

# *Ofcom Consultation: The Future of DTT*

## Teletext Consultation Response

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*Question 1: which services are most likely to drive take up of DTT consumer reception equipment using new technologies? In particular, are HD services the most likely to do so?*

Given the significant growth in sales of HD Ready Plasma and LCD TVs, Teletext believes that HD is the primary reason that consumers would purchase new Freeview receivers in the next 2-3 years.

However, there is a secondary set of services enabled by this technology which would complement HD linear video and would help to drive take-up: enhanced interactive and text services. These services would provide viewers with

- A greater range and depth of content,
- Improved presentation of content via enhanced graphics
- Faster access speeds to match those of internet-based services

More sophisticated services in areas such as EPGs, games and content playback.

Importantly, these services would not only complement the HD linear video, together offering a package of improvements, but they would also complement the existing SD text services, which would still be running on the other multiplexes.

Conversely, launching HD video services without supporting interactive and text services runs the risk of viewers' expectations not being met. Information would be limited to the basic information supplied to the EPG, and would be less comprehensive than that carried on the other SD channels.

Viewers wanting Teletext information would either have to manually change channels to get interactive and text services or be subject to long delays and the loss of the corresponding (quarter screen) channel video as they "hopped" to the SD multiplex. This would detract from the position of the new services being "premium services", encouraging the public to purchase the new receivers.

With the adoption of Mpeg4 and a suitable Mheg HD specification (technical specification issues are covered in more detail under question 3), Teletext would be able to deliver services which would add real value to the enhanced public service TV offering.

Our service, which could potentially be shared across the commercial PSB HD channels, could incorporate:

- The full range of national and relevant regional public teletext news and data
- Improved presentation of content via improved graphics
- New pictorial content, including pictures with the main news, sport and entertainment stories
- Most compellingly, 3 or 4 selectable quarter-screen video loops offering news headlines and other information which would augment the text content.

This would not only deliver a service comparable to the only SD video and text offerings in this area (from BBCi), but one which offered a better "fit" with the text

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service as it can be carried on the same multiplex, avoiding a “hop” to access it and allowing the relevant video content to be carried alongside the relevant text content.

Such a service could be shared across the commercial PSB HD channels, with the same bandwidth being used for all the channels, requiring a total of approximately 2 to 2.5Mbs of capacity.

This is without resorting to using persistent caching on a Personal Video Recorder or Digital TV Recorder (see section 3 for technical details on this), which, if the installed base was sufficient, would allow this capacity need to be significantly reduced by a factor of 4 or more.

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*Question 2: do you agree with Ofcom's assessment that it would be beneficial for the DTT platform to begin to upgrade to new technologies – DVB-T2 and MPEG-4 - to make more efficient use of spectrum and to allow for the introduction of new services?*

Yes. Without the addition of another (seventh) multiplex and associated bandwidth, DVB-T2 and MPEG4, is the most suitable direct way to achieve greater usage of a multiplex and its associated bandwidth, in addition to upgrading to 64QAM in line with other Multiplexes.

These are not, however, the only new technologies that should be considered. Refer to the attached joint submission with the BBC as part of our answer to question 3.

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*Question 3: Ofcom is particularly interested in hearing from multiplex operators and programme providers as to whether they are interested in using DVB-T2 and / or MPEG-4, and whether Ofcom should consider permitting their use on DTT?*

DVB-T2 does not directly benefit Teletext's services; however, we are supportive of its introduction given the current capacity constraints across all of DTT.

MPEG-4 would directly benefit Teletext and allow the delivery of a multi-screen video, Interactive & Text service on the upgraded Multiplex, to support the new HD channels.

These are not, however, the only new technologies that should be considered.

The BBC and Teletext, in conjunction with the DTG, have identified three key areas where interactive and text services would significantly benefit from a new receiver specification

- Minimum levels of receiver resource (memory)
- Support for the Mheg HD specification
- Support for Mheg PVR/DTR extensions to persistently cache content and application components.

Further details are included in the attached additional document.

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*Question 4: do you agree that the earliest possible availability and adoption of the technologies is in the interests of consumers and citizens?*

Yes. We fully support the proposed implementation of MPEG4 and DVB-T2 for the new services on Mux B, and believe that viewers' appetite for HD content and better services will create a consumer demand for new receivers and not evoke a negative consumer response. Introducing this now presents the best opportunity of rolling out DVB-T2 and MPEG-4 to all Multiplexes, for both SD and HD.

Although the proposed timescale is aggressive, especially for the adoption of DVB-T2, we view it as achievable and we are not aware of any major impact with DSO. However, it is paramount that the plans for Mux B fit with DSO timescales, which must have priority.

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*Question 5: do you agree with Ofcom's view that DVB-T2 MPEG-4 reception equipment could be commercially available in time for DSO in Granada region in late 2009?*

Teletext is not in a position to answer this question accurately.

