

# Review of the framework for the grant of right of use of radio spectrum for test and trial purposes

MCA Decision on the test and trial licensing framework

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# **Executive Summary**

The Malta Communications Authority (hereafter 'MCA') is hereby presenting its final decision on the licensing framework for the rights of use of radio spectrum for test and trial purposes (hereafter the 'Decision'). This Decision supersedes the framework established by the MCA in May 2010<sup>1</sup>, with respect to test and trial licensing for innovative wireless systems.

This Decision follows the publication of a consultation document on the 9<sup>th</sup> November 2016<sup>2</sup>, to seek feedback on a number of proposals to the aforesaid licensing framework to enhance the flexibility already provided for in the said framework and hence increase its attractiveness and take-up, taking into particular account the 5G Action Plan for Europe published by the European Commission on the 14<sup>th</sup> September 2016<sup>3</sup>.

Through this public consultation process, which ran until the 2<sup>nd</sup> December 2016, MCA received feedback from two entities. The responses received were generally in concurrence with MCA's proposals as described in the consultation document. A summary of the consultation feedback is reproduced in Annex 1.

<sup>&</sup>lt;sup>1</sup> MCA/10/27 - <a href="http://www.mca.org.mt/sites/default/files/decisions/assignment-procedure-test-and-trial-licences-decision-may-2010.pdf">http://www.mca.org.mt/sites/default/files/decisions/assignment-procedure-test-and-trial-licences-decision-may-2010.pdf</a>.

MCA/C/16-2696 - <a href="http://mca.org.mt/sites/default/files/consultations/Consultation Review%20of%20Test%20and%20Trial%20Licensing%20framework.pdf">http://mca.org.mt/sites/default/files/consultations/Consultation Review%20of%20Test%20and%20Trial%20Licensing%20framework.pdf</a>.

<sup>3</sup> COM(2016)588 - http://ec.europa.eu/newsroom/dae/document.cfm?doc\_id=17131.



#### 1. Introduction

#### 1.1 Purpose and background

Malta's size, geographic location and population density offers an ideal location for industry and entities involved in technology innovation and research to act as a test-bed for new services. With its high population density and a mix of heavy urban, urban and rural areas within a footprint of just 316sq km, Malta presents a unique proposition in combining the demographics found across different countries into a location where pilot studies can be explored and analysed with little effort. The availability of spectrum in bands which are generally in high demand makes Malta a microcosm that offers the potential for undertaking tests and trials on wireless technology and its uses on a nationwide basis with minor investment.

In this regard, in August 2009, the MCA consulted on the grant of right of use of spectrum for test and trial purposes<sup>4</sup>. Subsequent to this consultation the MCA had in May 2010, published a report on the outcome of the consultation process and on the assignment procedure to be adopted in processing requests for the grant of rights of use of spectrum for test and trial purposes (MCA/10/27). A set of guidelines were also published (document reference MCA/10/30)<sup>5</sup> to guide interested stakeholders during the application phase of the licensing process.

Through this framework the MCA operates a test and trial licensing scheme in support of innovative spectrum uses which aims to exploit Malta's unique potential as a test-bed. In this regard the MCA has granted to both local and foreign companies, licences for the carriage of tests and trials of innovative wireless systems on a non-commercial basis. The MCA would like to state that although the current regime as defined in document MCA/10/27 is straightforward and does not create undue administrative burden to stakeholders enjoying a test or trial licence, the MCA called for a review of this framework to enhance further its applicability, flexibility and take-up.

In this respect the MCA took into consideration the 5G Action Plan for Europe as published by the European Commission in September 2016. This action plan established a clear roadmap for public and private investment on 5G infrastructure in the European Union and aims to promote the carriage of preliminary trials taking place as from 2017, and pre-commercial trials from 2018. The provision of commercial 5G services in Europe is expected to take place by end 2020.

http://www.mca.org.mt/sites/default/files/attachments/consultations/2012/test-and-trial-licence-consultation-paper.pdf.

<sup>&</sup>lt;sup>5</sup> <u>http://www.mca.org.mt/sites/default/files/pageattachments/Test%20and%20Trial%20Guidelines.pdf.</u>



MCA's proposed revisions to the test and trial licensing regime as presented in its consultation document MCA/C/16-2696 aim to increase this regime's applicability and flexibility, taking into account that valuable commercial spectrum which in other jurisdictions is scarce, is unused in Malta as assigned spectrum currently meets the market demand for nationwide electronic communications services using the most recent technologies.

