



National Audit Office

Preparations for Digital Switchover

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL | HC 306 Session 2007-2008 | 27 February 2008

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22 February 2008

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SWITCHOVER AND VIEWERS

What does digital switchover mean for viewers?

To convert to digital, viewers will need to attach a digital receiver (or set top box) to their analogue television sets or replace them with integrated digital televisions. 85 per cent of households have already converted their main sets. People who are aged 75 or over, qualify for certain disability allowances or are registered blind or partially sighted are entitled to apply for help with acquiring and installing a digital receiver as part of a switchover help scheme run by Digital Switchover Help Scheme Ltd, a subsidiary of the BBC. Eligible people have to pay £40 towards the cost of assistance if they are not in receipt of an income-related benefit or pension credit. The box below sets out some examples illustrating what switchover will mean for different types of viewers, though this is not an exhaustive guide.

Illustrative case examples

The partially converted household

Household A has already converted one set to receive digital television but has additional analogue sets and a DVD recorder which has no digital tuner.

Household A need take no action to ensure access to television following switchover but may wish to:

- convert remaining analogue sets to continue to use them to view broadcast television;
- replace their DVD recorder with digital recording equipment if they want to be able to record one channel while watching another.

The analogue household

Household B currently receives analogue television on their three television sets and has an analogue VCR.

Household B will need to convert at least one television set to receive digital signals if they want to continue viewing broadcast television. They may additionally wish to:

- convert additional analogue sets to continue to use them to view broadcast television;
- replace their VCR with digital recording equipment if they want to be able to record one channel while watching another.

Examples of the assistance available under the scheme

An individual on a low income who does not have digital television

Ms C is a 35 year old woman in receipt of income-based job seekers allowance, who has not yet switched her television equipment to receive digital television.

Ms C is not eligible for any assistance under the help scheme. She will need to take the same actions as household B if she wishes to continue viewing broadcast television.

An individual aged 75 or over who already has digital television

Mr D is a 76 year old man in receipt of pension credits who has one HD-ready digital television and one analogue set.

Mr D will be eligible for free help scheme assistance to convert one television set. He may choose to receive assistance in the same way as Mrs E.

Examples of the assistance available under the scheme *continued*

An individual aged 75 or over who does not have digital television

Mrs E, a 76 year old woman in receipt of pension credits, has an analogue television only.

Mrs E will be eligible for free help scheme assistance. If she chooses to take up the assistance the Scheme will:

- provide and install digital receiving equipment (including an aerial upgrade if required) which meets specific usability requirements, (such as audio description and easy to use remote controls); or
- offset the cost of a more expensive alternative by providing a credit equal to the average cost of supplying and installing the 'most cost effective'² option.

An individual receiving Disability Living Allowance who does not have digital television

Mr F, who receives Disability Living Allowance for one of the children, but does not receive Income Support, has an analogue television only.

Mr F will be eligible for help scheme assistance at a charge of £40. If he chooses to take up the assistance and pay the £40 the Scheme will:

- provide and install digital receiving equipment (including an aerial upgrade if required) which meets specific usability requirements, (such as audio description and easy to use remote controls); or
- offset the cost of a more expensive alternative by providing a credit equal to the average cost of supplying and installing the 'most cost effective' option.

Source: National Audit Office

NOTES

1 High definition (HD) television offers clearer and more detailed pictures compared to standard definition television. To watch HD services, viewers need a set-top box which is designed for High Definition and a satellite or cable connection. Ofcom is currently carrying out a public consultation on technical changes to digital terrestrial television, including the possible launch of HD on terrestrial television. The proposed changes would introduce a new technical standard, so existing viewers (including those who have already purchased 'HD ready' sets) would need to buy an additional set top box to view high definition services on digital terrestrial television.

2 The most cost-effective form of assistance will be determined by the help scheme contractor appointed by the BBC in accordance with the arrangements set out in the Help Scheme Agreement.

SUMMARY

1 In September 2005 the Government, after consultation with the broadcasting industry and Ofcom, announced a programme to replace analogue television broadcasts with digital television, region by region, between 2008 and 2012 (digital switchover). This report considers how this objective is being pursued by the Department for Culture, Media and Sport and the Department for Business, Enterprise and Regulatory Reform (the Departments), who have joint responsibility for delivering the policy objective.

2 Switchover is a major programme, involving the conversion of more than a thousand television transmitter sites in order to ensure public service broadcasting is available to some 25 million households in digital instead of analogue form. Unless households have at least one television set capable of receiving digital television signals they will lose access to broadcast television after switchover. The Departments estimate it will cost the UK economy £4.6 billion, mostly borne by consumers through the cost of acquiring and installing digital receiving equipment. The Departments estimate the cost will be outweighed by benefits to consumers and business totalling £6.3 billion.

3 Switchover differs from conventional government programmes in that the Departments are not directly funding or contracting for any of the principal activities on which the successful delivery of switchover depends. The Departments nevertheless retain accountability for the successful delivery of the policy goal and, despite not having formal contractual or financial control over delivery, have agreed a governance and implementation structure with the broadcasting industry and Ofcom, the communications' regulator.

4 The complexity of the non-contractual delivery and governance arrangements poses inherent risks to achieving the Departments' switchover objectives. This study explores the foundations of, and early progress in, the roll-out of switchover and considers whether the Departments have taken appropriate steps in overseeing the delivery of the policy objectives and managing the benefits and risks of switchover to consumers.

5 It is too early to say whether the Departments will secure their objectives for digital switchover, but they have so far made good progress: the programme has genuine momentum. Progress in getting the public to switch to digital television has exceeded the Departments' expectations, with main set conversion at 85 per cent, and a successful switchover in the flagship area of Copeland.

6 As the Government has arranged for the programme's communications and help scheme activities to be funded through ring-fenced amounts within the licence fee spent by the BBC, the delivery of those activities is not within its control. The BBC is accountable to the BBC Trust for that expenditure, as it is for other licence fee expenditure. The BBC Trust has started to set performance measures for establishing the value for money of the £800 million ring-fenced for switchover activities. Evidence from Copeland also indicates that take-up of the switchover help scheme may be significantly lower than anticipated by the Departments in their cost model. It is currently too early to say whether the licence fee has been set at a higher level than necessary to fund the Departments' help scheme. If the take-up in Copeland were replicated nationally, the sum ring-fenced for the help scheme within the licence fee would not all be required. The Departments have intentionally left open for future consideration how any under-spend would be dealt with.

Findings

7 Our main findings are as follows.

On the Departments' oversight of switchover

a The Departments are taking assurance from progress reporting by delivery partners that switchover preparations are on track to achieve Departmental objectives. While the the Departments' relations with delivery partners, including the reporting arrangements, are not generally defined by contractual or statutory agreements, they have established structured governance arrangements that, at this early stage in the implementation programme, have been characterised by open and effective co-operation and strong working relationships.

b The Departments have taken reasonable steps to promote the required transformation of the digital transmission network. Through the renewal of the BBC's Royal Charter and establishment of the regulatory framework managed by Ofcom, obligations have been placed on public service broadcasters and terrestrial television service providers to comply with the Departments' switchover timetable, while leaving it up to broadcasters how they meet this requirement. The Departments have also arranged for industry stakeholders to co-ordinate their switchover programmes through the creation of Digital UK.¹

On risks to delivery

c The infrastructure construction programme is largely on track, even though some of the contingency in the timetable was used up in 2007 due to bad weather. There remains a residual risk that external events, for example a repeat of the adverse weather of 2007, could delay the conversion of some transmitters. In the first large region to switch, Granada in late 2009, there is no contingency for further slippage in the timetable to convert the key transmitter for three million households. Action to recover the timetable at this site could delay the completion of work at other sites. If the Granada transmitter is not converted on time, contingency arrangements currently under discussion include using a reserve transmitter, and the Departments do not expect any significant impact on the current conversion timetable.

d Eighty five per cent of households have already converted their main television set to receive digital television signals, more than the Departments had expected to convert by now. The remaining 15 per cent of households will have to convert at least one set if they are to continue to receive public service broadcasts after switchover in their area. Consumers will still need to

convert or replace up to 26 million analogue televisions, including secondary sets, if those sets are to receive digital signals after switchover. The government estimated in 2005 that the total conversion costs for consumers will be approximately £3.8 billion.

e Two-thirds of the population say they understand what they need to do to get ready for digital television. However, understanding of switchover is much lower among some sections of the population including minority ethnic groups and non-English speaking groups. The 'digital tick' logo has been designed to help consumers identify goods and services that are designed to work through switchover, and is recognised by 75 per cent of the public. Mystery shopping research has shown an improvement in understanding of the digital tick logo among retail staff, but the most recent research, in November 2007, found that around half the retail staff were unable to explain satisfactorily what it meant.

On the public funding of switchover

f Current national awareness of switchover has reached 89 per cent, two years in to Digital UK's eight year communications campaign. This campaign is funded entirely by the BBC through £200 million in ring-fenced licence fee revenues. Digital UK and the BBC closely monitor the reach and effectiveness of the communications campaign, and the BBC Trust has started to set value for money measures for this area of expenditure. The BBC plan to assess the efficiency and effectiveness of different communications activities after the evaluation of switchover in Copeland.

g The Departments designed and, after consultation with industry and consumer groups, set the eligibility criteria for the Digital Switchover Help Scheme and have ring-fenced £603 million in the licence fee between 2007-08 and 2012-13 to fund it. The BBC is responsible for administering the scheme and in February 2008, through its subsidiary DSHS Ltd., identified eaga plc. as the preferred bidder for a contract to deliver the national help scheme. The BBC is accountable to the BBC Trust and not the Departments for the value for money of this expenditure, and is developing outcome targets for this scheme.

h Take-up of the help scheme in Copeland, the first area to switch, was significantly lower than projected in the Departments' cost model for both those accepting free assistance and those paying £40 for assistance under the scheme. If this level of take-up were replicated in other areas, the number of scheme applicants would be substantially lower than forecast.

1 Digital UK is a private not-for-profit limited company formed in April 2005 by the broadcasting industry at the request of Government.

i It is too early to draw firm conclusions on the funding requirement for the help scheme as the Copeland switchover had some distinctive features which mean it may not be representative. Our illustrative re-run of the Departments' cost model for the help scheme suggests that in a scenario where national take-up of scheme assistance mirrored that in Copeland, the funding requirement in the licence fee settlement to 2012-13 would reduce by some £250 million.

Recommendations

On putting the digital infrastructure in place

a **The Departments should ask Digital UK to agree a protocol with stakeholders which identifies how the impact of any delays to the conversion of the transmitter network would be handled.** The Departments recognise that there is little that they can do to mitigate the risk of poor weather delaying the conversion of the transmitter network. However, establishing clear plans for how the core delivery partners would manage the impact of delays upon the help scheme and public information campaign would support a co-ordinated response to any delay.

On managing risks and benefits to consumers

b **The Departments should formalise arrangements to receive detailed information on the decision-making and performance monitoring in respect of the switchover communications campaign as they have for the switchover help scheme.** The Departments have sought to gain visibility of decision-making and monitoring activity in respect of the operation of the licence-fee funded switchover help scheme through a project board, but have no formal arrangements to receive detailed information on the licence-fee funded communications activities.

c **The Departments should invite the BBC Executive to be represented on the Switchover Programme Group.** Although the Departments asked the BBC to take a lead role in digital switchover, the BBC Executive is not represented on the Switchover Programme Group, which is the main forum through which the Departments obtain assurance about the programme and seek to influence delivery. The subsidiary company set up by the BBC to deliver the help scheme and Digital UK, in which the BBC has the majority stake, are represented on the Switchover Programme Group, but the BBC itself has no direct representation.

d **The Departments should establish with Digital UK how they can secure a better understanding of the make-up of the 3.7 million households who do not yet have digital television.** The Switchover Progress Report, on which the Departments rely to monitor awareness, understanding and conversion to digital, highlights groups with below average digital take-up, but does not profile the 15 per cent of households who currently do not have digital television. The Departments consequently do not know why people within this group have not converted, and therefore should identify what information they require about these households and whether they could obtain it in a cost effective way.

e **The Departments should seek sufficient assurance that retailers licensed to use the digital tick logo have sufficient guidance and training to inform consumer choice.** The digital tick logo, which is owned by the Department for Business, Enterprise and Regulatory Reform, was launched in 2004 to help consumers make informed decisions about digital switchover, including when purchasing equipment. Around three quarters of consumers are aware of it and it is widely used by retailers, but only around half the retail staff in stores which display it are able to explain to consumers what it means.

