys of network deployments for public consultation, produced a benchmarking report on termination rates at European level and presented the report “Draft BEREC Report on Termination rates at European level”.

In addition, ANACOM also participated in the various working groups as editor of various documents. In particular, in the End-Users Group, ANACOM worked as a drafter on the BEREC Report on Member States’ best practices to support the defining of adequate broadband internet access service. The report was put to public consultation on 11 December 2019 and is due to be adopted by BEREC in the first half of 2020 (final report).

Meanwhile, the BEREC working group on the open Internet prepared the annual report on implementation of the TSM Regulation and updated the guidelines on the rules of the open Internet. This last document was submitted to public consultation in October 2019 and is due to be adopted in 2020.

18.2.1.2. Independent Regulators Group (IRG)

In 2019, ANACOM attended all general assemblies of the IRG and contact network meetings (preparatory meetings and pre-assembly meetings), as well as the training workshop on FTTH, as a speaker, in the workshop on the future of the IRG and the joint BEREC/BEUC workshop. ANACOM also took part in the group that discussed the future of the IRG and in the *ad hoc* group on IRG questionnaires.

In the context of cooperation between national regulatory authorities, ANACOM responded to 62 questionnaires issued by its counterparts and circulated 9 questionnaires of its own.

18.2.1.3. European Regulators Group for Postal Services (ERGP)

ANACOM assumed the ERGP Presidency during 2019. The Group's programme for the year was fully accomplished and included approval of the Opinion on the review of the regulatory framework for postal services. Reports were approved on topics such as cross-subsidisation practices in the postal sector, quality of service, consumer protection and complaint handling, key postal sector indicators and development of postal networks and of access practices. The 2020 work programme and the ERGP Medium Term Strategy for the 2020-2022 three-year period were also approved.

Within the scope of the Presidency, ANACOM organised and hosted the ERGP Plenary meeting, which took place in Ponta Delgada (Azores) in June 2019. This meeting was particularly important, because it gave rise to the ERGP's Opinion on the review of the European regulatory framework for postal services, in which it advocates a forward-looking regulatory framework, taking into account technological developments and the changes that are already seen in terms of demand and which will grow stronger in the future.

The Plenary was preceded, on 27 June, by an internal workshop on this ERGP opinion. On the same day, the joint ERGP-UPAEP workshop on "Regulatory Challenges in Europe and the America" was held with representatives attending from around 50 countries. Presentations were made on European and American postal markets and discussions were held on international issues of the postal sector, including the future of the UPU and the system of terminal dues, with participation by the European Commission, the United States Department of State and the Government of China.

Another of key moment of ANACOM's Presidency was the organisation of the second edition of the ERGP Stakeholders Forum, which brought more than 200 representatives of the main stakeholders of the postal sector together in Brussels to discuss the challenges facing the postal sector in Europe and worldwide. At this Forum, proposals for the ERGP 2020 work programme were presented and discussed, along with the medium-term ERGP strategy for 2020-2022. Discussions were also held on the future of the sector's regulation and on how electronic commerce is changing the market and postal regulation. Regulation of the international market, with emphasis on the matter of remuneration paid between operators, was another of the topics highlighted.

A further event of note is the organisation of the public workshop on “Data Driven Regulation of Postal Markets”. More than 170 participants debated the indicators and information required to regulate the postal market and how to ensure greater data comparability; an initial assessment of the information being collected under the Regulation on cross-border parcel delivery services was also made.

ANACOM implemented a number of measures with a view to increasing the group's effectiveness and efficiency by changing and simplifying procedures, especially in terms of the management of the ERGP secretariat, and approved internal documents on communication and internal information sharing.

ANACOM also attended preparatory meetings of the ERGP plenary, entailing two network meetings and two meetings of the working group chairs. ANACOM contributed to development of the technical work of the ERGP groups, focusing on market regulation, price regulation, market access, monitoring of the postal services market, user rights and the market for cross-border postal-parcels.

Also notable is the role assumed by ANACOM in chairing the Market Indicators working group, focused on quality of service, user protection and monitoring of the main developments of the European postal sector. This group was chaired jointly with the Belgian regulator.

In accordance with the rules governing the functioning of this Group, ANACOM will serve as Vice-Chair in 2020.

18.2.1.4. European Mediterranean Regulators Group (EMERG)

ANACOM took part in the work of the European Mediterranean Regulators Group (EMERG), which brings together sector regulators from Mediterranean countries (including IRG members), North Africa and the Middle East. ANACOM took part in the Contact Network meeting held in February. The meeting was organised by the Bosnian sector regulator (CRA), which presided over the Group in 2019. It sought to prepare the plenary meeting, scheduled for March, also taking stock of the activities of 2018 and defining the work plan for 2019.

Within this group, ANACOM participated in the preparation of the EMERG benchmark report and cooperated by responding to 9 questionnaires circulated by its counterparts and prepared in the framework of the group's thematic workshops.

18.2.1.5. Eastern Partnership Electronic Communications Regulators Network (EaPeReg)

Within the scope of the EaPeReg, chaired by the Georgian regulator, ANACOM participated in the November plenary, which was preceded by a workshop on RLAH and national roaming. This workshop was particularly relevant as EaPeReg also participates on the European Commission's HDM Panel, whose main objective is to promote the harmonisation of digital markets in the Eastern European partnership region and between this region and the European Union. Among other lines of action, EU4Digital: Telecom Rules line of action has the objective of implementing a regional roaming agreement. ANACOM also answered 2 questionnaires circulated by its counterparts.

18.2.1.6. REGULATEL - Fórum de Reguladores Latino-Americanos de Telecomunicações (Latin-American Forum of Telecommunications Regulatory Authorities)

ANACOM responded to the 25 questionnaires circulated by its counterparts and developed in the context of this Forum's working groups.

18.2.1.7. ARCTEL-CPLP - Associação de Reguladores de Comunicações e Telecomunicações da CPLP (Association of Communications and Telecommunications Regulators of the CPLP)

At the invitation of ARME and Câmara Municipal da Ribeira Grande de Santiago, in January, ANACOM took part in the workshop and inauguration ceremony of the Sustainable Villages for Development (SV4D) Pilot Project, which was supported by ANACOM and sponsored by ARCTEL-CPLP.

In May, ANACOM attended the Association's XI General Assembly and the 10th CPLP Communications Forum, under the theme "The Future of the Sector"; this took place in Fortaleza, Brazil. ANACOM participated in one of the panels of the Forum - "Regulation of the Future".

18.2.2. International Organisations

ANACOM carries out its mission of international representation through its involvement in the work of various organisations. In some situations, it is involved at two levels, as representative of the Portuguese State and as sector regulator (technical representation).

18.2.2.1. International Telecommunication Union (ITU)

- **2019 ITU World Radiocommunication Conference (WRC-19)**

ANACOM participated in the 2019 World Radiocommunication Conference (WRC-19), which took place between 28 October and 22 November in Sharm el-Sheikh, Egypt. At this Conference, modifications to the Radio Regulations (RR) were approved to accommodate the solutions found by consensus among the various regional organisations, as well as the proposals of the majority of the 146 administrations present. The topics on the WRC-19 agenda included identification of additional spectrum for the deployment of IMT/5G, technical and regulatory issues associated with active satellite services and space science services, the technical conditions governing allocation of the 5 GHz band imposed on the development of applications such as ITS (Intelligent Transport Systems) and approval of the agenda for the 2023 World Conference.

