

## Response from Bauer Radio – ‘An approach to DAB Coverage Planning’

1. This is a response by Bauer Radio to the Ofcom Consultation ‘An approach to DAB Coverage Planning’
2. Bauer Radio is a major player in UK commercial radio; actively engaged as a content provider on analogue and digital platforms and as a DAB multiplex operator.
  - a. We operate 12 DAB multiplex licences mostly in major metropolitan markets in Scotland, England and Northern Ireland (total licence area 28% of UK households). We are a 50:50 JV partner in CE Digital, the DAB licensee for London, Birmingham and Manchester (total licence area 29% of UK households).
  - b. We operate 41 local analogue radio licences, of which 37 are simulcast on DAB. We also provide national radio services on DAB, Freeview, Sky, Internet and Mobile radio platforms. ‘The Hits’ radio service operated by Bauer reaches more listeners than any other commercial digital-only radio service (Rajar W2 2011).
  - c. Bauer operates Radio services on 37 of the current 38 local DAB multiplexes.
  - d. Our extensive and longstanding involvement demonstrates our on-going support for digital radio broadcasting across a range of platforms and content genre.
3. Bauer welcomes the opportunity to comment on some aspects of the approach taken by Ofcom to planning DAB for a possible future switchover from analogue broadcasting to DAB for national and metropolitan based local stations.
4. In the consultation, Ofcom asked for 6 specific questions to be addressed. The Bauer responses are included in the Annexe.
5. Bauer has separately responded to Ofcom about the proposed build-out plan and associated funding which has been developed from the work that led to this consultation.
6. We welcome the current and proposed field trials and laboratory work to validate assumptions in the respective planning models. We would encourage that all such key assumptions are validated wherever possible by recent investigations.
7. In Summary, Bauer proposes that;
  - a. Numerical analysis of population and road coverage is limited to use of field strengths and planning parameters where the predicted coverage can be confidently related to good consumer experience.
  - b. Only Qualitative judgements are applied where there is less confidence about the predictions and/or consumer experience and such data is presented graphically as being indicative only.
8. Bauer will require any frequency change to be commercially viable or to be centrally funded.
9. Bauer commissioned a review of the Technical reports that support the consultation. This raised some questions about reliance on the ERA tests of a range of DAB receivers. (Bauer can provide a copy of our consultant report to Ofcom on a confidential basis on request.)

### ***Bauer Radio – September 2011***

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## ANNEXE – Bauer Response to Consultation Questions

***Question1. Do you agree with our approach of matching DAB to FM within defined editorial areas? We will seek comments on specific editorial boundaries via separate consultations if and when specific changes are proposed.***

Bauer broadly supports the concepts of Editorial Areas and Composite Coverage given the regulatory expectation for metropolitan commercial stations and BBC local stations to be carried on local DAB multiplexes. The consequence is that following a switchover, local BBC and local commercial stations will have identical coverage. The use of the composite FM coverage represents the best proxy for local DAB coverage, subject to satisfactory agreement on how such DAB networks are funded.

We note that, on the whole, the use of such composite-coverage better matches BBC FM coverage, often substantially exceeding commercial FM coverage. The consequence is to require more DAB transmitters in any given network than might otherwise be required and in-turn, to reduce commercial viability. On balance however, we consider this benefit to the BBC to be reasonably offset by the proposed BBC funding contribution to the build-out plan.

***Question2. Do you agree with our approach to determining the extent of existing FM coverage, and which of the three field strength levels should be used to define the FM coverage that DAB should match?***

Bauer supports the approach to determining the extent of existing coverage. We would encourage that wherever possible, any final decision on the field strengths to be used should be validated against recent field trials.

At the same time, as any service planning process is based on probabilities rather than certainties, we believe there should be a pragmatic approach to deciding what constitutes FM coverage. There should be a combination of numeric analysis and professional judgement in setting the limit of FM coverage and matching DAB coverage.

On the basis of our current understanding and experience we propose that the Numerical limit of FM coverage should be 48dBµV/m (FM48) for BOTH indoor and in-car FM coverage.

Our thinking is that beyond FM48, consumer experience will be increasingly poor and represents very few listener hours in most cases. In many markets where coverage is significantly limited by geography or by interference the areas of useable coverage between FM48 and FM42 will generally be small. In such markets it would be unreasonable to seek to numerically match DAB to every pocket of FM coverage down to FM42.

However, in markets where there are extensive areas of noise limited coverage between FM48 and FM42 and where this includes major roads, then a qualitative approach is required. Where such coverage may appear to need a dedicated additional DAB site, more detailed analysis would be justified to determine the actual usability of current FM coverage below FM48.

In summary we would encourage that the numerical FM Equivalence process only chases population and road length numbers down to FM48. Thereafter individual value judgment is applied to selectively match extensive areas down to FM42.

**3. Do you agree with our approach to determining the extent of existing DAB coverage, and its relation to the approach we take for FM?**

Bauer supports the approach to determine the extent of existing DAB coverage. In particular we welcome the ongoing field and lab trials to validate the parameters of the services planning models used to predict FM and DAB coverage.

As noted above we propose that numerical matching of FM and DAB should not extend beyond FM48.

- The limit of Good in-car DAB (to match Good in-car FM) should be 58dBµV/m (DAB58) for 99% Locations and 99% Time
- The limit of Good indoor DAB would be as proposed by Ofcom, subject to re-validating the detailed planning parameters

The thinking here is that the numerical matching of FM and DAB should offer a robust consumer experience for each technology reflecting the different failure characteristics. Use of the above limits is expected to match consistently good FM coverage with consistently good DAB coverage.

Beyond these limits there should be an acceptance that there will be variable quality for both technologies and matching them in a meaningful manner will be impossible. Attempting a purely numerical approach to matching beyond these levels would likely lead to installing DAB sites just to cover areas of marginal FM coverage.

***And in particular, as we consider the emerging issues,***

***Question4. Are the assumptions we make about needing to predict DAB in-vehicle coverage for 99% of the time and for 99% of locations the right ones?***

As detailed above, we propose that where a numerical equivalence of FM and DAB is required for in-car coverage, predictions should use 99% Locations and 99% of Time; i.e. confidently matching good FM to good DAB coverage.

If appropriate, maps can also show areas of ‘Variable FM’ down to FM42 and ‘Variable DAB’ using relaxed %-Locations and/or %-Time... however as under these circumstances, both FM and DAB coverage are predicted with less confidence and accuracy and the consumer experience is less well defined, numerical analysis of population and road coverage in these variable areas should be resisted.

***Question5. Should the principle of merging editorial areas be explored, as a way of improving coverage?***

Bauer considers that merging of editorial areas is more a commercial issue than a technical issue and as such, mergers should only be considered where, in all the circumstances (cost, coverage, market size, brand targeting, BBC involvement, consumer marketing etc) a merger is commercially viable.

***Question 6. Above and beyond the frequency changes proposed in this document, should further changes to frequency allocations be explored, as a way of improving coverage?***

Frequency changes generally enable more efficient use of spectrum and in turn better coverage across the local layer as a whole rather than in the specific licence area where the change is made.

For the most part, the benefit of a frequency change in any particular case is, to a greater or lesser degree, to the industry as a whole rather than to the respective licensee.

Bauer considers that the cost of frequency changes needs to be addressed alongside any potential for improved coverage in a particular market. We have no further proposals. Bauer will require any frequency changes already proposed for Bauer areas to be commercially viable or to be centrally funded.

***Bauer Radio – September 2011***