

**DECISION ON THE
DESIGNATION OF THE 700 MHz BAND FOR TERRESTRIAL ELECTRONIC
COMMUNICATIONS SERVICES**

**LIMITATION ON THE NUMBER OF RIGHTS OF USE FOR FREQUENCIES
TO BE ALLOCATED IN THE 700 MHz, 900 MHz, 1800 MHz, 2.1 GHz,
2.6 GHz and 3.6 GHz BANDS**

DEFINITION OF THE RESPECTIVE ALLOCATION PROCEDURE

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Contents

1. Framework.....	1
1.1. Spectrum planning and management for 5G	1
1.2. Public consultation of the national market.....	3
1.3. Developments following the market consultation.....	4
2. Bands to be made available to the market	4
2.1. State of play of bands to be made available to the market	5
2.1.1. 700 MHz core band (703-733 MHz and 758-788 MHz).....	5
2.1.2. 900 MHz band (880-915 MHz / 925-960 MHz).....	7
2.1.3. 1800 MHz band (1710-1785 MHz/1805-1880 MHz).....	9
2.1.4. 2.1 GHz band (FDD) (1920-1980 MHz / 2110-2170 MHz)	10
2.1.5. 2.6 GHz band (2500-2690 MHz).....	11
2.1.6. 3.6 GHz band (3.4-3.8 GHz).....	12
3. ANACOM's duties and powers.....	14
4. Allocation procedure and technical conditions for use of available frequencies....	17
4.1. Allocation procedure	17
4.2. Size of lots to be made available	19
4.3. Technical conditions associated with the use of frequencies.....	20
4.3.1. Conditions for the 700 MHz core band (703-733 MHz / 758-788 MHz) ..	21
4.3.2. Conditions for the 900 MHz and 1800 MHz frequency bands	22
4.3.3. Conditions for the 2.1 GHz frequency band	22
4.3.4. Conditions for the 2.6 GHz frequency band	22
4.3.5. Conditions for the 3.6 GHz frequency band	22
5. Conditions associated with the use and allocation of RUF	24
6. Schedule.....	Error! Bookmark not defined.
7. Subject-matter and deadline for consultation	25
8. Decision.....	27

1. Framework

1.1. Spectrum planning and management for 5G

As part of the European Union (EU) strategy for the Single Digital Market¹, the European Commission (EC) adopted Implementing Decision (EU) 2016/687² of 28 April (Decision 2016/687/EU), harmonising technical conditions for the availability and efficient use of the 694-790 MHz frequency band (700 MHz band) for terrestrial systems capable of providing wireless broadband electronic communications services (TECS).

As a result of this decision, the 700 MHz band was thus considered to be particularly suitable for ensuring the provision of broadband services in rural areas, the need for a coordinated introduction at EU level, to encourage investment in high-speed broadband networks and to facilitate the development of advanced digital services being emphasized.

Subsequently, in November 2016, the EU Radio Spectrum Policy Group (RSPG) published its first “*Opinion on spectrum-related aspects for next-generation wireless systems (5G)*”³, which highlights elements that are considered to be strategic for the quick launch of services based on 5G systems.

This gives the first indication of those that are considered to be the 5G pioneering bands: the 700 MHz band, suitable to ensure the transition to the next network generation and coverage in different areas, the 3.6 GHz band (3.4-3.8 GHz), suitable to provide the necessary capacity for services based on 5G systems, and the 26 GHz band (24, 25-27.5 GHz), which allows ultra-fast capacity to be provided.

It is within this framework that, on 17 May 2017, Decision (EU) 2017/899 of the European Parliament and of the Council, on the use of the 470-790 MHz frequency band in the EU⁴

¹ Available at <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1447773803386&uri=CELEX%3A52015DC0192>.

² Adopted under Decision No 676/2002/EC of the European Parliament and of the Council, of 7 March 2002, on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision). Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32016D0687>.

³ English version available at: http://rspg-spectrum.eu/wp-content/uploads/2013/05/RPSG16-032-Opinion_5G.pdf.

⁴ Available at http://eur-lex.europa.eu/legal-content/PT/TXT/?uri=uriserv:OJ.L_.2017.138.01.0131.01.POR&toc=OJ:L:2017:138:TOC.

⁵, is adopted, which provides that “By 30 June 2020, Member States shall allow the use of the 694-790 MHz («700 MHz») frequency band for terrestrial systems capable of providing wireless broadband electronic communications services only under harmonised technical conditions established by the Commission pursuant to Article 4 of Decision No 676/2002/EC.” and that, on 4 December 2017, the EU Telecommunications Ministers sign a Declaration that includes the Roadmap for the introduction of 5G in Europe⁶, which reiterates that the allocation of the 700 MHz band should take place in most Member States (MS) by 2020 and urges EC to take the necessary steps for the technical harmonisation of the 3.6 GHz and 24.25-27.5 GHz bands in 2019, on the basis of the conclusions of the RSPG work.

In detail, and relevant to the pursuit of 5G objectives, Ministers committed themselves to that roadmap and called upon EC to take the necessary steps to achieve the following goals:

- 2020: 700 MHz band assigned in most MS;
- 2020: 5G in at least one city per MS;
- 2022: Availability of the 700 MHz band in all MS;
- 2018-2025: roll-out of 5G networks/infrastructures;
- 2025: “Gigabit Society” (5G in major cities and along major transport routes).

In this context, the European Electronic Communications Code (EECC), of 11 December, adopted by the European Parliament and the Council⁷, provides in article 54 thereof for a coordinated timing of allocations for specific 5G frequency bands, establishing that, by 31 December 2020, MS shall, where necessary to facilitate the roll-out of 5G, take the appropriate measures to:

- a) *Reorganise and allow the use of sufficiently large blocks of the 3.4-3.8 GHz band;*
- b) *Allow the use of at least 1 GHz of the 24,25-27.,5 GHz band, provided that there is clear evidence of market demand and of the absence of significant constraints for migration of existing users or band clearance.*

At national level, the *Agenda Portugal Digital*⁸ (the Portuguese Digital Agenda), approved

⁵ Corrigendum to the Decision: https://eur-lex.europa.eu/legal-content/PT/TXT/?uri=uriserv:OJ.L_.2018.184.01.0012.01.POR&toc=OJ:L:2018:184:TOC.

⁶ Available at https://www.mkm.ee/sites/default/files/8.a_b_aob_5g_roadmap_final.pdf.

⁷ The European Electronic Communications Code is available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32018L1972>.

⁸ Available at <http://www.portugaldigital.pt/index/>.

in 2012 and updated in 2015, integrates a set of objectives, namely involving the promotion of e-inclusion and the reinforcement of coverage and broadband access, among others, the targets are which are broadly in line with those defined in the scope of the roadmap for the introduction of 5G in Europe.

Most recently, the *Programa Nacional da Política de Ordenamento do Território* (PNPOT - the National Territorial Planning Policy Programme), updated by Law No 99/2019 of 5 September⁹, includes measures to strengthen broadband services at national level, especially in rural areas, and to develop networks to support wireless broadband electronic communications services, intended for the roll-out of 5G.

