

## Your response

### Question 1: Do you agree with the planning principles and methodologies that we will use in our work to refine the coverage area plan for small-scale DAB?

**Introduction:** The general approach to coverage planning appears to be based on methodologies appropriate for larger national / regional networks, and aims for very high aggregate area coverage of most of England. As usual there is much reliance on computer modelling based on simplifying assumptions with little scope left for experimentation or pragmatism. The near-universal network coverage aspiration seems very ambitious and is a major contributor to the difficulties resulting in the need for the Macro Areas, along with consequent delays, complex stipulations and so forth.

This can be seen in the context of the history of previous such exercises, and particularly the similar 'Beauty Contest' approach to 'Incremental' and 'Sallie' (small-scale) FM licensing & planning 1990-2010, and how that looks in the rear-view mirror now those licences have mostly all been mopped up by a couple of large operators. To be fair, this comment is made with the enormous benefit of hindsight, and the situation of broadcast radio in the media landscape has indeed changed greatly with the onward march of IP delivery; but that hindsight could also inform future decision making. Maybe it is not too late to steer towards a more pragmatic approach much more appropriate to practical Small-Scale DAB?

**General Approach:** The approach based on predefined polygons as a framework for resolving a National SSDAB frequency grid is very understandable given the scope of planning work to be completed, the international dimension, and the pressing need to get on with it as we are already beginning a fifth year under Trial conditions.

However in the 'Macro Areas' the Predefined Polygons approach seems to offer far fewer benefits and certainly raises some problems for licence applicants. The primary remaining benefit is more or less automatically guaranteeing the 40% population coverage ceiling ref: the relevant Local multiplex.

**Predefined Polygons:** In the Macro Areas in particular, the current proposal leaves much of the coverage detail still to be determined even when the licence applications will be due. Defining the polygons in advance is tending towards micromanaging in a centralised way what might be better left to diverse applicants to define. In the case of Macro Areas - as specifically noted in the Consultation [3.57] – the predefined polygons do not offer the redeeming benefit of defining the 38dBuV interference that they do elsewhere - neither in the selection of which polygons will get multiplexes, nor in the subsequent detail frequency planning process determining directional constraints necessary to control interference, both of which will still be quite a way in the future at the time SSDAB licence applications have to be written.

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<p>3.16 3.18</p>	<p>The ‘overspill’ flexibility already identified by ofcom would probably take care of these concerns, but only so long as it is used reasonably (i.e similarly to how such flexibility has demonstrably been deployed several times in the past for the Local DAB layer).</p> <p>We note that some of the predefined polygons do not offer much editorial coherence (in the specific example of North London, straddling from urban Shoreditch, Brixton, Peckham etc. to leafy villages like Goff's Oak in Hertfordshire), and as such may be suboptimal in appealing to the radio stations both existing and new who will be customers of the Multiplexes. In the North London case, would not that polygon make more editorial sense if shifted Southwards a bit, closer to the Central London allocation in ofcom's 2016 frequency plan?</p> <p><b>“Ofcom proposes to base coverage calculations and assessments on a field strength of 63 dBµV/m, which is sufficient to provide ‘useable indoor’ coverage.”</b></p> <p>The last phrase of this sentence is factually incorrect as a blanket statement. 63dBuV/m is not sufficient to provide “useable indoor coverage” in Dense Urban environments (for example, Central London). The figure of 63dBuV/m is the lower of two figures published for the less challenging Suburban environment. In practice, 63 does not appear to provide reliable indoor coverage even in the suburban environment.</p> <p>Further input on coverage and field strengths is provided in Appendix 1 (confidential).</p>
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**Question 2: Do you agree with our proposed approach to the required technical licence conditions for small-scale radio multiplex services, and the proposed amendments to the Digital Radio Technical Code?**