The MCA through its revised framework as established by virtue of this Decision would welcome requests for the carriage of tests and trials in Malta of innovative wireless systems such as 5G.



#### 1.2 Legal basis for the grant of test and trial licences

Test and trial licences are granted by the MCA under the Electronic Communications (Regulation) Act (Chapter 399 of the Laws of Malta)<sup>6</sup>. This Act establishes the framework for the grant of rights of use of radio frequencies and for the installation or use of radiocommunications apparatus. Each licence therefore authorises the use of specific apparatus, which is listed as part of the licence, for transmissions on specific frequencies, to and from specific points, as the case may be.

The licence fees for the grant of such licences are established under the 8<sup>th</sup> Schedule (Part B) of the Electronic Communications Networks and Services (General) Regulations (S.L.399.28 of the Laws of Malta)<sup>7</sup>.

<sup>&</sup>lt;sup>6</sup> http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=8866&l=1.

http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=10563&l=1.



# 2. The current Test and Trial licensing framework

#### 2.1 General Overview

The current framework establishes that a test licence can only be requested for the purpose of carrying out tests on innovative<sup>8</sup> radio equipment and uses of spectrum or technologies under test conditions. It is therefore considered that test licences are intended for localised testing only, where communication signals need to be confined to a specific site. A test licence cannot involve members of the public or provide a service to third parties.

On the other hand, the trial licence can only be requested for the purpose of carrying out trials of innovative radio services involving members of the public or other third parties. This licence type is intended to give stakeholders the opportunity to become more acquainted with the technology, its benefits and associated pitfalls, and be in a better position to evaluate its feasibility.

Test and trial licences granted by the MCA contain the standard licence conditions aimed to, amongst other things, ensure the efficient use of the radio frequency spectrum as well as to limit the exposure of the general public to electromagnetic fields. In addition, holders of such licences are legally bound to ensure that their networks do not cause any undue interference to other networks or services in the same or adjacent frequency bands.

Both licences require licensees to provide a report to the MCA on the results of the tests or trials carried out in Malta. Such information is treated in line with MCA's confidentiality guidelines<sup>9</sup>.

Test and Trial licences are issued for an initial maximum term of up to one-year and may be extended for an additional term of up to one-year following submission of a written request to the MCA providing justifications as to why the licence needs to be extended. Both licences can be terminated at any time by the MCA if the licence holder is in breach of any of the obligations as contained in the applicable laws and/or decisions enforced by the MCA or in the applicable licence.

#### 2.2 Licence Fees

The applicable licence fees for the grant of rights of use of spectrum for test and trial purposes are established under Part B of the 8<sup>th</sup> Schedule of the Electronic Communications Networks and Services (General) Regulations (S.L.399.28 of the Laws of Malta).

<sup>&</sup>lt;sup>8</sup> Innovative refers to the wireless service or technology that has never been deployed in Malta on the requested frequency band.

<sup>9</sup> http://www.mca.org.mt/articles/mcas-internal-guidelines-confidentiality.



The licence fee for a test licence is €100. The licence fee for a trial licence is €600 for the first 12-month licence term and €800 for the following 12-month licence term. This fee may be reduced pro rata for trial licenses that are granted for a period of less than one year. A minimum fee of €100 shall, however, always be applicable.



# 3. The Decision - The revised Test and Trial licensing framework

In light of the outcome of the consultation process (refer to Annex 1), the MCA is establishing the test and trial licensing framework as articulated under this section. This Decision supersedes the framework established by the MCA in document MCA/10/27 concerning the granting of rights of use of radio frequencies for test and trial purposes.

#### 3.1 Applicability of the Test and Trial Licences

#### 3.1.1 Test Licences

A test licence can only be granted for the purpose of carrying out tests on radio equipment using any type of wireless technology. Under this licence type the licensee cannot involve members of the public or provide a service to third parties.

The tests need to be carried out in a pre-determined site that is not necessarily confined, on condition that the necessary safeguards are implemented to mitigate any risks of harmful interference.

Any frequency band can be used for the carriage of tests as long as the usage reflects the frequency designations and any associated conditions established in the applicable national decisions such as the National Frequency Plan<sup>10</sup>.

#### 3.1.2 Applicability of the Trial Licence

A trial licence can only be granted for the purpose of carrying out technical trials using any type of wireless technology, which could involve members of the public or other third parties.

Any frequency band can be used for the carriage of these trials as long as the usage reflects the frequency designations and any associated conditions established in the applicable national decisions such as the National Frequency Plan.

http://www.mca.org.mt/regulatory/authorizations\_licensing/national\_frequency\_plan.



