

Representing:

Organisation

Organisation (if applicable):

DRM Consortium

Ofcom may publish a response summary:

Yes

I confirm that I have read the declaration:

Yes

Additional comments:**Question 1: Do you agree that we have identified the objectives which the small scale DAB multiplex trial should seek to achieve?:**

The objective should surely be to find ways to facilitate smaller stations having access to digital radio, not just DAB. After all, the criteria set out in the Digital Radio Action Plan relate to all digital radio listening, not just listening on the DAB platform. We therefore would like to suggest that the trial should also include the use of the DRM+ platform, since this can also be realised using the same Software Defined Radio platform as used for the Brighton trial. One key advantage of the DRM+ platform is that it occupies much less bandwidth and can be accommodated in any empty part of the VHF spectrum. EBU recommendation 138, which sets out to provide guidance on the successful planning of digital radio, makes the point that DAB and DRM share many commonalities: they are openly specified, complementary, digital radio standards that meet the needs of Europe's radio broadcasters. We also recognise the progress being made in the UK in regard to ensuring a good experience for consumers wishing to convert to digital radio: the "Digital Tick Mark" include DAB+, despite only DAB broadcasts being on-air. There are many commonalities in the design of DRM and DAB which lead to an equal consumer experience: in short, selection by name, clean audio, text messages, SlideShow, EPG, etc. The commonalities between DRM and DAB have led technology providers to develop multi-standard chips for powering the next generation of receivers, and the SDR concept already allows the NOXON-DAB USB stick (price 30 euros) to be upgraded with software that allows it to decode DRM+ and DAB, DAB+.

Adding DRM+ as a possibility in this trial would provide receiver manufacturers to test multi-standard solutions.

Question 2: Are there any other questions or issues which the small scale DAB multiplex trial should seek to address?:

One key issue that does not seem to be addressed is whether there is sufficient spectrum available to accommodate all the 350 smaller radio stations mentioned in the introduction on a DAB multiplex. DAB multiplexes always require 1.5 MHz of spectrum, regardless of the

number of services carried. Whilst some smaller radio stations may be able to join together onto a single multiplex, many will not be able to do so. Therefore, the number of multiplexes to accommodate may be quite high. There is also the question of receiver selectivity: in some areas the main national and local multiplexes will “drown out” the low power small scale multiplexes, whilst in areas in the immediate vicinity of the small scale multiplex, the reverse can be true, making holes in the coverage of larger stations. DRM+, with its spectrum occupancy of only 96 kHz, is likely to be more easily accommodated, and where smaller radio stations can join together, the mini-multiplex of up to four services can be utilised. It is also the case that a narrower bandwidth signal is more energy efficient.

The effectiveness of DRM+, and its compatibility with FM broadcasting in the same frequency band, have been confirmed in the DRM+ test transmissions carried out in Edinburgh by the BBC in 2011. In this trial, DRM+ coverage exceeded FM coverage using only 10% of the radiated power and providing two audio channels. Similar results have been obtained in other European countries (i.e. Italy, France, Norway, Germany). The success of these trials led to the inclusion of DRM+ into the ITU-R Rec. BS.1114.

We therefore feel that an important part of judging the success of facilitating the move of smaller stations to digital radio is the question of available spectrum. Assuming the successful switchover of large stations, considerable band II spectrum will be released: this spectrum cannot be used by DAB, but DRM+ would provide a very cost effective and consumer compatible experience for smaller stations that wished to digitise.

We feel that Ofcom has now the chance to open up the possibility of real testing of DAB+, DRM and, why not, FM as well, under same conditions. This would really lead to a workable and lasting solution for digitising smaller stations in the UK and Europe.

Question 3: Do you agree with our proposed technical licence conditions?:

Question 4: Do you agree with our approach to non-technical licence conditions and requirements?:

Question 5: Do you agree with our proposed approach to awarding trial licences?:

Question 6: Do you agree with our proposals set out in this section in relation to final reporting obligations, the recovery of the equipment and the extension of trial licence duration?: