

# Digital Television

## Executive Report

### Last Updated

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## Contents

<b>Highlights</b>	<b>3</b>
<b>UK Digital TV Market</b>	<b>4</b>
Platform Take-Up	4
Multichannel TV Platforms - Current Market Estimates	8
Market Forecasts	9
Looking Forward	11
Analogue Switch-Off	12
Obsolete Equipment	14
Freed Spectrum	14
Digital TV Refusniks	14
<b>Europe &amp; US</b>	<b>15</b>
<b>Asia Pacific</b>	<b>16</b>
<b>Quick Glossary of Terms</b>	<b>17</b>

## Highlights

- UK leads the world in terms of DTV penetration, standing at 87.2% at end of Q1 2008, according to Ofcom.
- Freeview remains ahead of BSkyB as the market leading digital TV platform, with the service now in 9.2 million homes.
- Merrill Lynch forecasts digital terrestrial television's share of multichannel TV homes to decline over the next few years, while satellite and DSL are expected to see growth in share.
- Digital switchover began in October 2007 in Whitehaven, Cumbria, with the remainder of the Border region completing the switch in 2008.
- All regions will have their analogue signal switched off on a region by region basis by 2012, with the exception of the Channel Islands who will complete the following year.
- Full digital conversion is only expected in four European countries by 2013: Finland, France, Ireland the UK.
- The US plans to switch off its analogue signal in February 2009.

## UK Digital TV Market

### Platform Take-Up

The UK currently leads the world in terms of digital TV penetration, with Ofcom claiming 87.2% of households were already digital by the end of Q1 2008; see **Table 1** overleaf.

Around one million UK households converted to digital television in the first three months of 2008.

Including analogue cable, multichannel penetration increased by 0.8 percentage points over Q1, to 87.1%.

Looking at the main household television set, Ofcom claims digital terrestrial services remains the number one choice with 37.9% versus Sky's 33.7% share of the UK market; see **Figure 1**.

Across all 60 million television sets in the UK, analogue terrestrial still has 32.5% of share; see **Figure 2**. However this figure is declining rapidly, having been at 49% one year ago. Every television set around the home needs to be made digital before switchover, otherwise they will no longer be operational.

Of the TV sets that have already been made digital, the majority are covered by digital terrestrial television.

### Sky

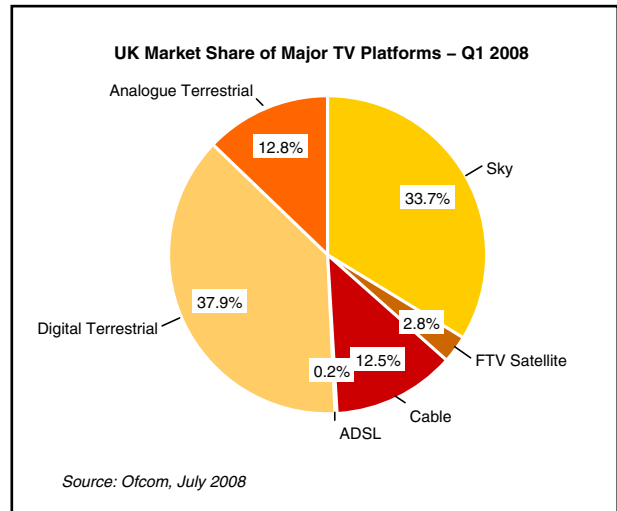
According to figures from Ofcom, BSkyB's satellite service sits at 8.6 million subscribers in Q1 2008; see **Table 1** overleaf.

Official figures released by Sky, meanwhile, were slightly higher than those of Ofcom. The broadcaster recorded net customer growth of 92,000 subscribers in the 12 months to June 2008, taking its total figure to 8.98 million customers.

BSkyB has been hugely influential in converting subscribers from analogue to digital, with all of its subscribers now receiving digital satellite. In addition, its multiroom offering is now a popular method of upgrading secondary television sets in the house to digital. Multiroom showed growth of 33,000 subscribers in the past year, reaching 1.6 million households.

Other additional services offered by BSkyB continue to see subscriber numbers increase. Sky+ households hit 3.7 million households by the end of June 2008, while Sky's HD service also increased by 33,000 to nearly half a million subscribers.

