

PUBLIC CONSULTATION

From 15 July 2019 to 4 September 2019

Draft Decision proposing the procedure for awarding the 3490 - 3800 MHz band in Metropolitan France

This is a courtesy translation with no effective legal value. Only the French language draft decision represents the official text.

Practicalities of the public consultation

The opinions of all interested parties are being sought on the entirety of this document. To facilitate the feedback process, there are several questions pertaining to specific points on which input is being sought from certain stakeholders in particular.

This public consultation will run until 6:00 pm on 4 September 2019. Only those contributions received by that deadline will be taken into account.

Responses must be sent to Arcep, preferably by e-mail – with the subject line: “*Réponse à la consultation publique: Projet de décision proposant les modalités d’attribution de la bande 3490 - 3800 MHz en France métropolitaine*” – to the following address: CP5G@arcep.fr.

Alternatively, responses can be posted to the following address:

Réponse à la consultation publique : “Projet de décision proposant les modalités d’attribution de la bande 3490 - 3800 MHz en France métropolitaine”
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In the interests of transparency, Arcep will publish all of the responses it has received, with the exception of any information that is protected by business confidentiality. Contributors whose response contains confidential elements are invited to provide two versions of their contribution:

- A confidential version, in which passages that may be covered by business confidentiality are contained in square brackets and highlighted in grey, e.g.: “a market share of [BC: 25]”;
- A public version in which passages that may be covered by business confidentiality have been replaced by [BC:...], for instance: “a market share of [BC:...]”.

Contributors are asked to keep confidential information to a minimum. **Arcep reserves the right to declassify certain information outright if, by its very nature, it is not protected by business confidentiality.**

Additional information can be obtained by sending your questions to: CP5G@arcep.fr.

This document is available for download on the Arcep website: www.arcep.fr.

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1 Background

This procedure is part of a global and European process for introducing fifth generation (5G¹) mobile technologies that will make it possible to satisfy the ever-growing expectations of consumer and business users wanting to access powerful and reliable mobile services, and this at a time of increasing mobile data consumption and demand for better quality of service.

Arcep held a public consultation from 26 October to 16 December 2018 on the procedure and conditions for awarding licenses for spectrum in the 1.4 GHz, 3.5 GHz and 26 GHz bands in Metropolitan France, to establish and operate a mobile network. This consultation served to establish the existence of a demand for spectrum in the 3.4 - 3.8 GHz band, as well as the scarcity of that spectrum, which led to an awards procedure for 3490 - 3800 MHz frequencies that are available in the band.

It is within this context, in accordance with Government guidelines and in keeping with the regulatory objectives set by law, that Arcep will propose to the Minister responsible for electronic communications the procedure and conditions for awarding the corresponding frequency licenses in Metropolitan France.

The annex to this document sets out the terms, conditions and rules for the procedure for awarding licenses for spectrum in the 3.4 - 3.8 GHz band in Metropolitan France, which are likely to be proposed to the Minister responsible for electronic communications.

It is broken down into four documents:

- Document I: frequency license provisions

This document details the terms and conditions for using the frequencies that will be listed in the licenses awarded at the outcome of the present procedure.

- Document II: frequency award procedure

This document sets out the procedure's conduct and rules. It describes the mechanisms that make it possible, when required, to select the winning bidders and determine which frequencies they will be awarded.

- Document III: bid package

This document lists the information and elements that applicants must include in their bid package.

- Document IV: existing 3490 - 4200 MHz band frequency licenses

This document lists the licenses for spectrum in the 3490 - 4200 MHz band that Arcep has already awarded.

Stakeholders are invited to share their feedback on these documents, and particularly to answer the questions it contains.

¹ The International Telecommunication Union (ITU) provide a definition of 5G, in particular in its Recommendation Y. 3101, notably in the "IMT-2020 network requirements" and in its report M. 2410-0 "*Minimum requirements related to technical performance for IMT-2020 radio interface(s)*".

2 Questions on the size of the frequency blocks

2.1 A minimum threshold for frequencies

The procedure proposes setting a minimum quantity of frequencies of [ZZZZ] MHz to be awarded to each winning bidder to avoid an inefficient fragmentation of the 3490 - 3800 MHz frequency band (cf. Part II.3.4 of Document II).

This quantity will factor in the quantity of frequencies to be awarded during the procedure (310 MHz). It will be equal to at least 40 MHz.

Question No. 1. What level of performance can be achieved by a mobile network depending on the minimum spectrum assignment that may be set?

Question No. 2. Are there any other considerations to be taken into account to determine that threshold?

2.2 Frequency blocks that license-holders can obtain in a first stage, in exchange for certain commitments

The proposed procedure will be conducted in three stages:

1. Award of four blocks of [YYYY] MHz in exchange for commitments;
2. Award of the remaining frequencies through an auction, by blocks of 10 MHz;
3. Assignment of operators' position in the band.

In the first stage of the procedure, four blocks of [YYYY] MHz will be proposed. Candidates that make the digital regional development, competition and innovation commitments described in Document I will be able to obtain one of those blocks, under the payment conditions set by the government. In the cases where five or more candidates want to obtain such a block, a single-round auction will determine the winning bidders. The size of the blocks ([YYYY] MHz) awarded during this first stage will be equal to at least 40 MHz.

The second stage of the selection process will, if applicable, enable the candidates to obtain additional frequencies, to differentiate themselves, through a multiple round ascending auction for blocks of 10 MHz, whose purpose is to award all of the remaining available frequency blocks. In particular, it will allow those candidates that do not want to make specific commitments to obtain frequencies.

The quantity of spectrum that a winning bidder can obtain through this second stage is capped at 100 MHz.

Question No. 3. Regarding the obligations and commitments set out by the procedure, what consequences could be established based on the size of the blocks ([YYYY] MHz)?

3 Questions on areas that are subject to technical restrictions on frequency use

The ability to operate networks in the 3490 - 3800 MHz band may be affected by a set of restrictions that are detailed in Part I.2 of Document I. This section concerns the restrictions described in Part I.2.3c) and whose impact will likely differ depending on an operator's position in the band.

3.1 Protecting fixed satellite earth stations

The 3.8 - 4.2 GHz band is currently used or could be used by earth stations of the fixed-satellite service (FSS). However, the harmonised technical conditions governing use of the 3.4 - 3.8 GHz band do not guarantee that mobile network base stations using the 3.4 - 3.8 GHz band will not create harmful interference with fixed satellite earth stations when they are geographically close.

On the specific matter of existing earth stations, this procedure proposes setting an unwanted emission power flux density level above 3.8 GHz that base stations must comply with, to guarantee they will not cause harmful interference with these earth stations.

Regarding future earth stations, the current lack of information on the actual performance of mobile equipment that is likely to be deployed in the 3.4 - 3.8 GHz band, and on the actual filtering performance of future earth stations operating in the 3.8 - 4.2 GHz band, make it impossible to fully assess the degree of coexistence-related restrictions induced based on the frequencies that mobile networks and earth stations actually use.

As a result, Arcep intends to manage future stations' access to the 3.8 - 4.2 GHz band by working to ensure the minimal likelihood of their having a significant negative effect on the deployment and terrestrial coverage of mobile networks in the 3.4 - 3.8 GHz band. If necessary, the restriction could take the form of a mandatory power flux density level imposed on newly authorised base stations.

Question No. 4. To what extent does the impact that protecting the fixed satellite service have on mobile deployments (and vice-versa) depend on mobile networks' and fixed satellite earth stations' relative band assignments?

Question No. 5. In the context described above, does the proposed approach to coexistence seem appropriate?

3.2 Options for addressing areas subject to the restrictions described in I.2.3c) of Document I

All of these restrictions are likely to have a different impact depending on the band assignment.

As a result, several options are possible for handling each of the different types of area:

Option 1: The procedure has no specific measures planned for the area;

Option 2: To guarantee that all license-holders have access to spectrum in the area, one of the two following measures (2A or 2B) is applied:

- **Option 2A:** those in the area with a license for spectrum in the 3490 - 3800 MHz band without restrictions are required to grant requests, under reasonable conditions, for active sharing of the networks employing these frequencies made by another license-holder who has been awarded frequencies that are subject to restrictions in the area in question, and who does not have a minimum quantity of unrestricted spectrum (which, a priori, corresponds to [YYYY] MHz) in said area;
- **Option 2B:** Over the course of the use of the frequencies awarded through this procedure, Arcep will assess the impact of the aforementioned restrictions in the 3490 - 3800 MHz band, in particular to determine whether they create obstacles to network deployment and whether they affect users' capacity to access networks and services. Should this prove to be the case, Arcep could impose active sharing obligations on 3.4 - 3.8 GHz band license-holders.

Question No. 6. In your opinion, what is the most appropriate option, according to the different restrictions? In the case of option 2A, what minimum quantity of unrestricted spectrum would be appropriate?

4 Questions on 3.4 - 3.8 GHz band rollout obligations

In paragraph I.4.4 of Document I, the procedure sets out specific obligations to deploy cell sites using the 3.4 - 3.8 GHz band in certain sparsely populated areas, with deadlines set for 31 December 2024 and 2025. The goal is to ensure rollouts in this band in areas of economic activity in the more sparsely populated parts of the country, and especially at industrial sites.

Question No. 7. In your opinion, what is the appropriate target scope of these obligations? Priority rollout areas? A perimeter that will make it possible to cover economic activity in the priority rollout area? Those areas that are part of the Government's "Territoires d'industrie"? Other?

Question No. 8. In light of your response to question No. 7, should the proposed obligation of concomitant regional coverage set out in paragraph I.4.4 of Document I be amended? And if so, how?

5 Other

Question No. 9. Do you have any other comments on the annexed document?

6 Draft annex to the Arcep Decision, proposing the procedure and conditions for awarding licenses for spectrum in the 3.4 - 3.8 GHz band in Metropolitan France to establish and operate a public mobile communication network

This annex sets out the terms, conditions and rules for the procedure for awarding licenses for spectrum in the 3.4 - 3.8 GHz band in Metropolitan France.

It is broken down into four documents:

- Document I: frequency license provisions

This document details the terms and conditions for using the frequencies that will be listed in the licenses awarded at the outcome of the present procedure.

- Document II: frequency award procedure

This document sets out the procedure's conduct and rules. It describes the mechanisms that make it possible, when required, to select the winning bidders and determine which frequencies they will be awarded.

- Document III: bid package

This document lists the information and elements that applicants must include in their bid package.

- Document IV: existing 3490 - 4200 MHz band frequency licenses

This document lists the licenses for spectrum in the 3490 - 4200 MHz band that Arcep has already awarded.

Document I Frequency license provisions

The purpose of this document is to describe the rights and obligations attached to each of the frequency licenses awarded as part of the present procedure.

The provisions it contains relate to the sections of Article L. 42-1 of the French Postal and Electronic Communications Code (CPCE). They correspond to the rights and obligations attached to the frequency license with which the license-holder must comply.

To be able to establish and operate a public network, and provide electronic communication services to the public, the entity or entities that hold a license awarded as part of the present procedure (hereafter the “license-holder” or “license-holders”) must have declared themselves as an operator to Arcep, as defined by CPCE Article L. 32 (Para 15), in accordance with the provisions of CPCE Article L. 33-1.

As such, operators are subject to the provisions of Books II of the legislative and regulatory sections of the CPCE and, in particular, the provisions set out in Chapter II of Title 1 of each of these books which define the general rights and obligations that apply to all operators. By the same token, operators are subject to provisions of European Union law. Interested parties are invited to refer to the corresponding texts, which are not included in the present document. Arcep underscores that these provisions are likely to change, particularly following the adoption of the Directive 2018/1972 of the European Parliament and of the Council, establishing the European Electronic Communications Code and its transposition into national law.

I.1 Frequencies concerned

The frequencies that are the subject of the present procedure are those in the 3490 - 3800 MHz band.

Each winning bidder will be awarded several contiguous blocks of the following 31 blocks of 10 MHz, under the conditions described in Document II, which can use a time division duplexing (TDD) arrangement:

Number	Frequencies	Number	Frequencies
Block 1	3490 - 3500 MHz	Block 17	3650 - 3660 MHz
Block 2	3500 - 3510 MHz	Block 18	3660 - 3670 MHz
Block 3	3510 - 3520 MHz	Block 19	3670 - 3680 MHz
Block 4	3520 - 3530 MHz	Block 20	3680 - 3690 MHz
Block 5	3530 - 3540 MHz	Block 21	3690 - 3700 MHz
Block 6	3540 - 3550 MHz	Block 22	3700 - 3710 MHz
Block 7	3550 - 3560 MHz	Block 23	3710 - 3720 MHz
Block 8	3560 - 3570 MHz	Block 24	3720 - 3730 MHz
Block 9	3570 - 3580 MHz	Block 25	3730 - 3740 MHz
Block 10	3580 - 3590 MHz	Block 26	3740 - 3750 MHz
Block 11	3590 - 3600 MHz	Block 27	3750 - 3760 MHz
Block 12	3600 - 3610 MHz	Block 28	3760 - 3770 MHz
Block 13	3610 - 3620 MHz	Block 29	3770 - 3780 MHz
Block 14	3620 - 3630 MHz	Block 30	3780 - 3790 MHz
Block 15	3630 - 3640 MHz	Block 31	3790 - 3800 MHz
Block 16	3640 - 3650 MHz		

Table 1: List of the frequency blocks to be awarded during this procedure

I.2 The frequencies' terms and conditions of use

This section describes the rights and conditions governing use of the frequencies being awarded through this procedure.

The rights to use the frequencies do not prohibit other players from being authorised for a secondary use of the frequency band that is the subject of this award procedure. In the case of a secondary use, the secondary user will thus not have a guarantee of no harmful interference from the users being awarded licenses through the present procedure, and must not themselves cause harmful interference with the license-holder's activity.

I.2.1 License duration and geographical scope

These are national licenses covering the whole of Metropolitan France.

The frequency license has a validity of 15 years from the day it is awarded to the license-holder.

At least two years before the license's expiry date, the license-holder will be informed of the conditions for extending or renewing their license, or the reasons for the refusal to extend or renew said license.

Here, in light of the regulatory objectives, and particularly the objectives of fair and effective competition and of efficient spectrum use and management, Arcep could propose a five-year extension to the license-holder, while amending the license's terms and conditions of use, in an objective and proportionate manner, and particularly by setting new obligations.

At least two years before the license's – potentially extended – expiry date, the license-holder will be informed of the conditions for renewing their license, or the reasons for the refusal to renew it.

