



TECHNOLOGY, MEDIA AND TELECOMMUNICATIONS

Making spectrum available in the 700 MHz frequency band

Public consultation

Introduction

Following the approval of the [Spectrum Strategic Plan](#) (“SSP”)¹, on 27 December 2022, ANACOM, the national regulatory authority (NRA) in Portugal for communications, approved the launch of a public consultation on making spectrum available in the 700 MHz frequency band. ANACOM’s objectives under the action “Plan and make spectrum available for new applications and services” are to ascertain the current market interest in the 700 MHz frequency band (duplex gap and guard bands). It also intends to determine the conditions for access to and use of this spectrum, and to define the applicable timetable for it to be made available.

At the end of December 2022, ANACOM approved the launch of a public consultation on making spectrum available in the 700 MHz frequency band.

Spectrum is a scarce public natural resource and its use has become more intense² and extensive³. The increased use of the spectrum has made it an increasingly valued resource, and its management requires a delicate and balanced consideration of different public policy objectives. As a result, ANACOM intends to ensure that the available spectrum is used efficiently and effectively, and that it maximises the gains that are generated for its users, for citizens in general, and for the economy as a whole.

Based on this objective, ANACOM has identified this consultation as one of the subsequent actions to be carried out in the context of the SSP approved on 22 December 2022.

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¹ See also the [Informative Note prepared by PLMJ's TMT team](#) on the consultation that preceded the approval of the SSP.

² More and more people and machines are connected and more and more services are provided over the spectrum.

³ More portions of the spectrum are now usable and used.

Spectrum is a scarce natural public resource whose use has become more intense and extensive. Therefore, it is an increasingly valued resource and its management requires a delicately balanced approach.

Subject of the public consultation

The last public consultation on the availability of the 700 MHz frequency band was held by ANACOM more than 4 years ago⁴. However, there have been two developments with an impact on this band: (i) the release of frequencies in this band by the Digital Terrestrial Television service, and (ii) the conclusion of the 5G auction, under which rights of use to the 700 MHz frequency bands were awarded.

Moreover, we have to consider (i) the publication of Implementing Decision (EU) 2016/687 of the European Commission ("[Decision 2016/687/EU](#)")⁵, (ii) the national interest in making this spectrum available, (iii) the change in the European regulatory framework, and (iv) the evolution in the offer of services, networks and technology, which determined the need to reassess the market interest in the sub-bands which were the subject of the public consultation carried out by ANACOM.

As such, the aim of the public consultation currently being conducted is to find out about the positions of the various market players (manufacturers, operators, private and public entities, users and others) on the availability of frequencies in the sub-bands 733-758 MHz (duplex gap) and 694-703 MHz and 788-791 MHz (guard bands) that are still available. These positions are then to be taken into consideration in ANACOM's decision-making process regarding the definition of the procedure and conditions for the allocation of that spectrum and the conditions for its use.

Under the terms of the public consultation document and in accordance, in particular, with Decision 2016/687/EU, the sub-bands in question may be used in the context of services of (i) PPDR – Public Protection and Disaster Relief, (ii) PMSE – Programme Production and Special Events, (iii) M2M/IoT – Machine-to-Machine Communications/Internet of Things, and (iv) SDL – Supplemental Downlink.

It follows from Decision 2016/687/EU that the duplex gap and the 700 MHz guard bands may be used to reinforce capacity in SDL connections or for the purposes referred to in the previous paragraph. Moreover, each Member State is free, within certain parameters, to decide on the use of this spectrum.

4 ANACOM - [Consulta pública sobre a disponibilização de espectro na faixa de frequências dos 700 MHz \(e outras faixas relevantes\)](#).

5 Approved under Decision 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). This decision harmonised the core 700 MHz band for terrestrial electronic communications services while allowing Member States, subject to national decisions and choice, to make parts of the 694-703 MHz, 733-758 MHz and 788-791 MHz bands available for use by other services. This has mitigated harmful interference and facilitated frequency coordination.

Accordingly, based on the options set out in Decision 2016/687/EU for the harmonisation of the bands submitted for public consultation at European level, ANACOM has considered five basic scenarios of spectrum use⁶:

PROPOSED SPECTRUM (MHz) PER SCENARIO					
SCENARIOS	PPDR	PMSE	M2M	SDL	Notes
1	2x8	21			Maximises PPDR and PMSE and excludes M2M and SDL
2	2x8	6		15	Maximises PPDR and SDL and excludes M2M
3	2x5	11	2x3	10	covers spectrum for various applications
4	2x5	6	2x3	15	covers spectrum for various applications
5	2x3	11		20	Maximises SDL and excludes M2M

Specifically, ANACOM seeks input from interested parties on the following questions:

- i) Which of the scenarios presented above is considered the most appropriate? In answering this question, the order of priority assigned to each scenario should be indicated and justified by indicating the advantages and disadvantages of the use chosen in relation to the other alternatives considered.
- ii) Is it important to provide spectrum for which type(s) of application(s)? When is market demand for this spectrum expected?
- iii) Indication of possible scenarios under Decision 2016/687/EU, with a statement of the date considered appropriate for making the duplex gap band and guard bands available. Interested parties should, in particular, indicate the expected date of commercial availability of equipment using the spectrum in question.
- iv) Other comments that interested parties may consider appropriate to be taken into account in the scope of the future use of the sub-bands under analysis and the most appropriate allocation method.

Final thoughts

In the public consultation launched in 2018, which also covered the sub-bands on which ANACOM is once again consulting the market, it became clear that there was a lack of consensus regarding the use of this spectrum. Some of the bodies that expressed their opinion were in favour of allocating it for SDL, M2M and IoT applications, while others felt that this spectrum should not be allocated due to the potential risk of interference.

⁶ The consultation document details the size of the blocks to be defined for each application and the frequency bands to be allocated specifically to each of the services, per proposed scenario.

**Interested parties will have until 7 February 2023
to submit their comments.**

In 2022, in the scope of the consultation carried out on the SSP, two bodies expressed the importance of using the duplex gap and the 700 MHz guard bands to support M2M, IoT, PPDL and SDL services, in accordance with the harmonisation carried out at European level by the CEPT.

It remains to be seen whether there will be a wider consensus in this consultation on what these sub-bands should be used for. This is particularly so in the light of developments in the market, public interest needs and the emergence of new players.

Interested parties can send their contributions in writing and in Portuguese to cp700duplexgap@anacom.pt or to ANACOM's headquarters (Avenida José Malhoa, 12, 1099-017 Lisboa), by 7 February 2023. Once the consultation process is concluded, ANACOM will prepare and publish a final report based on the contributions received. ■