**FIGURE 1**



**FIGURE 2**

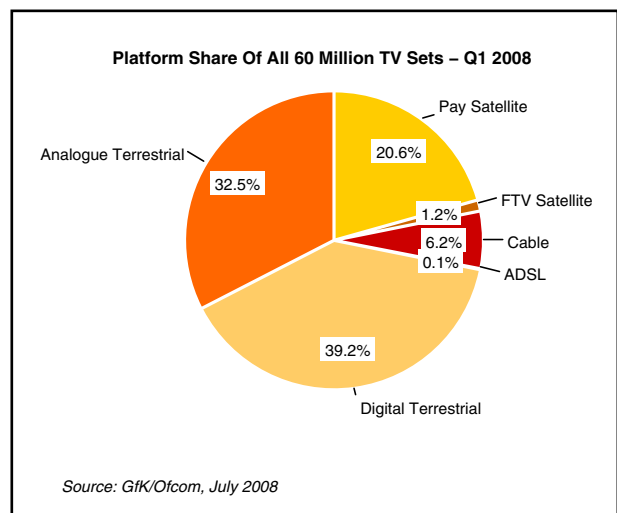


TABLE 1

## UK TV Platform Subscriber Figures

	Q4, 2007	Q1, 2008	Quarterly growth rate
<b><i>Pay-TV digital subscribers</i></b>			
Digital cable	3.1m	3.1m	1.2%
Digital satellite (Sky)	8.5m	8.6m	0.5%
DTT Pay (Top-Up-TV)	0.4m	0.4m	6.8%
TV over ADSL	0.05m	0.05m	3.8%
<b>Total digital pay-TV households</b>	<b>12.1m</b>	<b>12.2m</b>	<b>0.9%</b>
<b><i>Free-to-view digital households</i></b>			
Free-to-view DTT (Freeview)	9.2m	9.2m	0.5%
Free-to-view digital satellite (Freesat)	0.6m	0.7m	13.0%
<b>Total Free-to-view households</b>	<b>9.8m</b>	<b>10.0m</b>	<b>1.3%</b>
<b>Total UK digital households</b>			
Digital penetration	86.3%	87.1%	0.8% points
<b><i>Additional homes receiving analogue multichannel services</i></b>			
Analogue cable*	0.04m	0.03m	-34.9%
Multichannel penetration	86.5%	87.2%	

Source: Ofcom, June 2008

Jeremy Darroch, chief executive of BSkyB, said: "We have continued to grow strongly in a more difficult consumer environment. More customers are choosing Sky for a broader range of products and are staying with us for longer."

The corporation aims to have 10 million satellite TV subscribers by 2010, together with 30% penetration for multiroom. Its aim of achieving 25% penetration of Sky+ within its subscriber base was achieved three years ahead of schedule.

### Freesat

According to the latest estimates from Ofcom, there are 0.7 million free-to-view digital satellite homes in the UK, an increase of around 100,000 in the 12 month period to June 2008. This figure also includes viewers who are no longer Sky subscribers but still receive the public service channels through their set-top box.

There are now two free-to-view satellite television offerings in the UK, which allow access to digital TV to households who may have been unable to access DTT due to the geography of the area.

Freesat from Sky was launched in October 2004, while BBC/ITV's freesat was launched in July 2008.

Sky's service currently offers more than 200 channels for a one-off £150 installation charge, while the BBC's service appears to have less channels currently but more are being added all the time, and it also includes free HD programming.

Ofcom have recently changed their methodology for providing industry platform estimates due to the surge in interest that they expect surrounding the free-to-satellite services, as knowledge of the platform offerings become better known.

Nick Markham, Top Up TV chief executive, speaking at a Broadcast conference in February 2008, thinks that the BBC/ITV competitor service will struggle to take off because Sky has already made the satellite business its own.

He said: "Sky has spent years perfecting its service and made sure that every home with satellite TV had it through Sky devices. There is no way it will just sit back and allow a new competitor to just come along and take a slice of the market. If Freesat does that, Sky will just undercut it on price."

### Digital Terrestrial Television

DTT, or Digital Terrestrial Television, has shown the greatest growth in recent years, with the platform offering the cheapest way of making the transition to digital TV.

Freeview has overtaken Sky to become the leading provider of digital TV in the UK. It has experienced strong take-up since its launch in October 2002, with 27 million sales since it emerged on the market.

Following record sales in Q4 2007 and 243,000 net additions, the total number of main sets receiving Freeview has now reached 9.6 million and the number of homes using DTT on any set has reached 16.1 million, according to Ofcom.

Freeview's appeal to first-time switchers and existing digital viewers who want quality free-to-air digital TV throughout their home is reflected in the growth of Freeview equipment used for secondary sets. Of the 22 million Freeview-enabled sets, secondary sets now account for 56% (12.4 million).

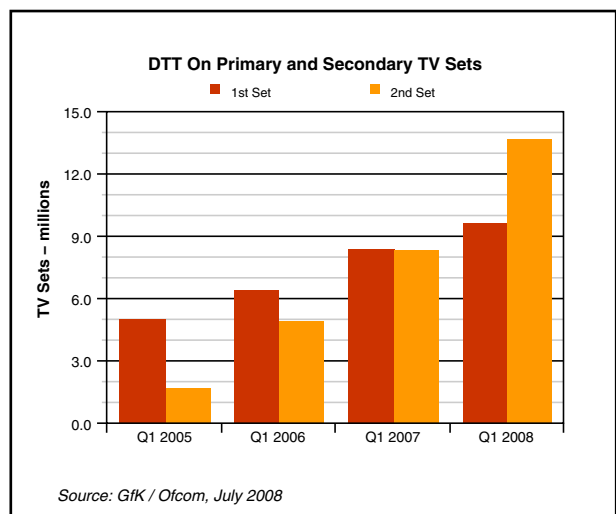
Freeview has launched a hard disk digital TV recorder, called Freeview+ which it hopes will be in 12 million homes by 2012. The device is intended to replace VCRs, which will not work properly following digital switchover and will include basic boxes, DVD recorders, DVD and VHS combination recorders and TVs with Freeview+ built in.