- **Telecommunication Development Sector (ITU-D)**

As in previous years, ANACOM responded to questionnaires, on tariff policies and on telecommunications regulation activity in Portugal.

- **Radiocommunication Sector (ITU-R)**

ANACOM participated in the activity of working party 6A (WP 6A) of Study Group 6 (SG 6). WP 6A is the ITU-R working party whose activities cover all matters related to the characteristics of terrestrial broadcasting systems (television and radio) and their technical specifications, as well as all subjects related to the protection, sharing, planning and performance of these systems.

18.2.2.2. European Conference of Postal and Telecommunications Administrations (CEPT)

ANACOM followed the work of the three CEPT Committees - Electronic Communications Committee (ECC), the European Committee for Postal Regulation (CERP) and the Committee for ITU Policy (Com-ITU) - and also some of its working groups, as well as the Council of the European Communications Office (ECO).

- **Electronic Communications Committee (ECC)**

ANACOM prioritised its participation in the working groups and project teams on frequency management, spectrum engineering, IMT matters and conference preparation.

During 2019, the ECC made a number of decisions regarding spectrum use and completed responses to the mandates of the European Commission in relation to 5G, wireless broadband communications, intelligent transport systems (ITS), short-range devices (SRD), 400 MHz band, Ultra-broadband (UWB) and Programme Making and Special Events (PMSE), among others.

A number of ECC Decisions were published in 2019, along with two CEPT Reports (70 and 71). Together, these two CEPT Reports, in response to European Commission mandates, seek to define the spectrum parameters that will allow vehicles to operate more safely and efficiently.

Approval was also given to the ECC Report on “Guidance to administrations for Coexistence between 5G and Fixed Links in the 26 GHz band (*“Toolbox”*)”. This ECC Report aims to assist CEPT Administrations in their national decision-making processes supporting the introduction of 5G systems at 26 GHz where the Fixed Service is operating, providing mechanisms that enable maintenance of the fixed service when appropriate.

The ECC also approved CEPT Report 72 for submission to public consultation - this report reviews the technical conditions in the 2 GHz and 2.6 GHz frequency bands, and provides additional information on the viability of the 900 MHz and 1800 MHz frequency bands for 5G.

- **Working Group Frequency Management (WGFM)**

This group, which is responsible for developing strategies, plans and procedures for the implementation of harmonised measures in the field of radio spectrum management at CEPT, met twice in 2019 and addressed the following:

- finalization of CEPT's proposed response to the European Commission Mandate on Wireless Access Systems/Radio Local Area Networks (WAS/RLAN) in the 5925-6425 MHz band;
- review of various ECC decisions, specifically on the 169 MHz band, on ITS in the 60 GHz band, on Industrial Level Probing Radars (ILPR) in the 6-8.5 GHz, 26 GHz, 77 GHz and 75- 85 GHz bands;
- finalization of the ECC 306 report on possible usage of low power PMSE (sharing with aeronautical services) in the 960-1164 MHz band;
- revision of a number of ECC recommendations with a view to harmonising short range devices (SRD).

- **Working Group Spectrum Engineering (WGSE)**

The WGSE is responsible for developing technical studies on sharing and compatibility arrangements among various radiocommunications services/applications, with a view to the introduction and harmonised operation of mobile communications (radio transmitters and private networks, Wi-Fi equipment (WAS/RALN)), fixed service, fixed/mobile satellite service, short range equipment. The WGSE met three times in 2019 and approved seven reports (two on the operation of satellites; four on the introduction of mobile applications and one on fixed service applications); it also undertook reviews of six recommendations on the fixed service.

This group is currently studying the possibility of authorising new frequencies, in addition to existing ones, for operation of Wi-Fi systems; road and railway radiocommunications systems; wireless chargers for electric vehicles, transmitter microphones, as well as the introduction of short-range radio frequency identification and radiodetermination applications.

- **ECC Working Group PT1**

The ECC PT1 working group is responsible for all IMT issues, with the task of developing harmonisation measures for the bands identified for the IMT system, including their channelling and technical conditions, and conducting sharing/compatibility studies and coordinating European positions within the ITU-R.

In addition, it is leading preparation of CEPT's position on WRC-19 issues (item 1.13) concerning additional spectrum for mobile/IMT 2020 systems ("5G systems").

2019 was marked by active participation in the work undertaken, in particular as regards:

- finalization of ECP and CEPT BRIEF proposals on WRC-19 Agenda item 1.13, aimed at identifying additional spectrum for the provision of wireless broadband between 24.25 GHz and 86 GHz, in accordance with Resolution 238 (WRC-15). The CEPT focused on the 24.25-27.5 GHz, 40.5-43.5 GHz and 66-71 GHz bands for 5G;
- development of technical and regulatory solutions with a view to enabling the use of current mobile network bands by 5G technology (NR - New Radio);
- development of a range of activities, especially for the 5G pioneer bands, including 3.4-3.8 GHz and 26 GHz;
- study of mobile network spectrum use by drones.

- **NaN Working Group (Numbering and Networks)**

WG NaN (Numbering and Networks) is a working group set up to debate issues of common interest in terms of numbering and to assess the impact of technological developments on the regulation of the electronic communications sector, in particular as regards the development of harmonised allocation criteria and use of national and international numbering resources.

ANACOM participates regularly in the working subgroups and chairs the NaN2 subgroup (Number Portability, Switching and Trust in Numbering), which has been addressing issues such as portability, communication origin identification, technical solutions supporting operator switching by users (via OTA - Over The Air) and number-based fraud practices. Meanwhile, the NaN1 group (Future Numbering Issues) has been preparing reports and recommendations on aspects related to the evolution of numbering, such as the distribution

and implementation of E.164 numbers, numbering for M2M services, the sub-allocation of numbers and the extraterritorial use of numbers. There are two further subgroups, NaN3 (Emergency Communications) and NaN4 (Networks and Services Technical Regulatory Issues).

- **Conference Preparatory Group (CPG)**

ANACOM participated in the two CPG meetings in 2019, defending national interests in the formulation of European positions (CEPT) at WRC-19. The second and third sets of common European proposals have been concluded, for final adoption by CEPT member Administrations. These proposals sought to strengthen Europe's position in the negotiations that took place at WRC-19.

CPG was supported by several project teams, which are also being followed by ANACOM; they are responsible for the following major topics: science and space services, satellites, aeronautical and maritime services, 5 GHz and mobile service.

- **European Committee for Postal Regulation (CERP)**

ANACOM monitored the topics under discussion, especially at the level of the Universal Postal Union working group (UPU-WG), which focuses on providing European coordination for UPU issues. In addition to participating in several conference calls arranged by the UPU WG throughout the year, ANACOM took part in meetings in March, where important topics were discussed with a view to preparing the UPU Congress, and took part in meetings in September to provide European coordination for the UPU Extraordinary Congress (one meeting held before the Congress and two during the Congress).

