

Additional spectrum for wireless broadband electronic communications services

700 MHz, 3.6 GHz and 26 GHz bands

Annex: Abridged response to consultation

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Annex A – Abridged response to consultation

In February 2021, MCA issued a consultation document in order to inform the public on the proposed assignment process in respect of spectrum in the 700 MHz, 3.6 GHz and 26 GHz bands and the conditions attached to the resulting rights of use. During the consultation process, interested stakeholders were invited to express their opinion on the key questions highlighted in the consultation document together with any other comments that in their opinion were considered relevant. MCA received a total of four responses to the consultation.

General observations

One respondent, stated that it supports the 26 GHz band identification for terrestrial IMT/5G to provide broadband wireless electronic communications services pursuant to European Commission Decisions (EU) 2019/784 of 14.5.2019 and (EU) 2020/590 of 24.4.2020.

Another respondent highlighted that since the EECC is still in the process of being transposed at the time of publication, MCA should only propose a decision that it is entitled to enforce.

Additionally, a third respondent, highlighted the importance of the E-Band and stated the need for a more open access to backhaul for a successful 5G deployment.

MCA notes the observation brought forward by one of the respondents regarding the transposition of the EECC. The Directive has been in force since the third day following its publication date of the 17th December 2018 in the Official Journal of the European Union. References to the Directive within the Decision remain relevant to the extent where they are enforceable through national legislation.

The points highlighted in relation to backhaul requirements and availability, in particular the availability of the E-band, have been noted. MCA considers that spectrum for backhaul purposes has already been made available through the National Frequency Plan and is in the process of reviewing the applicable framework for spectrum above 40 GHz. Where applicable, aspects concerning access to backhaul will be considered separately within the context of the best practices laid out in the [Common Union Toolbox for Connectivity](#) which may be of relevance to Malta.

MCA, giving due regard to these general observations received, deems that no ensuing changes are necessary to the underlying principles as proposed in the Decision.

2.3 Lot definition

Q2.3a Do you agree with MCA's proposed lot structure? Duly justify any disagreements.

In general, all respondents agreed with the proposed lot structure and channelisation plan. One respondent further emphasised the importance of ensuring the assignment of contiguous spectrum.

MCA welcomes the respondents' agreement to the proposed lot structure and channelisation plan. As further stated in *Section 3.1 - Spectrum Award Process*, the channels assigned through this call to each applicant within a given band will be contiguous, to the extent possible when taking into consideration existing spectrum assignments. MCA would like to clarify that, should there be a re-issue of previously unassigned spectrum, there is no guarantee that this fresh call will assign spectrum that remains contiguous with the previous call/s.

MCA is adopting in full Proposal 2.3a – Lot Structure

Q2.3b Market use cases for the 26 GHz are still in early development. How do you expect this will affect demand and timeframes?

In general, all respondents agreed that market use cases for the 26 GHz band are still in early development. Responses emphasised that it is premature to express market demand in the short to medium term due to business case uncertainties and highlighted the importance of appropriately protecting existing services like satellite broadband services operating in the adjacent 28 GHz band.

MCA notes the respondents' observations in relation to the early-stage nature of the 26 GHz and the uncertainty surrounding market use and business case.

MCA notes that market use cases for the 26 GHz are still in their early development and that such fact limits market demand at this stage.

Q2.3c In your views, and with reference to Figure 2.2(3), which 26 GHz sub-band should be designated for the purposes of this assignment?

Two respondents observed that the upper 1 GHz of the 26 GHz band may be advantageous as it may secure a better device ecosystem and equipment supply chain due to its overlap with the n257 band. Another respondent urged MCA to consider the 24.25-24.5 GHz and 26.5-27.5 GHz frequency bands for terrestrial IMT/5G given that the frequency band 24.5-26.5 GHz can be used by fixed service links according to ERC Recommendation T/R 13-02.

MCA takes note that three of the four respondents observed that the upper portion of the 26 GHz band, specifically the top 1 GHz (26.5 – 27.6 GHz), may be more attractive due to its overlap with band n257¹, hence offering the potential for a better device ecosystem and equipment supply chain. MCA however, considering Commission Implementing Decision (EU) 2019/784, emphasises that only equipment transmitting in the range between 24.25 to 27.5 GHz, corresponding to n258, can be placed on the national market.