Rob Farmer, Director of Marketing Communications at Freeview, said: "Freeview+ is the next chapter in our story as the champion of free TV in the UK. It lets you record great programmes with no subscription, no contract, no fuss. It's the obvious choice for recording TV in the digital age."

Not every UK household is able to access digital TV through Digital Terrestrial TV (DTT), with 27% of homes not currently having access. This is the maximum possible until digital switchover enables digital signals to be broadcast more widely across the UK. According to Ofcom, gaps in current coverage will be filled by transmitters converting to digital and the power levels of the signal will increase after switchover.

Freeview was once the sole provider in this market

FIGURE 3



and has dominated the digital TV marketplace for the past few years, encroaching so much into the digital TV market that it has now overtaken Sky. However Sky has recently tried to launch its own DTT services.

Sky had hoped to launch its own DTT service, called “picnic”, by removing its basic channels of Sky Sports News, Sky News and Sky 3 from the Freeview platform and relaunching them in a paid for offering, requiring a new type of DTT set-top box.

However, communications regulator Ofcom have launched a consultation into the proposal and may block the service.

### Top Up TV

Top Up TV is an independent company set up in 2004 by two former BSkyB executives, David Chance and Ian West, to offer Freeview customers the chance to ‘top up’ the number of channels on their Freeview box for a small monthly payment. In its first month, the service signed up 20,000 subscribers and it was estimated that this pay version of DTT was going to flourish; research by the BBC claimed that the pay-TV service would be purchased by 15% of Freeview customers by 2010.

However, Top Up TV went into voluntary liquidation in June 2006 after undergoing a corporate restructuring and name change to Minds 1. The registering of the new name was believed to be a way to avoid losing the Top Up TV brand name when the company placed itself in liquidation.

Chairman David Chance announced that Top Up TV would “de-merge” into three new companies called Top Up TV 1, Top Up TV 2 and Top Up TV 3 following advice from the City that the business should be divided.

The pay-TV model is still available to pre-existing subscribers, but is no longer the core business for the company. It now offers Top Up TV Anytime, a push-video on demand service, offering programming from a range of UK television channels that are downloaded daily onto a special digital video recorder (DVR), ready to be played back on demand. The box costs £180 and subscribers pay £9.99 per month for the 90 hours per week of programming.

### Cable

NTL:Telewest was rebranded as Virgin Media in February 2007, following the merger of the two cable giants in 2006 and their subsequent takeover of Virgin Mobile, allowing the media giant to offer quadruple-play options for the first time in the UK.

The cable service passes 12 million homes in the UK, or 50% of the population, offering VoD, a PVR, IPTV services, HD and telephony services. With 43% of UK homes now having a combination of mobile phones, digital TV and internet subscriptions at home, this has strong implications for the prospects of cable providers offering bundled packages.

Ofcom’s latest figures for Q1 2008 state that the number of digital cable subscribers increased by 1.2% quarter on quarter, with total subscribers of over 3.1 million.

Analogue cable, meanwhile, continued to be replaced, with just 30,000 subscriptions in Q1 2008, down by 11.2%.

### DSL Services

Telecoms and IP company, Tiscali, launched its Tiscali TV service in March 2007, following the acquisition of Homechoice’s IPTV service in August 2006 for a reported £60 million. Over 40,000 Homechoice subscribers are now Tiscali TV customers, which make up the vast majority of the 43,000 TV over DSL users in the UK,

according to Ofcom.

The new television service offered by BT, BT Vision, had a soft launch at the end of 2006, and had 282,000 subscribers by the end of June 2008, having added 68,000 customers during the last quarter.

The service combines access to digital-terrestrial channels through the aerial with broadband-powered video on demand, as well as a groundbreaking interactive and communications service, all available through their TV sets.

DSL can offer a digital TV alternative to areas where the current platforms have not yet achieved full coverage and is a suitable platform for transmitting and receiving HDTV (High Definition Television). Broadband penetration in the UK exceeds that of Freeview, with availability of additional TV content via broadband giving large numbers of consumers the opportunity to equip their TVs with these new hybrid broadcast and broadband devices.

### Triple-Play

Customers are now able to subscribe to more than one service both Virgin Media and BSkyB, following both companies now providing telephony, digital TV and broadband services.

Over half of Sky's customers now take more than one Sky product compared to less than 40% a year ago. Already 11% of customers take each of television, broadband and telephony. Sky believes this represents good progress to date, but leaves headroom for further growth.

Similarly, Virgin Media announced in its recent financial report that its triple-play penetration has reached 53.1% of all subscribers for Q2 2008, up from 45.2% in Q2 2007.

### Multichannel TV Platforms - Current Market Estimates

In its Autumn 2007 Digital TV report, Continental Research compiled current market estimates for the number of TV homes receiving each of the multichannel platforms.

In the year from July 2006 to July 2007, Sky Digital added 0.3 million customers to its subscriber base, reaching 8.5 million subscribers, whilst FreeSat gained 300,000 homes in the year, according to Continental Research.