- **Com-ITU**

ANACOM followed the work of this committee remotely; this involved the definition and preparation of topics of relevance to Europe to be discussed at ITU meetings, especially at the ITU Council and WTSA-20.

- **European Communications Office (ECO)**

During its second term as President of the ECO Council, Portugal chaired the two annual meetings, as well as the performance evaluation of the Director of the Office and the monitoring of the Office's functioning. In addition to monitoring the usual matters of financial management and human resources, ANACOM was involved in the process of recruiting a new international expert.

In September, following ANACOM's proposal, a Council was held electronically, with the aim of testing the possibility of reducing the number of physical meetings, and so contribute to the objective of carbon neutrality, as well as cost reduction. Despite some technical difficulties, it was decided that, unless the agenda includes confidential, sensitive or controversial matters, the Council will preferably meet remotely.

18.2.2.3. Radio Equipment Directive Compliance Association (REDCA)

In 2019, ANACOM took part in the activity of the Radio Equipment Directive Compliance Association (REDCA), an association formed by notified bodies, regulatory authorities, laboratories, equipment manufacturers and European Commission representatives in this area; its mission is to discuss technical issues and production of technical guides for the verification of compliance of equipment covered by the current R&TTE Directive and future Radio Equipment Directive (RED).

Of note is the question of whether or not cochlear implants fall within the scope of RED and, in the case that they are considered as being within its scope, which standards should apply to these devices (the EMC Directive applied previously).

18.2.2.4. European Space Agency (ESA)

In 2019, the national delegation to the Telecommunications (JCB) and Satellite Navigation (PB-NAV) committees of the European Space Agency (ESA), comprising ANACOM staff, attended 3 meetings of these Committees, addressing and discussing the following issues:

- Programmatic or budgetary changes to the various programmes of Advanced Research in Telecommunications Systems (ARTES), amendments to the implementing rules, requests for transfer of funds between programmes or additional allocation of funds to new initiatives of the various Member States, draft proposals for programmes still in the embryonic stage, as well as Reports on the state of progress of each of the Programmes.

- Development and management of GALILEO and EGNOS satellite navigation programmes. This responsibility involves the creation and exploitation of research initiatives and projects, and the development of programmes for the evolution of future generations of both GALILEO and EGNOS.
- Management of national participation in the NAVISP Programme on innovative systems in the field of satellite navigation.
- Coordination with Agência Espacial Portuguesa (PT Space) in preparing the national proposal for financial subscription to the Telecommunications (ARTES) and Satellite Navigation (NAVISP) Programmes that took place at the ESA inter-ministerial meeting in November.

18.2.2.5. North Atlantic Treaty Organization (NATO)

In 2019, ANACOM participated in the two meetings of the NATO C3B⁶³ CaP3⁶⁴ group; this group was set up to secure sufficient spectral resources to (i) ensure that NATO military forces have access to the spectrum required to accomplish their mission; (ii) harmonise military usage of radio frequencies between NATO allies; and (iii) cooperate with EAPC/PfP countries seeking identical use of the radio spectrum.

In 2019, the group completed NATO's preparation for WRC-19, having reviewed and agreed on the proposed NATO position submitted to CaP3 for each of the items on the WRC-19 agenda.

A number of other topics of civil/military interest were discussed: availability of the 4.8-4.99 GHz band for International Mobile Telecommunications (IMT) and the 26 GHz band for 5G; interference with high frequency (HF) maritime communications from over-the-horizon (OTH) radars; unmanned aerial vehicles (UAVs) on Mobile/Fixed Communications Network (MFCN) bands; the need to review the current NATO Joint Civil/Military Frequency Agreement (NJFA 2014) following the deliberations of WRC-19; and the need to develop a similar Sharing Agreement that covers the conditions for spectrum use during states of emergency and in times of crisis or war.

⁶³ Consultation, Command and Control Board.

⁶⁴ Civil/Military Spectrum Capability Panel.

19. INSTITUTIONAL AND TECHNICAL COOPERATION

19.1. Bilateral cooperation

- **Bilateral cooperation with Belgium – BIPT**

In 2019, a bilateral meeting was held to discuss issues related to regulatory activity.

- **Bilateral cooperation with Spain – CNMC**

In April 2019, a high-level bilateral meeting took place with ANACOM's Spanish counterpart; issues were addressed related to analysis of the principal developments in the sector in both countries, such as universal service, national roaming, contract lock-in periods, numbering, mobile coverage, revision of the postal directive, access to the postal network and universal postal service.

- **Cooperation with Slovakia – RÚ**

Following a request from the Slovak regulator (RÚ) for a technical mission to ANACOM in November, issues were addressed related to the legal framework and implementation of the EECC transposition process, technical regulation of the sector, single point of infrastructure information and infrastructure information system, economic regulation of markets and co-investment.

- **Bilateral cooperation with Georgia**

Following a cooperation action led by the World Bank, in February, an ANACOM technician visited Tbilisi to give a technical development session on sharing passive infrastructure and broadband strategy.

- **Bilateral cooperation with Italy - AGCOM**

A bilateral meeting was held to discuss issues related to regulatory activity.

- **Bilateral cooperation with Hungary – NMHH**

Within the specific context of spectrum monitoring and control, technical actions were also carried out with the Hungarian regulator (NMHH), with programmes which entail practical training/implementation of different approaches and methodologies for common problems.

- **Bilateral cooperation with Poland – UKE**

A technical mission to Poland was undertaken in November, in which topics related to spectrum management, in particular 5G and spectrum monitoring, regulation and the development of bilateral relations were addressed.

- **Miscellaneous bilateral cooperation (questionnaires)**

ANACOM responded to 11 questionnaires sent directly or indirectly by ministries or permanent representations of European countries to the European Union (Croatia, Ireland, Bulgaria, Czech Republic, Latvia).

- **Bilateral cooperation with Angola – INACOM**

The head of INACOM's Market Regulation and Universal Service Department visited Lisbon in May and took part in a number of working sessions. A range of topics were addressed, including universal service, net neutrality and fixed and IP interconnection, analysis of broadband and circuit markets, litigation and administrative offences. INACOM's representative also participated in the ANACOM Conference "The challenges of the digital society" that took place at FPC.

At the request of the ITU and following an invitation from INACOM, ANACOM took part in a training session on statistical indicators for information and communication technologies (ICT), which took place in March in Luanda. The aim of this session was to equip market players with information on how to respond to requests for statistical indicators requested by regulators and, indirectly, by the ITU, and also to analyse methods for obtaining comparable, reliable and robust ICT information.

In November, ANACOM received a mission from the Statistics and Consumers Department of INACOM, comprising a two-day working meeting on ANACOM's consumer relationships and on complaint handling (including the Consumers' Website).

