



**SUBMISSION MADE TO THE DEPARTMENT OF COMMUNICATIONS BY THE
NATIONAL ASSOCIATION OF BROADCASTERS IN RESPONSE TO THE DIGITAL
MIGRATION OF BROADCASTING SYSTEMS POLICY ISSUE PAPER**

28 JANUARY 2005

1. INTRODUCTION:

1.1. The Department of Communications ("the Department") has issued what is styled "Draft 1 Digital Migration of Broadcasting Systems and Policy Issue Paper" ("the Digital Paper") and has called for a select group of stake-holders to comment thereon by 28 January 2005.

1.2. The National Association of Broadcasters ("the NAB") is the leading representative of South Africa's broadcasting industry. It aims to further the interests of the broadcasting industry in South Africa by contributing to its development. NAB members include:

1.2.1. the three television and the seventeen radio stations of the public broadcaster, the South African Broadcasting Corporation ("the SABC");

1.2.2. all licensed commercial broadcasters in both radio and television;

1.2.3. both the common carrier and the selective and preferential carrier licensed signal distributors; and

1.2.4. over thirty community television and radio broadcasters.

1.3. The NAB has a long history of participating in regulatory processes affecting the media and thanks the Department for the opportunity of making these written representations on the Digital Paper. The NAB submits that despite the concerns it has raised in paragraph 2, it trusts that the Department will pay careful attention to these and other representations made and looks forward to the publication of Government's detailed policy document on Digital Policy in the near future.

1.4. The NAB found that a number of the specific questions posed in the Digital Paper were repetitious. The NAB has therefore either pointed out the repetition in its reply or has chosen not to answer questions that it considers to be repetitious of previous ones posed in the Digital Paper. This is particularly the case with the later questions posed in the Digital Paper.

1.5. The NAB is unclear as to whether or not the Department intends holding hearings on the Discussion Paper, if so, the NAB would appreciate the opportunity to make oral submissions at such a hearing.

2. THE DIGITAL PAPER PROCESS:

2.1. At the outset the NAB wishes to set out a number of serious reservations it has with the manner in which South Africa's digital policy appears to be being developed.

2.2. The NAB has concerns regarding the manner of publication of important digital policy documents. In this regard:

2.2.1. The NAB is concerned that the Digital Broadcasting Advisory Body's Final Report ("the DBAB Report") has been made available only in hard copy and on what appears to be a selective basis. The NAB can find no copy of the DBAB Report on the Department's website or in the archives of the Government Gazette; and

2.2.2. The NAB is concerned that the Digital Paper itself was not published for public notice and comment in the Government Gazette to ensure maximum awareness thereof.

2.3. The NAB is concerned that it is not clear exactly what the nature of the Digital Paper in fact is. It appears from the cover of the document that the Digital Paper is in fact only a first draft thereof and therefore it is unclear whether subsequent drafts of the Digital Paper are to be expected.

2.4. The NAB also has a number of concerns regarding the relationship between the Digital Paper and the DBAB Report and other on-going policy processes. The NAB submits that the Department ought to have regard to the following processes which preceded the Digital Paper in order that the Digital Paper be properly contextualised:

- 2.4.1. DBAB was established in accordance with the provisions of section 7.6.9 of the White Paper on Broadcasting Policy (“the Broadcasting White Paper”) released by the Department on 4 June 1998;
- 2.4.2. DBAB engaged in a lengthy and full public policy development process which included:
 - 2.4.2.1. studying material on international experiences of regulatory, technical, and economic aspects of digital broadcasting;
 - 2.4.2.2. commissioning a review of the South African broadcasting market;
 - 2.4.2.3. studying and exploring the potential for increased demand in the South African radio and television markets;
 - 2.4.2.4. engaging advertisers, media researchers and industry representatives on the focus areas;
 - 2.4.2.5. conducting a number of briefing sessions, interactions and workshops with members of industry, government departments and both local and international experts in the field of digital broadcasting;
 - 2.4.2.6. issuing a Discussion Paper (“the DBAB Discussion Paper”) on Digital Broadcasting on 12 August 2002;
 - 2.4.2.7. considering a number of stake-holder submissions made in response to the DBAB Discussion Paper, including submissions and recommendations made by, *inter alia*, the NAB and by the Southern African Digital Broadcasting Association (“SADIBA”); and
 - 2.4.2.8. formulating the DBAB Final Report (which included annexures containing all the stake-holder representations) in October 2002

which report appears to have been tabled at Cabinet in November 2002;