1.2. Public consultation of the national market

Bearing in mind the above-described context, *Autoridade Nacional de Comunicações* (ANACOM) launched in March 2018 a public consultation on the making available of the 700 MHz frequency band and of other bands that could be of interest where made available at the same time, namely: 450 MHz, 900 MHz, 1500 MHz, 1800 MHz, 2.1 GHz (TDD¹⁰), 2.6 GHz, 3.6 GHz and 26 GHz¹¹.

This consultation showed, as best described in the respective report¹², a special and urgent market interest in the 3.6 GHz band, a widespread interest in the allocation of the 700 MHz band, doubts having been raised on the migration date of the Digital Terrestrial Television (DTT) and the timely availability of equipment and/or roll-out of a sufficiently stable 5G ecosystem, which led some entities to argue that its allocation should only take place in 2020 or later, and the substantial, albeit cautious, interest in the 26 GHz band, given the uncertain outlines of its allocation.

As regards the 900 MHz, 1800 MHz and 2.6 GHz bands, they have generated widespread market interest, as they fall under the EC framework for the provision of terrestrial electronic communications services.

⁹ Available at <https://dre.pt/web/guest/home/-/dre/124457181/details/maximized>.

¹⁰ TDD – Time Division Duplex.

¹¹ Available at: <https://www.anacom.pt/render.jsp?contentId=1431843>.

¹² Available at <https://www.anacom.pt/render.jsp?contentId=1431846>.

1.3. Developments following the market consultation

Following the launch of the public consultation referred to in the previous paragraph, although before the publication of the respective report, ANACOM approved the national roadmap for the 700 MHz band¹³, which received the agreement of the then Secretary of State for Infrastructures.

This roadmap provides for the release of the 700 MHz frequency band, which implies the migration of digital terrestrial television (DTT), which has been operating in this band, to a new frequency band. According to the roadmap, the release of the band must start in the last quarter of 2019, which will allow the 700 MHz band to be allocated to electronic communications services by 30 June 2020.

ANACOM has recently approved Decision of 4 October 2019 on changes to the DTT network (MUX A) in the context of the release of the 700 MHz band, which includes the development plan and schedule¹⁴. As far as the schedule is concerned, the migration process must start between the third week of January 2020 and the first week of February, and end on 30 June of that year.

2. Bands to be made available to the market

Bearing in mind the above and weighing the positions expressed in the consultation carried out in 2018 and in the consultation to which the draft that preceded this decision was submitted, ANACOM considers it appropriate and proportional to make available, for applications within the scope of publicly available terrestrial electronic communications networks and services, in accordance with the principles of technological and service neutrality, the frequency bands indicated in **Table 1**:

Table 1. Frequency bands to be made available

Bands	Amount of spectrum
	2 x 30 MHz (FDD ¹⁵)
	2 x 5 MHz (FDD) + 2 x 3 MHz (FDD) + 2 x 1 MHz (FDD)
	2 x 15 MHz (FDD)

¹³ Available at <https://www.anacom.pt/render.jsp?contentId=1456507>.

¹⁴ Available at <https://www.anacom.pt/render.jsp?contentId=1493731>.

¹⁵ FDD – Frequency Division Duplex.

2.1 GHz	2 x 5 MHz (FDD)
	2 x 10 MHz (FDD) + 25 MHz (TDD)
	400 MHz (TDD)

2.1. State of play of bands to be made available to the market

2.1.1. 700 MHz core band (703-733 MHz and 758-788 MHz)

As mentioned above, the 700 MHz core band is covered by Decision 2016/687/EU, on the harmonisation of the 694-790 MHz frequency band for terrestrial systems capable of providing wireless broadband electronic communications services and for flexible national use in the EU.

According to article 3, paragraph 1, of Decision 2016/687/EU, MS shall “*designate and make available the 703-733 MHz and 758-788 MHz frequency bands, on a non-exclusive basis, for terrestrial systems capable of providing wireless broadband electronic communications services in compliance with the parameters (...)*” identified in the Annex to the Decision.

At national level, the 694-790 MHz frequency band is allocated in the NTFA for the broadcasting service, and is currently used for DTT, broadcasting aids and license-exempt microphone transmitters ¹⁶.

In order to make the 700 MHz core band available for terrestrial electronic communications services (TECS), it is necessary to change its designation in the NTFA, its use being subject to the allocation of rights to use frequencies (RUF) just like other bands designated for these services.

In this context, it is vital to release the use of the DTT network (which is in an adjacent position to the first 5 MHz block in the 758-788 MHz spectrum band) and of broadcasting aids, which shall be the subject of separate decisions.

¹⁶ As indicated in the table with information on station-license-exempt applications, available at https://www.anacom.pt/streaming/IsencaoLicencaEstacao.pdf?contentId=1188499&field=ATTACHED_FILE.

As regards microphone transmitters and in the light of the results of the CEPT Reports 53¹⁷ and 60¹⁸, it was found that making available the 700 MHz core band for TECS makes it impossible for the operation of these equipment/applications in this core band to continue.

Until a decision¹⁹ on the designation of the 694-703 MHz and 733-758 MHz frequency bands is taken, under Decision 2016/687/EU, these equipment/applications may continue to operate under the current conditions. However, as of 30.06.2020, the use of these bands by microphone transmitters will be subject to the technical conditions defined in Decision 2016/687/EU.

It should be noted, however, that microphone transmitters may continue to operate between the 470 MHz and 694 MHz frequency bands, under the same technical conditions as today.

In the light of the above, the NTFA requires the following amendments:

- a) in the Table of Allocations (corresponding to the “Radiocommunications and Applications” section), the designation of the 703-733 MHz / 758-788 MHz band for TECS;
- b) in the Reservations section, provision for making available the 703-733 MHz/758-788 MHz band, with the indication of the amount of spectrum, geographical validity and the allocation procedure (see point 3.1 below), while the requirement for the allocation of RUF is maintained;
- c) in the Station Exemptions²⁰, amendment of the table containing the information on station-licence-exempt applications so as to exclude the 703-733 MHz / 758-788 MHz band from use by microphone transmitters as from 30 June 2020; indication that, without prejudice to the Decision on the designation of these bands, the future use of the 694-703 MHz and 733-758 MHz bands remains subject to technical conditions set out in Decision 2016/687/EU as from the same date.

¹⁷ European Conference of Postal and Telecommunications Administrations; report available at <http://www.ero-docdb.dk/Docs/doc98/official/pdf/CEPTREP053.PDF>.

¹⁸ Available at <http://www.ero-docdb.dk/Docs/doc98/official/pdf/CEPTREP060.PDF>.

¹⁹ The national choice referred to in that Decision will be dealt with in a separate procedure.

²⁰ Available at: <https://www.anacom.pt/render.jsp?categoryId=343582>.

2.1.2. 900 MHz band (880-915 MHz / 925-960 MHz)

This band (as well as the 1800 MHz band) is currently harmonised under Commission Decision 2009/766/EC of 20 October 2009, as amended by Commission Implementing Decision 2011/251²¹ (Decision 2011/251/EU) of 18 April, and as such it is designated in the NTFA Allocation Table for systems capable of providing TECS.

In addition, Commission Implementing Decision 2018/637/EU (Decision 2018/637)²², of 20 April, was adopted, and ANACOM is developing the necessary procedures to amend the NTFA accordingly, at the end of which the holders of rights to use frequencies in these bands will be allowed to use narrow-band IoT²³ systems, as set out in the titles they hold.

It is also worth noting that CEPT is currently carrying out studies to define technical conditions for the implementation of 5G systems in this band, which are expected to be completed in October 2020.

Thus, the current situation of the 900 MHz band is as follows, as described in **Table 2**:

Table 2. Current situation of the 900 MHz band

	100 kHz				100 kHz							
Up Link	880.0	885.0	885.0	890.0	890.1	895.1		898.1	905.9	905.9	913.9	915.0
LB [MHz]	5		5		5		3	7.8		8		1
Operator	Free		VODAFONE ²⁴		VODAFONE		F	NOS ²⁵		MEO ²⁶		F
Down Link	925.0	930.0	930.0	935.0	935.1	940.1		943.1	950.9	950.9	958.9	960.0
LB [MHz]	5		5		5		3	7.8		8		1
Operator	Free		VODAFONE		VODAFONE		F	NOS		MEO		F

After the public consultation referred to in Chapter 1.2, ANACOM examined the possibility of making additional spectrum available in this band, specifically that which had been previously used by 1st generation cordless telephones (CT1) - 914-915 MHz / 959-960 MHz.

²¹ Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011D0251>.

²² Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018D0637>.

²³ IoT: Internet of Things.

²⁴ Vodafone Portugal – Comunicações Pessoais, S.A. (VODAFONE).

²⁵ NOS Comunicações, S.A. (NOS).

²⁶ MEO – Serviços de Comunicações e Multimédia, S.A. (MEO).

In fact, following CEPT Decision ECC/DEC/(01)01²⁷, of 15 November 2001, which aimed “to reduce the use of CT applications to the necessary minimum before the end of 2008 and (...) to safeguard consumer interests and transparency for industry as well as retailers”, ANACOM amended the NTFA²⁸ in 2008, and this band is no longer identified for this type of equipment.

Having steps to assess the possible making available of CT1 equipment in the market been carried out, it was concluded that such equipment is not being marketed, so ANACOM considers that the 914-915 MHz / 959-960 MHz band (where unused 2x1 MHz exist) could be made available together with the spectrum currently available in the 900 MHz band.

As such, the following free spectrum exists:

- 2x5 MHz: 880-885 MHz / 925-930 MHz, which is identified in the NTFA reservations section for allocation to TECS, subject to the allocation of RUF of a national scope, although the respective allocation procedure has not yet been defined;
- 2x3 MHz: 895.1-898.1 MHz / 940.1-943.1 MHz, which is not identified in the NTFA reservations section;
- 2x1 MHz: 914-915 MHz / 959-960 MHz, which is not identified in the NTFA reservations section.

In the light of the above, the NTFA Reservations section must be amended to provide for the making available of the 895.1-898.1 MHz / 940.1-943.1 MHz and 914-915 MHz / 959-960 MHz frequency bands, the amount of spectrum, the geographic validity and the allocation procedure (see point 4.1 below) being indicated and the designation for TECS and the requirement for the allocation of RUF being maintained.

Taking into account the existence of several sub-bands and depending on the results of the respective allocation procedure, there may be operations, in particular those of new entrants, which may be dependent on the contiguity of the spectrum, and in order to maximise the value of that spectrum, a possible rearrangement of the 900 MHz band

²⁷ Available at <https://www.ecodocdb.dk/download/bac824b1-8c23/ECCDEC0101.DOC>.

²⁸ Available at <https://www.anacom.pt/render.jsp?categoryId=343582>.

may take place. Without prejudice, this rearrangement may also be promoted by current RUF holders in order to maximise the contiguity of the allocated spectrum.

2.1.3. 1800 MHz band (1710-1785 MHz/1805-1880 MHz)

This band (as well as the 900 MHz band) is currently harmonised under Commission Decision 2009/766/EC of 20 October 2009, as amended by Commission Implementing Decision 2011/251 (Decision 2011/251/EU) of 18 April, and as such it is designated in the NTFA Allocation Table for systems capable of providing TECS.

In addition, Decision 2018/637/EU was adopted, and ANACOM is developing the necessary procedures to amend the NTFA accordingly, at the end of which the holders of RUF in these bands will be allowed to use narrowband IoT systems, as set out in the titles they hold.

It is also worth noting that CEPT is currently carrying out studies to define technical conditions for the implementation of 5G systems in this band, which are expected to be completed by October 2020.

Thus, the current situation of the 1800 MHz band is as follows, as described in **Table 3**:

Table 3. Current situation of the 1800 MHz band

Up Link	1710	1730	1730	1750	1750	1770	1770	1785
LB [MHz]	20		20		20		15	
Operator	VODAFONE		NOS		MEO		Free	
Down Link	1805	1825	1825	1845	1845	1865	1865	1880
LB [MHz]	20		20		20		15	
Operator	VODAFONE		NOS		MEO		Free	

As such, there is 2x15 MHz of free spectrum (1770-1785 MHz / 1865-1880 MHz), which is identified in the NTFA reservations section for allocation to TECS, subject to the allocation of RUF of a national scope, although the respective allocation procedure has not yet been defined.

In the light of the above, the NTFA Reservations section must be amended to provide for the allocation procedure for this spectrum (see point 3.1 below).

2.1.4. 2.1 GHz band (FDD) (1920-1980 MHz / 2110-2170 MHz)

This band is currently harmonised in accordance with Commission Implementing Decision 2012/688/EU, of 5 November 2012²⁹, and, as such, it is designated in the NTFA Allocation Table for systems capable of providing TECS.

However, it should be taken into account that CEPT Report 72³⁰ of 5 July 2019, on the usage feasibility of this band for 5G, was concluded. After the adoption of the corresponding harmonisation Decision by the European Commission, its implementation at national level will be examined in a separate process, as it may involve several spectrum usage options that require a detailed analysis, in the light of the respective requirements and possible impacts on networks and services operating in this band and adjacent bands.