- **Bilateral cooperation with Brazil – ANATEL**

In September, ANACOM hosted the XIX ANATEL/ANACOM bilateral meeting where the two regulators presented the main regulatory measures adopted in 2018. Experiences were also exchanged on topics related to consumer protection, including the handling of complaints by the regulator and by operators; data protection, telemarketing and unsolicited calls (from call centres), as well as transparency in the offer and the cancellation of contracts. Also in the context of consumer issues, topics were addressed such as 5G and the new business models emerging from 5G, along with the consequent challenges for the regulator, which will need to be able to anticipate these challenges in order to ensure consumer rights are properly protected.

Other matters covered were net neutrality; security and cybersecurity, especially in terms of the regulatory framework, regulations, and other technical aspects; infrastructure and remuneration for its use; and the rules governing ITED and ITUR.

Finally, the actions to be developed following this bilateral meeting were defined, with the identification of themes and the creation of joint work teams, and discussions were held on ARCTEL and on the next bilateral meeting to be held between the two regulators.

In December, a video conference was held between technical staff from the two regulators, covering topics such as:

- Structuring and storage of measurement data;
- Development of alternative solutions within the scope of spectrum monitoring;
- Sharing the experience of the “pilot” in the migration of DTT in Portugal: communication and image, use of call centres and management of teams on the ground.

- **Bilateral cooperation with Cabo Verde - ARME**

In January, a meeting was held in Cabo Verde between the Chairs of ANACOM and ARME; a new cooperation protocol was concluded between the two institutions and a set of initiatives on exchanges and experience sharing was agreed upon for implementation in the near future.

Following a meeting with ARME in February, areas of cooperation were identified including the training of ITED/ITUR technicians, with the creation of trainer grants; as well as the

design of a Centralized Information System; in this context, a series of videoconferences was held (three in March and two in August and November).

A number of meetings were held throughout 2019 with ARME to share ANACOM's experience in different areas: Internet access, analytical accounting, infrastructure register, costing models, spectrum inspection and procedural regime in Portugal.

- **Bilateral cooperation with Guinea-Bissau – ARN-TIC**

In October, an ARN-TIC mission was conducted in which bilateral/multilateral relations with regulatory bodies and various entities (PALOP, CPLP, ARCTEL, European Union, among others) were addressed. Support for the ARCTEL Secretariat was another topic of the meeting.

- **Bilateral cooperation with Mozambique - INCM/ARECOM**

In April, three personnel from INCM/ARECOM visited Portugal to share experiences in the methodologies used in implementing and monitoring activity plans. In July, ANACOM received a ministerial delegation from Mozambique seeking information about the institutional model and architecture of regulation in Portugal. In November, another ARECOM delegation visited Portugal, attending presentations on how statistical data is collected, processed and published at ANACOM.

- **Bilateral cooperation with São Tomé and Príncipe – AGER**

In April, a meeting was held between the Management of AGER and the Chairman of ANACOM's Board of Directors where a new cooperation protocol was signed between the two regulators. In November, by videoconference at AGER's request, an exchange of information took place on issues of competition and market regulation, SMP, telecom customer lock-in periods, termination rates and unlocking of mobile terminals. In December, information on average call termination prices in Europe was shared (information from BEREC with benchmarking).

- **Bilateral cooperation with Timor-Leste – ANC**

In May, the Minister of Transport and Communications of Timor-Leste visited ANACOM to discuss the establishment of a partnership between the two regulators covering training and technical advice, and also to discuss the Portuguese regulatory framework for auctioning

radio spectrum licences (3G, 4G, 5G). Following this visit, an ANC mission is due to visit Lisbon in 2020, focusing on spectrum management and licensing, criteria for quality of service, interference analysis, spectrum costs and costs of telecommunications services.

- **Bilateral cooperation with China**

The Development Research Center of the State Council (DRC) of the People's Republic of China, a policy analysis unit that provides direct support to the Chinese Government, visited Portugal in September. The Chinese delegation visited a number of Portuguese organisations, including SEAC, the Ministry of Economy, COTEC Portugal, ACEPI and StartUp Portugal, with discussion of issues such as industry 4.0, the Digital Agenda, free flow of data and competition on platforms.

19.2. Multilateral cooperation

- **RIA - Regiões Insulares Atlânticas (Atlantic Island Regions)**

RIA 2019 (Exchange Meeting of Portuguese Speaking Communications Authorities) took place from 6 to 8 May 2019 in the Autonomous Region of Madeira. The meeting was attended by the regulators of Cabo Verde, Mozambique, Guinea Bissau and São Tomé and Príncipe, as well as ANACOM, who was responsible for organising the event.

The activity pursued by the Madeira delegation was discussed, along with the need to optimise resources to work in all areas, with emphasis on market surveillance and spectrum monitoring. In this context, the spectrum monitoring and control tool developed by ANACOM was presented (this tool is designed to assess the quality of coverage over smaller areas), along with the application developed by ANACOM for monitoring and quality of service.

At RIA 2019, topics that should be given special attention in the near future were also discussed and identified, such as the reduction of roaming call prices and cybersecurity.

Work continued with the various delegations on monitoring the implementation of spectrum monitoring actions on the ground, using a mobile station. A meeting also took place with the Regional Government of Madeira.

19.3. Cooperation at national level

- **Assembleia da República (Assembly of the Republic)**

In response to requests from Assembleia da República (Assembly of the Republic), ANACOM analysed and commented on the following legislative proposals:

- Draft legislation to approve the transparency rules applicable to private undertakings that provide legitimate representation of interests before public entities, and establishing a Transparency Register of Lobbying Bodies at Assembleia da República (Assembly of the Republic);
- Draft legislation to regulate the regime governing the exercise of functions by the holders of high-level political and public positions, their declarative obligations and the respective sanctioning regime.

It should also be noted that ANACOM, represented by its Chairman, appeared twice before Comissão de Economia, Inovação e Obras Públicas (Parliamentary Committee on Economics, Innovation and Public Works) to provide clarifications to Members of Parliament. In February, the parliamentary hearing focused on the quality of the universal postal service, as provided by CTT under the concession contract. ANACOM also explained the various proposals to amend sector legislation submitted to the Government and Assembleia da República (Assembly of the Republic). At the June hearing, ANACOM presented its 2019-2021 Activities Plan and provided clarifications on the regulation of the postal sector and the importance of the universal postal service.

- **Local Authorities**

During 2019, ANACOM provided a series of clarifications to local authorities regarding the legal regime applicable to TMDP - Taxa Municipal de Direitos de Passagem (Municipal Fee for Rights of Way). Whenever requested, ANACOM identified the companies offering publicly available electronic communications networks and services at a fixed location in their area and, on its website, ANACOM posted information provided by local authorities on the fee percentages applicable annually in the various municipalities.

In 2019, ANACOM also worked with the municipalities of Barcelos, Covilhã, Mora and Palmela in the preparation of municipal plans. It provided information related to the characterisation of radiocommunication infrastructure with a view to preparing the

respective PMEPC - Planos Municipais de Emergência e Proteção Civil (Municipal Emergency and Civil Protection Plans) or preparing REOT - Relatórios do Estado de Ordenamento do Território (Reports of the State of Territorial Planning).

- **AdC - Autoridade da Concorrência (Competition Authority)**

In 2019, and following requests from AdC, ANACOM submitted opinions on the following concentration operations:

- Acquisition of 51% of the share capital of Rangel Expresso by Correos Express Paquetería Urgente;
- Acquisition of exclusive control of Hispasat by Red Eléctrica Sistemas de Telecomunicaciones through the purchase of shares representing 89.68% of its share capital;
- Acquisition by MÁSMÓVIL IBERCOM and GAEA INVERSIÓN of joint control of Cabonitel and, indirectly, of the subsidiaries directly or indirectly owned by Cabonitel (Nowo Communications and Onitelecom – Infocomunicações) from Cabolink, a company indirectly owned by funds managed by KKR and Co. Inc.;
- Acquisition of direct exclusive control of La Poste and, subsequently, indirect exclusive control of CNP Assurances by Caisse des Dépôts et Consignations; and
- Acquisition of exclusive control over Grupo Media Capital SGPS by Cofina SGPS.

The opinions issued, pursuant to paragraph 1 of article 55 of [Law no. 19/2012 of 8 May](#) (Competition Law, in its current wording), refer to the operations in question insofar as they were notified to AdC and evaluate the impact of these operations on the electronic communications market.

- **DGC - Direção Geral do Consumidor (Directorate General for the Consumer)**

As central supervisory entity under [Decree-Law no. 7/2004 of 7 January](#) (e-commerce regime), and also as the authority with responsibility in the sector for oversight of the regime governing unfair commercial practices, ANACOM forms part of the CPC - Consumer Protection Network, set up under Regulation no. (EC) 2004/2006 of the European

Parliament and of the Council of 27 October 2004 (revoked and substituted in the meantime by [Regulation \(EU\) 2017/2394 of the European Parliament and of the Council of 12 December 2017](#) on cooperation between national authorities responsible for the enforcement of consumer protection laws. In Portugal, DGC - Direção Geral do Consumidor (Directorate General for the Consumer) is responsible for coordinating this network, in permanent liaison with the national authorities with responsibility at sector level.

In this context, as a national oversight body taking part in the CPC network, in 2019, ANACOM took part in the process of implementing Regulation (EU) 2017/2394, presenting contributions on a number of issues for this purpose at the request of DGC. ANACOM also participated in several meetings held within the scope of this network at national level.

- **Consumer Dispute Arbitration Centres**

On 24 July 2019 and under the provisions of Articles 4-A, 4-B and 6-B of [Law no. 144/2015 of 8 September](#) (current wording) ANACOM, ERSAR - Entidade Reguladora dos Serviços de Águas e Resíduos (Environment and Services Regulatory Authority for Water and Waste) and ERSE, as regulatory bodies with responsibility for essential public services and, within the scope of their respective powers, with responsibility for promoting alternative mechanisms of dispute resolution, concluded cooperation protocols with the seven Consumer Dispute Arbitration Centres. The protocols aim to provide the technical and financial support necessary for the operation of the centres within their respective sectoral spheres.

For preparation and negotiation of the protocols, the regulatory authorities and the arbitration centres concerned had the support of the DGC and Direção-Geral de Política de Justiça (Directorate General for Justice Policy), both with competence in the area of alternative dispute resolution.

The seven consumer dispute arbitration centres that concluded the cooperation protocols were as follows:

- Centro de Arbitragem de Conflitos de Consumo do Distrito de Coimbra;
- Centro de Arbitragem de Conflitos de Consumo de Lisboa;
- Centro de Informação, Mediação e Arbitragem de Consumo (Tribunal Arbitral de Consumo);

- Centro de Informação de Consumo e Arbitragem do Porto;
- Centro de Informação, Mediação e Arbitragem de Conflitos de Consumo do Algarve;
- Centro Nacional de Informação e Arbitragem de Conflitos de Consumo; and
- Centro de Arbitragem de Conflitos de Consumo do Ave, Tâmega e Sousa.

At the end of 2019, ANACOM visited all of these arbitration centres and carried out the first training session under the cooperation protocols, involving 34 trainees. The opportunity was taken to exchange experience and develop knowledge with a view to promoting the defence of the interests of users of electronic communications, as well as to compile information with a view to preparing the training plan for 2020.

- **Internet Governance Forum (IGF)**

ANACOM participated in the preparation of the Portuguese Initiative of the Internet Governance Forum, which took place at the University of Beira Interior in Covilhã. The national event resulted in the document “Messages from Lisbon”, which was presented at the 2019 Internet Governance Forum in Berlin in November.

- **Seismic detection using submarine cables**

ANACOM worked with Instituto de Telecomunicações (Telecommunications Institute), Instituto Português do Mar e Atmosfera (Portuguese Institute for Sea and Atmosphere) and Instituto D. Luiz, with a view to setting up a national consortium to establish a project for seismic detection using submarine cables (collection of real-time data for scientific studies, with the possibility of producing earthquake and tsunami alerts and warnings). The possibility of real-time environmental (climate change) and oceanographic measurements is also being considered.

20. ADVISING THE GOVERNMENT

20.1. Advising in international affairs

- **European Union - European Commission - WiFi4EU initiative**

At a national level and as part of its work assisting the Government in the area of communications, ANACOM continued to coordinate the WiFi4EU initiative, providing Portuguese municipalities and network installation companies with direct support by telephone and email (wifi4eu@anacom.pt). Updated information on the development of this initiative was also published on ANACOM's website.

Two calls were issued in 2019. In April (2nd WiFi4EU call), 143 Portuguese municipalities applied. As a result, 80 municipalities obtained vouchers with a total value of about 1.2 million euros. In September (3rd WiFi4EU call), there were 55 applications from Portuguese municipalities, of which 47 were awarded a voucher. In this way, from the total of 3 calls, 254 Portuguese municipalities have already received funds through this European Commission initiative for the installation of Wi-Fi in public places. The last call, scheduled for the 1st quarter of 2020, was postponed following the outbreak of the COVID-19 pandemic.

- **European Union - European Commission - Outermost Regions**

ANACOM participated in the European Commission exercise to monitor the strategy to support Europe's outermost regions. The first report on the implementation of this strategy is scheduled for spring 2020. In this context, information was made available on digital accessibility, specifically on the analyses of the broadband market and high-quality access market (markets 3a, 3b and 4) and the annual reassessment of the prices of CAM circuits (Mainland Portugal - Azores - Madeira circuits) and inter-island circuits.

- **EU legislative drafts with sector relevance**

At Council level, ANACOM participated in the negotiation of legislative proposals directly or indirectly related to the electronic communications sector. These proposals were analysed in the context of various Council working parties, such as "Justice and Home Affairs", "Competitiveness and Growth - Internal Market", "Consumer Protection and Information", "Transport - Intermodal Issues and Networks", and included:

- Proposal for a Regulation on preventing the dissemination of terrorist content online;
- Regulation on promoting fairness and transparency for business users of online intermediation services;
- Cooperative intelligent transport systems;
- Proposal for a Directive laying down harmonised rules on the appointment of legal representatives for the purpose of gathering evidence in criminal proceedings;
- Regulation on market surveillance and compliance of products;
- New Deal for Consumers;
- Proposal for a Directive of the Parliament and of the Council on the approximation of the laws, regulations and administrative provisions of the Member States as regards accessibility requirements for products and services (Accessibility Directive).