2.4.3. the DBAB report, which makes a number of clear and detailed policy recommendations, appears to have been approved by Cabinet in November 2002 and the Department appears to have been asked by Cabinet to “prepare a business case in order to show a plausible strategy”¹;

2.4.4. in December 2003, the Department issued a Draft Convergence Bill² which made provision for the convergence of the broadcasting, telecommunication and broadcasting signal distribution sectors; and

2.4.5. in April 2004, the Independent Communications Authority of South Africa (“ICASA”) launched its Discussion Paper on its Inquiry into Subscription Broadcasting (“Discussion Paper on Subscription Broadcasting”) which Inquiry is due to result in the publication of ICASA’s Position Paper on Subscription Broadcasting shortly.

2.5. The NAB is of the view that an enormous amount of work has already been done on and significant stake-holder resources committed to digital broadcasting issues since 1998. The NAB is extremely concerned that the Digital Paper effectively puts the industry in the position it was in August 2002, the time at which the DBAB Discussion Paper was launched. The subsequent processes set out above have not been dealt with fully in the Digital Paper which poses similar questions to those posed in the DBAB Discussion Paper and answered in the DBAB Report. The NAB respectfully submits that the proper role of a document such as the Digital Paper is not:

2.5.1. to provide a basis for suggestions for policy formulation for digitisation by posing a number of questions; or even

2.5.2. to make recommendations as to policy formulation in respect of digitisation,

¹ Preamble to the Digital Paper.

² Notice 3382 published in Government Gazette 25806 dated 3 December 2003.

as DBAB has already completed such exercises and ICASA is in the process of doing same with respect to subscription broadcasting more generally.

2.6. The NAB respectfully suggests that the proper role of the Digital Paper is to set out in clear terms and for public notice and comment Government's proposed strategic policies in regard to digital broadcasting, based on the recommendations contained in the DBAB Final Report, including, without limitation:

2.6.1. an economic feasibility study for digital broadcasting demonstrating a plausible strategy as required by Cabinet. In this regard it is important to note that each broadcasting entity would be responsible for drawing up their own business plans in response to the introduction of digital broadcasting;

2.6.2. a tentative date for the switch off of analogue services;

2.6.3. how, in broad terms, it is proposed that migration from analogue to digital services is to be effected;

2.6.4. standards to be set in respect of digital broadcasting;

2.6.5. how the Draft Convergence Bill relates to the proposals on digitisation;

2.6.6. provisions regarding the subsidization, if any, of receiving equipment to ensure that poor people have access to digital receivers;

2.6.7. proposed terms/definitions to be used in respect of digital broadcasting;
and

2.6.8. an overview of the role of ICASA in ensuring the migration from analogue to digital broadcasting.

2.7. The NAB is concerned that the Digital Paper places too much emphasis on migration and insufficient emphasis on developing policies to encourage digitisation. In this regard:

- 2.7.1. whilst large portions of communications systems have been digitised and digitisation has yielded benefits, these systems cannot be seen to have entirely migrated to digital as portions thereof remain analogue, significantly, terrestrial analogue signal distribution;
- 2.7.2. migration of broadcasting from analogue to digital is a highly complex matter and is associated with lengthy time periods, in many instances running to decades. This is particularly so in respect of developing countries where the migration may be influenced by external factors such as exchange rates or the international mass production of consumer goods such as receiver equipment etc;
- 2.7.3. it is for this reason that internationally policy development for digital broadcasting has focussed on the “implementation” (i.e. the launch or start) of digitisation rather than the “migration” (the conclusion of the move or analogue switch-off). For example, the Federal Ministry of Economics and Technology of Germany titled their policy recommendations on digital broadcasting as “Launch Scenario 2000: Introduction of Digital Broadcasting in Germany”³;
- 2.7.4. whilst policy documents on digital broadcasting in general speak to the objective of a migration, international experience illustrates that transition periods and analogue switch-off are highly dependent on consumer behaviour and market uptake of digital equipment/services. Work done by the WorldDAB Forum clearly illustrates a clear link between consumer uptake (receiver sales) and the service offerings available on digital platforms⁴;
- 2.7.5. it follows that empowering policy and regulatory frameworks that allow for the establishment of attractive content offerings entice consumers to prioritise spending towards the new digital receiver(s) required. Consequently a policy framework that will encourage the launch of attractive new services will aid a faster migration. Frameworks that are

³ Launch Scenario 2000: Introduction of digital broadcasting in Germany, Federal Ministry of Economics and Technology, Document No. 481 as published to the Internet at <http://www.bmwi.de>

⁴ Key Elements for a Regulatory Framework for Terrestrial DAB, A report by the World DAB Forum, March 2003

restrictive and dictate and/or limit the content and services available to consumers have been shown to result in consumer apathy and resistance to digitisation and, consequently, to indeterminate migration periods⁵; and

2.7.6. DBAB clearly understood the importance of focusing on implementation before broaching the issue of migration. The NAB respectfully suggests that this approach be adopted and, in particular, that the first and second recommendations made in the DBAB Report be adopted, that is, that:

2.7.6.1. the policy and regulatory conditions be set (by the Department and, if necessary, by Parliament) for implementing the introduction of digital terrestrial television and digital audio broadcasting”⁶; and

2.7.6.2. ICASA establishes a standing committee in terms of section 17 of the Independent Communications Authority of South Africa Act, 2000 (“the ICASA Act”) to develop a migration plan for the country, including on going reviews of targets, deadlines and transitional arrangements.⁷

2.8. The NAB is also concerned that the Digital Paper places too much emphasis on digital television services and the NAB respectfully suggests that it does not pay sufficient attention to the digital requirements of existing sound broadcasting services, particularly in respect to spectrum allocation issues during the so-called dual illumination period when broadcasters ought to be able to broadcast on both analogue and digital platforms.

2.9. The NAB also wishes to point out that the numbering of the specific questions posed in the Digital Paper is unclear and does not make sense. To avoid doubt, the specific numbers used in the Digital Paper are referred to in the NAB's responses to the questions posed therein.

⁵ See: Key Elements for a Regulatory Framework for Terrestrial DAB, A report by the World DAB Forum, March 2003 and also: Case study: Reasons to invest in DAB Digital Radio, Jeff Astle, Strategy & Development, Digital One, UK, slide 5: Findings of D1 research 2001-2002 as presented at the SADIBA workshop in Johannesburg in June 2003.

⁶ Digital Broadcasting Advisory Body, Final Report, 28 October 2002, Recommendation 1, page 32

⁷ Digital Broadcasting Advisory Body, Final Report, 28 October 2002, Recommendation 2, page 38

3. THE NAB'S RESPONSES TO THE SPECIFIC QUESTIONS POSED IN THE DIGITAL PAPER:

3.1.(1) *Should the Regional and local television services including language services be conceived in the context of analogue or digital broadcasting?*

The NAB respectfully submits that this question appears to ignore the key issue of whether there is sufficient spectrum availability to accommodate such services and also appears to ignore the fact that ICASA has in fact issued policy on this issue in the form of the Position Paper on Regional Television Broadcasting Services ("Position Paper on Regional Television") dated 26 November 2003. In this regard it is important to note that this matter was extensively considered during the ICASA Inquiry into Regional Television⁸ and the Position Paper on Regional Television reaches the following conclusions on the matter, namely that:

3.1.1. there is a limited amount of spectrum available and all terrestrial broadcast services compete therefor;

3.1.2. in some areas only a single frequency remains available; and

3.1.3. the introduction of and migration strategy for digital broadcasting hinges on the availability of spectrum and ICASA has decided to prioritise the allocation of frequencies for digital in order to secure a migration path that would enable a smooth transition to digital and ICASA has allocated frequencies accordingly in the Terrestrial Broadcast Frequency Plan.

