

High Definition Television (HDTV) Consultation: Full text of responses from organisations

Introduction

This document contains the full responses from organisations to the BBC Trust's consultation on the HDTV PVT provisional conclusions, where confidentiality allows.

Listed in alphabetical order the responses contained are from:

Audience Council England
Audience Council Northern Ireland
Audience Council Scotland
Audience Council Wales
BBC Executive
British Telecommunications PLC
National Union of Journalists
Sony

SUBMISSION TO BBC TRUST: HDTV PUBLIC

VALUE TEST PROVISIONAL CONCLUSIONS

The Audience Council England (ACE) discussed the Trust's provisional conclusions on the BBC's HDTV proposal at its 9 October meeting in Salford and subsequently gave them further consideration.

Members supported the Trust's position in identifying the public value which would be generated with the launch of a mixed genre high definition channel from the BBC and in their giving prime consideration to the interests of licence fee payers.

They were pleased too, to see the Trust's approval for launching HD not only on satellite and cable but also on Freeview, so adding to the platform's public value and its longer term future. It was right that the BBC as a public service broadcaster should ensure its services were accessible on all platforms so that non-subscription viewers were not placed at a disadvantage.

It was right too that the BBC should support new technology of this kind. The proposed launch would enhance viewers' experience of services and contribute to the development of HDTV as the industry standard within the wider broadcasting environment. The provision of the BBC HD channel on IPTV services as compared with the main television platforms was not considered a priority at present.

The Council had two main areas of concern: the timing of the launch and the complexity of the proposal with its supporting documentation.

On timing, the Council's concerns focused on the likely cost implications to the public.

There was little doubt in most members' minds that people would quickly lose trust in the BBC and its ability to guide them through the complexities of the world around them if, in addition to the purchase of an HD-ready television, they were then obliged to purchase not one but two set top boxes, possibly with personal video recorder capacity, and all within a short timescale as the first became obsolete with the subsequent introduction of a longer HD service.

One member took a different view and believed that this decision was one for consumers, always provided they were made aware of the current limitations of the interim service.

The strongest reservation about launching the proposal in the near future came from the north west where digital switchover began on 17 October in the northern-most part of the region around Whitehaven.

Whilst supportive of the concept, there were several views from that region that this was not the time to launch yet another new technology. People were still getting to grips with digital switchover and many were feeling confused about the broadcasting changes despite all the publicity that had been undertaken; the launch of an HD channel would be one step too far.

A further consideration was the current funding situation of the BBC and the emphasis on quality and innovation within the six year plan as announced by the Director-General Mark Thompson in mid-October. Two members felt strongly that at this time the BBC should be concentrating on its existing services and should postpone the HDTV launch until questions over the re-organisation and future shape of the digital terrestrial television platform could be resolved, even though that might be seen as restricting licence fee payer choice in the short term.

On the complexity of the proposal, members acknowledged that they had the advantage over the lay person in being able to ask for detailed explanations of the technological aspects. However for many people, these would be a real barrier to understanding and that as a result, the value of the public consultation exercise could be called into question. There was already a great deal of public uncertainty around digital matters generally and around HDTV in particular, and the documents in themselves were not particularly helpful.

There was an observation that the Ofcom analysis suggested there might be a way of fitting HD services on to the DTT platform with some technical reorganisation. It was important that the Trust clarify this uncertainty with the second Freeview review as early as practicable in 2008.

The Council's other points included the importance of providing distinctive programming on the HD channel and generating a 'wow' factor from beginning to end, perhaps targeting content at the audience demographic most likely to adopt the technology early on; and questions over the intrinsic value of the four BBC services which would be lost if the interim four hour overnight HD service went ahead. Why was the BBC offering these if they could be withdrawn so readily; and could they not be re-scheduled?

**The Audience Council for Northern Ireland
Submission to BBC Trust Consultation on its
Provisional Conclusions on the Proposed HDTV Service
23 October 2007**

A. Introduction:

The BBC's Audience Council for Northern Ireland works to understand and safeguard the interests of local licence payers. It advises the BBC Trust on issues affecting the Corporation's programmes, services and audiences and plays a leading role in contributing to Trust-led review exercises on BBC output and new service proposals from the perspective of licence payers in Northern Ireland.

In June 2007 the Audience Council responded to The BBC Trust's consultation to inform its Public Value Assessment of the proposal for the high definition television (HDTV) channel. It concluded that a BBC HD channel would represent good use of the licence fee in the interests of the audience.

Full details of this submission are available at:

http://www.bbc.co.uk/northernireland/audiencouncil/pdfs/hdtv_2106.pdf

The Audience Council is now responding to the Trust's provisional conclusions on the HD channel definition.

In making this submission, the Audience Council has drawn on its understanding of audience need in Northern Ireland from its audience engagement work. In June 2007 Audience Council met with representatives of the independent production sector to understand the views of this constituency in relation to HDTV. Notes of this meeting are available as an appendix to Council's submission in June. Council has also been informed by the range of audience research on the subject, such as that arising from the BBC's HDTV trial and research carried out for the BBC Trust by BMRB.

This submission should be read in conjunction with Council's submission to the Public Value Assessment in June, at the address above.

B. Executive Summary

Benefits and value of the service: The Audience Council agrees with the BBC Trust's decision to approve the new BBC HDTV channel. It believes that the proposed service offers value for licence fee payers and promotes key BBC Public Purposes for the following reasons:

- Council judges that the service offers clear audience benefits through improved picture quality and surround sound, and that demand will increase as awareness of HDTV grows and, particularly, if the cost of equipment falls in the future.
- It is clear from both research and audience feedback that audiences expect the BBC to provide an HDTV service free to air. There is a risk that if the BBC does not provide this service, available from other providers, it will contribute to a disconnect with key sections of the audience who are already underserved. If the BBC does not meet growing audience expectations of picture and sound quality its ability to promote its Public Purposes may be hampered as they depend on consumption of BBC services.
- Council further notes that HDTV is becoming the marketplace norm and productions are increasingly commissioned, and made, in this format in both the independent sector and within the BBC. It believes that this investment should not be lost to audiences.
- Council notes that HDTV is central to the viewing experience (for those with the right equipment) rather than a discrete additional service. The service can therefore add value to the BBC's current portfolio of channels.

Provision across platforms: Council believes that HDTV should be provided across all three digital platforms: satellite, cable and terrestrial/Freeview. Council advises that it is particularly important that HDTV is available on Freeview in the medium term as otherwise there could be a risk of HDTV being offered on two tiers – with a better service for subscribers to digital satellite and cable than for those who choose a non-subscription service.

Council believes, however, that uncertainty over the eventual digital terrestrial transmission protocol and spectrum capacity means that the message to this audience could be confusing. There are also risks to consumers in the purchase of equipment which may quickly become obsolete. Council therefore advises that the proposed four hour and nine hour services for Freeview should be delayed until these uncertainties can be resolved sufficiently to protect consumers. It is vital, given the importance of the Freeview service to the audience, that there is considerable focus to resolving these issues as soon as possible.

Over time, HD content should be made available via iPlayer to maximise availability to the audience, particularly if launch on Freeview is delayed.

Content: Council notes that content is a key driver of consumption. It believes that the HDTV service must be mixed genre, focusing on types of programmes which particularly benefit from the upgrade to HD, such as sports, events, drama and wildlife programmes.

Council underlines the importance of the HDTV offer reflecting the diversity of life around the UK. It is imperative that Nations and Regions output is also available through the HDTV channel.

Media Literacy: Council believes that the BBC has a role as a trusted guide for the audience, helping them to understand and access new services. The complexities of this service mean that it is especially important that the whole audience is supported in this respect and able to make informed choices about the benefits and costs of the service.

