

BASIC DETAILS

Consultation title: Spectrum Framework Review: Implementation Plan

To (Ofcom contact): Peter Bury - Competition & Markets

Name of respondent: THE DIGITAL TV GROUP

Representing (self or organisation/s): THE DIGITAL TV INDUSTRY

For a list of member companies please see: <http://www.dtg.org.uk/dtg/members>.

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Whole response

Organisation

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RICHARD LINDSAY-DAVIES - DIRECTOR OF PUBLIC AFFAIRS

Ofcom consultation on Spectrum Framework Review: Implementation Plan 24 March 2005

Range of Interests Represented

The Digital TV Group is an independent body, representing over 100 organisations, facilitating the rapid roll-out of digital TV and convergence across the communications industry in the UK. This consultation response has been confined only to those areas within the current scope of DTG work.

While every effort has been made to ensure accuracy and to provide a consensus view when required, it should not be assumed that all member organisations of the Digital TV Group support all aspects of this submission. The views expressed in this response are those of members who expressed an opinion and are not the collective view of DTG Council.

Policy on release of spectrum

Question 4.1 Do you see scope for using simpler auction formats in the future than used in the UK in the past?

No DTG response.

Question 4.2 Do you agree future auctioned licences be for a minimum fixed term with a rolling extension?

No DTG response.

Question 4.3 If licences with minimum fixed terms followed by rolling terms are introduced, do you agree that AIP should be payable during the rolling term of a licence?

No DTG response.

Question 4.4 What should Ofcom do to ensure that bidders are well informed and well prepared to participate in an auction?

No DTG response.

Question 4.5 Do you agree these are relevant consideration which Ofcom should take into account in devising its programme of spectrum awards?

No DTG response.

Question 4.6 Do you believe that the proposed award programme is appropriate?

No DTG response.

Part of VHF Band III (174 – 230 MHz)

Question 5.1 Do you agree with these proposals for the award of Band III?

DTG response:

The DTG urges Ofcom to consider the impact to legacy radio microphone systems when planning the future allocation of Band III.

Many radio microphones currently use VHF Band III and UHF microphones cost significantly more than VHF equivalents. Many Band III microphones are using the deregulated frequencies and will be unaware of any potential problems that will only become evident should a frequency auction take place. These microphones will still be used but possibly with increasing levels of interference for both the new users of the spectrum and the radio microphones.

For smaller establishments and theatres the replacement cost, unless met by the government could mean that sound reinforcement systems that have been acquired gradually become redundant.

The increase in demand on the UHF frequencies will further increase the congestion in this area and make design of systems more difficult.

Part of 410 – 425 MHz (410 -415 MHz paired with 420-425 MHz)

Question 5.2 Do you agree Ofcom should award a national licence on a technology and service neutral basis by auction or is there another option for award that is more likely to meet users' requirements?

No DTG response.

Question 5.3 Do you think that spectrum in the band should be allocated for emergency services and business radio use?

No DTG response.

470 – 854 MHz Broadcast Dividend

Question 5.4 Do you believe it is appropriate wait until after the RRC in 2006 before developing policy proposals?

DTG response:

1. The development and consultation of plans for Band IV and V should not wait until after RRC-06. The digital television industry can provide valuable contributions at both the development and consultation stage of the UK submission to the regional radio conference.
2. The DTG supports the technology neutral approach of Ofcom, however urges Ofcom to maintain the allocation of UHF bands to broadcast services for the following reasons:
 - (i) The UK should comply with international assignment and coordination within the terms and procedures of the ITU, who allocate bands IV and V to high-power broadcasting.
 - (ii) Serious interference issues could arise if the UHF bands are not used for broadcast compatible services.
 - (iii) Broadcast service demand the UHF band already exceeds the capacity available and will increase with the development of new technologies such as mobile and high definition TV.
3. The use of interleaved spectrum before switchover will increase the difficulties of switchover and so should be avoided. However, the DTG support the strong justification for the use of interleaved spectrum in the implementation of a DTT HDTV pilot service in advance of switchover (using the CP ‘petal’ aerial transmission system).
4. The DTG supports the use of spectrum released by switchover for HDTV services, area by area, as it is released by switchover. Manchester, Glasgow and Birmingham would be added as switchover proceeded.
5. One multiplex carrying up to 3 services at 7Mb/sec would be adequate until analogue switchover is complete. The development of DTT HDTV services will be constrained by coverage limitations and receiver retail prices until switchover. This period will allow industry to develop and begin to roll-out post switchover products and services. The development of such services will drive consumer conversion to digital by choice and assist the ease switchover.
6. There is a great deal of pressure to develop and launch new services to mobile and handheld users using the new DVB-H technology. The DTG believes that UHF alone cannot satisfy the requirements for DVB-H services throughout Europe and, particularly in the UK in the timeframe required by stakeholders. It is thought that two bands, one within the UHF Bands IV and V, and the other within L-Band (1452 -1492 MHz) would be needed to give worldwide capability. The DTG propose that the UK develop DVB-H services based on L-Band.