- **EU trade policy and foreign relations**

ANACOM also followed issues of EU trade policy and external relations, providing analysis and comments on the following processes:

- Proposed Declaration on the 3rd Eastern Partnership Ministerial Meeting on the Digital Economy, Bucharest, February;
- European Commission document on "Developing A Connectivity and Data Strategy for the Southern Mediterranean", discussed at the Ministerial Conference "Digital4Med - Towards a data driven economy and society in the Southern Mediterranean", held in Brussels in April;
- Telecoms Ministerial Summit (Southern European Union Countries Telecoms Minister Summit), held in Malta in October, to analyse the joint non-paper on the support of southern European countries for the sharing of good practices in the digital area;
- Draft text of the post-Cotonou Protocol, which will govern relations between the EU and the group of 79 African, Caribbean and Pacific countries after 2020;
- Draft EU-Chile Association Agreement;

- Initial proposal for US negotiating objectives - EU trade agreement.

As regards Brexit, ANACOM provided information for the document "Questions & Answers - The rights of British citizens in Portugal after the United Kingdom leaves the European Union, in case of no agreement", prepared by DGAE/MNE. Meanwhile, information was updated on the implementation of contingency measures at national level, especially as under EU legislation, as well as those set out in [Law no. 27-A of 28 March 2019](#), which approves contingency measures to be applied in the event of the United Kingdom leaving the European Union without an agreement.

- **Bilateral cooperation**

Within the framework of advising the government and within the scope of bilateral technical cooperation, ANACOM undertook analysis, issued opinions and, when warranted participated, in the context of the following issues/events:

- XXX Spanish-Portuguese Summit, specifically on the "Common Cross-Border Development Strategy and Action Plan 2019-2020";
- NATO-NCI Agency, regarding the draft International Agreement on the legal regime applicable to Academia de Oeiras, as well as other structures of this Portugal-based NATO Agency.
- meeting of the 5th Portugal-USA Trade and Investment Committee;
- Draft Portugal-Russia Memorandum of Understanding on Roaming Tariffs.

ANACOM also collected and sent information to the Government, and also in response to specific requests from its counterparts, to support visits/reception by the State, relating to: Argentina, Brazil, Cabo Verde, China and the Administrative Region of Macau, Egypt, United States of America, India, Mozambique and Paraguay.

- **Multilateral cooperation**

Responding to a request from Instituto Camões, information was collected and sent about ANACOM's development financing activities.

As regards the Meeting of CPLP Communications Ministers and the CPLP Digital Agenda, ANACOM was present at the three meetings of the Focal Points of the Meeting of CPLP Communications Ministers (February and March in Lisbon, May in Fortaleza and November in Lisbon). The main objective of these meetings was to discuss the proposed strategy for the implementation of the Digital Agenda for the CPLP to be submitted for approval at the next Meeting of CPLP Communications Ministers to be held in 2020.

20.2. Assistance to Government in national matters

20.2.1. Provision of the universal postal service subsequent to the current concession

The Universal Postal Service Concession contract, concluded between the Portuguese State and CTT, expires on 31 December 2020. *Lei Postal* (Postal Law) establishes that, subsequent to that date, provision of the universal postal service may be ensured through the following mechanisms:

- a) efficient market operation, under the individual licensing regime; and/or
- b) designation of one or more postal service providers to provide different elements of the universal postal service or to cover different areas of the national territory (in which case the designation will take the form of concession contract).

As part of its work regulating the communications sector and assisting the Government in the field of communications, throughout 2019, ANACOM was engaged in the question of universal postal service provision subsequent to 31 December 2020. As part of this work, ANACOM drafted a memorandum (sent to the Government on 22 August) setting out the main topics which, in its opinion, required reflection and development, entailing matters within the competence of the Government (such as, for example, the need to designate universal service providers and the respective designation procedure) and the competence of ANACOM (such as the specification of quality of service obligations and pricing), while identifying lines of action that, in ANACOM's opinion, should be pursued.

One of these actions consisted of a public consultation on the future of the universal postal service, to collect contributions from the sector and society in general, especially on the terms and conditions to be associated with provision of the universal service, on the specifications of the universal service, on the necessity of designating providers for its

various components and on the interest of postal service providers in undertaking provision of the universal service. This consultation would be important as a means of reflection on the options to be taken.

In this context, at the request of the Government, and as suggested by ANACOM, a public consultation was prepared and was opened on 26 November 2019. ANACOM was also charged by the Government with issuing the final report with a summary of the positions received once the consultation was concluded. This was a joint public consultation held by the Government and ANACOM, given the division of responsibilities defined in the national legal system, covering matters within the competence of the Government and ANACOM, such as those mentioned above.

The public consultation closed at the end of December 2019 and the procedures associated with it were to be concluded in 2020. In this context, on 13 March 2020, ANACOM published the contributions received along with the public consultation report, which sets out the positions which ANACOM saw fit to take the contributions received and sets out ANACOM's recommendations on issues under Government competence.

20.3. Other activities in advising the Government

- **Analysis of legislative drafts**

In response to requests from the Government, in particular from the Secretary of State for Infrastructure, the Secretary of State for Consumer Protection and the Secretary of State for Civil Protection, ANACOM examined and commented on the following legislative drafts:

- Draft decree-law, which institutes the *Sistema Nacional de Monitorização e Comunicação de Risco, de Alerta Especial e de Aviso à População* (National Risk Monitoring and Communication, Special Alert and Population Warning System), resulting in [Decree-Law no. 2/2019 of 11 January](#);
- Draft decree-law establishing the regime governing the availability and disclosure by suppliers of goods and providers of services of telephone numbers for the purpose of allowing contact with the public within the scope of their commercial activities. The intention is that the telephone numbers used for contacts between suppliers of goods/services and consumers within the scope of legal consumer

relations cannot be from numbering ranges with prices in excess of the base tariff applicable to telephone calls made to a fixed geographic or mobile telephone line.

- Draft Law 103/XIV/1 presented by the "Os Verdes" parliamentary group, on the numbering ranges to be used in the context of providing customer services by telephone to consumers;

- **Preparation of pre-draft legislation**

Pre-draft legislation amending *Lei das Comunicações Eletrónicas* (Electronic Communications Law), *Lei Postal* (Postal Law), *Regime Quadro das Contraordenações do Sector das Comunicações* (Framework Regime of Communications Sector Offences) and other legislation with an impact on the sectors regulated by ANACOM

Within the scope of its powers to assist the Government, ANACOM prepared:

- a proposal to amend *Lei das Comunicações Eletrónicas* (Electronic Communications Law), *Lei Postal* (Postal Law), *Regime Quadro das Contraordenações do Sector das Comunicações* (Framework Regime of Communications Sector Offences) and other legislation with an impact on the sectors regulated by ANACOM, which it submitted to the Government and Assembleia da República (Assembly of the Republic) in February 2019;
- a proposal to amend *Lei Postal* (Postal Law) aimed exclusively at establishing a sanctioning regime applicable to [Regulation \(EU\) 2018/644 of the European Parliament and of the Council of 18 April 2018](#) on cross-border parcel delivery services, which it submitted to the Government in July 2019;
- a proposal to amend *Lei Postal* (Postal Law) aimed exclusively at establishing a sanctioning regime applicable to [Regulation \(EU\) 2015/2120 of the European Parliament and of the Council of 25 November 2015](#), which lays down measures concerning open internet access, which it submitted to the Government in June 2019.

