Question	Your response
Question 1: Do you agree with our proposed changes to the ACI/blocking procedures?	Future Digital Norfolk Limited (FDN) broadly supports the implementation of these proposals. Whilst we recognise the importance of avoiding instances of ACI and / or blocking, we remain concerned that some elements of these proposals require further examination and therefore make the following observations: We agree that it should be the responsibility of the multiplex operator to ***"calculate the potential impact of that new transmitter site, and then consider mitigating actions"***, but we remain concerned about the process of liaising with ***"potentially-impacted multiplex operators"***. Whilst welcoming Ofcom's recognition that the current regulations ***"does not define timescales within which potentially affected broadcasters should respond to ACI/blocking liaison requests from proposers"***, we do not believe that the current proposals will be effective in preventing existing network operators from imposing delays and unnecessary conditions in relation to the launching of new transmission systems. In light of the above, we particularly welcome Ofcom's proposals in relation to the definitions of response times of other multiplex operators in relation to specific transmission enhancement proposals. However, we are concerned that whilst the regulator recognises the importance of predictable response times in relation to multiplex operators, it has not seen fit to define its own response time criteria. We suggest that Ofcom should set itself a target of 25 days within which to provide a decision. Our reading of the current proposals is that the vast majority of new sites to be used by small-scale DAB operators would be categorised as AMBER (or even RED) - most will be on non-traditional sites (e.g. tower blocks or dedicated masts) and, they will also typically be operated in areas of reasonable population density (using relatively low radiated-power levels (typically <0.5kW) within the proposed service area - rather than employing higher power sites to the edge of the target service area and beaming back into it as has previously been common

	practice for larger scale multiplexes using traditional broadcast sites.). Our primary concern is that the definition of a proposed site as either AMBER or RED is currently highly subjective. It is unclear as to who would take the final decision in the case of a dispute or as to how long such a dispute might take to resolve. It should not be possible for a competing multiplex operator to block a proposal by simply self-defining it into the RED category and refusing to deal with it. A key problem with the RED category is that it makes specific reference to densely populated areas and to major 'A' roads without, on a per-multiplex basis, defining acceptable levels of impact in terms of static population or lengths of road impacted. Regardless of the site location or nature of the surrounding environment, the starting point should always be the objective of minimising material reception issues. One element we consider to be missing from the process (as set out from Section 3.9 onwards) is recognition of the relative operating parameters of other multiplexes operating locally. When assessing the colour coding of a proposed new DAB transmission proposal, it would seem sensible to have due regard for the operational frequencies, relative transmitter power levels and local field strengths of other multiplexes operating in the local area. Given the expected levels of interest in the operation of new small-scale DAB multiplexes, we are concerned that Ofcom will have a very high workload agreeing to the numerous requests for new transmission installations. Accordingly, we suggest that, where the operational frequencies and local field strengths of existing multiplexes are within acceptable parameters, in the case of low power "filler" sites (<50 Watts e.m.r.p.) these should be considered as GREEN and therefore able to be "self-certified" through the provision of technical parameters and the results of confirmatory drive tests being submitted to Ofcom. We welcome Ofcom's pragmatic suggestion that short duration real-world tests should be permitted. This is particularly important for low-power installations where

	the granularity of current computer models can lead to inaccurate results. These tests and associated drive tests must not be prevented by the refusal or inability of other network operators to take part. Moreover, other multiplex operators must not be permitted to charge for their involvement in any such tests, or to place onerous time restrictions on them (for example by requiring such tests to take place between midnight and 05:00). We do not support the requirement for multiplex operators to provide detailed population figures, unless Ofcom is prepared to provide free access to this UKPM planning tool. At present we do not believe this to be a commercially viable proposition. Small-scale operators do not currently have access to the UKPM database and should not be required to purchase access to this tool. The arrival of small-scale DAB multiplex operators will inevitably complicate the pattern of DAB provision, as the prior *de-facto* monopoly provision of transmission sites will no longer exist. It follows, therefore that any new process must be designed in such a way as to ensure that an existing operator cannot delay, or block, the use of a new site for reasons beyond those of a technical nature.
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?	Taking note of an apparent error in Table 2 (page 11), which contains two lines that are both labelled "+/-0.97 MHz" (we suggest these should be "+/- 0.77 MHz" and "+/- 0.97 MHz" respectively?), we support these proposals.
Question 3: Do you agree with our proposed changes on DAB+ audio encoding?	We welcome Ofcom's support for the DAB+ standard and agree that multiplex operators should be able to offer either, according to the wishes of specific service operators. However, we are unclear as to why it is proposed that the flexibility in choice of protection levels offered for standard DAB services is not also offered for DAB+ services? During our operation of the Trial DAB multiplex in Norwich we have tested EEP-3B and EEP-2A on individual services and found both to be useful. We suggest that it should be up to the multiplex operator to decide on any protection level from EEP-3B to EEP-1A, according to

	specific service requirements.
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?	We broadly agree with the various proposed revisions to the code, but would make the following specific observations: **MCI / FIC Repetition Rates:** Ofcom should maintain the prevailing internationally agreed standards for these repetition rates. The technical standards for DAB do indeed identify preferred repetition rates but they (along with Ofcom's own technical investigations to date) also recognise that, in practice, slower repetition rates do not cause material issues with receiver decoding and reception. We consider that the material benefits of being able to provide listeners with additional programme services far outweigh the theoretical issues that could affect some individual receiver designs. **Error Protection (DAB+):** Please see answer to Consultation Question Three (above). **SId Codes:** We feel that the body best-placed body to administer Sid codes is Ofcom itself. We consider that block allocation of Sid's to individual operators would be inefficient and we are concerned that any commercial body operating the allocation of such codes might seek cost recovery and / or revenue generation from such activities. As the use of SIds is an operational as well as a licensing requirement, it should remain the within the purview of the broadcast regulator. **Polarisation:** Our multiplex currently operates using vertical polarisation only. However, on small-scale DAB sites, subject to compliance with ACI / blocking requirements, we believe that the option to add in a horizontal signal component should be permitted and that, accordingly, the code should accommodate such a possibility. **DAB+ Audio Encoding:** We believe that in addition to using HE-AACv2 for DAB+ multiplex operators and broadcasters should be able to use any permitted AAC profile. For example, where FDN broadcasts monophonic DAB+ services, we operate using HE-AACv1 because parametric stereo is not required for such content. When

	we migrate established local services, such as the Community Radio Service for Norwich, Future Radio, we would also like to maintain the option to use AAC-LC at higher bitrates. We therefore suggest a revision of the Guidance to permit the full range of AAC iterations.
Queston 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?	We generally agree that the current rules concerning audio parameters should not automatically apply to the operations of new small-scale multiplexes. The on-going Small Scale DAB trials demonstrate how important it is that that the regulatory environment needs to be responsive, adapting in light of a rapidly changing broadcast radio environment. We look forward to contributing to further discussions on such maters in future.