On achieving and demonstrating value for money

f **The Departments should establish whether the level of the help scheme charge is having the desired impact.** The help scheme is designed to address the physical rather than financial needs of eligible people and offer equipment which meets these needs. Take-up of help scheme assistance in Copeland by people who had to pay the £40 charge was significantly lower than projected in the help scheme cost model. The BBC has identified a number of possible contributory factors, including the deterrent effect of the charge set by the Departments and weaknesses in communicating the benefits offered by the scheme.

g **The Departments should re-assess whether all the sums due to be raised though the licence fee for the help scheme are still required once more evidence on future take-up from further switchovers becomes available.** Our illustrative financial modelling, using the latest available evidence of scheme take-up in practice, indicates that if the lower than forecast take-up in Copeland were replicated in other areas, significantly fewer people than forecast may use the help scheme.

PART ONE

The digital switchover programme

What is digital switchover?

1.1 Digital switchover is the programme to replace the UK's national analogue television network with a fully digital network by the end of 2012. It is intended to ensure the public service channels are available in terrestrial digital form to 98.5 per cent of UK households, the same proportion that can currently receive analogue television. As the new digital transmission network is put in place, analogue television signals will be switched off region by region. Only integrated digital television sets and those attached to digital terrestrial, satellite, cable or broadband television equipment will be able to display broadcast television signals after switchover. Televisions which have not been converted will show 'blank screens', although they will still work with games consoles, VCRs and DVD players.

What is the Government's role in delivering digital switchover?

1.2 Digital switchover policy is the joint responsibility of the Department for Culture, Media and Sport and the Department for Business, Enterprise and Regulatory Reform (the Departments). It differs from conventional government programmes in that the Departments are not directly funding or contracting for any of the principal activities on which the successful delivery of their switchover objectives depend (**Figure 1**). The Departments are accountable for the delivery of the policy goal and the value for money of the design of the switchover help scheme. They are not accountable for the value for money of the operation of the help scheme or expenditure on the public information campaign, as these are funded by the BBC using ring-fenced licence fee revenue.²

1 Switchover objectives and funding arrangements

Departmental objective

Replace analogue with digital television broadcasts by 2012 in order to:

- ensure 98.5 per cent of households have access to terrestrial digital versions of the public service channels (the BBC channels, ITV1, Channel 4/S4C, Five and teletext); and
- free up 14 frequency channels which can be used for alternative services.

Ensure the public are informed about switchover.

Ensure the interests of those expected to have the most difficulty with switching to digital television are protected.

Activity

Decommission analogue and low power digital transmitter systems and install high-power digital systems at 1,154 sites.

Run a public information campaign to inform viewers.

Deliver a targeted help scheme to people aged 75 or over or who qualify for certain disability allowances or are registered as blind or partially sighted.

Managed/funded by

The transmission companies Arqiva and National Grid Wireless, who own the network, will undertake the transmitter work and recover capital and running costs through contracts with the broadcasters. Ofcom is responsible for overseeing the release and reuse of frequency channels.

Digital UK is managing the campaign, which is funded by the BBC using up to £200 million in licence fee revenues ring-fenced by the Departments.

The BBC, through DSHS Limited, a wholly owned subsidiary, will contract with a third party to deliver the scheme, using up to £603 million in licence fee revenues ring-fenced by the Departments.

Source: National Audit Office

2 The National Audit Office report for the BBC Trust on *The BBC's preparedness for digital switchover* examines the BBC's switchover obligations and is available at www.nao.org.uk/publications/nao_reports/07-08/0708digital_switchover.pdf.

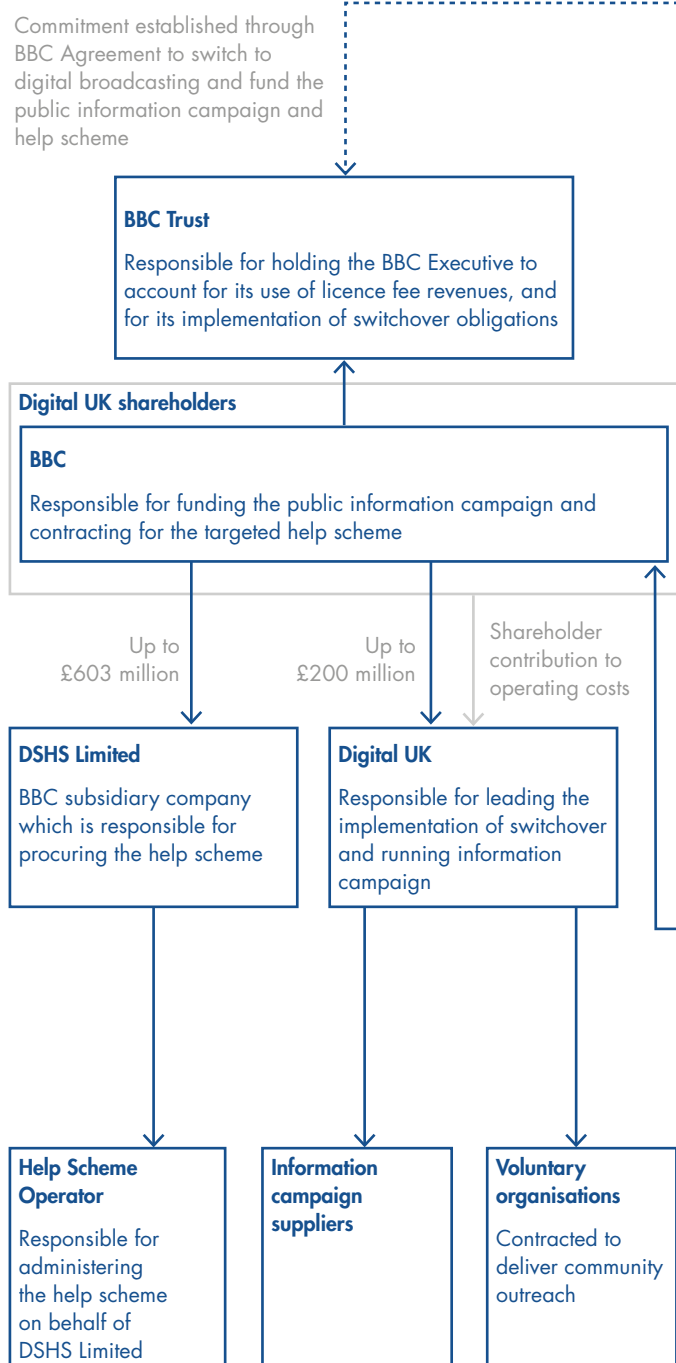
What governance arrangements are in place to ensure the delivery of the Government’s switchover objectives?

1.3 The Departments are jointly accountable for the success of switchover within the timetable they set. In the absence of central government funding, however, they are neither implementing nor contracting for the delivery of switchover themselves. Instead, their implementation strategy has, as shown in **Figure 2**, been to:

- ask the public service broadcasters and commercial broadcast licence holders to create an independent joint venture company, Digital UK Limited, to implement switchover and run the public information campaign;
- secure the BBC’s agreement to take a lead role in switchover, including arranging funding for the BBC of £200 million to fund Digital UK’s communications activities and part of its operating costs and £603 million for the delivery of the Help Scheme, with these amounts ring-fenced within the licence fee settlement to 2012-13;
- take assurance from the BBC Trust’s oversight of the BBC’s switchover arrangements and general responsibility for ensuring value for money from the use of licence fee revenues; and
- take assurance from Ofcom’s regulatory framework underpinning switchover, which includes obliging commercial public service broadcasters to switch to digital as a condition of their licences. Ofcom is responsible for determining how, and when, to release for reuse the spectrum that is freed up through switchover.³

1.4 The Departments are also taking assurance from Digital UK’s role in leading the implementation of switchover, running the public information campaign and managing the switchover programme office. The Departments do not, however, have any contractual or financial relationship with Digital UK. The shareholders in the Company to whom Digital UK is accountable (BBC, ITV, Channel 4, S4C, five, Teletext, SDN and National Grid Wireless), are obliged as a condition of their broadcast licences issued by Ofcom (or the framework agreement with the Secretary of State for Culture, Media and Sport in the case of the BBC), to implement switchover in line with the Government’s timetable and take ‘reasonable endeavours’ to inform viewers about switchover.⁴

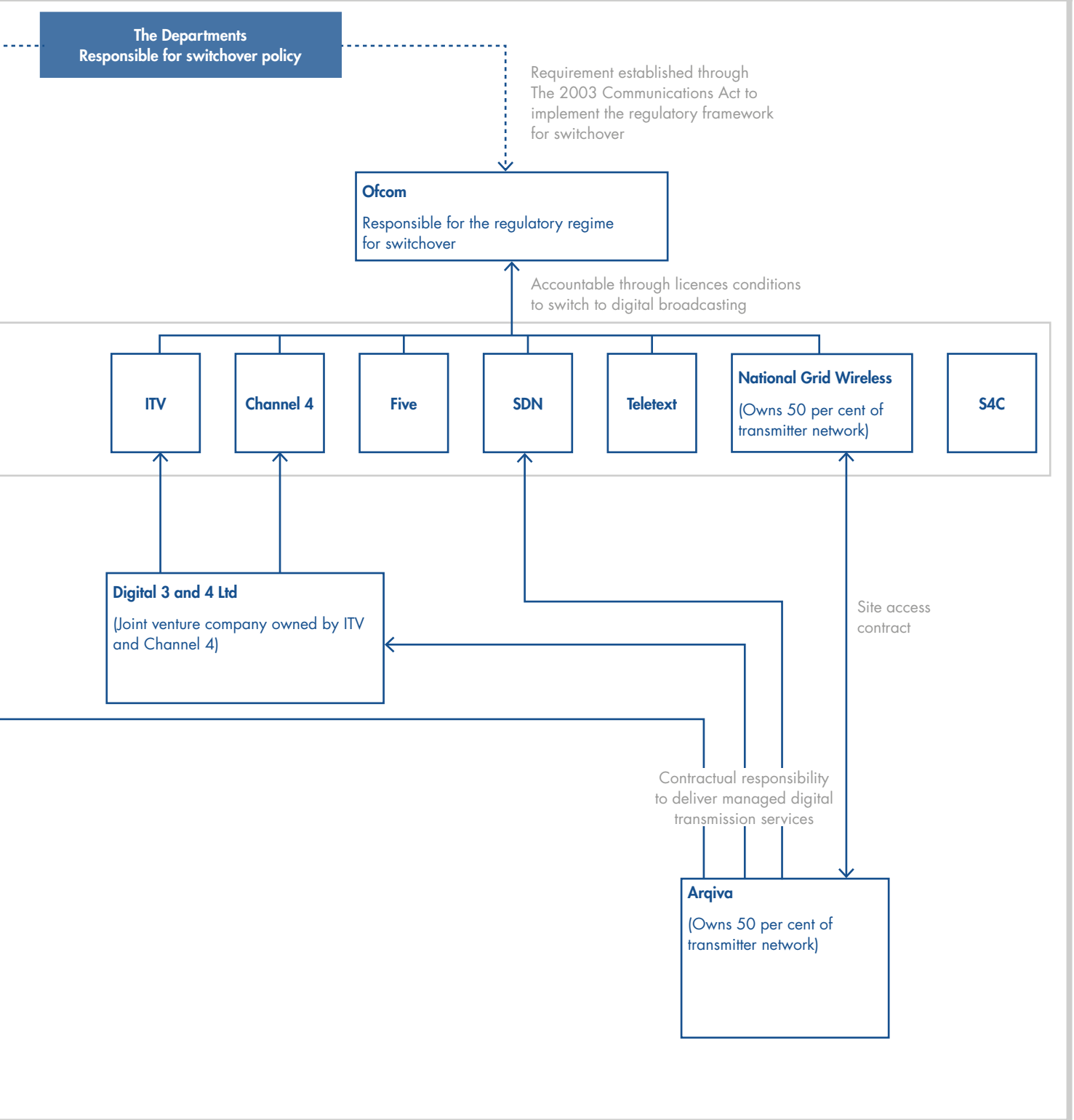
2 The Departments are taking assurance from other organisations’ obligations to implement and support switchover



Source: National Audit Office

³ Digital code takes up less space, or bandwidth, than analogue information, so several digital TV channels can fit into the bandwidth needed to transmit one analogue TV channel.

⁴ With the exception of S4C, which does not have any specific switchover obligations.



1.5 Monitoring and governance of the switchover programme is the responsibility of the Switchover Steering Group, which is chaired by Ministers from both Departments (**Figure 3**). The Group does not have any formal powers of direction over any of the stakeholders in the delivery chain, and the Departments place assurance on the Group directing and holding stakeholders to account on a voluntary basis. Government Ministers also obtain assurance about the programme through the Ministerial Group on Digital Switchover, which includes representatives of a wider range of key stakeholders.