3.2. (2) *If digital, how should broadcasting services at a South African Regional level be structured in order to cater for all regional issues and challenges?*

⁸ Inquiry into Regional Television, Discussion Paper, ICASA, 22 August 2003, Section 3, page 8 as available on the Internet at <http://www.icasa.org.za/Default.aspx?page=1540&moduledata=975> (16 January 2005).

The NAB respectfully submits that this question is extremely unclear. If the question relates to the question of the technological structuring of the regional services, the NAB is of the opinion that this issue has been addressed in the Position Paper on Regional Television in which ICASA suggested that regional services be accommodated on a public broadcasting services multiplex, together with SABC 1, 2, and 3. However, if the question relates to the organisational structuring of the regional services, the NAB respectfully submits that this issue has been addressed by Parliament in the Broadcasting Amendment Act, 2002, that resulted in section 22 A of the Broadcasting Act which located these services within the South African Broadcasting Corporation (“the SABC”).

3.3.(3) *What should be the role of the public broadcaster in South Africa in the new multi-media environment?*

The NAB respectfully submits that this question is misconceived because the introduction of new broadcasting technologies, such as digital broadcasting, does not result in a change to the role and mandate of the SABC. The NAB is of the opinion that the Broadcasting Act clearly sets out this role and mandate in respect of the SABC’s public services and public commercial services and that digital technology may assist the SABC to achieve its mandate, particularly in respect of broadcasting a number of different services in all official languages. Indeed The NAB is of the view that the SABC will be able to extend its content offering to include multi-media content and services in all languages. However, this will be costly and will require that the SABC receives sufficient additional funding to make full use of digital technology.

3.4.(4) *What services of the Public Broadcasting Services can be channelled through online services and be delivered via other platforms such digital terrestrial, satellite, Internet, mobile?*

3.4.1. The digitisation of broadcasting and telecommunications networks will lead to convergence of the technologies, services and platforms. In essence any digital service could be delivered by any number of different or even complementary technologies or platforms. From the international data available it is clear that digital broadcasting networks (DVB-T and

T-DAB) are unrivalled in their cost-effectiveness in delivering live data to many users⁹.

3.4.2. However, the NAB respectfully submits that this question essentially involves management or operational issues that ought to be left to the SABC's management to determine. For the Department to publish detailed policy on this issue would be micro-managing to an extent that is unwarranted and, the NAB respectfully submits, is in fact not in accordance with the provisions of the Broadcasting Act.

3.5. (5) *How viable can these services be?*

The NAB respectfully submits that this question essentially involves management or operational issues that ought to be left to the SABC's management to determine. The SABC ought to assess the possible service options available and the most appropriate delivery platform for such service and then determine the business case therefor and whether or not such a service is in fact viable.

3.6. (3.1.1.1) *What percentage of households with digital receiving devices must warrant the switch-off of analogue broadcasting?*

The NAB has a number of responses to this question, namely:

3.6.1. The NAB submits internationally, there is a difference in policy approaches to analogue switch off for radio as opposed to television¹⁰. Switch off is a key concept in regard to television but not to the same degree in regard to radio. This is because of the differences in market structures and spectrum requirements for radio and television.

⁹ Case study: Reasons to invest in Digital Radio: Successful rollout in the UK, Jeff Astle, Strategic development Digital One as delivered in South Africa at the SADIBA and Screen Africa workshop in July 2003 and published to the Internet at www.sdiba.co.za

¹⁰ Key elements for a regulatory Framework for Terrestrial DAB, WorldDAB Forum, March 2003, Section A.

