

**Consultation on proposed strategies for Digital Terrestrial Broadcasting,  
Third-Generation mobile telephony (UMTS), and Fixed Wireless Access  
(FWA)**

**Explanatory memorandum**

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**July 2004**

## 1 Scope

The Ministry for Competitiveness and Communications is presenting three strategies for public consultation. These strategies are based on proposals put forward to the Government by the Malta Communications Authority.

The three consultation documents articulate the Government's views relative to the implementation in Malta of:

- Digital Broadcasting
- UMTS
- Fixed Wireless Access (FWA)

This explanatory memorandum provides the conceptual and regulatory backdrop, as well as an overview of the aims and objectives of the three national strategies that are being issued concurrently for public consultation.

All three strategies can live and be addressed independently of each other. However it has been deemed more feasible to issue these concurrently. All three media, which the respective strategies address, carry the potential for so called 'triple play', that is the ability to carry sound, vision and data. It is therefore ideal to present existing operators and prospective investors with as comprehensive a picture as possible as to the potential shape of the market and the envisaged networks and services that should be available in the foreseeable future. This should facilitate forward planning and investment decisions on the part of market players.

## 2 Background

The electronic communications revolution is one of the catalysts driving national administrations to keep abreast with technology developments, while at the same time ensuring that the institutional and regulatory frameworks are in place, so that sustainable sectoral and national development can take place. Europe has recognised this necessity to the extent that a host of initiatives have been taking place during the last decade, with the pace accelerating somewhat during the last five years.

Malta is a party to this revolution and membership in the European Union has been a further spur to achieve parity with the best. The intention is ultimately that of achieving a comprehensive Information Society. In the final analysis Malta has to be at the forefront of developments if we want to ensure a prosperous future for our Nation.

The Government has been intensely involved in developing the 'supply side' of the information society, that is the regulatory framework necessary to bring about a robust and competitive electronic communications infrastructure on which Information Society Services invariably depend. This initiative has translated into the effective liberalisation of the electronic communications sector and an environment that is conducive to competition.

Following the full implementation of the so-called 1998 EU telecommunications framework, the Ministry is now piloting through Parliament the new electronic communication bill, which is set to transpose the 2003 EU electronic communications Framework. The latter regulatory framework fosters a regulatory environment that is basically aligned with competition law principles, without, however, detracting from

the powers of the National Regulatory Authority on the one hand or the obligations of operators on the other.

The creation of a transparent and viable regulatory framework that enables real and lasting competition is therefore one important goal that this Ministry has been tasked with. Beyond the legislation, however, the Ministry has the responsibility for setting out the strategic direction for the nation-wide introduction of new technologies and the utilisation of spectrum as a national scarce resource.

It is within this context that these strategy documents are being presented for public consultation with a view to subsequent adoption as the Government's official strategy in the respective fields.

There is a strong impetus on the part of the European Union for member states to be rolling out of state-of-the art electronic communications networks and services. The Commission communication to the Council entitled "Electronic Communications: the Road to the Knowledge Economy" sums up this objective as follows:

*"Electronic communications are a European strength and action must be taken now to consolidate this and to achieve the Lisbon objectives. This requires above all legal certainty to create the conditions for long term investment; public policy that stimulates both demand and supply; and, the safeguarding of long term competitiveness and innovation through R&D. As noted in the conclusions of the December 2002 Telecoms Council, state aid is not the way forward.*

*This Communication does not launch new policies. It reminds Member States of the need to complete rapidly the process of defining and implementing the actions already planned and complementing these where necessary. Concretely, governments should aim to:*

- (i) the full, effective and timely implementation of the **new regulatory framework** for electronic communications to create and maintain a competitive environment that offers incentives to innovate, invest, and improve the quality of the services offered.*
- (ii) encourage the use of electronic communication technologies through broadband and multi-platform access, as outlined in **the eEurope 2005 Action Plan**, to improve public services and, ultimately, to reorganize business and administrative processes to increase productivity and growth.*
- (iii) support and strengthen current **research efforts at national and EU level** to ensure Europe's long-term competitiveness."*

The Government of Malta is committed to, and is in tune with this vision. The strategies that are being issued for consultation are directly linked to the second action item. In this respect Member States have been requested to present rollout strategies in relation to Digital Broadcasting and UMTS.