#### 3.2 Licence application process

In order to obtain a test or trial licence, the correct application form made available by the MCA on its website<sup>11</sup> must be duly filled in and filed with the MCA. A copy of the most recent Memorandum and Articles of Association and a copy of the Certificate of Registration need to accompany the application form<sup>12</sup>. Applications submitted by foreign entities will also be considered by the MCA.

In processing applications for the grant of test and trial licences the MCA will apply the following principles:

- a) In issuing individual test and/or trial licences, the Authority will adopt open, transparent and non-discriminatory procedures. In this regard the MCA will publish limited non-technical information on the test and trial licences issued on its website.
- b) Applications for the grant of rights of use of spectrum for the carriage of tests and/or trials will be processed on a first-come, first-served basis. Requests for the use of the same spectrum which could not be upheld due to spectrum unavailability will remain pending and will go in a queue. The details of such pending requests will also be published on MCA's website.
- c) Applications for test and/or trial licences in any part of the radio spectrum with no bandwidth limitations will be considered subject to the availability of spectrum. In examining applications the MCA will ensure that the requested spectrum is in compliance with any conditions or limitations, however so described, that could be established in national decisions or by law. The MCA will also ensure that the requested bandwidth reflects the technology being tested and/or trialled and does not constitute spectrum hoarding.
- d) Test or trial licences will be given without prejudice to any decision that may be taken by the MCA to reassign spectrum in accordance with the National Frequency Plan. The MCA will in such cases act in accordance with the applicable provisions at law in particular of Part XI of the Electronic Communications Networks and Services (General) Regulations.
- e) Test and trial licences for the concurrent testing of services in identical frequency bands may be granted on a case-by-case basis following an analysis carried out by the MCA.

http://mca.org.mt/regulatory/authorizations licensing/spectrum-licensing.

This requirement will only apply to local commercial entities.



#### 3.3 Term of Test and Trial Licences

#### 3.3.1 Test Licences

The MCA is establishing that the term of test licences shall be for up to one year. This term may be extended to further terms not exceeding one year each, on a case-by-case basis, on condition that:

- i. a written request justifying why the licence needs to be extended is received;
- ii. a report detailing the testing activities being carried out in Malta is made available to the MCA;
- iii. the conditions of the test licence are respected;
- iv. no harmful interference problems are reported; and
- v. no requests are received from third parties for the assignment of the same spectrum.

#### 3.3.2 Trial Licences

The MCA is establishing that the term of trial licences shall not exceed one year. Nonetheless, this licence term may be extended for a further maximum term of one year, on a case-by-case basis, on condition that:

- i. a written request justifying why the licence needs to be extended is received;
- ii. a report detailing the activities being carried out in Malta under the trial licence is made available to the MCA;
- iii. the conditions of the trial licence are respected;
- iv. no harmful interference problems are reported; and
- v. no requests are received from third parties for the assignment of the same spectrum.

#### 3.4 Licence Fees

The licence fees for the grant of rights of use of radio spectrum are established under Part B of the 8<sup>th</sup> Schedule of the Electronic Communications Networks and Services (General) Regulations (S.L.399.28).

The fee for the grant of a test licence is set at €100.

The fee for the grant of a trial licence is set at €600 for the first year of a licence term. In the event that the trial licence needs to be extended for a second and final term, the fee for the following year will be incremented to €800. It should be noted that these fees may be reduced pro rata for trial licences that will be granted for a period of less than one year. However, a minimum fee of €100 per licence term shall always be applicable.



#### 3.5 Conditions attached to rights of use of radio frequencies for test and trial purposes

All test and trial licences are subject to the general conditions listed below. However, the MCA retains the right to include additional specific conditions in the licences, on a case-by-case basis and as it may deem necessary, to ensure compliance with the relevant laws and decisions of the MCA and in particular in order to ensure the efficient use of radio spectrum.

It should be clarified that the MCA will only impose conditions that are considered to be strictly necessary.