Freeview continues its amazing growth, with a further 2.8 million customers added from July 2006 to July 2007, while cable growth has been slowing during the last year.

**TABLE 2**  
**Multichannel TV Reception in UK Homes**

	<b>July 2005</b>	<b>July 2006</b>	<b>July 2007</b>
Sky Digital	7.8m	8.2m	8.5m
Free to Air Satellite	0.4m	0.6m	0.7m
Digital Cable	2.6m	2.8m	3.1m
Analogue Cable	0.8m	0.5m	0.2m
Freeview	5.5m	6.7m	9.5m
Any Digital	15.8m	17.9m	20.2m
Any Multichannel	16.6m	18.4m	20.5m

**Source: Continental Research, Autumn 2007**



## Market Forecasts

TABLE 3

Multichannel TV Penetration Forecasts (% Share Of Multichannel TV Households)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
DTH	44.3	43.1	43.6	44.4	44.8	45.5	46.4	47.2	48.4	49.6	50.6	51.6
Cable	16.9	16.0	15.6	15.3	15.0	14.9	14.9	14.9	14.9	15.0	15.1	15.2
DTT	38.8	40.4	40.0	38.9	38.0	37.2	36.2	35.2	33.8	32.5	31.2	29.9
DSL	0.0	0.5	0.8	1.4	2.2	2.5	2.6	2.7	2.8	3.0	3.1	3.2

Source: Merrill Lynch, June 2008

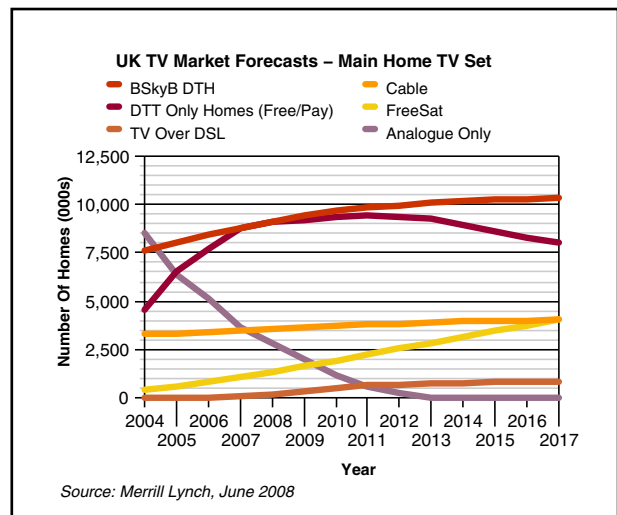
Merrill Lynch's long-term TV penetration forecast shows that by 2017, it expects pay and free satellite services (DTH - Direct To Home) to reach 51.6% of TV homes, up from 43.6% in 2008.

Digital terrestrial television (DTT) is currently at 40.0% but is forecast to decline to 29.9% penetration of the main household TV set by 2017; see Table 3.

The proportion of UK TV homes receiving analogue broadcast signals is forecast by Merrill Lynch to dwindle from 11.0% in 2008 to 0.9% by 2012, and then down to zero at the completion of switchover.

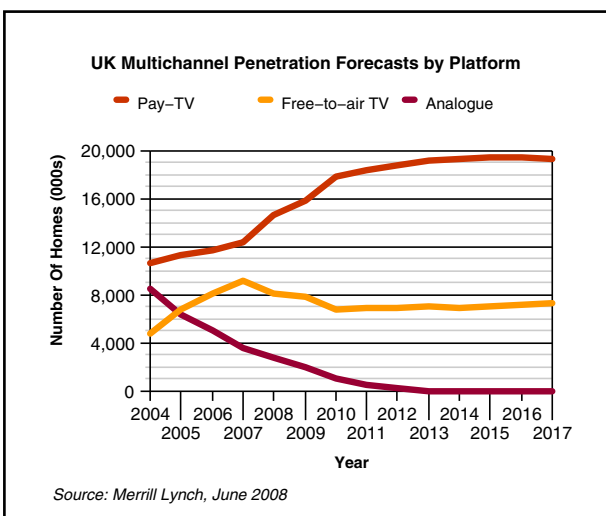
In a reversal of recent fortunes, satellite services are forecast to be the digital platform of choice over the next nine years, as Freeview's penetration slides from 26.5% in 2008 to 12.4% in 2017, as shown in Figure 4.