What benefits are Government intervention in switchover intended to deliver?

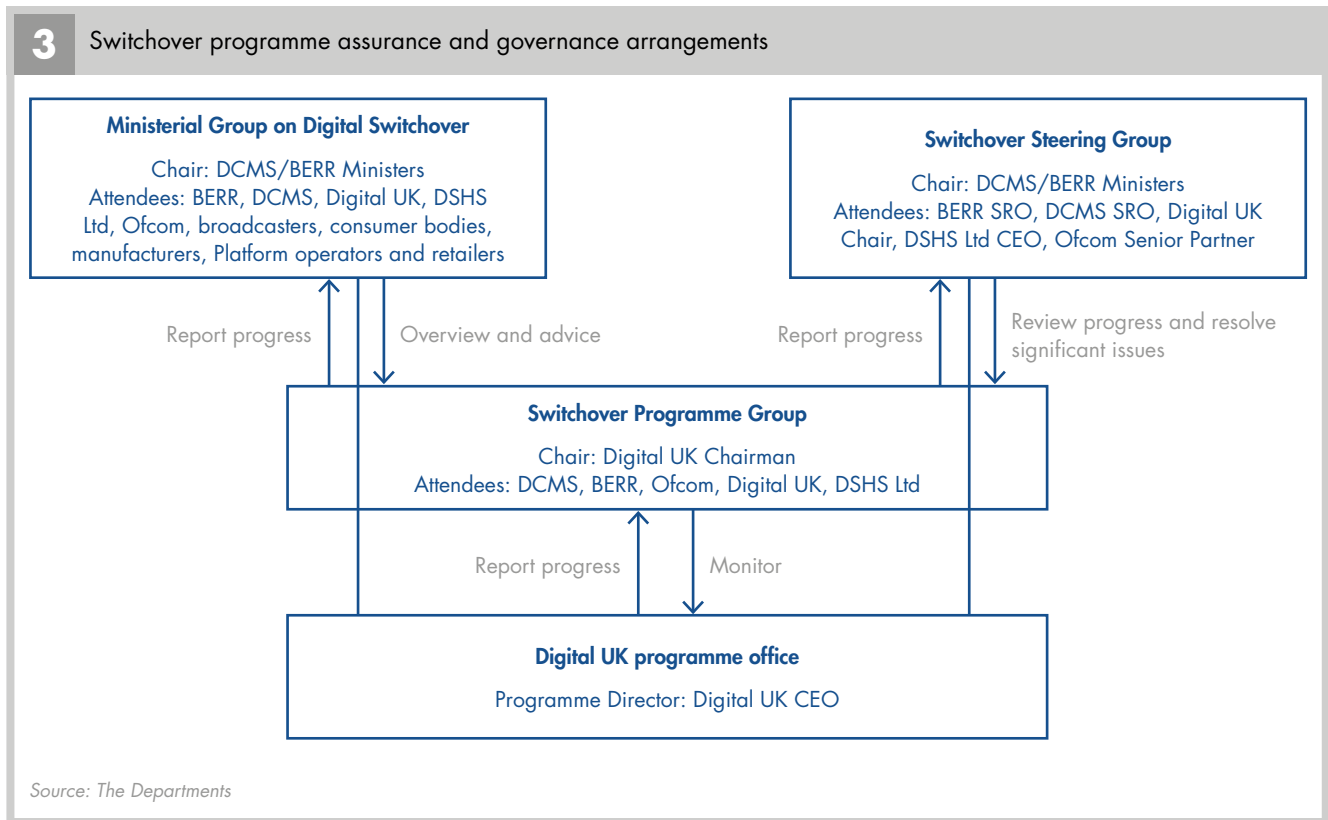
1.6 The Government expects digital switchover will have a positive impact through benefits to:

- The UK economy and consumers from the scope for new services through greater spectrum efficiency. Most of the spectrum cleared for re-use will be auctioned after it has been released.
- Consumers from extending and improving the digital terrestrial network to substantially match the existing analogue terrestrial television coverage, which will extend the choice of free-to-air television services.

- Broadcasters from savings on analogue transmission costs and future capital investment in the analogue network.

1.7 The Departments completed a cost benefit analysis of switchover in February 2005. This indicated that completing switchover in 2012 could deliver a net benefit to the UK economy of £1.7 billion (**Figure 4**), with reduced benefits if it were completed in later years.⁵ Their identification of 2012 as the optimum date for the completion of switchover, with a 2008 start, was informed by discussions with Ofcom and the public service broadcasters. The Departments concluded that switchover would not, however, be delivered in 2012 if left to the market, and would probably never be achieved in the absence of some form of Government intervention.

1.8 Over 80 per cent of the gross benefit in the Departments’ analysis is accounted for by increased consumer choice, the value of which was based on surveys of consumers’ willingness to pay for digital television services which were carried out between 2001 and 2004 for the Department of Trade and Industry. The Departments sought to use conservative assumptions, while acknowledging the uncertainties inherent in willingness-to-pay research.



⁵ The Departments selected 2026 as the end date for the assessment to tie in with the expiry date of 12 year digital broadcasting licences which are due to be issued in 2014.

4 The principal costs and benefits of switchover

Stakeholder	Cost (£ billions)	Benefit (£ billions)	Net benefit (£ billions)
Consumers	3.8	5.1	1.3
Broadcasters	0.6	1.2	0.6
BBC (public information campaign)	0.2	—	(0.2)
Public sector	—	—	—
Total	4.6	6.3	1.7
BBC (targeted help scheme)	0.6	—	—

Source: Departments' Cost Benefit Analysis, 2005 and National Audit Office

NOTES

- 1 Net present value calculated using a discount rate of 3.5 per cent for the period 2004 to 2026 and expressed in 2004 prices.
- 2 The Departments do not have an estimate of the cost to the public sector of switchover, which will include converting equipment in schools, hospitals and prisons, and reimbursing recipients of housing benefit any reasonable charges passed on to them by private landlords to cover the cost of upgrading television aerials.
- 3 Targeted help scheme cost expressed in cash terms. It was excluded from the Departments' cost benefit analysis on the basis that it represents a transfer between licence fee payers and help scheme recipients, rather than a cost to the economy.

1.9 A Departmental review of the benefits of digital switchover in October 2007 noted that Ofcom had estimated that economic benefits of £5 billion to £10 billion could be delivered for consumers and business by the reuse of the spectrum alone. This compared with an estimated benefit of £1.7 billion from this reuse in the Departments' 2005 cost benefit analysis, which was based on more conservative assumptions.

When is switchover happening?

1.10 The actual date of switchover for viewers depends on the conversion date for the transmitter from which they receive their television signals. The switchover flagship area is Copeland in Cumbria, which switched to digital television over October to November 2007. Switchover will be implemented across the rest of the UK, television region by television region, from 2008 to 2012 (**Figure 5**).

5 The timetable for digital switchover by television region

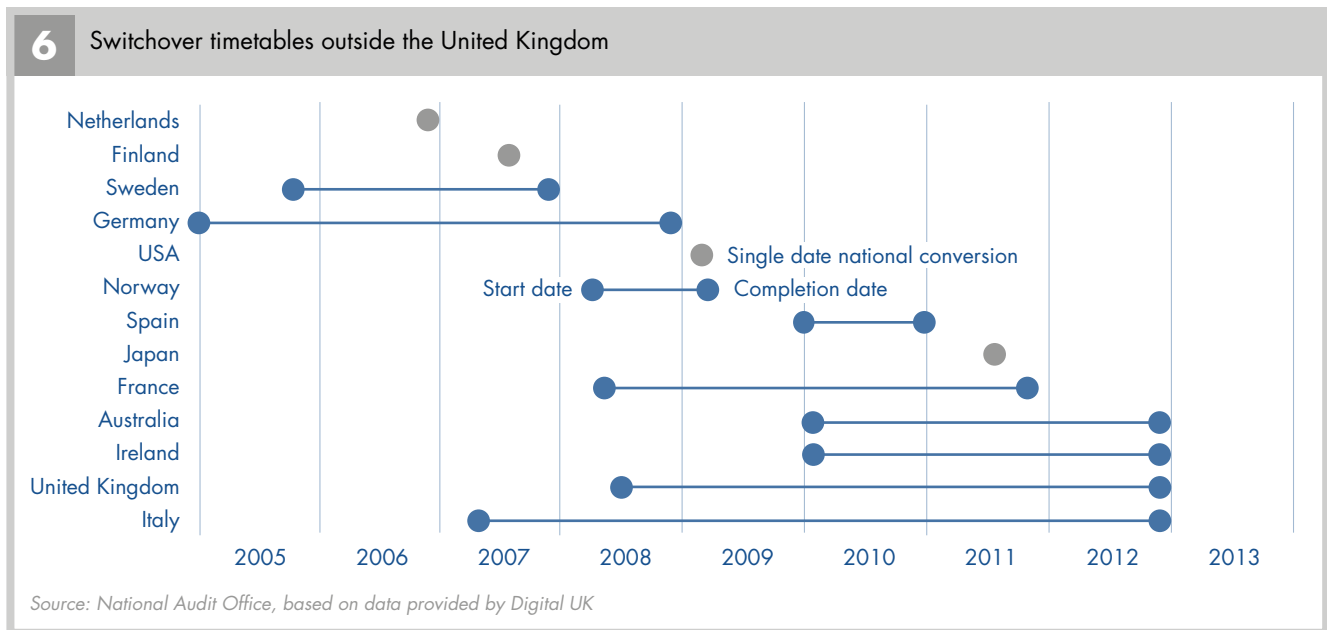


1.11 Many other governments around the world are also seeking to obtain switchover benefits by setting fixed timetables, with several countries, including the Netherlands, Sweden and Finland having already completed the switch. The Departments have allowed for a longer transition period and later completion date compared to most other countries, on the advice of Ofcom and transmission companies, to take account of the complexity of converting the United Kingdom’s transmitter infrastructure (Figure 6).

1.12 The remainder of this report examines progress to date and, in the light of their switchover objectives and non-standard delivery chain, assesses whether:

- the Departments’ approach to securing the delivery of the technical changes required to transmit television pictures and the equipment that consumers use to receive them is effective (part 2);
- effective arrangements are in place to inform consumers to help them prepare for the change (part 3); and
- the practical support to be provided to those identified by the Departments as the most likely to experience difficulties with the switch appears to be adequate and cost-effective (part 4).

1.13 In October 2007 the National Audit Office reported to the BBC Trust on the BBC’s preparedness for digital switchover, examining how the BBC plans to meet its switchover obligations.⁶ We found that the BBC has made good progress in putting in place governance arrangements for the switchover programme and in securing transmission contracts for broadcast services during and after switchover, although governance arrangements could be strengthened further and the BBC needed to take further action to secure value for money in funding Digital UK’s communication campaign and the procurement of the digital switchover help scheme. It was not possible to evaluate, in either the report for the BBC Trust or this study, the procurement of the national switchover help scheme by the BBC, as this was still in progress by the time our work was completed.



6 The National Audit Office report for the BBC Trust on *The BBC’s preparedness for digital switchover*, October 2007.

PART TWO

Changes to the infrastructure of broadcasting

2.1 The switch from analogue to digital television will require widespread technological change; both in the infrastructure that is used to broadcast television pictures and in the equipment that is used to receive them. This section covers changes that consumers and broadcasters will have to make.

The entire UK network of terrestrial television transmitters will have to be converted to digital in order to meet the Departments' objectives

2.2 The Departments want to ensure near universal access to digital versions of the public service channels through a choice of options (**Figure 7 overleaf**). They plan to achieve this by extending the coverage of digital terrestrial television to 98.5 per cent (24.8 million) of UK households so that it substantially matches that currently provided by the analogue network. With satellite television already available to around 95 per cent of homes, extending the availability of digital terrestrial will provide the vast majority of viewers with a choice of at least two ways of getting digital television. Realisation of this objective is dependent on engineering work being carried out at 1,154 terrestrial transmitter sites.

2.3 Converting all transmitters requires a large amount of equipment and specialised engineers and will be completed over a five year period through a phased programme. The complexity of converting the infrastructure has influenced the decision to adopt a phased regional switchover rather than a single switchover date in the UK. Switching off analogue signals across the country at a single point in time would involve waiting until all the transmitter work had been carried out, in 2012, and the early benefits of extending digital television in regions at the start of the transmitter work programme

would be lost. The order in which transmitters can be converted is constrained by the need to avoid causing interference with analogue services in regions that have not yet converted and also broadcasts in neighbouring countries. Delays in converting individual transmitters could therefore delay the regional roll out of switchover.