#### 3.5.1 General Conditions

All test and trial licences are subject to the following conditions:

- a. Test and trial licences will not convey any exclusive rights to the use of the spectrum which is authorised under that licence.
- b. Test and trial licences will be issued in favour of the licensee on a non-protection, non-interference basis. The MCA cannot guarantee protection against interference by the existing licensed users of the radio spectrum.
  - Conversely, the licensee must, at all times, take all the necessary precautions to ensure that no interference is experienced by existing spectrum users as a result of radio transmissions using test and trial licences. If such interference does arise, operation of the system under test or trial will be required to cease immediately. Any costs that may be incurred by the MCA to deal with interference problems shall be exclusively borne by the licensee.
- c. The licensee shall comply with any radiation emission standards adopted and published by the International Commission for Non-Ionising Radiation Protection (ICNIRP) or any other appropriate standards as may be specified by law or by the MCA, any mandatory standards set by the competent authority responsible for the adoption of any such standards and any other relevant standards as may be specified by law.
- d. The holder of a test and trial licence shall comply with any decisions by the MCA in relation to electromagnetic radiation and harmful interference, and ensure that the network and all services at all times comply with the technical and performance standards generally accepted by the industry or as may be prescribed by the MCA or accepted by the MCA as being adequate to ensure the limitation of exposure of the general public to electromagnetic fields.



- e. Any radio equipment used to carry out tests and trials must comply with the Radio Equipment Regulations (S.L. 427.41 of the Laws of Malta)<sup>13</sup>. The MCA may consider approving requests for the use of radio equipment that has not yet been certified to conform to these Regulations. If such requests are considered positively, the MCA may impose specific licence conditions or limitations, however so described to, amongst other things, avoid harmful interference.
- f. Although the MCA will not impose the technology to be used or the service to be provided, the MCA will impose specific licence conditions or limitations, however so described, to ensure the efficient and effective use of radio frequencies, taking into account national and European Union law.
  - Test and trial licence holders will however be entitled to establish the wireless system and to provide the service they have defined during the licence application phase, subject to compliance with the licence conditions. No other wireless system and/or service will be allowed to be established without prior notification to, and prior written approval by the MCA.
- g. Test and trial licences may be terminated in advance by the licensee should the required testing or trialling be finalised before the licence expiry date.
- h. Test and trial licences can be terminated at any time by the MCA if the licence holder is in breach of any of the obligations as contained in the laws, decisions of the MCA or in the licence. All payments made by applicants in respect of the grant of such rights of use will not be refunded by the MCA.
- i. The MCA will have the right to terminate a test and trial licence prior to its expiry date if it receives market interest for the grant of rights of use of the same spectrum authorised for use under the test and trial licence, giving no less than two (2) weeks prior written notice.
  - All payments affected by applicants in respect of the grant of such rights of use will not be refunded by the MCA.
- j. Past and present holders of test and trial licences should not assume any preference should the specific frequency band used by them be issued for public assignment.
- k. The MCA reserves the right to inspect the wireless system at any time to ensure compliance with the licence conditions.
- I. Licensees will be required to provide to the MCA a report detailing the results of the tests and trials carried out by the Licensee following licence termination, as the MCA may determine in the licence. The report shall include aspects relating to harmful interference, propagation of the radio frequency spectrum and other spectrum management matters. Reports received by the Authority in this regard will be treated with the strictest confidentiality.

These Regulations have transposed to national legislation the Radio Equipment Directive (2014/53/EU). Please refer to http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=10778&l=1.



- m. The licensee shall comply with any request for information that the MCA may from time to time make, in accordance with law.
- n. Any right, interest or entitlement resulting from a test or trial licence is not transferable and may only be exercised by the person, company or organisation, however so described, identified in the licence document.
- All national laws and decisions, however so described, shall apply to the licence holder and form an
  integral part of the licence grant, except in those cases where the undertaking is specifically in
  writing exempted by the MCA.
- p. Test and/or trial licence holders are not exempted from the obligation of diligently obtaining, at their own expense, any permits, licences or other approval or authorisation that may be necessary to construct, operate and maintain the services (or any part thereof) or from the obligation of complying with any condition associated with such permits, licences, other approvals or authorisations.

#### 3.5.2 Specific conditions applicable to Trial licences

Trial licences are subject to the following additional conditions:

- a. All trial licences shall be issued on condition that the trial will be carried out on a non-commercial and non-profit basis.
  - However, the MCA may, on a case-by-case basis, allow the carriage of such trials using radio spectrum which is used to complement other licensed spectrum that is used for the provision of commercial electronic communications networks and/or services. The MCA considers that such an approach will give stakeholders the opportunity to analyse, for example, spectrum bonding and aggregation techniques using multiple frequency bands.
- b. The services offered under a trial licence must be at no cost to participating parties and the contract with third parties willing to trial the technology must, as a minimum, contain the following clauses:
  - i. the period over which the trial shall be carried out and/or the duration of the contract with the third party;
  - ii. details of the service being provided on trial, together with the risks and limitations of the services (e.g. inability to secure the service against unauthorised access);
  - iii. that the third party is providing the service on trial at no added financial cost to itself and under no obligation to purchase the service;



- iv. that the third party is under the obligation not to use the trial service for commercial purposes; and
- v. a liability clause stating any possible known risks and inconveniences involved with the trial being undertaken and the extent of responsibility of the licensee with respect to these and other unknown risks and/or inconveniences to third parties.

