

## DIGITAL TV RECEIVERS: ACTION PLAN FOR SWITCHOVER

### AIM

The aim of the Action Plan is to encourage the development and availability in the UK market place of a wide range of digital TV receivers incorporating agreed "best practice" features in preparation for Switchover.

### RATIONALE

The Rationale in Version 1 noted several developments which made it timely for the supply chain to re-focus on receiver capabilities. These were:

- the Help Scheme,
- two reports on the equipment needs of those facing most difficulty with Digital Television (DTV), and
- Ricability reports on Set Top Boxes (STBs), Digital TV Recorders (DTRs) and Integrated Digital Televisions (iDTVs).

Incorporating lessons from the switchover in Copeland in autumn 2007, the scope of the Action Plan embraces all DTV receivers, including recorders. Its main focus is on the functionality and usability of STBs, particularly those provided for the horizontal market because:

- consumers using such STBs face increased complexity in accessing their TV services, and
- the horizontal market model provides for relatively little ongoing consumer support.

### APPROACH

Stakeholders direct the Action Plan, identifying key issues and agreeing how best to address them at quarterly **Review Meetings**, chaired by BIS. These meetings provide a forum for informing, discussing and reconciling interests - as well as taking high-level decisions on the project (see "Milestones" section below).

The meetings are also used to direct and monitor the work of **Task Groups**, set up to deal with specific tasks within the overall project (see Task List below). Some tasks require additional research. Others are primarily a matter of reaching consensus on defined specifications and criteria. The organisation leading each Task Group reports regularly to the Review Meetings on achievements to date and any outstanding work required.

It is the dynamic between Task Groups and the plenary Review Meetings which provides the impetus for progress.

## **MILESTONES**

The following milestones have been achieved to date:

Launch Meeting, July 2006:

- Sign-up to the Action Plan for usability, with a "core requirements" document for digital TV equipment at its centre;
- Allocation and acceptance of tasks within (version 1 of) the Action Plan, with agreement on delivery timetables;
- Agreement to examine development of the 'Digital Tick' into a quality mark, based on the "core requirements";
- Chapter 22 of DTG's D-book and Consumer Expert Group advice to be used as source material for developing the "core requirements", whilst recognising that elements go beyond market-based requirements.

Review Meeting, October 2006

- Acceptance of an approach which separates the development of a central reference library of receiver requirements from any particular approval scheme;
- Recognition that this would entail a revision of the Action Plan and that the then DTI would produce a draft second revision.
- Agreement that discussions on upgrading the 'digital tick' criteria would look first at 'quick wins' and be informed by work already in train on updating the D-book.

Review Meeting, January 2007:

- Progress in development of DTG reference library for receiver requirements;

- Proposals developed for initial upgrading of the 'digital tick' receiver requirements;
- Agreed roadmap for improvement of remote control usability.

#### Review Meeting, April 2007:

- Progress made on remote controls that promise an industry standard for usability and labelling of key features;
- To lessen the risk of consumer confusion, consistent referral to "Automatic retuning" and not "Automatic rescanning" will be used in promoting Digital switchover. Technical requirements agreed by Digital Television Group (TDG) and The Digital Network (TDN);
- Agreement to implement 'quick wins' within the 'digital tick' criteria for all products registered from 31 July 2007.

#### Review Meeting, July 2007:

- Capita has procured a Set Top Box which meets core receiver requirements for the Digital Switchover Help Scheme in Whitehaven/Copeland;
- Agreement to implement Digital Logo Scoreboard;
- Agreed retuning leaflet to be made available with all new products that are accredited with the 'digital tick' from 31 July 2007.

#### Review Meeting, October 2007:

- Supply chain has announced the phasing out of analogue equipment;
- Best practice remote control standard for simple set top boxes expected to be agreed for publication by January 2008;
- Digital Logo Scoreboard to be implemented by December 2007 agreed, with supporting Digital UK promotion in first quarter of 2008.

#### Review Meeting, January 2008:

- Digital TV Group Receiver Recommendations (the Reference Library) based in Chapters 22 and 25 of the D-Book published 2 January 2008;
- The 'digital tick' logo scoreboard launched in January 2008 including priorities for Audio Description;
- Audio Description awareness campaign launched 1 February;
- BERR contract awarded to i2 Media Research for comparative study of remote controls. Aim to test and provide evidence of good and poor practice in design of remote controls and thereby influence the take-up of best practice features.

#### Review Meeting, April 2008:

- Digital UK 'Green Pages' launched on their website. It provides advice on how consumers can reduce energy consumption of their TV equipment, and how they can safely dispose old equipment;
- Report presented by i2 Media Research on performance of remote controls to support needs of those with particular difficulties in operating Set Top Boxes/TV combinations;
- Broadcast-triggered automatic retuning demonstrated and test signals made available.

#### Review Meeting, July 2008:

- Agreement that there will be no changes to the technical criteria for the 'digital tick' for implementation before 2010;
- Agreement that for any product registered for the first time from 1 January 2009 a copy of the product's instruction manual should be sent to Digital UK;
- Forward look reviewed for technology developments that may affect the way television is consumed during the period of switchover.