3.6.2. The NAB submits that international practise¹¹ demonstrates that analogue switch off is not a once-off event where all analogue services are abruptly terminated. Rather, the switch to digital is a process in which analogue services are gradually migrated to digital once digital coverage is available. Thus a number of analogue services will terminate and analogue coverage will gradually shrink over a long period of time until a specific date on which the last remaining analogue services is terminated, based on market conditions. Indeed in this regard, the NAB submits that it is possible to have a situation in which at least one SABC service remains available on analogue indefinitely to ensure basic public access to news and information;

3.6.3. The NAB respectfully submits that this question cannot be answered in abstract, without detailed market analysis having been undertaken on an on-going basis and indeed is not one that can be determined at this stage. The DBAB Report recommended the establishment of a standing ICASA committee to manage migration on an on-going basis. While the Department can set recommended time lines for switch off, this can be implemented only on an on-going basis. The management of migration will require constant assessments of the market, including consumer take up to digital services and receivers, and of technological and regulatory environments. This is particularly so given that migration is expected to take at least a decade to implement;

3.7. (3.1.1.2) *What criteria/s should be used to measure the rate of uptake of digital migration at introductory, intermediary and maturity phases?*

Whilst it is clear that numerous factors need to be considered when assessing progress with regard to the uptake of digital broadcast services, the NAB submits that primarily receiver sales data be used to evaluate progress towards migration. In this regard, the NAB suggests that the on-going research conducted by the South African Advertising Research Forum ("SAARF") into Living Standards Measurements

¹¹ DVB-T Switchover in Berlin: First results and conclusions, Udo Kohaupt, T-Systems Media & Broadcast, presented at SADIBA workshop 10 and 11 July 2003, page 5

("LSMs") will usefully provide the broadcasting industry and marketers with data on issues such as digital receiver sales.

3.8. (3.1.1.3) *What are the critical issues that need to be considered in order to ensure a successful and effective digital broadcasting?*

The NAB respectfully submits that international experience¹² has shown the following to be critical issues to the considered:

- Regulatory and industry commitment to digital broadcasting
- New and attractive content
- Widespread signal distribution coverage
- A realistic mass produced consumer product range at competitive prices
- Line-fitment of T-DAB receivers in cars
- Partner Marketing
- Effective and consistent communication with the public about digital broadcasting especially with regard to migration issues
- Long term business plans

3.9. (3.1.1.4) *How can the issues identified above (3.1.1.3) be addressed?*

The NAB respectfully submits that many of these issues are market-related and that direct regulation thereof would be inappropriate and indeed impossible. However, the key to addressing these issues is the publication of clear long-term policies that will provide regulatory certainty and secure investment in digital broadcasting.

3.10. (3.1.1.5) *Should the basic set-top-box include facilities for the disabled people if not what other mechanisms can be used in order to cater for people with disabilities?*

¹² Digital Radio Development & The Critical Factors For Success: Accelerating the transition from analogue to digital radio, Jeff Astle, Digital One UK, Paper delivered at SADIBA Conference , Johannesburg, July 2001. WorldDAB Forum, Digital Radio Worldwide, July 2001 paper presented by Julie Ackerman, WorldDAB Forum Project Manager, at the SADIBA workshop in Johannesburg, Refer to WorldDAB criteria for successful roll-out, slide 16.

The NAB has a number of responses to this question:

3.10.1. The NAB respectfully refers the Department to the slogan used in the disability sector, namely: “nothing about us without us”¹³ and suggests that answering this questions requires detailed input from NGO's working in the disability sector on the type of enhancements that disabled people require.

