

## **Channel 4 response to the Ofcom consultation on the Digital Dividend: 600 Mhz band and geographic interleaved spectrum**

Channel 4 is pleased to provide feedback on this consultation on the future licensing and usage of the 600 Mhz spectrum and geographic interleaved spectrum that will be released following DSO as part of the digital dividend.

Channel 4 has historically supported many of the principles that underpin Ofcom's approach to the digital dividend spectrum:

- The move towards a more market-based approach to spectrum management to ensure its efficient use.
- Spectrum liberalisation, freeing up significant amounts of new spectrum which can be used to both enhance existing services and support the launch of new services.
- Clear recognition of the value of spectrum in its use for public policy purposes, and the opportunity cost of closing off its potential use for other purposes.

However, in releasing the 600 Mhz spectrum, Channel 4 believes it is important that Ofcom continues to recognise the important role that spectrum plays in fulfilling a wide range of public policy objectives, particularly in television. Public service broadcasting is based on the allocation of valuable spectrum to organisations that are then able to deliver universal public value through their output. The allocation of gifted spectrum to the PSBs was the basis on which the Digital Terrestrial Television ("DTT") platform was established, and it is the investment in this platform by the PSBs which has enabled digital switchover, and the release of the digital dividend spectrum.

We believe a number of the potential uses of the digital dividend spectrum have significant public value – most notably the further development of high-definition ("HD") television on the DTT platform. There is a significant risk that these uses will be closed off in a market-based auction because the potential users, such as the PSBs, will not be able to compete against rival bidders and services in a commercial auction.

If broadcasters are unable to secure spectrum to continue to develop the DTT platform then viewers will be denied additional HD channels, which Ofcom recognises have citizen and consumer benefits. We believe this would have serious implications for the ongoing health of PSB and the DTT platform and would risk creating a gap between those who are willing and able to pay for additional HD services on other platforms and those that can only afford Freeview. Channel 4 therefore believes that Ofcom's approach to the usage of the 600 Mhz spectrum should be reviewed.

Since the last consultation, we have also seen the successful launch of HD services on DTT using DVB-T2 and MPEG 4. Bandwidth for further HD services on DTT is severely restricted and in our view if the 600 Mhz spectrum, which is uniquely suited for DTT broadcasting, were reserved to DTT usage this would allow further development of the DTT platform to the benefit of viewers, which may not happen under alternative scenarios.

The reservation of the 600 Mhz spectrum for further HD DTT services also has the potential to generate economic benefits for the UK through greater technological development. In particular, the provision of further HD channels is likely to drive faster T2 roll-out, which in turn will enable further DTT liberalisation from T1 to T2 and in the long term maintain and build the value of the spectrum allocated to all DTT multiplexes. The reservation of a limited amount of spectrum for HD services would therefore facilitate the evolution of the DTT platform in future, with additional benefits for the UK economy.

Our view remains that left to market forces alone it is unlikely that this spectrum would be devoted to HD on DTT and that there is therefore a case for reviewing how this spectrum is awarded to secure greater cultural and economic benefits for the UK.

Further, in Channel 4's view the decision to clear the 800 Mhz spectrum of all DTT services strengthens the case for Ofcom to review its approach to the 600 Mhz spectrum. Channel 4 understands Ofcom's technology neutral policy on the usage of the released digital dividend spectrum. However, given the decision to release all of the 800 Mhz spectrum in order to harmonise digital dividend spectrum release across Europe, and given the presumption that this 800 Mhz spectrum will most likely be used for mobile broadband services, Channel 4 believes that it is now appropriate to revisit whether the technologically neutral stance for the 600 Mhz spectrum is still valid.

***Question 1: Do you have any comments on the application of the protection clause to all new licences for the 600 MHz band and geographic interleaved spectrum?***

Channel 4 believes that the inclusion of protection clauses is critical to ensure that there is no interference with existing DTT services, particularly following the move of DTT services from bands 61 and 62 to lower bands. This interference potential has also been highlighted as a serious concern at recent workshops on the subject.

***Question 2: Do you have any comments on our approach to technical licence conditions for the 600 MHz band and geographic interleaved spectrum?***

We agree that further measures would be required, and additional research should be carried out to agree adequate guard bands for the different types of expected usage of the spectrum.

***Question 3: Do you have any evidence using frequency offsets with DVB-T2 EC signals might have an adverse impact on uses of adjacent interleaved spectrum?***

No response.

***Question 4: Do you have any evidence mobile services using the 600 MHz band and geographic interleaved spectrum could cause harmful interference to cable television?***

As above we would recommend that further research is conducted in conjunction with the results of the ongoing EU work when complete.

***Question 5: Do you have any comments on protecting PMSE in channel 38?***

No response.

***Question 6: Do you have any comments on non-technical licence issues and the way we propose to approach them?***

Channel 4 believes that, if this spectrum is awarded to DTT services, it is critical that interoperability with existing DTT services is mandated in order to avoid a serious potential dis-benefit to consumers. All existing DTT multiplexes cross carry service information and EPG data to ensure that consumers are offered a compliant DTT service across the 6 separate multiplexes. Channel 4 believes that Ofcom should ensure that the necessary licence conditions are included in any future awards.