I.2.2 Technical conditions of use

The license-holder must comply with the technical conditions governing the use of the frequencies as stipulated in current regulation. Today, they are defined by:

- European Commission Decision No. 2008/411/EC of 21 May 2008 amended by Commission Implementing Decision 2019/235/EC of 24 January 2019. Regarding base station additional baseline power limits, as defined in table 6 in the Annex to amended Decision 2008/411/EC, below 3400 MHz, the license-holder must maintain an Equivalent Isotropic Radiated Power (EIRP) of -59 dBm/MHz and a total radiated power (TRP) of -52 dBm/MHz per cell with an AAS (*Active Antenna System*) base station;
- Arcep Decision No. 2019-0862 of 2 July 2019 on synchronising terrestrial networks operating in the 3.4 - 3.8 GHz band in Metropolitan France.

These technical conditions are likely to change as European regulations evolve.

I.2.3 Frequency availability and usability

a) Existing wireless local loop networks in the 3490 - 3800 MHz band

In some department in France, the 3490 - 3800 MHz band is currently being used by wireless local loop networks, in blocks 1, 2, 3, 5, 6, 8 and 9 (cf.

Table 6 of Document IV). The corresponding licenses are set to expire on 25 July 2026 at the latest. Frequency re-arrangements are currently underway or will be decided by the launch of the award procedure, to make the band rapidly available to license-holders. Most will be performed by mid-2020.

b) Existing fixed satellite service earth stations in the 3490 - 3800 MHz band

Today, the 3490 - 3800 MHz band is being used by a few fixed satellite earth stations. Most have already been already been rearranged outside the band. But there are still two licenses, one in the Aube department, in the department, in the 3700 - 3750 MHz and 3758 - 3808 MHz bands, and other in the Bouches-du-Rhône in the Rhône in the 3782.744 - 3785.544 MHz band. (cf.

Table 7 of Document IV). Both should be rearranged in the 3.8 - 4.2 GHz band by March 2020.

c) Other restrictions on using 3490 - 3800 MHz band spectrum

Operating networks in the 3490 - 3800 MHz band may also be affected by other types of restriction:

- 1) A first type of restriction derives from the fact that the 3.8 - 4.2 GHz band, situated above the frequencies being awarded through this procedure, is used or can be used by fixed satellite service earth stations. Mobile network base stations using the 3.4 - 3.8 GHz band could, however, cause harmful interference with nearby fixed satellite earth stations.

To address these coexistence issues, the license-holder must comply with the following conditions when deploying their mobile network in the 3.4 - 3.8 GHz band, in addition to the technical conditions stipulated in European decisions and summarised in Part I.2.2:

- the license-holder must also take the necessary measures to comply with the unwanted emission power flux density levels at existing fixed satellite earth stations in the 3.8 - 4.2 GHz band. This currently concerns some fifteen installations;
- when new fixed satellite service earth stations are authorised in the 3.8 - 4.2 GHz band, the license-holder will also be required to take the necessary measures to comply with unwanted emission power flux density levels in these new stations.

The impact that these protective measures have on mobile network deployments in the 3.4 - 3.8 GHz band – particularly when taking into account the frequencies actually used by mobile networks in this band – is currently being discussed by France's National Frequency Agency's Electromagnetic Computability Coordination Committee (CCE). Candidates requiring access to this information to prepare their bid package for the present frequency award procedure can request access to the meetings, the minutes of previous meetings and CCE reports on the topic by sending an e-mail to the National Frequency Agency, ANFR: CCE@anfr.fr.

The management of future fixed satellite service earth stations' access to the 3.8 - 4.2 GHz band will include working to minimise the likelihood that they will have a significant negative effect on the terrestrial rollout and coverage of mobile networks in the 3.4 - 3.8 GHz band.

- 2) Other technical restrictions will be applied in certain specific areas. These restrictions take the form of transmission power limits for certain 3490 - 3800 MHz band frequencies. These restrictions apply *a priori* to the entire band. A re-examination is currently underway, however, which could result in restrictions being lifted for the 3490 - 3600 MHz sub-band.

Access to detailed information on each of these restrictions can be obtained on request by candidates that require it to prepare their bid package for the present frequency award procedure².

² If required, they may be asked to make a confidentiality commitment.

I.2.4 Transitory availability for temporary trials

Arcep has awarded authorisations to use the 3490 - 3800 MHz band for the purpose of conducting trials, to help in the fine-tuning of hardware and services that will be made available thanks to the use of these frequencies.

These authorisations, whose expiry date could fall after the date spectrum is awarded to license-holders through the present procedure, are issued on a precarious and revocable basis only.

Given how important these trials are to preparing for deployments, if the license-holder wants the trial that is using all or a portion of the frequencies it has been awarded to cease, it must make a formal request by sending a registered letter with proof of delivery to the Director-General of Arcep, including the timetable that justifies their need. Based on this request and its justification, Arcep will adopt a decision to amend or repeal the trial. The decision to repeal will come into effect no earlier than three months from its notification date.

If required, the list of existing temporary authorisations can be found on the Arcep website.

I.2.5 Cross-border coordination

The license-holder must comply with international agreements, as well as cross-border coordination agreements signed with France's neighbouring countries. These agreements may restrict frequency use in the immediate vicinity of the borders.

Information on these agreements can be obtained from the National Frequency Agency (ANFR)³.

I.2.6 License resale and spectrum trading and refarming

a) Reselling a frequency license

The terms and conditions for reselling frequency licenses are defined in Article L. 42-3 of the French Postal and Electronic Communications Code (CPCE) and its implementing decree, as well as CPCE Articles R. 20-44-9-1 to R. 20-44-9-12.

Of particular note, any plan to sell a license will be subject to prior approval by Arcep, which could deny it on one of the grounds cited in CPCE Article R. 20-44-9-5, which include undermining the conditions for achieving effective competition over access to radio spectrum or its use.

b) Making frequencies available to third parties

In accordance with the public ownership regime, the license-holder can make all or a portion of the concerned frequencies available to a third party with or without charge, for use by that third party.

Spectrum trading can concern all or only a portion of the frequencies' rights of use, whether in terms of geography (the trade may be limited to only a specific geographical area), spectrum (a portion of the frequencies) or time (a portion of the licensing period).

The rights and obligations attached to the use of the frequencies continue to apply to the license-holder, which continues to be the sole party accountable to Arcep for compliance.

Any spectrum trading plan must be submitted to Arcep for prior approval, and any other entity responsible for allocating the frequencies in question. Among other things, Arcep will verify that the planned trade will not undermine the conditions for fair and effective competition over radio spectrum use.

³<https://www.anfr.fr/international/coordination/>

The license-holder will inform the National Frequency Agency of the trade once it has gone into effect, and will provide ANFR with the name and contact details of the trade's beneficiary.

1.2.7 Procedures with the National Frequency Agency (ANFR)

The frequency license issued by Arcep does not dispense the license-holder from having to obtain any other administrative authorisation required by existing regulations, and in particular approval from France's National Frequency Agency (ANFR) prior to installing any radio base stations, when such approval is required pursuant to CPCE Article L. 43, under the conditions set out in Paragraph 5 of CPCE Article R. 20-44-11. In such instances, the license-holder will submit their request directly to the National Frequency Agency.

By the same token, the license-holder will submit requests for its frequency assignments to be inscribed in the national and international frequency registers directly to the National Frequency Agency, in accordance with Paragraph 4 of CPCE Article R. 20-44-11.

1.2.8 3.4 - 3.8 GHz band frequency caps

To ensure fair and effective competition between mobile network operators, and given the frequencies' scarcity, the license-holder cannot be authorised to use more than 100 MHz of spectrum in the 3.4 - 3.8 GHz band⁴ to provide a mobile service. If appropriate, this cap could be amended following a change in circumstances that would justify it, notably a new award procedure for the 3.4 - 3.8 GHz band.

This cap applies jointly to the license-holder and to all other companies that are authorised to use the frequencies to which it is tied through at least one of the following relationships:

- the license-holder has a decisive influence, directly or indirectly, over another company that is authorised to use frequencies in the band in question;
- a single natural or legal person has a decisive influence, directly or indirectly, over the license-holder and over one or several other companies authorised to use frequencies in the band in question.

Should the license-holder fail to comply with this provision, and in accordance with CPCE Article L. 36-11, Arcep can issue it with a formal notice to comply.

1.3 Definition of "access" and "mobile network"

Mobile access is defined as public access provided by mobile network equipment. A mobile network means a "mobile service" network as defined by the International Telecommunication Union (ITU) that can be used to provide either mobile, nomadic or fixed access.

The license-holder's mobile network corresponds to the network that provides mobile access, by using all of the license-holder's frequencies. Network elements that are shared with other operators, as part of a network sharing scheme, are considered part of the license-holder's network when they use the license-holder's frequencies to provide mobile access.

⁴ Frequency licenses that are restricted to the supply of fixed and/or nomadic services are not considered as authorising the provision of a mobile service.

I.4 Digital regional development obligations and commitments

This section lists the obligations that apply to the license-holder, as well as the additional commitments it may have made during the preliminary award stage described in Part II.2.3 of Document II.

Should the license-holder make these commitments, and in accordance with Paragraph 8/II of CPCE Article L. 42-1, they will be included as obligations in the terms of the license it is awarded.

The license-holder will satisfy these obligations by deploying its mobile network using the frequencies it has been awarded through the present procedure or, if applicable, when these frequencies are not mentioned in the obligation, using other frequencies for which it holds a license.

The license-holder must install a backhaul link for each of its mobile network's cell sites, whose capacity is at least equal to the theoretical capacity of the radio equipment deployed at the cell site, and this within the timeframe set by the deadlines listed in Parts I.4.1, I.4.2, I.4.3, I.4.4, I.4.5, I.4.6 and I.4.7.

I.4.1 Obligations of a commercial launch in the 3.4 - 3.8 GHz band by 2020

The license-holder is required to open a commercial mobile service that is available in a minimum 50% of the surface area of a municipality of more than 150,000 inhabitants and 50% of the surface area of another contiguous area covering at least 150,000 inhabitants, located in different regions of Metropolitan France, by 31 December 2020 at the latest, using the 3.4 - 3.8 GHz band frequencies it has been awarded through the present procedure.

This mobile access must enable:

- a maximum theoretical downlink speed for a given single user of at least 100 Mbit/s per 10 MHz simplex block;
- a theoretical travel time of 5 ms or less between the supply of the user's data packets to the transmitter's radio layer and reception in the receiver's MAC (Medium Access Control) layer.

I.4.2 Rollout obligations for a network providing mobile access in the 3.4 - 3.8 GHz band

The license-holder is subject to an obligation to deploy a mobile network using the 3.4 - 3.8 GHz band frequencies, as detailed below.

At each stage in the timetable, each of the cell sites must contribute significantly and effectively to the license-holder's mobile access coverage and capacity.

- a) Use of 3.4 - 3.8 GHz band frequencies at 3,000 mobile network cell sites by 31 December 2022

As of 31 December 2022, the license-holder is required to be providing mobile access using the 3.4 - 3.8 GHz band frequencies that it has been awarded through the present procedure, from at least 3,000 cell sites⁵ in its mobile network with an EIRP of more than 5 W, enabling:

- a maximum theoretical downlink speed for a given single user of at least 100 Mbit/s per 10 MHz simplex block;
- a theoretical travel time of 5 ms or less between the supply of the user's data packets to the transmitter's radio layer and reception in the receiver's MAC (Medium Access Control) layer.

⁵ These sites must be located at least 100 metres apart and transmit into 2.5 sectors in average.

- b) Use of 3.4 - 3.8 GHz band frequencies at 8,000 mobile network cell sites by 31 December 2024

As of 31 December 2024, the license-holder is required to be providing mobile access using the 3.4 - 3.8 GHz band frequencies that it has been awarded through the present procedure, from at least 8,000 cell sites⁶ in its mobile network with an EIRP of more than 5 W, enabling:

- a maximum theoretical downlink speed for a given single user of at least 100 Mbit/s per 10 MHz simplex block;
- a theoretical travel time of 5 ms or less between the supply of the user's data packets to the transmitter's radio layer and reception in the receiver's MAC (Medium Access Control) layer.

- c) Use of 3.4 - 3.8 GHz band frequencies at 12,000 mobile network cell sites by 31 December 2025

As of 31 December 2025, the license-holder is required to be providing mobile access using the 3.4 - 3.8 GHz band frequencies that it has been awarded through the present procedure, from at least 12,000 cell sites⁷ in its mobile network with an EIRP of more than 5 W, enabling:

- a maximum theoretical downlink speed for a given single user of at least 100 Mbit/s per 10 MHz simplex block;
- a theoretical travel time of 5 ms or less between the supply of the user's data packets to the transmitter's radio layer and reception in the receiver's MAC (Medium Access Control) layer.

- d) Ubiquitous increase in the mobile network's performance by 31 December 2030

As of 31 December 2030, the license-holder is required to be providing mobile access from all of the cell sites in its mobile network with an EIRP of more than 5 W, enabling:

- either, by using the 3.4 - 3.8 GHz band frequencies it has been awarded through the present procedure, mobile access enabling:
 - o a maximum theoretical downlink speed for a given single user of at least 100 Mbit/s per 10 MHz simplex block;
 - o a theoretical travel time of 5 ms or less between the supply of the user's data packets to the transmitter's radio layer and reception in the receiver's MAC (Medium Access Control) layer.
- o or, under the terms and conditions set out in sections I.4.3d) and I.4.3e) using the frequencies it has been awarded through the present procedure – or, if applicable, other frequencies which it is licensed to use – mobile access enabling the supply of tiered services that are equivalent to those provided by 5G, and a theoretical travel time of 5 ms or less between the supply of the user's data packets to the transmitter's radio layer and reception in the receiver's MAC (Medium Access Control) layer.

I.4.3 Obligation to ensure an increase in the speeds supplied by the mobile networks

- a) Increase throughput on at least 75% of the mobile network's cell sites by 31 December 2022

As of 31 December 2022, the license-holder must be providing speeds of 240 Mbit/s per sector⁸ from at least 75% of its mobile network's cell sites⁹ with an EIRP of more than 5 W.

⁶ These sites must be located at least 100 metres apart and transmit into 2.5 sectors in average.

⁷ These sites must be located at least 100 metres apart and transmit into 2.5 sectors in average.

- b) Increase throughput on at least 85% of the mobile network's cell sites by 31 December 2024

As of 31 December 2024, the license-holder must be providing speeds of 240 Mbit/s per sector¹⁰ from at least 85% of its mobile network's cell sites¹¹ with an EIRP of more than 5 W.

- c) Increase throughput on at least 90% of the mobile network's cell sites by 31 December 2025

As of 31 December 2025, the license-holder must be providing speeds of 240 Mbit/s per sector¹² from at least 90% of its mobile network's cell sites¹³ with an EIRP of more than 5 W.