3.10.2. The NAB also submits that while minimum receiver specification standards should be drawn up so as to provide protection to consumers, it is critical to ensure the lowest possible cost of receivers to enable access to digital broadcasting and the NAB cautions against requiring enhanced functionalities that might push receiver costs beyond the reach of the ordinary South African consumer. In this regard, the NAB suggests that manufacturers be required to manufacture digital receiver such that approximately 3% - 5% thereof feature additional features for disabled audiences.

3.11. (3.1.1.6) *What should be the role of research in measuring societal impact?*

The NAB respectfully submits that this question is extremely unclear but that broadcast audience research ought to be ongoing during the introduction of digital broadcasting and would be essential to understanding audience trends with respect to digital broadcasting which is a key aspect of managing migration from analogue to digital broadcasting.

3.12. (4.1.1) *What should be economic and goals of digital migration?*

The NAB submits that on the general issue of what the goals of digital migration ought to be, digital migration ought to contribute to the fulfilment of the objects set out in section 2 of the IBA and Broadcasting Acts, respectively. These

¹³ Statement by the Honourable Minister of Communications, Dr Ivy Matsepe-Casaburri at the launch of the project: Integrating Disability in the ICT Value Chain/Industry, 3 December 2004

would include: universal service goals, diversity of services and languages, the introduction of new generation broadcast systems in a manner that will allow for the sustainable operation and growth, including job creation, within the broadcasting industry as well as ancillary sectors such as the film and music production sectors, and manufacturing and retail sectors.

3.13. (4.1.2) *In what way will digital migration contribute to socio/economic priorities of capital investment, job creation, economic distribution to all provinces, economic redistribution according to population demographics, rural population, previously disadvantaged communities, gender, etc?*

The NAB submits that it is critical that this "business case", in the sense of an economic feasibility study, for digital broadcasting be carried out by the Department as mandated by Cabinet. Indeed the DBAB Report has called for just such a detailed economic study¹⁴ to be conducted in order to arrive at factual clarity on the above and the NAB respectfully suggests that this ought to be undertaken without delay.

3.14. (4.1.3) *What investment incentives, support measures and consumer demand stimulation should be used to achieve rapid digital migration?*

3.14.1. The NAB respectfully submits that having clear policy that protects the interests of existing broadcasting licensees and service providers while creating an enabling environment for the introduction of new services and market entrants is the fundamental enabler to secure investment in digital broadcasting¹⁵.

¹⁴ Digital Broadcasting Advisory Body, Final Report, 28 October 2002, Recommendation 6, page 42

¹⁵ Digital Broadcasting Advisory Body, Final Report, 28 October 2002, Recommendation 1, page 32

3.14.2. The NAB further submits that significant licensing incentives will be required in order to secure investment from both existing and new stakeholders. The NAB suggests that the following licence incentives be introduced:

3.14.2.1. that long-term licenses (10 to 15 years) be granted in order to allow for a return on investment during the licence period¹⁶; and

3.14.2.2. that licensing processes be speeded up to avoid delays that have sometimes characterised the analogue regulatory environment.

3.14.3. In addition, examples of incentives, support measures and demand stimulation actions as implemented elsewhere in the world should form part of the economic study referred to 3.13 above. The papers mentioned above in 3.8 outlines the approach followed in the UK.

3.15. (4.1.4) *What would you consider as economic risks that may be associated with digital migration?*

The NAB submits that there are a number of economic risks associated with the migration to digital broadcasting. In brief, these include the commercial failure of licensees and therefore of the newly launched services is a significant risk especially to the consumer that may have acquired a digital receiver that would be worthless should digital transmission be terminated. The NAB submits that international experience has demonstrated that certain regulatory obligations such as ambitious roll-out targets and the introduction of competition in the satellite broadcasting market, made the business cases for these operators unsustainable¹⁷. The NAB respectfully submits that such mistakes ought to be avoided at all costs in the South African policy and regulatory framework.

¹⁶ SADIBA response to the DBAB discussion paper, September 2002, page 91

¹⁷ Digital Broadcasting Advisory Body, Final Report, 28 October 2002, Section 3, pages 20 to 29

3.16. (4.1.5) What performance indicators should be used to monitor economic performance associated with digital migration?