Digital Switchover: Council notes the RTE trial of HDTV on digital terrestrial which began in July 2007. A significant proportion of the audience in Northern Ireland receives strong analogue terrestrial signals from transmitters in the Republic of Ireland and access to RTE broadcasts, and many will be able to access RTE's HD services when the Dublin/Louth trial concludes and a full service is launched. If RTE rolls out HDTV in advance of the BBC, the only HDTV service available to this UK licence fee paying audience will be from RTE rather than the BBC. For this audience, this represents relatively poor value for the licence fee and is likely to undermine usage of BBC services.

Transparency and Value for Money: Council wishes to understand how the £21.4 million budget for HDTV is allocated and spent and how these costs have been tested to demonstrate value for money.

Future Proofing: Council underlines the importance of the Trust's approval and the resulting service licence being sufficiently future-proofed to enable the service to develop over time with changes in technology, audience need and the marketplace.

C. Consultation Questions

1. Do you agree with the BBC Trust's decision to approve the new BBC high definition television channel, subject to conditions outlined in the Trust's report of its provisional conclusions ?

The Audience Council for Northern Ireland believes that the proposed HDTV service offers value for licence fee payers and promotes key BBC Public Purposes. It therefore

agrees with the Trust's decision to approve the new high definition channel, subject to conditions.

The BBC is a quality benchmark for broadcasting in the UK and it must continue to provide quality in sound and picture to complement quality in its programmes. There was a strong view at the Audience Council accountability meeting that the marketplace dictated the need for an HDTV service from the BBC and without it the BBC would appear as a second tier player in the industry.

Council believes that there is clear consumer demand for HDTV, with increasing sales of televisions, set top boxes and surround sound systems. Demand is likely to continue to grow exponentially as cathode ray tube televisions [CRTs] become less available and the costs of HD ready televisions drop. Consumers will increasingly expect a BBC HDTV service, as they benefit from this from other broadcast services, as well as games and DVDs.

HDTV is also becoming the marketplace norm and the BBC must keep up with both market and consumer demand. Productions are increasingly being commissioned and made in HDTV format, in both the independent sector and the BBC. This investment should not be lost to audiences, nor the increased potential for commercial exploitation in the international market.

Council notes clear audience benefits through improved picture quality and surround sound, and the fact that these benefits are recognised by audiences across different social groups. It believes that demand will increase as awareness and experience of HDTV grows.

Council notes research and audience feedback which consistently indicates that audiences expect the BBC to provide an HDTV service. High definition services are available from other providers and there is a significant risk that by not keeping up with the market and with consumer demand in this respect the BBC will contribute to a disconnect with key sections of the audience, most probably those who are already underserved. The BBC will find it difficult to drive and maintain usage of its services if they do not meet audience expectations of picture and sound quality. This in turn will hamper the BBC's ability to deliver against its Public Purposes to key and growing sections of the audience.

Council understands that the immediate benefits of HDTV are likely to be perceived at household level. However, HDTV offers benefits to society as a whole to the extent that it helps to promote Public Purposes, not least supporting emerging technologies.

2. The Trust considers that HD will become a significant broadcasting standard. Do you agree that it is a priority for the BBC to be investing in this area, rather than other possible areas for licence fee investment?

Council agrees with the Trust's provisional conclusions that high definition television is 'likely to become a significant broadcast standard in the medium to long term' as well as

Ofcom's opinion that the BBC HD launch 'could accelerate the transition to HD production and spread the skills needed ... benefiting the industry as a whole'.

Council believes that HDTV is a desirable use of the licence fee for five main reasons:

Firstly, it believes that an HDTV service will help to promote the BBC's Public Purposes, particularly in media literacy and emerging technologies, but also in terms of adding value to a host of public service genres such as live music, sport, wildlife and drama.

Secondly, Council believes that HDTV is sufficiently high in audience priorities compared with other uses of the licence fee. Council's feedback from audiences suggests that viewers expect the BBC to provide an HDTV service, and that most expect this to be available through the licence fee. This view is reinforced by research.

Thirdly, Council believes that use of the licence fee is appropriate because the benefits of HDTV are recognised across a wide range of different social groups who pay for the BBC. Furthermore, as awareness of HDTV grows and sales of equipment grow exponentially, as costs decline, the service is likely to benefit a significant and growing number of households,

Fourthly, Council notes that HDTV is central to the viewing experience (for those with the right equipment) rather than a discrete additional service. The service can add value to the BBC's current portfolio of programmes.

Finally, Council believes that an HDTV service is necessary for the BBC to keep up with established consumer demand and the market place.

3. How important is it that a BBC HD channel is available on all the main television platforms – Freeview, digital satellite and cable?

Council believes that it is essential that HDTV is provided across all three main digital platforms: satellite, cable and terrestrial /Freeview. Over time, as consumer broadband bandwidth improves, HDTV content should additionally be made available through the BBC's on-demand services (iPlayer).

In its first submission to the Public Value Assessment on the HDTV proposal, Council expressed its concerns about the availability of spectrum to facilitate HDTV on Freeview. It notes that, since then, Ofcom has released analysis which suggests that a range of HD services, including the BBC's, could fit onto the DTT platform, if the allocation of capacity on the multiplexes was reorganised and technical standards implemented.

Council believes that it is essential that a BBC HD service becomes available on Freeview. Otherwise there is a risk of HDTV being offered on two tiers – with a better service for subscribers to digital satellite and digital cable services than for those who chose a free to

air digital service. Council notes that Freesat will offer some more choice in this regard but will not completely negate any disadvantage to Freeview viewers.

Council therefore emphasises the importance of the BBC Trust working to ensure, on behalf of licence fee payers, that a BBC HD channel will be provided on Freeview by 2012.

4. At present it is not possible to provide the BBC HD channel through IPTV services, such as Tiscali or BT Vision, because of capacity constraints. Is it important to you that the channel is provided through such operators in the future?

The Audience Council believes that, if and when agreement between the BBC Executive and industry operators can be reached over bandwidth capacity, there should be no delay in launching BBC HDTV on IPTV to maximise the potential audience. Council therefore disagrees with the Trust's provisional conclusion in S6.11 and believes that the Service Licence for an HDTV channel should include a provision which allows the BBC Executive to deliver a version of the channel on IPTV, subject to technical and industry agreement.

5. Until the full, nine hour service can be offered on Freeview, do you think that it would be valuable to offer a four-hour, overnight service on Freeview – broadcasting, between 0200 and 0600, programmes from the following day’s nine-hour schedule.

7. Would you prefer the BBC to launch the four-hour interim service on Freeview from next year, even if that meant having to buy two set top boxes within a very short period of time?

10. Do you agree that the loss of BBC FOUR, BBC Parliament, BBCi video streams and BBCi news loops from Freeview would be outweighed by the benefit of a four hour overnight service?

Council welcomes the Trust’s desire to see the BBC HD service made available on the maximum number of broadcast platforms in order to deliver the expected value to the maximum audience. However, Council believes that the uncertainties over the eventual DTT transmission protocol (expected to move from DVB-T to DVB-T2 to reduce bandwidth) and the current lack of support for DVB-T2 in existing consumer DTT receivers, means that the launch of any BBC HD service (four-hour or nine-hour) on Freeview should be postponed. Until there is greater clarity on spectrum and equipment availability, the message to the DTT audience is confused and potentially costly.

It is for this reason rather than the loss of BBC FOUR, BBC Parliament, BBCi video streams and BBCi news loops that Council advises a delay in launch on Freeview.

However, Council also believes that it is important that HDTV is made available on Freeview in the medium term. It therefore stresses that there must be particular focus on moving forward on spectrum availability and transmission protocol, in the interests of consumers. Spectrum capacity and transmission protocol should be viewed as practical issues to be resolved in the consumer interest, rather than informing the aspirations of the service in the interest of the audience.

6. Given that viewers with cable and satellite would have access to the full nine-hour service from the outset, the Trust concluded that it would not be a good use of licence fee money to provide the interim, four-hour, overnight service on cable and satellite.

