

**Response to the Consultation on a Policy Review and Strategic Framework of
Radio Spectrum Management**

**An Analysis of Responses Received and Comment
on those Responses**

11th June 2007

Contents

	Page
Foreword	3
1. Responses to Issues Raised in the Consultation	5
2. Next Steps	15

None of the material in this document should be taken to reflect the views of the Ministry for Competitiveness and Communications (MCMP) or to represent official Government policy, unless it is explicitly stated otherwise.

Foreword

This document summaries the responses received to the consultation paper entitled 'Policy Review and Strategic Framework of Radio Spectrum Management',¹ published on the 30th October 2006.

The consultation paper depicted the radio spectrum management environment in Malta and its effectiveness, the factors that influence that environment and the existing and emerging policy issues warranting consideration over the coming years. Moreover, the consultation paper set out the Malta Communications Authority's (MCA's) proposed strategy for managing the use of the radio spectrum resource in Malta over the next three to five years.

The key policy issues identified in the consultation paper that need to be considered further by Government in collaboration with the MCA in the short-to-medium term relate mainly to radio spectrum allocation and assignment issues, competition issues and technological issues.

The rapid technological developments and the convergence of electronic communications, media content and electronic devices are creating a dynamic environment where radio spectrum is becoming an even more important resource. To a certain extent, models for managing and regulating radio spectrum usage have failed to keep pace with these developments, giving rise to an increasing risk that, without change, the traditional approach will prevent the Maltese society from reaping the benefits of this new dynamic environment. For this reason, a review of spectrum policy and management of this precious resource is necessary.

Government, together with the MCA, has started to address and resolve the above-mentioned policy issues. Continuing to address these issues will further contribute to the creation of a communication technology infrastructure that enhances Malta's competitiveness, economic performance and social achievements. Furthermore, the efficient and effective use of radio spectrum offers significant opportunities to reduce costs, raise productivity and enhance quality of life.

The final strategic framework and detailed work programme for dealing with the issues identified in the consultation paper is expected to be published in the coming months after having taken into account the input received and recent developments in the sector.

¹ Refer to <http://www.mca.org.mt/infocentre/openarticle.asp?id=890&pref=28>.

A total of five (5) responses were received by the closing date. The respondents focused on different areas, providing valuable insight to the various sectors. The five (5) respondents to the consultation were, in alphabetical order:

- AIR Networks Company Limited
- Amateur Radio League (Malta)
- Armed Forces of Malta
- Maltacom Group
- Vodafone Malta Limited

The following section presents a summary of the responses to the issues and proposals raised in the consultation paper and comments made by the MCA. The detailed responses are available for viewing at the MCA's office.

1. Responses to Issues Raised in the Consultation

Summary of Response – AIR Networks Company Ltd

The respondent's views are summarised below:

- AIR Networks Co. Ltd's response focused on the most popular licence-free radio frequency bands (i.e. the 2.4 GHz band and the 5 GHz band) due to their experience in this sector.
- Radiocommunications equipment (such as those operating in the 2.4 GHz band) is becoming more spectrum efficient allowing an increased density of equipment to coexist within the same radio frequency space without causing any degradation.
- Illegal high-powered systems (such as those operating in the 2.4 GHz band) tend to cause significant interference problems with other radiocommunications systems, even a few kilometers away from the offending transmitters. These problems are mainly due to the lack of knowledge and the abuse on the use of the operating frequency band.
- There exists a general lack of appropriate enforcement with respect to the use of the 2.4 GHz band.
- There is a need for better monitoring of the licence-free bands and the main tool should be education and independent audits on suspicious set-ups.
- Disagrees with a system that imposes any form of registration, with or without payment, that could significantly raise the cost and time-to-implement licence-free radiocommunications systems.
- Disagrees with any form of 'notification' for the use of licence-free radiocommunications equipment.
- The 5 GHz band is ideal for long-range outdoor point to point radio fixed links, due to its wide range of spectrum that is readily available. However, the higher cost of equipment operating at 5 GHz has kept low-end users from flooding the band, as has happened in the 2.4 GHz band, resulting in a relatively clean under-utilised portion of this licence-free radio frequency.
- Advanced and more expensive equipment that makes more efficient use of radio spectrum - in the 5 GHz band - by using less bandwidth is being penalised due to the limitations in the current EIRP limits. This is considered

to be counter-productive as the incentive should be to use more radio frequency bandwidth to take advantage of higher EIRP limits.

