

## **Assignment of Spectrum in the 3400 – 3800 MHz band**

Decision of the Malta Communications Authority on the Assignment Methodology and Licence Conditions

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## 1. Introduction

This document sets out the Malta Communications Authority's (the "Authority") position in respect of frequency assignments in the 3400 – 3800 MHz band and outlines the process that will be used when awarding rights of use of spectrum.

This document also captures the outcome of the public consultation launched in April 2009<sup>1</sup> with respect to the assignment of spectrum in this band. The document capturing the Authority's position in relation to the said Public Consultation and the Responses received is annexed to this decision<sup>2</sup>.

For the sake of clarity, it is being held that the licences, issued in 2005, for the provision of broadband wireless access services in this band, are regulated by their own licence conditions and are not to be effected by the position laid down in this document.

### 1.1 Background

In 2005 the Authority awarded the rights of use of spectrum in the 3400 – 3600 MHz band to three operators namely Cellcom Ltd, MobIsle Ltd and Vodafone Malta Ltd.

During the last quarter of 2008, one of the licencees rescinded the rights of use of spectrum assigned to it in 2005. As a result of this, part of the spectrum in the 3400 – 3600 MHz band is today unassigned.

A consultation paper was published in 2009 to determine the future of this spectrum. The consultation paper also revisited the original 2005 policy to take into consideration technological and market developments.

One major development was the adoption in 2008 of the European Commission Decision 2008/411/EC. This decision harmonised technical parameters for the provision of electronic communication services in the 3400 – 3800 MHz band.

In view of this development, the consultation paper did not focus solely on the re-assignment of the spectrum that was rescinded in the 3400 – 3600 MHz band but also considered the future of the 3600 – 3800 MHz spectrum thereby covering the whole 3400 – 3800 MHz band.

The submissions received put forward a number of considerations and differing opinions regarding the proposed assignment process. The Authority held further discussions with

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<sup>1</sup> [http://www.mca.org.mt/sites/default/files/consultations/Cons\\_on\\_3400\\_3800\\_MHz.pdf](http://www.mca.org.mt/sites/default/files/consultations/Cons_on_3400_3800_MHz.pdf)

<sup>2</sup> MCA/O/12-0755 - 'Response to Consultation: Assignment of Spectrum in the 3400-3800 MHz band for BWA Services'

these respondents to better assess their positions. The Authority's evaluation of the response to consultation is captured in the Annex to this document.

The Authority takes the opportunity to thank all respondents for their contributions.

## **1.2 Principles Underpinning Spectrum Management**

The assignment of spectrum is based on a set of fundamental principles:

- spectrum is a limited national resource and must be used efficiently and effectively;
- operators are assigned time-bound rights of use of spectrum and NOT ownership;
- if demand for spectrum exceeds supply, a fair, transparent and non-discriminatory competitive assignment process is necessary to determine who is entitled to hold the rights of use; and
- a competitive selection process for the award of radio spectrum can be based on qualitative (beauty contest) and/or quantitative (auction) criteria. It is the discretion of the Authority, as the assigning entity, to select the most appropriate selection process.

The above principles underpin the assignment methodology and the licence conditions that are being put forward in this decision.

## 2. Spectrum to which this decision applies

### 2.1 Spectrum Bands

The spectrum band that is the subject of this decision is the 3400 – 3800 MHz band.

### 2.2 Channelling Arrangement and Interference Mitigation Techniques

The 3400 – 3800 MHz band will be divided into a number of paired 3.5 MHz channels.

The existing guard bands included in the current active licences in the 3400 – 3600 MHz sub-band will be retained. Notwithstanding this, operators are free to establish bilateral or multilateral agreements governing the utilisation of these guard bands.

New assignments in the 3600 – 3800 MHz sub-band will be required to operate without guard bands and adopt the interference mitigation techniques listed in the European Commission Decision 2008/411/EC.