The current situation of the 2.1 GHz band is as follows, as described in **Table 4**:

Table 4. Current situation of the 2.1 GHz band (FDD)

Up Link [MHz]	1920	1940	1940	1955	1960	1980
LB [MHz]	20		15		5	20
Operator	VODAFONE		NOS		Free	MEO

Down Link [MHz]	2110	2130	2130	2145	2150	2170
LB [MHz]	20		15		5	20
Operator	VODAFONE		NOS		Free	MEO

After the public consultation referred to in Chapter 1.2, NOS submitted to ANACOM a request for the assignment of 2x5 MHz FDD (1955-1960/2145-2150 MHz), which were not covered by that consultation, and as such, unaware of whether other operators or any other entities had a real interest in this available (single) FDD carrier, ANACOM considered it appropriate, as set out in a Decision also adopted on this same date³¹, to include these 2x5 MHz available in this band (1955-1960/2145-2150 MHz) in the spectrum allocation procedure which is the subject-matter of this Decision, so as to allow NOS or other interested parties to acquire this spectrum in a transparent and non-discriminatory manner.

²⁹ Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32012D0688&qid=1570798827337&from=EN>.

³⁰ Available at https://www.ecodocdb.dk/document/category/CEPT_Reports?status=ACTIVE.

³¹ Available at www.anacom.pt.

As such, there is 2x5 MHz of free spectrum (1995-1960 MHz / 2145-2150 MHz), which is identified in the NTFA reservations section for allocation to TECS, subject to the allocation of RUF of a national scope, although the respective allocation procedure has not yet been defined.

In the light of the above, the NTFA Reservations section must be amended to provide for the allocation procedure for this spectrum (see point 3.1 below).

2.1.5. 2.6 GHz band (2500-2690 MHz)

This band is currently harmonised in accordance with Commission Decision 2008/477/EC³², of 13 June 2008 (Decision 2008/477/EC) , and, as such, it is designated in the NTFA Allocation Table for systems capable of providing TECS.

However, it should be taken into account that CEPT Report 72 of 5 July 2019, on the usage feasibility of this band for 5G, was concluded. After the adoption of the corresponding harmonisation Decision by the European Commission, its implementation at national level will be examined in a separate process, as it may involve several spectrum usage options that require a detailed analysis, in the light of the respective requirements and possible impacts on networks and services operating in this band and adjacent bands.

The table below presents the current occupation situation of this frequency band.

Table 5. Current situation of the 2.6 GHz band

FDD				
Up Link [MHz]	2500-2510 MHz	2510-2530 MHz	2530-2550 MHz	2550-2570 MHz
LB [MHz]	10	20	20	20
Operator	Free	VODAFONE	NOS	MEO
Down Link [MHz]	2620-2630 MHz	2630-2650 MHz	2650-2670 MHz	2670-2690 MHz
LB [MHz]	10	20	20	20
Operator	Free	VODAFONE	NOS	MEO
TDD				
Frequency band	2570	2595	2595	2620
LB [MHz]	25		25	
Operator	VODAFONE		Free	

³² Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008D0477>.

As such, the following free spectrum exists (which is identified in the NTFA reservations section for allocation to TECS, subject to the allocation of RUF of a national scope, although the respective allocation procedure has not yet been defined):

- 2x10 MHz (FDD): 2500-2510 MHz / 2620-2630 MHz;
- 25 MHz (TDD): 2595-2620 MHz.

In the light of the above, the NTFA Reservation section must be amended to provide for the allocation procedure for this spectrum (see point 3.1 below).

2.1.6. 3.6 GHz band (3.4-3.8 GHz)

Uses in the 3.6 GHz (3.4-3.8 GHz) frequency band were harmonised at CEPT level for FWA³³ in 2006 by ECC/REC Recommendation/(04)05³⁴: “*Guidelines for accommodation and assignment of multipoint fixed wireless systems in frequency bands 3.4-3.6 GHz and 3.6-3.8 GHz*”.

Subsequently, EC adopted Decision 2008/411/EC of 21 May 2008 on the harmonisation of this same frequency band for terrestrial systems capable of providing electronic communications services³⁵, introducing BWA³⁶ applications in this context. This Decision was amended initially by Implementing Decision 2014/276/EU³⁷ of 2 May (Decision 2014/276/EU), which changed the technical conditions (FDD vs TDD mode, 5 MHz channelling and other block edge masks) and extended the use of this frequency band to dense and high-speed wireless broadband networks.

As a second step, EC Implementing Decision (EU) 2019/235³⁸, of 24 January 2019 (Decision 2019/235/EU), which updated relevant technical conditions applicable to the 3.6 GHz frequency band, was amended.

This band is designated in the NTFA Allocation Table for systems capable of providing BWA and for TECS, in accordance with Decision 2008/411/EC as amended by Decision

³³ FWA: Fixed Wireless Access.

³⁴ Available at: <https://www.ecodocdb.dk/download/732d965f-241c/REC0405.PDF>.

³⁵ Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008D0411>.

³⁶ It should be noted that “BWA” was considered, under Regulation No 427/2009 of 29 October (BWA Auction Regulation), to be a descriptive term for new wireless broadband technologies, including fixed, nomadic and mobile applications.

³⁷ Available at <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32014D0276>.

³⁸ Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019D0235>.

2014/276/EU, as well as for the fixed-satellite service (space-to-Earth). There is a licensed station, at Almargem do Bispo, operating at 3760 MHz (+/-1 MHz), the radio licence of which expires on 1 January 2023.

In the NTFA reservations section, the 3.4-3.8 GHz band is available on a non-exclusive basis - in the framework of the implementation in 2015 of Decision 2014/276/EU - for:

- BWA³⁹, subject to the allocation of RUF, with a geographical delimitation, although the respective allocation procedure has not yet been defined:
 - 1 block of 2x28 MHz = 56 MHz, in Zone 2;
 - 2 blocks of 2x28 MHz = 112 MHz, in Zones 3 to 7;
 - 3 blocks of 2x28 MHz = 168 MHz, in Zone 8;
 - 4 blocks of 2x28 MHz = 224 MHz in Zone 9.
- TECS, also subject to the allocation of RUF, although the respective geographic validity and allocation procedure have not yet been defined.

However, on 26 June 2019, MEO requested the cancellation of its RUF with effect from 30 June 2019, a request which received a favourable decision from ANACOM, adopted on 22 October 2019⁴⁰. As a result, this spectrum is currently free and can be made available to the market.

In addition, ANACOM adopted on this date⁴¹ a decision to amend the right of use of frequencies allocated to Dense Air, which became the holder of only the following amount of spectrum:

- 100 MHz (3.4-3.5 GHz) in zones 1 and 2;
- 55 MHz (3.400-3.455 GHz) in zones 3 to 8.

³⁹ Under Administrative Rule No 1062/2004 of 25 August (available at <https://www.anacom.pt/render.jsp?contentId=975973>), Zone 2 corresponds to the districts of Braga, Porto and Viana do Castelo; Zone 3 corresponds to the districts of Aveiro and Coimbra; Zone 4 corresponds to the districts of Bragança, Guarda, Vila Real and Viseu; Zone 5 corresponds to the districts of Castelo Branco and Portalegre; Zone 6 corresponds to the districts of Beja, Évora and Setúbal (only some of the municipalities, remaining municipalities are part of Zone 1); Zone 7 corresponds to the district of Faro; Zone 8 corresponds to the Autonomous Region of the Azores; and Zone 9 corresponds to the Autonomous Region of Madeira.