- Recommends that the maximum mean EIRP should be significantly increased for the 5 GHz links to attract more usage of this band instead of using the 2.4 GHz band illegally.
- Commends initiatives which increase the widespread use of mobile and fixed technologies.
- The consultation paper shows a clear vision in providing the right framework for new and emerging technologies to coexist peacefully.
- Supportive of the plans to create an open and flexible platform which would give stakeholders the maximum possible creative freedom to provide new and innovative services for the benefit of the general public and the country as a whole.

Comment by the MCA

- The 2.4 GHz and 5 GHz band wireless access systems (including RLANs, also known as WiFi)² are planned to be regulated via general authorisation arrangements that would include the terms and conditions, obligations and penalties.³
- The MCA investigates any abuse of radiocommunications installations and any information provided by users and the general public.⁴
- The MCA provides information regarding radiocommunications equipment power limits on its website and to all local businesses marketing such equipment. Information is also provided when carrying out market surveillance on R&TTE products. Information campaigns on the appropriate use of specific types of radiocommunications equipment are also planned to be carried out by the MCA in the coming months.
- Reference is made to the 5.8 GHz spectrum for fixed wireless access networks, this band is currently under study by the MCA and the technical parameters will be based on European harmonised conditions.

² Refer also to Commission Decision 2007/90/EC amending Decision 2005/513/EC on the harmonised use of radio spectrum in the 5 GHz frequency band for the implementation of Wireless Access Systems including Radio Local Area Networks (WAS/RLANs).

³ Refer to Section 2.3 - The Radio Spectrum Licensing Regime of the Consultation Paper.

⁴ Refer to Appendix B - Radio Spectrum Monitoring and Enforcement of the above-mentioned Consultation Paper.

- Current power restrictions on both the 2.4 GHz and 5 GHz frequency bands are due to other radiocommunications applications in use (e.g. aeronautical, radionavigation, etc.). High powered applications are only permitted on radio spectrum bands which are subject to a radiocommunications licensing regime.
- The MCA is committed to promoting innovative technologies and spectrum efficient systems and is studying the use of certain frequency bands for the introduction of electronic communications applications. Ensuring a healthy and competitive electronic communications industry is already part of the MCA's wider brief as the national regulatory authority.

Summary of Response – Amateur Radio League (Malta)

The respondent's views are summarised below:

- Most of the proposed radio spectrum policies safeguard the amateur radio hobby and the radio spectrum itself.
- A request for the use of a number of allocated frequencies used internationally for amateur services have been turned down by the MCA.
- Additional radio spectrum allocations for use by amateurs as outlined in the National Frequency Plan have been welcomed.
- Further clarification is requested regarding the MCA's plans for foreigners visiting Malta and holding a valid amateur licence issued in a country that has signed up to the CEPT agreement to be permitted to operate without a national licence for a period of twelve (12) months.
- Clarification is required on the proposed options of moving to a general authorisation regime or simplifying the amateur licences regime.
- Concern with the MCA's statement that implementation of CEPT Decisions and Recommendations are implemented only where appropriate.
- Concern that assignments for the rights of use of radio spectrum are only published on the MCA website.

Comment by the MCA

- The implementation of CEPT Decisions and Recommendations by national administrations is on a voluntary basis as the CEPT has no legislative power. CEPT Decisions and Recommendations are not binding and the MCA implements them in line with Government's policy, when beneficial to the local community, and when they do not affect other radiocommunications

services.⁵ Nevertheless, European Commission Decisions are legally binding on Member States.⁶