Furthermore, the license-holder must achieve the percentages listed in Parts a), b) and c) locally in all or the portion of the geographical areas subject to the restrictions set out in Part 2) of Part I.2.3c). The list of these areas and the concerned portion of these areas is established at the same time.

- d) Increase throughput on 100% of the mobile network's cell sites by 31 December 2030

As of 31 December 2030, the license-holder must be providing speeds of 240 Mbit/s per sector¹⁴ from 100% of its mobile network's cell sites¹⁵ with an EIRP of more than 5 W.

- e) Details regarding the obligations listed in section I.4.3

The obligations listed in this section I.4.3 are satisfied by the license-holder's use of their frequencies. In areas where there is little traffic due to the low density of users¹⁶, however, and without prejudice to the framework that applies to network sharing¹⁷, when the site is part of a network sharing agreement that includes frequencies being shared between all of the license-holders, the obligations listed in this section I.4.3 can be satisfied by the use of these shared frequencies.

I.4.4 Concomitant regional rollout obligations

By the 31 December 2024 and 31 December 2025 deadlines, the license-holder must have at least [20|25%] of its mobile network sites¹⁸ with an EIRP of more than 5 W, and which use the 3.4 - 3.8 GHz band frequencies it has been awarded through the present procedure, in the [priority

⁸ This means that the site is technically capable of supplying a speed of 240 Mbit/s in each sector and that the site's backhaul link is provisioned to do so.

⁹ These sites must be located at least 100 metres apart and transmit into 2.5 sectors in average.

¹⁰ This means that the site is technically capable of supplying a speed of 240 Mbit/s in each sector and that the site's backhaul link is provisioned to do so.

¹¹ These sites must be located at least 100 metres apart and transmit into 2.5 sectors in average.

¹² This means that the site is technically capable of supplying a speed of 240 Mbit/s in each sector and that the site's backhaul link is provisioned to do so.

¹³ These sites must be located at least 100 metres apart and transmit into 2.5 sectors in average.

¹⁴ This means that the site is technically capable of supplying a speed of 240 Mbit/s in each sector and that the site's backhaul link is provisioned to do so.

¹⁵ These sites must be located at least 100 metres apart and transmit into 2.5 sectors in average.

¹⁶ The areas covered by schemes for improving multi-operator coverage which are coordinated by public authorities for the purpose of regional digital development – such as the “town centre not spot” scheme and the targeted coverage scheme – are deemed to have met these criteria.

¹⁷ Any such network sharing scheme will be submitted to Arcep for prior approval (cf. section I.7.2).

¹⁸ These sites must be located at least 100 metres apart and transmit into 2.5 sectors in average.

rollout area¹⁹ or an area (TBD) to target economic activity in low-density areas, and particularly industrial activity].

I.4.5 Roadway coverage obligations

a) Motorway coverage

Roads that are classified as motorways are defined by the French National Geographic Institute (IGN) ROUTE 500^{®20} database – edition 181 (2018). They correspond to 16,642 km of roads.

In cases where, on the date it is awarded frequencies through the present procedure, the license-holder is given the obligation of ensuring coverage of priority routes before 31 December 2025, it must be providing mobile access to tiered services that are available outside of vehicles on all roads in Metropolitan France that are classified as motorways, using cell sites in its mobile network supplying speeds of at least 100 Mbit/s per sector²¹ and a theoretical travel time of 10 ms or less between the supply of the user's data packets to the transmitter's radio layer and reception in the receiver's MAC (Medium Access Control) layer, by 31 December 2025.

Otherwise, the license-holder is required to provide mobile access to tiered services that are available outside of vehicles on all roads in Metropolitan France that are classified as motorways, from cell sites in its mobile network supplying speeds of at least 100 Mbit/s per sector²² and a theoretical latency of 10 ms or less between the supply of the user's data packets to the transmitter's radio layer and reception in the receiver's MAC (Medium Access Control) layer, as of 31 December 2027.

b) Coverage of main link roads

Roads that are classified as main link roads are defined by the French National Geographic Institute (IGN) ROUTE 500^{®23} database – edition 181 (2018). They correspond to 54,913 km of roads.

In cases where, on the date it is awarded frequencies through the present procedure, the license-holder is given the obligation of ensuring coverage of priority routes before 31 December 2025, it must provide the following on all roads that are classified as main link roads:

- As of 31 December 2025, mobile access available on-board vehicles from its mobile network sites supplying at least 50 Mbit/s per sector²⁴;
- As of 31 December 2027, mobile access available outside vehicles from its mobile network sites supplying at least 100 Mbit/s per sector²⁵.

Otherwise, on all roads classified as main link roads the license-holder must provide:

- As of 31 December 2027, mobile access available on-board vehicles from its mobile network sites supplying at least 50 Mbit/s per sector²⁶;

¹⁹ Used here as the geographical footprint of the area defined in Arcep Decision No. 2015-0825 of 2 July 2015 proposing to the Minister responsible for electronic communications the terms and procedure for awarding licenses to spectrum in the 700 MHz band in Metropolitan France to establish and operate a public mobile communication network.

²⁰ <http://professionnels.ign.fr/route500>

²¹ These sites must be located at least 100 metres apart and transmit into 2.5 sectors in average.

²² These sites must be located at least 100 metres apart and transmit into 2.5 sectors in average.

²³ <http://professionnels.ign.fr/route500>

²⁴ This means that the site is technically capable of supplying a speed of 50 Mbit/s in each sector and that the site's backhaul link is provisioned to do so.

²⁵ This means that the site is technically capable of supplying a speed of 100 Mbit/s in each sector and that the site's backhaul link is provisioned to do so.

- As of 31 December 2027, mobile access available outside vehicles from its mobile network sites supplying at least 100 Mbit/s per sector²⁷.

I.4.6 Commitment to supply a fixed access service on the mobile network

In the event that the candidate wants to obtain frequencies during the first stage dedicated to awarding blocks of [YYYY] MHz, it must make the following commitment, in accordance with Part II.2.3 of Document II:

The company [Company name] commits to providing a fixed internet service on its mobile network, as of 31 December 2023 and in the areas it identifies and makes public, in accordance with the provisions contained in Arcep Decision No. 2018-0169 of 22 February 2018, notably through all or a portion of the cell sites employing the 3.4 - 3.8 GHz band frequencies it has been awarded through the present procedure. The access service provided through these sites must enable performances equivalent to those described in Paragraph I.4.2a) of Document I of the Annex to Arcep Decision No. 2019-[xxxx].

In addition, in the areas covered by its mobile network that have been identified by the government, the company commits to providing a fixed internet access service making utmost use of the site's available capacities, barring duly justified capacity constraints. This government request is made through an order from the Minister responsible for electronic communications, after consultation with the company. The company commits to providing the service within four months of the order's publication, barring a duly justified lack of sufficient capacity to ensure the ability to maintain a satisfactory quality of service for mobile users.

The conditions for accessing the service will enable the user to access a minimum data allowance, specified in their plan, at unbridled speeds, subject to reasonable traffic management measures, under the terms and conditions that comply with Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access. If required due to the end user's geographical location, the access conditions set by the company could include the supply of an outdoor antenna to be installed on the user's premises, to optimise the quality of the connection.

I.4.7 Commitment to provide ultrafast fixed wireless access or an ultrafast fixed wholesale offer

There are already fixed wireless internet access networks operating in the 3.4 - 3.8 GHz band. Their licenses are set to expire by 26 July 2026 at the latest. The following commitment concerns fixed internet access coverage for premises with an ultrafast service provided by these networks and which, in light of the prospects of alternative solutions being deployed, will likely not have access to a fixed internet access service that guarantees a level of service at least equivalent to the one provided by these networks by 2026. Arcep will take an inventory and identify the areas to which this applies, by 1 July 2023.

²⁶ This means that the site is technically capable of supplying a speed of 50 Mbit/s in each sector and that the site's backhaul link is provisioned to do so.

²⁷ This means that the site is technically capable of supplying a speed of 100 Mbit/s in each sector and that the site's backhaul link is provisioned to do so.

In the event that the candidate wants to obtain frequencies during the first stage dedicated to awarding blocks of [YYYY] MHz, it must make the following commitment, in accordance with Part II.2.3 of Document II:

The company [Company name] commits, as of 31 March 2026:

- *To offer a wholesale capacity solution on its mobile network at a reasonable price, which makes it possible to provide those premises identified by Arcep, in accordance with the first paragraph of Part I.4.7 of Document I of the Annex to Arcep Decision 2019-[xxxx], a fixed internet access service that guarantees a level of service at least equivalent to the one provided by the fixed wireless access service in question that has been switched off;*
- *To provide these same premises with a fixed internet access service at a reasonable price, and guaranteeing a level of service at least equivalent to the one provided by the fixed wireless access service in question that has been switched off. This last obligation is considered satisfied if another access provider supplies this service, e.g. by using the above-mentioned wholesale offer.*

If other frequency license-holders have made the same commitment, the resulting obligation could be satisfied collectively with these other license-holders. In the event that this commitment is satisfied collectively, the way in which the areas are divided up between the license-holders that have made this same commitment must enable coverage of as many premises as possible, by deploying cell sites in different areas, if necessary. Within three months of Arcep's identification of these areas, the company, jointly with the license-holders that have made this same commitment, will provide Arcep with the details on how the responsibility to provide the service or the above-mentioned wholesale offer is to be divided up between the license-holders, along with a provisional timetable. This submitted division of responsibility between the license-holders that have made this same commitment becomes a legally binding commitment to Arcep.

For each of the areas identified by Arcep, the company agrees to satisfy this commitment by the later of the two following dates:

- *The date of Arcep's notification to which a period of four months is added if required to open a service without increasing capacity, of 12 months if there is a need to increase capacity without building any new sites, and 24 months in all other cases;*
- *31 March 2026.*

The license-holder makes this commitment for up to a maximum 600 additional sites with an EIRP of more than 5 W in the mobile network to be deployed. The company agrees to take all of the measures required to ensure that the service will be provided to as many premises in the area as possible.

Regarding the wholesale capacity offer on its mobile network, referred to in the previous paragraphs, the company will propose an initial draft agreement that includes hosting (with the hosting offer that is operational as soon as the frequencies actually begin to be used), and will engage in good faith negotiations to conclude the contract within a timeframe that enables the contracting party to be providing retail market services as a result by 31 March 2026.

I.4.8 Commitment of transparency on rollout projections

In the event that the candidate wants to obtain frequencies during the first stage dedicated to awarding blocks of [YYYY] MHz, it must make the following commitment in particular, in accordance with Part II.2.3 of Document II:

The company [Company name] agrees to the following, upon being awarded a frequency license through the present procedure:

- *To publish information every three months on the cell sites in its mobile network that are due to be become operational in the next three months, according to the procedure set out by Arcep. This information will include, at the very least, the sites' geographical coordinates and a resulting forecast coverage map;*
- *Provide Arcep with the following, every six months from the date of being awarded frequency license through the present procedure:*
 - *The list of the sites (and a map of their indicative coverage) for which a town planning permit has been filed, and which have not yet been put into service, along with the dates on which they are planned to become operational;*
 - *For each department, the number of sites that the candidate plans on deploying in the next two years, and the corresponding coverage forecasts.*

If appropriate, Arcep could publish the thus collected data in aggregate form.

1.4.9 Commitment to transparency over network failures

In the event that the candidate wants to obtain frequencies during the stage devoted to awarding blocks of [YYYY] MHz, it must make the following commitment in particular, in accordance with Part II.2.3 of Document II:

The company [Company name] commits, from the date it is awarded the frequency license through the present procedure, to publish on its website and update daily, the list of the sites that are not providing mobile access or whose mobile access is degraded due to maintenance or failure, along with information on these sites and a map for visualising them, at the least on a nationwide, regional, departmental and municipal scale – and this in an open and easily reusable electronic format .

The information provided to the public will be harmonised according to a format defined by Arcep and will include the following details in particular:

- *location of the sites (geographical coordinates and municipality where the site is located);*
- *service and technology affected;*
- *date and time the incident or failure occurred;*
- *date the operator plans to intervene to restore service.*

This commitment applies to all of the sites belonging to the company's mobile network, as well as sites run by other operators and that provide mobile access to the company's customers.

1.5 Obligations and commitments on developing investment, innovation and competitiveness

This section lists the obligations that apply to the license-holder, along with the supplementary commitments it is likely to have made, as part of the award stage described in Part II.2.3 of Document II.

In the event the candidate has made these commitments, and in accordance with Para. 8/II of CPCE Article L. 42-1, they will be listed as obligations in the terms of the license it is awarded.

The license-holder satisfies these obligations by deploying its own mobile network using the frequencies that it has been awarded through the present procedure or, if applicable, when these frequencies are not mentioned in the obligation, employing other frequencies it has been licensed to use.

I.5.1 Obligation to perform a commercial launch based on tiered services

The license-holder is required to provide commercially available mobile access products using a solution that makes it possible to manage – in an efficient manner – the simultaneous coexistence of several access products of differing performance and quality of service levels on the same mobile network including, if applicable, in the same geographical area, e.g. thanks to the slicing mechanisms enabled by a 5G network core.

The license-holder will satisfy this obligation as of 31 December 2023 or one year after the hardware and software enabling such solutions become commercially available, if this date falls later than 31 December 2022.

Arcep will assess the equipment's commercial availability.

I.5.2 Commitments relating to the supply of services to “verticals”

The term “vertical” refers to all of the private sector companies, regardless of their field of activity and, by extension, public sector structures whose electronic communication needs are similar to those of private sector companies, which are the end users of electronic communication services.

In the event that the candidate wants to obtain frequencies during the initial stage devoted to awarding blocks of [YYYY] MHz, it must make the following commitment in particular, in accordance with Part II.2.3 of Document II:

The company [Company name] agrees to grant all reasonable requests to supply services to verticals, under reasonable conditions, when introducing tiered services commercially, as described in I.5.1 of Document I of the Annex to Arcep Decision No. 2019-[xxxx].

The company will grant reasonable requests, as it prefers:

- *either via its mobile network, through a customised plan or a standard plan in the catalogue, with the vertical having the option of providing infrastructure (tower, location...) that facilitates the supply of the service;*
- *or by making all of the 3490 - 3800 MHz band frequencies to which it holds the license available locally:*
 - *to the vertical wanting to deploy and operate its own network for its own needs within a set geographical area; or*
 - *to an operator that provides services to the vertical, which would use the company's frequencies within a set geographical area, to satisfy the vertical's demand.*

When necessary, the company will define the terms and conditions for making the frequencies available, to guarantee the lack of disturbance and the security of its network, parallel to the use of these frequencies exclusively for the vertical's needs.