#### 3.6 General Authorisation requirements

In accordance with the Electronic Communications (Regulation) Act (Chapter 399 of the Laws of Malta) and the Electronic Communications Networks and Services (General) Regulations (S.L.399.28 of the Laws of Malta) a general authorisation is required for the provision of electronic communications networks and, or services in Malta.

Pursuant to Article 19(4) of the above-mentioned Act the MCA has established that rights of use of radio spectrum granted solely for test and trial purposes by virtue of this framework be exempted from the aforesaid requirement for a general authorisation.



# 4. Applicability of Decision

All the requirements established by MCA's final decision shall come into force on the publication of this Decision.



## **Annex 1: Responses to Consultation**

On 9 November 2016, the Malta Communications Authority (MCA) published a consultation document to review the current test and trial licensing framework to enhance the flexibility already provided for in the said framework. During the consultation process, interested players were invited to express their opinion on the key questions highlighted in the consultation document. The consultation period ran until 2 December 2016 during which GO plc (hereinafter referred to as 'GO') and Vodafone Malta Limited (hereinafter referred to as 'Vodafone') submitted written responses. The MCA would like to thank these respondents for their contributions.

#### Summary of the responses received and the MCA's considerations

1. Do you have any reservation with respect to applicability of test and trial licences, as described under section 4.1 and 4.2 of the consultation document? Please provide justifications.

In general, both submissions concurred with the adopted principal to remove the obligation for an innovation element to increase flexibility on the applicability of the test and trial licensing regime.

In view of this, MCA will retain its decision on the applicability of the test and trial licences.

2. Do you have any comments on the licence application process described under section 4.3 of the consultation document?

In general, both submissions concurred with the adopted licence application process. In addition, Vodafone requested the MCA that it should require applicants to provide justification for the bandwidth being requested. Furthermore, GO highlighted the importance for the MCA to implement a transparent process and consequently publish certain information during various stages of the application process as a measure to avoid spectrum hoarding.

MCA took note of Vodafone's consideration with regard to the justification of bandwidth required by an applicant and addressed it in this Decision.

The MCA does not agree on the hoarding concern as it has the right to inspect an installation at any time to ensure that the system is configured and operating in accordance with the licence conditions.

GO's comments concerning the publication of information on applicants and licensees are considered to be fair and the MCA will retain the right to publish certain information to ensure transparency and fairness, taking into account confidentiality matters.



3. Do you agree with the proposed licence terms applicable to the test and to the trial licence as per section 4.5 of the consultation document? Please justify in case of a negative position.

Vodafone requested MCA to require applicants to provide justification for the bandwidth being requested in view of the 24 month licence term. GO agreed to the extended time periods. Furthermore, in its feedback, GO highlighted that MCA's decision should specify that once extended time periods expire, it is not possible for undertakings to request again the same or similar spectrum. In addition, GO also requested MCA to consider provisions against applicants who first apply for a test licence and follow-up immediately upon or close to expiry of said period with a request for a trial licence using same spectrum.

The MCA would like to clarify that before granting extensions to further licence terms, it will ensure that there are no pending requests for the assignment of the same spectrum. Therefore the MCA would like to note that test licences may be extended if no requests are received from third parties for the assignment of the same spectrum. Trial licences will not be extended beyond the 24 month time frame.

It should be emphasised that in processing requests for the granting of test and/or trial licences the MCA will take measures to ensure that the spectrum to be licensed will be used efficiently in accordance with MCA's direction.

4. Do you agree with the conditions assigned with the right of use for the spectrum in question that are described under section 4.7 of the consultation document? Please justify in case of a negative position.

Both submissions concurred with the adopted conditions assigned as defined in the consultation. In addition, both GO and Vodafone highlighted that a test or trial licence should be terminated even in situations where the licensed spectrum is not being used for actual test and or trial purposes.

The MCA would like to assure both respondents that it will always ensure that radio frequencies granted for test and or trial licences are used efficiently and effectively and that the it reserves the right to inspect an installation at any time. In addition, the MCA would like to stress that it has the right to terminate a test or trial licence prior to its expiry date if it receives market interest for the grant of right of use of the same spectrum for the provision of commercial electronic communications networks and/or services.