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Mr. Dana Ndumiso

ICASA
Block A,
Pinmill Farm
164 A Katherine Street
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Dear Mr. Ndumiso

With reference to the Government Gazette number 41534, thank-you for creating the inquiry into the prospects of implementing Digital Sound Broadcasting (“DSB”) in South Africa.

I have followed the information in the media on the testing phases in Johannesburg and Pretoria for the standards DAB, DAB+. I have also followed some of the discussions on DRM and the derivatives, however I am not aware of a local testing phase or phases.

At this stage I am a private individual who is in favour of the approval and implementation of DSB in South Africa. I have a background in Radio Electronics and have worked in the Land Mobile Industry and the Electronic Component and Module Distribution Industry that develops and manufacture Electronic Products.

I have also recently made contact with the Community Radio Station Manager of Alex FM and have informed him of the publishing of GG 41534. The Station Manager is also involved with the activities of the Gauteng Community Radio Forum Members. I have sent him the link to the GG Document and have suggested that he make contact with yourself.

I would like to state that I wish to be involved with the oral presentations/hearings.

I have done research on the information on DAB/DAB+ and the implementation of this Standard globally. I agree that DAB+ is the obvious choice for the transition to Digital for the Broadcasters and Stations on South Africa's FM Channels and possibly some or all of the Stations currently broadcasting on AM Medium Waves.

I have also done research on the information and global implementation of DRM and its derivatives, however at this stage I can only input that there are countries that are broadcasting using DRM and the

only major Broadcaster I have found info on is India. The information states that the broadcasts are long distance and typically address the Expats in the UK for example. DRM and the lower frequencies were obviously chosen to obtain the broadcast distance in other world regions. Because DRM can coexist with existing AM Broadcasts, my input would be to also approve the implementation of this Technology for local and national Commercial and Community Broadcasters if were economically viable.

I have found a few commercially available Receivers, however the amount of choices of models and Manufacturers is significantly less than the available models and Manufacturers for DAB+ Receivers.

With the proposed allocation of two Frequency Blocks for DAB+ in the VHF Band III, which could be roughly 20 Channels per Frequency Block, and totalling about 40 slots available for the existing Public, Commercial and Community Broadcasters, with the success of the DAB+ transition perhaps there will still be a requirement for additional channels, and DRM could be the best solution.

Here are my comments as per the questions in the Government Gazette:-

Question 1

Is there a need for the introduction of DSB technologies in South Africa?

Motivate your answer.

- Yes there is a need to introduce DSB in South Africa because it is part of the global transition from Analog to Digital Technology. Other Digital Audio Technologies such as Internet Radio, Streaming Services, Media Players both Software Based such as iTunes and Hardware Players like Apple TV and Android Media Box Products provide additional Information compared to FM Radio. For example such as Graphic Screens that show the Song Album Art, Metadata such as Song Title, Artist, Album Title, Genre; advanced Traffic Information and the ability to pause, skip back and skip forward in the song etcetera.

When compared to listening to local and national live Radio via Internet Radio, Terrestrial Radio such as via DAB+ has similar or the same features and abilities but it is 'Free to Air' and does not use Internet Data and does not add additional load to the Fixed Line or Cellular Networks.

Question 2

Do you think the list of technical standards to which the DSB equipment must conform are exhaustive? Motivate your response and suggest other equipment technical standards?

- Yes I believe that the DAB+ for VHF and DRM for Medium Waves are exhaustive and cover all the possible requirements. DAB+ is currently almost a Pan-European implementation, with other countries in Regions 1 and 3 already broadcasting on DAB/DAB+, testing or interested in this Broadcast Technology Standard. Region 2, the USA and the America's have implemented another Digital Broadcast Technology which is most likely also exhaustive, however it would not be the right decision to follow their choice of Technology as we fall under the European Region and for example in Region 3, I believe the Australian market is similar to the South African Market, and Australia have successfully implemented DAB+. Along with this as I have stated earlier there are large number of choices for DAB+ based Products, including entry level low cost devices. From a Car Manufacturer's implementation of Factory Fitted DAB+ Radios, the WorldDAB Organization, and the Car Manufacturers are jointly continuing to increase the percentage of new vehicles coming out with DAB+ Radio's, either already enabled or can be enabled if DAB+ Broadcasts are available.