In view of this, the channelling arrangement for the 3400 – 3800 MHz band will be as follows:

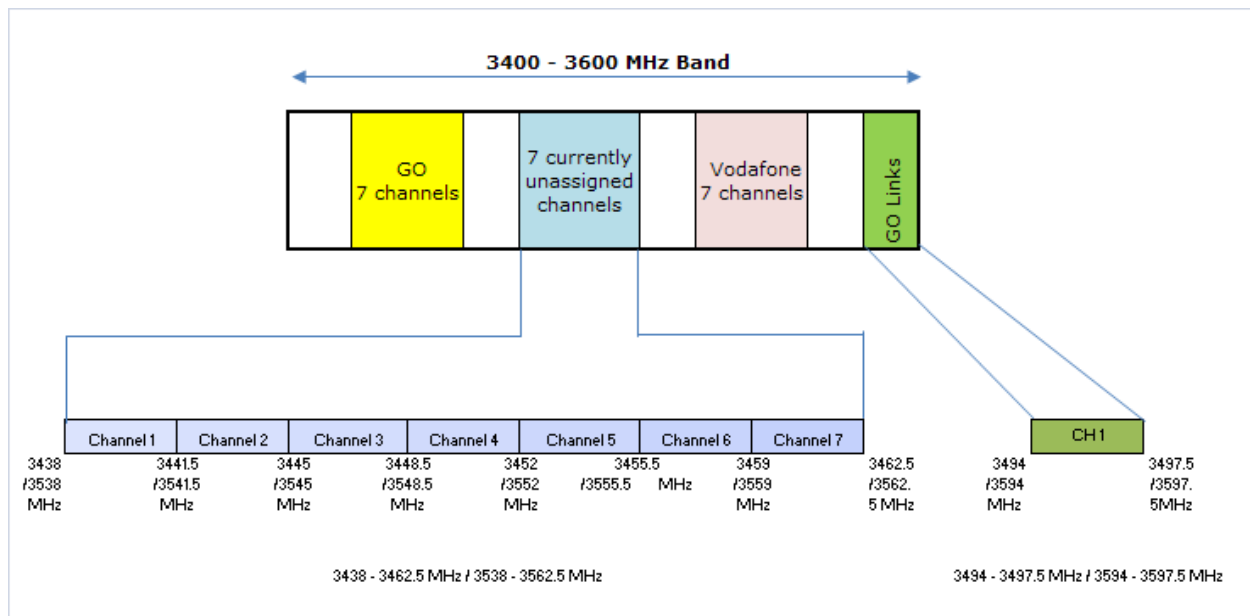


Figure 1: Channelling Arrangement in the lower part i.e. 3400 – 3600 MHz sub-Band

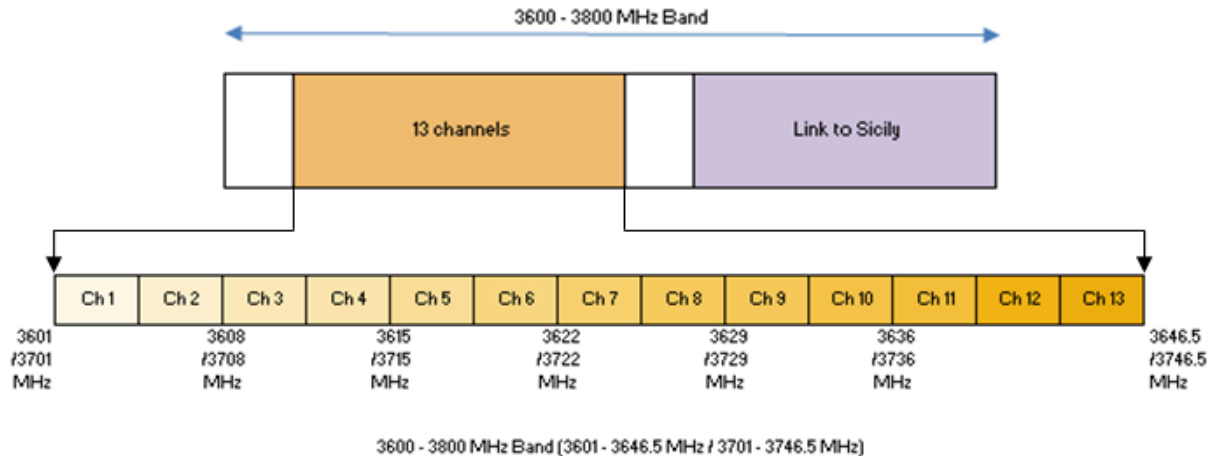


Figure 2: Channelling Arrangement in the upper part i.e. 3600 – 3800 MHz sub-Band

## 2.3 Spectrum Available for Assignment

Should demand for spectrum in the lower part of this band (i.e. in the 3400 – 3600 MHz sub-band) be in excess of the seven currently unassigned channels, then the point-to-point links currently operated by GO plc (GO) in this band will be migrated. The timeframe for this migration will be established following consultation with the relevant stakeholders.

