

# The Future of Digital Terrestrial Television

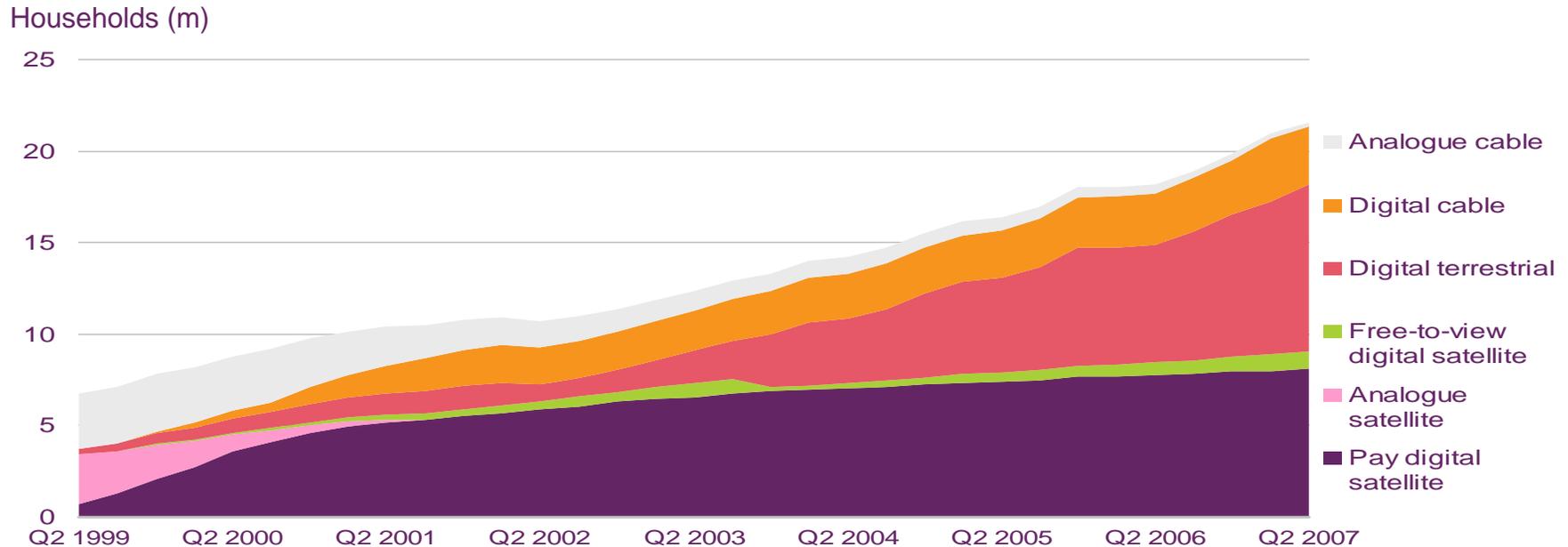
## Enabling new services for viewers

Ofcom Consumer Workshop  
19 February 2008

## Objectives of DTT consumer workshop

- To review the proposals outlined in the Future of Digital Terrestrial Television (DTT) consultation
- To give consumer groups an opportunity to provide feedback to the consultation
  - Although quite technical in nature it is likely to have significant impacts for consumers
- To discuss potential consumer issues arising from the proposals and discuss options for handling
  - Particularly links with digital switchover (DSO) timetable
- To discuss communicating with consumers to reduce confusion
- To provide a timeline for next steps for the DTT project

# The DTT platform



Source: Ofcom, GfK, Sky, NTL

- At DSO, DTT will be made available to 98.5% of homes
- Following DSO, the DTT platform will become the means by which we ensure that viewers have ready access, free to air, to public service broadcasting (PSB) services
- The platform will therefore play a critical role in ensuring the delivery of high quality television to UK viewers

## Existing DTT multiplex arrangements

<b>PSB</b>	<b>Multiplex 1</b>	<b>Multiplex 2</b>	<b>Multiplex B</b>	<u>Coverage</u>
	<i>PSB1</i>	<i>PSB2</i>	<i>PSB3</i>	
	Operated by BBC	Operated by Digital 3 & 4 Ltd	Operated by BBC Free to View Ltd	
<b>Commercial</b>	<b>Multiplex A</b>	<b>Multiplex C</b>	<b>Multiplex D</b>	<u>Coverage</u>
	<i>COM1</i>	<i>COM2</i>	<i>COM3</i>	
	Operated by SDN (owned by ITV plc)	Operated by NGW	Operated by NGW	