The company will publish the procedure that a vertical must follow to submit a request, and will make the internal procedures it has put into place to meet verticals' requests available to Arcep on request, as well as the standard products for verticals based on its mobile network providing tiered services.

Regarding this commitment, Arcep specifies that:

- verticals' requests may concern:
 - the supply of a tiered service within a restricted geographical area, outdoors and/or indoors, and specific performance criteria (speed, latency, reliability...);
 - hosting verticals' services using resources associated with the license-holders' mobile network that provides tiered services, such as the network core and/or points of

presence, when the requesting party deems them necessary for performance, security or proprietary considerations with respect to the services in question.

- the reasonable nature of the request is assessed based on the justification of the requesting party's needs and the license-holder's ability to satisfy them, taking particular account of its network's security constraints;
- the reasonable nature of the pricing conditions is assessed in particular with respect to the investments the company has made to meet the request, the associated profit level and the two parties' respective financial contribution.

I.5.3 Commitments to provide indoor coverage for businesses and public entities

a) Commitment to grant requests for connections to Distributed Antenna Systems

In the event that the candidate wants to obtain frequencies during the stage devoted to awarding blocks of [YYYY] MHz, it must make the following commitment in particular, in accordance with Part II.2.3 of Document II:

The company [Company name] agrees to publish, jointly with all of the other companies that have been awarded frequency licenses through the present procedure and which have made the same commitment, a common set of technical specifications and procedures to follow for installing Distributed Antenna Systems (DAS), in particular to guarantee compliance with electromagnetic field (EMF) exposure standards, and quality of service standards desired by the company, and this within a maximum six months of being issued a licence to the spectrum being awarded through the present procedure.

The company will grant enterprises' and public entities' requests to connect its mobile network to a pre-installed DAS, under reasonable technical and economic conditions and within a reasonable timeframe, provided the installer of the DAS in question complies with the specifications. To reduce the cost for the requesting party, the company will offer a solution that makes utmost use of either its own or the requesting party's existing resources (such as optical fibre links or a nearby cell site).

In the particular case where the requesting party wants several of the operators that have made the same commitment to connect their respective networks to a pre-installed DAS, the company to which the request for multiple connections is made, to reduce the overall cost to the requesting party, will propose a solution that:

- *Shares the requested connections (at the radio rack and/or core network connectivity level) with the other operators concerned, except when technically impossible; and*
- *makes utmost use of either the requesting party's existing resources or those of one or several of the operators involved (such as optical fibre links or a nearby cell site).*

To this end, when such a request is made to an operator that has made the same commitment, the company will grant said operator's request to connect its network to the pre-installed DAS under the above listed conditions, under reasonable pricing terms and conditions.

The company will publish the pricing terms and conditions for connecting its network to the pre-installed DAS for enterprises and public entities, which could depend in particular on whether or not the connection is shared and whether or not use is made of the company's or the requesting party's existing resources.

b) Commitment to sharing small cells

In the event that the candidate wants to obtain frequencies during the initial stage devoted to awarding blocks of [YYYY] MHz, it must make the following commitment in particular, in accordance with Part II.2.3 of Document II:

*When it offers or plans to offer small cell deployment (i.e. low-power wireless access points, typically with a limited range and using small equipment) indoors to a company or public entity, to improve its mobile network coverage, and said company or public entity requests multi-operator coverage, the company **[Company name]** agrees to offer multi-operator coverage enabling access to mobile (voice and SMS) and data (excluding dedicated services such as those designed for the Internet of Things) services by sharing these small cells with the other operators involved who have made the same commitment, and this for a reasonable price.*

To this end, when such a request is made to an operator that has made the same commitment, the company will grant that operator's request to share said cells, under reasonable technical and pricing terms and conditions.

I.5.4 Obligation to support IPV6

The license-holder must make its mobile network compatible with the IPv6 routing protocol by 31 December 2020.

I.6 Obligations and commitments on engaging in fair and effective competition between operators, for the benefit of users

This section lists the obligations that apply to the license-holder as well as the additional commitments that it is likely to have made as part of the award stage described in Part II.2.3 of Document II.

In the event that it has made these commitments, and in accordance with Para. 8 / II of CPCE Article L. 42 1, these commitments will be listed as obligations in the license it is awarded.

The license-holder satisfies these obligations by deploying its mobile network using the frequencies that it has been awarded through the present procedure or, if applicable, when these frequencies are not mentioned in the obligation, using other frequencies for which it holds the license.

I.6.1 Commitments to host MVNOs

In the event that the candidate wants to obtain frequencies during the stage devoted to awarding blocks of [YYYY] MHz, it must make the following commitment in particular, in accordance with Part II.2.3 of Document II:

*The company **[Company name]** agrees to host mobile virtual network operators (MVNO) on its entire mobile network, under the following conditions:*

- *Within three months of having been obtained a frequency license awarded through the present procedure, and as soon as is practicable, the company will grant reasonable hosting requests (with a hosting service that will become operational as soon as the company actually begins to employ the frequencies awarded through the present procedure);*
- *Within three months of having been awarded a frequency license through the present procedure, the company will propose to each of the MVNOs that are already being hosted on its network an initial draft amendment of their existing hosting contract (with a hosting service that will become operational as soon as the company actually begins to employ the frequencies), and will conduct negotiations in good faith with the MVNOs to agree on the*

amendment within a timeframe that will enable mobile virtual network operators to provide the resulting services simultaneously with the company's launch of its own retail market services;

- *the company will offer hosting conditions that will not impede the goal of a competitive wholesale market for MVNO hosting, and MVNOs' commercial autonomy in the retail market, without justification;*
- *in particular, the company will propose an offer based on a full MVNO architecture;*
- *the company will upgrade its hosting solution to propose all of the technical upgrades on its mobile network to MVNOs, under reasonable conditions. Here, the company will inform MVNOs of said technical upgrades to the hosting solution well enough in advance, and will negotiate with them in good faith to enable MVNOs to provide the resulting services simultaneously with the company's launch of its own retail market services. Among these developments, the hosting offer will include a solution that makes it possible to market tiered services;*
- *the company will provide MVNO hosting under economically reasonable conditions, notably with respect to the prevailing conditions in the wholesale and retail markets in which it operates, and which are compatible with achieving fair and effective competition in these markets.*

Furthermore, the company agrees that, in the event that it establishes an active sharing agreement with one or several other operators, it will allow its MVNO customers to benefit from that agreement, under reasonable pricing conditions.

Regarding this commitment, Arcep notes that MVNOs' requests could pertain to:

- the supply of services whose performance or quality of service are without equivalent in the services that the license-holder sells in the retail market;
- hosting MVNOs' services on the resources associated with the license-holder's mobile network that provides tiered services, such as network core and/or points of presence, and associated backhaul with customised quality of service, when the requesting party deems it necessary for performance, security or proprietary considerations regarding the services in questions, or a dedicated MVNO audit hosting offer.

[If option 2A is chosen:

1.6.2 Network sharing obligation in areas with restrictions in a portion of the frequency band

The obligation described in this section applies only in those areas where restrictions make it impossible to deploy mobile networks in certain 3.4 - 3.8 GHz band frequencies under reasonable conditions (cf. section 1.2.3c).

For each of the areas in question that are subject to an identified restriction, when the license-holder has frequencies in the 3.4 - 3.8 GHz band that are not subject to the aforementioned restrictions, it must, under reasonable conditions, grant requests for active sharing of the networks using these frequencies coming from another license-holder which has been awarded frequencies that are subject to the restrictions mentioned in the previous paragraph, in the areas in questions, and which do not have at least [YYYY] unrestricted MHz in these areas.

Candidates can obtain detailed information on each of these restrictions upon request, for the purpose of preparing their bid package for the present frequency award procedure²⁸.

Active sharing agreements are established through trade negotiations between license-holders. The provisions of this obligation shall not prejudice the technical and economic provisions contained in the active sharing agreement established between the license-holders, nor the governance or operational management rules they may decide upon.

End of option 2A]

[if option 2B is chosen:

I.6.3 Network sharing obligation in areas with restrictions in a portion of the frequency band

Over time, as the frequencies being awarded through this procedure are used, Arcep will evaluate the impact of the above-mentioned restrictions in the 3.4 - 3.8 GHz band, in particular to determine whether they create obstacles to network rollouts, and whether they affect users' capacity to access networks and services. If warranted, Arcep could impose active sharing obligations on 3.4 - 3.8 GHz frequency band license-holders, including obligations to sign roaming agreements.

Candidates can obtain detailed information on each of these restrictions upon request, for the purpose of preparing their bid package for the present frequency award procedure²⁹.

If required, active sharing agreements will be established based on trade negotiations between the license-holders.

End of option 2B]

I.7 Mobile network sharing

I.7.1 Definitions

Passive infrastructure sharing refers to a system whereby operators share cell sites, in other words partners pool the use of all or a portion of passive infrastructure elements such as towers or rooftop antennae, feeders (the coaxial cables that connect the antennae to the base stations), the technical premises, the network equipment's technical environment (electricity, air conditioning, civil engineering, etc.). Each operator installs its own active equipment and its own antennae at each of the shared sites, and uses its own frequencies.

Active equipment sharing refers to a system whereby several operators share the use of the radio access networks' active equipment (i.e. installations that include electronic or optical signal processing equipment), which includes base station equipment, base station controllers and the associated transmission links. The deployment and management of shared installations can be performed by all or a portion of the operators involved in the sharing scheme.

There are two main types of active equipment sharing:

- roaming;
- and network sharing.

²⁸ If required, they may be asked to make a confidentiality commitment.

²⁹ If required, they may be asked to make a confidentiality commitment.

Roaming consists of a mobile network operator hosting another mobile network operator's customers on its own network, during which only the host operator's frequencies are used.

From a technical standpoint, **network sharing** differs from roaming with respect to the frequencies transmitted: unlike with roaming, it involves the use of both operators' frequencies. This scheme may or may not include spectrum sharing:

- **network sharing without spectrum sharing** is a form of active equipment sharing whereby the frequencies belonging to all of the operators involved in the sharing scheme are used, with each one using their own frequencies separately;
- **network sharing with spectrum sharing** between several operators is a form of network sharing that involves pooling the frequencies licensed to each of the operators involved, to be used in a combined fashion such that the customers of each of the operators involved is able to access all of the frequencies in question. This process can enable the creation of wider channels and so the ability to provide users with faster connections.

The network elements shared with other operators as part of a network sharing scheme, with or without spectrum sharing, are considered part of the operator's mobile network, as defined in Part I.3.

I.7.2 Overall network sharing framework

Candidates are reminded that:

- pursuant to CPCE Article D. 98-6-1, operators are subject to passive radio base station sharing obligations across the entire country, particularly when installing new sites;
- pursuant to CPCE Article L. 34-8-6, operators are subject to obligations to provide access to a radio installation's physical infrastructure, its power supply and the transmission link used to connect this installation, notably in mountain areas.

Moreover, the license-holder may establish network sharing agreements with one or several operators to achieve broad national coverage more easily, via trade negotiations, provided these agreements comply with competition law and electronic communications law.

Spectrum sharing means that every operator involved will make their frequencies available to one of the other operators or a third-party company, implemented in accordance with Part I.2.6b) of these specifications.

In accordance with the provisions of CPCE Article L. 34-8-1-1, once concluded, mobile network sharing agreements will be communicated to Arcep.

I.7.3 Provisions regarding white areas and the targeted coverage scheme

On the specific matter of the cell sites in its mobile network that are part of France’s “Town centre not spots” scheme³⁰ and the sites in its mobile network deployed under the targeted coverage scheme³¹ that are subject to a network sharing obligation³²:

- the license-holder is required to implement network sharing, in tandem with the other license-holders concerned by these sites when, to ensure compliance with the obligations set out in the present document, changes are made to these sites;
- exceptionally, for sites where only passive equipment sharing had been implemented prior to requiring compliance with the obligations set out in the present document, the license-holder must, at minimum, share the passive elements with the other license-holders when, to ensure compliance with the obligations set out in the present document, changes are made to these sites;
- the license-holders concerned by this provision are invited to conclude a mobile network sharing agreement that stipulates a timetable and technical and financial arrangements that include sharing the above-mentioned networks. Pursuant to the provisions in CPCE Article L. 34-8-1-1, once concluded, this agreement will be communicated to Arcep.

I.8 Assessing implementation and requirements

An assessment will be performed of the implementation of the license-holder’s obligations and of current requirements – notably mobile network coverage and quality of service needs – by 2023 and by 2028, in concert with the license-holder.

Based on the findings of each assessment, Arcep could amend the license-holder’s obligations after having conferred with the license-holder and with their accord.

I.9 Monitoring obligations and performing audits

The following obligations result from both the present procedure and the general legal and regulatory framework.

³⁰ Programme established by the national agreement of 15 July 2003 amended and provided for in particular by Articles 52 and 52-1 of Act No. 2004-575 of 21 June 2004 on confidence in the digital economy and Articles 119, 119-1 and 119-2 of Act No. 2008-776 of 4 August 2008 on modernising the economy.

³¹ Targeted coverage scheme defined in Part 3.2 of the annex to the Arcep Decisions:

- No. 2018-1390 of 15 November 2018 authorising the company Bouygues Telecom to use frequencies in the 900 MHz, 1800 MHz and 2.1 GHz bands in Metropolitan France to establish and operate a public radio access network;
- No. 2018-1391 du 15 November 2018 authorising the company Free Mobile to use frequencies in the 900 MHz and 2.1 GHz bands in Metropolitan France to establish and operate a public radio access network;
- No. 2018-1392 du 15 November 2018 authorising the company Orange to use frequencies in the 900 MHz, 1800 MHz and 2.1 GHz bands in Metropolitan France to establish and operate a public radio access network;
- No. 2018-1393 du 15 November 2018 authorising the company Société Française du Radiotéléphone (SFR) to use frequencies in the 900 MHz, 1800 MHz and 2.1 GHz bands in Metropolitan France to establish and operate a public radio access network.

³² This obligation will be in effect “when the area has been listed as part of the targeted coverage scheme for all operators, and none are providing a mobile access service offering “good coverage” – as defined by Arcep Decision No. 2016-1678 of 6 December 2016 – on the day said order is published”.

I.9.1 Complying with digital regional development obligations

To enable Arcep to verify compliance with the performance and coverage obligations attached to the supply of a mobile access service, set out in Part I.4 of this document, the license-holder will provide Arcep with information on deployed cell sites and its mobile network's coverage across the country, upon request and, at minimum, by each deadline stipulated in Parts I.4.1, I.4.2, I.4.3, I.4.4 and I.4.5.

