Your response

Question	Your response
Question 1: Do you agree with our proposed changes to the ACI/blocking procedures?	WorldDAB considers this to be a national issue.
Question 2: Do you have any comments on the adoption of the new ETSI mask characteristic and on the potential use of the non-critical spectrum mask?	WorldDAB supports the use of the ETSI masks and observes that using the critical mask will usually provide the best experience for users when adjacent DAB blocks are used, and allows maximum planning freedom if future ensembles would be licensed in between used blocks. WorldDAB notes that Ofcom intends to perform new analyses on the impact of using the non-critical mask and is interested in assisting with this activity.
Question 3: Do you agree with our proposed changes on DAB+ audio encoding?	WorldDAB believes that DAB+ audio encoding should be used in preference to DAB audio, but understands the issues facing the UK in terms of installed receivers. WorldDAB welcomes the changes to allow DAB+ audio to be used without requiring special authorisation and without restrictions on the proportion of DAB+ audio in any ensemble. WorldDAB encourages active planning to transition services from DAB audio to DAB+ audio because of the benefits to end users and content providers which lead from the gains in reduced capacity use, better audio reproduction in weak signal conditions, and opportunities for enhanced programme and service related data services (SlideShow, EPG, logos, visuals, travel information, etc.)
Question 4: Do you agree with our other proposed revisions to the Digital Radio Technical Code outlined in Section 6 of this document? Do you have any views on alternative models for dealing with the administration of SId and TII codes?	WorldDAB has some specific comments about the use of the DAB standards, as set out below. However, WorldDAB does not express a view on other issues which we judge to be within national responsibility. <i>Removal of mode II</i> : WorldDAB supports the removal of mode II. <i>MCI/FIC Repetition Rate and AIC</i> : WorldDAB supports the changes to the code to reflect the requirements for the FIC. We advise that EN 300 401 provides the rules for coding of MCI and SI FIGs and repetition rates for MCI and simple SI FIGs, whilst TS 103 176 provides additional rules of operation, behaviour and repetition rates for complex SI FIGs. WorldDAB supports the removal of reference to the AIC. We advise that reference to the

FIDC should also be removed from section 4.1 of the code, as this has also been deprecated in the current version of EN 300 401. *Error Protection:*

WorldDAB observes that the draft technical code sets a minimum protection level of UEP-3 for DAB audio, but permits the use of stronger protection using UEP-2 and UEP-1. However, for DAB+ the protection level is fixed at EEP-3A. WorldDAB would recommend that a similar model should be used also for DAB+ audio because there may be circumstances where stronger protection would allow an ensemble to provide reliable coverage at lower power, thus potentially easing adjacent channel interference issues, albeit offering lower net capacity for services.

SId & TII Codes:

WorldDAB strongly disagrees with the idea of allowing non-unique SId codes. The entire DAB system architecture is built on the uniqueness of the SId and many service information features would break down if services with different audio and service information carried the same SId, regardless of geographical separation. Radio is a mobile medium and receivers, especially car receivers, will travel about collecting and storing service information.

The DAB system standard, EN 300 401 states in clause 6.3.0 "Each service shall be identified by a Service Identifier (SId) which, when used in conjunction with an Extended Country Code (ECC), is unique world-wide."

The total code space for the UK consists of 2^12 service references, which is 4096 unique codes, which are combined with the UK's country code 0xC to form the complete SId. This code space should be sufficient, providing that allocation rules do not restrict the effective code space. Referring to the draft technical code, we see that Ofcom has some restriction in the total code space (third nibble is restricted to 0x8-0xF, meaning 2048 available codes) and that the code space is shared with RDS. If the coding restrictions of RDS are also being used for DAB (e.g. use of second nibble for international, national, local, etc) then this will reduce the set of available codes and may be the rationale for suggesting the codes may run out. WorldDAB would encourage Ofcom to consider how to

	 maximise the available code space and therefore continue to be able to allocate unique codes for DAB services in line with the requirements of the DAB system. WorldDAB believes that geographic re-use of TII codes is permissible, providing adequate separation distances are employed. The use of TII for end-user features has been deprecated in the current version of EN 300 401, and TII is now only provided for transmission network monitoring and other transmission network operational uses. The administration of codes is a national issue, but WorldDAB would like to emphasise that correct allocation of Elds and Slds is critical to the overall performance of the DAB system, and the satisfaction of listeners. Therefore, WorldDAB would recommend retaining Sld allocation as part of the licensing function performed by Ofcom. <i>References to international standards:</i> WorldDAB welcomes the increased use of references to international standards. We would advise that: MPEG layer II is referred to as "DAB audio" in EN 300 401 and is now described in detail in TS 103 466 rather than EN 300 401 (section 3.7 of the draft code); HE-AACv2 is referred to as "DAB+ audio" in EN 300 401 and is still described in TS 102 563; TA and TP are not terms used in DAB but in RDS (section 3.8 of the draft code), the DAB terms are announcement switching and announcement support, respectively; Regional definitions and labels and Pnum are deprecated (section 4.3 of the draft code, table 3).
Queston 5: Do you agree with our other proposed revisions to the Technical Policy Guidance for DAB Multiplex Licensees document outlined in Section 7 of this document?	WorldDAB considers this to be a national issue.