RadioCentre's response to the Ofcom consultation document 'An approach to DAB coverage planning'

Introduction

1. RadioCentre is the industry body for UK commercial radio. It exists to maintain and build a strong and successful commercial radio industry, and to help promote the value and diversity of commercial radio.

2. Founded in 2006 after the merger of the Radio Advertising Bureau (RAB) and the Commercial Radio Companies Association (CRCA), RadioCentre represents radio groups and stations from rural, small scale ventures, to household names serving major metropolitan areas. Its member stations together represent 90% of commercial radio listening.

3. Working with a range of stakeholders, RadioCentre works for the greater benefit of commercial radio, from lobbying on the industry's behalf with government, Ofcom and policy makers, to raising the profile of commercial radio with advertisers and their agencies, and of course, working with radio stations themselves, helping them maximise the potential of their businesses.

Overview

4. RadioCentre welcomes the opportunity to comment on the approach to DAB coverage planning. RadioCentre's membership includes a range of service providers (analogue and digital) as well as a number of multiplex owners with combined business models. Therefore, there is inevitably a range of opinions and priorities on what a DAB coverage plan may eventually look like and how and this might be achieved. Consequently we anticipate individual operators may also submit supplementary views alongside this submission in order to articulate their perspective on a particular issue.

5. While we still have some concerns regarding the build out plan itself and how this will be structured and funded, we understand that these matters are not within the scope of this consultation. In respect of the specific points raised by the consultation, we are broadly content that Ofcom's planning assumptions and the technical parameters it is seeking to apply are appropriate. However, we have sought to provide a number of comments on issues that have emerged from this work.

Matching DAB to FM within defined coverage editorial areas

6. RadioCentre is familiar with the rationale for defining 'composite' editorial areas, which take into account the existing coverage of the largest local commercial service and relevant BBC local (or nations) service, so it is possible to plan the multiplex map appropriately. To adopt an alternative approach to planning, for example by adopting just the BBC or commercial stations editorial area alone, would risk depriving listeners of either one of these services in areas where they current receive them and/ or could reasonably expect to be served by them in future.

7. However, while this approach does appear logical for planning purposes, a number of commercial radio operators are likely to be concerned about the broader implications of

moving from their current unique editorial area (or even planning based on the most commercially viable or desirable coverage), to a composite area that they are not geared to serve either in terms of their broadcast content or their sales operation. This concern may be due to the potential shift from their existing coverage area to a significantly enlarged area or different geographical focus (or both).

8. Clearly this is a more general point regarding a change in business model and practice of local radio operators, currently licensed to serve towns, cities and surrounding areas, should they ultimately switch to digital-only broadcast across county-wide areas covered by local DAB multiplexes. Nevertheless it is a material consideration for commercial operators examining the areas that are being planned and the subsequent coverage requirements.

9. That said, we acknowledge that this consultation is concerned with broader principles of DAB planning rather than the specific boundaries of the editorial areas, or particular changes to existing areas. In that sense the current considerations are somewhat hypothetical, particularly given that no such change can be made without a request from the multiplex operators, followed by an appropriate public consultation. Consequently any changes of this nature will inevitably need to form part of a broader industry settlement on coverage for DAB, once operators have been able to take a more definitive view on the relative importance of matching existing editorial area and improving local DAB coverage overall.

Determining the extent of existing FM coverage

10. It is difficult for RadioCentre to comment in detail upon the assumptions regarding appropriate field strengths for defining existing FM coverage. However, the number of the factors that Ofcom has taken into account would appear to provide a sound basis for the approach it is seeking to adopt in modelling FM coverage.

11. As Ofcom states, the question of appropriate field strengths for FM is ultimately informed by subjective experience. Therefore the relatively wide range of field strengths and types of being used by Ofcom to assess FM coverage would seem to be appropriate, as it implies that it is drawing a reasonably broad definition of acceptable coverage. This is also consistent with the focus on maximising DAB coverage within editorial areas.

Determining the extent of existing DAB coverage

12. Ofcom identifies several relevant issues that have emerged in determining and defining DAB coverage. Our response focuses principally on the assumptions made in predicting DAB in-vehicle coverage, but also provides brief comments on the concept of merging editorial areas and changing frequency allocations as ways of improving coverage.

- **99%/ 99% coverage parameters**

13. We acknowledge that one of the challenges in planning adequate DAB coverage is that the signal degrades differently to that of FM. As Ofcom notes, when a DAB signal falls below the level required for a robust reception it will typically emit a burbling, scrambled audio sound before muting entirely.

14. Therefore we understand why Ofcom has proposed higher signal strengths when planning DAB services. Indeed it is quite likely that anecdotal evidence of poor DAB coverage to date has been one of the factors that may have limited the growth in digital listening. In which case, any future plan must ensure that the level and integrity of DAB coverage is at a level that matches FM as widely and as often as possible, to seek to enhance the consumer experience.

15. The DAB planning parameters used by Ofcom appear to be designed to achieve this outcome, which we broadly welcome. However, as Ofcom openly admits, its starting point for in-vehicle reception of 99% locations for 99% of the time may be at the higher end of what is genuinely required. As the document states 'this level of robustness may not be appropriate and may result in under-prediction of coverage'[1] – and conversely relaxing some of these parameters could lead to a relatively significant increase in areas considered to be covered.

16. In order to address this issue adequately, RadioCentre has sought advice from a Chartered Engineer with significant experience in designing, building, launching and operating broadcast networks. In particular we sought his considered opinion on the impact of moving away from the 99% coverage planning parameters. A summary of his report to RadioCentre is attached as an appendix to this submission[2].