The information provided will be detailed enough to enable Arcep to assess geographical and demographic diversities. It will include, at minimum, an electronic version of the network coverage maps, which can be used in a geographical information system, as well as the lists of the sites the operator has deployed, in a spreadsheet-compatible format, and which distinguish the frequencies deployed in the field. Arcep could define the format to be used to transmit this information.

Arcep may verify compliance with coverage and rollout obligations periodically, using a methodology that will be defined at a later date, and which could include accessibility tests, and tests for detecting the quantity of spectrum being employed.

The license-holder will assume the financial cost of performing these audits, in accordance with the provisions of CPCE Article L. 33-12.

The service provided by the mobile network must be available for at least 95% of connection attempts. This availability must be 24/7, including at peak traffic times, in all of the areas in question, namely:

- in municipalities, for outdoor pedestrian use;
- on the roads covered by obligations regarding use outside vehicles, the test could be performed by a vehicle driving at the legal speed limit on the road in question, using instruments for simulating outdoor use (e.g. roof box);
- on the roads covered by obligations for providing access on-board vehicles, the test could be performed by a vehicle driving at the legal speed limit on the road in question, using devices simulating in-vehicle use.

I.9.2 Keeping users informed about coverage

The license-holder will publish national coverage information on its services, in accordance with the applicable legal and regulatory provisions, and notably the above-mentioned Arcep Decision No. 2016-1678 of 6 December 2016.

Pursuant to CPCE Article L. 33-12, the license-holder will assume the financial cost of performing the tests whose purpose is verify the accuracy of its network coverage information.

I.9.3 Measuring quality of service

Pursuant to CPCE Article L. 33-12, the license-holder will assume the financial cost of measuring the quality of the mobile services it sells. The testing will be performed in accordance with a methodology and frequency established by Arcep. The results of these audits will be published in a format defined by Arcep.

I.10 Financial fees

I.10.1 Frequency licensing fee

The license-holder must pay their frequency licensing fee, in accordance with the provisions set out in the amended Decree No. 2007-1532 of 24 October 2007.

In particular, the license-holder must pay the set portion of the licensing fee that will depend on the outcome of the initial stage dedicated to awarding blocks of [YYYY] MHz, the main auction for awarding blocks of 10 MHz and the channel position assignment auction.

I.10.2 Spectrum refarming fund contributions

The license-holder is required to contribute to France's Spectrum refarming fund, according to terms set by CPCE Article L. 41-2. An estimate of the amount that license-holders will be required to refund can be found on the National Frequency Agency (ANFR) website.

Document II Frequency award procedure arrangements

The purpose of this document is to define the rules for awarding frequencies under the present procedure, as defined in Part I.1 of Document I.

II.1 Award procedure

II.1.1 Preamble

It is recalled that in accordance with Article L. 420-1 of the Commercial Code:

“Concerted actions, expressed or tacit agreements, understandings or coalitions are prohibited, even by a direct or indirect intermediary of a company belonging to the group based outside of France, when the purpose of such actions is to impede, restrict or distort competition in the market, notably when they are apt to:

- 1) Limit other companies’ access to the market or free and fair competition;*
- 2) Create an obstacle to setting a fair market price by artificially favouring an increase or decrease;*
- 3) Limit or control production, markets, investments or technical progress;*
- 4) Share markets or sources of supply.”*

In particular, in accordance with Article L. 420-1 of the Commercial Code, candidates are forbidden from discussing the present procedure with one another over the course of the entire procedure – from the candidates’ preparation of their bid package to the publication of the results of the position assignment auctions stage.

Here, and in accordance with Article L. 36-10 of the French Postal and Electronic Communications Code (CPCE), the Chair of Arcep can refer to the Competition Authority regarding any practices that impede free competition of which it is aware, so that the latter might take all appropriate measures to remedy the situation.

II.1.2 Provisional timetable

The publication of the Order from the Minister responsible for electronic communications in the *Journal Officiel*, setting out the terms and procedure for awarding licenses marks the start of the tender process.

The deadline for filing applications (T_d) is 12 o’clock pm, local time, on the first Tuesday following the end of the 5-week period following the publication of the Ministerial Order in the *Journal Officiel*. If this publication falls on a Tuesday, T_d will be 12 o’clock pm, local time on the Tuesday that falls exactly 5 weeks later.

Arcep will conduct the procedure according to the following timetable:

Stage 1: $T_d - 2$ weeks	<ul style="list-style-type: none"> ○ Deadline for sending Arcep requests for information on the procedure ○ Deadline for submitting optional declarations of candidacy to Arcep
Stage 2: T_d	<ul style="list-style-type: none"> ○ Deadline for filing bid packages
Stage 3: $T_d +$ approx. 2 weeks	<ul style="list-style-type: none"> ○ Arcep informs candidates of the exact date, time and location of the start of the main auction, as well as the location of the position assignment auction
Stage 4: $T_d +$ approx. 4 weeks	<ul style="list-style-type: none"> ○ Arcep publishes the list of candidates that are qualified to participate in the auction stage ○ If applicable, in accordance with Part II.2.3, Arcep requests that the concerned candidates submit their bids for obtaining a block of [YYYY] MHz at a specified date and time
When applicable, stage 4 B: stage 4 + approx. 3 weeks	<ul style="list-style-type: none"> ○ If applicable, in accordance with Part II.2.3, deadline for submitting a bid to obtain a block of block of [YYYY] MHz;
Stage 4 C: when applicable, stage 4 B + approx. 1 week or simultaneously with stage 4	<ul style="list-style-type: none"> ○ Arcep publishes the results of the award stage for blocks of [YYYY] MHz
Stage 5: stage 4 C + 1 week maximum	<ul style="list-style-type: none"> ○ Deadline for candidates to submit the list of the people they have authorised to participate in the main auction stage
Stage 6: stage 4 C+ approx. 2 weeks	<ul style="list-style-type: none"> ○ Conduct of the main auction and announcement of the results of the main auction
Stage 7: stage 6 + approx. 1 week	<ul style="list-style-type: none"> ○ Conduct of the position assignment auction and announcement of the results of the position assignment auction
Stage 8: stage 7+ approx. 1 week	<ul style="list-style-type: none"> ○ Award of the licenses to the winning candidates

Table 2: Award procedure timeline

Except for stages 1, 2 and 5, the timelines indicated in above table are approximate. In any event, the winning candidates will be awarded their licenses a maximum eight months after date T_d , in accordance with the deadline mentioned in CPCE Article R. 20-44-9.

II.1.3 Preparing bid packages and requests for information

The natural and legal persons planning to submit a bid package are invited to make themselves known to Arcep as soon as possible, and at most three weeks after the award procedure has begun, and this by registered letter with proof of delivery, sent to the attention of the Director General of Arcep, so that Arcep may send them any additional, relevant information without delay.

Up until two weeks before the deadline for submitting bid packages (T_d), before 12 o'clock pm, local time, the persons planning to submit a bid package may submit requests to Arcep for any additional information they deem necessary. All questions and requests for information must be sent in writing to the Chair of Arcep.

To ensure that all candidates are equally well informed, Arcep reserves the right to share the contents of the answers to the questions it received with all of the persons planning to submit a bid package, while taking business secrecy into account. This information may also be published on Arcep's website.

II.1.4 Submitting bid packages

The bid packages must be submitted, against receipt, before the bid package submission deadline (T_d), at 12 o'clock pm (local time), at the French Electronic Communications and Postal Regulatory Authority's (Arcep) headquarters, located at: 14 rue Gerty Archimède, 75012 Paris.

The content of these packages is described in III.2 of Document III **Erreur ! Source du renvoi introuvable.**

Bid packages submitted by post or courier service must reach the French Electronic Communications and Postal Regulatory Authority (Arcep) – located at: 14 rue Gerty Archimède, 75012 Paris – by that same time and date.

Persons wanting to submit their bid package before the deadline are invited to make an appointment with Arcep's Mobile and Innovation Department to this end.

Bid packages that are submitted or that reach Arcep after the deadline specified in the above paragraphs will be excluded from the procedure. Bid packages that are submitted to Arcep electronically, by fax or any other means not stipulated in the previous paragraphs will also be excluded from the procedure.

Candidates cannot withdraw their bid packages once they have been submitted, except in the cases and according to the procedure set out in Part II.2.2b).

Candidates cannot make any changes to the bid packages they have submitted, with the exception of any change whose purpose is to amend the information on the candidate's identity and its shareholding structure requested in Part III.3 of Document III that candidates must make known to Arcep, as soon as possible, by registered letter with proof of delivery, or by courier against receipt. The information communicated to Arcep must enable the Authority to determine whether or not those changes constitute a substantial change to the bid package. If the changes made to the bid package are substantial, the submission must therefore be viewed as a new submission and must then be rejected as a result, as it will have been submitted after the submission deadline for bid packages.

II.1.5 Examination of the bid packages

The examination process for the bid packages is composed of three successive stages, each of which is described in Part II.2:

- Examination of admissibility;
- Qualification stage;
- Award stage of blocks of [YYYY] MHz.

The examination process will be conducted based on the bid packages that will have been submitted to Arcep by the stipulated deadline.

If warranted, Arcep could, on its own initiative, send candidates a questionnaire in order to obtain clarifications on certain aspects of their bid package. By the same token, Arcep could conduct an interview with each of the candidates.

If Arcep decides to send questionnaires to the candidates, each will receive its own questionnaire with the same time constraints attached. The questionnaires, as well as the answers provided by the candidates in response, will not be published as such or communicated to the other candidates.

The candidates can under no circumstances provide new elements or make changes to their bid package by way of this interaction (except to correct a material error) in the answers it provides.

Only the information that provides additional details on or clarification of the content of the bid packages will be taken into account.

II.1.6 Publication of the results of the bid package examination stage

Once the bid package examination stage is complete, Arcep will publish the results. In particular, it will publish the lists of qualified candidates that are eligible to participate in the auction stages, which include the main auction and the position assignment auction, along with the results of the award stage for blocks of [YYYY] MHz, whose procedure is set out in Part II.2.3 of this document.

In the event that determining the frequencies awarded to the qualified candidates during the award stage for blocks of [YYYY] MHz requires these candidates to be ranked, Arcep will ask them to provide their financial bid which will allow the Authority to rank them according to the conditions set out in Part 0 of this document.

II.1.7 Auction stages

a) Main auction

First, the qualified candidates will participate in an ascending auction for the frequencies described in Part I.1 of Document I which were not awarded during the award stage for blocks of [YYYY] MHz described in Part II.2.3. The procedure of this “main” auction as defined in Part II.3.

Arcep will send the candidates the exact location, date and time of the start of the main auction, as well as any other practical information, approximately two weeks after the T_d deadline. This announcement will precede the launch of the main auction by at least two weeks.

b) Position assignment action

At 9:30 am, on the second business day after the end of the main auction, the winning bidders that obtained frequencies will take part in a position assignment auction to determine their position on the frequencies they obtained. The procedure for this auction is defined in Part II.4.

II.1.8 Publication of the results of the award procedure

Once the position assignment auction is complete, Arcep will adopt and publish its decision on the conduct and results of the award procedure, which will include the identity of the winning bidders and the exact frequency bands each has been awarded.

Moreover, Arcep will return the financial guarantee documents to the candidates that were not selected during the procedure (on first demand guarantee from a well-known credit institution, surety bond from a well-known credit institution, etc.) which they will have provided in their bid package.

II.1.9 License awards

Frequency licenses will be awarded to the winning bidders once the results of the award procedure have been published. To this end, Arcep will undertake the adoption, notification and publication of these licenses.

II.2 Examination of the bid packages

The bid package examination process consists of three successive stages, each of which is detailed below:

- examination of admissibility described in Part II.2.1;
- the qualification stage described in Part II.2.2;
- the award stage for blocks of [YYYY] MHz described in Part II.2.3.

Once the examination process is complete, Arcep will publish the list of qualified candidates and the results of the award stage for blocks of [YYYY] MHz described in Part II.2.3.

II.2.1 Examination of admissibility

To be admissible, a bid package must:

- Be submitted before the bid package submission deadline specified in Part II.1.4;
- Contain all of the information and documents listed in Document III and in the format stipulated in Document III;
- Be written in French (taking into consideration the exceptions set out in Document III).

The same natural or legal person can only submit a single bid package. In the event that the same natural or legal person is a candidate in two or more bid packages, neither of these bids will be admissible.

Only the bid packages that satisfy all of the admissibility conditions will be examined during the qualification stage.

II.2.2 Qualification stage

The purpose of the qualification stage is to identify those candidates that are eligible to be awarded the frequencies that are the subject of the present procedure, based on their bid packages.

There are several potentially disqualifying factors. They are listed below and detailed thereafter:

- a. Reasons for rejecting an application listed in CPCE Article L. 42-1;
 - b. Ownership status stipulated in II.2.2b);
 - c. Lack of a commitment to comply with the terms and conditions of use for the frequencies awarded through the present procedure;
 - d. Failure to create a dedicated company, if applicable.
- a) Reasons for rejecting an application listed in CPCE Article L. 42-1

The candidate must submit an application that is eligible to receive a frequency license, in accordance with the provisions set out in Paragraph I of CPCE Article L. 42-1. It is recalled that, under the terms of this Article, a frequency license can be refused for the following reasons:

“1) Safeguarding public order, national security or public safety needs;

2) proper use of the frequencies;

3) the applicant’s technical or financial inability to satisfy the obligations over the long term resulting from the conditions under which it conducts its business;

4) the applicant has incurred one of the penalties listed in Articles L. 36-11, L. 39, L. 39-1 and L. 39-4.”

In this regard, and as stipulated in Document III, in their bid package the candidate must provide all of the information that makes it possible to prove their technical capacity to satisfy the obligations attached to the use of the frequencies for which they are applying. In particular, the candidate must prove that it can rely on a pre-existing mobile network.

The candidate must also provide all of the information that demonstrates their financial capacity to satisfy the obligations resulting from the conduct of their business in a lasting fashion, and especially to prove their capacity to pay the fixed portion of the licensing fee to which they have committed, for the frequencies they will have been awarded.

To this end, the candidate must include in their bid package, upon submission, the elements that provide an irrevocable and unconditional guarantee of their financial capacity to honour the payment of a price that is least equal to the maximum amount between the reserve price for a block of [YYYY] MHz and [number of blocks of 10 MHz needed to achieve the minimum of (ZZZZ) MHz stipulated in Part II.3.4] times the reserve price for a block of 10 MHz.