MCA notes the respondents' preference for the upper 1 GHz of the 26 GHz band. Further to market demand expressed for the 26 GHz band, the MCA will consider the merits of making the upper band available to the market, without prejudice to the compliance requirements for radio equipment placed on the market.

¹ 3GPP standardization (Release 15, TS 38.104 transposed as ETSI TS 138104) defines the 26 GHz frequency band (band n258) for use with New Radio (NR) technology based on time division duplex, and channel bandwidths of 50 MHz, 100 MHz, 200 MHz, and 400 MHz.

2.4 Spectrum caps

Q2.4a Do you agree with the proposed band-specific spectrum caps?

In general, all respondents agreed with the proposed band specific spectrum caps. One respondent further stressed the need for 800 MHz of contiguous spectrum in the 26 GHz band for it to have the same and equivalent effect of 100 MHz in the 3.6 GHz band.

MCA welcomes the respondents' agreement to the proposed band-specific spectrum caps. In relation to the 26 GHz band, MCA further considers that in line with the responses received for Q2.3b, increasing the number of lots and relaxing the relevant spectrum cap at this early stage may be premature, particularly since safeguards for the availability of contiguous unassigned spectrum can be considered during the grant stage as per Section 3.1.

MCA is adopting in full the proposal 2.4a – Overall Spectrum Caps.

Overall cap

Q2.4b Are you in agreement with the overall spectrum caps proposed? Duly justify any disagreements.

In general, all respondents agreed with the overall caps as proposed. One respondent further argued that it would not agree to a situation where spectrum holdings below the cap applicable in a particular band could be compensated for by holdings in excess of the cap applicable in another band. Another respondent emphasised the importance of spectrum caps in ensuring a level playing field and market certainty, with emphasis on efficient utilisation.

In relation to the overall spectrum caps, one respondent considered that having an overall spectrum cap does not add value if caps are already defined per spectrum band and that placing a cap on a combined holding across bands with markedly different characteristics is not justified and does not promote the principle of technology neutrality. It however agreed that assignments in the 26 GHz band shall not count towards any overall spectrum cap, at least in the short to medium term.

MCA takes note of the responses provided and considers that both band specific caps as well as overall spectrum caps promote the efficient use of spectrum and act as a safeguard against spectrum hoarding. MCA further notes the emphasis placed on the importance of recognising the different characteristics inherent across different spectrum bands and will duly consider introducing low, mid and high-band spectrum caps ahead of the expiry of rights of use for currently licensed spectrum and unassigned spectrum to ensure the efficient use of spectrum across bands which do have similar characteristics.

MCA is adopting in full proposal 2.4b – Band Specific Spectrum Caps

2.5 Relaxation of spectrum Caps

Q2.5a MCA invites stakeholders to submit their opinion on the proposed mechanisms in relaxing the respective spectrum caps.

One respondent agreed with the proposed mechanism for the relaxation of spectrum caps and further appealed for the availability of more spectrum in the 26 GHz band to allow for the individual assignment of up to 800 MHz of contiguous spectrum. Another respondent highlighted the importance of relaxing the relevant spectrum bands only when appropriate, i.e., during the grant stage, further emphasising that spectrum caps should only be relaxed if spectrum remains unassigned in both the 700 MHz and the 3.6 GHz bands and if no excess demand is registered in any one band. A third respondent emphasised the need for further clarity on the mechanisms and timeframes for spectrum relaxation.

As further articulated in the responses received to Q2.4b, MCA notes the importance of recognising the different characteristics of the relevant bands and highlights that the relaxation mechanism is meant to recognise such differences. MCA's proposal for the relaxation of spectrum caps should hence consider each band independently of the rest.

MCA notes that the relaxation of spectrum caps is discretionary upon the Authority and that duly justified conditions are in place that ensure the efficient and effective use of spectrum. MCA may consider a request for spectrum beyond the established spectrum cap only where spectrum in the relevant band has remained unassigned and where no excess demand for spectrum based on the unrelaxed spectrum caps within that band is registered. For clarity, a spectrum cap can only be relaxed on conclusion of the subsequent grant stage relevant to that spectrum. An expression of demand for any additional spectrum following the relaxation of the spectrum cap is dealt with as a separate process. The proposed mechanism ensures a level playing field and safeguards against spectrum hoarding.