Question 3

In the absence of a policy directive for providing standard for DSB, should the Authority provide licences for other DSB technologies?

Motivate your answer.

- Confirming what I have previously written, DRM might be a possible additional Technology, however there is no other DSB Technology that I think should be considered, and also no need to provide a licence for.

Question 4

South Africa through its international agreements at ITU and SADC level agreed on DAB+ and DRM systems. Please indicate which other digital sound broadcasting technology(ies) if any should be considered for South Africa?

Please Motivate.

- I don't think any other Broadcasting Technologies need to be considered.

Question 5

To use the spectrum efficiently, the digital sound broadcasting network can be planned on a Single Frequency Network. Do you think that it would be applicable for purposes of digital sound broadcasting?

Please motivate.

- I do not know enough about this yet to provide a final answer. There are articles on Single Frequency Networks compared to Multiple Frequency Networks and I think MFNs should be considered when it comes to Regional Broadcasters which includes Community Radio Stations, and the different requirements for Suburban as opposed to Rural Areas, and different terrain such as flatter regions compared to mountainous regions such as the Western Cape. The following Question 6.1's decision would also influence the choice of SFNs and MFNs.

Question 6.1

Should the Authority consider one or more mux operator(s) for DSB?

Please motivate.

- Yes the Authority should consider more mux operators, simply because of free enterprise and for cases where rural regions may not be viable for Sentech to provide muxes and transmission equipment.

Question 6.2

Would you propose a total switch – off of the traditional analogue AM and FM sound broadcasting?

Please motivate.

No, I would not propose that. With the first Country Norway having only completed this at the end of last year 2017, and other well established DAB+ Countries only planning this, and not for the next few years, it would be wise to wait and see the implications and what the FM Frequencies and AM Medium Wave Frequencies can be utilised for. Similar to the Analogue TV to Digital Switchover where TV White Spaces ("TVWS") is a potential Wireless Broadband Technology and there are TVWS Products available.

Question 7

Should the Authority adopt the strategy used in other international markets of licensing DSB services in the primary markets first and then a nationwide rollout?

Please motivate.

I think the Authority should license the primary market of Gauteng where multiple test phases have been completed. Then the other major regions should be planned, then tested and then licenced once testing is successfully completed.

Question 8

Can the current sound broadcasting market afford new DSB licensees in community, commercial and public service? In your answer, explain your reasons and/or choice for any of your submission.

This is a more of a business and business model related question. My input from a potential listener's point of view is that there is personal need from my listening preferences for more available choices of Radio Stations that broadcast different genres of music and different subjects on talk radio. I typically do not listen to the Public or Commercial Stations that cater for the younger generation, nor the Pop and Hip-Hop predominant stations and I would like to listen to stations that play the Decades of Music i.e. 60s, 70s, 80s, Rock, Jazz etcetera, similar to those offered by Internet Radio which of course there is a cost to using this with the Internet Data cost. Digital Broadcasts would be 'Free to Air' and funded mainly by advertising. With new Radio Channels I believe it would attract new listeners that don't currently listen to what is currently broadcast. With Sentech or other broadcast transmission providers providing the broadcast side, the Commercial Broadcasters and Independent Radio Stations, perhaps could lease equipment on the Studio and Studio Link side and terminate the leases on the new equipment needed if the return on investment is not realized. (I don't know if there are companies that would offer leased equipment, but the option came to mind therefore I have provided this input). Many of these stations may currently be only broadcasting via Internet Radio or AM Medium Waves and their existing listeners would now be able to receive via DAB+ and/or DRM and having no cost of data. This may also attract listeners who now stream services back to Live Radio because of the advantages of Radio such as News Updates, Weather Forecasts, Advanced Traffic Information, Competitions, Real Time interactions with the Radio Presenters etcetera.

In conclusion, please consider myself being included in the discussions and where I will volunteer to assist with marketing and research activities. I offer this not just because I would like to be able to receive DAB+ and DRM, but I would gain experience that could be beneficial to work in the Broadcast Equipment Supplier Industry or the Consumer Radio Receiver Product Market.

Sincerely,

Gareth Kneale