Council agrees that the interim four-hour service is not a good use of licence fee money for digital satellite and cable, given the availability of the full nine hour service on these platforms.

8. The Trust concluded that the impact on broadband capacity of the BBC providing HD content over the internet would be small given that demand for broadband capacity is being fuelled by a number of factors – such as gaming, user-generated media and on-demand content from traditional media around the world. Do you agree?

Council agrees with this proposition. It believes that with imminent satellite and cable availability, and the likely delay in launching on Freeview, the provision of BBC HDTV content on-demand over the internet (via iPlayer) should be initiated as a further delivery mechanism to maximise availability to the audience.

Council understands the Trust's analysis that the current internet bandwidth available to households may limit the amount of HDTV content that audiences can download, and also constrain the portfolio that the BBC Executive will make available. However, broadband (DSL, cable and wireless) access technology is constantly evolving and improving. Over time audiences should be able to consume HDTV content with fewer restrictions.

9. Do you agree with the Trust's decision that the channel should not automatically simulcast BBC ONE prime-time content, but should broadcast programmes that most benefit from the HD upgrade.

Council is in broad agreement with this provisional conclusion. Content is a prime driver of take up of the service and the BBC should provide a mixed genre service which takes full account of the programmes which would most benefit from HD upgrade. It notes research which provides useful insight into audience demand for different types of content which most fully exemplify the benefits of HD. This can be particularly marked for certain genres which serve key Public Purposes such as live music, wildlife, drama, events and sport and, to some extent, history and science.

There is a risk that, if the BBC does not meet audience expectation of picture and sound quality in these genres, audiences for these types of programmes will fall away or revert to possibly more limited provision in the commercial sector.

Council suggests that a common sense approach could be adopted whereby landmark series and events (where HD quality will be of value) will, when possible, be simulcast on BBC HD to foster predictable scheduling and reduce audience confusion. There is no audience value in premiering a high quality drama in SD on BBC1 at 9pm, but then delaying the HD run until 11pm.

Council notes the emerging Channel 4 plans to launch a Channel 4 HD channel on Sky in December, available to Sky HD subscribers, and the recent announcement that Virgin Media may also carry the channel on cable. Channel 4 HD will be a simulcast channel, reverting to upscaled SD content when HD versions of programmes are not available. Council believes that further research will be required during 2008 to assess how audiences value the practice of simulcasting.

Until sufficient bandwidth is available, Council concedes that a multi-channel BBC will need to balance the availability of HD versions of programming produced for the BBC's SD television channels schedules with the constraints of a single showcase BBC HD service.

11. Do the conditions proposed in the draft BBC service licence for the HD Channel seem appropriate?

Council believes that sports and events are important drivers of audience demand for a BBC HD service, and that take up of the service is a key factor in providing value for money, promoting the Public Purposes and providing benefit to the industry as a whole. It recognises the role of the Trust's Market Impact Assessment and Ofcom in assessing market impact.

12. Are there any other issues which you would like the BBC Trust to consider in relation to the proposal?

Nations' and Regions' Output: Council notes the high value which audiences in Northern Ireland place on local programmes - local in terms of issues, culture and production. It is imperative that production of HD content in the Nations and Regions is encouraged so that there is no quality distinction between local and national production capabilities. There should be focus on skills and capacity within the BBC and the local independent sector in preparation for significantly more HD broadcast services after digital switchover in 2012. The Council desires a commitment that a proportion of HD content will be produced in the Nations and Regions, portraying and celebrating the diversity of culture and communities across the UK.

Media Literacy: Council notes that the BBC has a particular role to play as a trusted guide for the audience, helping them to derive optimum benefit from an HDTV service. Council is aware of significant sections of the audience which could be put off by the complexities of the service proposition across different platforms, lack of understanding about the equipment required, or lack of awareness of the benefits of the channel. On top of the existing digital switchover messaging, the significance of "HD Ready" logos on equipment, the different 720p, 1080i, 1080p resolutions, and the inability to record HD content on SD video recorders or PVRs all needs to be explained. Council believes that it is extremely important that the whole audience is provided with information and support to help them make informed choices about services paid for by their licence fee.

In a previous submission to the Trust, Council asked that marketing and promotions spend be visible within service licences. It suggests that the Trust considers issues of media literacy and support in the HD service licence.

Transparency and value for money: Council also wishes to be assured as to how the £21.4 million identified for the HDTV proposition is being allocated and spent. It wishes to understand how this budget has been tested for value for money and efficiency, and

what benchmarks have been applied. The Audience Council notes the extra costs associated with HDTV in terms of design, costumes and sets, and wishes to ensure that the full costs are transparent against the overall benefits of the service.

RTE HDTV: Council has identified an important issue specific to Northern Ireland. It notes the RTE trial of HDTV on digital terrestrial which began in July 2007. A significant proportion of the audience in Northern Ireland receives strong analogue terrestrial signals from transmitters in the Republic of Ireland and access to RTE broadcasts, and many will be able to receive RTE's HD service once the limited Dublin/Louth trial concludes and a full service is launched. If RTE rolls out HDTV in advance of the BBC, the only HDTV service available to this UK licence fee paying audience will be from RTE rather than the BBC. For this audience, this represents relatively poor value for the licence fee and is likely to undermine usage of BBC services.

Future Proofing: Council notes the fast changing pace of technology, consumer need and market conditions. It is vital that approval for the HD channels is scoped to enable, and indeed require, the service to develop over time in a way which maximises public value. Future proofing for new technology and different platforms is important, as well as focus on moving forward on issues such as spectrum availability and transmission protocols.

HDTV Public Value Test provisional conclusions:

Response to BBC Trust from Audience Council Scotland

22 October 2007

Introduction

At its meeting held on 5th October 2007 the Audience Council Scotland debated the BBC Trust PVT provisional conclusions on the launch of a high definition television channel. The proposed service is based on:

- A mixed-genre, linear television channel
- Content in HD drawn from across the BBC's channels
- Availability on all significant television platforms
- About nine-hours per day, 1500-midnight
- An interim service on DTT: 4-hours overnight
- On-demand and IPTV when technology allows

The Council debated whether the proposals fit with the BBC's public purposes and assessed the service against the four drivers of public value – quality & distinctiveness; cost & value for money; impact; reach.

The Council's work on the topic was led by Council member Mark Dames, who authored the report below.

Response of Audience Council Scotland - Discussion at meeting of 5 October 2007

Overall, the Council agreed with the Trust's provisional conclusions that the proposed service would deliver significant public value to licence-fee payers. They also agreed with the Trust's conditions of service approval in relation to:

- Launch on cable and satellite immediately
- On-demand and IPTV offering HD if and when technically feasible.
- BBCI peak-time simulcasting only to an extent that is appropriate for HD.
- The content offer being held to a mixed-genre proposition.
- Any move to a higher picture resolution (720p or 1080i to 1080p) being considered carefully by the Trust in order to protect existing HD consumers.
- BBC Parliament being reinstated on DTT if Parliament sits overnight.
- A service review taking place in 2013 after digital switch over is complete.

The Council agreed with the Trust that, as a significant enhancement to standard definition television, it was absolutely right for the BBC to be at the forefront of high definition television technology. They agreed that HD is likely to become an important TV standard in the medium to long term and that the proposed service would significantly promote the BBC's digital purpose of helping to deliver to the public the benefits of emerging communications and services.

Risk of digital divide

The Council expressed a desire that the risk of a digital divide emerging with regard to the availability of HD to licence fee payers be understood and addressed by the Trust. In this regard, they agreed with the Trust's view that the proposed service would provide a strong stimulus to universally available free-to-view HDTV in the UK.

