

The Future of Digital Terrestrial Television

Enabling new services for viewers

Briefing for stakeholders
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The opportunity

- The DSO process and recent developments in broadcasting technologies mean that there is a very significant opportunity to build on the success of the DTT platform
- The introduction of new technologies to the platform would promote
 - A more efficient use of the valuable spectrum already allocated to DTT
 - A significant increase in the capacity available on the platform
 - An opportunity to introduce new services to the platform, potentially including HD services
- This would in turn bring significant benefits for
 - consumers & citizens
 - broadcasters and the DTT platform as a whole
 - the UK economy – of £4-6bn over 25 years

New technologies

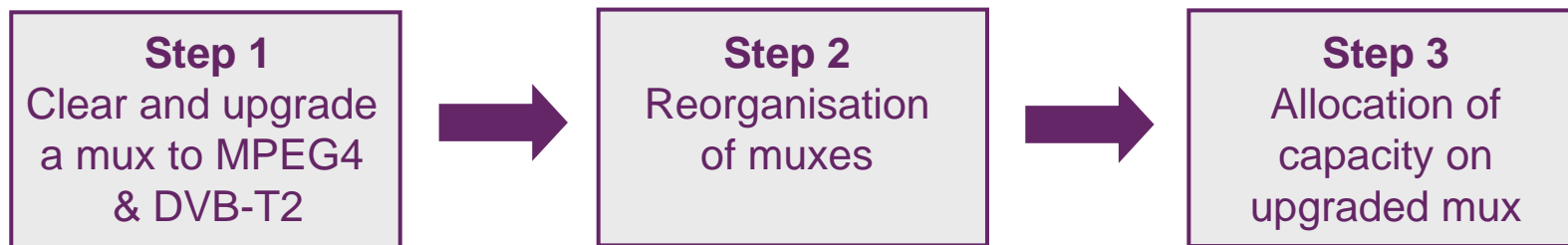
- Ofcom has identified two technological advances that could together result in a more than doubling of the capacity on the DTT platform:
 - **MPEG-4:** this is an improved audio and video compression standard, which, over time, is expected to increase the efficiency of MPEG-2 by up to a factor of 2
 - **DVB-T2:** this is a new transmission standard, still in development, but expected to be finalised in Spring 2008. This is expected to deliver a 30% increase in multiplex capacity over the current DVB-T standard
- The benefits of introduction of these technologies to DTT could be huge
- But their introduction must be managed carefully to ensure that
 - it is managed in a way that helps to avoid displacing existing services from the platform
 - incentives for consumers to upgrade their reception equipment are strong
 - co-ordination between relevant stakeholders, including retailers, manufacturers, broadcasters and other organisations such as Digital UK is strong

How we can ensure that benefits to consumers and citizens are maximised

- The introduction of these new technologies is therefore likely to be a very complex task
- We have considered carefully whether this upgrade could be achieved by the DTT platform absent any intervention
- Our analysis suggests that while the platform does have incentives to upgrade, it may not do so in a manner or within a timeframe consistent with maximising the benefits to consumers and citizens
- Given the very significant coordination required between many parties, and the regulatory requirements placed on the platform, we believe that Ofcom should set out a clear statement of how this process could be undertaken, in line with three key objectives
 - Maximising the efficient use of spectrum
 - Promoting the purposes of PSB
 - Promoting the availability of a wide range and diversity of high quality TV services

There are 3 key steps in the process

- We propose that Ofcom should intervene to upgrade on multiplex in order to set in motion the longer term upgrade of the platform to these new technologies
- Ofcom believes that there are three steps required in order for this opportunity to be realised



- Ofcom has carefully considered each of these steps. The following slides set out our proposals in relation to each one

Step 1 – clear and upgrade a multiplex

- We propose that one multiplex should be cleared of existing services in order to be upgraded to the new technologies, MPEG-4 and DVB-T2
 - these new technologies should be introduced together, to reap the combined benefits and to avoid a proliferation of different types of consumer equipment for free-to-air DTT services in the UK
- The multiplex selected should be one of those presently carrying fewest services on the platform, in order to minimise the scale of platform reorganisation required
- We also suggest that it should be one of the PSB multiplexes, as these will be available to 98.5% of the population from DSO. This will ensure that the new services are universally available
- These two factors point to Multiplex B as the multiplex which should be cleared and upgraded in this process

Step 2 – reorganise the existing services to ensure that services displaced from Multiplex B are carried elsewhere (1)

- There will be capacity available on the platform to ensure that all services displaced from the clearance of Multiplex B can continue to be carried
 - This capacity results from mode change and the more efficient use of current technologies
- However, the reorganisation of the multiplexes to ensure these services can be accommodated is a complex task
- Our proposals for the reorganisation are based on the following principles:
 - Movement of services between multiplexes are limited to PSB multiplexes only
 - Ensuring that core PSB services are available universally, free to air, on PSB multiplexes
 - Ensuring that our proposals are fair, reasonable and proportionate, aiming to avoid any negative impacts, but where these are unavoidable, ensuring these fall as equitably as possible

Step 2 – reorganise the existing services to ensure that services displaced from Multiplex B are carried elsewhere (2)