Q2.5b What in your views are justifiable conditions which may merit the relaxation of caps and the issue of any spectrum which has remained unassigned or reserved? These could include, for example spectrum trading, national infrastructure sharing, access obligations for verticals etc.

One respondent strongly disagreed with the possibility of relaxing band specific spectrum caps covered by this Consultation Document, highlighting that the relaxation of spectrum is counter to the efficient and effective use of spectrum, particularly in the 700 MHz band where bandwidth is more scarce. Another respondent highlighted that the relaxation of spectrum caps for the 3.6 GHz band might prove attractive in the case of national infrastructure sharing whilst that for 26 GHz would be attractive for the creation of new verticals. A third respondent emphasised the need for further clarity on the mechanisms and timeframes for spectrum relaxation.

MCA notes the responses received and considers that the spectrum relaxation mechanism as proposed, upholds the efficient and effective use of spectrum as it is subject to the expression of market demand and the assessment of duly justified conditions.

MCA is amending proposal 2.5a – Relaxation of spectrum Caps as follows:

If following the conclusion of an assignment process, it results that:

- there is still unassigned spectrum in either of the 700 MHz or the 3.6 GHz bands; and
- there is no excess demand for spectrum as expressed by the applicants based on the unrelaxed spectrum caps **in the relevant lot** category; and
- duly justified conditions are in place ensuring the efficient and effective use of spectrum

then MCA at its discretion, may relax the spectrum caps in the band/s in question as follows:

- A cap of three (3) 5 MHz paired channels will apply in the 700 MHz band;
- A spectrum cap which shall not exceed forty (40) % of the unutilised spectrum, and with a total maximum cap of one hundred and forty (140) MHz in the 3.6 GHz band.

3.1 Spectrum award process

Q3.1 What are your views on the proposed spectrum award procedure?

In general, all respondents agreed with the proposed spectrum award procedure. One respondent further articulated that it supports MCA's intention to initiate the assignment process after it receives a formal expression of interest to acquire the rights of use for spectrum. Within the 26 GHz band, more than one gigahertz should be considered for terrestrial IMT/5G use only if there is a market demand for such bandwidth. Another respondent objected to the right of the Authority to issue an invitation for expressions of interest in the absence of market demand. Moreover, it also disagreed that a formal expression of interest to acquire spectrum in one band should trigger a call for spectrum in all bands covered by this Consultation Document. One respondent argued against the need for a bid-bond and a further respondent suggested that in the case where applicants are well known to MCA and have previously submitted administrative information, MCA considers the use of existing information to reduce the administrative burden.

MCA supports the principle that in general, spectrum assignment procedures should be initiated on expression of market demand. Nonetheless it also recognises that competitive or comparative selection procedures should also give due weight to the need to fulfil national or EU objectives such as those related to the promotion of competition, coverage or quality of service requirements, or the promotion of innovation and business development. MCA maintains its right to issue an invitation for expressions of interest based on such proportionate, objective and transparent reasons and in the absence of market demand. MCA further maintains its right to extend any expression of interest to other complementary bands, where relevant.

In relation to the bid-bond requirement, MCA observes that such requirement serves to ensure a firm commitment towards the demand as expressed, the assignment process and the fulfilment of the obligations related to any eventual assignment. Nonetheless, the MCA considers that there are merits in evaluating complementary or alternative approaches to the imposition of a bid-bond / performance guarantee, where these lead to the desired outcomes. In evaluating such options, the MCA will consult transparently on the proposed measures. MCA also notes that where administrative information has already been submitted as part of a previous procedure and where such information remains valid and correct, resubmission may not be required.

MCA adopts in full proposal 3.1 – Spectrum award process.

4.1 License Duration

Q4.1 MCA invites stakeholders to express their views on the proposed license durations.

In general, all respondents agreed to the proposed license duration. One respondent further supported the possibility to issue additional extensions to harmonise termination dates but further queried whether the proposed obligations are meant to replace prevailing ones applicable to previously assigned spectrum. Another respondent argued that the minimum licence duration should be 20 years as per Article 49 of the EECC. It adds that there should also be a mechanism to extend the term by an additional 5 years beyond the initial 20 years.