FIGURE 4



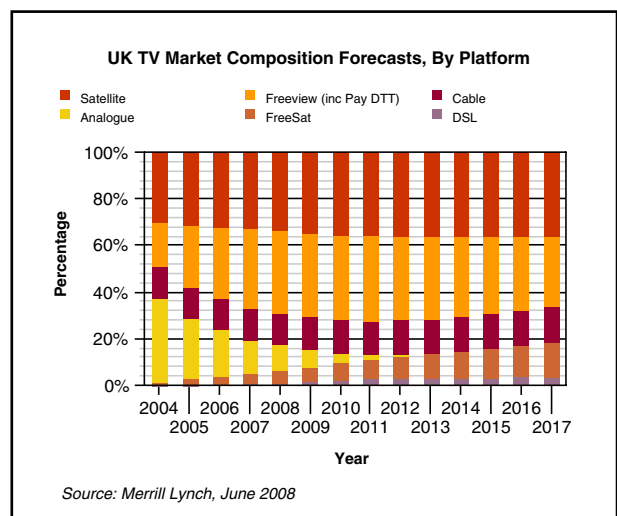
Source: Merrill Lynch, June 2008

FIGURE 5



Source: Merrill Lynch, June 2008

FIGURE 6



Source: Merrill Lynch, June 2008

TABLE 4

## UK Pay-TV Market Forecasts

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>BSkyB DTH</b>	8,583	8,883	9,136	9,311	9,437	9,539	9,621	9,684	9,731	9,769
<i>Penetration (%)</i>	33.6	34.6	35.4	35.9	36.2	36.4	36.5	36.6	36.6	36.5
<b>Freeview</b>	6,779	6,238	4,843	4,758	4,438	4,188	3,817	3,564	3,395	3,321
<i>Penetration (%)</i>	26.5	24.3	18.8	18.3	17.0	16.0	14.5	13.5	12.8	12.4
<b>Cable</b>	3,545	3,634	3,714	3,784	3,844	3,894	3,934	3,964	4,014	4,064
<i>Penetration (%)</i>	13.9	14.1	14.4	14.6	14.7	14.9	14.9	15.0	15.1	15.2
<b>Analogue</b>	2,825	1,984	1,128	543	247	0	0	0	0	0
<i>Penetration (%)</i>	11.0	7.7	4.4	2.1	0.9	0	0	0	0	0
<b>FreeSat</b>	1,340	1,640	1,940	2,240	2,540	2,840	3,140	3,440	3,740	4,040
<i>Penetration (%)</i>	5.2	6.4	7.5	8.6	9.7	10.8	11.9	13.0	14.1	15.1
<b>Pay DTT</b>	2,327	2,989	4,532	4,697	4,917	5,047	5,087	5,039	4,903	4,682
<i>Penetration (%)</i>	9.1	11.6	17.5	18.1	18.9	19.3	19.3	19.0	18.4	17.5
<b>ADSL</b>	171	331	534	624	664	709	749	789	829	869
<i>Penetration (%)</i>	0.7	1.3	2.1	2.4	2.5	2.7	2.8	3.0	3.1	3.2
<b>UK TV homes</b>	25,570	25,699	25,827	25,956	26,086	26,216	26,348	26,479	26,612	26,745

Source: Merrill Lynch, June 2008

ADSL services are forecast to increase from a current base of 0.7% penetration, up to 3.2% by 2017; see Table 4.

Continental Research's Autumn 2007 Digital TV Report said that, over the next year, Freeview is expected to add another 1.4 million customers, bringing its base to around 10.9 million, while Sky is expected to add a further 0.7 million homes; see Table 5.

The fastest growing platform in the foreseeable future will be Freeview, while digital cable is expected to demonstrate greater growth than Sky Digital.

The research group also predicts that the future will see some Sky digital and digital cable homes churning to Freeview and likewise from the free platform to the paid offerings, but these figures do not make allowance for this.

TABLE 5

## Digital TV Market Forecasts

	Freeview	Sky Digital	Digital Cable
Current Market	9.5m	8.5m	3.1m
Certain/Very Likely (net growth)	1.4m	0.7m	0.9m
Longer Term Potential	10.9m	9.2m	4.0m

Source: Continental Research, Autumn 2007  
Base: Continental Research Omnibus Survey

### Looking Forward

There is no doubt that the key driver of digital uptake over the last two years has been Freeview, and inter-platform competition has been encouraged as a result.

In his review of the BBC's digital services commissioned by the Government, Patrick Barwise of the London Business School, claims that while the BBC's digital services contribution to the success of Freeview has been modest and their contribution to the take-up of digital pay-TV minimal, continuing digital penetration seems likely. This, he says, will be driven by BSkyB (including FreeSat) and Freeview, potentially supported by some growth in cable penetration through conversion of the remaining analogue cable homes to digital.

New forms of competition are emerging in the digital TV market, using broadband as the distribution channel. While starting from a low base, they have the potential to dramatically change the way TV is viewed in the future.

Whether or not and how the emergence of broadband as a distribution platform will change the balance of power remains to be seen. BSkyB has indicated its intention to remain a key player in the TV content market, for example, by acquiring the rights to show Premiership football over the internet.

Despite likely developments in the market, Freeview and Sky will continue to be market leaders for the foreseeable future as the market continues to grow towards each UK region's switchover date.

## Analogue Switch-Off

Digital switchover has now started in the UK, following Whitehaven and the surrounding area of Cumbria switching to digital only signals in October 2007. Over the next four years, the rest of the UK will switchover on a region-by-region basis.

At present, digital terrestrial signals reach 73% of all UK households. Due to the already crowded nature of the analogue UHF spectrum, it is not possible to extend DTT coverage significantly beyond this level without first switching off the analogue transmissions.

