

**The Contribution of Motorola**  
**To**  
**The DRAFT RSPG Opinion on EU Spectrum Policy Implications of**  
**the Digital Dividend**

Motorola is grateful for the opportunity to contribute to the establishment of the EU Spectrum Policy regarding the Digital Dividend. We regard this to be an important matter in that it addresses the future use of UHF which is a radio spectrum band that is extremely valuable due to its excellent propagation characteristics making it particularly suitable for mobile applications.

In addition, Motorola considers that the opening of some of the radio spectrum bands to a wider range of delivered services is important in the context of the overall subject of technology and service neutrality within the EU Regulatory Framework and how this relates to the efficient utilisation of valuable spectrum resource.

**The Points**

1. Motorola is grateful to the RSPG for the clarification on the interpretation of “Digital Dividend” (section 2). We would further ask for an extension of this work to clarify whether the “accommodation of the existing analogue television services” is to be at the full quality level currently achieved by much of the current analogue service or at a level usually achieved by standard definition digital transmissions. Obviously, if the former is considered appropriate, the ‘accommodation’ might be required to include significant proportions of high definition transmission. The impact on the amount of radio spectrum left over after the switch over being potentially significant (even after the move to MPEG-4).
2. Strictly within the bounds of the management of the radio spectrum, Motorola considers mobile TV and all other one-to-many, no return, “push” services to be extensions of broadcasting. This is irrespective of how it is provided and independent of the transmission mechanism (even if delivered over a cellular network). Motorola makes no comment here on any of the other considerations beyond spectrum matters associated with

classification as a broadcast service (service licensing, content regulation etc)<sup>1</sup>.

3. Motorola sees the provision of uplink services within the broadcast bands as potentially problematic on the grounds of the potential for interference and the consequential need to waste spectrum on guard bands. This is especially important in the context of portable or hand-held apparatus which may be seeking service in marginal coverage areas. Therefore in the first instance, we would propose that downlink service provision receives the priority for examination.
4. Motorola notes the extreme technical complexity and the wide variation between the circumstances of each of the Member States in regard to the existing service provision. Motorola therefore considers it may be appropriate to provide scope in the RSPG Opinion for this by making a policy goal statement that allows for all such flexibility without attempting to identify specific pan-EU bands for harmonisation. For example:
  - a. The policy could be constructed to cause action at a “political level” by setting goals for Member States rather than attempting to address the technical issues associated with specific band harmonisations.
  - b. In the UHF band (470 to 862MHz), a policy statement could be issued that the transfer of service from analogue to the standard definition digital service (see above) should be provided for and from the residual spectrum a minimum of two<sup>2</sup> 8MHz channels should be identified in each Member State for the provision of mobile TV and/or multimedia service. The rest being made available for other compatible uses.
  - c. In other spectrum bands the maximum flexibility should be facilitated in the spectrum arrangements to ensure that delivery technology choice was not constrained artificially.
5. Motorola acknowledges the current views on the timing of the completion of the switchover of the whole of the EU at 2012 and thus the timings at which and EU-wide services could start. Nevertheless, providing a policy framework rather than a dictated rigid harmonisation scheme would allow Member States to act in accordance with their own circumstances and in conjunction with neighbours to provide earlier positive outcomes.
6. Motorola considers the delays and uncertainties that re-planning GE-06 would cause to be unhelpful in terms of decisions relating to the development of equipment and of course, the loss of confidence amongst the investing community.
7. Motorola notes the implications of essentially not having a specific harmonised band for mobile TV/multimedia services is that all equipment has to be capable of operating across the whole band and to be able to identify by some means what band to select depending on the location.

---

<sup>1</sup> Motorola notes that Broadcast regulation is held by make commentators to be in need of review. In the light of this we prefer to refrain from comment on the future structure of regulation as it may be applied to broadcast services.

<sup>2</sup> Motorola considers it sensible to have a minimum of two channels to allow for at least the possibility of a competitive market being established. Having a single channel makes market lock-out strategies by many actors operating at a wide variety of places in the value chain all too easy.

8. Motorola believes that setting such goals would provide a useful “framework” that allows stakeholders to move forward and which would support the establishment of an internal market for these new services.
9. Motorola is conscious of the desirability of providing the citizens of the European Union with High definition services at the earliest possible date. Clearly, the spectrum made available from the switch-over could be utilised to deliver some of these services. However, we further note that any such decision is bound to lead to shortfalls<sup>3</sup> as there will not be enough radio spectrum to support the delivery of all the current services in high definition and certainly not when this approach is extended to all the services that the providers would like to provide. We therefore see the provision of high definition services by means other than transmission using this spectrum band to be inevitable in the future<sup>4</sup>.

If there are any questions in relation to this contribution please refer them in the first instance to:

Tim Cull  
Motorola

---

<sup>3</sup> Even allowing for the complete transition to compression schemes such as used in MPEG-4 which takes a quality channel requirement down to around 5MB/s. Motorola notes in this context the likely future importance of large panel TV in the future and the consequential need for quality services.

<sup>4</sup> The delivery of TV using cable or fibre appears an excellent use of such resources and further avoids the limitation of competition between providers who may ultimately be able to provide services almost without limitation due to bandwidth.