Consumers will need to convert television reception equipment to continue to watch broadcast television

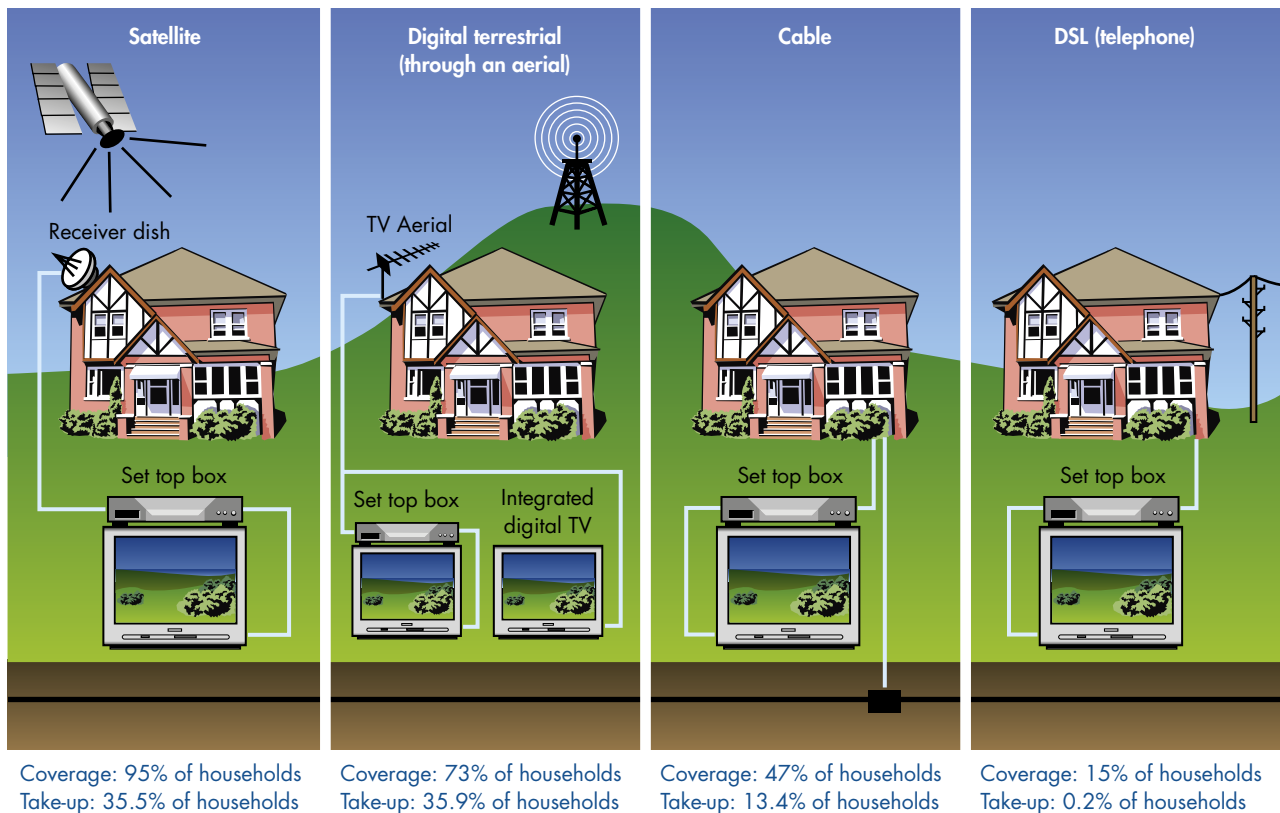
2.4 Once transmitters have been converted, consumers will not be able to view terrestrial television broadcasts unless they have attached digital receivers (set top boxes) to their analogue televisions or replaced them with integrated digital sets. Analogue VCRs and DVD recorders will still work, but viewers will not be able to watch one channel while recording another. Televisions that are not converted can still be used to play electronic games or watch pre-recorded videos or DVDs. In Copeland, which switched in November 2007, over 99 per cent of households had converted at least one television to digital before the analogue signals were turned off.

2.5 Research completed by the Department of Trade and Industry and Department for the Environment, Food and Rural Affairs in January 2007 suggests the impact of switchover on television equipment disposal will not be significant.⁷ This is based on most analogue equipment being either disposed of within existing seven year replacement cycles or converted using digital receivers. The Departments have estimated that as a result of switchover, the use of digital receivers will, however, lead to increased consumer energy and carbon costs totalling between £75 million and £218 million a year, due to running two pieces of electronic equipment, both a television and a digital receiver, to view television rather than one.⁸

⁷ Market Transformation Programme, *Disposal of TV equipment: possible impact of digital switchover*, Project Report January 2007.

⁸ Department for Culture, Media and Sport and Department of Trade and Industry (September 2005) *Regulatory and Environmental Impact Assessment: the timing of digital switchover*.

7 There are four different ways of receiving digital television, but coverage and current take-up vary



Source: National Audit Office. Coverage and take-up data taken from Ofcom Digital Television Update Q3, 2007.

The costs and benefits of converting the broadcast infrastructure fall unevenly across consumers

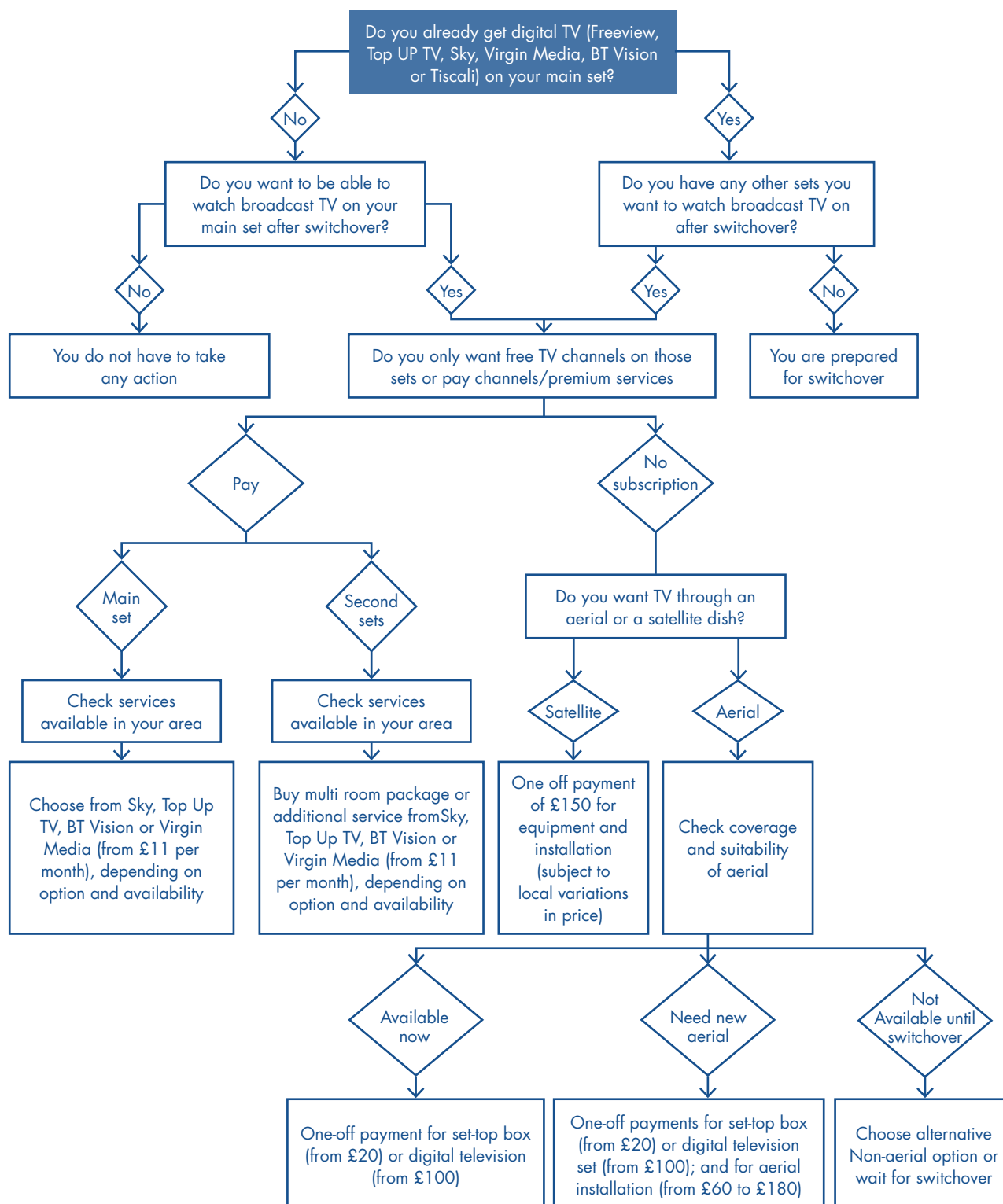
2.6 The 11.8 million households (47 per cent) which together own around 26 million unconverted analogue televisions will potentially incur conversion costs. There are currently around 3.75 million homes (15 per cent) that are wholly dependent on analogue services and will therefore lose access to television services if they do not acquire digital receiving equipment.

2.7 The costs for individual households will vary due to the number of possible variables. For example, the cost of getting subscription-free digital television starts from around £20 for terrestrial services (or between £80 to £200 for the 5 to 10 per cent of households that will need an aerial upgrade) or £150 for satellite. The exact cost depends on the number of televisions to be converted or VCRs and DVD recorders to be replaced with digital recording devices, the choice of equipment and, for those choosing digital terrestrial, whether a new aerial is needed to receive digital signals (**Figure 8**).

2.8 One of the key consumer benefits identified in the Departments' analysis of the costs and benefits of switchover is the increased choice of channels available to viewers on terrestrial television, with around 4.6 million households able to receive a good quality digital terrestrial television signal for the first time.

2.9 The Departments estimate that after switchover, 98.5 per cent of households, matching existing analogue coverage, will have the option of receiving around 20 terrestrial television services, including all those funded by the licence fee. These channels will be broadcast from all 1,154 existing transmitter sites. A further 20 channels will be broadcast from 80 of these sites, covering 90 per cent (22.5 million) of UK households. The choice of channels will, therefore, vary according to location. For example, 20 terrestrial channels are available in the Copeland flagship area. In Border region, the next area to switch, 50 per cent of homes should be able to receive around 40 channels but the rest will only be able to receive around 20. Coverage of the 40 terrestrial channel line up is also likely to be patchy in areas that rely heavily on relay transmitters. Ofcom are currently carrying out work to identify which areas will be affected and plan to publish further information in March 2008.

8 Digital options and associated costs



Source: Adapted from Ofcom (2006) *Digital switchover: an audit of viewers' priorities*

NOTES

- 1 People who are aged 75 and over or severely disabled are entitled to receive help with acquiring a set top box – see part 4 of the report.
- 2 Analogue VCRs and DVD recorders cannot be used to record one channel while another is watched. Set-top boxes are available which incorporate this functionality (these are designed to replace rather than convert existing analogue recording equipment).

2.10 Ofcom are currently consulting on proposals to reorganise digital terrestrial transmission, using new technology to improve the efficiency of use of the existing spectrum. This could provide consumers with high definition services at switchover. The Departments support Ofcom's objectives although ensuring that high definition television services are available to consumers is not one of the Government's switchover objectives.

2.11 People living in flats who have purchased digital television equipment may not be able to receive digital television after switchover if they rely on analogue aerial systems which landlords have not yet upgraded. While the Departments recognise the risk that some tenants could be left behind, they are taking assurance from communications activities led by Digital UK to encourage landlords to prepare their properties for switchover.

The Government has set a framework within which broadcasters are implementing the infrastructure changes

2.12 Through the Communications Act 2003, the Departments placed an obligation on Ofcom to issue new broadcast licences requiring public services broadcasters (excluding the BBC) to replace analogue terrestrial transmissions with digital broadcasts. Ofcom has recourse to statutory sanctions which it can use if the licence holders do not meet their switchover obligations. The Departments placed the same obligation on the BBC through the Framework Agreement with the Secretary of State for Culture, Media and Sport.

2.13 The Departments are reliant on broadcasters and digital licence holders⁹ working together with the transmission companies, who own the network, to achieve the required changes, with Ofcom monitoring implementation. This is being co-ordinated through the Broadcast Infrastructure Group, a consultative forum chaired by Digital UK which brings together broadcasters, multiplex operators, transmission companies and a representative from Ofcom who attends as an observer.