MCA takes note of the responses provided and clarifies that this Decision governs spectrum bands in the 700 MHz, 3.6 GHz and 26 GHz bands. The prevailing conditions associated with currently assigned spectrum remain as set in their relevant decision.

With respect to the minimum licence duration, MCA maintains that the proposed fifteen (15) year period, with the possibility to extend the license term for an additional five (5) years is in line with Article 49(2) of the EECC.

MCA adopts in full proposal 4.1 – Licence Duration

4.3 Roll-out and coverage obligations

Q4.3 MCA invites stakeholders to express their views on the roll-out and coverage obligations proposed, in particular the general obligation approach being adopted.

In general, respondents supported the roll-out and coverage obligations as proposed, with the exception of one respondent who expressed very strong reservations against the 24-month period, arguing that it is objectively insufficient and that it might skew investment in a way that is not best suited to the sustainable evolution of mobile technologies for the benefit of the end user. The respondent further contends that the Authority has not defined the coverage requirement in a way that gives confidence to operators that there will be a common, objective and properly defined yardstick to establish compliance. The respondent considers that a rollout obligation in line with the license conditions for 2100 MHz spectrum, where a glide path was set for 50% coverage within 24 months, increasing to 99% within 60 months would allow operators to move to an investment that is much more sustainable in the longer term.

Clarifications were sought by one respondent in relation to the need to fulfil the coverage obligation using spectrum assigned through this procedure, specifically whether such an obligation exists to roll-out the assigned spectrum nation-wide within a prescribed timeframe.

MCA takes note of the responses provided and clarifies that, as stated in the consultation, the roll-out and coverage obligations can be met collectively with any other licensed spectrum bands. Nonetheless, spectrum assigned through this procedure shall be used within a 24-month timeframe from its assignment whilst not necessarily being deployed nationwide.

MCA further welcomes the availability of market players to pursue a 24-month roll-out plan whilst acknowledging the importance of sustainability investments. In proposing a 24-month nationwide uninterrupted coverage obligation, MCA draws on the most recent spectrum assignment and the market fulfilment of roll-out obligations therein well within a 24-month timeframe and aligns with the EU's strategic objective for uninterrupted 5G coverage in all urban areas and all major transport paths by 2025². MCA also maintains that such an obligation is in the best interest of consumers noting the extent of mobility due to Malta's size. Nonetheless, MCA has sought to, allow the market players the flexibility to choose the timing of their investments as long as the technology and services offered are made available on a nationwide basis within a 24-month timeframe from their launch. MCA further maintains that consumers remain the best yardstick to ensure compliance hence the obligation for the publication of coverage and quality information.

MCA adopts in full proposal 4.3 – Roll-out and coverage obligations

² Connectivity for a Competitive Digital Single Market - Towards a European Gigabit Society
<https://digital-strategy.ec.europa.eu/en/library/communication-connectivity-competitive-digital-single-market-towards-european-gigabit-society>

4.4 Coverage and quality information

Q4.4 What are your views on the coverage and quality information obligations?

Two respondents expressed their general agreement with the proposed obligation concerning the publication of coverage and quality information, whilst highlighting the need for clarifications around presentation due to the inherent complexity of the subject matter and the need to ensure like with like comparability across operators. One of these respondents further emphasised that such an obligation should not come into effect before 18 months from the national coverage deadline. Another respondent stated its disagreement to this requirement and its inclusion as a condition attached to individual rights of use. It adds that at most these obligations could be limited to information on the coverage level and technology and associated maximum data rate.

MCA takes notes of the responses received and acknowledges that such requirements need to be both proportionate and timely. The Authority considers that the provision of the requested information upholds consumer transparency and further maintains that it is particularly necessary to ensure the effective and efficient use of radio spectrum as well as to compliance with any coverage and quality of service obligations attached to the rights of use for radio spectrum and their verification.