These elements could take the form of an on-first-demand guarantee from a well-known credit institution or a surety bond from a well-known credit institution, for instance.

In addition, the candidate must indicate to Arcep whether it has incurred any of the penalties listed in Paragraph 4 of CPCE Article L. 42-1, mentioned above, to enable Arcep to assess the extent to which said penalty would undermine the candidate's eligibility to obtain a license for the spectrum being awarded through present procedure.

b) Ownership status with respect to another candidate

The candidate must not find itself in any of the three following situations:

- the candidate has a decisive influence, either directly or indirectly, over any other candidate taking part in the procedure;
- another candidate taking part in the procedure has a decisive influence over the candidate, either directly or indirectly;
- the same natural or legal person has a decisive influence, either directly or indirectly, over the candidate or another candidate taking part in the procedure.

If such is the case, Arcep will inform all of the candidates concerned by one of the situations described above during the qualification stage, and will request that they retain only a single application, without the ability to amend its terms. Should they fail to make a choice, none of the concerned candidates will be eligible to obtain frequencies through the present procedure, and so to be awarded a frequency license.

c) Complying with the frequencies' terms and conditions of use

The candidate must commit to complying with the frequencies' terms and conditions of use, as set out in Document I, if it is a winning bidder in the present award procedure.

d) Creation of a separate company if required

In accordance with the principles set out in Paragraph 2 of CPCE Article L. 33-1 II, any candidate that has a monopoly over a sector of activity other than electronic communications, or has been assessed to be in a dominant position, pursuant to an opinion requested from the Competition Authority, will agree to create a separate company to engage in the business of mobile network operator after it has been issued a license.

II.2.3 Award stage for blocks of [YYYY] MHz

The purpose of this award stage is to award up to 4 blocks of [YYYY] MHz, each of which is composed of [yy] blocks of 10 MHz amongst the 3490 - 3800 MHz band blocks defined in Part I.1 Document I.

The “reserve price for a block of [YYYY] MHz” means the minimum amount that the winning bidder for a block of [YYYY] MHz during the stage described in the present part will be required to pay. It is set at [XXX] million euros.

Once the qualification stage is complete, Arcep will apply the provisions set out in point II.2.3a) of the present section to determine the winning bidders of the award stage for blocks of [YYYY] MHz.

To this end, the candidates wanting to obtain a block of [YYYY] MHz as part of the stage described in the present section will stipulate in their bid packages whether they will make the eight commitments described in Parts I.4.6, I.4.7, I.4.8, I.4.9, I.5.2, I.5.3a), I.5.3b) and I.6.1 of Document I in order to obtain a block of [YYYY] MHz. Once made the bid package, these commitments are irrevocable.

a) Determining the winning bidders

In the event that 1, 2, 3 or 4 qualified candidates have made the eight commitments described in Parts I.4.6, I.4.7, I.4.8, I.4.9, I.5.2, I.5.3a), I.5.3b) and I.6.1 of Document I in their bid package, each of these candidates will obtain a block of [YYYY] MHz.

In the event that five or more qualified candidates have made the eight commitments described in Parts I.4.6, I.4.7, I.4.8, I.4.9, I.5.2, I.5.3a), I.5.3b) and I.6.1 of Document I in their bid package, the top four qualified candidates in the ranking established in accordance with the procedure described in Part 0 below, will obtain a block of [YYYY] MHz.

The winning bidders that have obtained a block of [YYYY] MHz at the outcome of the present award stage will have their commitments written into the terms of their frequency license as obligations.

b) Ranking

The purpose of the ranking procedure described in the present Part b) is to classify the qualified candidates when required to determine which of the four blocks of [YYYY] MHz will be awarded to qualified candidates. This stage will be necessary in the situation where five or more qualified candidates have made the eight commitments described in Parts I.4.6, I.4.7, I.4.8, I.4.9, I.5.2, I.5.3a), I.5.3b) and I.6.1 of Document I.

Under this hypothesis, Arcep will inform the qualified candidates that a ranking procedure is needed to determine the result of the award procedure for the blocks of [YYYY] MHz. To this end, it will list the names of the qualified candidates concerned and will ask them to send a document stipulating the maximum amount in euros, which cannot be lower than the reserve price for a block of [YYYY] MHz, that they agree irrevocably to pay to obtain a block of [YYYY] MHz, and detailing the dispatch arrangements. In particular, Arcep will set the deadline for submitting their bid, such that the qualified candidates will have approximately three weeks to do so.

The amount bid in euros must be a whole number. If it is not, Arcep will round it out to nearest lower whole number.

The price the candidate bids must be equal to or greater than the reserve price for a block of [YYYY] MHz.

The qualified candidates will be ranked according to their financial commitments, in descending order. In the case where several qualified candidates bid the exact same amount, a random draw will be performed to break the tie.

c) Determining the amount paid for the blocks of [YYYY] MHz

The winning bidders that have obtained block of [YYYY] MHz are required to pay:

- In the event that 1, 2, 3 or 4 qualified candidates made the eight commitments described in Parts I.4.6, I.4.7, I.4.8, I.4.9, I.5.2, I.5.3a), I.5.3b) and I.6.1 of Document I, the reserve price for a block of [YYYY] MHz;

- In the event that five or more qualified candidates made the eight commitments described in Parts 1.4.6, 1.4.7, 1.4.8, 1.4.9, 1.5.2, 1.5.3a), 1.5.3b) and 1.6.1 of Document I, the amount indicated in the 5th ranked candidate's bid.

This amount contributes to the amount of the fixed part of the licensing fee that each winning bidder will be required to pay, in accordance with Part I.10.1.

II.3 Stages of the main auction

The purpose of the main auction is to determine the winning bidders and the quantity of frequencies they will be awarded, if applicable in addition to the of [YYYY] MHz they have already obtained.

II.3.1 Principles

The auction will be conducted according to the rules of a multiple round ascending auction. It will be held simultaneously for all of the blocks of 10 MHz defined in Document I that have not been allocated during the award stage for blocks of [YYYY] MHz described in Part II.2.3. The number of blocks available during main auction is thus equal to 31 minus [yy], times the number of winning bidders of the award stage for blocks of [YYYY] MHz described in Part II.2.3. It may therefore be equal to [31-4*yy], [31-3*yy], [31-2*yy], [31-yy] or 31.

Only the qualified candidates at the outcome of the qualification stage may participate.

The "reserve price for a block of 10 MHz" is the starting price at auction for a block of 10 MHz. It is set at [XXX] million euros per block of 10 MHz.

At the start of each round, Arcep will indicate the single price at which all of the blocks are being proposed. In response, each candidate will indicate the number of blocks of 10 MHz that it commits irrevocably to acquiring at that price, subject to allocation by Arcep. If the combined demand for the blocks outnumbers the number of blocks available, Arcep will hold a new auction round by increasing the price, during which candidates may only maintain or decrease their requests.

The auction ends when the total number of blocks requested by the candidates is equal to or lower than the number of blocks available. The candidates that are still in contention will thus be awarded the number of blocks requested at the "equilibrium" price reached at the end of the auction.

II.3.2 Practical arrangements

The auction will be held on a date that Arcep will have communicated in advance to the candidates.

Each qualified candidate must be represented at every round of the auction by a group of at least two people and a maximum of eight people, even if its request for frequencies has become equal to zero. Only those persons that have been appointed by the qualified candidate, in accordance with Part II.3.3, are authorised to represent them.

The auction will be conducted in several rounds, and potentially over several days. The first round of the day will take place at 9:30 am, Paris time. The gap between each round will then be around 30 minutes. There will be a maximum of 8 rounds each day. If, at the end of the day, the auction is not finished, it will resume at 9:30 am on the next business day.

The auction process may be suspended at any moment in the event of cases of a force majeure event or if exceptional circumstances make it necessary.

II.3.3 List of persons authorised by the candidate to make auction decisions in the qualified candidate's name

To enable Arcep to verify the identity of the persons the candidate has authorised to formulate binding requests during the auction processes described below, each qualified candidate must send Arcep the following table, within a maximum seven days after Arcep has published the list of candidates that are eligible to participate in the auction.

It is recommended that candidates appoint a minimum of three people. When submitting the list, the candidate must include all of the documents authorising these persons to commit the company to paying the prices that will be used during auctions.

The names of the people must be listed by descending order of authority, so that there will be no ambiguity during the auction over the person who has the authority to make decisions on behalf of the company.

Ranking	Surname	First name(s)	Company and title	Date of birth	Signature
1					
2					
3					
...					

Table 3: List of the people the candidate has authorised to participate in the auctions

II.3.4 Minimum quantity of frequencies

Under the present procedure, a candidate cannot submit a bid that would result in it obtaining a non-zero amount of spectrum that is strictly below the minimum of [ZZZZ] MHz in the 3490 - 3800 MHz band, set for the present procedure. In the event that a candidate submits a request that does not align with this set minimum, its request will be deemed to be equal to zero blocks of 10 MHz.

II.3.5 Spectrum caps

Under of the present procedure, a candidate cannot submit a bid that would result in it being authorised to use more than 100 MHz of spectrum in the 3.4 - 3.8 GHz band³³ to provide a mobile service. As a result, a candidate that has obtained a block of [YYYY] MHz at the outcome of the stage described in Part II.2.3 cannot request a number of blocks above [10-yy], and all the other candidates cannot request more than 10 blocks.

II.3.6 First round of the auction

Before the first round of the auction begins, which we will call round 0, Arcep will inform the candidates of the number of blocks of 10 MHz that are still available.

At the start of round 0, Arcep will ask each qualified candidate the maximum number of blocks of 10 MHz that they commit irrevocably to acquiring, each at the reserve price for a block of 10 MHz, subject to allocation by Arcep. This constitutes each candidate's initial request, which must comply with the rules set out in Parts II.3.4 and II.3.5.

³³ Frequency licenses that are restricted to the supply of fixed and/or nomadic services are not considered as authorising the provision of a mobile service.

If the qualified candidate's initial request does not comply with the minimum quantity of frequencies stipulated in Part II.3.4, it will be deemed equal to zero, and the candidate will obtain zero blocks of frequencies during the main auction stage.

If the qualified candidate's initial request is for more than the maximum amount set in Part II.3.5, it will be deemed equal to the candidate's maximum allowable request.

If the qualified candidate's initial request is not a whole number, it will be deemed equal to the nearest lower number.

In the event that, despite these rules, it is impossible to obtain a valid initial request, the request will be deemed equal to 0.

Two scenarios are then possible.

If the combined initial requests for blocks exceed the number of blocks available, the auction will begin under the terms and conditions described in Part II.3.7.

If the combined initial requests for blocks are equal to or lower than number of blocks available, the auction need not take place, and Arcep will award the blocks as requested. The winning bidders must pay the reserve price for a block of 10 MHz multiplied by the number of blocks of 10 MHz they obtain. The winning bidders will then participate in the position assignment auction described in Part II.4

II.3.7 Conduct of a round, after the initial round

a) Stage 1: information on the conditions of the round

At the start of each round, Arcep will provide the qualified candidates with the following information:

- the number of the round (round N, starting with 1);
- the anonymised requests made during the previous round (N-1) by descending order;
- the price of a block of 10 MHz simplex for the current round (round N). The price set for the current round is the price set for the previous round (N-1) increased by [XXX] million euros. Arcep could modify the value of this increment at the end of each day of auction. If so, the amended increment will be between [1] and [20] million euros.

b) Stage 2: Qualified candidates' requests

During each round, each qualified candidate will indicate, in a document that complies with the provisions set out in Part II.3.8, the maximum number of blocks of 10 MHz that it commits irrevocably to acquiring at the price set for the current round, subject to allocation by Arcep. This number corresponds to the qualified candidate's request in round N. This must be a whole number. If it is not, Arcep will round it out to nearest lower whole number.

In round N, a candidate can:

- maintain its request from round N-1
- decrease its request by one or several blocks.

When a qualified candidate decreases its request by one or several blocks in round N, it must indicate exactly to what price its request is decreased, in other words if it reduces its request by K blocks:

- the price up to which it commits irrevocably to maintaining its request for D_{N-1} blocks (i.e. request made in round N-1);
- the price up to which it commits irrevocably to acquiring up to $D_{N-1} - 1$ blocks (i.e. one block fewer than in round N-1);

- the price up to which it commits irrevocably to acquiring up to $D_{N-1} - 2$ blocks (i.e. two blocks fewer than in round N-1);
- ...
- the price up to which it commits irrevocably to acquiring up to $D_{N-1} - K + 1$ blocks (i.e. K-1 blocks fewer than in round N-1).

These prices are referred to as “intermediate prices” and must be both:

- above or equal to the price set for the previous round (N-1); and
- strictly below the price set for the current round (N).

If this is not the case, the intermediate price(s) in question are deemed equal to the price of the previous round.

Each intermediate price is indicated in numbers and letters.

The intermediate prices in euros must be whole numbers. Arcep will round out any intermediate prices that are not whole numbers to the nearest lower whole number.

To avoid a tie (see the rules of stage 3 defined in Part c)), it is recommended that candidates indicate intermediate prices that have a sufficient number of significant figures.

If the candidate’s request does not comply with the minimum quantity of frequencies stipulated in Part II.3.4, the request is deemed to be equal to zero beyond the highest intermediate price that complies with the minimum quantity of frequencies stipulated in Part II.3.4. In particular, when calculating the combined demand, during stage 3, this candidate’s request is thus deemed nil beyond that price.

Example 1: in round N-1, the price per block was 100 and the candidate requested 8 blocks. In round N, the price per block is 110. The candidate now requests only 6 blocks. Additionally, the candidate stipulates two intermediate prices (102 and 104) and thereby commits to acquiring up to 8 blocks up to a price of 102, up to 7 blocks up to a price of 104 and up to 6 blocks up to the price set for round N (110).

Example 2: in round N-1, the price per block was 100 and the candidate requested 8 blocks. In round N, the price per block is 110. The candidate now requests only 5 blocks. Additionally, the candidate stipulates a single intermediate price (105) for 8, 7 and 6 blocks and thereby commits to acquiring up to 8 blocks up to a price of 105 and up to 5 blocks up to the price set for round N (110).

c) Stage 3: completion of the round

The sum of each qualified candidate’s requests for blocks forms the combined demand for the current round.

Three scenarios are possible, depending on the combined demand in the current round.

i Case 1: the combined demand in the current round is strictly greater than the available quantity of blocks of 10 MHz.

In this case, Arcep informs the qualified candidates that the combined demand still exceeds the number of available blocks, and publishes the round’s anonymised requests by descending order. The auction continues onto a new round and stage N+1 begins.