- The MCA is keen to apply harmonisation measures where clear benefits are identified or where required by international obligations.⁷
- The MCA actively participates in international spectrum management activities (e.g. EU, CEPT and ITU) in order to promote the best interests of Maltese consumers and the radiocommunications industry.
- The MCA is currently carrying out a review of all the radiocommunications licences including those for local and visitors' radio amateurs. The MCA will also be considering the option for foreigners visiting Malta and holding a valid amateur radiocommunications licence to be permitted to operate without a national licence. The MCA intends to consult on the revised amateur licence regime in the coming months.
- The latest version of the National Frequency Plan has made available all those frequency bands allocated to the amateur radiocommunications service at an international level (WRC-2000).⁸
- Additional frequency bands requested by the Amateur Radio League (Malta) are not in the current National Frequency Plan as they are not internationally allocated to amateur services. In Malta, these requested bands are presently allocated and used for other purposes. Therefore, the allocation of these bands to the amateur radiocommunications service will only be considered if they are allocated to such services by a world radiocommunication conference.
- The MCA website offers the possibility for users to register following which all announcements related to spectrum and radiocommunications equipment are forwarded via e-mail.

Summary of Response – Armed Forces of Malta (AFM)

The respondent's views are summarised below:

⁵ Refer to Appendix A – The International Perspective of the above-mentioned Consultation Paper.

⁶ Refer to http://ec.europa.eu/information_society/policy/radio_spectrum/ref_documents for a list of current Commission Decisions.

⁷ For example the recent Commission Decision 2007/98/EC on the harmonised use of radio spectrum in the 2 GHz frequency bands for the implementation of systems providing mobile satellite services.

⁸ Refer to Appendix C, Section C6.2 Amateur Services of the above-mentioned Consultation Paper.

- The AFM requested clarification regarding the protection of the those frequency bands used for applications related to national security.
- The AFM noted that no military spectrum is currently identified in the National Frequency Plan.
- The AFM questioned the separate classification of Defence Systems and Public Safety Services considering the AFM's unique non-military roles and support to other government agencies and that the high degree of protection which the MCA proposes to offer Public Safety Services is not mirrored in the field of Defence Systems.
- The AFM requested clarification on the mechanism used to provide protection from interference to maritime and safety of life services.
- The AFM requested clarification on the introduction of a licensing / authorisation regime for maritime and radio navigation services considering the extensive use of radar installation (both mobile and fixed) and radio navigation services by the AFM.
- The AFM noted that the current radio spectrum use by the AFM is by no means excessive given the wide range of roles fulfilled by the AFM.
- The AFM finds it unacceptable to allow civilian agencies to operate on military frequencies.

Comment by the MCA

- It is expected that the 2008 revision of the National Frequency Plan will include additional radio spectrum allocations for military use following an audit of current assignments.
- The MCA is currently studying the introduction of a radar and radio navigation licensing / authorisation scheme. This is expected to be followed by the publication of a consultation paper regarding the proposed licensing / authorisation scheme.
- The MCA monitors the radio spectrum to ensure that there are no illegal operators and takes action against anyone operating a radiocommunications system or using radio spectrum without the necessary licence / authorisation, or where spectrum is not being used in accordance with specified conditions.
- The MCA investigates all interference complaints and takes all the necessary action against those users causing harmful interference to authorised stations and/or services.

- The MCA notes the AFM’s specific concern raised in relation to Defence Systems and Public Safety Services resulting from its unique non-military roles and support to other government agencies and will take these into consideration when managing the radio spectrum.

Summary of Response – Maltacom Group

The respondent’s views are summarised below:

- Welcomes the consultation paper which mirrors the European Unions (EU) Commission’s consideration for a new approach to spectrum management, in particular a move away from the ‘command and control’ approach.
- A more pragmatic and flexible use of spectrum in a controlled environment is needed to foster competition, investment, innovation and ultimately consumer welfare.
- The principle of technology neutrality should become the norm for future spectrum allocations enabling users to choose the most appropriate spectrum.
- The right balance needs to be struck as market mechanisms only work with appropriate regulatory rules.
- Service neutrality threatens to create problems to competition e.g. in network rollout costs – all players in the relevant market must be subject to the same obligations and further studies are required concerning the different usage patterns of different services to ensure that new interference scenarios are not introduced.
- Spectrum trading is recognised as having potential benefits however there exist clear downsides – e.g. interference, distortion of competition.
- Appropriate amounts of ‘exclusive’ and ‘non-exclusive’ spectrum rights need to be available, but this does not mean that ‘non-exclusive’ spectrum rights of use should necessarily become the norm or the default method for spectrum rights, or that exclusive rights should only be considered in exceptional circumstances.
- Assignment method of frequencies should be on a case-by-case basis and take into account local market dynamics, consultations, impact assessments.
- Cautiously supportive of the broad principles behind a gradual and evolutionary move from traditional (‘command and control’) spectrum management to more flexible spectrum management mechanisms for allocating and assigning radio frequencies.