The Council were pleased to learn that the BBC intends to make HDTV transmissions available across all significant television platforms - Freeview, satellite and cable. However, whilst appreciating that the considerations for launch on Freeview are more complex than for cable and satellite, the Council expressed a concern that Freeview viewers would not be able to benefit from HDTV until: (i) Ofcom's analysis of spectrum capacity on the DTT platform is clearer; (ii) an upgrade path to MPEG-4 and DVB-T2 can be synchronised.

Whilst the Council appreciates that the Trust has accepted the need for HD to be available across three platforms, the delay for Freeview viewers - subject to a review of the options next year - was regarded as unfortunate. The Council felt it vital that the Freeview platform be future-proofed so as not to become perceived as a "Cinderella" platform. As there is no guarantee that an upgrade path to MPEG-4 and DVB-T2 can be synchronised in the short term (this being dependent on set-top box manufacturers), a view was expressed that consumers may, in some instances, actually prefer to receive

Freeview HD transmissions next year, even if they subsequently had to upgrade their box a second time when the DVB-T2 technology becomes available.

It was pointed out that many licence-fee payers have already made considerable investments in HD-ready televisions and, as such, would appreciate being given the choice of receiving the four-hour overnight HD service through their Freeview box at the earliest opportunity.

It is understood by the Council that this would require the purchase of an MPEG-4 compliant Freeview box based on DVB-T technology. Whilst the Council stresses its appreciation of the technical complexities involved in making a decision, the Trust is requested to inform itself of any significant time delay before DVB-T2 technology becomes available (particularly if later than 2009), as this is likely to be an important factor in any decision on launch dates on DTT.

Impact on BBC Four

The Council debated the fact that the four-hour overnight HD transmissions (02:00 – 06:00) on Freeview would displace BBC Parliament and BBC Four. The Council was pleased to receive assurances that BBC Parliament would be reinstated during overnight sittings of Parliament; however, concern was raised that there would be an impact on programming on BBC Four - particularly at weekends, when a small but not insignificant numbers of viewers may wish to watch, or record, late-night programming during 02:00 – 06:00. Council does appreciate that when the full nine-hour service becomes available on Freeview (15:00 – 12:00), this displacement of programmes on BBC Four and BBC Parliament will no longer occur. In this regard, the Council agreed with the Trust that the full nine-hour schedule on Freeview be launched as soon as practicable.

Finally, the Trust was urged to clarify to licence fee payers that - as is the case with Freeview - no additional subscription would be payable to Sky or Virgin Media to access the BBC HD services received on satellite and cable.

Audience Council Wales

At its meeting held on 5th October 2007, the Audience Council for Wales considered the BBC Trust's provisional conclusions on the proposed BBC HD channel and requested that the following comments be contributed to the consultation:

1. The Audience Council for Wales express its concern that the present proposals could lead to a two-tier service, both in terms of output, if National/regional programming were not broadcast in HDTV output, and in terms of accessibility. The Council understood the Trust's question regarding the early introduction of HDTV availability on Freeview because of the necessity of equipment upgrades following digital switchover but it also recognised the potential perception among some Freeview users in Wales of being provided with a second rate service. There was already a perception of this among a section of the audience because the limited Freeview coverage in significant parts Wales.
2. Council considered that BBC Cymru Wales was well placed to contribute local programming in HDTV since its strengths lay in genres that were particularly suited to HDTV, such as drama (*Torchwood* already being produced in HDTV format), factual, music and natural history.
3. Council considered it should be a requirement to give coverage of any possible overnight sittings of the National Assembly for Wales on the BBC Parliament channel precedence over the HDTV Channel.
4. Council asked whether national opt-outs of local programming on the HDTV channel was a possibility and if so for this to be accommodated in the proposal?

BBC Executive

I. Introduction

The BBC Trust (the 'Trust') published its provisional Public Value Test ('PVT') conclusions on the BBC HD service application on 25 September 2007. This paper sets out the BBC Executive's response to these provisional conclusions, particularly relating to the proposed conditions which would apply if service approval is granted in November 2007.

Overall, we welcome the Trust's structured, evidence-based approach, which indicates that the BBC HD service is likely to deliver medium/high public value. We also welcome Ofcom's findings that the service is unlikely to have any significant negative market impact and, indeed, that it may even have a positive market impact¹.

There are significant challenges associated with an assessment of the public value of a new service in an evolving market shaped by numerous factors. The BBC Executive welcomes the Trust's provisional decision, included in a rigorous and substantial piece of analysis.

If the Trust finally approves BBC HD in November 2007, our overall concern is that any conditions of service approval should enable the service to evolve flexibly across all available platforms. This would reflect the fact that HD is a nascent market, still in the early stages of development and subject to considerable change, as well as ensuring that BBC HD is able to deliver the maximum possible public value to licence fee payers.

We also suggest that the final service licence should balance the need for specific requirements with the breadth to accommodate an evolving service using new technologies.

This paper outlines the BBC Executive's response to four key areas of the Trust's provisional PVT conclusions:

- In Section 2 we respond to the Trust's commitment to review DTT options in early 2008.
- In Section 3 we address the provision of BBC HD via IPTV.
- In Section 4 we address the provision of HD content on-demand via the internet.
- In Section 5 we address the content proposition and service delivery.

Finally, in the Appendix, we respond to the consultation questions posed by the Trust in Annex 3 of its provisional conclusions.

2. Launch on Freeview

¹ Market Impact Assessment, Ofcom, 18 September 2007
Organisation responses HDTV PVT consultation

In paragraphs 6.3 to 6.9 of its provisional conclusions (Conditions of the service approval), the Trust addresses issues relating to the DTT platform. In summary, it states that:

“...The PVA sees significant public value in providing the channel on Freeview...” (paragraph 6.3)

“...However, given capacity constraints, both the PVA and the MIA recognise difficulties in timing the launch of the BBC HD channel on Freeview.” (paragraph 6.4) *“...given the uncertainty, we are minded to require that launch plans for the four-hour interim service on Freeview also be subject to review in early 2008 when the factors for each of the options should be more clear.”* (paragraph 6.9)

“...We would expect to complete the Trust’s review of DTT launch options in a relatively short time.” (paragraph 6.6)

The BBC Executive supports the Trust’s recommendation that: *“...Launch should proceed on Freeview as soon as possible...”* (paragraph 3.7, Summary of the Public Value Assessment).

The BBC Executive also welcomes the Trust’s commitment to reviewing DTT launch options within a relatively short timescale. We are committed to contributing to this proposed review in the context of factors such as: the potential for platform reorganisation; spectrum usage; and relevant technical developments (e.g. DVB-T and DVB-T2).

3. Launch on IPTV

In its provisional conclusions (Conditions of the service approval) on the launch of BBC HD via internet protocol television (IPTV), the Trust states that:

“...The BBC Executive made clear in its application its desire to provide the channel on IPTV when technically feasible and subject to other considerations relevant at the time, particularly cost and value for money. We share this desire and fully expect the Executive to maintain contact with relevant operators to this end – both to gauge technical feasibility and to ensure that the BBC does not unilaterally over-burden their capacity before they are ready to accommodate HD.” (paragraph 6.11)

The BBC Executive welcomes the Trust’s view that BBC HD should be made available via IPTV subject to technical feasibility and other factors such as costs and value for money. We will continue to monitor and review the various technical feasibility factors (such as capacity). The BBC can point to a strong track record of maintaining dialogue and working closely with IPTV operators.