⁴⁰ Available at www.anacom.pt.

⁴¹ Available at www.anacom.pt.

Under the terms of that decision, it was also decided to make the full spectrum of the 3.4-3.8 GHz band (400 MHz) available to the market, although the use of part of it will be subject, until August 2025, to the scope of the RUF held by Dense Air.

Table 6. Situation of the 3.6 GHz band

Dense Air (100 MHz) in zones 1 and 2																			
Dense Air (55 MHz) in zones 3 to 8					45 MHz in zones 3 to 8														
55 MHz in zone 9					45 MHz in zone 9														
3.4 GHz										3.6 GHz									

In the light of the above, the NTFA requires the following amendments:

- in the Table of Allocations, submission of this frequency band to the conditions set out in Decision 2008/411/EC, as amended by Decision 2019/235/EU (thus being entered in the NTFA as a supporting document);
- in the Reservations section, indication of the geographical validity and allocation procedure (see point 3.1 below), while the designation for TECS and the requirement for the allocation of RUF is maintained;
- in the Reservations section, removal of the indication of available spectrum for BWA applications.

3. ANACOM's duties and powers

ANACOM's Statutes, approved by Decree-Law No 39/2015, of 16 March⁴², commit ANACOM, as the Regulatory Authority, to the performance of several duties, among which, under the terms of the applicable legislation, the duties of ensuring "*the freedom to provide networks and services*" as well as "*an effective management of radio spectrum, involving the planning, allocation and monitoring of spectrum resources, and the coordination between civil, military and paramilitary radiocommunications*" (article 8, paragraph 1 c) and e)).

In order to carry out its duties, ANACOM is endowed with regulatory, supervisory, monitoring and sanctioning powers, being in charge, as far as this Decision is concerned, of "*allocating, amending and revoking rights of use for frequencies*" (article 9, paragraph 1 b)).

⁴² Available at: <https://www.anacom.pt/render.jsp?contentId=1351851>.

On its turn, the Electronic Communications Law (ECL)⁴³, as the applicable substantive regime, entrusts to ANACOM the pursuit of several regulatory objectives for electronic communications, namely *“to promote competition in the provision of electronic communications networks, electronic communications services and associated facilities and services”*, in respect of which this Authority, among other responsibilities, is charged with *“encouraging an effective use and ensuring an efficient management of frequencies”* (article 5, paragraphs 1 a) and 2 d) of ECL).

In this context, it is incumbent on ANACOM to *“ensure the efficient management of spectrum (...) taking due account of the important social, cultural and economic value of frequencies”*, to *“plan frequencies”* in accordance with the criteria of *“a) availability of radio spectrum; b) guarantee of conditions of effective competition in relevant markets; c) effective and efficient use of frequencies; d) weighing of interests of radio spectrum users”*, as well as *“to allocate spectrum and to assign frequencies”* observing *“objective, transparent, non-discriminatory and proportional criteria”* (article 15, paragraphs 1, 2 and 5 of ECL).

An essential tool providing a framework for the exercise of these powers is therefore the publication by ANACOM of the NTFA which, in accordance with article 16 of ECL, must include: the frequency allocation table; frequency bands and radio spectrum allocated to undertakings providing public communications networks or publicly available electronic communications services, including the date of review of allocations; reserved and available frequency bands, being specified the cases where rights of use are required and the respective procedure of allocation; as well as RUF and bands that cannot be transferred or leased.

The use of frequencies is subject to the general authorisation regime and depends, additionally and exceptionally on the allocation by ANACOM of rights of use for frequencies (article 19, paragraph 3 of ECL).

Under paragraph 1 of article 30 of ECL, the use of frequencies depends on the allocation of rights of use (RUF) only where this is necessary to *“a) avoid harmful interference;*

⁴³ Law No. 5/2004, of 10 February, as it stands. Available at: <https://www.anacom.pt/render.jsp?contentId=975162>.

b) ensure technical quality of service; c) safeguard efficient use of spectrum; d) meet other general interest objectives defined in the law”.

ECL lays down also that the allocation of RUF must take place by means of open, objective, transparent, proportional and non-discriminatory procedures (article 30, paragraphs 3 and 5), which may result from a full accessibility regime or be subject to competitive or comparative selection procedures, namely auction or tender.

In this scope, it is incumbent on ANACOM to adopt regulations for allocation of RUF, except in the case of frequencies made available for the first time within electronic communications, or otherwise where such frequencies are intended to be used for new services, in which case the power to adopt regulations, where competitive or comparative selection procedures are involved, falls to the member of the Government in charge of the communications area (paragraphs 7 and 8 of article 30 of ECL).

On the other hand, ANACOM is entitled to limit the number of RUF to be allocated only where this is necessary to ensure the efficient use of frequencies (article 31 of ECL). In this situation, ANACOM is required, in particular, to give due weight to the need to maximise benefits for users and to facilitate the development of competition. For this purpose, and without prejudice to other measures deemed to be appropriate, ANACOM must:

1. Launch the general consultation procedure provided for in article 8 of ECL;
2. Publish a duly substantiated decision to limit the number of rights of use to be allocated, in the scope of which the procedure for allocation (a full accessibility regime or a competitive or comparative selection, namely an auction or tender) is established; and
3. Start the procedure for the submission of applications for the allocation of rights of use in accordance with the conditions defined.

Finally, it must be stressed that article 35 of ECL entrusts to ANACOM the duty of ensuring that the flexibility in the use of frequencies and the accumulation of RUF do not lead to competition distortions, and for this purpose ANACOM is entitled to adopt appropriate, proportionate, non-discriminatory and transparent measures, namely:

1. To impose conditions associated with RUF, pursuant to article 32 of the same statutory instrument, including the establishment of deadlines for the effective use of rights of use by the respective holder;
2. To order a holder, in a specific case, to transfer or lease its RUF; or
3. To limit the amount of spectrum to be allocated to the same holder in procedures for the allocation of RUF.

4. Allocation procedure and technical conditions for use of available frequencies

4.1. Allocation procedure

Bearing in mind the need to ensure the efficient use of frequencies in view of their scarcity, which translates into a level of demand that is expected to be higher than the number of rights to be allocated, as evidenced by replies received in the framework of the public consultation referred to in section 1.2, as well as the need to ensure both the maximisation of benefits for users and the promotion of the development of competition, ANACOM considers that the number of rights to be allocated for the use of the frequencies under consideration should be limited.

Given that ECL defines that the spectrum allocation procedure may take place either through a full accessibility regime or involve a competitive or comparative selection process, ANACOM considers that, in view of the results of the above-mentioned public consultation, the selection-based allocation seems to be the most appropriate process to choose the bodies to whom the corresponding RUF are to be allocated.

