

## **Statement on the principles for planning the use of the UHF spectrum once analogue terrestrial transmissions end**

In December 2001 we published a consultation *Digital Television: the Principles for Spectrum Planning*. This document and the responses to it are available at [www.digitaltelevision.gov.uk](http://www.digitaltelevision.gov.uk). In May 2002 we issued a preliminary statement on the way forward in order to give such indications as we could at that time to prospective bidders for the licences which had been surrendered by ITV Digital. We said then that a fuller statement addressing all the issues raised by the spectrum planning consultation and the responses received would be made when the other relevant tasks, including the cost benefit analysis, had been completed.

We now have sufficient information from the cost benefit analysis to enable us to take a decision on the basis on which the next stage of the spectrum planning work should proceed. This work in turn will inform a decision later this year on the minimum requirement for coverage of public service broadcasting by digital terrestrial television, and should provide a comprehensive picture of the availability of digital terrestrial television to households before and after full switchover.

The Spectrum Planning Group (SPG) of the Digital Television Project were asked to consider how each of three alternative scenarios might support six nationwide digital multiplexes and release at least 14 frequency channels nationally for reuse. Their analysis showed that a strategy of converting two or three of the analogue networks for digital use could release 14 frequency channels in two groups. Alternatively, a strategy of ignoring the existing networks in order to use the minimum number of frequency channels could release 20 frequency channels almost all in one large group. Both these strategies could deliver the digital equivalent of the analogue public services to over 93% of households from 120 transmitter sites. The third scenario, which was to change from the current multi-frequency networks to single frequency networks, could release 20 frequency channels but could only deliver services to about 75% of households. This clearly would not provide a rational basis for planning to support the six existing multiplexes.

To inform our choice between the two credible scenarios, we asked our economists to advise on which option was likely to bring the greater net benefit to the UK. Given that both scenarios could support the existing six digital multiplexes carrying the public services and other services, the economists considered the costs that differed between the options in enabling all households to access the public services by digital television, and the benefits that might accrue from reuse of the freed up spectrum. Technically this spectrum is suitable for a range of uses of which the two most significant are broadcasting and mobile communications. Studies of consumer preference for broadcasting (including interactive services) and for mobile services of the kind anticipated for 3G show that consumers place a higher value on mobile communications than on television. Applying these findings, the economists assessed that the net benefit of each option depended significantly on the assumptions made about the potential for using this spectrum for different kinds of 3G mobile services.

At present the agreements that govern the use of the radio spectrum internationally permit the primary use of the UHF spectrum for broadcasting only. This may well change in time to allow for greater flexibility as technologies converge and evolve. However there is no guarantee that such flexibility will be realised in the short term. We must also co-ordinate our use of the spectrum for digital television services with our European neighbours in order to avoid interference between services from different countries. The existing agreements are due to be reviewed over the next two years. We cannot know now what the outcome of that review will be, but we believe that it is prudent to work on the basis of the existing agreements rather than on any radical changes.

We need to press ahead with the next stage of the development of the future spectrum plan. The terrestrial broadcasters cannot develop their business plans while it is so unclear what they will have to do to build the digital networks for the time after full switchover. In the meanwhile, they are incurring the costs of running both analogue and digital networks. Consumers want to know whether digital terrestrial services will be available to them before switchover and if so when. There may be some households for whom digital terrestrial services will never be viable, and these households need to be identified so that alternative arrangements can be made. Manufacturers and retailers want accurate information on the availability of digital services in different locations so that they can supply the necessary equipment and installations. The answers to many of these questions should emerge from the next stage of spectrum planning.

We are therefore asking the spectrum planning group to develop a detailed plan by the end of October. We confirm that this plan should be based on converting at least two of the analogue networks and taking the most appropriate of the remaining frequencies in order to support the six digital multiplexes. The plan should identify as far as practicable which households should be able to receive digital terrestrial services under standard conditions before and after switchover for a given number of transmitters. We expect this plan to release at least 14 frequency channels cleared nationwide for reuse in the future. These released channels will be split into two groups, one at the top end of the UHF band and one in the middle of the band. There will also be frequencies interleaved between the six digital multiplexes which can be used for additional broadcasting services. These services could be additional national multiplexes or could support regional or local services. In delivering the spectrum plan, we wish the planners to advise on the interleaved frequencies available and on their suitability for local, regional or other services. We also wish the planners to advise on any implications for the availability of spectrum for programme making services and radio microphones.

As soon as the plans are sufficiently well developed we hope to be able to take a decision on the minimum level of coverage to be provided by digital terrestrial means for the public services for the UK as a whole and, if appropriate, for individual nations. It will be for the broadcasters to decide how many transmitters they wish to deploy in their digital networks, and how many households they wish to assist to receive satellite services, but the setting of a minimum percentage of households to be covered by terrestrial services will help them to strike this balance.