4. Provision of HD content on-demand over the internet

In its provisional conclusions (Conditions of the service approval) on the provision of BBC HD content on-demand, the Trust states that:

“...We would not expect the whole schedule, or even large parts of it, to be offered until there is judged to be sufficient audience demand, it is technically feasible and the BBC Executive has judged the cost and value for money implications to be appropriate.” (paragraph 6.13)

“...in most circumstances BBC activity on the internet is unlikely to distort competition between internet service providers who face capacity pressures arising from demand for a variety of different types of content...” (paragraph 6.14)

“...As noted, we expect the BBC Executive to take these [i.e. ISPs'] views into account...” (paragraph 6.15)

The BBC Executive welcomes the Trust's statement that BBC HD content should be made available via the internet subject to consumer demand and technical feasibility. While all PCs are, theoretically, HD-ready, the BBC believes that the consumption of HD content over iPlayer will initially be extremely limited due to, for example, long download times. BBC HD content delivered via iPlayer will have only a very small share of the expanding total of internet traffic.

The BBC Executive also endorses the Trust's assessment that the planned provision of HD programming by the BBC over the internet is unlikely to distort competition in the internet service provider (ISP) marketplace. The BBC's activities must be seen in the context of a dynamic market in which ISPs acquire capacity in order to offer differentiated services and increase returns.

We believe that capacity constraints are likely to be only a medium-term factor in a competitive broadband market, as capacity increases in response to rising consumer demand. The marketplace is likely to remain highly competitive for the foreseeable future.

We are committed to a responsible migration to HD via iPlayer. The BBC has a long history of acting responsibly with ISPs and will continue to do so.

5. Service delivery and content issues

If finally approved in November 2007, BBC HD will need the flexibility to be an evolving service in a dynamic market – particularly as switchover rolls out.

In view of this, the BBC Executive is responding to three issues raised in the PVT provisional conclusions document: two content issues – simulcasting parameters and genre mix; and a service delivery issue – picture resolution.

5.1 Simulcasting parameters

The Trust's provisional conclusions (Conditions of the service approval) state that:

“... for clarity, we are specifying that – while much BBC One output will represent the best use of HD capacity – the channel should aim to schedule the programmes from across the BBC's portfolio of channels which would play most effectively to the benefits of HD. Prime-time scheduling should not be guided solely by the motivation to simulcast BBC One.” (paragraph 6.16)

Section 1.3.3 of the BBC Executive's PVT application to launch a BBC HD service explained that BBC HD would comprise:

“...the best of the BBC's HD programming – selected to maximise reach and impact – from across the existing BBC channels; and simulcasts of BBC One's core peaktime content, complemented by time-shifted and archive content plus a limited amount of new content.”

Section 3.5.3 of the BBC Executive's HD PVT application explained that:

“...When the core schedule reaches nine hours per day, it is estimated that about half of all programmes will originate on BBC One. The aim is to simulcast programmes at the time of first showing and then to repeat them at different times to enable viewers to catch up. Around one-third of programmes will originate on BBC Two. They will often be shown on the same day and again within a week. Where the schedule allows, they will also be simulcast.”

As HD is the next production and broadcast standard it is likely that, in the long-term, all channels may eventually be broadcast in HD. However, for the purposes of the PVT application's timescale, the BBC Executive has assumed that primarily BBC One core peaktime programmes will be simulcast, along with other content as appropriate (for example, major live events). The BBC One schedule is particularly relevant to HD, due to the BBC's renewed commitment to its flagship channel as the focus for mixed genre originations.

In the short- to medium-term, our priority is to develop and maintain a coherent schedule which appeals to audiences and is relevant to their interests and needs. While we aim to provide the 'best of the BBC's programming in HD', this should not mean a schedule which comprises programmes from across all BBC channels but which has no logic for

viewers. Using, where possible, the core peaktime ‘spine’ of BBC One’s high impact, modern, popular content – complemented by high quality HD content from across other channels and the archive – is the most effective way of building BBC HD’s relevance and appeal.

In the medium- to long-term, this approach will also help to build BBC HD’s reach and share across audiences, and it will contribute to maintaining the relevance and appeal of the BBC’s overall multiplatform portfolio.

The BBC Executive therefore believes that focusing on content which particularly benefits from HD while minimising simulcasting would, potentially, be inconsistent with broader requirements of the channel – as set out in the Draft service licence – namely to:

- maintain the relevance and appeal of BBC programmes as consumer expectations for HD content grow (Annex 2 of the Trust’s provisional conclusions; Draft service licence; Part II: Contribution to public value, paragraph 5.1); and
- offer a mixed genre schedule (Annex 2 of the Trust’s provisional conclusions; Draft service licence; Part I: Key characteristics of the service, paragraphs 1 and 4).

A mixed genre schedule also addresses issues around competition with niche or specialist HD channels (Conditions of the service approval, paragraph 6.17 – addressed in Section 5.2 below).

5.2 Genre mix

The Trust’s provisional conclusions (Conditions of the service approval) state that:

“...The MIA reflects stakeholder concern that the genre mix might stray from the original service proposition and become more of a head-on competitor for sports and movie HD channels. The MIA recommends that, in the event of final approval, the mixed-genre nature of the channel should be specified in the service licence. We agree and have made provision for this in the draft service licence...” (paragraph 6.17)

The BBC Executive notes that, in the development phase, HD content will tend to come primarily from a relatively narrow range of content within genres where the HD benefits are most immediately apparent to programme makers and co-producers. As the volume of HD content increases, HD content from across all genres will deliver value to licence fee payers – and the strength of the mixed genre approach is, for example, reflected by the BBC One core peaktime schedule (see Section 5.1 above).

The BBC Executive believes that a successful BBC HD channel must reflect the BBC’s creative ambition across all genres, representing the unique range and variety of PSB content. We welcome the fact that this will be provided for in the service licence.

5.3 Picture resolution

The Trust raises the issue of potential advances in picture resolution standards (paragraph 6.18), making the point that that the BBC should not propose any changes which could disadvantage HD consumers.

The BBC's sixth public purpose is to 'help deliver to the public the benefit of emerging communications and services'. New digital services are, necessarily, governed by industry-wide standards². The BBC is committed to delivering new services which add public value by benefiting consumers. Any associated standards evolution will, of course, accommodate consumers' interests.

6. Summary

We welcome both the Trust's structured, evidence-based approach to assessing the BBC Executive's PVT application and their provisional conclusions, which indicate that the BBC HD service is likely to deliver medium/high public value.

If the Trust approves BBC HD in November 2007, our overall recommendation is that any conditions of service approval should enable the service to evolve flexibly across all available platforms. This will reflect the nature of change across the HD market and technology, as well as ensuring that BBC HD is able to deliver the best possible public value to licence fee payers. We also recommend that the final service licence should balance the need for clarity with the flexibility to accommodate an evolving service.

Appendix: responses to questions in Annex 3 of the Trust's provisional HD PVT conclusions

This Appendix contains the BBC Executive's responses to the questions raised in Annex 3 of the Trust's provisional HD PVT conclusions.

1. Do you agree with the BBC Trust's decision to approve the new BBC high definition television channel, subject to conditions outlined in the Trust's report of its provisional conclusions?

The BBC Executive welcomes the Trust's decision to approve the new BBC HD channel. Our views on some of the proposed provisional conditions are outlined in this paper.

2. The Trust considers that HD will become a significant broadcasting standard. Do you agree that it is a priority for the BBC to be investing in this area, rather than other possible areas for licence fee investment?

² For example, in the case of HD, by the emerging DTG HD 'D' Book and EICTA standards.
Organisation responses HDTV PVT consultation

The Trust's analysis of evidence relating to the BBC's HD PVT application indicates that the service would deliver medium/high public value. This strongly supports the BBC Executive's case for licence fee investment alongside other services.

3. How important is it that a BBC HD channel is available on all of the main television platforms – Freeview, digital satellite and cable?

In view of the BBC's commitment to platform neutrality – and its sixth public purpose, namely to help deliver to the public the benefits of emerging communications and services – it is appropriate to make BBC HD available on all of the main television platforms, as soon as it is technically feasible and subject to delivering value for money. We welcome the Trust's commitment to review DTT launch options by early 2008, and we will contribute to their review of potential options for the way forward on DTT.