In view of the implementation flexibility intended to be provided - among others, through the possibility of a) making available economic operations of different types (taking into account the principle of service neutrality), b) using different technologies (taking into account the principle of technology neutrality) and c) allocating flexible spectrum taking into account the needs of each body - as well as the need to bring the value of spectrum concerned closer to the reality of the market, it is deemed that the selection procedure that best suits the national market is selection by competition, commonly referred to as auction.

In this case, the option for an auction seems likely to be the most transparent and objective spectrum allocation procedure for all interested parties, which least interferes with business plans of these entities, allowing each body, with its particular needs in terms of spectrum, to acquire RUF over the amount of spectrum that it effectively requires and values, thus operations with different dimensions are enabled, the efficient use of spectrum is stimulated and the motivation for inconsistent allocations of this resource is reduced.

In this context, it is important to stress that one of the objectives of this selection process is to allow RUF in various frequency bands (among those that will be made available) to be obtained in a flexible manner, in amounts of spectrum that varies according and tailored to the business targets of stakeholders, an objective that would be difficult to achieve through a procedure by comparison (commonly known as competition).

It should be noted that most European countries have implemented, or are now on the point of implementing, auctioning as a selection mechanism for frequency bands concerned. It should also be stressed that most bodies that contributed to the public consultation on making the 700 MHz band (and other relevant bands) available favoured a competitive allocation procedure, through auction.

The auction allocation of RUF being now under consideration, it should be referred that the law in force (namely article 105 of ECL and article 19 of Decree-Law No 151-A/2000 of 20 July⁴⁴) establishes that the allocation of RUF and the subsequent use of the spectrum allocated to companies are subject to the payment of fees, the amounts of which are set through administrative rule issued by the Government.

As far as the fee for auction allocation of RUF is concerned, this is an administrative fee, the amount of which must be established in advance of the respective allocation procedure, as provided for in the table set out in paragraph 2 of Annex I to Administrative Rule No1473-B/2008, of 17 December, as it stands.

With regard to spectrum usage fees, taking into account comments made during the public consultation referred to in chapter 1.2, with a view to reducing them as well as to maintaining amounts during the period of validity of the RUF, ANACOM will not fail to

⁴⁴ Decree-Law No 151-A/2000, of July 20, amended by Decree-Law No 264/2009, of September 28, Law No 20/2012, of May 14, and Law No 82-B/2014, of December 31.
Available at <https://www.anacom.pt/render.jsp?categoryId=333299&tab=&a=347326&b=347327&c=>.

analyse the matter within the scope of its own radio spectrum management powers and, within the scope of its Government's assistance duties, to submit a proposal to amend Administrative Rule No1473-B/2008, of 17 December, as it stands.

Additionally, the above-mentioned Decree-Law No 151-A/2000 determines that, where RUF are allocated by auction, the respective regulations may establish "*a minimum allowed bidding value [base price], as well as the minimum allowed value of intervals between bids, where applicable, taking into account regulatory objectives*" set out in ECL.

4.2. Size of lots to be made available

ANACOM deems it appropriate to make free spectrum in the following frequency bands: 700 MHz, 900 MHz, 1800 MHz, 2.1 GHz (FDD), 2.6 GHz (FDD and TDD) and 3.6 GHz available to the market, for the provision of publicly available terrestrial electronic communications networks and services.

Limiting the number of RUF to be allocated involves determining the size of each lot that will be made available in the allocation procedure. To this end, consideration must be given to the need for spectrum concerned to allow for a viable operation, which may involve different sizes, at a national or more regional level, subject to the business model that each body wishes to develop, which, for example, may be exclusively wholesale or an integrated operation.

As such, the sizing of lots in each frequency band aims to provide a balance between the minimum viability of a commercial operation and the need for flexibility in the choice for the amount of spectrum each body will be interested in obtaining.

With the target of effective and efficient use of spectrum always present in the background, ANACOM desires also to create the conditions for different bodies to exploit these frequency bands commercially, so each lot must not be smaller than the minimum amount of spectrum required for a particular operation. On the other hand, the size of each lot must not be so large as to require the acquisition of more spectrum than is necessary and to make several operations unfeasible, such size being intended to enhance a competitive and attractive procedure.

In view of the spectrum allocation procedures that have taken place in several European countries, it appears that a broad convergence exists on the definition of 2x5 MHz bands

in the 700 MHz, 900 MHz and 1800 MHz frequency bands. As a matter of fact, also in Portugal, the size of lots was 2x5 MHz in the previous allocation procedure for the 900 MHz and 1800 MHz bands.

With regard to the 3.6 GHz band, the size of the lots has been found to be very variable in allocation procedures of several European countries. As regards their geographical scope, on the other hand, it can be seen that only in a few cases lots have been made available at regional level. However, and as results from the report of the public consultation to which the draft preceding this Decision was submitted, deemed to be an integral part of this Decision, ANACOM believes that only national-wide lots should be made available, 10 MHz each.

In view of the above, the spectrum identified above will be made available in lots of the following sizes, identified in **Table 7**:

Table 7. Bands and amount of spectrum available for allocation purposes

Band Name	Band	Amount of spectrum	Size of lots
700 MHz	703-733 MHz 758-788 MHz	2 x 30 MHz	2 x 5 MHz
900 MHz	880-885 MHz 925-930 MHz	2 x 5 MHz	2 x 5 MHz
	895,1-898,1 MHz 940,1-943,1 MHz	2 x 3 MHz	2 x 1 MHz
	914-915 MHz 959-960 MHz	2 x 1 MHz	2 x 1 MHz
1800 MHz	1770-1785 MHz 1865-1880 MHz	2 x 15 MHz	2 x 5 MHz
2.1 GHz (FDD)	1995 1960 MHz 2145-2150 MHz	2 x 5 MHz	2 x 5 MHz
2.6 GHz (FDD)	2500-2510 MHz 2620-2630 MHz	2 x 10 MHz	2 x 5 MHz
2.6 GHz (TDD)	2595-2620 MHz	25 MHz	25 MHz
3.6 GHz	3.4-3.8 GHz	400 MHz	10 MHz

4.3. Technical conditions associated with the use of frequencies

RUF to be allocated will be associated with a set of conditions and/or technical restrictions.

Without prejudice to the detail according to band in the points below, one of the technical conditions to be fulfilled relates to the Block Edge Mask (BEM), understood as an emission mask defined according to the frequency of a «block edge», the latter consisting in the frequency limit of a block of spectrum for which RUF are allocated to an operator.

In addition, a further cross-cutting condition is that RUF holders must comply with obligations arising from any cross-border coordination agreement concluded with Spain.

4.3.1. Conditions for the 700 MHz core band (703-733 MHz / 758-788 MHz)

RUF to be allocated in this band are subject to the following technical conditions of use, which are defined in the Annex to Decision 2016/687/EU, based on CEPT Reports 53 and 60:

- Paired channel of 2 x 5 MHz, with 55 MHz duplex spacing.
- Application of BEM limits in Tables 1, 3, 4, 5 and 8 of the Annex to Decision 2016/687/EU.
- With reference to Table 2 of the Annex to Decision 2016/687/EU, ANACOM imposes a maximum in-block power limit of 64 dBm/5 MHz per antenna.
- Application of the limits in Tables 6 and 7 of the Annex to Decision 2016/687/EU where frequencies between 733 MHz and 758 MHz are allocated.