<p>3.50  3.56 and 3.57</p>	<p>We endorse the approach of prioritising providing a path to terrestrial digital transmission for smaller analogue commercial, and community radio services, in alignment with the Government’s policy intentions. Gaining access to sufficient spectrum to provide workable coverage for listeners and viability for multiplex operators is key, and a very good start in achieving this has already been made by ofcom.</p> <p>It is not currently completely clear whether inviting licences <b>"in batches"</b> [<i>plural noted in 3.56</i>] in the Macro Areas means that all applications for services within each Macro Area will be advertised in one batch (plural because there are two identified Macro Areas), or whether there would be more than one batch per Macro. It would seem more prudent to employ at least two batches per Macro; perhaps starting with Trial licensees, in order that those who have helped to create this entire scheme can at last get on with the multiplex provision job properly, making necessary investments. There is also the possibility of subdividing the Macro Area by some other priority scheme; for instance, based on the number of analogue Community Radio and Small-scale Commercial services already licensed within each polygon, and concentrating on the areas of greatest demand first.</p> <p>There is a likely trade-off between: A./ Capturing all the demand in one go in order to</p>
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	<p>make the process of deciding which polygons to licence as fair as possible...and best informing the subsequent frequency planning process for interference planning; and B./ Avoidance of excessive delays, sensible allocation of workloads, and recognition that existing and proven viable operations have greater value than future untested experiments in circumstances that are clearly likely to be less favourable.</p> <p>All of the aforesaid is only reinforced by the demands of Section 3.57. It will be difficult to specify the coverage when constraints due to outgoing interference impact are unknown. A process of prioritisation would help break down the scale of the problem into more manageable chunks and sidestep the chicken / egg situation.</p> <p>Much greater clarity on this as soon as possible after the Consultation closes would be beneficial and much appreciated.</p>
<p>3.61</p>	<p>Digital Radio Technical Code. Others have already noted the tendency to a tightening of regulatory approach during the Trial, and in particular with respect to the introduction of Critical Mask filtering which is not required for low-to-medium power DAB installations in international regulations. While the cost of such filtering is not very significant in the London context, and the value it brings for preventing any IP problems on busy shared sites may justify its inclusion anyway, we do agree with other respondents that regulation should follow sensible pragmatic considerations and not open to abuse as a tool for restraint of trade via a back door. In areas of lower population density every cost saving will help viability. Maybe it makes more sense for ofcom to require such filtering (...or indeed any other level of filtering, e.g. for general IP protection at busy sites, rather than specifically for the first and second adjacent channel protection exemplified by the Critical mask) at its discretion, rather than as an absolute requirement.</p>
<p>(3.64-3.68)</p>	<p><b>Mandatory use of DAB+.</b></p> <p>UDAB has always allowed its programme providers to decide whether to use DAB or DAB+, providing unbiased advice as best we can. Prices are always quoted per CU without reference to encoding.</p> <p>We have offered choice of various Protection levels where capacity has been available, and following our Trial experience have come to the conclusion that UEP-2/EEP-2 is the only viable alternative to UEP-3/EEP-3 (EEP-1 uses too much overhead to be cost-effective, and we agree with ofcom that any level greater than 3 would not serve listeners' interests well and should not be allowed).</p>
<p>3.67</p>	<p>3.67 <b>"We do not therefore believe that requiring small-scale DAB multiplexes to operate exclusively using DAB+ would prevent significant numbers of listeners from enjoying those services"</b> seems a dangerous assumption from our point of view. Whilst it may well be true for a majority of services, there are some on the Trials that have chosen to broadcast conventional DAB over a long period of time, despite the much higher attendant costs, specifically because of a listener base with older sets. For instance in the cases of ethnically-targeted and specialist music services ('Community of Interest' as opposed to locality-defined Community Radio), the broadcasters may have encouraged members of the community to buy DAB radios. If those listeners are disenfranchised as a result of this proposal, the downside seems obvious and responsibility would likely be laid at ofcom's</p>

<p>3.67</p> <p>3.71</p>	<p>door.</p> <p>To set against the above point is the greater efficiency of DAB+ meaning more stations get to participate, dilution of costs etc. And the effect on encouraging the industry generally to move forward and embrace DAB+.</p> <p><b>"We are also aware that eight of the ten of the trial small-scale multiplexes carry a majority of their programme services in DAB+"</b>. This seems an overly weak reason for ofcom to make DAB+ mandatory, especially if such regulation only applies to one sector of the industry rather than to all.</p> <p>In summary, we think it would be far more appropriate for ofcom not to rule for DAB+ only, but should allow the market naturally to resolve the choice, especially bearing in mind that without intervention the overwhelming majority of Trial stations have already chosen DAB+.</p> <p><b>Use of Vertical Polarisation only.</b> We agree with all ofcom's proposals on this.</p>
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**Question 3: Do you agree with Ofcom's proposed approach to setting the level of reserved capacity for C-DSP services on small-scale radio multiplex services?**