7. The DTG notes the Ofcom statement on the allocation of frequencies currently used by broadcasters in Bands IV and V. The DTG proposes that these bands should be reserved for future developments in television broadcasting.

8. A number of DTG members have expressed interest in the use of UHF spectrum at very low power for in-home distribution. There is an assumption that the future of home distribution will be based on I/P working, Ethernet and IEEE 802.11 systems. However, a number of industry experts believe this confidence may be misplaced – that simpler alternatives may be needed in addition to satisfy some market segments.

The approach proposed is based on the following principles:

- i. That streaming TV media is kept separate to computer traffic.
- ii. That the UHF band should be used for home distribution of TV signals to allow receivers based on standard DTT set-top boxes.
- iii. That the use of COFDM at UHF as the physical layer, together with 802.11 protocols, will allow low-cost consumer equipment without much of the complexities and difficulties incurred in adapting a computer network for TV home distribution.
- iv. The DTG does not seek to deny that 802.11 x systems may have a place in home distribution. However, it argues that it will not be suitable for all situations and that alternatives are needed.

9. The DTG is considering proposals from one of its members for home distribution equipment using a single UHF channel per household using Dynamic Frequency Selection and Transmit Power Control via the signalling path. (Such usage would require licence exemption from Ofcom, which would only be granted if it could be shown that reception of broadcast services was never subject to interference.)

10. In the new regulatory framework, the DTG seeks to develop such ideas with its members, subject to proper constraints, in order to pursue the development of digital television to its full potential.

872 – 876 MHz paired with 917-921 MHz

Question 5.5 Do you agree Ofcom should award a UK licence on a technology and service neutral basis by auction?

No DTG response

L-Band (1452 -1492 MHz)

Question 5.6 Do you think Ofcom's proposal is appropriate?

DTG response:

1. The DTG agrees with Ofcom's proposal to allocate L-Band on a technology and application neutral basis.

2. It is the view of the DTG that services to mobile and handheld receivers using DVB-H will require a number of alternative bands in order to achieve international roaming capability on a world-wide basis. It is thought that two bands, one within the range 400-700MHz and the other 1400-1700MHz would satisfy the requirement.
3. The DTG is open to the use of sub-bands for particular types of service if it is deemed advisable. An estimated 15MHz bandwidth might be suitable for DVB-H services.
4. L-Band is currently coordinated to DAB and any change is likely to be disputed at RRC06, however there may not be a justification for the use of 40MHz solely for this purpose. The DTG urges Ofcom to consider also allocating this frequency for DVB-H use on a non-interference (ie OFDM based) basis.

1781.7 – 1785 MHz paired with 1876.7 – 1880 MHz (GSM/DECT Guard Bands)

Question 5.7 Is the award of a small number of concurrent UK low power licences (on the basis described) the right approach?

Question 5.8 What, in your opinion is the optimum number of low power licences?

1790 – 1798 MHz

Question 5.9 Do you believe the release of this band is a priority?

2010 – 2025 MHz

Question 5.10 Is a technology neutral UK licence or licences the right approach?

Question 5.11 Do you think it useful to run the awards for 2010 – 2025 MHz and 2290 – 2302 MHz bands at the same time to facilitate the option of creating potential FDD pairings? How important do you think this is, compared to say the risk of extra complexity?

Question 5.12 Do you have any comments on how the auctions might be linked?

2290 – 2302 MHz

Question 5.13 Is a technology neutral UK licence or licences the right approach?

Question 5.14 Do you think it useful to run the awards for 2010 – 2025 MHz and 2290 – 2302 MHz bands at the same time to facilitate the option of creating potential FDD pairings? How important do you think this is, compared to say the risk of extra complexity?

Question 5.15 Do you have any comments on how the auctions might be linked?

2500 – 2690 MHz

Question 5.16 Is a technology neutral award the right approach for the award of 2500 – 2690 MHz?

Question 5.17 Do you consider an auction in 2006/7 appropriate?

Question 5.18 Do you have any views on the relevance of encouraging new entry through the auction design, and if so how this might be effected?

Question 5.19 What do you consider is the right approach to packaging this spectrum?

General DTG response frequencies covered in to questions 5.7 – 5.19

DTG does not represent the mobile phone interests in this spectrum, however, members have expressed the view that this represents a very considerable bandwidth and that it might be suitable for DVB-H channels associated with 3G services.