With respect to the Malta to Sicily link operating in the 3600 – 3800 MHz sub-band the Authority is of the view that, taking into account the limited interest for spectrum in this band, the considerable amount of unutilised spectrum and the sensitive nature of the link, for the time being this link will be retained.

Therefore the spectrum being made available for assignment is as follows:

1. Seven (7) channels in the 3400 – 3600 MHz sub-band, which are currently unassigned.
2. One (1) channel in the 3400 – 3600 MHz sub-band, which is currently being used for point-to-point links. This channel will be made available if demand exceeds supply.
3. Thirteen (13) channels in the 3600 – 3800 MHz sub-band which are currently unassigned.

## 2.4 Spectrum Caps

In order to strike the balance between granting applicants the possibility to acquire adequate spectrum and allowing for a level of competition in the market, the following spectrum cap will be introduced at the Call for Expressions of Interest stage:

- an overall cap of twelve (12) 3.5 MHz-channels will be applied.

Any existing Broadband Wireless Access (BWA) assignments prospective applicants may already have in this band will be included within this cap.

## 3. Licence Conditions

### 3.1 Spectrum Pricing

Fees are published in Legal Notice 60 of 2012.

For the 3400 – 3600 MHz sub-band the fees are set at €7,000 per paired 3.5MHz channel per annum.

For the 3600 – 3800 MHz sub-band the fees for the first five (5) years from licence issue are set at €3,500 per paired 3.5MHz channel per annum. For the remaining period a fee of €7,000 per paired 3.5MHz channel per annum will apply.

### 3.2 Licence Term

The rights of use of spectrum will be assigned for a term of ten (10) years.

### 3.3 Network Coverage and Rollout Obligations

In the lower part of the 3400 – 3800 MHz band (i.e. the 3400 – 3600 MHz sub-band) successful applicants will be required to complete their nationwide network deployment within two (2) years from the grant date.

On the other hand, no nationwide coverage obligation will be imposed on deployments in the upper part of the 3400 – 3800 MHz band (i.e. the 3600 – 3800 MHz sub-band). Applicants will however need to identify the location and service<sup>3</sup> or coverage areas where they intend to deploy their network.

In both instances the licencees will be bound by a 'use it or lose it' clause.

### 3.4 Technology and Service Neutrality

Rights of use granted will be technology neutral, subject to the technical conditions stipulated in the European Commission decision 2008/411/EC on the harmonisation of the 3400 - 3800 MHz band.

**The Authority retains its right to amend any assignments made, and any of the terms and conditions of the licence to reflect legal developments that are imposed**

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<sup>3</sup> In this case the service is defined as broadband wireless access