Whilst it is clear that numerous factors need to be considered when assessing progress with regard to the uptake of digital broadcast services, the NAB submits that primarily receiver sales data be used to evaluate progress during the migration process.

3.17. (4.1.6) What capital expenditure and Human Capital investment is required for digital migration?

The NAB has a number of responses to this question and wishes respectfully to submit that:

- 3.17.1. the major costs in respect of digital migration occur in relation to the cost of digital receivers¹⁸;
- 3.17.2. the capital investment required in digital network infrastructure is relatively small^{19 20 21 22};
- 3.17.3. the capital expenditure required for a digital network would be directly proportional to the size of the network and is therefore highly scalable. Consequently The NAB recommends that, initially, a relatively small number of transmitters be deployed in the densely populated areas to enable large population coverage and impact early in the migration process without requiring crippling capital investment; and

¹⁸ Digital Broadcasting Advisory Body, Final Report, 28 October 2002, page 31

¹⁹ SADIBA response to the DBAB discussion paper, September 2002, page 35 (response to DBAB question 3.7)

²⁰ Forcing Migration whilst saving costs: Discussion Paper on Migration to DVB-T, Ruud Vader, Digicast BV, the Netherlands, April 2001.

²¹ Implementing DTT: Why DTT and how to finance it, Presentation by Ruud Vader of Digicast BV, (The Netherlands), SADIBA workshop, Johannesburg July 2001.

²² Launch Scenario: Introduction of Digital Broadcasting in Germany, Federal Ministry of Economics and Technology, Document No. 481, pages 56 to 58. (available on the Internet at <http://www.bmwi.de>).

3.17.4. that accurate capital expenditure figures be calculated for a number of different rollout/implementation strategies as part of the detailed economic study referred to in 3.13.

3.18. (4.1.7) *What funding means should be used to capitalise digital migration?*

The NAB respectfully refers the Department to its response in 3.17. The NAB submits that deciding on the most appropriate means of funding capital expenditure for digital migration would depend on outcome of the economic study and the implementation scenario chosen.

3.19. (4.2.1) *Given the fact that successful digitization will depend on the development of inter-dependent sub industries such as production of programmes, scheduling, transmission, manufacturing of customer premise equipment, etc what policy instruments should be used to address chicken-and-egg situation without distorting markets for the industry and the country?*

3.19.1. The NAB respectfully submits that the above question incorrectly presents a number of complex issues as fact. The NAB respectfully suggests that there is no complex interrelation problem to be solved before digital broadcasting may be launched but rather that digital broadcasting services may be introduced and implemented immediately and without delay.

3.19.2. The NAB acknowledges that significant interaction between the stakeholders in the digital broadcasting value chain would be required to launch digital services and establish the retail chain for receivers. However, international experience demonstrates that the availability of significant coverage area and a compelling mix of services are seen as the key catalysts for the launch of digital broadcasting²³.

²³ Digital Radio Development & The Critical Factors For Success: Accelerating the transition from analogue to digital radio, Jeff Astle, Digital One UK, Paper delivered at SADIBA Conference , Johannesburg, July 2001

3.20. (4.2.2) What other barriers to digital migration must be addressed by policy intervention?

The NAB respectfully suggests that barriers to digital migration can be overcome by policy that provides for an enabling regulatory environment, the key features of which will be:

- 3.20.1. an overall suggested time frame for the completion of digital migration to give relative certainty to the industry;
- 3.20.2. the establishment of an ICASA standing committee on digital broadcasting to manage the migration process on an on-going basis in consultation with stake-holders;
- 3.20.3. broadcasting policy that encourages digital broadcasting;
- 3.20.4. ensuring effective competition in the signal distribution market within a framework that will allow interoperability;
- 3.20.5. making appropriate provision for the migration to digital in broadcasting frequency plans. In this regard The NAB wishes to stress that enabling all existing broadcasters, including all existing sound broadcasters, access to spectrum to allow them to broadcast on both analogue and digital platforms during the so-called "dual illumination" period will be critical to ensuring a smooth transition to digital broadcasting; and
- 3.20.6. the introduction of digital broadcasting licensees and services with significant signal coverage allowing for maximum exposure to these services by audiences.