## 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 high definition (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:** an improved audio and video compression standard, which, over time, is expected to increase the efficiency of the current MPEG-2 standard by up to 100%
  - **DVB-T2:** a new transmission standard, still in development, but expected to be finalised end March 2008. It 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 minimises the displacement of existing services
  - incentives for consumers to upgrade their reception equipment are strong
  - coordination 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 without 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
- Process requires significant coordination between parties given current regulatory obligations placed on the platform. Process should meet 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

## The proposals

- We propose that Ofcom should intervene to upgrade one multiplex in order to set in motion the longer term upgrade of the platform to these new technologies
- 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

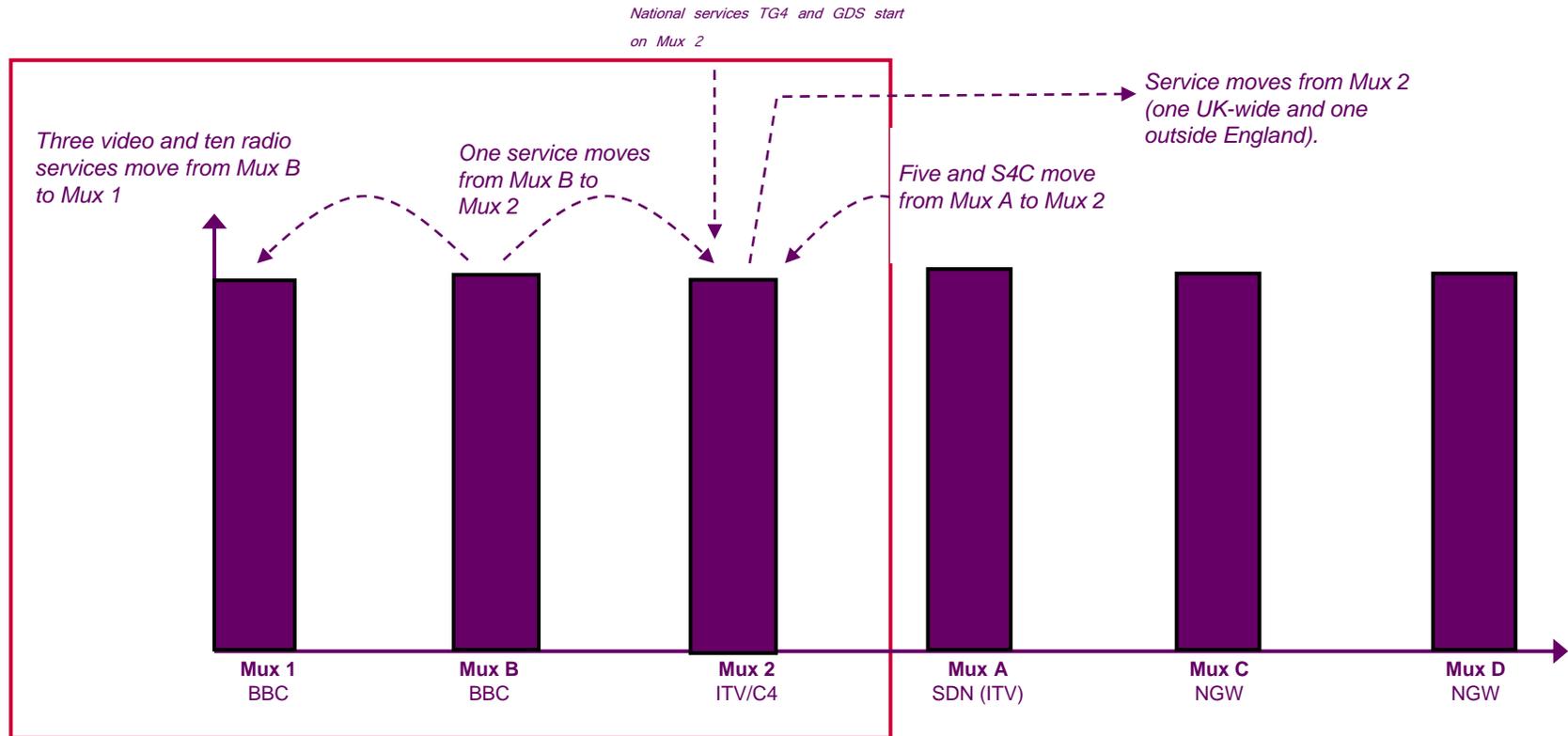
## The proposals: step 1 – Clear and upgrade a multiplex