***Question 7: Do you have any comments on our assessment of the most likely uses of the 600 MHz band and geographic interleaved spectrum? Are there any potential uses we have not mentioned that should be considered?***

Channel 4 strongly believes that this spectrum is uniquely suitable for DTT broadcasting, particularly following the decision to release the 800 Mhz spectrum with the presumption that this will be used for mobile broadband services.

The released UHF spectrum is the only spectrum suitable for the launch of additional DTT multiplexes. This is primarily down to the characteristics of this spectrum and the fact that antennas in the nation's homes are all pointed at the existing transmitter stations and are only suitable for receiving UHF signals. Even within the UHF spectrum there are certain restrictions as channels within the higher or lower frequencies may prove 'out of band' and require viewers to upgrade to wide band antenna.

Furthermore, all the other potential applications identified by Ofcom can be operated in other bands. For example, mobile communications technologies are more suited to 2.6GHz frequencies, while mobile multimedia can be deployed in L-Band, S-Band and Band III. If broadcasters fail to secure additional digital dividend spectrum then the ability of the DTT platform to develop and continue to offer viewers a serious alternative to cable and satellite is doubtful.

With the introduction of HD services, DTT is once again bandwidth constrained. Designating this spectrum for DTT services operating DVB-T2 and MPEG4 would allow the launch of another 8-10 HD services on DTT. Together with Mux B this would, for example, allow the PSBs to convert most, if not all, of their existing services to HD. This would be likely to secure a significant consumer benefit as consumers are beginning to expect television services to be available in HD. The business case for commercially-funded public service broadcasters to convert services to HD is not strong as there is no current premium for advertising in HD. This means that we are unlikely to be able to assemble a commercially compelling bid for additional spectrum for DTT services.

Ofcom has allowed DTT to launch a limited HD offering by releasing one multiplex for HD services, but by maintaining its technology neutral approach it will effectively deny the DTT platform the opportunity to develop further services in future. If current trends continue, this approach will likely result in unsatisfied consumer

demand and will potentially undermine the whole DTT platform in the medium to long term.

The only existing way in which additional HD services could be provided on DTT without undermining the current consumer proposition would be through allocation of additional spectrum. We therefore believe that some of the 600 Mhz spectrum should be ring-fenced and reserved for this potential use.

Securing HD on DTT is essential to maintaining platform plurality in the UK broadcasting ecology through the ongoing support of the DTT platform. As highlighted above, the private and public investment in DTT is significant to date with considerable further investment over the period of digital switchover. Additionally, on existing indications consumers clearly anticipate that the platform will keep pace with competing platforms, such as digital satellite, through the introduction and development of new technologies such as HD.

***Question 8: Are there any distinctive considerations and uses for this spectrum in the nations and regions of the UK?***

No response.

***Question 9: Do you have any comments on our continued inclusion of channel 36 in the award of the 600 MHz band?***

Channel 4 believes that it is appropriate to continue to include channel 36 in the overall award and to award channel 36 at the same time as the remaining spectrum.

***Question 10: Do you have any comments on our intention to maintain a market-led approach to awarding the 600 MHz band and geographic interleaved spectrum?***

Channel 4 recognises that there is an opportunity cost associated with direct allocation of spectrum rather than its release through market-based auctions. However, we believe that there is a more serious cost if specific uses of clear social value – particularly those that cannot be delivered through other available spectrum bands – are closed down by such an approach. Government has already taken explicit policy decisions to ensure ongoing support for public service broadcasting (including Channel 4). It has also committed spectrum to support the DTT platform as a free-to-air digital service, and obliged the broadcasters to invest in rolling out the platform to full coverage to facilitate the achievement switchover and for viewers to watch public service broadcasting. We are concerned that a purely market based approach does not recognise and build on these policy decisions nor the investment to date in DTT and, in fact, risks undermining this investment if the DTT platform is not able to offer the range of services – such as HD – that many viewers expect.

As stated above Channel 4 strongly recommends that this spectrum is designated to HD DTT services. This spectrum is uniquely suited to DTT broadcasting and if this spectrum is auctioned to the highest bidder we do not believe it will be used for DTT: a counter-intuitive outcome. Reserving this capacity to DTT services would provide a clear development path for DTT and its conversion over time to DVB-T2 and MPEG 4 services, which would allow the introduction of a range of new HD services. If current trends continue, we believe that the provision of new HD services would be a significant benefit to consumers although difficult for commercially-funded

broadcasters to monetise immediately. Channel 4 believes the case for such a reservation of spectrum is strengthened by Ofcom's earlier decision to clear the 800 Mhz spectrum with this capacity most likely to be awarded to mobile broadband services.

***Question 11: What information can you provide on packaging and award design considerations?***

Given our views on the reservation of this capacity for future DTT services we believe that if Ofcom continues in its market based approach then the auction should be designed in such a way that it does not preclude those interested in launching DTT services to bid for spectrum. Given that a DTT multiplex requires significant bandwidth to assemble we would favour a process which would allow this to happen.

***Question 12: When would you like to start operating new services using the 600 MHz band and/or geographic interleaved spectrum?***

Channel 4 believes that it would be possible to launch a range of HD DTT services shortly after an additional multiplex licence is awarded. Given that national spectrum is unavailable until the end of DSO it would be possible to plan new multiplexes to be available co-incident with the end of the DSO programme and the Channel 61/62 clearance programme.

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