MCA clarifies that the obligation for the provision of information applies to the technology and services at the point of market offer, with emphasis on the need to maintain it up to date. Such measure is deemed proportionate when considering that various market players already provide similar information on a voluntary basis. When prescribing the format for any additional information to ensure that end users are properly informed on the coverage and quality of the service and for comparative purposes, the Authority will consult with the relevant stakeholders on the proposed measures and implementation timeframes thereof.

MCA adopts in full proposal 4.4 – Coverage and quality information and further adds that:

When prescribing any such formats the Authority shall consult with the relevant stakeholders on the proposed measures and the relevant implementation timeframes thereof.

4.5 Transparency over network failures

Q4.5 MCA invites stakeholders to express their views on the obligation to inform the network subscribers on network failures in real time

Two respondents expressed their general agreement with the proposal concerning the obligation to inform subscribers on network failures in real time, whilst highlighting the need to set reasonable and realistic requirements, such as reporting on the basis of a severity classification. One respondent further emphasized the complexity of maintaining such obligations and the importance of ensuring a proper balance between keeping the customer informed and placing burdens on operators that might deliver limited value to end users. Additionally, the other respondent argued that the format and timing of such notifications should be left to the operator to ensure relevance to end users. A third respondent acknowledged the importance of such notifications but argued they such obligations should not be imposed as conditions attached to individual rights of use.

MCA takes note of the responses received and acknowledges that such requirements need to be both proportionate and timely. The Authority considers that the provision of the requested information upholds consumer transparency and further maintains that it is particularly necessary to ensure compliance with any coverage and quality of service obligations attached to the rights of use for radio spectrum and their verification. For clarity, this obligation applies to technology and service roll-outs subsequent to the grants of the rights of use.

MCA considers that its proposal provides an adequate level of flexibility and control by the operator to choose the format, timing and granularity of such notifications, in the best interest of its end users and as relevant to the maturity of the network as it evolves. When prescribing the format and any additional information to ensure that end users are properly informed on service impairments, the Authority will consult with the relevant stakeholders on the proposed measures and implementation timeframes thereof.

MCA adopts in full the proposal 4.5 – Transparency over network failures and further adds that:

When prescribing any such formats and additional information, the Authority shall consult with the relevant stakeholders on the proposed measures and the relevant implementation timeframes thereof.

4.6 Obligations pertaining to indoor coverage

Q4.6 What, in your views, are the optimal conditions conducive of sharing indoor infrastructure?

Respondents generally agreed that there is no justifiable need to mandate additional obligations on this matter due to the high level of cooperation already present between the established operators which has functioned effectively.

MCA takes note of the responses provided and acknowledges that the high level of cooperation between the established operators has proven effective for technology roll-outs undertaken so far. It further posits that such high levels of effective cooperation inherently imply general agreement on the technical specifications as well as the economical and operational procedures followed for the installation and shared use of indoor DAS. The foregoing evidence argues in favour and not against the agreement on a common set of rules, as it is reasonable to expect that these are already available.

MCA further clarifies that this obligation does not apply retrospectively to already deployed DAS, with its scope of applicability limited to the spectrum bands which are the subject of this consultation.

Furthermore, MCA reserves the right to mandate non-discriminatory access to indoor non-replicable elements of the access network on the basis of fair and reasonable commercial terms and in line with the prevailing consultation and transparency mechanisms, where such access is justified on the grounds that, in the area subject to such obligations, the market-driven deployment of infrastructure for the provision of networks or services which rely on the use of radio spectrum is subject to insurmountable economic or physical obstacles and therefore access to networks or services by end-users is severely deficient or absent.

MCA adopts in full proposal 4.6 – Obligations pertaining to indoor coverage

4.12 Spectrum Trading

Q4.12 What are your views on the potential for spectrum trading and the related obligations?

One respondent did not object in principle to the concept of spectrum trading and agreed with the principle that it should not undermine the conditions for fair and effective competition. The same respondent argued that details related to spectrum trading would need to be published separately and consulted upon, given the limited information being provided at this stage.

Another respondent stated that it is of the opinion that the market in Malta is well served in that there is a stable and workable approach to mobile infrastructure planning, a key component of which is spectrum availability. Changing the current approach and introducing additional parties and/or variables controlling access to such a key resource is likely to have an overall negative impact on the market.

MCA takes note of the responses provided and further clarifies that, in terms of the NFP, the bands under reference are already allowed to be traded in line with national and EU law.