Digital UK, the independent, non-profit organisation that was set up to co-ordinate the UK's move to digital, put a heavy emphasis on extracting research from each step of the complex process of switching Whitehaven, as its demographic breakdown essentially represents '1,000th of the UK'.

Following Whitehaven, the remaining border region encompassing the Scottish borders as well as Cumbria and the Isle of Man will be switched off during 2008 and early 2009.

Various transmitters in the West Country will be switched off in the second and third quarters of 2009, while Wales begins switching off in the third quarter and completes digital switchover in 2010. Granada, the second largest region after London, will switch off in the final quarter of 2009.

The process then continues as outlined in **Table 6** with the Channel Islands being the last region to be transferred onto the digital signal in 2013.

Areas will have 100% digital penetration on switchover date. According to Ofcom: "those who do not choose to adopt digital TV after switchover will churn out of the base of TV homes and therefore it is a truism that digital TV penetration in any given region will trend to 100% at the point of switchover."

**TABLE 6**

### Regional Switchover Dates, Digital TV Awareness & Conversion Rates

Region	Switchover Date	Switchover Awareness	Primary Set Converted	Other Sets Converted	Full Household Converted	Total TV Sets Converted
<b>National</b>		<b>90</b>	<b>86</b>	<b>52</b>	<b>57</b>	<b>69</b>
Border	2008/2009	99	83	52	57	67
West Country	2009	95	84	51	55	68
Wales	2009	92	88	57	60	71
Granada	2009	95	86	60	61	73
West	2010	93	86	60	64	74
STV North	2010	91	75	37	53	59
STV Central	2010	92	82	51	53	67
Central	2011	94	84	49	56	68
Yorkshire	2011	91	94	55	56	71
Anglia	2011	91	89	50	59	71
Meridian	2012	92	84	57	61	70
London	2012	83	83	43	52	65
Tyne Tees	2012	92	87	49	57	68
Ulster	2012	76	*	*	*	61

**Source: Ofcom/Digital UK Switchover Tracker, Q1 2008**

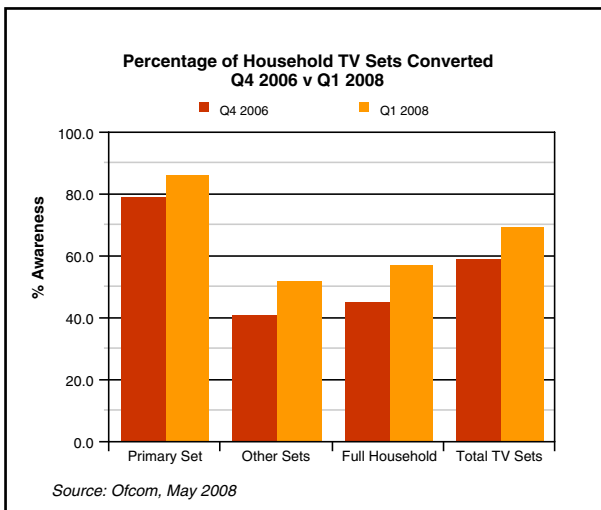
\* sample size too small to report

Two regions in Wales switched off the analogue signal in a trial in 2005, affecting 450 households in Ferryside and Llanstephan. The trial was heavily assisted, with each home given digital receivers for each of their televisions. A helpline was also set up for residents' teething problems, and one-to-one support was made available to the elderly. It is estimated that the cost of the trial was £2,000 per home. Research three months later deemed the trial a success, with 98% of households voting to retain the digital signals.

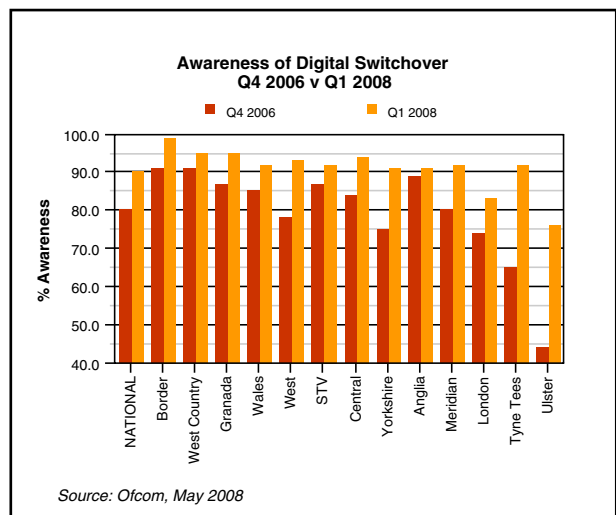
However, David Elstein claimed at the Westminster Media Forum entitled "Analogue Switch Off and New Digital Services", that some people still had problems operating their set top boxes, even for the simplest functions such as switching on or selecting channels, months after switchover, stating that anything more sophisticated such as use of the EPG or interactive services were out of the question.

Knowledge of when switchover is happening varies from region to region, with Border, understandably, currently showing the highest rate; see **Figure 8**.

**FIGURE 7**



**FIGURE 8**



As each switchover is completed, around 10% of the UK would not be able to access all the available Freeview channels and will receive a core offering of around half the channels carried by Freeview. "We think it's a substantial offer," defended Ford Ennals, then chief executive of Digital UK.