<p>4.25</p> <p>4.27</p>	<p><b>"Whilst section 49A explicitly requires Ofcom to take into account demand from C-DSP services, it is silent on other factors that may be relevant to Ofcom setting a reservation. In this respect, we propose also to take into account the number of small commercial radio stations that are broadcasting on analogue (but not local DAB) in the area..."</b></p> <p>UDAB welcomes ofcom taking small commercial stations into consideration as part of the wider objectives for SSDAB.</p> <p>Minimum Capacity for C-DSP Reservations. It might make more sense (and would certainly be more usual) to specify capacity in CU, rather than kilobits. This could include a clause preventing the multiplex operator from specifying how a Community radio station must allocate the bit budget they've purchased between audio quality (bit-rate) and Protection.</p> <p>If Ofcom is specifying a minimum bit-rate of 48kbps for <b>each service</b> (the wording in the Consultation), that would fail to respect what has proved successful on various Trial multiplexes including London, (viz: some Community Radio services broadcasting successfully for years at 32kbps), and could have the perverse consequence of making carriage too expensive for some C-DSP or analogue CR licence holders, or in any case, more</p>
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<p>4.29</p> <p>4.32</p> <p>4.35</p>	<p>expensive than it needs to be from the perspectives of both parties to a business transaction. That would be deeply wrong in principle.</p> <p>On the other hand, the calculation of total reserved capacity for Community Radio on a multiplex could instead be based on 48kbps per service <b>as an average</b>, with the multiplex operator left free to negotiate in-use bitrates with each reserved capacity user from the resulting pool (of 192kHz for the four services in the example in the Consultation). This might need to be combined with separate limits for a minimum number of C-DSP services to be carried that still leaves some flexibility for the bit-rates to be negotiated, and a clause granting any C-DSP the right to 48kbps if they desire it. Tradeoffs can then be made in light of specific requirements - for example 1x32k,2x48k,1x64k totals the same (192k) as the 4x48k for the four services of the example in the Consultation.</p> <p>4.29 Multiplex holder required to check that all Reserved Capacity users actually hold C-DSP licences &amp; 4.32 requirement to contact all local C-DSP licensees as an essential pre-requisite for applying for changes to Reserved Capacity: Yes, but it would be very helpful if ofcom published data on C-DSP licence holders.</p> <p>Multiplex Operators required by ofcom to publish ratecards on their websites.</p> <p>4.35 As we stated in the previous Consultation response, we do not particularly welcome publication of a ratecard, and believe this could easily lead to perverse consequences such as upward pressure on prices. We believe it would be more appropriate for multiplex operators to send ofcom their ratecards for ofcom to determine if rates are disproportionate and mandate adjustments where required, rather than operators being obliged to post them on their websites.</p>
<p><b>Question 4: Do you agree with the factors we are proposing to take into account of in deciding the order and timescale in which Ofcom will advertise small-scale radio multiplex licences?</b></p>	
<p>5.3</p>	<p>All the factors mentioned seem reasonable and we note that only two out of the many factors are additionally described as Priorities. We agree with those Priorities.</p>
<p><b>Question 5: Do you agree with our proposed approach for assessing the technical plans submitted in small-scale radio multiplex licence applications?</b></p>	
<p>5.18</p>	<p><b>"Because of the importance of the size of the proposed coverage area, the technical plan that is submitted by applicants is an extremely important part of the application. We will not accept variations to an applicant's technical plan once applications have been submitted, although we reserve the right to seek clarifications on any aspects..."</b></p> <p>U.DAB believes that 63dBuV/m is an acceptable practical limit for a general definition of SSDAB coverage for planning, <b>but only if</b> licensees are allowed to subsequently build up signal strengths within the core of their polygon at any time (this could presumably be categorised as a variation after submission), subject only to necessary restrictions: i.e:</p> <p>1./ The economics proving worthwhile and affordable (such improvements, in aggregate, requiring not more than 10% increase in carriage fees, which in any case are likely to</p>

	<p>be constrained by competitive offers and ofcom regulation)</p> <p>2./ Such improvements <b>not</b> significantly increasing the 63dB coverage</p> <p>3./ Such improvements <b>not</b> significantly increasing the outgoing 38dBuV/m impact where it matters (i.e. excluding isolated hilltops and sparsely populated areas)</p> <p>4./ While continuing to respect any necessary 'Hole-Punching' process in place</p> <p><b>Accordingly during the licence award procedure, we propose that the Technical Plan is considered as a minimum deliverable rather than a one-time fixed plan.</b></p> <p>In any case due to financial and manpower constraints, as well as the fact that in the application phase, initial coverage from the prime site or sites will be just a generalised prediction based on a grossly simplified model, rather than something known in detail from experience of reality - this is a critical distinction that seems to be easily forgotten - it makes more sense to consider the process of building up the strength within the area as a later stage, to be completed if and as required and as resources allow.</p> <p><b>"When inviting applications for small-scale radio multiplex licences we will define coverage areas in advance which we are calling 'polygon areas'. In two larger areas known as 'macro areas' we have grouped polygon areas together as there is likely to be insufficient spectrum available to allocate frequencies to every polygon area in these macro areas. We will in all areas seek proposals from applicants for coverage areas based upon the polygons".</b></p> <p>As indicated in our response to Question 1, the rationale for ofcom specifying pre-determined Polygons in the Macro Areas is unclear. Perhaps if it is to be retained this could usefully be briefly explained in Ofcom's Statement following the Consultation.</p>
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5.23	<p><b>"The considerations we propose under this criterion are as follows: #2 Compatibility with the overall spectrum plan – We will assess the interference that the applicant's proposed transmitters are predicted to put into the areas where the same frequency is being (or is planned to be) used. For polygons within macro areas, we will only be able to specify interference constraints in advance into polygon areas that lie outside the macro area".</b></p> <p>That leaves applicants for polygons within Macro Areas in the unenviable position of not knowing what requirements, in particular for (38dBuV) interference mitigation, they may have to meet in advance of selecting and agreeing access to sites, setting up their engineering plans, financial budgets etc. This should be recognised by ofcom, for instance perhaps by allowing additional flexibility for refinement of plans in those cases, both in terms of sensible latitude in the initial license bid proposals, and / or in making allowance for modifications post-award to allow such mitigation to be optimised.</p> <p>If there are other ways in which ofcom could reduce this considerable uncertainty particularly for Trial operators, maybe via clarification in the Statement following Consultation, that will doubtless be widely appreciated.</p>
5.29	<p><b>"We will prefer applicants that propose to cover a larger proportion of the population covered by the advertised polygon over those who propose to cover less of it, whilst minimising overspill. This is because the former represents a more efficient use of</b></p>