3.6 – 4.2 GHz (3695-3875 MHz, paired with 4015 – 4195 MHz)

Question 6.1 Do you agree that the band should be open for further terrestrial applications once Ofcom has clarified and regularised current usage in the band?

10 GHz (10.125-10.225 GHz, paired with 10.475 – 10.575 MHz)

Question 6.2 Do you agree with the proposal to award a single UK licence on a service and technology neutral basis?

28 GHz (28.0525 to 29.4525 GHz)

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Question 6.3 Do you agree with the proposal to open an award process for the remaining regional licences on the lines suggested?

32 GHz Band (31.8 – 33.1 GHz)

Question 6.4 Do you agree with the proposal to award one or more UK licences on a service and technology neutral basis?

Question 6.5 How many licences should be offered?

Question 6.6 Do you agree that the award process should be on the lines proposed?

40 GHz (40.5 to 43.5 GHz)

Question 6.7 Do you agree with the proposal to license part of the 40 GHz band to encourage its use for the development of innovative services and technologies?

Question 6.8 How much of the band should be opened for this purposes and what technical conditions should be imposed?

Question 6.9 Within what timescale should this licensing process be opened, in particular is the suggestion of the end of 2005/06 appropriate?

Question 6.10 Do you agree that point to point links should be licensed in part of this band on a location specific assigned basis, in the same way the existing point to point bands are licensed. If so how much spectrum do you consider would be appropriate for this?

Removing restrictions on the use of spectrum for mobile services

Question 8.1 Do you have any views on the approach that Ofcom should take to restrictions that prevent the use of spectrum for mobile services other than 3G?

Question 8.2 Do you have a view on whether Ofcom should impose restrictions on new spectrum licences to prevent use of the spectrum for mobile services other than 3G?

Question 8.3 Do you agree that it may be appropriate to allow a period of time to elapse following an auction before extending liberalisation to auctioned licences, through the removal of restrictions as to type of use and technology? Please comment on this issue either as a general matter, or in relation to particular classes of auctioned licences, such as the 3.4 Ghz licences, or both.

Question 8.4 If your answer to question 8.3 is affirmative, do you have a view on the period that might be allowed to elapse before removing restrictions on the 3.4 Ghz licences? We would also be interested in your views on whether we need to seek to resolve this issue at any particular time.

Question 8.5 Do you consider that the criteria used above are the most relevant considerations in relation to the potential removal of restrictions on offering 3G mobile services? Do you have any views on the approach that Ofcom should take towards removing restrictions in existing spectrum licences that prevent use of the spectrum to provide 3G mobile services? Which of options 1-4 above do you think offers an appropriate balance between those considerations that are relevant?

Question 8.6 Do you consider that the criteria used above are the most relevant considerations in relation to the application of liberalisation to the award of new licences and the opportunity to offer 3G services?

Question 8.7 Ofcom seeks views from interested parties on the approach that it should take to the award of new licences (other than in the 2010-2025 MHz and 2500-2690 MHz bands), and whether these should contain any restrictions as to use of the spectrum to offer 3G services. Do you have any views on which of the options discussed offers the most appropriate balance between relevant considerations?

Question 8.8 Do you have a view on whether it is useful to have a working definition of the term “3G services”? If so, do you agree with the definition set out for illustrative purposes above?

Trading and liberalisation in existing 2G and 3G bands

Question 9.1 Do you have a view on the appropriate timing for seeking to resolve the issues discussed in this Section?

Question 9.2 Do you consider that there should, in principle, be benefits from extending liberalisation to the spectrum presently used for 2G services, so that there is greater flexibility for the market to determine optimum use?

Question 9.3 Do you have any comments on the significance of the constraints on liberalisation of 2G spectrum that are likely to flow from (a) technical constraints, to avoid undue interference, or (b) international obligations? What approach should Ofcom take to the liberalisation of the 2G spectrum, given the international obligations? And what approach should Ofcom take to those harmonisation measures that are relevant to the existing 2G spectrum?

Question 9.4 In your view, how relevant is the structure of competition in 3G services established by the 3G auction to considering the potential extension of liberalisation to the existing 2G bands?

Question 9.5 – Do you have any views on how Ofcom should analyse the potential effects of liberalisation of the existing 2G bands? Which aspects of the analysis do you think will be particularly important?

Question 9.6 – Do you have any comments on the options for giving effect to liberalisation of the existing 2G spectrum?

Question 9.7 – Do you have any comments on the extension of trading to the existing 2G licences, or on the extension of trading and liberalisation to the existing 3G licences?

3G Operators roll out obligations – draft guidance

Question 10.1 Do you agree that guidance from Ofcom on its approach to enforcement of the 3G roll out obligations would be helpful?

Question 10.2 What are your views on Ofcom’s proposed guidance on enforcement action?

No DTG response to questions 6.1 - 10.2