For instance:

- 11 blocks are available.
- In round N–1, the price per block was 100. Candidate A had requested 5 blocks, candidate B 4 blocks, candidate C 3 blocks and candidate D 3 blocks.

- In round N, the price per block is 110. Candidates A, B, C and D request 4, 4, 3 and 2 blocks, respectively.
- The combined demand, i.e. 13 blocks (4+4+3+2), is strictly greater than the number of blocks available (11). The auction therefore continues and round N + 1 begins.

ii Case 2: The combined demand of the current round is equal to the available quantity of blocks of 10 MHz

In this case, the auction is terminated. Each qualified candidate that is still in contention is awarded the number of blocks of 10 MHz that it committed irrevocably to acquiring during the current round.

The final price of a block of 10 MHz is set at the price of the current round. For each block obtained during the main auction, the final price contributes to the set portion of the frequency license fee that each winning bidder will be required to pay, in accordance with Part I.10.1.

Arcep informs the qualified candidates that the main auction has ended. It informs each qualified candidate of the final price of a block of 10 MHz and the number of blocks that each qualified candidate has been awarded through the main auction. The winning bidders then participate in position assignment auction described in Part II.4.

For instance:

- 11 blocks are available.
- In round N–1, the price per block was 100. Candidate A had requested 4 blocks, candidate B 4 blocks, candidate C 3 blocks and candidate D 2 blocks.
- In round N, the price per block is 110. Candidates A, B, C and D request 4, 3, 2 and 2 blocks, respectively.
- The combined demand is therefore 11 blocks at 110. The auction therefore comes to an end, and candidates A, B, C and D obtain, respectively, 4, 3, 2 and 2 blocks during the main auction stage. All of the candidates will pay 110 per block, for the blocks obtained during this stage. This does not alter the price to be paid for the blocks that may have been obtained during the award stage for blocks of [YYYY] MHz.

iii Case 3: The combined demand in the current round is strictly lower than the available quantity of blocks of 10 MHz

By design, in this case there will be at least one qualified candidate that has reduced their request between rounds N-1 and N. In this situation, the combined demand is too high at the price set in the previous round (N-1) and too low at the price set in the current round (N). As a result, the final price for the blocks needs to be set at an intermediate level that makes it possible for the combined demand to be equal to or below the quantity of blocks available.

This final price corresponds to intermediate prices that will have been bid by the qualified candidates that are still in contention, and who have reduced their requests between rounds N-1 and N. This is the intermediate price above which the combined demand becomes strictly lower than the number of blocks available, given the decrease in the requests of one or several candidates at more than this intermediate price.

The qualified candidates that are still in contention will thus be awarded the number of blocks of 10 MHz that they have committed to acquiring during this stage, at the thus set final price plus 1 euro.

The remaining blocks of 10 MHz are awarded to the qualified candidates that are still in contention and that have bid an intermediate price equal to the final price:

- Within the limit of these candidates' requests at the final price;
- In such a way as to minimise the number of unsold blocks;

- Complying with the minimum quantity of frequencies stipulated in Part II.3.4.

If several allocations of the blocks are compatible with these restrictions, the chosen allocation will be decided by means of a random draw.

For each block obtained during the main auction, the final price contributes to the set portion of the frequency license fee that each winning bidder will be required to pay, in accordance with Part I.10.1.

For instance:

- 11 blocks are available.
- In round N–1, the price per block was 100. Candidate A had requested 4 blocks, candidate B 3 blocks, candidate C 3 blocks and candidate D 2 blocks.
- In round N, the price per block is 110:
 - candidate A requests 3 blocks, while stipulating that it remains willing to acquire 4 blocks up to an intermediate price of 103;
 - candidate B requests 2 blocks, and remains willing to acquire 3 blocks up to an intermediate price of 105;
 - candidate C maintains a request for 3 blocks;
 - candidate D maintains a request for 2 blocks.
- The combined demand is therefore 10 blocks at 110. The auction comes to an end at the price of 105. At this price, the combined demand is in fact for 11 blocks. However, at the final price plus €1 (i.e. 106), the combined demand becomes equal to 10 blocks.
- At the final price: Candidate A obtains 3 blocks, since its request decreases from 4 to 3 blocks once the price exceeded 103. Candidate B obtains 3 blocks, since it remained willing to acquire 3 blocks at 105. Candidate C also obtains 3 blocks, since it was willing to acquire three blocks at 110. Candidate D obtains 2 blocks, since it was willing to acquire two at 110. All of the winning bidders pay 105 per block for the blocks obtained during this stage. This does not alter the price to be paid for the blocks that may have been obtained during the award stage for blocks of [YYYY] MHz.

Arcep informs the qualified candidates that the main auction has ended. It informs each qualified candidate of the final price of a block of 10 MHz and the number of blocks that each qualified candidate has been awarded, through the auction but also, if applicable, during the award stage for blocks of [YYYY] MHz. The winning bidders then participate in position assignment auction described in Part II.4

II.3.8 Rules governing the validity of a candidate's request

Each qualified candidate submits their requests in writing, by completing the forms provided by Arcep. To be validated, the document that qualified candidate submits to Arcep must satisfy all of the following criteria:

- the document must be submitted by the deadline set for the round;
- the number of blocks of 10 MHz requested by a qualified candidate must be compatible with the provisions set out in the Part II.3.5 on spectrum caps;
- the candidate cannot increase its request between two rounds;
- when a qualified candidate decreases its request by one or several blocks in round N, it must indicate for each block fewer, the exact price at which its request is decreased by one block, down to the euro, in numbers and in letters. The prices listed by the candidate must be ascending, i.e. each price must be equal to or higher than the previous one. These intermediate prices must be equal to or higher than the price of the previous round, and strictly lower than the price set for the current round. They must be in round numbers.

In the event that the request formulated by a candidate does not satisfy all of these criteria, the rules set out in Part II.3.7 will apply.

In the event that application of these rules does not make it possible to obtain a valid document in round N, the candidate’s request in round N will be deemed equal to zero, with intermediate prices equal to the price set in previous round.

II.4 Position assignment auction

The main auction makes it possible to determine the quantity of frequencies obtained by each winning bidder. The purpose of the position assignment auction is to determine each of the winning bidder’s positioning in the band. It will be a single-round second-price combinatorial auction.

II.4.1 Possible arrangements of the band

The frequencies will be awarded by lots of contiguous frequencies within the 3490 - 3800 MHz band, for each of the main auction’s winning bidders.

In the event that some frequency blocks remain unallocated once the main auction is complete, these blocks will systematically be placed at the lower end of the band, before the first positioning.

The term “positioning” refers to the position in the band occupied by a lot of frequencies, starting from the lowest end of the band (i.e. 3490 MHz + 10 MHz times the number of unallocated blocks).

The first positioning is thus the one occupied by the lot with the lowest frequencies, and the last positioning (whose number depends on the number of winning bidders in the band following the main auction) is the one occupied by the lot with the highest frequencies.



Figure 1: Possible positioning in the band of q lots of frequencies in the event that all of the blocks of 10 MHz are awarded



Figure 2: Possible positioning in the band of q lots of frequencies in the event that two blocks of 10 MHz are not awarded

“Positioning combination” refers the process of assigning each winning bidder a different position in the band.

If “q” winning bidders participate in the position assignment auction, the number of positioning combinations is equal to q factorial, i.e.:

- for 3 winning bidders, 6 positioning combinations;
- for 4 winning bidders, 24 positioning combinations;
- for 5 winning bidders, 120 positioning combinations.

II.4.2 Start of the position assignment auction

Arcep reminds participants of the number of winning bidders, their names and the quantity of frequencies obtained by each of the winning bidders during the award stage for blocks of [YYYY] MHz and during the main auction stage.

For each combination of positionings, Arcep will ask the winning bidders the amount they are willing to pay to obtain it.

II.4.3 Bid submission

Each winning bidder will state to Arcep the maximum amount, to the euro, in letters and in numbers, that it commits irrevocably to paying, for each combination of positionings, if that combination is chosen:

Name of the winning bidder obtaining position 1	Name of the winning bidder obtaining position 2	Name of the winning bidder obtaining position 3	Amount
Winning bidder A	Winning bidder B	Winning bidder C	α euros
Winning bidder A	Winning bidder C	Winning bidder B	β euros
Winning bidder B	Winning bidder A	Winning bidder C	γ euros
Winning bidder B	Winning bidder C	Winning bidder A	δ euros
Winning bidder C	Winning bidder A	Winning bidder B	ϵ euros
Winning bidder C	Winning bidder B	Winning bidder A	ζ euros

Table 4: Example of the form for three winning bidders

If a winning bidder indicates an invalid positioning combination, Arcep will discount it.

The amount the candidate commits to pay for all of the valid positioning combinations that are not listed on the form it submits to Arcep will be deemed equal to zero.

II.4.4 Determining the band's arrangement

Each positioning combination is associated with a value that corresponds to the sum of the candidates' bids.

The chosen combination will be the one that obtains the highest value. In the case of a tie, there will be a random draw to break it.

Each winning bidder will be assigned the position on the band that it holds in the winning combination.

II.4.5 Determining the price winning bidders must pay for their positioning

Once the winning combination has been identified, the price that each winning bidder must pay for its positioning in the band is defined by the minimum amount that it would have had to bid on the winning combination to prevent another combination from being chosen. This is equal to the difference between the following two values:

- The value of the combination that would have been chosen if the winning bidder had not bid on the auction (in other words, if it had bid zero euros on every combination);
- The value of the identified winning combination minus the winning bidder's bid on this combination.

This difference is by definition between 0 and the amount the winning bidder bid on the winning combination.

II.4.6 Example with three candidates

At the outcome of the main auction, there are three winning bidders: candidates A, B and C. They make the following bids on the six possible positioning combinations:

No.	Pos. 1	Pos. 2	Pos. 3	Winning bidder A's offer	Winning bidder B's offer	Winning bidder C's offer	Amount
1	A	B	C	100	130	30	260
2	A	C	B	100	75	50	225
3	B	A	C	50	0	0	50
4	B	C	A	0	150	50	200
5	C	A	B	50	0	80	80
6	C	B	A	0	150	60	210

Table 5: Example of bids with three candidates

Combination 1 is the one with the highest value, and is therefore the winning combination. The result of the position assignment auction is as follows:

- Winning bidder A obtains position 1. If it had bid 0 on every combination, combination 6 would have won. This combination without winning bidder A's bid is worth 210. The winning combination (combination 1) without winning bidder A's bid is worth 160. Winning bidder A must therefore pay $210 - 160 = 50$.
- Winning bidder B obtains position 2. If it had bid 0 on every combination, combination 2 would have won. This combination without winning bidder B's bid is worth 150. The winning combination (combination 1) without winning bidder B's bid is worth 130. Winning bidder B must therefore pay $150 - 130 = 20$.
- Winning bidder C obtains position 3. If it had bid 0 on every combination, combination 1 would have won. This combination without winning bidder C's bid is worth 230. The winning combination (combination 1) without winning bidder C's bid is worth 230. Winning bidder C must therefore pay $230 - 230 = 0$.

II.5 Determining the price winning bidders must pay for the auctions

The amount of the fixed portion of the licensing fee that the winning bidder will be required to pay to use the frequencies awarded through the present procedure is equal to the sum of:

- If applicable, for the winning bidders of the award stage for blocks of [YYYY] MHz, the amount due under the terms of the award stage for blocks of [YYYY] MHz described in Part II.2.3;
- If applicable, for the winning bidders of the main auction, the amount due under the terms of the main auction described in Part II.3, i.e., the final price of a block of 10 MHz multiplied by the number of these blocks the winning bidder obtained during the main auction; and
- the amount due for the position assignment auction described in Part II.4.5.

II.6 License awards

Once the position assignment auction is complete, Arcep will award the winning bidders the licenses for spectrum in the 3490 - 3800 MHz band that correspond to the results of the procedure. The terms of the licenses include the rights and obligations set out in Document I.

Document III Bid package

This section describes the format and contents of the bid packages that must be submitted to Arcep before the deadline of T_d .

III.1 Bid package format

Each bid package must be written entirely in French, including the annexes. However, for annual reports or suppliers' technical documentation of which a copy is requested in French, if an English version is available, a translation will not be required.

Both a hard copy and an electronic copy of each bid package must be submitted. It must include original, certified or signed documents. The submitted computer files must be compatible with Microsoft Office 2010. PDFs can be used, except for files that relate to the business plan which must be submitted in a Microsoft Excel-compatible format.

It is recommended that the candidates include the phrase "Candidature pour la procédure d'attribution des fréquences de la bande 3,4 - 3,8 GHz" on the outside of the envelope that contains their bid package.

It is recommended that the candidates provide a stapled, bound or thermal bound hard copy of their package, rather than in a binder.

For practical reasons, the packaged dimensions of each element in the bid package must be smaller than 195 x 90 x 100 cm.

III.2 Bid package contents

The bid packages must contain all of the following elements:

1. a letter requesting the award of frequencies, signed by the person authorised to do so on behalf of the candidate;
2. a document certifying the authority of the candidate's signatory (for instance: the minutes of a Board of Directors meeting; the minutes of a deliberation or delegating power of signature, foreseeing the submission of a bid package);
3. a document providing information on the candidate in accordance with Part III.3;
4. a document certifying that the candidate agrees to comply with the frequencies' terms and conditions of use in accordance with Part III.4;
5. a document indicating whether the candidate is making the eight commitments described in Parts I.4.6, I.4.7, I.4.8, I.4.9, I.5.2, I.5.3a), I.5.3b) and I.6.1 of Document I and so participating in the award stage for blocks of [YYYY] MHz;
6. a document describing the technical, commercial and financial aspects of the candidate's project, in accordance with Part III.6.

Candidates may complete their bid package with any other document they deem useful to the examination of their application.

The bid package must contain a table of contents with page numbers, as well as a list that indicates the number of each item, its title and the number of pages it contains. A summary may also be attached to the bid package. Candidates are invited to number the requested information using the same numbering listed below.

III.3 Information on the candidate

The following information on the candidate must be included in the bid package:

1. the candidate's identity (name, legal structure, headquarters, if applicable their entry in the Trade and Companies Register or equivalent);
2. the name, phone number and e-mail address of the person responsible for the bid package;
3. the name, phone number, postal address and e-mail address of the person to whom payment orders for the licensing fees stipulated in Part I.10.1 are to be addressed;
4. composition of the candidate's shareholders;
5. the list (void if not applicable) of the frequency licenses held by the candidate or its shareholders (including subsidiaries) which are already license-holders in France, in accordance with CPCE Articles L. 42-1 and L. 42-2;
6. any penalties (void if not applicable) listed in CPCE Articles L. 36-11, L. 39, L. 39-1 and L. 39-4 that the candidate has incurred.