2.14 The broadcasters will bear the costs of upgrading the transmission network through payments to the transmission companies. Although the Departments do not bear the financial risk of converting the broadcast infrastructure¹⁰, they retain the risk that the switchover timetable is not met and, therefore, that their objectives are not realised, which could result in delay to the realisation of benefits to the UK economy.

2.15 The Departments gain assurance over progress on the conversion and risks to delivery through the switchover programme risk register, maintained by Digital UK and discussed within the Switchover Programme Group. Having set the timetable, the Departments are not directly involved in managing risks to infrastructure conversion now that progress is underway.

Some of the contingency built in to the timetable has already been used but the Departments anticipate their timetable can still be met

2.16 Conversion of the three transmitter sites serving Copeland has already been successfully completed. However, adverse weather in 2007 delayed work to masts and antennas, which can only be undertaken in fair weather, at sites in Borders, West Country, Wales and Granada. For one of the sites, Winter Hill, which serves three million households in Granada, there is no contingency and work is currently significantly behind schedule. Action to recover this lost time could draw resources from other sites and potentially affect the completion of switchover in some other regions. Options under consideration include the use of a reserve transmitter at Winter Hill. The Departments consider that there is a good level of contingency available at other transmitter sites and that, subject to the weather over the coming months, the timetable can still be met.

⁹ Ofcom has granted five licences to operate multiplexes, networks using a designated set of frequencies which can be used to transmit digital television.

¹⁰ To assist Channel 4 with the cost of transmitter conversion the Government has pledged £14 million from the licence fee revenue, subject to the European Commission's approval that it meets State Aid rules.

2.17 When we reported on the BBC's preparations for switchover, in October 2007, the Competition Commission was in the process of undertaking an inquiry into the acquisition of National Grid Wireless (which includes the broadcast transmission business of National Grid Plc) by Macquarie UK Broadcast Ventures Limited, which owns Arqiva.¹¹ The Competition Commission has since announced, in November 2007, that it has provisionally concluded the acquisition may be expected to result in a substantial lessening of competition in the industry. The Competition Commission has proposed possible remedies, including selling all or part of National Grid Wireless to a third party, which the switchover programme partners consider could have a significant impact on the switchover timetable. The Competition Commission's final report is due in March 2008.

2.18 We also highlighted in our report on the BBC's preparations for switchover the risk that the infrastructure conversion timetable may need to be revised to fit with the switchover timetable adopted by the French government.¹² Continuing discussions between Ofcom and their French counterparts are aimed at coordinating switchover activities and minimising the risk of interference issues, and no changes to the planned timetable are currently anticipated.

2.19 Ofcom is currently carrying out a public consultation on technical changes to digital terrestrial television, including the possible launch of high definition terrestrial television, to significantly improve the efficiency of the platform. Discussions are underway between Ofcom and the broadcasters, Digital UK and the transmission companies about the potential impact on digital switchover of these proposals. Ofcom are due to publish a statement on their consultation in March.

11 The National Audit Office report for the BBC Trust on *The BBC's preparedness for digital switchover*, October 2007, paragraph 25.

12 The National Audit Office report for the BBC Trust on *The BBC's preparedness for digital switchover*, October 2007, paragraph 22.

PART THREE

Arrangements for informing consumers about switchover

3.1 This part of the report sets out the:

- identification of a need for a public information campaign;
- Departments' governance of the £200 million ring-fenced to fund it;
- goals, challenges and progress of the campaign; and
- ways in which consumers outside the help scheme are protected.

The Government ring-fenced £200 million within the television licence fee settlement to fund the public information campaign

3.2 The Departments recognised that consumers, if they were expected to convert from analogue to digital using their own money, would need sufficient notice of switchover and a reliable source of information about the options. The final report of the Digital TV Project¹³ in March 2005, suggested that a switchover communications plan, to include advertising, publicity and call centre management, would cost in the region of £200 million. The report proposed channelling funding through a new organisation, provisionally named 'Switchco' (and subsequently renamed Digital UK). The report recommended setting targets in areas such as consumer awareness and readiness in order to determine the scale of the publicity requirement and measure its effectiveness.

3.3 The government decided to use the television licence fee to fund the public information campaign through the BBC so, in January 2007, it ring-fenced £200 million for this purpose as part of the 2007-08 to 2012-13 licence fee settlement (**Figure 9**).

The commercial public service broadcasters have conditions in their licences requiring them to also inform viewers about switchover, which they are pursuing alongside Digital UK's activities, but they are not contributing to Digital UK's communications campaign budget.

9 Digital UK's planned expenditure from 2007-08 to 2012-13 using up to £200 million ring-fenced in licence fee revenues

Activity	Budget (£ millions)
TV, radio and press advertising	57
Other customer outreach and support	29
Call centre and website	20
Planning and production	18
Regional mailings	14
Trade support	12
Research and tracking	8
Regional management	8
Communications campaign budget	166 ¹
Contingency	34 ²
Total³	200

Source: Digital UK

NOTES

- 1 The full budget submitted by Digital UK was for £176.5 million for 2005-06 to 2013-14, but the ring-fenced funding does not cover the first and last years of the campaign.
- 2 The contingency is controlled by the BBC.
- 3 The BBC will contribute a further £12 million to Digital UK's operating costs in this period from its non-ring-fenced licence fee income.

¹³ A joint Government-stakeholder initiative set up in 2002 to enable Ministers to decide whether, how and when to proceed with digital switchover.

The Departments have relied on the BBC and Digital UK to establish performance measures for the campaign

3.4 Having taken the decision to fund the information campaign through the licence fee, the Departments did not specify any performance targets or outcome measures for the information campaign other than the conditions attached to the ring-fenced amount which require it to be used for expenditure on marketing and communications in accordance with Digital UK's Articles of Associations. Accountability for the value for money of how the £200 million is spent by the BBC is through the BBC's accountability to the BBC Trust. The Departments do not therefore control how funding is spent or results are measured, but they retain the risks that the campaign fails to ensure viewers are prepared for switchover and that additional funding for further communications is required to meet the Departments' objectives.

3.5 Digital UK has developed its own regional targets for:

- consumer awareness of switchover: 100 per cent in each region 12 months in advance of switchover;
- consumer understanding of switchover: 100 per cent six months in advance of switchover;
- primary set conversion: 95 per cent four weeks after the completion of switchover among those who wish to convert (this was initially set at 100 per cent, but revised on the basis that not everyone who wants to switch will either choose or be able to do so in time for switchover; this was informed by experiences of switchover in other countries); and
- second set conversion: 100 per cent six months after the completion of switchover for those households that wish to convert.

Even if these targets are not met, all the public service broadcasters will still be obliged to switch off their analogue broadcasts according to the timetable announced by the Departments.

3.6 The BBC and Digital UK intend to keep under review the level of spending necessary to achieve the goals of the communications programme, and the BBC Trust has started to set performance indicators for evaluating the value for money of its funding of Digital UK.¹⁴ The Departments are responsible for deciding how any surplus or shortfall of ring-fenced licence fee funding will be handled.

Awareness of switchover is high, but there are gaps in consumers' understanding about significant aspects of the change

3.7 The main source of evidence available to the Departments about the impact of the public information campaign on consumers' awareness and understanding of switchover is monthly updates on the Switchover tracker survey, jointly commissioned by Digital UK and Ofcom, which is based on a rolling survey of around 2,000 households every quarter. By October 2007, general awareness of switchover had reached 89 per cent. In Copeland, which was switched ahead of the main programme in November 2007 in order to demonstrate the process and gather learning for the national programme, awareness reached 95 per cent around 12 months in advance of the switch, and the 100 per cent target a few days before the first analogue signals were switched off.

3.8 The latest results for the first four regions to switch show good progress in raising awareness. Full household conversion, which is lower than the other key metrics (**Figure 10 overleaf**), is measured by Digital UK but is not a policy objective as the Departments regard the conversion of secondary sets as a matter of consumer choice.

14 The NAO report for the BBC Trust on *The BBC's preparedness for digital switchover*, October 2007, paragraph 49.

3.9 Although the level of awareness of switchover is already fairly high, in advance of the start of the main programme in Border Region, the Departments recognise that consumers' understanding of significant aspects of the change is variable and need to be addressed:

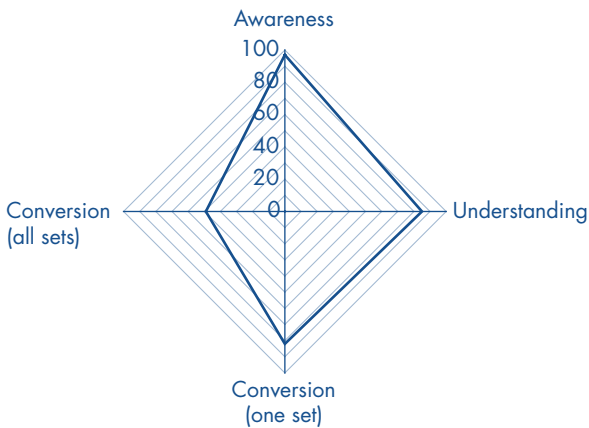
- Even though 85 per cent of households have converted at least one television to digital, 31 per cent of people do not understand that they need some form of digital equipment after switchover in order to receive broadcast television. [All television sets will need internal or external digital receivers to receive broadcast television after switchover]
- Fifty seven per cent of people are unaware that after switchover they will not be able to record one channel using a video cassette or analogue DVD recorder while watching another.

- Twenty eight per cent of people think that their analogue recording devices will have no use after switchover. [They will still be able to play back pre-recorded material and record broadcast channels, although they can only record the same channel that is being watched when the television is in use]
- Eighteen per cent of people think they will have to buy a new television for switchover, with a further nine per cent not knowing whether this is the case. [Existing sets can be converted by attaching an external digital receiver (set-top box)]

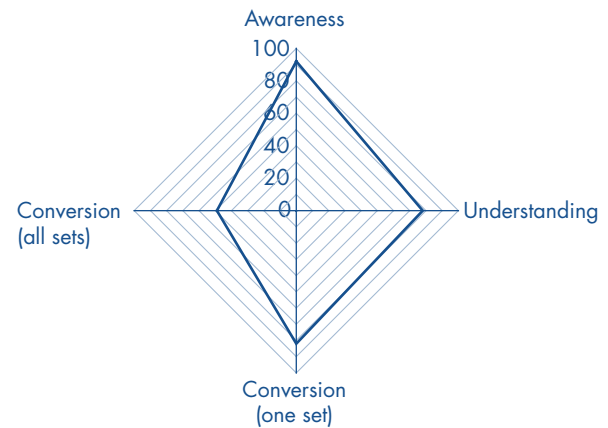
Decisions about how to address gaps in understanding through the public information campaign are handled independently by Digital UK.