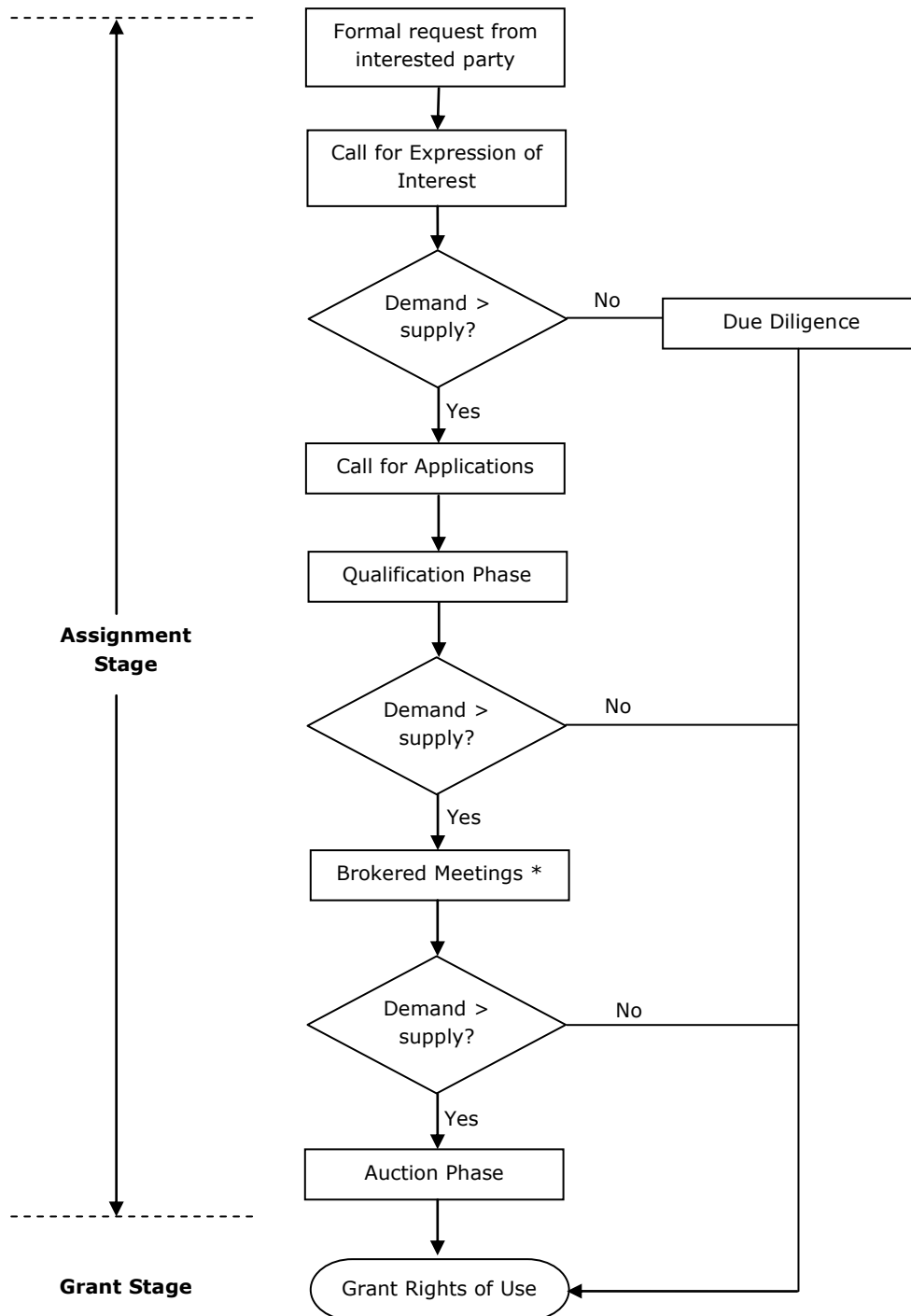
**upon it, EU harmonisation requirements and to cater for other pressing needs that the local market may have during the duration of the licence, taking due account of its obligations at law.**

No limitations with respect to the services that may be offered over the spectrum acquired in this process will be imposed. However, the Authority will reserve unto itself the power to impose certain service obligations in accordance with law.

## 4. Assignment Process

### 4.1 Process Overview

The process for the assignment of spectrum in these bands will be as follows:



\* The Brokered Meetings will be held at the Authority's discretion.

The process is divided into two main stages, the Assignment Stage and the Grant Stage.

The **Assignment Stage** will establish the number and type (i.e. in which sub-band) of channels awarded to each successful applicant. Each 3.5 MHz paired channel will be considered a single lot.

The **Grant Stage** will establish the specific channels that will be awarded to the successful applicants and will be concluded with the issuance of the rights of use documents.

## 4.2 Assignment Stage

### 4.2.1 Call for Expression of Interest

The process for the assignment of spectrum in the 3400 – 3800 MHz band will be initiated only following a formal request for spectrum being received by the Authority.

On receipt of such a request, the Authority will publish a Call for Expressions of Interest ('EOI').

As part of their submission, the applicants will be required to indicate their spectrum requirements and may in addition be requested to:

- pay a non-refundable application fee;
- submit an appropriate deposit which will be reflective of the first year spectrum fees and the applicant's spectrum requirements<sup>4</sup>; and
- submit any relevant documentation as may be deemed necessary by the Authority to evaluate the application.

Applicants will not apply for specific frequencies in the 3400 – 3600 MHz and/or the 3600 – 3800 MHz parts of the band but for a number of paired 3.5 MHz channels (lots) in either part of the 3400 – 3800 MHz band.

In expressing their spectrum requirements, the applicants must abide by the spectrum caps mentioned in Section 2.3 and any application containing an option that exceeds the spectrum cap will be disqualified.