- In light of these principles, our proposals for the reorganisation are
 - Most BBC services from Multiplex B to be carried on Multiplex 1
 - Capacity is reserved for one BBC service on Multiplex 2
 - Five moves from Multiplex A to Multiplex 2 to achieve universal coverage from DSO
 - S4C, GDS and TG4 are reserved capacity on Multiplex 2 in their respective nations
- It is proposed that Multiplex 2 will carry 9 services
 - One nationwide service will be displaced from Multiplex 2 to make way for an incoming core PSB service; we propose that this should be an ITV plc service
 - One service in the Nations (Scotland, Wales and Northern Ireland) will be displaced from Multiplex 2 when the Nations services are in operation. We propose that this service should be a Channel 4 service
- As part of the consultation process, we'd welcome alternative proposals as to how this reorganisation could be conducted in a way which maximises benefits to consumers

Step 3 – allocation of capacity on the cleared multiplex (1)

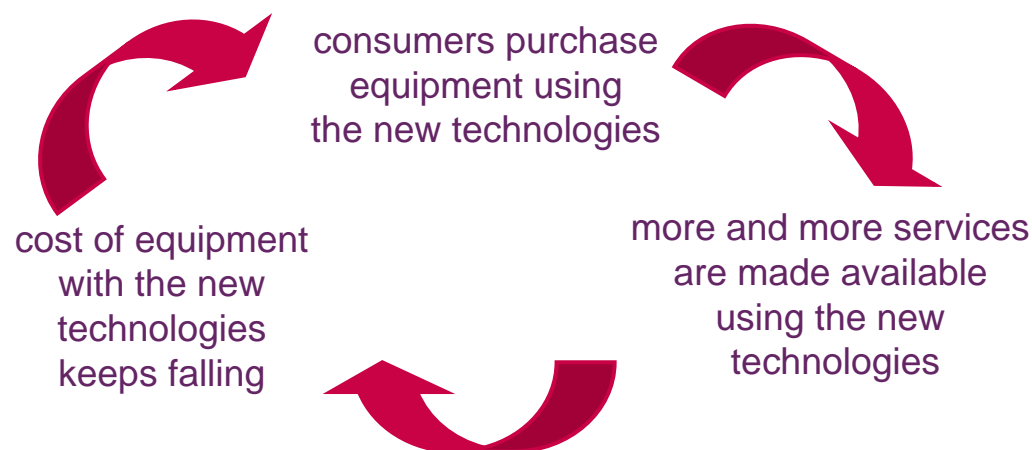
- We have also considered the process for allocating the upgraded capacity on Multiplex B, so that it provides the maximum benefit for citizens and consumers
- We have identified three key objectives for this process, consistent with the statutory regime and the status of Multiplex B as a PSB multiplex. As noted earlier, these are:
 - Maximising the efficient use of spectrum
 - Promoting the purposes of PSB
 - Promoting the availability of a wide range and diversity of high quality TV services
- We propose that the allocation process should be fair, open and transparent

Step 3 – allocation of capacity on the cleared multiplex (2)

- Our proposals are:
 - to invite the organisations with PSB status to put forward proposals for the use of the capacity and how they would minimise the potential impact on the DSO programme;
 - to hold a comparative selection process that provides a fair, transparent and objective means of deciding between these proposals, using criteria that reflect the three key objectives above;
 - to award capacity in blocks that are large enough to offer an HD service, but to give PSBs the flexibility to propose different options for the balance between HD and SD services (for example, in different parts of the day);
 - to award three such blocks next year, for services to begin in late 2009/early 2010; to award a fourth block in 2010, for services to begin in 2012.
- These proposals will create the opportunity for PSB broadcasters to offer three HD services on the DTT platform from 2009 or 2010, and four from 2012 – or to offer a mix of new HD and SD services.

Longer term development of DTT

- In the long-term, the benefits of upgrading the DTT platform will be greatest if we can achieve a 'virtuous circle'



- However, the process is one that will need to be managed carefully:
 - PSB services must continue to be available universally to DTT viewers with existing equipment. For the foreseeable future, the multiplexes carrying existing PSB services must be required to continue operating in DVB-T and MPEG-2
 - Any change in technical standards on commercial multiplexes will be evaluated carefully, to ensure that it does not unacceptably diminish the range, variety and quality of services available to DTT viewers
- Ofcom will oversee such changes, to promote the best interests of viewers as a whole

Next steps

- This consultation closes on 30 January 2008
 - As part of the consultation, we invite relevant stakeholders to make alternative proposals to those we set out, if they feel alternatives would also meet our objectives for this process
- There are strong reasons to take this issue forward quickly to maximise the benefits to citizens and consumers, and to ensure that we take maximum benefit from the mode change at DSO
- Depending on the outcome of this consultation, we will therefore:
 - aim to issue a Statement by the end of March 2008
 - at the same time, issue an invitation to the PSBs to make proposals for the use of the cleared capacity
 - allow two months for the submission of such proposals, which would need to be received by the end of May 2008;
 - conclude the comparative selection process by the end of July 2008
- Implementation would then follow in the rest of 2008 and 2009, with new services available on the DTT platform in late 2009 or early 2010
- We will continue to work closely with DCMS throughout this process

In summary

- Major upgrade of DTT to allow it to stay at the forefront of digital TV broadcasting
- Creating capacity for new services, such as HD
- No new radio spectrum required
- Existing Freeview services protected
- Services could be available in late 2009 / early 2010 and across the UK as DSO is rolled out

Any questions?