#### Review Meeting, October 2008:

- Broadcast-triggered Retuning requirements incorporated into the D Book.

#### Review Meeting, January 2009

- DTG Usability Group key actions to be included in UAP;
- Displayed service information to be developed to reflect experience at Selkirk;
- Report on Remote Control Signalling Protocols published.

#### Review Meeting, July 2009

- Agreement that from 1 January 2010 all applicants registering new digital receivers and recorders for the first time must:
  - provide test reports showing that the product meets the required standards of BIS recognised industry test suites and processes;
  - provide a working representative sample of any new product not currently listed on a BIS recognised testing facility equipment database;
- Agreement that from 1 September 2010 that all new digital receivers and recorders registered for the first time must be capable of receiving and implementing updates via over air downloads (OAD);
- Agreement that “Automatic Retuning” will be made available as a new optional category on the Digital Logo Scoreboard;
- Forward Look reviewed for technology developments that may affect the way television is consumed during the period of switchover.

#### Review Meeting, October 2009

- Sample test streams made available for use by manufacturers and testing facilities.



## TASK LIST

### 1. Key Issues

	TASK	LEAD	ACTION/TIMING
1.1	REMOTE CONTROLS		
1.1.1	Draft roadmap, fed into DTG Remote Control Group	DTI (BERR)	Done (Jan. 2007)
1.1.2	Update on usability study, fed into DTG Remote Control Group	Ofcom	Done (Jan. 2007)
1.1.3	DTG approval on best practice and priority tasks		
1.1.3.1	Simple equipment	DTG	Done (March 2007)
1.1.3.2	Recorders	DTG	Done (July 2009)
1.1.3.3	IDTVs	DTG	Done (Jan 2010)
<b>1.1.3.4</b>	<b>Connected TV</b>	<b>DTG</b>	<b>Awaiting definition of system requirements</b>
1.2	INTEROPERABILITY		
1.2.1	DTG tests to Pass/Fail now in place	DTG	Done (Jan. 2007)
1.2.2	Report on testing the Common Interface and High Definition Multi Media interfaces	DTG	Done (April 2007)
1.3	AUTOMATIC RETUNING		
1.3.1	Marketing case	DTG	Done (July 2007)
1.3.2	Technical requirements [time-triggered]	DTG	Done (April 2007)
1.3.3	Prove operation of broadcast-triggered retuning	DTG/DMOL	Done (April 2008)
1.3.4	Resolve outstanding technical issues including broadcaster/manufacture protocol on operation	DTG/DMOL	Done (Oct. 2008)
1.3.5	Specify requirements for reference library	DTG/DMOL	Done (Oct. 2008)
1.3.6	Broadcast Target Region Descriptor	DMOL	Done (April 2010)
1.4	ENERGY EFFICIENCY		
1.4.1	Task List for improving energy efficiency	DTI (BERR) /Intellect	Done (Oct.2006)
1.4.2	Reports on proposed 'top ten' scheme	Digital UK	Done (April 2007)
1.4.2.1	Final draft of Digital UK's Green TV pages (formerly "top ten")	Digital UK	Done (Jan.2008)

1.4.2.1.1	scheme) Launch of Digital UK's Green TV pages update	Digital UK	Done (April 2008)
1.4.3	Results of tracker survey	Digital UK	Done (July 2007)
1.4.4.	Retailer initiative to procure on energy efficiency standards	Defra	Done (April 2007)
1.4.4.1	Report on launch – progress report	Defra	Done (Oct. 2007)
1.4.4.2	Report of Retail Initiative November Ministerial meeting	Defra	Done (Jan.2008)
1.4.4.3	Update on engagement between manufacturers and retailers	Defra	No further action (Jan 2009)
1.4.5	Report on progress on EU Code of Conduct	Intellect	Done (July 2007)
1.5	<b>CONSUMER LABELLING/INSTRUCTIONS</b>		
1.5.1	Switchover leaflet to accompany receiver sale/delivery		
1.5.1.1	First draft	Digital UK	Done (Jan. 2007)
1.5.1.2	Report on progress (see 2.2.1.1)	Digital UK	Done (April 2007)
1.5.1.3	Switchover leaflet	Digital UK	Done (July 2007)
1.5.2	Standardisation of terminology and labelling	Ricability	Done (Jan. 2007)
1.5.2.1	First draft		
1.5.3	Instruction Manuals: best practice		
1.5.3.1	First draft criteria (covered both basic – see 2.2.1.1 - and substantive issues)	DTI (BERR)/ Ricability	Done. (Jan. 2007)
1.5.3.2	Audit/critique of existing manuals	BERR/ Ricability	Done (Oct. 2007)
1.5.3.3	First draft on substantive issues	BERR/ Ricability	Done (Oct. 2007)
1.5.3.4	Criteria fixed for inclusion in Digital Television Group Reference Library (see 2.1).	BERR/ Ricability	Done (Jan. 2008)
1.5.3.5	Strawman specification for installation/set up of set top boxes, digital television recorders and integrated digital television sets	DTG	Done (Jan. 2010)