4. At present, it is not possible to provide the BBC HD channel through IPTV services, such as Tiscali or BT Vision, because of capacity constraints. Is it important that the channel is provided through such operators in the future?

See Section 3 above.

5. Until the full, nine-hour service can be offered on Freeview, do you think it would be valuable to offer a four-hour, overnight service on Freeview – broadcasting, between 02.00 and 06.00, programmes from the following day's nine-hour schedule?

We welcome the Trust's commitment to review DTT launch options by early 2008, and we will contribute to their review of potential options for the way forward on DTT.

6. Given that viewers with cable and satellite would have access to the full, nine-hour service from the outset, the Trust concluded that it would not be a good use of licence fee money to provide the interim, four-hour, overnight service on cable and satellite. Do you agree?

The BBC Executive believes that providing any interim, overnight service on satellite and cable could incur additional costs (for example, in terms of rights) and, therefore, have a consequent negative impact on the public value delivered by those platforms. It could also complicate and confuse the consumer proposition on these platforms. In addition, the inclusion of the overnight service on cable and satellite could result in a negative market impact on the DTT platform, (accentuated if there is a delay in launching the service on DTT).

7. A number of technological developments relating to the provision of HD on Freeview are expected in the next two to three years. If the four-hour, overnight service on Freeview were offered from next year, the set-top boxes viewers would need to buy to receive this service may not be able to receive potential future HD services on Freeview. Would you prefer the BBC to launch the four-hour interim service next year anyway, even if that meant having to buy two set-top boxes within a very short period of time?

We welcome the Trust's commitment to review DTT launch options by early 2008, and we will contribute to their review of potential options for the way forward on DTT.

8. The Trust concluded that the impact on broadband capacity of the BBC providing HD content over the internet would be small given that demand for broadband capacity is being fuelled by a number of factors – such as gaming, user-generated media and on-demand content from traditional media around the world. Do you agree?

See Section 4 above.

9. Do you agree with the Trust's decision that the channel should not automatically simulcast BBC One prime-time content, but should broadcast programmes that most benefit from the HD upgrade?

See Section 5.1 above.

10. An interim four-hour overnight service on Freeview would necessitate the withdrawal from Freeview of four BBC services between 02.00 and 06.00. These are BBC Four, BBC Parliament, two BBCi video streams and the BBCi news loops. Do you agree with the Trust's conclusion that the loss of these services from Freeview would be outweighed by the benefit of offering the four-hour, overnight HD service?

The BBC Executive believes that any loss in public value related to the low levels of overnight viewing would be at least offset by the public value generated by an interim, overnight DTT service.

11. Do the conditions proposed in the draft BBC service licence for the HD channel seem appropriate?

See Sections 2 to 5 above.

12. Are there any other issues you would like the BBC Trust to consider in relation to the proposal?

(No other issues for consideration)

BT's response to the provisional conclusions from the BBC trust on the BBC's plans to launch an HDTV broadcast service.

consultation questions

Do you agree with the BBC Trust's decision to approve the new BBC high definition television channel, subject to conditions outlined in the Trust's report of its provisional conclusions?

BT agrees with the BBC Trust's decision to approve the new BBC high definition channel. We believe that it is important both for consumer choice and for the development of the digital TV and IPTV industry that free-to-air HD services are available on Freeview and through other platforms where subscriptions are not required. The Pay TV market is clearly going HD and therefore a means of distributing the BBC HD content, in accordance with the BBC aims of 'free at the point of consumption', needs to follow. Furthermore the launch of this initial capability will enable information about the market for general availability of HDTV content and methods for its distribution e.g. using the proposed "time shift" approach, to be assessed, thereby better informing future decisions.

The Trust considers that HD will become a significant broadcasting standard. Do you agree that it is a priority for the BBC to be investing in this area, rather than other possible areas for licence fee investment?

We understand that the BBC has already invested in HD in other parts of its business, and that therefore this current debate is really about transmission costs for HD as many of its production costs are already based on HD. BT believes that this move to test the need for investment in HD broadcasting is an important step in this general move to HD transmission.

How important is it that a BBC HD channel is available on all of the main television platforms – Freeview, digital satellite and cable?

In the medium to long term it is vital that BBC HD is available on Freeview and Freesat - alongside an attractive range of other free-to-air HD services - if those platforms are not to become second-class services (in relation to picture and sound quality) when compared with cable and satellite Pay TV services that already have significant HD propositions. Not everyone can receive satellite or cable, so Freeview might be the only option for some viewers to receive HD. Freeview is often much more practical and affordable for the provision of digital services on second and subsequent sets in a home - for SD or HD services.

At present, it is not possible to provide the BBC HD channel through IPTV services, such as Tiscali or BT Vision, because of capacity constraints. Is it important to you that the channel is provided through such operators in the future?

The discussions within the Digital television Group (DTG) on Terrestrial HD suggest that a full national service would not be possible before 2010. By this time, very fast broadband access (up to 24Mbit/s) should be widely available, which should enable live delivery of HD content. It is also important that the Trust consider how the HD Channels' content should be made available to IPTV providers for "catch-up TV". The plans for the 4 hour overnight service would also provide a means of better assessing the market needs and demand for this "catch-up" or "time shift" model.

Until the full, nine-hour service can be offered on Freeview, do you think it would be valuable to offer a four-hour, overnight service on Freeview – broadcasting, between 02.00 and 06.00, programmes from the following day's nine-hour schedule?

T believes that there is some value in offering a four hour overnight schedule on Freeview as this will provide a means of testing and assessing the UK market for time shifting generally and understanding viewer habits in the use of this type of service. However the early launch of such a service and the possible benefits it could bring to those users able to receive it would need to be offset against the potential confusion in the market caused by a subsequent move to DVB-T2 and a need to replace existing set top boxes. (see also the answer to question 7)

Given that viewers with cable and satellite would have access to the full, nine-hour service from the outset, the Trust concluded that it would not be a good use of licence fee money to provide the interim, four-hour, overnight service on cable and satellite. Do you agree?

es

A number of technological developments relating to the provision of HD on Freeview are expected in the next two to three years. If the four-hour, overnight service on Freeview were offered from next year, the set-top boxes viewers would need to buy to receive this service may not be able to receive potential future HD services on Freeview. Would you prefer the BBC to launch the four-hour interim service next year anyway, even if that meant having to buy two set-top boxes within a very short period of time?

No. BT believes that until the improved modulation schemes, DVB-T2, are standardised and into production, a terrestrial HD service should not be launched as it will confuse the market. BT does support HD on Freesat as this would give early adopters a stable STB market; however, this would be dependent on Ofcom selecting DVB-T2 for HD-DTT. Furthermore, we would expect this standardisation decision to be taken in conjunction with the DTG group in the UK.

The Trust concluded that the impact on broadband capacity of the BBC providing HD content over the internet would be small given that demand for broadband capacity is being fuelled by a number of factors – such as gaming, user-generated media and on demand content from traditional media around the world. Do you agree?

Although we agree that the impact of the BBC providing HD content download on the internet is currently small, most of the forecast demand for higher bandwidth is based on future foreseen demand for video content, both HD and standard definition, from both professional and user generated sources. As such the decisions taken by the BBC on the availability of HD content for download and the distribution method are potentially very influential in this growing market, so this area needs to be kept under regular review.

Do you agree with the Trust's decision that the channel should not automatically simulcast BBC One prime-time content, but should broadcast programmes that most benefit from the HD upgrade?

es.

An interim four-hour overnight service on Freeview would necessitate the withdrawal from Freeview of four BBC services between 02.00 and 06.00. These are BBC Four, BBC Parliament, two BBCi video streams and the BBCi news loops. Do you agree with the Trust's conclusion that the loss of these services from Freeview would be outweighed by the benefit of offering the four-hour, overnight HD service?