Pre-Draft Administrative Rule to offset costs incurred due to changes to DTT and in the 1800 MHz band

Following a prior hearing of interested parties, conducted at the request of the SEI, ANACOM reformulated the preliminary draft to provide for compensation of costs incurred due to the alteration of the radio channels used in the DTT network, resulting in [Administrative Rule no. 587/2019 of 6 September](#).

Pre-draft amendment to Administrative Rule no. 1473/B-2008

Following the 27 measures presented by the “Working Group on Measures for the protection and resilience of electronic communications infrastructure”, ANACOM sent the Government a preliminary draft amendment to Administrative Rule no. 1473/B-2008 of 17 December, proposing a reduction in the fees payable per radio link when the location of at least one fixed station is in a parish that has a higher level of susceptibility to fire or other types of natural disaster.

- **National strategy for the mooring of submarine cables in Portugal**

Pursuant to its statutes, ANACOM assists the Government with respect to submarine cables. In this context, and in view of the fact that the current submarine cable system providing the connection between Mainland Portugal and the autonomous regions of the Azores and Madeira, and between these autonomous regions, is reaching the end of its useful life (by 2024 and 2025), ANACOM took an active role in defining a national strategy for mooring submarine cables in Portugal. This strategy seeks to guarantee future internal connectivity (territorial cohesion) and external connectivity (international access), through the establishment of a platform that enhances provision of connectivity and also supports the offer of new services such as:

- seismic detection to issue alerts and warnings and to collect geophysics data;
- environmental measurements for scientific studies (oceanography, environment and climate change);
- detection of underwater activity;
- electronic portal for licensing submarine systems in the national exclusive economic zone (EEZ);
- protection and supervision of submarine cables in the EEZ;
- transmission of data for scientific projects and scientific networks;
- data storage (data centres);

- interconnection between operators and between international systems.

In this context, ANACOM chaired a working group, set up by order of SEAC. The working group analysed the establishment of a new CAM Ring for the implementation of an Atlantic CAM Platform, estimating that, in its entirety (including submarine cable stations and adaptation to provide complementary services), the project will represent an investment of around 119 million euros.

A report was prepared and delivered to the Government on 23 December 2019, including 12 recommendations, with a timetable based on the commencement of operations of the new CAM Ring within the established deadline (2023) and continuing for 25 years.

In this regard, it should also be noted that, in February, ANACOM presented the Atlantic CAM Platform at EMEA Submarine Networks in London, while engaging with the International Cables Protection Committee (ICPC), with JTF SMART Cables (ITU, WMO, UNESCO- IOC) and the European Union. ANACOM also presented the topic at the extraordinary session on broadband infrastructure in the CPLP and at the Connecting Europe Facility - CEF2, both in November.

In this same regard, ANACOM engaged in direct contacts with FCT - Fundação para a Ciência e a Tecnologia (Foundation for Science and Technology), with the Armed Forces Chief of Staff, with the European Union, with Instituto de Telecomunicações (Telecommunications Institute), with IPMA, with Instituto Dom Luiz, with MNE, with manufacturers and suppliers, as well as with operators, owners of submarine systems and promoters of new submarine systems.

21. LITIGATION

In 2019, there was a continued requirement for ANACOM to intervene at the level of litigation, both because a number of legal processes were still pending (many with developments during the year), and also because new cases were brought during the year.

The summary below outlines the most important points in the area of judicial activity along with reference to the Administrative appeals and administrative processes which have been filed and which are considered relevant to mention. This chapter does not cover intervention in the judicial phase of infringement proceedings (such cases are detailed earlier in this report – see specific chapter on this matter).

21.1. Administrative litigation

In terms of administrative litigation in 2019, ANACOM intervened in five new judicial cases where it was cited and accompanied 53 case which were ongoing.

The new processes are listed below:

- an application for a protective measure presented by Rádio Voz do Neiva - Onda de Vila Verde, CRL [brought against ERC and ANACOM], seeking temporary suspension of the effectiveness of Determination ERC/2019/89 (LIC-R) of 7 March 2019 issued by the ERC Regulatory Council (whereby the request for revocation of Determination 153/LICENÇA-R/2009, presented by the Applicant on 19 February 2019, was rejected). The protective measure sought by the applicant also included a temporary order preventing ANACOM from proceeding with the “cancellation of the radio frequency”, as a consequence of Determination ERC/2019/89 (LIC-R);
- administrative action brought by MEO, seeking declaration of ANACOM's determination of 22 November 2018 as void or annulled. The determination in question approved the decision "Assessment of the price charged by MEO for providing the service of encoding, multiplexing, transmission and broadcasting of free unrestricted access television channels by the DTT network (MUX A)";
- administrative action brought by CTT challenging the determination of ANACOM's Board of Directors of 28 December 2018 which approved the final decision on the “Results of the audits performed on the quality levels of the universal postal service

in 2016 and 2017"

- administrative action brought by NOS, seeking that the right allocated to DENSE AIR Portugal (Right of Use of Frequencies ICP-ANACOM no. 04/2010 of 5 August 2010 and respective annotations) be declared expired, or otherwise, in the event that the Court deems that it lacks powers for this purpose, that ANACOM be ordered to declare its expiry within 10 days (with other requests being submitted for consideration in alternative and in the event that the previous requests are rejected); and
- administrative action brought by Vodafone, filing an identical request to the action mentioned in the previous point.

During the year under review, six pending special administrative actions were concluded:

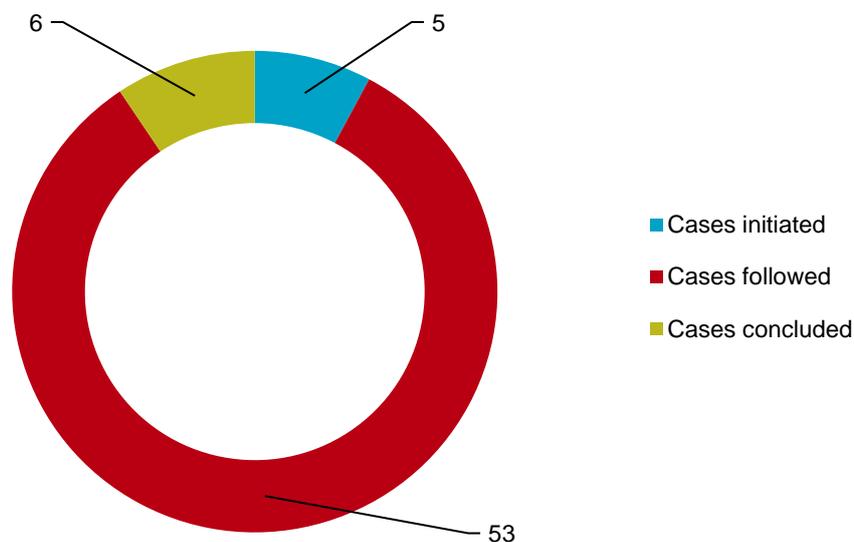
- a special administrative action brought by then PT Comunicações (PTC) – currently MEO - to challenge the determination of ANACOM's Board of Directors of 8 March 2007 on "Undue terminations by PTC of pre-selection services". The ruling given was favourable to ANACOM.
- a special administrative action brought by PTC challenging ANACOM's determination of 25 July 2007 concerning the "Imposition of specific obligations on PTC and Tele2 within the scope of pre-selection" (which had been appended to the above action). The ruling was favourable to ANACOM;
- a special administrative action brought by ORA TELECOM - Comunicações Unipessoal to challenge the determination of ANACOM's Board of Directors of 4 April 2007 on the creation of the "761" and "762" numbering ranges ("Characteristics of the codes '761' and '762' of the National Numbering plan for the provision of Flat-Rate per call services and the definition of specific conditions for the granting of rights to use the numbers of such codes"). This action was declared extinct with no need to proceed to judgment;
- a special administrative action brought by Portugal Telecom SGPS, filing a claim of bias against a then member of ANACOM's Board of Directors, seeking a ruling barring this member from intervening in the procedure in respect of then Market 16 and annulment of all prior procedural acts in which the member intervened. The

court dismissed the action;

- a special administrative action brought by then TMN - Telecomunicações Móveis Nacionais, challenging the determination of ANACOM's Board of Directors of 17 January 2008 regarding the "Rights of use of frequencies in the 450-470 MHz band". The case was dismissed following withdrawal of the application; and
- a special administrative action brought by Vodafone, seeking that ANACOM be required to review its decision of 14 January 2009 on the definition of product and geographic markets, assessment of SMP and imposition, maintenance, amendment or withdrawal of regulatory obligations in markets for wholesale (physical) network infrastructure access at a fixed location and wholesale broadband access. In this case, the request was also withdrawn.

The following graph illustrates the activity referred to:

Graph 35. Administrative litigation

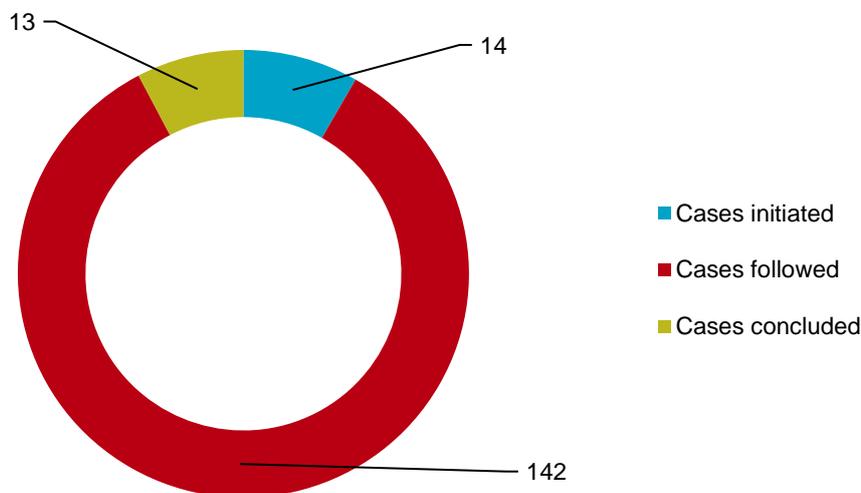


Source: ANACOM

21.2. Tax litigation

In terms of tax litigation, ANACOM was a party in 14 new cases where it was cited, and followed 142 cases that were ongoing. Three cases challenging fees and ten cases of opposition to tax foreclosure were considered closed.

Graph 36. Tax litigation



Source: ANACOM

The 14 new cases are divided between appeals contesting fees due in respect of the exercise of the activity of provider of electronic communications networks and services and fees due in respect of the exercise of the activity of provider of postal services, brought by the following undertakings:

- NOWO (2 cases);
- NOS Madeira – Comunicações (1 case);
- NOS Açores – Comunicações (2 cases);
- Vodafone (1 case);
- NOS (1 case);
- ONITELECOM (1 case);
- DACHSER Portugal, Sociedade Unipessoal (1 case);
- DHL Express Portugal (1 case);
- General Logistics Systems Portugal (2 case);
- UPS of Portugal – Transportes Internacionais de Mercadorias (1 case); and
- TRANSPORTA – Transportes Porta a Porta (1 case).

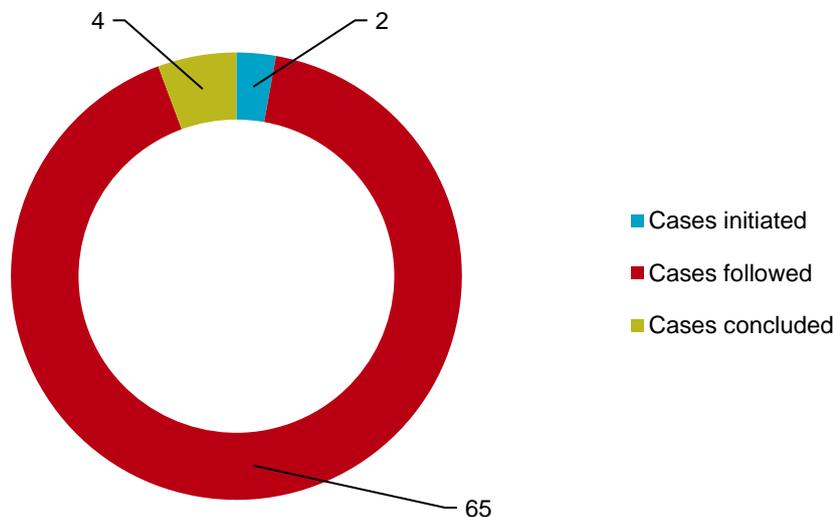
Of the 133 ongoing cases, there were 112 challenges to the settlement of fees (due in respect of the exercise of the activity of provider of electronic communications networks and services, and the exercise of the activity of provider of postal services) and 21 challenges to the settlement of the extraordinary contribution to the Universal Service Compensation Fund.

21.3. Civil litigation

In terms of civil litigation, in 2018, ANACOM was party to 2 new cases (one insolvency proceeding and one action for a declaration of sentence). ANACOM followed and intervened, as necessary, in 65 ongoing cases. During the year, 4 processes of this nature were considered to have closed.

The following graph illustrates this information:

Graph 37. Civil litigation



Source: ANACOM

21.4. Administrative appeals and others

In 2019, an administrative claim in respect of taxation was filed by DACHSER Portugal, Sociedade Unipessoal.

A further application was presented by MEO seeking that the legality of a decision (of an administrative nature) be submitted to scrutiny by the Arbitration Court, as well as to grant an arbitration commitment - which was assessed and decided.

21.5. Administrative procedures

In this context, note is made of two administrative procedures that were heard (and concluded) during the year, both seeking the correction of situations of verified non-conformities. An interim dispute settlement procedure was also conducted in the field of electronic commerce.

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