III.4 Commitment to complying with the frequencies' terms and conditions of use

In accordance with Document II, the candidate must commit to complying with the frequencies' terms and conditions of use as stipulated in Document I if its application is accepted.

7. Commitment to complying with the frequencies' terms and conditions of use. The candidate will make this commitment explicitly by including the following phrase in its bid package (the words in square brackets to be amended by the candidate):

"As part of the procedure conducted by Arcep to award licences for spectrum in the 3.4 - 3.8 GHz band, the company [Company name] agrees to comply with the frequencies' terms and conditions of use as specified in Document 1 of the call to tender, if it is awarded frequencies."

III.5 Application for the award stage for blocks of [YYYY] MHz set out in Part II.2.3 of Document II and commitments made as part of the present procedure

The candidate states whether it wants to obtain frequencies during the initial stage dedicated to awarding blocks of [YYYY] MHz in accordance with Part II.2.3 of Document I.

8. If so, the candidate will make the eight commitments described in Parts I.4.6, I.4.7, I.4.8, I.4.9, I.5.2, I.5.3a), I.5.3b) and I.6.1 to apply for a block of [YYYY] MHz in accordance with Part II.2.3 of Document II.

III.6 Project description

To enable Arcep to assess the admissibility of its application, the candidate must provide the following technical, commercial and financial details on its project.

III.6.1 Technical aspects

- a) Presentation of the existing mobile network used by the candidate to satisfy its obligations
9. A general presentation of the status of the mobile network on which the candidate plans to rely to satisfy its obligations;

10. Identity of the owner of this network, if it is an entity other than the candidate;
11. The elements that prove that the candidate is able to rely on this network and in particular, if applicable, the contractual elements that tie the candidate to the network's owner;

b) Rollout plan

12. Organisation that the candidate intends to put into place to deploy and operate its network (subcontracting, etc.);
13. The planned number of radio base stations, technologies and deployment timetable;
14. Coverage maps illustrating the forecast mobile network status as of the deadlines stipulated in Document I;
15. List of equipment suppliers for the different network components, and a summary of the main contractual elements that link the candidate to these suppliers, if applicable.

c) Description of the network's overall architecture

The description of the network's overall architecture pertains to all of the means employed (owned and operated transmission infrastructure, special links, switching, etc.) to supply electronic communication services and relay traffic. In particular, this description will include a presentation of the following:

16. The network's overall architecture;
17. Description of the backhaul network;
18. Planned interconnections;
19. Measures planned to guarantee permanence, availability and quality of service.

III.6.2 Commercial aspects

20. Description of the project's commercial features, services sold and wholesale and retail market positioning;
21. Communication policy and the method(s) used to market and distribute the services;
22. Planned pricing structure for the product line.

III.6.3 Financial aspects

23. Planned annual investments in the mobile network, drawing a distinction between investments in the network and other investments (notably backhaul and network core);
24. The provisional business plan, with a sufficient level of detail to identify annual revenue and expenditures (investments and operating costs);
25. The provisional financing plan and supporting documentation for all of the planned financing. In particular, the candidate must specify whether it is self-financing or outside financing. Each listed source of financing must be described in detail and evidenced, by source, with letters of commitment signed by the person authorised to do so. These letters must state in figures the minimum amounts that the entity in question commits to providing if the candidate's application is admitted;
26. In its bid package, the candidate must include the elements that prove irrevocably and unconditionally its financial capacity to honour the payment of an amount at least equal to the maximum between the reserve price for a block of [YYYY] MHz and [number of blocks of 10 MHz for reaching the minimum (ZZZZ) MHz stipulated in Part II.3.4] times the reserve price for a block of 10 MHz (on first demand guarantee from a well-known

credit institution, surety bond from a well-known credit institution, etc.) and this upon submission of its bid package.

It is recommended that the potential financial instruments' period of eligibility make it possible to prove the candidate's financial capacity to pay this sum, taking the procedure's timetable into account, the time needed to collect the different payments, and the license award period, keeping in mind that Arcep has a maximum eight months to award the licenses, from the deadline for receiving the bid packages. To give an indication: the expiry date for bank guarantees could be set at $[T_0 + \text{eight months}]$.

If the form that the candidate has chosen to prove its capacity to pay this sum requires it to name a creditor specifically, it is recommended that it name the State as the creditor, represented by the Chair of Arcep, as the debt's authorising officer.

Document IV List of the existing 3490 - 4200 MHz band frequency licenses

IV.1 Existing 3490 - 3800 MHz band frequency licenses I

Licenses for spectrum in the 3490 - 3800 MHz band are listed in

Table 6,

Table 7 and

Table 8 below.

License-holder	Region/Department /District	Arcep Decision	3490 - 3800 MHz band frequencies
Axione	Limousin	2010-0184	3565 - 3580 MHz
Bolloré Telecom	Aquitaine	06-0727	3565 - 3580 MHz
Bolloré Telecom	Allier and Puy-de-Dôme	06-0728	3532.5 - 3547.5 MHz
Bolloré Telecom	Cantal	06-0728	3565 - 3580 MHz
Bolloré Telecom	Bretagne	06-0729	3565 - 3580 MHz
Bolloré Telecom	Corse	06-0730	3565 - 3580 MHz
Bolloré Telecom	Franche-Comté	06-0731	3532.5 - 3547.5 MHz
Bolloré Telecom	Ile-de-France	06-0732	3565 - 3580 MHz
Bolloré Telecom	Languedoc-Roussillon	06-0733	3565 - 3580 MHz
Bolloré Telecom	Limousin	06-0734	3532.5 - 3547.5 MHz
Bolloré Telecom	Midi-Pyrénées	06-0735	3565 - 3580 MHz
Bolloré Telecom	Picardie	06-0736	3565 - 3580 MHz
Bolloré Telecom	Provence-Alpes-Côte d'Azur	06-0737	3565 - 3580 MHz
Bolloré Telecom	Rhône-Alpes	06-0738	3565 - 3580 MHz
Bolloré Telecom	Basse-Normandie	2008-0931	3532.5 - 3547.5 MHz
Bolloré Telecom	Centre	2008-0932	3532.5 - 3547.5 MHz
Bolloré Telecom	Champagne-Ardenne	2008-0933	3532.5 - 3547.5 MHz
Bolloré Telecom	Haute-Normandie	2008-0934	3532.5 - 3547.5 MHz
Bolloré Telecom	Lorraine	2008-0935	3532.5 - 3547.5 MHz
Bolloré Telecom	Nord-Pas-de-Calais	2008-0936	3532.5 - 3547.5 MHz
Bolloré Telecom	Pays-de-la-Loire	2008-0937	3532.5 - 3547.5 MHz
Bolloré Telecom	Poitou-Charentes	2008-0938	3532.5 - 3547.5 MHz
Bolloré Telecom	Alsace	2010-0360	3532.5 - 3547.5 MHz
Bolloré Telecom	Bourgogne	2010-0362	3565 - 3580 MHz
Conseil Départemental du Jura	Jura	2016-0890	3565 - 3580 MHz
Charente Numérique	Charente	2018-0446	3565 - 3580 MHz
Conseil général des Côtes d'Armor	Côtes d'Armor	2008-0580	3532.5 - 3547.5 MHz
Conseil général des Pyrénées-Atlantiques	Pyrénées-Atlantiques	2007-0609	3532.5 - 3547.5 MHz
Conseil général du Finistère	Finistère	2008-0730	3532.5 - 3547.5 MHz
Conseil général du Lot-et-Garonne	Lot-et-Garonne	2007-0608	3532.5 - 3547.5 MHz
Conseil regional Bourgogne	Côte-d'Or, Saône-et-Loire and Yonne	06-0742	3532.5 - 3547.5 MHz
Department of the Charente-Maritime	Charente-Maritime	2013-0826	3565 - 3580 MHz
Department of the Meuse	Meuse	2017-0194	3565 - 3580 MHz
Department de Eure	Eure	2017-0093	3565 - 3580 MHz
Department de Orne	Orne	2017-0094	3565 - 3580 MHz
Department des Deux-Sèvres	Deux-Sèvres	2016-1662	3565 - 3580 MHz
Groupement d'intérêt public Vendée Numérique	Vendée	2016-1369	3565 - 3580 MHz
Nièvre Numérique	Nièvre	2008-0584	3532.5 - 3547.5 MHz
Nomotech	Metropolitan Vannes (Morbihan)	2008-0582	3532.5 - 3547.5 MHz
Société du Haut Débit	Ile-de-France	06-0773	3532.5 - 3547.5 MHz
Société du Haut Débit	Provence-Alpes-Côte d'Azur	06-0774	3532.5 - 3547.5 MHz

Table 6: Licenses for spectrum in the 3490 - 3800 MHz band for wireless local loop networks

Arcep Decision	Department	Frequencies
03-0301	Aube	3700 - 3750 MHz 3758 - 3808 MHz
2018-0264	Bouches-du-Rhône	3799.948 - 3805.05 MHz

Table 7: Licenses for spectrum in the 3490 - 3800 MHz band for fixed satellite earth stations

License-holder	Location	Arcep Decision	Expiry date
b<>com	Cesson-Sévigné	2019-0892	18/12/2019
b<>com	Lannion	2019-0892	18/12/2019
Bouygues Telecom	Bordeaux	2018-0936	30/09/2020
Bouygues Telecom	Linaz	2018-0805	01/10/2020
Bouygues Telecom	Lyon	2018-0178	30/09/2020
Bouygues Telecom	Paris	2019-0488	30/09/2019
Bouygues Telecom	Paris	2019-0742	01/07/2020
Bouygues Telecom	Rouen	2019-0743	01/01/2020
Bouygues Telecom	Saint-Maurice-de-Rémens	2018-1397	01/03/2021
Bouygues Telecom	Vélizy	2019-0489	30/09/2019
Eurecom	Sophia Antipolis	2019-0375	21/09/2019
Free Mobile	Paris	2019-0376	01/12/2019
Hub One	Aéroport Charles-de-Gaulle	2019-0563	16/12/2019
Leti CEA tech	Digosville	2019-0745	01/12/2019
Leti CEA tech	Ouistreham	2019-0809	31/01/2020
Leti CEA tech	Ouistreham	2018-1636	18/06/2019
Nokia	Nozay	2019-1020	11/01/2020
Orange	Belfort	2019-0590	18/10/2019
Orange	Boulogne-Billancourt and Issy-les-Moulineaux	2019-0382	14/03/2020
Orange	Châtillon	2019-0242	12/09/2019
Orange	Douai	2019-0891	18/12/2019
Orange	Ligne TGV Lyon-Mâcon	2019-0690	15/01/2020
Orange	Lille	2019-0889	18/08/2019
Orange	Lille	2019-0384	14/03/2020
Orange	Linaz	2018-0808	01/01/2020
Orange	Marseille	2019-0385	14/03/2020
Orange	Montpellier	2019-0383	14/03/2020
Orange	Nantes	2019-0386	14/03/2020
Orange	Paris (+Carrefour Pleyel)	2019-0381	14/03/2020
Orange	Pau	2019-0564	16/10/2019
Orange	Saint Ouen	2019-0890	18/12/2019
Orange	Saint-Denis	2018-1664	01/09/2019
SFR	Francazal	2018-1667	20/12/2019
SFR	La Défense	2019-0688	01/02/2020
SFR	Nantes	2019-0360	12/09/2019
SFR	Toulouse	2019-0361	01/10/2019

Table 8: List of the licenses awarded to perform trials in the 3490 - 3800 MHz band. This list is updated regularly on the Arcep website: <https://www.arcep.fr/cartes-et-donnees/nos-publications-chiffrees/experimentations-5g-en-france/table-deploiements-5g.html>

IV.2 Existing licences for spectrum in the 3.8 - 4.2 GHz band

Frequency licenses awarded to fixed satellite services in the 3.8 - 4.2 GHz band are listed in the following table. The table lists the department where the earth station or stations are located and the frequency range in which the earth stations' central frequencies are authorised.

Arcep Decision	Department	3800 - 3840 MHz	3840 - 3880 MHz	3880 - 3920 MHz	3920 - 3960 MHz	3960 - 4000 MHz	4000 - 4040 MHz	4040 - 4080 MHz	4080 - 4120 MHz	4120 - 4160 MHz	4160 - 4200 MHz
2009-0425	Aube		X	X		X		X		X	
2009-0671	Aube	X		X		X		X	X	X	X
2009-0734	Aube		X	X		X		X			
2010-0216	Aube					X					
2010-1339	Aube					X		X	X	X	X
2011-0021	Aube										X
2012-1117	Bas-Rhin						X				
2015-1663	Bouches-du-Rhône										X
2017-1454	Bouches-du-Rhône	X	X			X	X	X			
2017-1501	Bouches-du-Rhône					X					
2017-1502	Bouches-du-Rhône								X		X
2017-1503	Bouches-du-Rhône	X	X		X						
2018-0264	Bouches-du-Rhône	X									
2018-0361	Bouches-du-Rhône						X	X	X		
2018-0952	Bouches-du-Rhône			X							
2019-0062	Bouches-du-Rhône			X							
2019-0753	Bouches-du-Rhône							X		X	
2012-1117	Bouches-du-Rhône			X							
Licensor exemption	Bouches-du-Rhône				X						
Licensor exemption	Côtes-d'Armor		X								
2012-0343	Essonne	X									
2019-0016	Eure-et-Loir		X		X		X			X	X
2019-0059	Eure-et-Loir									X	
2019-0063	Eure-et-Loir					X					
2019-0083	Eure-et-Loir	X	X				X				
2019-0103	Eure-et-Loir							X		X	
2013-0131	Haute-Garonne								X		
2013-1086	Haute-Garonne				X						
2014-1268	Haute-Garonne			X				X			X
2016-0629	Haute-Garonne					X					
2016-0630	Haute-Garonne									X	
2012-1117	Paris				X		X				
2013-0077	Seine-et-Marne			X							
2016-0360	Seine-et-Marne			X					X		
2019-0706	Seine-et-Marne	X	X		X	X	X				
2019-0707	Seine-et-Marne			X							
2019-0717	Seine-et-Marne	X	X	X							
2018-1364	Var	X		X							
2019-0700	Var	X	X	X							
2019-0701	Var	X	X		X	X	X				
2019-0703	Var				X	X					
2019-0704	Var				X		X	X			
2009-0735	Yvelines							X			
2012-0746	Yvelines					X					
2019-0310	Yvelines						X				

Table 9: List of licenses for spectrum in the 3800 - 4200 MHz band that have been awarded