T has no particularly strong view on this point; however, the interim overnight service would have an additional benefit of providing information to the market on the willingness of users to receive "time shifted" content and help to inform providers on benefits and issues with this mode of distribution.

1. Do the conditions proposed in the draft BBC service licence for the HD channel seem appropriate?

o specific comment

2. Are there any other issues you would like the BBC Trust to consider in relation to the proposals?

o specific comment

National Union of Journalists

Question 1. Do you agree with the BBC Trust's decision to approve the new BBC high definition television channel, subject to conditions outlined in the Trust's report of its provisional conclusions?

The NUJ strongly agrees with the Trust's decision to approve the HD channel. We agree that: 'The proposal will have a significant impact towards the aim of providing universal access to HDTV, free at the point of use. It will thereby increase the viability of HD for other broadcasters and consumers alike.' The BBC has a key role to play in delivering the benefit of emerging technologies to the viewer and in encouraging the development of such technologies.

Question 2. The Trust considers that HD will become a significant broadcasting standard. Do you agree that it is a priority for the BBC to be investing in this area, rather than other possible areas for licence fee investment?

The NUJ agrees that HD will become a significant broadcasting standard. As popular programmes move to HD it is important not to disenfranchise viewers. We would draw your attention to comments by the Chair of the BBC Parliamentary Group, John Grogan:

*'For me, a Freeview platform without HD channels would reopen the very digital divide that switchover was meant to close. Freeview without HD would be akin to black and white television in a colour age. It would also seem to me iniquitous that award winning BBC HD programmes such as Planet Earth and Doctor Who paid for by every licence fee, could only be viewed in HD by those who can afford to subscribe to an additional HD service.'*³

Having said that, such investment cannot be at the expense of existing core PSB obligations.

Question 4. At present, it is not possible to provide the BBC HD channel through IPTV services, such as Tiscali or BT Vision, because of capacity constraints. Is it important to you that the channel is provided through such operators in the future?

The BBC should maintain its commitment to universality and IPTV should be an ambition. However technical constraints around capacity are an evolving issue and should not spark pre-emptive action at this stage.

³ Westminster Media Forum. The BBC Trust's Inbox, August 2007
Organisation responses HDTV PVT consultation

Question 7. A number of technological developments relating to the provision of HD on Freeview are expected in the next two to three years. If the four-hour, overnight service on Freeview were offered from next year, the set-top boxes viewers would need to buy to receive this service may not be able to receive potential future HD services on Freeview. Would you prefer the BBC to launch the four-hour interim service next year anyway, even if that meant having to buy two set-top boxes within a very short period of time?

Yes, the BBC should be allowed to engage with the service as soon as possible but should remain flexible in the face of the changing digital landscape. The technology will continue to evolve and to hold off on HDTV until some future point would be to suggest a false end to this evolution. Viewers should not miss out on a service simply because it may prove to be an interim measure because all technology is in reality only interim. Viewers are also increasingly aware and willing to adapt to the growing speed of technological change. A delay would mean no BBC HD channel on Freeview for a period while there was a BBC HD service on other platforms. This would be reinforcing the very digital divide we should be seeking to avoid. Retailers should behave responsibly, and the benefits and potential pitfalls of any new HD service should be clearly stated to consumers at the point of sale. Regulatory bodies and to some degree broadcasters have been complicit in mis-selling HD-ready TV's. The BBC should do its bit by conducting a public awareness exercise to increase levels of understanding amongst citizens of the pros and cons of a particular service as outlined above. The BBC Trust and the board of management at the BBC should keep the costs and benefits of this service under strict review. The BBC should work more closely with other existing PSB's to develop a coherent strategy around Freeview and HD to allow for allocated spectrum to be given in return for fulfilling other desirable PSB objectives, such as regional and local news on ITV.

Conclusion

We welcome the chance to participate in this important debate. We would appreciate the opportunity to speak further with the Trust on these matters.

Sony United Kingdom position paper on the roll out of High Definition Television (HD) on Digital Terrestrial Television (DTT) using technical specification DVB-T2.

Context

All stakeholders agree that an HD service on the DTT platform is vital if it is to remain a competitive and valuable platform alongside Satellite, Cable and the Internet. HD is a natural evolution of television technology, provides the end user with the highest possible quality sound and vision, and will ensure that comparable levels of quality content will be available to all consumers regardless of their choice of platform.

Government stated that HD services was to be one of the key benefits of digital switchover, Broadcasters are investing millions in upgrading the DTT network by 2012, manufacturers have developed HD products for the European market and UK consumers have bought HD-ready TVs at an unprecedented rate. As has been the case in the satellite arena, the availability of new services is dependent on the introduction of new technologies. Although this will lead to potential legacy issues with existing DVB-T / MPEG2 receivers, HDTV will be delivered via a new video compression system - MPEG4 - which is currently the most cost effective and bandwidth efficient method of delivering HDTV.

Throughout the Digital Dividend Review (DDR), broadcasters and HDforAll have insisted that it would not be feasible to introduce HD services on DTT without using additional spectrum from the Digital Dividend. Ofcom have consistently disagreed with this and while also acknowledging the importance of HD on DTT have said that HD services could be rolled out by using existing spectrum more efficiently. Ofcom have now made a proposal which would lead to the introduction of HDTV services on DTT by simultaneously deploying two new technologies - MPEG4 and DVB-T2. It is this proposal and the Digital Dividend Review (DDR) that have prompted this analysis of the options for HD on the DTT platform.

This analysis is hugely complex with no perfect answer. All of the possible options would cause either short, medium or long term disruption to consumers, the DTV market, the DTV technical roadmap for HD, broadcaster planning or digital switchover. There are also many unknowns, and therefore risks, within the Ofcom proposal with little time to consider these in great detail due to the DDR process. However, based on the information available we have reached a view that we believe provides the least disruptive solution for all stakeholders while delivering the greatest clarity and certainty for the UK.

We believe that Ofcom's recommendation – adopting the DVB-T2 transmission technology to broadcast HD on DTT as soon as possible – is not the best way forward

and that an HD service using MPEG-4 and DVB-T should be introduced as soon as possible.

This view is ultimately based on certainty around timing and planning, in the UK and European markets, and on minimising disruption and confusion among consumers. We believe that DVB-T2, and future generations, will offer significant benefits but that given the switchover process in the UK the timing is not right.

Given this opinion we believe it is vital that Ofcom retains a spectrum contingency within the DDR to deliver a valuable HD service on DTT.

There are a number of main reasons for taking this view:

- We believe it is better for consumers and the strength of the DTT platform to have a 3-4 channel HD service introduced now and rolled out through switchover than to wait for DVB-T2 introduction.
- The timescales for the readiness of DVB-T2 are not clear. Estimates vary between 2010 and 2011. It is also possible that the development of transmission technologies which could increase channel capacity to an even greater extent than DVB-T2 could be underway shortly, casting further doubt on whether we should choose DVB-T2 now.
- No other European countries are currently planning towards T2 but many are moving towards an HD service on DVB-T. It would not be beneficial for the UK to move to T2 in isolation but there are significant benefits to consumers and manufacturers that the economies of scale created by a European market can bring.

Further analysis is outlined below:

Timeline and technical considerations

We believe that the timelines for the delivery of HD by DVB-T2 are unclear and could be anywhere between 2010 and 2011. The standard is mainly based on specifications from existing standards which does mitigate the timescale risk but experience with the development of other technical standards means that we believe timescales could slip beyond those envisaged by Ofcom.

Potential causes of delays include problems in the specification completion of silicon designs, or any problems arising from field tests after the first silicon tests have been finished. For example:

- Silicon development is best case scenario. If a re-spin is required then add 6 months. It must be remembered that the silicon is more complex than DVB-T
- Field testing / system proving is only 6 months. This is also in the middle of analogue switch off. It is not clear if the Transmitter providers have the resources and spare frequencies to be able to do this field test.
- System sign-off could be delayed by problems identified in field testing such as any side effects like impulse noise from DVB-T

Later timelines also mean that we would miss out on earlier seeding the market with HD equipment through switchover and the potential mitigation of product legacy issues by introducing HD as early as possible would not be realised. It would also mean that the DTT platform could be significantly weakened by, for example, an HD offering on Freesat in 2008.