- One multiplex should be cleared of existing services and upgraded to the new MPEG-4 and DVB-T2 technologies
  - the new technologies should be introduced together to reap the combined benefits and avoid different types of consumer equipment for free-to-air DTT services in the UK
- The multiplex selected should be one carrying the fewest service, in order to minimise the scale of platform reorganisation required
- It should be one of the PSB multiplexes; these will be available to 98.5% of the population from DSO and 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

## The proposals: step 2 – Reorganisation of multiplexes

- The capacity of the platform will increase at switchover because of:
  - mode change by the BBC and NGW muxes (16QAM to 64 QAM)
  - more efficient use of compression equipment
- This will ensure that all services displaced from the cleared multiplex can continue to be carried
- 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. Where impacts are unavoidable, ensuring the effect on key parties falls as equitably as possible

# Proposed reorganisation of DTT platform

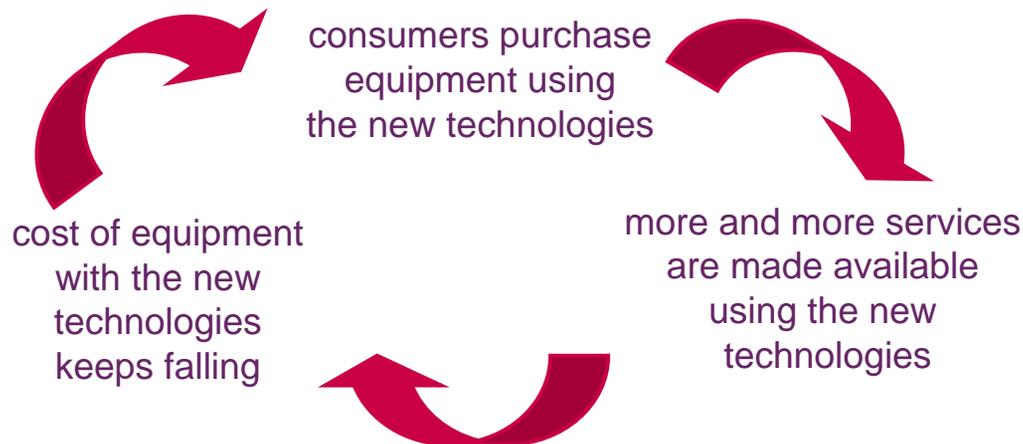


## The proposals: step 3 – allocation of capacity on the cleared multiplex

- The process for allocating the upgraded capacity should provide the maximum benefit for citizens and consumers and be fair, open and transparent
- Three key objectives to achieve this:
  - spectrum efficiency,
  - promoting the purposes of PSB, and
  - promoting a wide range of high quality TV services
- Propose to invite organisations with PSB status to put forward proposals for use of the capacity and how they would minimise the potential impact on the DSO programme
- Hold a comparative selection process using criteria that reflect the three key objectives to award capacity
- This will create the opportunity for PSBs 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

