DTT channel listing of pay channels alongside free channels would not cause confusion amongst Freeview viewers (who currently have high satisfaction, with well over 80 per cent saying they would recommend the system to a friend) or the millions of analogue viewers to whom Freeview is the only digital TV service likely to appeal.

Satellite

47. Digital satellite also has an essential rôle in achieving switchover. Satellite is not only the digital platform of choice amongst existing digital viewers, but it is also the platform with by far the highest coverage at about 98 per cent of households. Freeview coverage could not get close to this while analogue TV is still with us and it is extremely unlikely that even if the financial health of the cable companies improved substantially, broadband cable would be built out much beyond the (predominantly urban and suburban) households which are passed by it today.

48. Satellite also has a key rôle to play as the platform optimised for new entrant broadcasters. The abundance of available bandwidth in the 28.2 – 28.5º East orbital position used by SkyDigital, combined with falling prices from increased competition in the supply of coding, multiplexing, uplinking and transponder capacity, has significantly reduced the entry barrier for new television services. Satellite bandwidth can now be leased for little more than £100,000 per Mbit/s per annum - far less than for DTT – although with strong continuing demand from new satellite channels, the entry barrier may start to rise again. Satellite is the first platform for almost all new television services, some of which rely on revenue streams which are fairly new to broadcasting, such as betting and SMS texting. The abundant bandwidth available on satellite also enables the widest, richest range of enhanced TV applications to be offered to viewers.

49. Currently there are about 350 television channels available on digital satellite, of which about 34 per cent are free-to-air, including S4C and all those of the BBC (there are also more than 70 radio stations, all free-to-air). ITV1, Channel 4 and Five, while encrypted, are available to households which don't subscribe to pay-TV through the use of "solus" viewing cards where those broadcasters took over the provision of these cards from the BBC when they were no longer needed to decrypt BBC channels. Unfortunately, ITV1, Channel 4 and Five chose to end their support for solus cards on 31 January 2004. This can only have reduced the attraction of digital TV to some potential satellite adopters.

50. During 2003, the number of UK SkyDigital subscribers rose from 6.3 to 6.9 million, but this was almost completely offset by the reduction in the (estimated) number of free-to-view satellite households from 0.7 to 0.2 million when BSkyB switched off the superseded "P1" viewing cards at the end of 2003. It is unclear how many of these "lost" satellite households, faced with the withdrawal of their digital reception of ITV1,

Channel 4 and Five, acquired Freeview or cable and how many instead reverted to analogue reception for these channels.

Cable

51. Following well-publicised funding crises, the cable companies continue to convert their analogue subscribers to digital slowly. By comparison with satellite or DTT, the total number of cable subscribers has remained fairly steady for several years. Until recently narrowband telephony was the principal attraction of cable to consumers, with a range of digital TV channels being bundled with the 'phone line[4]. But recently broadband, with its higher margins, has become a key consumer attraction, such that cable now provides about 42 per cent of all UK broadband[5] households.

52. NTL and Telewest are now investing in Video-On-Demand (VOD) technology in the expectation that this will provide another service attractive to consumers, and another platform differentiator from satellite and DTT, although it remains far from clear whether VOD will prove to be revenue-enhancing for them.

[4] Digital cable is actually technically separate from telephony, and involves running a specific coaxial cable from the street to each served house.
[5] Using OFCOM definitions of "broadband" which do not set a minimum bandwidth threshold, although unless a downstream bandwidth of at least 500kbit/s is provided to consumers, broadband will be unlikely to be capable of offering consumers new services.

Availability and coverage of the public service channels

53. The key pre-condition for withdrawing any viewer's analogue services is that they should be able to receive, by one means or another, the digital equivalents of those analogue services which they have satisfactory, reliable reception of. It has traditionally been estimated that this equates to about 99.4 per cent of UK households.

54. However some analogue viewers have been content to accept poor picture quality with substandard reliability, and some rural viewers have gone to considerable lengths in order to obtain any analogue reception at all. It will be impossible for all of the public service channels, even post-switchover, to be reliably received via DTT by all viewers who watch those channels in analogue now. Communicating the withdrawal of analogue services from such "unserved" viewers could be challenging. It has to be hoped that such viewers will be persuaded to upgrade to digital satellite.

55. All of the public service channels are available on each of the three current distribution platforms (broadband being, so far, unproven in this regard): free-to-air on DTT, in the basic tier on cable and either free-to-air (BBC, S4C, Teletext) or free-to-view (ITV1, Channel 4, Five) on satellite. However, the interactive offerings to consumers vary according to the strengths of each platform with DTT, because of its limited bandwidth and lack of a return path, generally being the poorest served in this regard. One of the purposes of the BBC acquiring an ex-ITV Digital multiplex was so that the range of interactive services we could offer licence payers with DTT could be considerably enhanced.

56. One key initiative, which could strongly contribute towards achieving digital universality, would be for a free-to-view satellite service to be available to bring digital access to the 25 per cent or so of homes currently outside DTT reception areas, and to provide most homes with genuine platform choice. If digital switchover proves to be unachievable within the short-medium term, then Freeview and free-to-view digital satellite combined would enable every home to receive digital television without having to pay a subscription. Unless an attractive, viewer-friendly free-to-view satellite option is available, digital satellite will never play a full part in achieving switchover and play to its strengths as the only platform capable of providing near-universal digital coverage prior to switchover. The BBC aims to support this development.

Understanding viewers

57. Despite the adoption of digital TV by most UK households for their primary TV sets, there is still a considerable task ahead in persuading millions of viewers of the benefits of converting all of their TV sets to digital. There continue to be millions of analogue viewers who are confused about what digital might offer them, how they might get it, and at what cost. The idea of converting every set in their homes could only compound this confusion. In addition, most digital viewers do not equate their voluntary adoption of digital technology with an acceptance that their analogue services ought to be withdrawn.