### **3 The New Technologies and related Services**

It is pertinent at this juncture to provide an overview of what the technologies addressed in the respective strategies entail, by way of functionality and impact on the user:

#### **3.1 3G/UMTS**

UMTS (Universal Mobile Telecommunication System) refers to the next generation mobile phone network technology (3G). 3G networks are capable of transmitting both voice and data at higher transmission rates, thus allowing new services like video messaging and internet browsing all from 3G mobile handsets.

The rollout of commercial 3G networks is expected to accelerate considerably during 2004 when services become available in most of Europe, North America and the Far East.

#### **3.2 Digital Terrestrial Broadcasting**

Digital terrestrial broadcasting refers to broadcasting of both digital TV and digital radio.

Digital Terrestrial TV Broadcasting involves terrestrially transmitting a television signal that is digitally encoded. The signal is picked up by a standard antenna and is decoded either by a digital TV or by an appropriate external converter or 'set-top box' similar to those used by Cable TV operators. DTTV has the following advantages over the current analogue television transmissions:

- superior sound and picture quality;
- greatly improved spectrum efficiency as the frequency band taken up by one analogue channel can accommodate several digital channels.
- greater potential for the proliferation of the information society given that DTTV can support interactivity over broadband using TV sets, which are the most widely diffused type of customer premise equipment.

#### **3.3 Fixed Wireless Access (FWA)**

Fixed Wireless Access is the use of wireless spectrum to provide an alternative to the so-called 'last mile' connectivity between the subscriber and the nearest network infrastructure point.

FWA is a viable alternative to DSL and cable modem technologies and is being utilised in other jurisdictions as an alternative broadband network. The main benefit from the use of this technology lies in the reduced cost in infrastructure required to reach subscribers. While existent networks are expensive to deploy and maintain, the main cost of wireless deployment relates to the purchase of radio equipment. FWA is a product that can provide a ubiquitous high-speed access to consumers, and has a very rapid deployment capability.

### **4 Utilisation of Radio Spectrum**

A common feature to all three technologies is the requirement for radio spectrum, a limited commodity which, as a consequence, has to be allocated diligently and fairly with due regard to:

- Spectrum pricing;
- Allocation methodology and limitations on the granting of rights of use; and
- Roll-out obligations.

#### **4.1 Spectrum Pricing**

Radio Spectrum is recognised as a scarce resource, for which rights of use may be granted against payment. EU law requires that spectrum is priced according to its market value. The more difficult that spectrum is to attain and the more revenue that an operator can expect to make from having access to that spectrum, the higher the market value.

Establishing the value of spectrum is a complex task. Set too high, it can be a barrier to technology investment. Set too low, it can make for less than optimal use of a very scarce resource.

#### **4.2 Spectrum Allocation**

In order to maximise utilisation and at the same time enable effective and economically viable networks, an allocation methodology has to be devised which is equitable and transparent. The new EU Authorisation Directive establishes a clear procedure for dealing with:

- the granting of rights of use of radio frequencies and applicable conditions; and
- limiting the rights of use to be granted for radio frequencies.

The provisions of this directive are currently being transposed into national law and it follows that the methodology adopted for spectrum allocation has to be in line with this.

An auction is simple, transparent and maximises revenues for Government through its competitive nature. A beauty contest is also eminently possible, although slightly more complex.

With respect to UMTS Government is proposing a straight allocation to existing mobile operators and an auction for the third frequency band.

A beauty contest is deemed more appropriate for the award of spectrum for DTTV while both options suit the allocation of spectrum for FWA.

Allocation policy has to be informed in the reality of our limited size and availability of spectrum in each instance. The possibility of having multiple operators in a competitive environment must be balanced against the need for market sustainability

#### **4.5 Roll-out obligations**

Roll-out obligations of operators are spelt out in order to ensure that scarce spectrum is utilised effectively and that consumers get the required service that the operator has pledged to provide.

## 5 Consultation Process

The Ministry for Competitiveness and Communications invites comments on the three consultation documents to which this explanatory memorandum refers. The consultation period shall run to the 31<sup>st</sup> of August 2004. Comments should be sent to:

The Permanent Secretary  
Ministry for Competitiveness and Communications  
Casa Leone, St Joseph High Road  
Sta. Venera

Tel 21 484845  
Email [info@mcmp.gov.mt](mailto:info@mcmp.gov.mt)  
Fax 21 480083

Unless otherwise requested, all submissions will be made public. Respondents are therefore kindly requested to indicate those parts of their responses they consider as being confidential. The Ministry, however, reserves the right to publish submissions in their entirety if it deems this necessary and in the interest of open consultation.