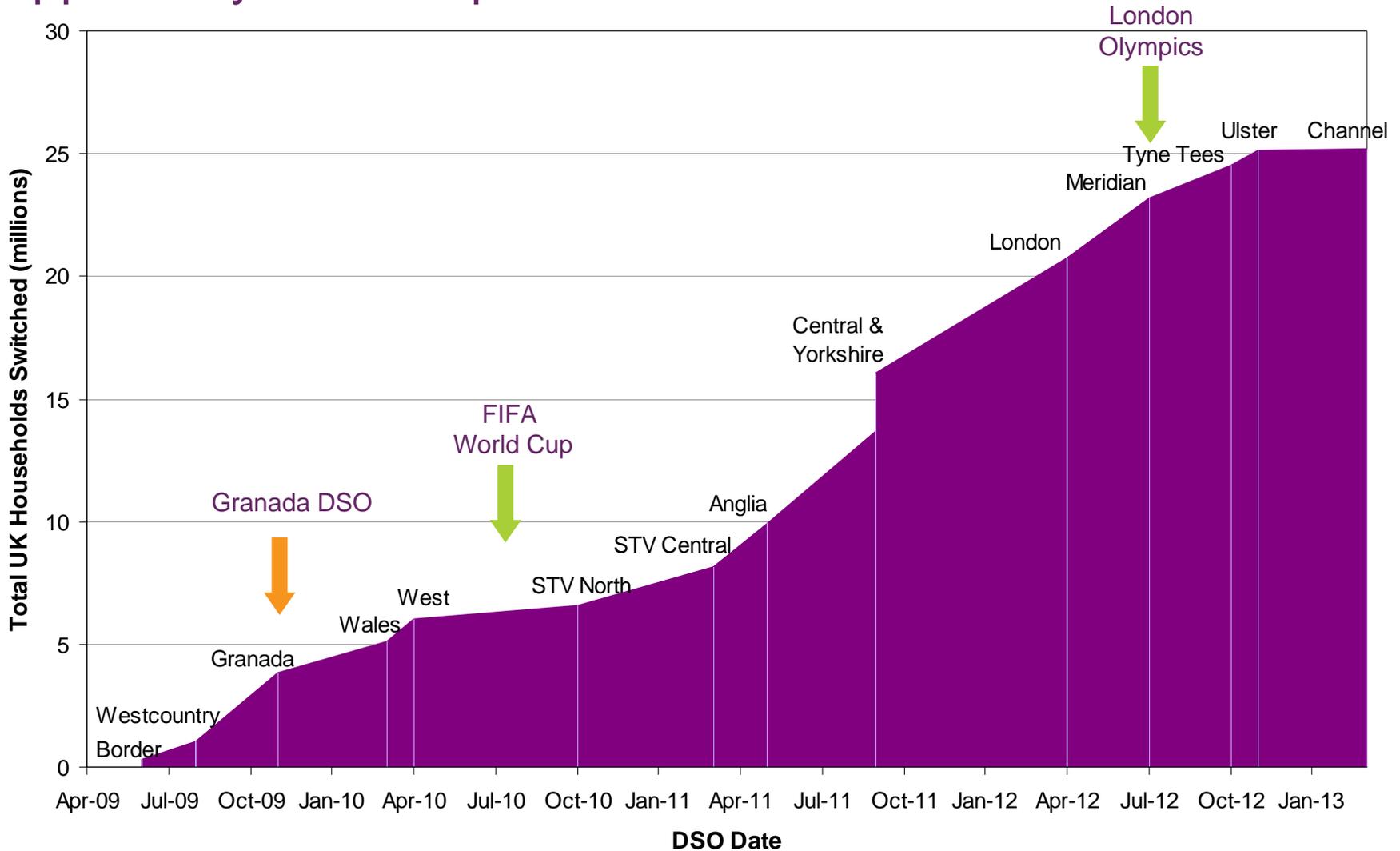
## Longer term development of DTT

- 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 by Ofcom, to promote the best interests of viewers:
  - PSB services must continue to be available universally to DTT viewers with existing equipment for the foreseeable future
  - 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

# Opportunity to link implementation with DSO



## Wide range of consumer issues

- Will existing equipment (including aerials) carry on working?
- What changes are likely to existing services – changes to current line-ups / quality implications?
- What new equipment will be required to receive new services - set top boxes, personal video recorders (PVRs) and integrated digital TV (iDTVs)?
- How to ensure consumer messaging to enable informed purchasing decisions
  - How will this fit in within the range of current equipment logos (HD ready, Full HD, HDTV, digital tick etc)?
- Will audio descriptions and subtitles be included for new services equipment?
- What needs to be done pre, post and during DSO with/without appropriate equipment and Help Scheme equipment?

## Next steps

- Consultation closed 30 January 2008 – feedback from today’s workshop will be taken into consideration
- Statement issued end March 2008
- If we decide to proceed:
  - issue an invitation to the PSBs to make proposals for use of the cleared capacity
  - allow two months for PSBs to submit proposals, to be received by end May 2008;
  - conclude the comparative selection process by end July 2008
- Implementation would follow during the rest of 2008 and 2009
  - clear Multiplex B and reorganise displaced services
  - new services available on Multiplex B in late 2009 or early 2010
- We will continue to work closely with DCMS throughout this process
- Will also work closely with Digital UK, PSBs (and other relevant stakeholders) to provide clear consumer messaging

## Proposals - 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