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*Question 6: do you agree that some form of intervention is required in order for the DTT platform to commence an upgrade to new technologies without delay?*

Yes. Although the technologies and services proposed are already in discussion with the DTG, DMOL and other DTT related bodies, Ofcom's agreement would always have to be sought before any implementation. Getting agreement earlier avoids both an uncoordinated or later delivery of these technologies, which would potentially create more consumer confusion and impact on DSO. .

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*Question 7: Do you have any proposals for launching MPEG-4 services on a DTT multiplex using DVB-T in advance of the proposed 2009 timetable and if so can you provide details of how such a service would not undermine the proposed MPEG-4/DVB-T2 launch in 2009?*

No, Teletext does not have any alternative proposals.

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*Question 8: do you agree with Ofcom's proposed approach for adding SD and HD versions of MPEG-4 and DVB-T2 profiles to the list of permitted standards for DTT in the spring, and that Ofcom's consent must be sought prior to adoption of these standards?*

Yes. However, any further adoption of MPEG-4 and DVB-T2 must work with the receivers specified for the Multiplex B proposal and should not lead to any further, different receiver specifications

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*Question 9: do you agree with Ofcom's proposal that Multiplex B should be cleared and upgraded to new technologies?*

Yes. With the exception of adding further multiplexes (7+), we see no alternative option for introducing HD content and services.

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*Question 10: do you agree with Ofcom's proposal that all multiplexes should be required to upgrade to 64QAM at DSO in order to make the most efficient use of spectrum (i.e. that the mode change should not merely be optional)?*

Yes.

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*Question 11: do you agree with our proposals for accommodating Five, S4C, TG4 and GDS on Multiplex 2?*

Yes. The public has a justified expectation of being able to receive these PSB channels nationally. We are, however, concerned that while we can see the overall PSB benefits of Ofcom ensuring the coverage and availability of these PSBs, the reorganisation of Mux 2 capacity to protect PSB is not addressing the fundamental issue of there being insufficient capacity allocated to the public teletext service to allow us to carry the full existing analogue service in digital form. In addition, we are concerned that a proportion of subsequent multiplex reorganisation costs could be allocated to Teletext, when there is no discernable benefit to Teletext from the reorganisation. Consequently we would look, on this basis, for some protection against increased costs.

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*Question 12: do you agree with our assessment that nine SD services can operate on Multiplex 2? If not, do you have an alternative proposal?*

Not without significant change to existing services on the Multiplex. If the various technology changes, and proposal for Mux B, as outlined in the this submission, were enabled for Interactive & Text services, it is possible that the bandwidth Teletext requires could be reduced, subject to commercial and licence considerations, making sufficient bandwidth available for nine SD video service and the Teletext service.

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*Question 13: do you agree with our proposals for the reorganisation process for the existing multiplex services set out in the central case scenario?*

Yes.

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*Question 14: do you agree with the principles / conditions that Ofcom proposes to use to evaluate counterproposals for the reorganisation process?*

Yes.

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*Question 15: Do you have an alternative proposal for the reorganisation process? If yes, please provide details.*

No.

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*Question 16: do you agree with Ofcom's assessment of the options for allocating the upgraded capacity?*

Yes. We support Ofcom's view that it is important for the allocation to take account of the PSB Review, given our concerns about the effects of DTT technology development on the delivery and success of the public teletext service.

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*Question 17: do you agree with the proposal that HD broadcasting on the DTT platform should use the more efficient progressive format, rather than the interlaced format?*

We would be happy to work with either format and have no specific preference or recommendations regarding either.

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*Question 18: do you agree with the proposal that Ofcom should not mandate the use of the capacity for any particular service type (SD or HD) but allow the broadcasters to make proposals?*

Yes. This is particularly important given our points about the inclusion of enhanced text and interactive services.

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*Question 19: do you agree with the proposal that the capacity should be allocated in three UK-wide blocks initially, rising to four blocks at DSO?*

Yes. At this time, DVB-T2 is still a relatively untested technology. The right approach would be to operate and evaluate three HD channels, and the actual capacity needed as live services, before considering the possibility of adding a fourth channel.

However, we believe that the allocation should take account of the text/interactive text opportunities, and that this might result in a slightly different configuration where a proportion of one or more of the three proposed blocks, or possibly a small, fourth block linked to one or more of the three proposed blocks, was allocated to an enhanced commercial public teletext service.

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*Question 20: do you agree with the proposed criteria for the comparative selection process?*

Yes, and we believe that supporting interactive and text services will help any submission to meet each of the three proposed criteria. .

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*Question 21: do you have any comments on Ofcom's proposals for the upgraded multiplex?*

And additional document on the proposed opportunity for Interactive & Text services is attached.

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*Question 22: Do you agree with Ofcom's impact assessment?*

Yes.

It is worth noting that, with regard to reception of Mux B, based on current findings and viewer feedback, it will be important to increase the public awareness of the potential need to either realign or upgrade their aerials; especially given the move to 64QAM and DVB-T2.

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*Question 23: Do you agree with Ofcom's assessment of the potential benefits, risks and mitigations strategies relating to the impact of these proposals on the DSO programme?*

Yes, as are happy with the assessment.

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*Nigel Beighton  
CTO  
Teletext Ltd*