10 Levels of awareness, understanding and conversion within the first four regions to switch

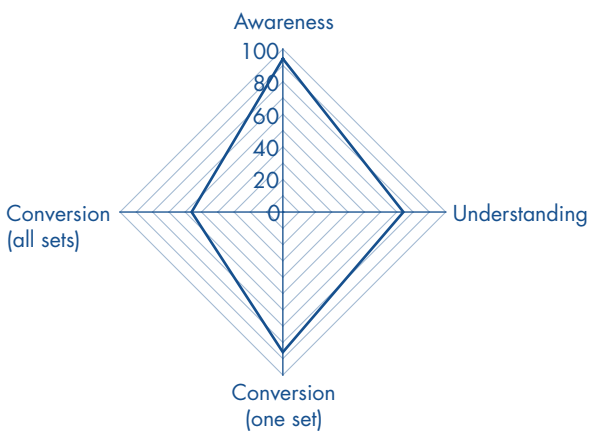
Border (starting November 2008)



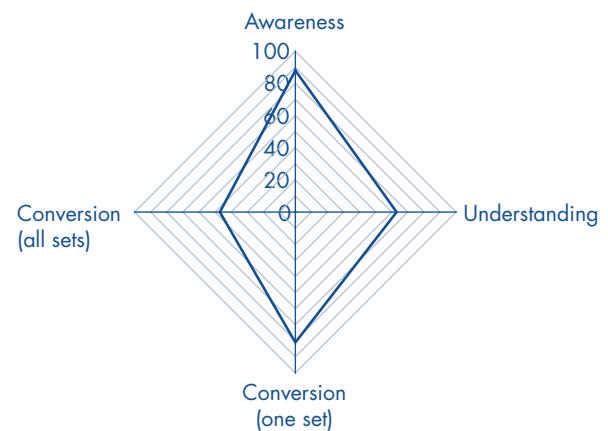
Westcountry (starting April 2009)



Wales (starting July 2009)



Granada (starting Winter 2009)



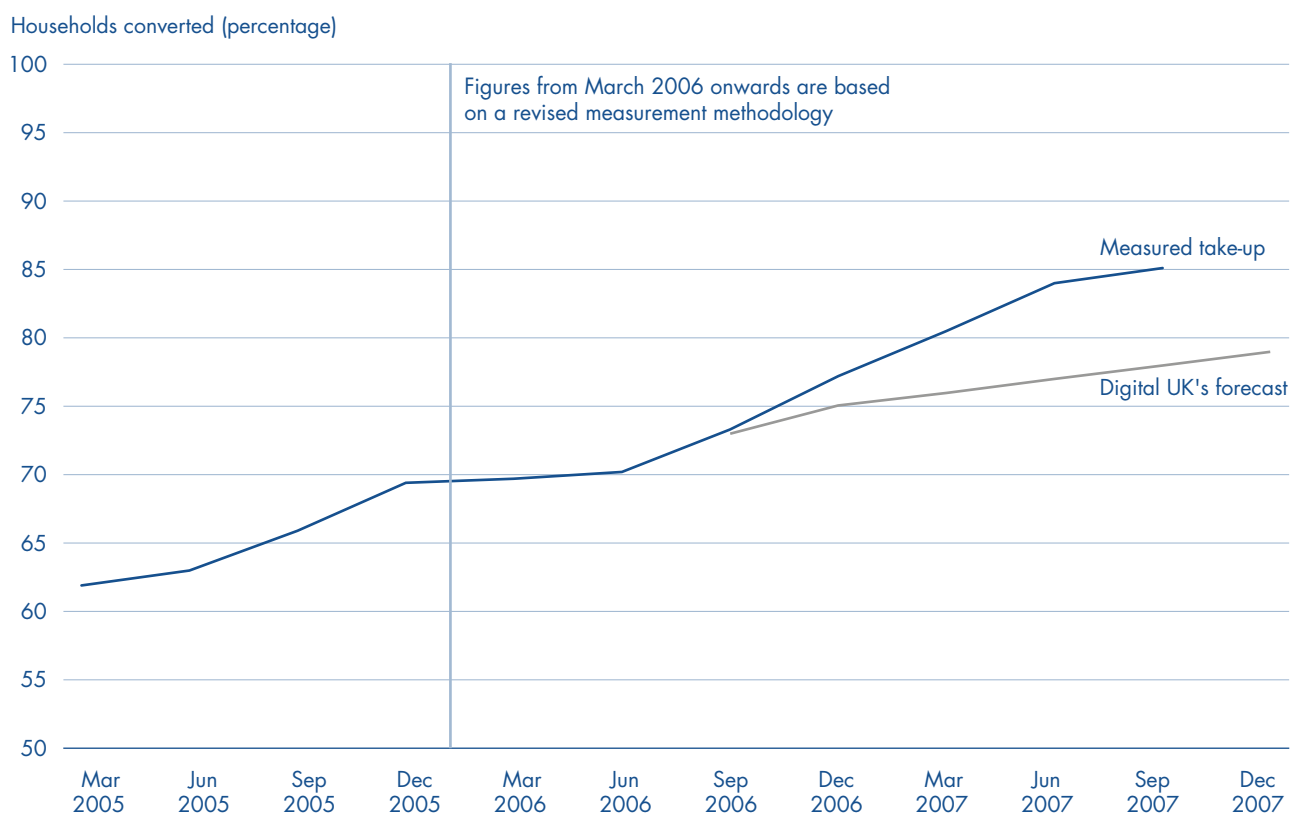
Source: National Audit Office using data from the Q3 2007 Digital UK and Ofcom Switchover Progress Report

Take-up of digital television has exceeded expectations, although this cannot necessarily be wholly attributed to the information campaign

3.10 Take-up of digital television has significantly exceeded the forecasts prepared in 2006 by Digital UK to inform their public information campaign (Figure 11). The latest figures show that 85 per cent of the UK's 25 million households had digital television on at least one set, compared to Digital UK's forecast of 77 per cent. Most of this growth is accounted for by higher than expected levels of take-up of digital terrestrial television (Freeview). The Departments do not have robust evidence on the demographic make-up of the 15 per cent of households that do not currently have digital television, and the survey sample sizes underpinning the results are too small to carry out a statistical analysis.

3.11 The proportion of households who have converted all their sets to digital is 53 per cent. Ofcom estimate that there are 60 million televisions in the UK, of which 26 million still need to be converted or replaced. The Departments accept that a significant proportion of secondary analogue sets may not be converted in time for analogue switch off and that their owners will lose access to public service television on these sets at switchover. The Departments consider that the conversion of secondary sets is a matter of consumer choice, and is not a policy objective.

11 The percentage of households who have converted their primary sets is higher than forecast



Source: Measured take-up from Ofcom's quarterly Digital Television Updates; Digital UK's forecast from its 2006 planning model

NOTE

The measurement methodology was revised in 2006 to take into account the increasing use of digital terrestrial equipment to convert second television sets to digital or upgrade or replace existing digital equipment.

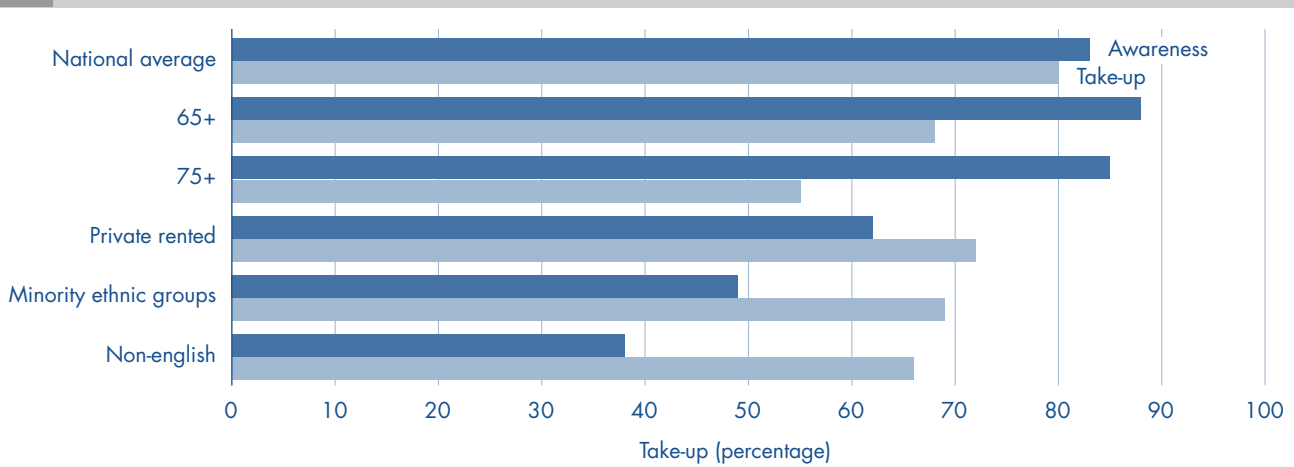
The Departments are placing assurance on Digital UK’s developing strategy to meet the information needs of groups identified as needing tailored communication

3.12 The Switchover Progress Report suggests that awareness among certain groups, particularly non-English speakers, minority ethnic groups and those living in private rented accommodation, is significantly lower than the national average (Figure 12). Although these figures

have to be treated with caution as the Switchover Progress Report is not reliable for sub-groups of the national and regional samples, and take-up of digital television can exceed awareness of switchover, they indicate that some groups may need better-targeted communication. Digital UK is developing strategies to tackle these gaps.

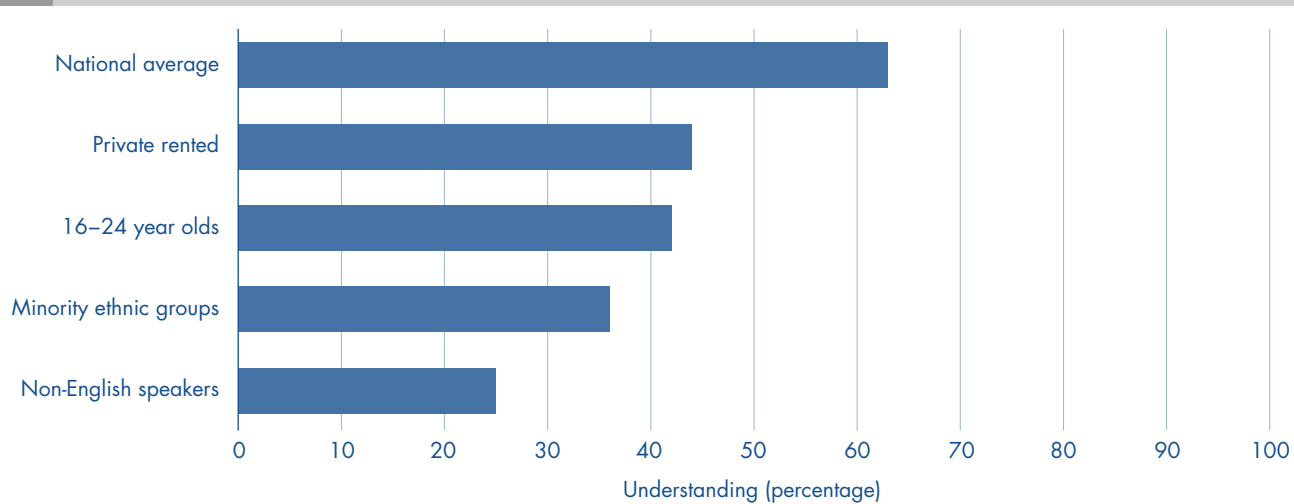
3.13 Consumer understanding of switchover is also relatively low among certain groups, with non-English speakers and minority ethnic groups having the lowest levels of understanding at 25 per cent and 36 per cent respectively (Figure 13).

12 Awareness of digital switchover varies significantly between groups, although it not aligned with take-up of digital television



Source: Switchover Progress Report, Quarter 3 2007

13 Understanding of switchover varies significantly between groups



Source: Switchover Progress Report, Quarter 3 2007

3.14 Digital UK is developing tailored communications for up to 12 million people it has identified as ‘potentially vulnerable’ in the context of switchover, and the Departments are receiving assurance from this work. These groups include people who are aged over 65, have low incomes, are non-English speakers or are rurally or socially isolated. Digital UK’s strategy has included signing a £2.9 million contract in December 2007 with a consortium of voluntary sector organisations to provide tailored switchover information, support and outreach, which is funded from the ring-fenced communications budget provided by the BBC, for:

- older people under 75;
- people with sensory, mobility or dexterity impairments;
- people with learning difficulties;
- those who are socially isolated; and
- those who speak English as a second language.

Although the Departments have not been involved in determining who will be targeted by this work or the decision to contract with the voluntary sector, they have been kept informed of progress and are content with Digital UK’s progress to date. Digital UK has contracted only for the first four regions and will review the effectiveness of the approach in due course.

The certification mark which the Departments developed to inform the choices consumers make about switchover has generated mixed results

3.15 The then Department of Trade and Industry launched a ‘digital tick’ certification mark in September 2004 which manufacturers, retailers and other interested parties can use under licence to help consumers identify digital television products and services that are designed to work through switchover. Digital UK administers and coordinates key elements of the scheme on behalf of the Department for Business Enterprise and Regulatory Reform.

3.16 Three quarters of consumers are aware of the digital tick logo, and mystery shopping carried out in mid 2007 for Digital UK found that over two thirds of 256 retail stores visited stocked televisions carrying the digital tick. However, two thirds of the staff in these stores were unable to explain what it meant. A follow up mystery shopping exercise in November 2007 found that around half the retail staff in stores using the logo were still unable to give a satisfactory explanation of what it meant.

3.17 Consumers are continuing to buy analogue televisions and recording equipment in significant quantities. In the first seven months of 2007, 1.8 million analogue televisions were sold, accounting for 45 per cent of sales, and 900,000 analogue VCR and DVD recorders, even though televisions are only replaced every seven years, on average. There is no data on whether all these customers understood the full consequences of buying analogue equipment shortly before digital switchover.

3.18 The Departments have explored the possibility of protecting consumers by supplementing the digital tick scheme with legislation to prohibit the sale of analogue equipment, as in France from April 2008. However, the Departments have instead encouraged the supply chain to phase out the sale of analogue televisions, and a number of retailers, including Currys, Comet and Tesco, have decided to stop selling analogue televisions in the 12 months leading up to switchover in each region, unless they are bundled with digital set-top boxes or personal video recorders in order to make them work through switchover. Currys, Dixons and PC World announced in January 2008 that they will stop stocking analogue televisions and will instead promote “integrated” sets with built-in digital tuners.