- Market based systems should apply to broadcasters who currently do not have any incentive to use radio spectrum efficiently – all users of radio spectrum should be exposed to the same efficiency incentives.
- Market based systems should underpin the future use and assignment of any digital dividend resulting from the analogue TV switch-off.
- The transition to a more liberalised spectrum environment, even though needed, can only be achieved if the level of interferences is controlled and subject to the MCA having adequate supervision and control mechanism to monitor and take prompt action when needed.
- The MCA should take into account legacy issues surrounding current holders of spectrum licences who have paid exorbitant sums and assumed onerous commitments in terms of network coverage and investment to both acquire licences and build the market.
- Harmonisation of spectrum use has brought significant benefits which a free market approach could deliver with more difficulties. The coordination of the regulatory approach across Europe, and harmonisation where appropriate, would bring greater regulatory certainty for investors in wireless technologies.
- General agreement internationally and in particular at the EU level that the command and control regime is not a viable option for the future. The question is what market-based regime is best suited to replace it and what can be done in the interim to guarantee a smooth transition.

Comment by the MCA

- The MCA is encouraged by the generally favourable views expressed towards spectrum trading and change of use however with appropriate safeguards.
- The MCA intends to develop proposals in relation to spectrum trading and change of use as part of its broader work on spectrum liberalisation. The MCA will be seeking opportunities to liberalise specific frequency bands or services, where this would provide benefits, taking into account the need to avoid harmful interference to protect existing and future applications.
- The MCA notes the importance of both licensed and licence-exempt spectrum and will endeavour to meet market requirements for both, particularly where this has the potential to stimulate, amongst others, the rollout of broadband wireless access services in Malta.
- The introduction of spectrum markets could impact the value of existing licences as well as on related investments. Existing rights of use will have to be taken into account, while at the same time ensuring compatibility with

competition law requirements and general European Community law principles.⁹

- In order to maintain an effective and responsive regulatory structure, the MCA together with Government, participates in appropriate international fora to track and influence developments in international regulation, harmonisation of standards and new market opportunities and to monitor developments in technologies and applications.

Summary of Response – Vodafone Malta Limited (Vodafone)

- Vodafone agrees with the general thrust of the proposed policy review and strategic goals however a number of issues touched upon need to be addressed in the interest of the electronic communications industry in general.
- Vodafone claims that following an analysis of spectrum fees paid in other European Union jurisdictions the regulatory fees in Malta are exorbitant.
- The Vodafone Group has been advocating spectrum reform along the lines proposed in the policy document and suggested by the European Commission.
- Vodafone supports the concept of service and technology neutrality i.e. allowing individual operators rather than Government and/or the MCA to determine how best to exploit their spectrum – e.g. allowing mobile operators to deploy UMTS technology in the existing GSM frequencies.
- Importance of coordination at both pan-European and global level between governments, regulators and EU Commission to assign particular bands to particular technologies (economies of scale).
- Service and technology neutral spectrum rights need to be properly defined to avoid any possible interference issues.
- 900 / 1800 MHz re-farming for UMTS deployment is well on the agenda of most European Regulators and operators.
- The importance for the MCA and Government to issue a policy with respect to usability of the 900 MHz band. The main issues that need to be tackled are those related to licence fees around the current GSM regime.
- The practice of fragmenting spectrum and assigning chunks to different operators to deploy similar technologies does not lead to efficiencies for a

⁹ Refer to Section 3.3 – Transitional Arrangements and Implementation of the above-mentioned Consultation Paper.

country the size of Malta. E.g. DTTV and BWA operators have struggled with sufficient infrastructure deployment and to some extent 3G. The single allocation and shared radio network would have been more than sufficient to serve the Maltese and visitor population.