We are also aware that the development of other transmission technologies are being discussed. Please find as a separate attachment a DVB document on this subject.

Given this potential development it would seem unwise to support a deployment of T2 now if a better standard could be available at a time not that far beyond it.

The European HD market

Planning across the European market is vital for manufacturers and consumers alike. While many EU member states have trialled HD on DTT (Notably France, Italy, Spain, Sweden, and the UK) only a few actually have services available (According to DigiTAG Sweden and Spain both have a limited regional HD offering). All this is based on DVB-T. We are not aware of any other European countries that are actively considering DVB-T2 although some may be adopting a wait and see approach.

Here in the UK the HD trial was seen as a success and some HD-receivers are now already available on the market. France has now taken the step of mandating HD from December 2008 using DVB-T and manufacturers are planning product to be available against that deadline. Sony are already shipping DVB-T + AVC-HD products not only in France (for the test service already available for the Rugby World Cup) but all across Europe.

Ireland is also planning towards an HD service launch next year using DVB-T.

To support this and to help consumer awareness, EICTA, the European trade association, have developed an HDTV logo which signifies that a device can receive and process High Definition television signals. While the technical requirements are currently based on DVB-S, DVB-S2, DVB-C and DVB-T MPEG-4 it is fair to assume that

this would be expanded to include both DVB-T2 and DVB-C2 as and when they are finalised but only if a commercial need is identified.

Digital terrestrial broadcasting is booming in Europe due to the use of DVB-T as a common standard. This success story is enabled by the market stability that DVB-T has created. This has helped form the necessary environment in Europe for national authorities to make their analogue switch off plans by 2012 with confidence. There are also very clear cost and manufacturing advantages associated with a European-wide market that will ultimately benefit the consumer and help drive competition and innovation.

In short, we already have tried and tested technology in place to deliver HD on DTT, products and marketing resources available, and a manufacturing driver already in place with France and Ireland committing to move to DVB-T MPEG-4 next year.

Consumer confidence

Cost

Consumers will pay a significant cost during the adoption of DVB-T. However, Europe-wide common standards create significant economies of scale, with price points of DVB-T set top boxes already falling to below €20. This is only possible when manufacturers see a stable target market and can recoup design and manufacturing investments over large quantities.

The price differential between an SD and a HD STB (or integrated DTV) is a combination of the cost of the MPEG4 HD decoder, the DVB-T2 front end (if used) and the fact that initial product volumes will be low and high quality. It could be viewed that the volume of HD-Ready Flat Panel Displays already deployed indicate that consumers desire to have the highest quality TV experience, despite the high cost of these displays. (It is important to note that the availability of a suitable STB will mean that consumers can continue to use the existing display, thus reducing the total cost of moving to HD services.) However, it is safe to assume that DVB-T2 product cost would be initially far higher for consumers than DVB-T.

Picture quality and service availability

As the switchover plan stands a DTT 6 mux service will be available on the 80 transmitters for 90% of the populace, with a 3 mux service targeted at the remaining 10% who live in more sparsely populated areas. This service will include all the public service broadcasting channels (PSB's) and a number of others providing, on average, an 18-channel service.

The Ofcom proposal involves clearing one mux which could then be used for HD services. We believe this carries important implications for both picture quality and service availability:

Organisation responses HDTV PVT consultation

If the proposed HD service on DTT were provided by the existing 3 PSB mux's there would be very little scope for rationalising all of the other services onto the other 2 mux's. This squeezing of capacity would result in a drastic reduction of picture quality, and/or a reduction in the number the services offered. This would be a negative step for consumers, manufacturers and broadcasters alike.

Even if we were to rationalise the 6 mux's to clear one, solely for use by HD services it does not fare much better in its projected impact on consumers. This move, whilst theoretically possible, would increase the difference and disparity between urban services and regional services as HD could not be included in the regional services. This will upset consumers, place pressure on the government and highlight the continuation of the 'digital divide' in the UK.

The issues raised here are complex and concern the migration not only towards full DSO but from SD to HDTV. We believe further analysis would be required to consider the full impact on the current DSO frequency planning, the picture quality of services as they are potentially moved between muxes, and the necessity for consumers to potentially make an even greater number of rescans than is currently planned.

HD channel offering

It is always difficult for manufacturers to plan product when the content offering is unknown. It is a matter of debate as to what constitutes a compelling HD offering and while all members agree that more channels are better than less, providing they carry quality content, many other considerations (noted in this paper) must be taken in to account. Manufacturers and HDforAll have consistently stated that any HD service on DTT should consist of 4-5 channels. While it is clear that DVB-T2 may potentially deliver more, on balance we believe that it is more important and valuable for consumers to receive a 3-4 channel service in 2009, with relative certainty, than to wait for DVB-T2 deployment.

HD switchover and product legacy

The introduction of DVB-T2 either during (If the BBC goes ahead with its current proposed DTT HD service) or after digital switchover will require a further switchover process that would involve the creation of legacy equipment in the market. We recognise that if this was to occur after switchover the legacy installed base would be far greater than beforehand. Sony's suggestion is to stay with DVB-T / AVC-HD for MUX 6, and consider any new technologies T2 and / or T3 for any new spectrum available from DDR / Auction process **after** full switchover.

Digital switchover

The following is the opinion of Digital UK:

“Feedback from viewers to Digital UK consistently includes the message that they want clear unequivocal advice about what they need to do to and when achieve the transition from analogue to digital. Given the complexity of the DSO process it is already proving a challenge to meet that aspiration. Once in the public domain, Ofcom’s (HD) proposals will make the task of bringing clarity to the process considerably more difficult. One of Digital UK’s primary concerns is that it will be many months, if not years, before it is absolutely clear what the proposals will mean for individual viewers in terms of equipment choice, availability of different services and timing of change.”

If HD was delivered using DVB-T that messaging would be far simpler and could be delivered with far more confidence and certainty given the robustness and availability of the technology.

The solution

If spectrum contingency is set aside by Ofcom to deliver HD services on DTT using DVB-T:

- Services could be rolled out throughout the switchover process starting with Granada in 2009
- The confirmation of HD services on DTT now would allow manufacturers to build MPEG4 technology into the majority of DTT receivers in the UK within a year. They will be doing this for the French and Irish markets anyway. Integrated MPEG 2 / 4 HDTVs would be amongst the first products to be introduced and would be on the market in 2008. The low-cost, commodity set-top-box market would be seeded with MPEG4 within a similar timescale.
- This would allow us to capitalise on the product replacement cycle throughout switchover and we estimate that around 5 Million integrated AVC HD TVs would be sold by 2010 if the introduction was supported by all manufacturers.

Conclusion

Sony United Kingdom believes that Ofcom’s recommendation – adopting the DVB-T2 transmission technology to broadcast HD on DTT as soon as possible – is not the best way forward for the reasons outlined above. We believe that an HD service using MPEG-4 and DVB-T should be introduced as soon as possible.

This view is ultimately based on certainty around timing and planning, in the UK and European markets, and on minimising disruption and confusion among consumers, especially during digital switchover. We believe that DVB-T2, and future generations, will offer significant benefits but that given the switchover process in the UK the timing is not right. We also believe that UK Industry has been very little time to analyse and

debate the different scenarios and that ideally further time to assess some of the technical aspects surrounding the introduction of T2 should have been set aside. Without that, uncertainty and doubt will remain.

Given this opinion we believe it is vital that Ofcom retains a spectrum contingency within the DDR to deliver a valuable HD service on DTT.

