

## **Response to the Ofcom consultation on Revisions to Digital Radio Technical Codes**

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1. This is a joint response from three DAB multiplex Licensees; Bauer Digital Radio (“BDR”), CE Digital (“CE”) and Digital Radio Group (London) (“DRG”). Together, for the purposes of this submission alone, this group of multiplex operators is referred to as “BC&D”.
2. Bauer Radio is home to radio stations such as Kiss, Magic and Scala. Global Radio is home to radio stations such as Heart, Capital and Classic FM. Both Bauer & Global are long-standing supporters of digital radio and DAB in particular.
3. Bauer currently provides 10 brands across the two National DAB multiplexes and c 180 content services across the 58 Local DAB multiplexes.
  - a. Bauer Digital Radio (“BDR”) is a wholly owned subsidiary of Bauer Radio and is charged with managing Bauer interests in digital radio broadcast platforms.
  - b. BDR is currently the Ofcom multiplex licensee for 12 local DAB multiplexes in the UK and Bauer is a JV partner in 5 others, including 3 in London.
4. Global currently provides 8 brands on Digital One and c. 150 content services across the 58 Local DAB multiplexes.
5. CE Digital is a 50:50 joint venture multiplex operator between Bauer Radio and Global Radio. CE Digital operates the first London multiplex and the local multiplexes in Manchester and Birmingham.
6. Digital Radio Group (London) is owned by four shareholders: Carphone Warehouse, Bauer Media, The Wireless Group and Global. The multiplex is managed on behalf of DRG by Global.
7. Following the local-DAB expansion project completed in 2018, the local DAB multiplexes operated by the three parties to this submission cover c. 50% of UK households. *(Excluding any changes as a result of recent Bauer acquisitions.)*
8. BDR, CE and DRG together welcome the opportunity to respond to this Ofcom consultation.
9. In its response, BC&D has kept in mind Ofcom’s aim ‘to regulate only where necessary’.
10. The advent of digital radio in general and DAB in particular, has contributed significantly to the expansion of listener choice in the UK. At the same time, it has brought more competition, variability and uncertainty to the radio market. The variability includes the more significant number of digital content services (mainly radio stations) which come and go over relatively short periods of time, compared to the historical norm in the analogue radio world. Consumers are increasingly familiar with such change. Alongside coverage, it is increasingly the appeal (or otherwise) of particular content services to consumers, which determines whether or not brands thrive on a digital radio platform. An increasingly dynamic radio market is therefore the context for this consultation which proposes changes to the regulation of technical parameters that apply to DAB.
11. BC&D would argue that in a market which is increasingly subject to such change, the need for detailed regulation of technical standards is much less and it is for the operators of the platforms to agree with the providers of the content, just what combination of technical parameters should be applied to individual services.
12. Expanded consumer choice of radio services has been the primary driver of DAB listening. More flexibility on technical regulation of the platform enables further consumer choice to be brought to the market; albeit perhaps with some successes and some failures.

## SUMMARY OF BC&D RESPONSE

13. Q1 – Modified ACI/blocking procedure proposals
  - a. With the two caveats detailed below, BC&D welcome the proposed changes in relation to management of the very thorny problem of ACI and blocking.
  - b. However, Ofcom and proposers of new DAB transmitters, whether small-scale or otherwise, will have to take great care in the application of the procedures if current DAB listeners are not to be disenfranchised.
  - c. Getting this wrong will cause damage to large numbers of well-established DAB channels by punching holes in current coverage of entire multiplexes.
  - d. **Caveats - BC&D would strongly encourage Ofcom to amend the proposed ACI/Blocking procedures to require that;**
    - i. **As a minimum, the results of all drive-tests are fully recorded electronically and made available to Ofcom & affected multiplex operators.**
    - ii. **The proposer must also provide to all potentially affected multiplex operators, a clear narrative with analysis describing the ACI impact, supported by detailed, accurate and representative ‘slug-trail’ maps of such drive tests, alongside any tabulated data of the impact of the new site.**
  
14. Q2 – Proposed Spectrum Mask Changes
  - a. BC&D are content with the adoption of the new ETSI mask characteristic and on the potential use of the non-critical spectrum mask.
  