PART FOUR

Providing practical assistance to those the Government expects to experience the most difficulty with switchover

4.1 This part of the report evaluates:

- the Departments' plans to provide assistance for those people they have identified as needing more than good communications in order to prepare for switchover;
- the budget for and governance of the £603 million ring-fenced from the licence fee to fund it; and
- learning from the operation of the scheme in Copeland.¹⁵

The Government has decided to provide practical assistance to people aged 75 or over or who qualify for certain disability allowances or are registered blind or partially sighted

4.2 The Departments aim to protect the interests of people they expect to have the most difficulty with switchover, who they have identified as those who are aged 75 or over, have severe disabilities or are registered blind or partially sighted. To achieve this, with assistance from the Department for Work and Pensions, the BBC, Digital UK and various consumer representatives, they designed a scheme to provide assistance (**Figure 14**).

4.3 The scheme is designed primarily to address physical and cognitive rather than financial barriers to switchover. The digital terrestrial receiving equipment offered under the scheme must meet a series of technical specifications known as core receiver requirements. These include audio description and an easy to use remote control.¹⁶ In Copeland the scheme contractor was required to procure a bespoke set top box as there was no digital terrestrial equipment on the market at the time that met all of the core receiver requirements. Any changes to the requirements which have a financial impact on the scheme must be agreed with the BBC Trust.

4.4 A number of other countries are also providing support to consumers, such as the USA which is providing subsidies towards the costs of digital equipment on a first come first served basis within a budget of up to \$1.5 billion and Sweden where assistance to purchase equipment was offered to low income households.

The Government has ring-fenced £603 million as part of the licence fee settlement to fund a help scheme

4.5 The Departments identified two potential sources of funding for the help scheme: public service broadcasters or central government. The government decided to ask the BBC to fund and administer the scheme and in January 2007, the Government ring-fenced £603¹⁷ million within the licence fee settlement for the period 2007-08 to 2012-13. This figure was based on a forecast cost model agreed with the BBC. Agreement on the governance arrangements was reached with the BBC Trust in April 2007.

4.6 The BBC is responsible for running the scheme and has set up a wholly owned subsidiary company, Digital Switchover Help Scheme Limited (DSHS Limited), to procure and oversee the delivery of the scheme. The respective responsibilities of the Government, the BBC Trust, and the BBC Executive are shown in **Figure 15**. The BBC are also responsible for a Project Board, with a remit to ensure that the scheme is delivered in accordance with the Agreement to meet the needs of eligible people. A representative from the Department for Culture, Media and Sport sits as observer on this board, which may refer matters of policy change to the Policy Review Group. Any changes to the scheme will be effected through the Policy Review Group, chaired by the Department for Culture, Media and Sport.

¹⁵ The National Audit Office report for the BBC Trust on *The BBC's preparedness for digital switchover*, October 2007, examined how the BBC plans to meet its obligations for the switchover help scheme, paragraphs 50 to 63.

¹⁶ Audio description is an additional commentary that helps people with a sight problem to picture the on-screen body language and facial expressions.

¹⁷ £603 million was the forecast net cost of the scheme after deducting the charges of £72 million due to be paid by those ineligible for free assistance.

14 Summary of the main features of the Digital Switchover Help Scheme

1. Who is eligible for support?

- An individual aged 75 or over; or
- who is entitled to disability living allowance; attendance allowance; constant attendance allowance; or mobility supplement; or
- who is registered blind or partially sighted.

2. What assistance may be provided?

The most cost effective option, or a contribution towards another type of assistance, from the following:

- Equipment that will enable the eligible person to receive the public service television channels at his or her home by means of free-to-view service, and assistance to install and use the equipment provided.

and

- The installation, repair, replacement, repositioning or re-wiring of a television aerial, a satellite dish or other equipment at the eligible person's home or the provision and installation of a set-top aerial suitable for the reception of the public service television channels at the eligible person's home by means of digital terrestrial television as necessary.

Or

- An offer to refer the eligible person to the providers of the other free-to-view or pay-TV services that are available and to make a contribution towards the cost of providing alternative assistance (equal to the estimated average cost of providing the most cost-effective assistance, which may vary from region to region).

3. Who will have to pay a charge of £40 to receive assistance?

Anyone who is not also in receipt of pension credit, income support or income-based jobseeker's allowance.¹

Source: National Audit Office

NOTES

- 1 Where the eligible person is a child, if the adult who receives child benefit for that child (or their partner), or is otherwise responsible for the child, and lives at the same address is not in receipt of one of those benefits.
- 2 This summary is a guide only. It is not meant to cover all the details of the Scheme Agreement. A copy of the full agreement may be found at http://www.digitaltelevision.gov.uk/pdf_documents/publications/2007/digitalhelpschemeagreement_Cm71185.pdf.
- 3 For most areas, the most cost-effective assistance is currently likely to be to supply a digital terrestrial set top box, including any aerial adjustment or replacement required. This may vary by region and by household, and as technology changes.

15 Division of help scheme responsibilities

Area of Responsibility	Government	BBC Trust	BBC Executive ¹
Scheme design	✓		
Set the charge for assistance	✓		
Deliver assistance			✓
Value for money of scheme design	✓		
Value for money of scheme operation		✓	
Draw up and approve an equipment specification	✓	✓	
Set performance indicators		✓	
Determine the most cost effective assistance which can be provided to any eligible person			✓
Appoint an expert to set a transfer value for the 'equivalent contribution' ²	✓		

Source: National Audit Office

NOTES

- 1 The BBC, through DSHS Limited, is contracting out scheme delivery.
- 2 The 'equivalent contribution' is the credit which can be put towards a form of equipment other than the most cost effective option, at the choice of the eligible person.

The Departments retain financial risk from the scheme but control of incentives, value for money targets and evaluation lies with the BBC

4.7 The Departments have agreed with the BBC that any cost overrun will not be at the expense of the BBC's programmes, services or other resources. Should the costs of the help scheme exceed the ring-fenced sum of £603 million, it will be for the Departments to consider how their objectives should be met, including considering amendments to the scheme design and how additional costs should be funded, although they have not guaranteed that any additional funding will be available. In the event that costs were forecast to exceed £603 million and additional funding was not provided, the BBC could protect its position, although not the Departments' objective of delivering the help scheme, by suspending the scheme.

4.8 As the Departments have ring fenced funding for the help scheme, the £603 million cannot be used to fund the BBC's programming and other activities. The Departments have intentionally left open for future consideration how any under-spend of the money ring-fenced for the help scheme will be dealt with and this could include varying the amount of the ring-fenced funds and amending the licence fee.

4.9 Under these arrangements the Departments retain financial risk, and risks to the achievement of their policy objectives but have no direct influence over the value for money of operational expenditure, which is the responsibility of the BBC Trust. The Departments have also allocated to the BBC Trust responsibility for setting performance measures and for evaluating the operation of the scheme in Copeland. The Trust is planning to put in place performance indicators following completion of the evaluation of switchover in Copeland.

4.10 The Departments have recognised the importance of capturing and evaluating the implications for policy arising from the delivery of the help scheme but there are currently no established arrangements for monitoring scheme outcomes. The BBC Trust has a responsibility to deliver the scheme in line with the agreement and now that a contractor, eaga, has been selected to run the scheme on a day-to-day basis, detailed metrics will be developed by the Trust to ensure that the contractor is delivering in all key respects to meet the overall performance requirements set out by the Trust.

4.11 The BBC Trust has to submit an annual report to the Departments on the operation of the help scheme, although this is for information rather than accountability

purposes. The Comptroller and Auditor General does not have a statutory right to report to Parliament on the value for money of the expenditure under the scheme as it is financed through the licence fee rather than through Departmental voted expenditure. However, the BBC will discuss with the National Audit Office arrangements for reviewing the value for money of the operation.

The help scheme has been successfully delivered to the households in Copeland who requested assistance

4.12 As it was not possible for a contract for a national scheme to be put in place in time for switchover in Copeland in October 2007, the Departments and the BBC decided that a separate contract should be let for Copeland and initiated the procurement process in January 2007 before the agreement with the BBC was finalised (**Figure 16**). The BBC subsequently let a contract for Copeland to Capita, at a cost to the BBC of up to £1 million, depending on the number of people to whom help would be provided and the nature of that help.

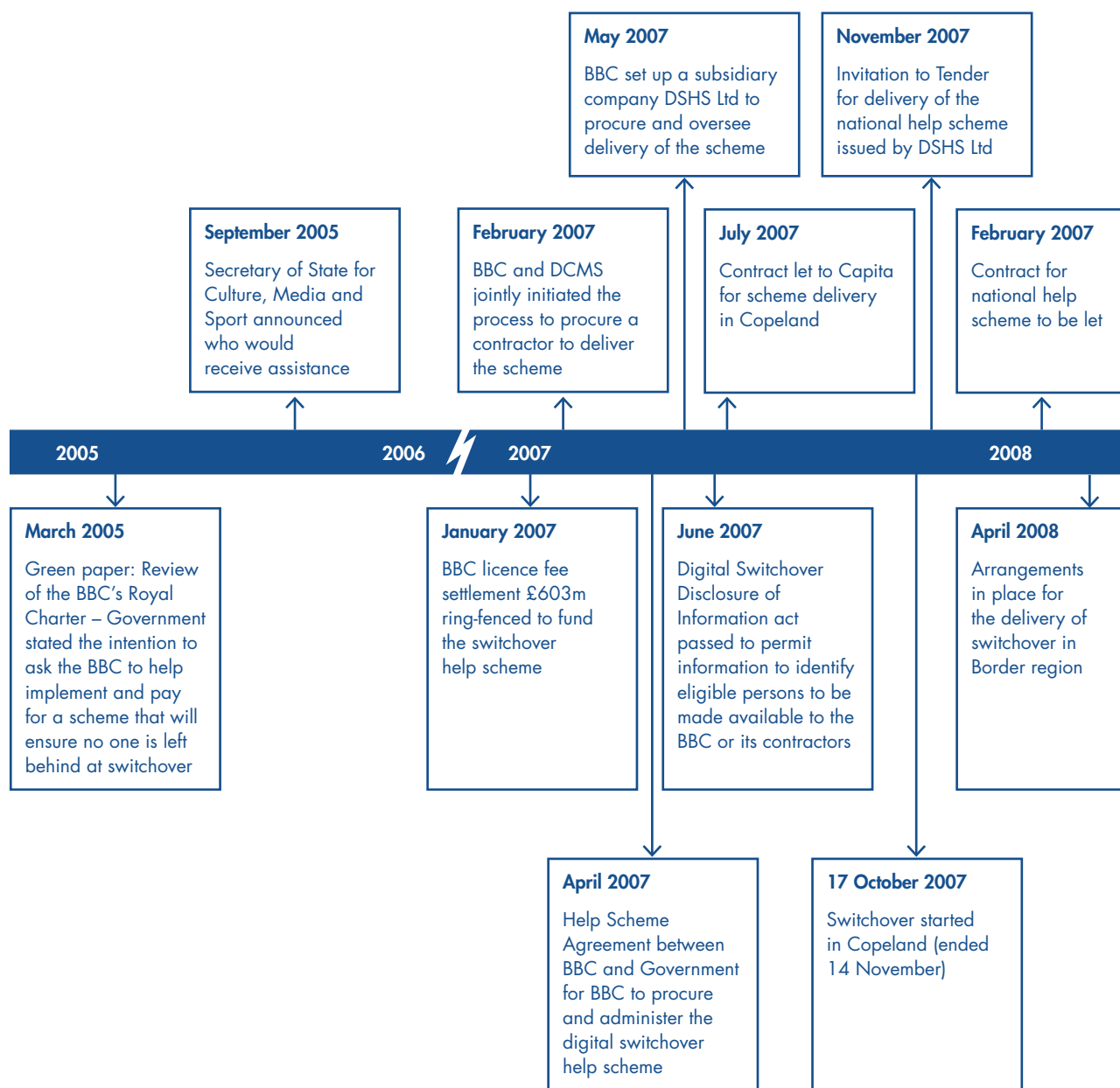
4.13 Assistance has been provided to all households in Copeland which requested it. Initial surveys conducted by DSHS Ltd indicate a generally high level of satisfaction with the assistance provided under the scheme amongst those who elected to receive assistance, though the number of people who chose to receive assistance was lower than projected in the help scheme cost model.