58. The analogue-only audience can be broadly defined by their attitude to digital:

"**positives**"	tend to be younger	They are keen to get digital, but are **concerned about its costs and "fit"** with their lifestyle – e.g. rented accommodation
"**unsures**"	tend to be early/late families	They are **confused** by the digital platforms and packages and **need to be convinced** by the quality of channels
"**resisters**"	are likely to be older, often retired	They **need to be persuaded of the value** of having more television choice, and that it is value for money

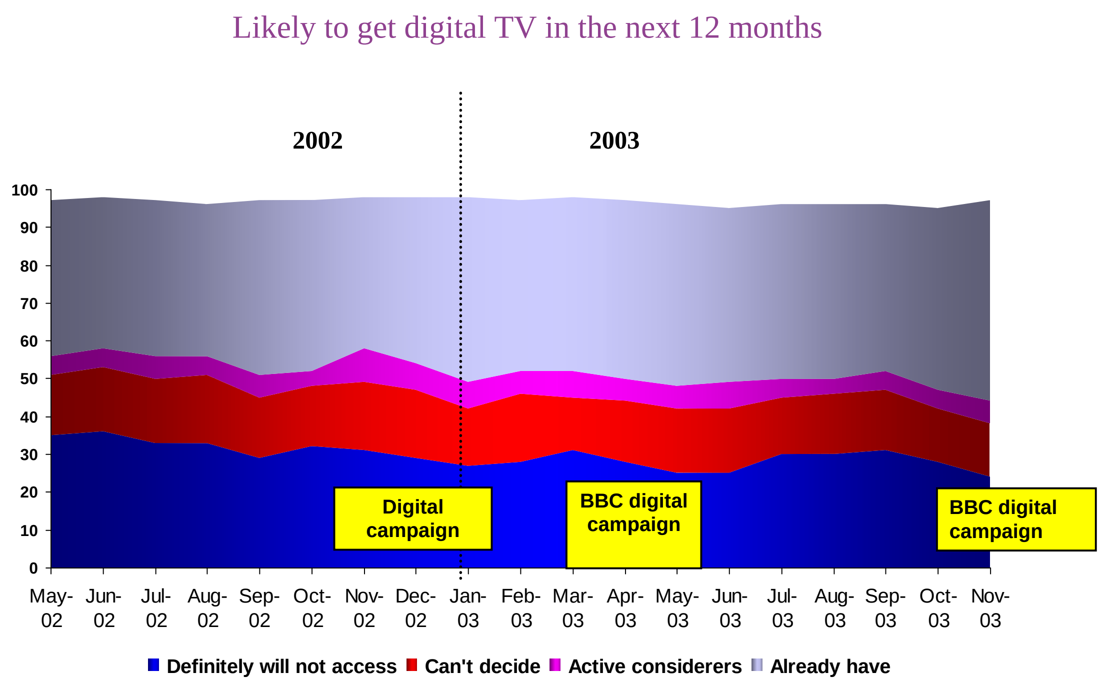
59. Of the 12 million analogue-only households, research suggests that 6 million are currently are not planning to buy digital TV in the next 12 months. There are a further 4 million households who are unsure about getting digital TV and ought to be easier to persuade of the merits of upgrading. The key characteristics of this group are confusion about what digital TV offers and unwillingness or current inability to pay for subscription TV. If this confusion can be tackled, Freeview is likely to have strong appeal to many in this group with its unequivocally simple, free, no-strings-attached proposition which is attractive to consumers who otherwise reject digital TV. 2 million analogue households are already actively considering getting digital television. More consumers will voluntarily adopt digital by purchasing digital boxes to get Freeview as impulse purchases, perhaps to watch particular events such as the recent Rugby World Cup with coverage on ITV2, and there is a growing trend (albeit from a low base) of consumers replacing analogue TV sets with idTVs.

60. The principal means of cutting through consumer confusion, and hopefully converting such viewers into voluntary digital adopters, will be continued marketing by the BBC and other broadcasters of their digital services. The impact of the BBC's digital campaigns has already been considerable. In November 2002, as required by its new digital services

consents, the BBC launched a heavyweight marketing communications campaign for its digital channels and how to get them. Since then the BBC has undertaken marketing campaigns (TV, radio, online, posters and publicity) for both individual channels as well as the full BBC channel line-up and how to get it on cable, satellite and Freeview. They have all had an extensive direct response element using the BBC digital telephone helpline, website and free consumer leaflets and this has generated nearly 6 million contacts (telephone and website enquiries) during campaign periods to the BBC. The most recent campaign – the BBC's third major wave of activity about the full BBC digital line up – ran through Autumn to December 2003 and generated 2½ million contacts alone.

61. Research shows that BBC campaigns have stimulated interest in digital TV generically, and reducing levels of resistance to it. Crucially, the level of resistance to digital TV has decreased over time, from 35 to 24 per cent between May 2002 - November 2003 (see fig. 4 below). They have also helped to tackle confusion in the marketplace. Confusion among analogue audiences about whether they would have to pay a subscription to get the BBC's digital channels halved in the first six months of the BBC's first digital marketing campaign.

Fig. 4: Digital resisters are being persuaded of the benefits of digital TV



Base: All adults
Question wording changed in November

62. A major new BBC digital campaign will be on air from early April for about six weeks which is expected to further raise digital awareness and reduce consumer confusion.

63. However, even continued, extensive broadcaster marketing cannot substitute for the major and continuous marketing spend across media which will be required in the run-up to the first transmitter regions being switched-over. Here the switchover message will need to be very different from the current messages promoting the availability of digital channels. If not actually commissioned and managed by the Government, Government involvement and support will be essential.