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<sup>4</sup> This deposit is refundable in case of non-assignment to the undertaking.

### 4.2.2 Due Diligence

If demand does not exceed supply, the Authority will, prior to awarding any rights of use, carry out a due diligence process. This process will assess whether applicants have the necessary standing to fulfil the licence obligations.

### 4.2.3 Call for Applications

In case that following the EOI demand for spectrum exceeds supply, the Authority will issue a binding call for applications ('Call').

Only parties that have submitted an expression of interest will be allowed to participate in this Call.

Parties that express an interest pursuant to the EOI will be allowed to withdraw from participation in the Call.

As part of their submission, the applicants may be requested to:

- submit an appropriate bid bond/performance guarantee. The bid bond is intended to ensure an applicant's commitment to the assignment process, lasting up to the award of a grant of rights of use. In the case of unsuccessful applicants the bid bond will be released at the end of the assignment process and once the successful applicants have been announced. In the case of successful applicants the bid bond will be maintained as a performance guarantee. The performance guarantee will serve as evidence of good faith, to guarantee that the licensee will honour the winning bids and will abide by the licence conditions;
- submit an appropriate deposit which will be reflective of the first year spectrum fees and the applicant's spectrum requirements<sup>5</sup>; and
- submit any relevant documentation as may be deemed necessary by the Authority to evaluate the application.

Moreover the applicants will be required to provide detailed information regarding their spectrum requirements. As stated previously, applicants will not apply for specific frequencies in the 3400 – 3600 MHz and/or the 3600 – 3800 MHz parts of the band but for a number of paired 3.5 MHz channels (lots) in either part of the 3400 – 3800 MHz band.

Applicants will need to state the maximum number of lots in each sub-band, and overall, that they may eventually apply for throughout the course of the process ('Maximum Interest').

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<sup>5</sup> This deposit is refundable in case of non-assignment to the undertaking.

In addition applicants will be required to state their preferred number of channels in each of the sub-bands ('Preferred Option'). It is expected that this option will be identical to the spectrum request submitted by the said applicant following the EOI.

The overall demand for channels in each of the sub-bands following the Call will be determined by the Authority on the basis of the Preferred Option submitted by all the applicants.

In addition to the Preferred Option, applicants will be required to indicate alternative options that would suit their needs in the case that demand for the spectrum exceeds supply ('Alternative Options'). This information will be used in the event that brokered meetings are required.

In expressing both their Preferred and Alternative Options, the applicants must abide by the spectrum caps mentioned in Section 2.3 and any application containing an option that exceeds the spectrum cap will be disqualified.

In no case shall the number of channels in each sub-band indicated by the applicants in their Preferred and Alternative Options exceed the Maximum Interest declared by them as mentioned above.

#### 4.2.4 Qualification Phase

In case that demand for spectrum exceeds supply, the qualification process will assess whether applicants have the necessary standing to fulfil the licence obligations should they be successful in acquiring the spectrum rights. It will not rank applicants. The outcome of this phase will be a pass/fail result based on a set of criteria including but not be limited to:

- due diligence criteria;
- the applicant's business plan;
- the financial viability of the project; and
- access to adequate financing for the venture.

At the end of the Qualification Phase an assessment of the demand for spectrum by the qualified applicants will be carried out. If demand in each sub-band (as expressed in the qualified applicants' Preferred Options) does not exceed supply, then the rights of use of spectrum will be granted directly to the qualified applicants in line with the process outlined in section 4.3 below.

#### 4.2.5 Brokered Meetings

In the event that, following the Qualification Phase, demand exceeds the availability of spectrum in any of the sub-bands, the Authority reserves the right at its own discretion and without binding itself to do so, to carry out a set of brokered meetings with the qualified applicants. The objective of these meetings will be to reach an agreement on an assignment plan that addresses the requirements of all the qualified applicants. In order to protect commercial interests, the meetings will be held separately with each qualified applicant.

In developing the proposals, cognisance will be taken of the spectrum requests put forward by the applicants, the preferences indicated, their business and technical plans and the outcome of the discussions during the meetings.

If the proposal so developed is accepted by all the parties then the Authority will proceed with the granting of rights of use in accordance with the agreement reached.

In the absence of a full agreement being reached at the end of the brokered meetings, an attempt will be made to reach agreement to assign parts of the spectrum, whereby only the remaining channels would be auctioned.