**spectrum, and is likely to be more attractive to programme service providers".**

In general we agree with this as a principle, although great care needs to be exercised with the built-in assumption that programme service providers will always prefer bigger areas and that covering all such areas will deliver more efficient use of the spectrum. In some cases this is undoubtedly true but in other cases it won't be if the programme providers consider some areas of a polygon (which has been imposed from outside) to be effectively irrelevant, containing very few prospective listeners to their service.

**Question 6: Do you agree with our proposed approach for assessing the ability of applicants to establish their proposed small-scale radio multiplex service?**

Yes, we are content with the proposed approach.

**Question 7: Should Ofcom require that the studio of a C-DSP licensee be located within the coverage area of the small-scale radio multiplex service it plans to broadcast on? Please explain the reasons for your view.**

No, not for all community radio broadcasters. If community services cover a designated area based on location, then access to C-DSP status and preferential access to Reserved Capacity based on location makes perfect sense, so in those cases, Yes a studio should be based within the SSDAB Multiplex coverage area as a requirement.

Clearly, there are also legitimate Community Radio services that are based on Communities of Interest and for whom definition by physical location of the studio is of little or no relevance. Although they can also access SSDAB coverage (without Reserved Capacity) via the vanilla DSPS route, it seems possible that at least in some circumstances, their inclusion will provide significant social gain to listeners and, in the possible absence of sufficient locally based provision to fill it, that inclusion could then sensibly count towards Reserved Capacity usage on a secondary basis. In that case a requirement to operate a studio in the coverage area, bearing in mind their community radio status is not geographically based, would seem unduly onerous and expensive.

Of the ten Community Radio services currently carried by Trial London, exactly half are not strongly geographically designated. For instance, Rinse FM, whilst for historical FM

	<p>frequency availability reasons is licensed as a Community Radio station for South London / Bermondsey, actually appeals to the creators and consumers of contemporary urban dance music genres such as Grime who will be spread throughout the urban boroughs of London. It should be noted that Rinse has been a (arguably <i>the</i>) leader in a community that has pioneered and fostered a highly successful music industry segment that has contributed very significantly to the UK's standing in the contemporary music world.</p> <p>Three programme providers (Angel Vintage, Resonance Extra and Radio Caroline) have no essential geographical connection to the area we cover yet they clearly deliver social gain to the listeners we broadcast to.</p> <p>Categories of Programme Provider likely to be licensed as C-DSPs and which are primarily defined by Interest rather than Location include many ethnic stations, all specialist music and sound art stations, all those based on age or sexuality, and religious broadcasters. Is there some reason why those stations' social gain contribution would be valued differently to that of a geographically based Community Radio station?</p>
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**Question 8: We propose that holders of corresponding analogue community radio and DSP licences apportion their income equally across their licences, unless there are compelling reasons why a different apportionment is reasonable. Do you agree with our suggested approach?**

	<p>No. A primary factor to consider is the additional cost for Community Radio of simulcasting on DAB compared to remaining on analogue only. Shouldn't allowance for that cost be a minimum increment to existing allowances? Bearing in mind the even greater support the Commercial sector has received over a long period of time for its assistance in promoting DAB, and the recent latitude over localness granted to commercial licences that were advertised and awarded on local criteria, the continuing highly restrictive approach to Community Radio funding seems extremely mean, and could presumably be open to challenge.</p>
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**Question 9: Do you agree with our proposal that a prospective C-DSP service provider will be able to apply for a C-DSP licence once we have invited applications for the small-scale radio multiplex licence upon which their proposed C-DSP service is intended to be provided?**

	<p>As others have already pointed out, this seems likely to impact negatively on those</p>
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community radio stations detailed in our response to Q7 whose community is defined by interest rather than geographical location.

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