Additionally, as the possibility of interference between the operation of systems in adjacent bands is not zero by nature, any interferences that remain in the DTT reception must be dealt with on a case-by-case basis by holders of RUF in the 700 MHz band, in accordance with paragraph 1 b) of article 21 of Decree-Law No 151-A/2000.

The main channelling arrangement in the 700 MHz core band is 2x30 MHz, which are to be allocated in multiples of 5 MHz, as shown in the following table.

Table 8. Channelling arrangement in the 700 MHz core band

703-708	708-713	713-718	718-723	723-728	728-733
30 MHz (6 lotes de 5 MHz)					
758-763	763-768	768-773	773-778	778-783	783-788
30 MHz (6 lots of 5 MHz)					

4.3.2. Conditions for the 900 MHz and 1800 MHz frequency bands

RUF to be allocated in these bands are subject to conditions set out in Decision 2009/766/EC, as amended by Decision 2011/251/EU⁴⁵ and Decision 2018/637/EU⁴⁶ (following the amendment of the NFAQ so as to provide for the application of this Decision to these frequency bands), as regards the implementation of other terrestrial systems capable of providing electronic communications services that may co-exist with GSM systems, in particular those identified in the Annex thereto⁴⁷.

4.3.3. Conditions for the 2.1 GHz frequency band

The RUF to be allocated in this band is subject to the technical conditions of use defined in the Annex to Decision 2012/688/EU.

4.3.4. Conditions for the 2.6 GHz frequency band

RUF to be allocated in this band are subject to conditions set out in Decision 2008/477/EC, especially the following:

- The first and last 5 MHz block of the 25 MHz lot are considered to be restricted blocks, operation with this block being subject to maximum radiated power levels (e.i.r.p.) of +25dBm/5 MHz.
- The e.i.r.p. power limits of TDD and FDD base stations are limited to +61dBm/5 MHz.

4.3.5. Conditions for the 3.6 GHz frequency band

RUFs to be allocated in these bands are subject to conditions set out in Decision 2008/411/EC, as amended by Decision 2014/276/EU and by Decision 2019/235/EU.

Technical conditions concerned include, in particular, the following:

⁴⁵ Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011D0251>.

⁴⁶ Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018D0637>.

⁴⁷ For more information, please consult the studies prepared by CEPT, which may be found in ECC Reports 82, 96 and 162, as well as in CEPT Reports 40, 41 and 42.

- Harmonized BEM for Non-Active Antenna Systems (non-AAS) and for Active Antenna Systems (AAS), in synchronized, semi-synchronized and unsynchronized operation⁴⁸.

As regards synchronisation between networks of the various operators, who become RUF holders in this band after the allocation procedure, ANACOM considers that this is a matter for operators to coordinate, taking into account the specificities of technologies and the implementation of the respective networks. It should be noted, however, that according to the Annex to Decision 2019/235/EU, the unsynchronised operation will require the implementation of more restrictive emission limits.

- The use of the 3.6 GHz frequency band must ensure the protection of stations operating within the scope of the Fixed Satellite Service (FSS), space-to-Earth direction, by means of an appropriate coordination by broadband wireless networks.
- The ECC Report 254⁴⁹ “*Operational guidelines for spectrum sharing to support the implementation of the current ECC framework in the 3600-3800 MHz range*” identifies a set of measures to protect the FSS.

Upon analysis of the referred report, and taking into account the characteristics of the FSS station to operate in the 3.7-3.8 GHz sub-band - namely 3760 MHz (+/- 1 MHz), it was concluded that operators holding spectrum in the 3.6 GHz sub-band are required to meet the following conditions:

- a. To protect the FSS station operating in the 3759.5-3760.5 MHz band:
 - The power received at the FSS receiver antenna should be limited to - 188 dBm/560 kHz;
 - the implementation of TECS stations at a minimum distance of 5 km from the FSS station must be coordinated with the ground station operator⁵⁰.

⁴⁸ ECC Report 296 (available at <https://www.ecodocdb.dk/download/19d5a467-c234/ECC%20Report%20296.pdf>) analyses a set of interference mitigation techniques for the implementation of MFCN networks in the different operation modes, as well as the operation of 4G and 5G networks in co-channel or adjacent channel cases, intended for network synchronisation purposes.

⁴⁹ Available at <https://www.ecodocdb.dk/download/0202d6d9-23b1/ECCRep254.pdf>.

⁵⁰ Operators may need to implement additional techniques to mitigate potential interference at the FSS station, such as: limiting the effective height of stations to 210 m, using site engineering techniques or taking advantage of natural obstacles (land, buildings).

- b. In the 3.4-3.7595 GHz and 3.7605-3.8 GHz bands, BEM emissions must be limited to the levels set out in Table 7 of the Technical Annex to Decision 2019/235/EU, with the appropriate adjustments as far as the existing guard bands are concerned (difference between carrier ends of TECS and FSS operator stations) in order to protect FSS stations operating in the 3.7-3.8 GHz sub-band or the 3.8-4.2 GHz sub-band.
- Implementing mitigation techniques in accordance with the Annex to Decision 2019/235/EU to ensure the protection of radiolocation systems operating in the 3.1-3.4 GHz frequency band which, according to the information available at the Air Force website, correspond to three stations in the Mainland and one station in the Autonomous Region of Madeira⁵¹.

5. Conditions associated with the use and allocation of RUF

In view of frequency bands that will be made available under the RUF allocation procedure and of their likely relevance, namely for the development of applications and services in a 5G context, ANACOM believes that conditions should be promoted for greater contestability of the mobile market and, at the same time, for efforts to be made to improve the living conditions of the population in general and the economic fabric of the country, making digital access more accessible and closer, with expected benefits for economic and social cohesion and the territory.

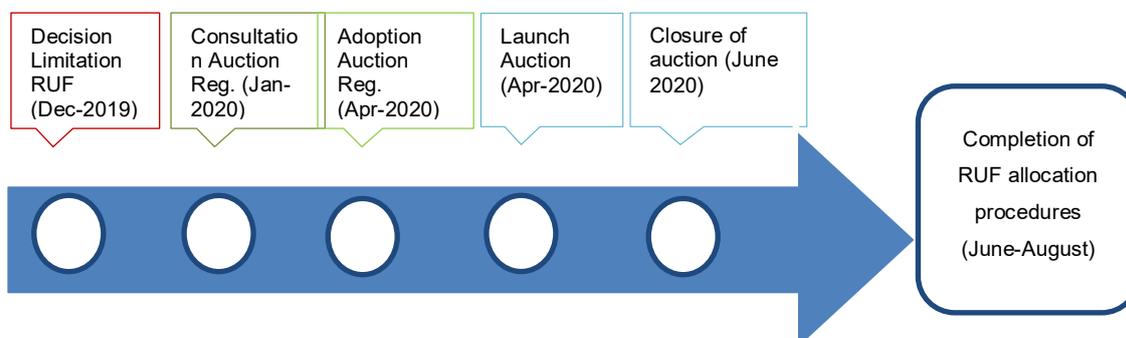
In the draft that preceded this Decision, ANACOM included an annex in which it reflected on the conditions the imposition of which might be justified in a future auction of spectrum.