One negative slant on the switchover is the additional electricity it will use. Chris Goodall, an independent analyst, commented: "One of the Government bodies charged with reducing our energy needs in order to meet the legally enforceable requirements of Kyoto, estimated that the boxes could add 14Twh to the UK's electricity needs – 5% of domestic electricity demand. And this represents additional GHG emissions of about 1% of the UK total, and will push Kyoto further beyond reach."

Aside from the technical aspect, it is also likely to add £30 a year onto everyone's household electricity bills. Although this may not seem much to the average person, to people on state pension it amounts to an extra tax for a service some may not want but also may not be able to use.

At a recent MediaTel Group "Future of TV" seminar, panellist and media journalist Ray Snoddy, stated that he did not believe switchover will greatly alter current audience behaviour. "Where is the revolution in viewing behaviour as a result of all the old age pensioners being bullied into getting digital television?" he questioned. "I don't know the answer. Maybe analogue switch off is not such a big deal and will not actually tear up the roots of British broadcasting after all."

Speaking at the Westminster Media Forum, Jon Zeff, head of broadcast policy division at DCMS, stated that

there are three reasons for switchover. The first is greater access and choice. Currently, only three quarters of the population can access Freeview, but by switching off the analogue signal it frees up spectrum, thereby allowing more people to access it. In the space it takes to occupy one analogue signal, you can get six digital channels.

Secondly, it creates possibilities for new services and new technological developments, as the freed up space on the spectrum can also be used for more television channels, HDTV, mobile TV or new wireless broadband networks.

Finally it is much more efficient to switch the signal off, as currently broadcasters have to simulcast in both analogue and digital.

### Obsolete Equipment

Ofcom states that almost 19 million of the UK's 60 million television sets are not connected to any digital receiver. Nationally, 48% of secondary sets still need to be upgraded to digital, and only 57% of all households are fully converted to digital.

Most houses in the UK will need to convert three devices, probably two television sets and one recording device. With the large number of devices still needing to be updated, Danny Churchill, technology development consultant at DSGI, warned there could be possible stock shortages as everyone tries to upgrade at the same time. All cheaper items will sell out as components tend to be used for premium-priced products during a stock shortage, rather than entry-price level.

Alison Hopkins, senior policy officer, National Consumer Council, suggests that the cost for the whole home to convert is over £2000, taking into account multiple sets, videos, aerials and cables. However Ofcom believes this cost to be much more conservative, at nearer £200.

### Freed Spectrum

In order to decide who will obtain the freed frequency following the analogue switch-off, Ofcom launched a digital dividend review, to ensure that the spectrum is spread fairly. Greg Bensberg, financial director of Ofcom, states that the main aim is to maximise the benefit for the UK that the spectrum offers. The process is yet to be finalised but is likely to take the form of an auction for the digital dividend, as it has been dubbed.

Freeview is taking some of the freed spectrum for high definition channels. Viewers using new receiving equipment should be able to get up to four new high definition channels as digital switchover is completed in the UK in 2012, with the first three available as switchover takes place in the Granada and subsequent regions from 2009.

Ofcom says the upgrade can take place without the loss of existing television services currently available to viewers on DTT. The watchdog believes that the process will deliver major benefits for viewers and broadcasters, with viewers able to access an array of new channels and services through their television aerials and new HD set-top boxes, and broadcasters able to deliver a greater range of services.

### Digital TV Refusniks

Ofcom and Digital UK's Switchover Tracker Survey showed that now only 1% were still not planning on converting any of their TVs to digital. Looking region by region, the likelihood to resist converting appears to diminish as the practical reality of switchover approaches. The West has the highest percentage of refusniks at 2%.

Meridian did have the highest percentage of the population who claim they will not convert any set, at 5% in 2007, but this has now fallen to 0%.

## Europe & US

The UK is not the only country switching off the analogue signal; countries across Europe as well as the US have also set target years for switchover and several appear on course to hit their respective targets.

Western Europe had nearly 89 million digital TV households in 2007, rising to an anticipated 104 million by the end of 2008, according to Informa. By 2013, this figure is forecast to have climbed to nearly 157 million households or 90% household penetration.

However, full digital conversion is only expected in four of Western Europe's fifteen major broadcast countries: Finland, France, Ireland and the UK.

Growth in cable, after a strong start, has been stagnant recently, with cable operators lacking the funding and the inclination to upgrade their analogue subscribers to digital packages.

Adam Thomas, Informa's Media Research Manager, said: "While cable will remain the region's leading pay TV platform, the satellite subscriber base is eating into its dominance."

In addition, digital terrestrial TV is expected to overtake cable's position as the leading platform in 2011.

Datamonitor forecasts that Western Europe and US combined will have 274 million digital TV households by 2012.

Chris Khouri, author of Datamonitor's Western Europe and US Digital TV Adoption, 2008 report, states: "DTV will grow an average of 12% year-on-year, with particularly strong adoption in the near term as broadcasters terminate analogue terrestrial television."

At the end of 2007, 54% of homes in Europe and the US had some form of DTV service. This will grow to 88% by the end of 2012, primarily due to the significant increase in digital terrestrial television (DTT) households.