The procedure and rules applicable to spectrum trading are not the subject of this consultation. Stakeholders are invited to refer to the relevant procedures and rules as stipulated at law.³

MCA adopts in full proposal 4.12 – Spectrum Trading

4.13 Technical conditions ensuring the efficient use of radio spectrum

Q4.13 What are your views on the power limit established?

Three respondents expressed their general agreement with the power limits proposed. Another respondent requested that the conditions for terrestrial IMT/5G operations in the 26 GHz band also address out-of-band limitations on terrestrial IMT/5G operations to protect satellite broadband service in the 28 GHz band.

MCA takes note of the responses provided and the general agreement between respondents, whilst emphasizing that the proposed power limits are in line with the relevant harmonised technical conditions.

MCA adopts in full the proposal 4.13 – Technical conditions ensuring the efficient use of radio spectrum

³ Cap 399 and S.L. 399.28

4.14 Synchronization and IP routing protocol obligations

Q4.14 What are your views on the synchronization and IP routing protocol obligations?

In relation to the synchronisation obligation, all respondents supported the Authority's approach towards a specific agreement between licensees within the first six months of the grant of the rights of use of 3.6 GHz and/or 26 GHz.

Two respondents also agreed on the importance of ensuring network support for IPv6 whilst arguing that the timing for enabling IPv6 should be driven by the operator's needs. Another respondent argued against IPv6 support as it did not see any significant benefits in deploying this technology.

MCA welcomes the general agreement between respondents in relation to synchronisation. It also notes that, whilst there is no immediate need to implement IPv6 since IPv4 is currently sufficing, there are merits of scalability, security and connectivity related to 5G use cases in ensuring that equipment and solutions are designed to support IPv6. In this regard MCA considers that the networks deployed in the new spectrum bands should be IPv6 ready and able to support the introduction of IPv6 capabilities, when appropriate. This clarifies that the text "IPv6 enabled", as stated in the proposed decision, does not mean provisioned, but merely able to support from a readiness point of view the introduction of 5G capabilities.

MCA adopts proposal 4.14 – Synchronization and IP routing protocol obligations: *Synchronisation of TDD networks using the default frame structure*

MCA amends proposal 4.14 – Synchronization and IP routing protocol obligations: *Obligation to support IPv6 as follows:*

The licensee must ensure that its mobile network is IPv6 ready, hence capable of supporting the introduction of IPv6.

4.15 Interference mitigation

Q4.15 MCA invites stakeholders to express their opinions on the proposed set and operation of the 700 MHz Interference Mitigation Fund.

Two respondents expressed general agreement with the proposed measure to mitigate interference, particularly since a similar approach is currently in place and has proven its effectiveness. One respondent noted changes in relation to the role of the Authority in the management of the Fund and further added that specific concerns may need to be addressed down the line as the relevant details are put into place. Another respondent disagreed with the setup of a new Interference Mitigation fund specifically for the 700 MHz because it says there are far too many uncertainties. However, it does draw a parallel with the previous 800 MHz exercise and its benefits and outcome.

MCA welcomes the general agreement on the effectiveness of the proposed mitigation measure due to its proven track record and considers that such approach helps in reducing uncertainties. Moreover, the MCA would like to clarify that the proposed IMF obligation for the 700 MHz band is identical to that undertaken for the 800 MHz and that there is no change whatsoever in relation to the role of the Authority in the management of the Fund. Moreover, the implementation approach leading to the management plan necessitates discussions between the relevant stakeholders and MCA, as outlined in the proposed decision.

MCA adopts in full proposal 4.15 – Interference mitigation

4.17 Radio Access Network Security and Integrity

Q4.17 MCA invites stakeholders to express their views and opinions with regard to the additional security measures being introduced in the spectrum licenses.

Respondents expressed general agreement to the need to meet high levels of Radio Access Network security and integrity whilst emphasizing the need to ensure that requirements are proportionate to the risk but also to the resources of the operators required to enforce them.

MCA takes note of the responses provided and the general agreement between the respondents that Radio Access Network security and integrity are critical success factors for a future rollout of 5G.

MCA adopts in full proposal 4.17 – Radio Access Network Security and Integrity