The summary of contributions received on this reflection is presented in the report of the public consultation to which the referred draft decision was submitted and will be duly considered in the context of the definition of conditions associated with the allocation and use of RUF, which will be part of the draft auction regulation which will be submitted to public consultation in due course.

⁵¹ More information on location of stations available at: <https://www.emfa.pt/unidade-24-estacao-de-radar-n-1#>, <https://www.emfa.pt/unidade-25-estacao-de-radar-n-2>, <https://www.emfa.pt/unidade-23-estacao-de-radar-n-3> e <https://www.emfa.pt/unidade-123-estacao-de-radar-n-4>.

6. Schedule

An indicative schedule with the expected chronological evolution of the main steps of this RUF allocation selection procedure is presented below.



7. Subject-matter and deadline for consultation

For the reasons set out above, conditions for making spectrum available for the provision of publicly available terrestrial electronic communications services must be put in place, and, as such, ANACOM's decision, under article 31 of ECL, to limit the number of RUF to be allocated for this purpose and to define the respective allocation procedure, is subject to the general consultation procedure provided for in article 8 of ECL. Stakeholders must be given the opportunity to express their views within a period set for this purpose, which may not be less than 20 working days.

As such, on 22 October 2019, ANACOM approved the "*Draft Decision on the designation of the 700 MHz band for electronic communications services, on the limitation of the number of frequency usage rights to be allocated in the 700 MHz, 900 MHz, 1800 MHz, 2.1 GHz, 2.6 GHz and 3.6 GHz bands and on the definition of the respective allocation procedure*", which was submitted to the general consultation procedure for 20 working days, in accordance with article 8 of ECL⁵². Following requests from MEO, NOWO and ONI, the deadline for public consultation was extended by five working days, by decision of 7 November 2019.

⁵² Available at <https://www.anacom.pt/render.jsp?contentId=1493041>.

Bearing also in mind that article 14 of the Television Law⁵³ determines that ERC is entitled to be heard in matters involving the planning of radio spectrum for the exercise of the television activity, this Authority was notified of the draft decision, so that it could assess the matter, if it so wished.

The general consultation procedure thus ran until 27 November 2019, and timely contributions were received from the following bodies:

- AR Telecom - Acessos e Redes de Telecomunicações, S.A. (AR TELECOM);
- Dense Air Portugal, Unipessoal, Lda. (DENSE AIR);
- Ericsson Telecomunicações, Lda. (ERICSSON);
- MEO - Serviços de Comunicações e Multimédia, S.A. (MEO);
- NOS Comunicações, S.A. (NOS) (assessment shared with NOS Açores Comunicações S.A. and NOS Madeira Comunicações S.A.);
- Joint contribution from NOWO Communications, S.A. (NOWO) and ONITELECOM – INFOCOMUNICAÇÕES, S.A. (ONI);
- NOKIA Portugal, S.A. (NOKIA);
- VODAFONE PORTUGAL - Comunicações Pessoais, S.A. (VODAFONE).

ERC's assessment was also received, pursuant to article 14 of the Television Law.

ANACOM subsequently prepared the report of the public consultation to which the draft decision was submitted, which is deemed to be an integral part of this decision and includes a summary of the positions expressed by stakeholders and ANACOM's views thereon.

In accordance with paragraph 3 d) of "ANACOM consultation procedures", approved by determination of 12 February 2004⁵⁴, ANACOM makes available at its website the assessments received, safeguarding information of a confidential nature, as well as the above-mentioned public consultation report.

⁵³ Available in Law No 27/2007 of July 30, as it stands, available at http://www.pgdlisboa.pt/leis/lei_mostra_articulado.php?nid=923&tabela=leis&so_miolo.

⁵⁴ Available at <https://www.anacom.pt/render.jsp?contentId=420767>.

8. Decision

In the light of the above, ANACOM's Board of Directors, within the scope of duties provided for in paragraph 1 c) and e) of article 8 of its Statutes, approved by Decree-Law No 39/2015, of 16 March, in pursuit of regulatory objectives provided for in article 5 of Law No 5/2004, of 10 February, as it stands, in particular those set out in paragraph 1 a) and 2 d), and in the exercise of powers conferred under articles 8, 15, 16, 19, 30 and 31 of the same statutory instrument, hereby determines as follows:

1. To designate the 703-733 MHz / 758-788 MHz frequency band for terrestrial electronic communications services and to identify this spectrum in the reservations section of the NTFA, making its use, in lots of 2x5 MHz, subject to the allocation of Rights of Use for Frequencies of a national geographic scope.
2. To amend the NTFA table that includes information on applications exempted from station licensing, excluding the 703-733 MHz / 758-788 MHz band from use by microphone transmitters as from June 30, 2020 and indicating that, without prejudice to the decision on the designation of these bands, future use of the 694-703 MHz and 733-758 MHz bands shall be subject to the technical conditions set out in Decision 2016/687/EU, as from the same date.
3. To identify the 895.1-898.1 MHz / 940.1-943.1 MHz and 914-915 MHz / 959-960 MHz frequency bands in the NTFA reservations section and to make their use, in lots of 2x1 MHz, subject to the allocation of Rights of Use for Frequencies of a national geographic scope.
4. To submit the 3.4-3.8 GHz frequency band to the conditions of Decision 2008/411/EC, as amended by Decision 2019/235/EU, being thus entered in the NTFA as a supporting document.
5. To identify the 3.4-3.8 GHz frequency band in the NTFA reservations section and to make its use, in lots of 10 MHz, subject to the allocation of Rights of Use for Frequencies of a national geographic scope.
6. To remove from the NTFA reservations section the identification of the 3.4-3.8 GHz frequency band for BWA applications.

7. To limit the number of Rights of Use for Frequencies to be allocated for the provision of publicly available terrestrial electronic communications services, as follows:
 - a) Up to 6 RUF in the 700 MHz band;
 - b) Up to 5 RUF in the 900 MHz band;
 - c) Up to 3 RUF in the 1800 MHz band;
 - d) Up to 1 RUF in the 2.1 GHz band;
 - e) Up to 3 RUF in the 2.6 GHz band;
 - f) Up to 40 national RUF in the 3.4-3.8 GHz band.
8. To subject the allocation of rights to use for frequencies referred to in the preceding paragraph to an auction procedure.
9. To amend the NTFA currently in force in accordance with the decisions set out in the preceding paragraphs.

Lisbon, 23 December 2019