15. Q3 – Proposed changes on DAB+ audio encoding
  - a. The headline relaxation on use of DAB+ is welcomed with one caveat.
  - b. **Caveat: BC&D do not feel the new requirement for multiplex licensees to liaise with content providers moving from DAB to DAB+ is either relevant or appropriate.**
  
16. Q4 - Digital Radio Technical Code: other proposed revisions - Error Protection
  - a. **BC&D do not support the Ofcom ban on the use of UEP4 and UEP5 protection-ratios, or to establish a minimum EEP for DAB+.**
  - b. **BC&D consider there is no regulatory justification for such a constraint and would wish to see regulation of DAB protection-ratios removed other than in relation to FM simulcasts.**
  
17. Q5 – Digital Radio Technical Policy Guidance: other proposed revisions
  - a. **BC&D do not support the change which seeks to apply the current guidance on Audio Characteristics only to national and local multiplex owners.**

## DETAILED BC&D RESPONSES TO THE CONSULTATION QUESTIONS

*Question 1: Do you agree with our proposed changes to the ACI/blocking procedures?*

18. **With the two caveats detailed below, BC&D welcome the proposed changes in relation to management of the very thorny problem of ACI and blocking.**
19. **However, Ofcom and proposers of new DAB transmitters, whether small-scale or otherwise, will have to take great care in the application of the procedures if current DAB listeners are not to be disenfranchised.**
20. **Getting this wrong will cause damage to large numbers of well-established DAB channels by punching holes in current coverage of entire multiplexes.**
21. **Caveats - BC&D would strongly encourage Ofcom to amend the proposed ACI/Blocking procedures to require that;**
  - a. **As a minimum, the results of all drive-tests are fully recorded electronically and made available to Ofcom & affected multiplex operators.**
  - b. **The proposer must also provide to all potentially affected multiplex operators, a clear narrative with analysis describing the ACI impact, supported by detailed, accurate and representative 'slug-trail' maps of such drive tests, alongside any tabulated data of the impact of the new site.**
22. By doing so, current operators can be provided with consistent and robust data on which to make an assessment of any particular ACI/Blocking impact, without the need to attend such drive tests.
23. Rajar for Q4 2018 reports that 63% of the UK population (35 million people) now tune in to radio via a digitally enabled receiver (DAB, DTV, Online or App) each week. 52.6% of all radio listening is now digital, with DAB delivering 73% of all digital listening hours.
24. At a point where consumer adoption of DAB is now well established, with listening to DAB radio services at a high, technical regulation must continue to protect the interests of DAB listeners.
25. With the potential for hundreds of small-scale DAB transmitters to be proposed in coming months, each one of which could punch a hole in current coverage, it is essential that new ACI/Blocking procedures are robustly and effectively applied.
26. Unless carefully managed, the introduction of small-scale DAB, has the potential to punch a significant number of holes in current DAB coverage and to disenfranchise existing listeners across the UK to local and national DAB. This is a particular threat in densely populated towns and cities. Such holes in coverage do not just affect individual radio channels, rather they affect listening to all services on affected local and national DAB multiplexes.
27. Local DAB is most at risk from ACI/Blocking caused by the introduction of small-scale DAB as the average power output of local DAB transmitters permitted by Ofcom is significantly lower than the powers used by national DAB transmitters. The ACI/Blocking effect of each small-scale DAB transmitter has the potential to permanently block access for existing listeners to (say) 10 separate well-established DAB radio services, including BBC Local and Nation services, by punching holes in current coverage.
28. As it will be any new DAB operators (small-scale or otherwise) who will be the 'interferer'; with existing local and national DAB operators (and their respective listeners) becoming the 'victims', the obligations and costs to protect current coverage and avoid ACI/Blocking sit firmly and exclusively with new operators.

29. Current local and national DAB operators have co-operated widely, at significant expense and over many years, to mitigate ACI/Blocking within the current network. ACI/Blocking can be avoided by either co-siting new transmitters or providing 'filler' transmitters. New DAB operators must be required to do likewise to avoid current DAB listeners losing coverage.
30. The cost of such mitigation measures to new operators must not be used as any justification for such new operators not to protect the interests of current DAB listeners.

*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?*

31. BC&D are content with the adoption of the new ETSI mask characteristic and on the potential use of the non-critical spectrum mask.
32. The proposed Code drafting at clause 2.5 c) ii) is essential to make clear that no changes can be required retrospectively in relation to transmitters in operation at the date of the change.

*Question 3: Do you agree with Ofcom proposed changes on DAB+ audio encoding?*

33. BC&D are in favour of DAB+ becoming a more widely used standard in the UK.
34. We welcome the Ofcom proposal to remove the requirement for licensees to obtain specific authorisation from Ofcom for adopting DAB+.
35. **However, BC&D do not consider the new code requirement for multiplex licensees to liaise with content providers moving from DAB to DAB+ to be necessary, relevant or appropriate.**
36. BC&D are not aware of any circumstances where a multiplex operator can impose a move from DAB to DAB+ on a content provider. Rather it will be for content providers to decide on such a change and negotiate commercial terms and technical changes with the multiplex operator.
37. It will in turn be the content providers sole responsibility to communicate with consumers on the implications of such a change. Multiplex operators have no routine access to consumers and do not generally hold DSPS licences to allow them to broadcast any form of content.
38. It is not clear what form of 'announcement' Ofcom has in mind. In general, multiplex operators do not have the technical capability or regulatory authority to broadcast on the relevant multiplex.
39. In summary, any essential regulatory constraint on a change of coding from DAB to DAB+ should be addressed to the relevant content provider via their DSPS licence rather than via the Technical Code and the multiplex operator.