4.14 The BBC has updated bidders for the national scheme procurement with lessons learned from the Copeland scheme. These lessons highlighted:

- that communications to eligible people were the weakest aspect of the help scheme;
- people's perception that, for a charge of £40, the help scheme did not represent the most cost effective way for them to switch to digital (although only 2 per cent of the 1,840 people who gave a reason for opting out of the help scheme cited cost as the reason); and
- the Memorandum of Understanding between the Department for Work and Pensions and the BBC's appointed help scheme contractor, needed to provide the contractor with access to personal details held by the Department in order to identify eligible households, will need to be strengthened and made more prescriptive than the Memorandum agreed for Copeland¹⁸ in the light of the reviews being carried out into the protection of personal information.

¹⁸ The Digital Switchover (Disclosure of Information) Act was passed in June 2007 to permit the specific disclosure of personal information for the Digital Switchover Help Scheme.

16 Key events in the development of the Digital Switchover Help Scheme



Source: National Audit Office

4.15 There was some evidence that better information on the full benefits available through the help scheme made people view the scheme more favourably. The Departments recognise that it is important to look at how the charge might be communicated better and what the impact of that would be, before any changes to the scheme itself are considered.

The BBC is contracting out delivery of the national help scheme

4.16 The procurement timetable for the national scheme was driven by the switchover timetable in Borders with a view to having in place arrangements to provide assistance to an estimated 10,000 eligible persons in Borders from April 2008, eight months before the date the first transmitter is switched off. However, with the flagship scheme in Copeland finishing, as planned, in November 2007 the evaluation of the experience in Copeland could not be completed in time to incorporate all lessons learnt into the contract for the national scheme.¹⁹

4.17 Prior to the contract being let, the National Audit Office suggested to the Departments that they may wish to consider procuring a contractor for the help scheme in Borders separately to allow more time for learning from experience to be incorporated into the main scheme procurement. The Departments believed that most major operational lessons from Copeland had been identified and incorporated into the procurement process by the BBC and that to let a separate contract for Borders would not, therefore, represent good value for money.

4.18 The Departments did, however, recognise that there is inherent uncertainty in all rolling programmes of the duration of the help scheme. This uncertainty, coupled with the challenging procurement timetable, posed a risk that the BBC may have had to pay a premium to incorporate flexibility into the contract. Costs could increase if future changes to the contract were needed as the contract let by the BBC covers the full duration of digital switchover to 2012.

4.19 In February 2008 The BBC Trust approved eaga plc. as the preferred bidder to deliver the national help scheme.

The likely cost of the switchover help scheme is uncertain

4.20 The Departments estimate that there are around 7 million (28 per cent) of households containing people who are eligible for help scheme assistance and that

around 4.7 million will take it up. Although demand-led welfare schemes such as the help scheme contain inherent uncertainties about the level of take-up and therefore cost, some of the Departments' key assumptions used to predict take-up are becoming increasingly out of date. For example, since the cost model was prepared, take-up of digital television among eligible households has increased beyond the Departments' forecasts (**Figure 17**).

4.21 The Digital Switchover Help Scheme cost model projected the overall cost of the scheme to be £603 million based on a complex framework of assumptions and variables, including:

- the number of people in each region who will be eligible for assistance, further categorised as:
 - eligible for the "free scheme"; and
 - eligible for the "charge scheme"
- the percentage of eligible people, both for the "free scheme" and "charge scheme" estimated will take up the offer of assistance;
- the level of assistance required by eligible persons taking up the scheme; and
- the estimated receipts from eligible persons taking up the "charge scheme" assistance.

4.22 Scheme take-up is one of the variables to which the help scheme cost model is particularly sensitive. In Copeland the number of eligible people who took up assistance was significantly lower than projected in the cost model particularly among those who were required to pay the £40 charge. The BBC's lessons learned research for Copeland concluded that the charge may have had a significantly greater deterrent impact on take-up in Copeland than anticipated as it was perceived by many people as a relatively expensive way of going digital (**Figure 18**), although only two per cent of the 1,840 people who gave a reason for opting out of the help scheme cited costs as the reason.

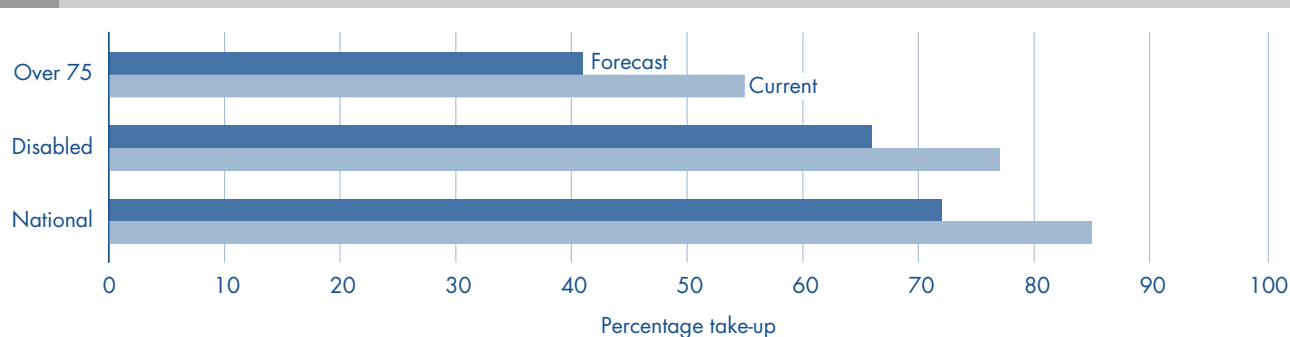
4.23 The extent to which Copeland can be compared to subsequent regions is, however, unclear as it was a relatively small area, of around 25,000 households, and take-up of digital satellite was unusually high due to poor analogue reception in the area. It is therefore too early to forecast accurately the impact of the Copeland experience on the funding requirement for the help scheme, and our modelling of costs is therefore illustrative only.

¹⁹ The National Audit Office report for the BBC Trust on *The BBC's preparedness for digital switchover*, October 2007, paragraph 60.

4.24 The Departments' Cost Model for the help scheme was prepared with the information available at the time and informed by a trial of 400 homes in Bolton, but the difference between forecast and actual levels of take-up of the scheme in 9,500 eligible homes in Copeland is significant. Using the original Cost Model formula we have re-run the model, using take-up data for Copeland, to illustrate how the forecast cost of the scheme could change if take-up in the rest of the country differed to the original estimates to the same extent as in Copeland. In this scenario, the impact would be to potentially reduce the funding requirement by £250 million, to approximately £350 million (**Figure 19**).

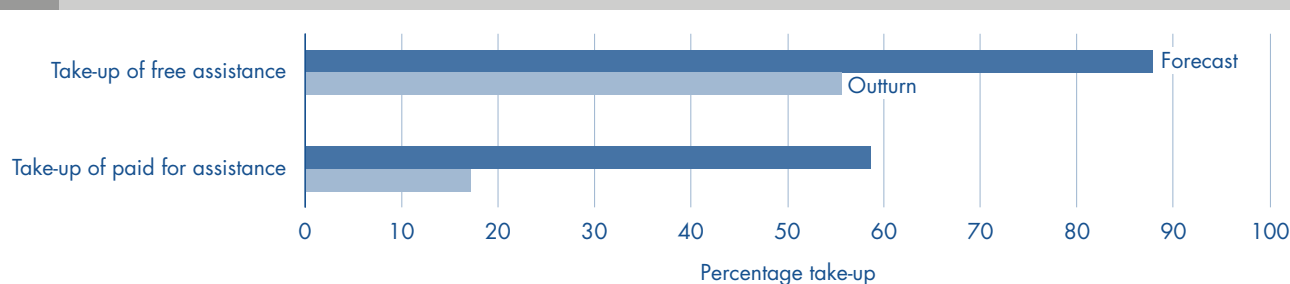
4.25 There is currently a limited amount of evidence to explain the lower than predicted levels of take-up in Copeland. DSHS Limited and Digital UK are monitoring the emerging findings from Copeland and have jointly commissioned qualitative research of eligible homes who did not apply for assistance to explore the reasons why. Although Copeland provides the best available evidence on scheme take-up so far, further switchover experience would be needed to explain the impact of the £40 charge and the likely level of national take-up of the scheme.

17 Forecast and actual take-up of digital television



Source: Help scheme cost model December 2006 and Switchover Progress Report, Quarter 3 2007

18 Forecast and actual take-up of the Digital Switchover help scheme in Copeland



Source: National Audit Office

19 The impact of scheme take up in Copeland on the forecast cost of the help scheme

	Take-up assumed in cost model	Take-up 10 per cent lower than Copeland	Take-up same level as Copeland	Take-up 10 per cent higher than Copeland
Forecast cost (£ millions)	603	323	350	377

Source: National Audit Office

APPENDIX ONE

Methodology

Aim and scope

The aim of our study was to assess whether the Department for Culture, Media and Sport and the Department for Business, Enterprise and Regulatory Reform, who are jointly responsible for switchover policy, are well placed to understand and manage the risks to the successful delivery of digital switchover.

Semi-structured interviews with Departmental officials

Drawing on Office of Government Commerce guidance on managing successful programmes, we interviewed the Senior Responsible Owners for the switchover programme in the Departments. We also met with officials responsible for the cost benefit analysis underpinning the Regulatory Impact Assessment for switchover, the design and costing of the help scheme, programme governance, risk management and housing issues.

Interviews with third parties

We met with the Chief Executive and other senior staff from Digital UK to understand the principal activities undertaken by the Company and how the dependency between its responsibility for implementing switchover and the Departments' accountability for the successful delivery of the policy goal is managed. We also interviewed the BBC, in its capacity as help scheme administrator, to understand the management and governance relationship it has with the Departments in the operation of the scheme. We met with Ofcom to understand its regulatory role in creating the conditions for and overseeing the delivery of switchover.

We interviewed a wider range of other stakeholders from various parts of the delivery chain in order to understand the operation and governance of the switchover programme, key dependencies and work undertaken to

identify viewers who may face particular difficulties with the transition from analogue to digital television. We also spoke to consumer organisations and voluntary sector groups in order to understand the impact of switchover on consumers.

The full list of third party organisations we met is as follows:

- Age Concern (England, and North West Cumbria)
- Arqiva
- BBC
- Channel 4
- Citizens Advice
- Community Service Volunteers
- Confederation of Aerial Industries
- Consumer Expert Group
- Copeland Council
- Department for Communities and Local Government
- Digital UK
- Federation of Private Residents Associations
- Five
- Freeview
- Housemark
- Independent Digital Standards Commission
- Intellect
- ITV
- MLAB
- National Consumer Council
- National Landlords Association
- National Grid Wireless

- Ofcom
- Registered Digital Installer Licensing Body
- Sky
- Tenants Participation Advisory Service
- Virgin Media
- Voice of the Listener and Viewer

Documentary review

We analysed switchover programme documentation supplied by the Departments and Digital UK including:

- strategy and programme documents prepared by the Departments to assess the objectives, costs, benefits, funding, and risks of the switchover programme, help scheme and the public information campaign;
- minutes of the Ministerial Group on Digital Switchover, Switchover Steering Group, Switchover Programme Group, Consumer Expert Group and Switchover Senior Responsible Owner Group in order to identify key issues and risks, the operation of the programme, and the relations and dependencies between projects and stakeholders;
- routine performance information published by Digital UK and Ofcom in order to assess progress, governance and risks along with ad-hoc research into particular topics such as call centre mystery shopping; and
- Review on the BBC's Preparedness for Digital Switchover by the Comptroller and Auditor General presented to the BBC Trust's Finance and Strategy Committee, 2 October 2007.

Financial modelling of forecast of help scheme costs

We remodelled help scheme costs using the cost model which the Departments used to estimate the £603 million funding requirement. For each of the different switchover areas, the model applies a percentage to the number of eligible persons representing the proportion the Departments predict will take up the offer of assistance. We compared the actual level of take-up against the forecast level of take-up of assistance in Copeland to calculate the level of variation from the original forecast and applied this degree of variation to the original forecasts for each of the other regions.

Field visit to Copeland

We carried out a field visit to the flagship switchover area of Copeland, in West Cumbria, in September 2007. We met with representatives from Digital UK, Age Concern Northwest Cumbria, Copeland Council and the local media, and also attended a meeting of the local switchover stakeholder group. We also obtained weekly reports on the operation of the switchover help scheme in Copeland.

International comparisons

We examined through desk-based research how digital switchover has been approached overseas, focusing on planning timetables and the provision of help for consumers and citizens.

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