1.5.3.6	Strawman specification for on-screen displays	DTG	Done (Jan. 2010)
1.6	<b>DISPLAYED SERVICE INFORMATION</b>		
1.6.1	EPG – Establish protocol for displaying services based on strength of signal	Digital UK/BERR	Done (Jan. 2009)
1.6.2	Agree protocol for user choice of service variants	DTG	Done (July 2009)
1.6.3	Agree terminology for on-screen messages during retuning	DTG	Done (July 2009)
1.6.4	Sample test streams to be made available for use by manufacturers and testing facilities	DMOL/DTG	Done (Oct. 2009)
1.6.5	Ensure changes to Network Information Tables are notified to manufacturers in good time	DUK/DMOL/DTG	Done (April 2010)

## 2. Requirements capture

	<b>TASK</b>	<b>LEAD</b>	<b>ACTION /TIMING</b>
2.1	<b>REFERENCE LIBRARY</b>		
2.1.1	Set up library, incorporating updated D-book criteria, Ofcom's design criteria etc.	DTG	Done (Jan. 2008)
2.1.2	Propose priority tasks and timescales for library development	DTG	Done (April 2007)
2.2	<b>DIGITAL TICK UPGRADE</b>		
2.2.1	Proposals for consolidation and quick wins to be agreed for adoption in July 2007.	DTI (BERR)	Done (April 2007)
2.2.1.1	Report on July 2007 upgrade criteria (including 1.5.1 leaflet and basic requirements for instruction manuals at 1.5.3.1).	DTI (BERR)	Done (April 2007)
2.2.2	Draft roadmap on substantive issues including Audio Description	DTI (BERR)	Done (April 2007)
2.2.2.1	Progress report on roadmap on substantive issues including Audio Description		Done (July 2007)
2.2.2.2	Recommend changes for Autumn 2008 implementation		Oct. 2007 – action

2.2.2.3	Launch 'digital tick' Logo Scoreboard	BERR	incorporated with review for 2009 Done (Jan.2008)
2.2.2.4	Review potential for changes for autumn 2009 implementation	BERR	Done (July 2008)
2.2.2.5	Review potential for changes for autumn 2010 implementation	BIS	Done (July 2009)
2.2.2.6	Review potential for changes for autumn 2011 implementation	BIS	Done (July 2010)
2.3	<b>FREEVIEW PLAYBACK</b>		
2.3.1	<b>Report on progress</b>	<b>Freeview</b>	Done (July 2007) Done (Oct. 2007) <b>ongoing</b>
2.4	<b>FREESAT</b>		
2.4.1	<b>Report on progress</b>	<b>Freesat</b>	Done (July 2007) <b>Ongoing</b>

### 3. Wider Considerations

	<b>TASK</b>	<b>LEAD</b>	<b>ACTION /TIMING</b>
3.1	<b>HELP SCHEME</b>		
3.1.1	Delivery of help scheme		
3.1.1.1	Report on Invitation to Tender	DCMS	Done (Jan. 2007)
3.1.1.2	Progress report on Whitehaven/Copeland	BBC	Done (July 2007)
3.2	<b>RECEIVERS FOR PARTICULAR PURPOSES</b>		
3.2.1	Determine requirements for "assistive" and "adapted" STBs	BERR/DTG/ Ofcom	
3.2.1.1	Report on performance of remote controls to support needs of those with particular difficulties in operating the STB/TV combination	I2 Media for BERR	Done (April 2008)
3.3	<b>STANDARDISED USER INTERFACES ON RECEIVERS</b>		

3.3.1	Produce scoping study on alternative control and signalling interfaces for customised user interaction	BERR/DTG	Done (July 2007)
3.3.2	Report on control and signalling interfaces for DTV receivers	BERR/ Mott MacDonald	Done (Nov. 2008)
3.4	<b>TECHNICAL AND MARKET DEVELOPMENTS</b>		
3.4.1	Forward look (horizon scan on new developments and "future proofing" options) 1 <sup>st</sup> draft	DTI (BERR)	Done (April 2007)
3.4.1.1	Forward look 2007	BERR	Done (July 2007)
3.4.1.2	Forward look 2008	BERR	Done (July 2008)
3.4.1.3	Forward look 2009	BIS (BERR)	Done (July 2009)
3.4.1.4	Forward Look 2010	BIS	Done (July 2010)
<b>3.5</b>	<b>ACCESSIBILITY SERVICES</b>		
3.5.1	Subtitles – agree requirements for DVB-T2 services	DTG	Done (July 2009)
3.5.2	Audio Description – agree requirements for DVB-T2 services	DTG	Done (July 2009)
3.5.3	Text to speech		
3.5.3.1	define straw man specification	DTG	Done (Oct. 2009)
<b>3.5.3.2</b>	<b>draft text for D book</b>	<b>DTG</b>	<b>April 2011</b>
<b>3.5.4</b>	Connected TVs		
<b>3.5.4.1</b>	agree requirements	DTG	Done (Jan. 2011)
<b>3.5.4.2</b>	draft text for D book (no additional requirements have been submitted)	DTG	Done (Jan. 2011)
<b>3.5.5</b>	<b>U Book for usability publication</b>	<b>DTG</b>	<b>July 2011</b>