17. His view on this matter was that any decision on whether to relax the parameters would essentially be a cost benefit one. To relax these parameters slightly in the planning processes would clearly result in coverage plots extending slightly further (although it is worth remembering we are not changing the situation on the ground, only the way the information is represented). This would also have a subsequent financial benefit, as fewer transmitters may need to be built in order to achieve the levels of measured coverage required.

18. However, if the decision was made to relax the location coverage parameters of in-vehicle coverage to a lower level, say to 97%, then this would mean that for 99% of the time 3% of locations near the limit of the coverage area would not be covered. This would mean statistically expecting small "holes" in coverage to appear in these areas. These holes are unlikely to be countered by time interleaving, which would only protect against disturbances in a very small area (e.g. about 0.5 metres diameter for a car travelling at 30 miles an hour). Therefore a car receiver at the edge of the coverage area is more likely to receive a degraded service.

19. In addition, we understand that while the experience for static traffic will be worse, it is not necessarily correct to state that changing these parameters will only affect static traffic. If we say that an area is covered for 99% of locations for 99% of the time this does not mean that it is covered in all locations most of the time. This means that for 99% of the time at least 99% of the area is covered. This also means that for 99% of the time 1% of the area in pixels on the map near the limit of coverage is not covered, which could have a broader impact than just for vehicles.

[1] Ofcom 'An approach to DAB coverage planning' June 2011, para 5.38

[2] Richard Morris 'Report for RadioCentre: Understanding the impact of moving away from the 99% coverage planning parameters', September 2011

20. The conclusion of our consultant's report, which we endorse, is that if purely technical aspects are being considered then relaxing these parameters is not recommended. Nevertheless, if there is a strong desire from the radio industry to increase the area shown as covered on a map for these purposes (and as part of an overall settlement on build-out) then that may justify a relaxation of the main vehicle planning parameters to 98% locations, 98% of the time. It is not recommended to relax them further than this.

21. An alternative approach may also include a combined approach, whereby the coverage plots could show "robust vehicle reception" (calculated with a location availability and a time availability of 99% as has traditionally been done), and, in another colour, show "variable/acceptable/usable vehicle reception" with a more relaxed parameter set, say 98% of locations and 95% of the time. It may be possible then, for example, to aim to cover motorways and dual carriageways with the "enhanced coverage" of 99%, but use more relaxed criteria for rural roads away from population centres.

22. However, we would repeat the view that relaxing these parameters is not technically a good idea. FM local radio has a relaxed time availability of 95%. This is fine for FM services as, with current planning parameters there is a significant margin between the target threshold and the level at which service is seriously impaired. We know that this is not the case for DAB, and relaxing this parameter is likely to mean loss of DAB services on a number of days per year at the fringes of the area shown as covered, which would not be the most suitable basis for DAB coverage planning.

- **Merging editorial areas**

23. On the face of it there are clearly some potential benefits of merging editorial areas and the DAB footprints of adjacent multiplexes. It could improve coverage while minimising the number of separate transmitters required in each case and result in a larger area using a single frequency, freeing up pressure on the re-use of frequencies.

24. Yet, as noted earlier in this document, a number of commercial stations will already be concerned at the way in which their existing business models may be required to shift from serving their existing (analogue) coverage area, to a significantly enlarged (DAB multiplex) area with different geographical focus.

25. Seeking to carry a larger number of local services over a greater area still in some cases could be problematic for commercial operators in terms of their local sales operations, and could inadvertently create a framework that is less likely to deliver locally focussed output. Therefore we would urge caution in pursuing this approach, although in any case no such change can be made without a request from the multiplex operators, followed by an appropriate public consultation.

- **Exploring frequency allocations**

26. Commercial radio is not opposed to further frequency changes being considered as part of an overall settlement on planning local DAB coverage, and notes the significant work that has been done over the past year within the Ofcom Planning Advisory Group to work through a range of possibilities. However, any such changes will need to be examined on a case-by-case basis, with the implications outlined and explained clearly to all affected parties. Moreover, any such changes will require the consent of multiplex

operators and an agreement on the allocation of any subsequent cost that would be incurred.

Planning the build out of DAB coverage

27. A range of planning scenarios are illustrated within the consultation document. However, Ofcom is clear that these scenarios are part a theoretical exercise and in some cases 'deliberately over-planned…on the assumption that not every one of the proposed transmitters would be built in practice'[3].

28. The data generated as part of this process (on projected household and road coverage) is essential and will be invaluable in developing a viable and credible build out plan. Yet the fact that none of the detailed scenarios are currently under direct consideration as part of the local DAB planning discussions between Government and the radio industry mean they are of limited value.

29. Indeed there is a danger that the provision of such information could even be counter-productive if it is examined by radio operators in isolation, without the context of the discussions that are taking place on the actual build out plan that is being proposed and the associated funding mechanism. Rather than focusing on these hypothetical scenarios it is now for Government, Ofcom and the radio industry to devise the most appropriate plan (and funding) for building out coverage on a multiplex by multiplex basis.

30. This remains a complex and difficult challenge, which is likely to require different approaches in different areas depending on the circumstances. Indeed the intensity of transmitter build out required to replicate FM will mean that this may not be achievable in all parts of the UK.

31. It may also require further technical work, in order to reflect the reality of the balance between multiplex capacity and service providers in some areas, in order to avoid multiplexes only being partially filled. To this end it may also be worth considering the levels of error protection thresholds in place, and whether a change in these levels could lead to a lower number of transmitters being required in order to meet the coverage predictions (potentially reducing the overall costs of build out).

RadioCentre, September 2011

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[3] Ofcom 'An approach to DAB coverage planning' June 2011, para 6.9