





**Bauer response to the Ofcom consultation on updates and amendments to the Broadcast Digital Radio Technical Codes and Guidance: Published 11<sup>th</sup> April 2014.**

1. Bauer Radio is a long-standing supporter of digital radio and DAB in particular. Of the c.38 local analogue licences held by Bauer Radio, c.35 are simulcast on local DAB. In addition, Bauer Radio operates 5 content services on the D1 national DAB platform as well as having radio services on digital TV platforms. All Bauer Radio brands are also available on-line.
2. Bauer Digital Radio ("BDR") is a wholly owned subsidiary of Bauer Radio and is charged with managing Bauer interests in digital radio broadcast platforms.
3. BDR is the Ofcom multiplex licensee for 12 local DAB multiplexes in the UK and is a JV partner in 5 others, including 3 in London. Together these local DAB multiplexes cover c. 45% of UK households.
4. As the part of Bauer responsible for managing the DAB platform, BDR welcomes the opportunity to respond to this Ofcom consultation.

**Executive Summary**

5. In its response, BDR has kept in mind Ofcom's aim 'to regulate only where necessary'.
6. The advent of digital radio in general and DAB in particular, has contributed 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. In many cases it is the appeal or otherwise of particular content services to consumers, alongside their coverage and technical quality, which determines whether or not they 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 some key technical parameters that apply to DAB.
7. BDR 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.
8. More flexibility on technical regulation of the platform will be likely to bring more consumer choice to the market; albeit with some successes and some failures. If the coverage or quality of a particular content service does not meet consumer expectations, then the responsibility lies with the operators and they need to have adequate flexibility within their control to address such shortcomings.
9. BDR is supportive of the generally de-regulatory thrust proposed by Ofcom in the consultation, however we consider some of the Ofcom proposals for on-going regulation to be unnecessary and would encourage Ofcom to go further in relaxing the Digital Technical Code.
10. **Summary of BDR response;**
  - a. (Q1) The introduction of DAB+ is welcomed, but we would wish to see the pace and extent of the use of DAB+ driven by market participants rather than by continuing regulation.
  - b. (Q2) BDR is fully supportive of the proposed changes to the planning standards
  - c. (Q3) BDR support for the Ofcom proposals in relation DAB protection-ratios (UEP/EEP) is limited to one important exception - relevant FM simulcasts. In every other case, BDR would wish to see all regulation of DAB protection-ratios removed.
  - d. (Q4, 5, 6)) BDR is fully supportive of the Ofcom proposal for the future management of ACI, Bit Rates and TA/TP.

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?

11. BDR is in favour of DAB+ becoming a permitted standard in the UK. We welcome the proposal to permit DAB+ on the D2 licence. We would wish to see this right extended to all multiplexes, enabling all operators to deploy DAB+ content services when content providers consider it viable to do so.
12. We consider that the introduction of the DAB+ standard will naturally be gradual and can be achieved without the need for the proposed 30% limit which we judge to be unnecessary.
13. DAB+ is already part of the UK minimum receiver specifications which is administered by DRUK. DAB+ has been included in the minimum specifications to grow the installed base of DAB+ receivers, enabling DAB+ services to be launched and accessed by consumers when it becomes commercially viable to do so.
14. Including fully flexible use of DAB+ in the technical code now will provide important clarity and confidence to the manufacturing supply chain about the future potential for DAB+ services in the UK.
15. The inclusion of DAB+ in a digital radio costs around \$1 royalty per radio for manufacturers. For UK retailers manufacturing their own digital radios, and not selling products across Europe or making products for cars, it is important that Ofcom enables broadcasters to launch DAB+ services in a flexible manner. This gives a clear signal to the supply chain and will help to justify the investment in DAB+ capable radios.
16. BDR would support a fully flexible introduction of DAB+ to the Technical Code.

Q2: Do you have any comments in relation to our proposals to amend the planning standards?

17. BDR is fully supportive of the Ofcom proposals to amend the planning standards.

Q3: Do you have any comments on our proposed approach to Unequal Error Protection and Equal Error Protections?

18. BDR would support a minimum of UEP3 only for a limited class of content services; Those 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 is a key assumption which underpins 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.
19. However, in every other case, including AM simulcasts, smaller scale FM simulcasts and all other non-simulcast content services, BDR 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.
20. It is not clear to BDR 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. 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.
  - b. 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).
  - c. 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.
- d. Variations of DAB protection-ratio only impact at the margins of coverage. Such marginal coverage is also affected by time-varying propagation conditions giving rise to varying levels of signal and interference of the same order as different protection-ratios.
  - e. 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.
21. 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.
  22. 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.
  23. Fully flexible use of protection-ratios offers more flexibility to multiplex operators to manage finite bandwidth. In light of the 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 use of the limited DAB-only bandwidth is more likely to deliver the widest consumer choice.
  24. In the same way that regulatory limitations on bitrates and mode are no longer considered appropriate, limitations on protection-ratios should only be to defend essential consumer interests.
  25. In summary, BDR do not agree with the Ofcom proposal to limit the range of protection-ratios that can be applied to content services.
    - a. BDR supports 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, BDR 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.

Q4: Do you agree with our proposals in relation to management of Adjacent Channel Interference?

26. BDR is fully supportive of the Ofcom proposals to manage Adjacent Channel Interference.

Q5: 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?

27. BDR is fully supportive of the Ofcom proposals in relation to Bit-Rates or multiplex capacity allocation.
28. We would note that 96kb half-rate stereo mode may have some application for certain types of content service.

Q6: 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.

29. BDR is fully supportive of the Ofcom proposals in relation to management of TA/TP features on DAB