- Vodafone propose that the assignment of the 2.6 GHz band should be to one operator willing and able to deploy and share a country wide network subject to the necessary regulatory safeguards in order to ensure a level playing field. Alternatively, frequency / infrastructure sharing should be encouraged commercially, however, Vodafone doubts that this could happen without a regulatory driven approach.
- Further detail on the MCA's plans with respect to spectrum trading are required before submitting a position.

Comment by the MCA

- The MCA is encouraged by the generally favourable views expressed for a more flexible approach to spectrum management (i.e. allocation and licensing).
- Fees for the rights of use are set to ensure the optimal use of licensed frequencies. In general, spectrum fees should be set at a level that ensures the technical and efficient use of scarce radio spectrum resources, encourages the development and deployment of new technologies and services and reflects its value to society.¹⁰ Market-based approaches such as administrative pricing, auctions and secondary trading help to determine the 'market value' of spectrum.
- Malta has a great interest in harmonisation and standardisation in order to restrict interference and to be able to use equipment that can be marketed in several countries. The MCA support the harmonisation of global spectrum allocations where such harmonisation fits in with Malta's strategic vision.
- Commission decisions serve as an important tool to pave the way for harmonising spectrum throughout the European Union. The European Commission closely follows the implementation of such decisions, which include agreed dates for implementation, in the Member States. The MCA together with Government and other Member States participate in the development of such decisions in order to ensure the co-ordinated use of radio spectrum and harmonised conditions for the availability and efficient use of radio spectrum.

¹⁰ Also refer to Section 1.1 – Policy Objectives of the above-mentioned Consultation Paper.

- The 2.6 GHz band is currently under study by the MCA and the technical parameters will be based on a common European approach. This is expected to be followed by the publication of a consultation paper regarding the allocation and assignment of the 2.6 GHz band for operators wishing to implement different technologies (e.g. UMTS and WiMAX).
- MCA is studying the implications of 900 MHz / 1800 MHz for UMTS deployment in view of the European Commissions work with respect to allowing operators to implement new, more efficient and innovative technologies (e.g. the deployment of new services using 3rd generation mobile technologies).
- Secondary trading promotes economically efficient use of spectrum after initial assignment and allows the market to remedy the problem. Spectrum trading allows users to trade spectrum subject to competition rules. The MCA intends to develop proposals in relation to spectrum trading and change of use as part of its broader work on spectrum liberalisation.
- The MCA encourages the sharing of infrastructure, wherever possible, as a means of lowering costs, expanding coverage, as well as to avoid the duplication of resources.
- The MCA recognises the importance of introducing national solutions where this is attractive and in the best interest of users, for example the release of spectrum in the 3.5 GHz band for BWA.
- The European Commission intends to publish a recommendation on the authorisation conditions to be applied to the frequency bands envisaged for the implementation of WAPECS (Wireless Access Policy for Electronic Communications Services).¹¹

¹¹ Refer to the Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions (COM(2007/50/final) dated 8th February 2007 regarding the rapid access to spectrum for wireless electronic communications services through more flexibility. The aim of this Communication is to set the practical steps necessary from now until 2010 in order to pave the way towards more flexible spectrum management in bands with individual rights of use for which the review of the electronic communications framework will ultimately offer the regulatory basis.

2. Next Steps

The MCA is grateful for the points made in the response to the consultation and will endeavour to reflect the concerns raised on specific issues in the final version of the strategic framework.

The MCA welcomes the broadly positive comments in response to the market-based approaches to spectrum management and the liberalisation of spectrum management where this would provide benefits, such as economic efficiency, promotion of innovation and competition, and flexibility. The MCA also notes comments with respect to the benefits of co-ordination, harmonisation and standardisation measures of radio spectrum use where appropriate. The MCA will take these into account in developing recommendations to the policy on market-based approaches and liberalisation.

This review of responses on the consultation paper will be followed by the publication of a final strategy and detailed work programme. The policy issues will be incorporated in the work programme and progressed through research, analysis and consultation, down to a set of recommendations to Government, with those carrying the highest urgency and impact given priority.

The publication of a final strategy and work programme will take into account all the feedback received and the recent developments within the sector.