### The US Analogue Switch-Off - 2009

The Federal Government announced in 2006 that all analogue broadcasts would be switched off by 17th February 2009. Pay-TV providers are expecting this switchover to provide a surge in new subscriptions, as millions of households subscribe to multichannel services from cable, satellite and telecom companies such as Comcast, DirecTV and Time Warner Cable. It is expected that cable operators will benefit greatly from this transition, with penetration of digital cable services rising from 45% of all customers today to nearly 75% by 2010, according to Strategy Analytics.

A budget of \$1.5 billion has been allocated to assist the transition from analogue to digital. The Commerce Department's National Telecommunications and Information Administration (NITA) has proposed that viewers who rely solely on analogue broadcasters, of whom there are estimated to be around 21 million, could be eligible for a scheme of national coupons that can be exchanged for digital set-top boxes.

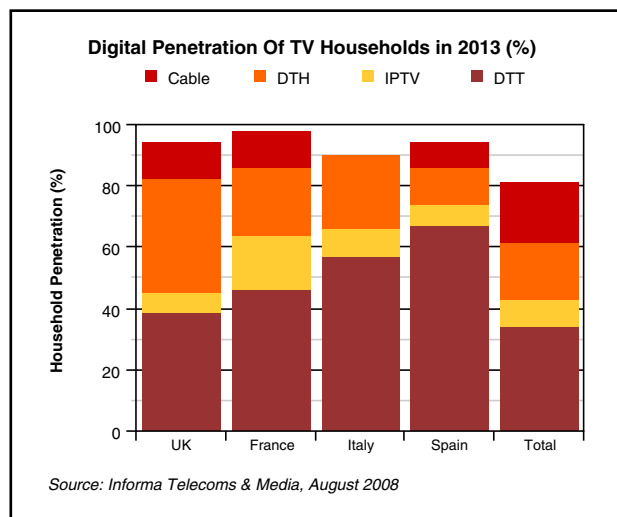
TABLE 7

### Digital TV Households (000s)

Country	2007	2010	2013
UK	22,268	25,110	26,459
Germany	15,300	24,361	30,439
France	18,017	24,328	26,992
Italy	11,037	17,635	23,811
Spain	8,207	13,379	17,903
Others	13,932	23,863	31,204
<b>Total</b>	<b>88,761</b>	<b>128,676</b>	<b>156,808</b>

Source: Informa Telecoms & Media, August 2008

FIGURE 9



## Asia Pacific

Over the next few years, Asia's digital TV market is expected to continue to show significant growth. Informa Telecom & Media's report, *Asia Pacific TV*, shows that more than a third of TV homes in the Asia Pacific region will receive digital signals in 2013, up from just 13% at the end of 2007.

Adam Thomas, author of the report, said: "At the end of last year the region had 75 million homes receiving digital signals. This is more than ten-times the 2001 figure and paves the way for even greater expansion over the next five years. Informa expects the number of digital homes to be approaching 250 million by 2013."

The greatest overall growth is expected to be seen in China, which has now overtaken Japan as the biggest digital market during 2007 and will account for 50.1% of the digital total in 2013; see **Table 8**.

Adam Thomas added: "China's sheer size makes it the region's most eye-catching market, but there has been progress pretty much everywhere."

The report forecasts that the Asia Pacific region will boast 676 million TV households by 2013, an increase of 229 million since 1995.

Thomas said: "With pay TV generating almost \$50 billion and TV advertising worth a further \$70 billion, the prospects for reward from the region's TV business are impressive by anyone's standards."

**TABLE 8**

### Asia Pacific Top 3 Digital TV Markets: Digital TV Households (000s)

	2007	% of Total	2013	% of Total
China	27,324	36.4	123,330	50.1
India	11,743	15.7	40,844	16.6
Japan	19,893	26.5	35,741	14.5
Rest of Asia Pacific	16,023	21.4	46,439	18.9
Total	74,983	100	246,354	100

**Source: Informa Media Group, June 2008**



### Quick Glossary of Terms

**DTV** - 'Digital Television': with digital TV, sound and pictures from the broadcaster are converted into 'bits' of information and sent through an aerial, satellite, telephone line or cable. This digital signal is then turned back into sound and pictures by a digital box or a digital television set. This offers new ways to experience TV: extra TV channels as standard, improved picture quality and new features, including on-screen TV listings, true widescreen picture and red-button interactivity.

**DTT** - 'Digital Terrestrial Television': digital television which is delivered via a normal rooftop aerial.

**DTH** - 'Direct to Home': Satellite transmissions received into the home via a dish aerial, as distinct from satellite transmissions relayed via a cable system.

**ADSL** - 'Asymmetric Digital Subscriber Line': is a technology for transmitting digital information at high bandwidth on conventional phone lines. ADSL is asymmetric in that it uses most of the channel to transmit downstream to the user and only a small part to receive information from the user.

**DSL** - 'Digital Subscriber Line': is a technology for transmitting digital information at high bandwidth on conventional phone lines.

**Analogue** - Historical mode of transmission, uses standard wave to transmit television services

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