Any proposed solution reached between the Authority and each of the qualified applicants will be binding on the individual applicants but not on the Authority in view of the fact that the Authority must first ensure that the proposed solution reached with one, or more, individual qualified applicants fits within an overall solution acceptable to all the qualified applicants.

In the event that no agreement (whether full or partial) is reached between the qualified applicants and the Authority, or should the Authority decide not to hold brokered meetings, all the spectrum being made available for assignment will be auctioned.

#### 4.2.6 Auction

The auction design will take due account of the complementary and substitutable characteristics of the sub-bands in question and will provide for package bidding. Therefore applicants will be required to simultaneously bid for lots in both the lower and upper sub-bands of the 3400 – 3800 MHz band<sup>6</sup>. All combination bids submitted by each applicant at any stage of the auction must be in line with its expressed Maximum Interest, the spectrum caps mentioned above and any other criteria that will be established in the auction rules.

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<sup>6</sup> For sake of clarity it is being emphasised that applicants will apply and eventually bid for “a number” (quantity) of channels and not for specific (identified) channels.

Qualified applicants will be obliged to take part in at least the first round of the auction stage. Failure to do so will result in a forfeit of the bank guarantee.

Detailed auction rules will be provided at the Call for Applications stage.

### 4.3 Grant Stage

As part of their submissions to the Call, interested parties will be invited to indicate their ranked preferences for particular frequency channels and provide a justification for such preference. This will in no way tie down the Authority to assign the frequencies in accordance with the expressed preferences of the applicants. The Authority will have the sole and unlimited discretion to award the particular channels in the way it deems best in the interest of spectrum efficiency.

Once the outcome of the assignment stage<sup>7</sup> is known, the Authority will proceed to the award spectrum to each successful applicant, ensuring where possible that licencees are awarded contiguous swathes of spectrum. Should there be no way to easily reconcile the applicants' preferences, then a lottery will be used to determine the band assignments.

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<sup>7</sup> The **Assignment Stage** establishes the number of lots awarded to each successful applicant.

## 5. Summary of the Authority's Decision

- Spectrum will be assigned as individual 3.5 MHz paired channels.
- The interference mitigation techniques applied in the 3400 – 3800 MHz band will be as follows:
  - For assignments in the 3400 – 3600 MHz sub-band, existing guard bands already included in the current active licences will be retained. Operators will be allowed to establish multilateral agreements to govern the utilisation of these guard bands.
  - For assignments in the 3600 – 3800 MHz sub-band technical conditions aimed at minimising interference in line with 2008/411/EC will be adopted.
- Spectrum caps will be introduced at the Call for Expressions of Interest stage.
- An overall cap of twelve (12) 3.5 MHz-channels will be applied. This includes any already assigned rights of use.
- Rights of use will be granted for a ten (10) year term.
- Rollout and coverage obligations in the 3400 – 3800 MHz band will be as follows:
  - Applicants successful in acquiring spectrum in the 3400 – 3600 MHz sub-band will be required to complete their nationwide network deployment within 2 years from the grant date.
  - No nationwide coverage obligations for deployments in the 3600 – 3800 MHz sub-band will be applied. However, at application stage, applicants will be required to identify the areas where network deployment will be made.
- Sanctions including a 'use it or lose it' clause will be included in the licence.
- Rights of use will be service and technology neutral in line with 2008/411/EC.
- Should the Authority receive a formal request for spectrum in the 3400 – 3800 MHz band, the assignment process will be launched through a Call for Expression of Interest. Interested parties will be requested to apply for their desired number of channels.



- The assignment process will be as follows:
  - Should the available spectrum be sufficient to cater for the registered demand, then the spectrum will be assigned directly to all applicants in line with their requirements following a due diligence process.
  - If demand exceeds supply, a Call for Applications will be published. Only parties that expressed an interest during the EOI stage will be allowed to participate.
  - The next step will be a qualification phase based on a number of criteria.
  - If following the qualification phase demand still exceeds supply, brokered meetings will be held at the Authority's discretion. These meetings will be aimed at finding an assignment that is acceptable to all parties.
  - If no acceptable solution is arrived at, or should the Authority decide not to hold brokered meetings, an auction will be held.

**Ing. Philip Micallef**

**Chairman**