WorldDMB Forum response to Ofcom consultation on Broadcast Digital Radio Technical Codes and Guidance

Question 1: Do you agree with our proposals for amending the Digital Radio Technical Code in relation to DAB+? Do you have any views on how we propose its use will be permitted?

World DMB believes that DAB+ is the future of digital radio and so welcomes the proposal to allow the introduction of DAB+ in the UK. DAB+ is the technology of choice for those embarking on introducing digital radio all over Europe and in Asia, Africa and Australasia. Countries in Europe that began broadcasting with DAB have embarked on a transition to DAB+, which is well advanced in Switzerland, Norway and Germany.

We are, however, disappointed that Ofcom proposes a limit to the multiplex capacity allowed for DAB+ and see no evidence as to why 30% has been chosen. It appears to be a somewhat arbitrary choice based on the 30% data limit in the current code. The consultation suggests that the limit might be changed in future, but no indication is given of the factors that would be used in the reassessment.

We believe that the digital radio market in Europe is set to develop rapidly and the inclusion of any limit to the speed and extent of transition to DAB+ in the UK could hinder the advantages that this technology would bring to the market. We believe that programme providers will make sensible decisions about their future and so are in the best position to assess when and how they should make a change to DAB+.

Question 2: Do you have any comments in relation to our proposals to amend the planning standards?

We believe that the proposed revisions to the planning standards will provide a solid basis for coverage planning in the UK, but we also wish to state that the proposed field strength must be related to a particular error protection profile in order to be meaningful and this should be stated. We assume, from information in the rest of the consultation, that this field strength is in relation to DAB services coded at the UEP-3 protection level.

We would like to remind you that the DAB standard provides a flexible set of parameters and it may be beneficial to operators to plan DAB multiplexes to carry services with different error protection profiles such that coverage can be achieved with an appropriate network design. Therefore we have no difficulty with the idea that there is a standard, but it should be possible for operators to make variations between field strength and protection level in order to achieve the most from their digital radio operations.

Question 3: Do you have any comments on our proposed approach to Unequal Error Protection and Equal Error Protections?

We are concerned to note that the consultation document does not properly express the error protection nomenclature for DAB. DAB audio services generally use Unequal Error Protection (UEP) as these have been especially tailored to the MPEG 1 layer II audio frames. The available rates are UEP-1 (highest robustness) to UEP-5 (lowest robustness). DAB+ audio services always use Equal

Error Protection, and DAB provides eight levels, with the A profiles allowing 8 kbps steps and the B profiles 32 kbps steps. Given the fine granularity of bit rates available in DAB+ coding, EEP-1A (highest robustness) to EEP-4A (lowest robustness) are usually used. Data services also should use EEP as the bit patterns of general data to not align to MPEG 1 layer II audio. The terms UEP3-A and EEP3 are meaningless.

As advised in answer to Question 2, we do not agree with Ofcom's proposed approach that UEP3, UEP3-A and EEP3 should be exclusively used to make coverage predictions (and in fact we deduce that you probably mean UEP-3, EEP-3A and EEP-3A respectively). It is surely the decision of the multiplex operator whether he wants to operate with lower or higher capacity and therefore what trade-offs he makes in his network planning. In a sparsely populated area there may be fewer services to carry, and a more robust network design would allow fewer transmitting sites to be used bringing economies.

The proposed rules preventing operators from changing the error profile of their service seem to be unduly prescriptive: our experience in other countries is that service providers do not wish to lose their audience and therefore do not make decisions that would be detrimental to their listeners' enjoyment.

Question 4: Do you agree with our proposals in relation to management of Adjacent Channel Interference?

We do not have a view on this proposal since we feel it is a national issue to determine appropriate conditions.

Question 5: Do you agree with our proposals for amending the Digital Radio Technical Code in relation to multiplex capacity allocation? Do you have any alternative suggestions?

World DMB is familiar with the discussion about bit rates and audio quality regarding DAB (although interestingly, there has been very little such discussion regarding DAB+). However, we support this proposal to remove bit-rate requirements from DAB because it supports our view that service providers should take responsibility for the quality of their services. We would hope that a similar approach should be taken in regard to choosing DAB+ (see our response to Question 1).

Question 6: Do you agree with our proposals in relation to the management of TA/TP features on DAB? We are particularly interested to hear any views on issues that could affect implementation of these proposals.

We are concerned to note that the consultation document does not properly express the functioning or capabilities of the announcement feature of DAB. DAB offers 16 different announcement types (11 currently defined) of which traffic is but one, and provides various filtering mechanisms to control whether an interruption to a given service is permitted from a signalled announcement. DAB announcements are signalled in a completely different way to FM-RDS and therefore the use of the TA/TP nomenclature from RDS is insufficient to describe the proposal.

We presume that the intension of the proposal is to protect listeners from unwanted interruptions from other services. World DMB, through its Technical Committee, has discussed the announcement feature and possible implementation issues and problems. This requires correct

behaviour in terms of the signalling provided by the broadcaster, and in the implementation in the receiver. From a regulatory perspective, a proper framework for allocating identifiers, including ClusterIds, is essential in order that the choices of both broadcasters and listeners are respected in the operation of the various filtering mechanisms provided.

We feel that further work is required, in consultation with the digital radio industry, to properly prepare for the use of announcements in the UK. It is likely that WorldDMB Technical Committee will begin work in this area shortly to extend the scope of TS 103 176 to include announcements.

Question 7: Do you have any additional comments on either the draft Digital Radio Technical Code or Technical Policy Guidance note?

No.

Question 8: Do you have any other comments to make on any of the matters raised in this consultation?

World DMB is a member organisation that promotes the introduction of DAB digital radio. We organise events and our members share their expertise in order to improve digital radio for everyone. Our members include broadcasters, network operators, manufacturers and regulatory bodies.