*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?*

40. **BC&D would support a minimum of UEP3 only in relation to services which are simulcast on FM and DAB, where the FM coverage area of such services is broadly equivalent to**

**the licensed area of the relevant DAB multiplex. Use of UEP3 was a key assumption which underpinned the design of build-out of local DAB to achieve commercial FM Equivalence. Regulating UEP levels for this class of content services is important to protect consumer interests.**

41. **However, in every other case, including AM simulcasts, smaller scale FM simulcasts and all other non-simulcast content services, BC&D would argue that any DAB protection-ratio (UEP or EEP) should be permitted and be a matter solely for agreement between the multiplex operator and the relevant content provider.**
42. It is not clear to BC&D what Ofcom is trying to achieve by limiting the use of protection-ratios as proposed. Variations of coverage, both service-to-service and over-time, are a feature of all broadcast networks.
  - a. Numerous UEP4 services already exist in the network and BC&D is not aware of any evidence that this is in any significant way, damaging to consumer interests.
  - b. The effect of any variation of protection-ratio within a multiplex will lead to differential coverage between the content services on that multiplex. It is inconsistent to have regulation which contemplates the use of UEP1, UEP2 and UEP3, while excluding the use of UEP4 and UEP5.
  - c. Coverage of DAB content services with a common protection-ratio, but which are carried on different overlapping multiplexes, will have differential coverage (eg Local -v- National and Local -v-Local).
  - d. Differential coverage of content services is already a feature of analogue platforms in any given area due to variations of ERP, Antenna Height and Pattern. There has never in the past been any regulation requiring new analogue stations to match the coverage of all existing analogue stations in a given area and it is not clear why this is required of DAB stations.
  - e. Variations of DAB protection-ratio only impact at the margins of coverage. Such marginal coverage is also significantly affected by time-varying propagation conditions giving rise to varying levels of signal and interference of the same order as different protection-ratios.
  - f. Finally, imposing UEP3 on DAB and EEP3x on DAB+ will not deliver the same coverage of DAB and DAB+ services. At the margins, such DAB and DAB+ coverage will be different.
43. From a consumer perspective, it is surely the extent of coverage of individual content services which is important, rather than the coverage of a 'multiplex'. The multiplex construct is only a means to an end and has little, if any, significance to consumers. It is not clear why Ofcom are seeking to impose consistent coverage of content services within a given multiplex when differential coverage and time-varying coverage will remain a feature of the DAB system as a whole.
44. Given that under the Ofcom proposal, coverage of individual content services can vary through use of UEP3/2/1 within a multiplex and that coverage of content services will vary from multiplex to multiplex, it is unclear what is achieved by limiting UEP settings to only part of the possible range.
45. Fully flexible use of protection-ratios offers more flexibility to multiplex operators to manage finite bandwidth. In light of the continuing high installed base of DAB-only receivers in the UK and the resulting commercial constraints on medium-term use of DAB+, the maximum flexibility on application of limited DAB-only bandwidth is more likely to deliver the widest consumer choice.

46. In the same way that regulatory limitations on bitrates and mode are no longer considered appropriate, limitations on protection-ratios should be minimal.
47. BC&D is content with the Ofcom proposals in relation to SID and TII codes, except that re-use of any SID which is also capable of being an FM RDS PI code should not be permitted. This is necessary to avoid the risk of service following between unrelated services.
48. **In summary, BC&D do not agree with the Ofcom proposal to limit the range of protection-ratios that can be applied to content services.**
  - a. **BC&D support mandatory use of UEP3 only for those FM simulcasts which broadly match the relevant DAB licenced area. This is essential to safeguard consumer interests in a future migration from analogue to digital.**
  - b. **In every other case, BC&D would argue against any regulatory restriction on the use of the full range of protection-ratios that exist within the DAB and DAB+ standards. We consider that to do otherwise will unnecessarily restrict the range of content services that could be made available to consumers.**

*Question 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?*

49. **BC&D do not support the change which seeks to apply the current guidance on Audio Characteristics only to national and local multiplex owners.**
50. At a point where the equivalent form of regulation to apply in future to small-scale DAB is not yet determined, there is no reason to pre-judge that regulation of National and Local DAB should be any different to small-scale.
51. Any discrimination in technical guidance between the national/local and small-scale should be subject to consultation and considered only once Ofcom proposals for the small-scale operators have been published.

*Bauer Digital Radio,*

*CE Digital &*

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