3.21. (4.2.3) Given the fact that the industry is composed of Government, operators, consumers and the regulator, what costs should be borne by each of these role-

players for a successful digitized broadcasting system?

The NAB respectfully submits that the key role that Government can play to ensure successful digital broadcasting is to create the enabling regulatory environment suggested in 3.20. However, beyond this The NAB suggests that:

- 3.21.1. digital broadcasting systems be introduced based on sound business cases and that the different parties in the supply and value chain each remain responsible for their respective areas of value creation, including remaining responsible for all costs associated therewith; and
- 3.21.2. active measures be pursued to establish, grow and stimulate the receiver manufacturing and retail sectors.
- 3.21.3. The NAB submits that consumer take up of digital receivers is the single biggest factor that determines the success/failure of digital migration and the NAB suggests that Government ought to consider financing the distribution of receivers to the very poor towards the end of the migration process, to enable actual analogue switch off.

3.22. (4.3.1.) *What are the implications of digital television for public broadcasting services, local and special interest content?*

The NAB submits that this question essentially repeats previous ones posed in the Digital Paper. The NAB submits that the social goals of broadcasting set out in the IBA and Broadcasting Acts in terms of the services and content would apply to content services on digital platforms. Digital broadcasting enables these to be met more effectively because of spectrum efficiencies arising from digital broadcasting technology. This is particularly so in respect of language provision.

3.23. (4.3.2) *What are the likely issues in the broadcasting of public interest programming in a digital environment?*

The NAB submits that this question essentially repeats previous ones posed in the Digital Paper and has nothing further to add to its responses in 3.3 and 3.4.

3.24. (4.3.3) *Should special account be taken of the availability of channels which currently carry public interest broadcasting, if so how?*

In line with its proposals on the need for an enabling regulatory environment set out in 3.20, the NAB respectively submits that all existing services need to have a migration route to digital and must be assigned spectrum for this purpose. This implies that all existing public broadcasting services must be accommodated on a digital multiplex. ICASA in the Terrestrial Broadcasting Frequency Plan provides an example of the possible composition of a PBS multiplex²⁴.

3.25. (4.3.4) *In what ways will audience fragmentation positively or negatively impact on public interest programming?*

The NAB respectfully submits that audience fragmentation would only become a matter of relevance once a significant number of households are served with digital signals and have access to digital receivers. Concerns about fragmentation are thus premature at this stage. As progress is made towards digitisation and significant numbers of households gain access to digital broadcasting services, normal market forces will allow services to compete for advertising revenue. This is as it should be. The NAB also submits that given that digital allows for increased broadcasting in all official languages, audience fragmentation might in fact be a reflection of the fact of programming, whether public, community or commercial, being available in a preferred home language.

3.26. (4.3.5) *How will the introduction of digital broadcasting impact on non-commercial broadcasters?*

²⁴ The Annually reviewed Terrestrial Broadcasting Frequency Plan was published on 3 December 2004. Refer to Government Gazette No. 27061 of 3 DECEMBER 2004.

The NAB respectively submits that the above question is unclear. The IBA and Broadcasting Acts provide for a three tier broadcasting licensing framework and The NAB reiterates that all existing services, whether sound or television, commercial, community and public, should have the possibility of migration to digital.

3.27. (4.3.6) How will the introduction of a digital television broadcasting environment affect future television service

The NAB submits that future television and indeed radio services may more readily be provided by the inclusion of the new service on a digital multiplex. Further, the NAB refers the Department to 3.1.

3.28. (4.3.7) Should DTV be used as a delivery platform for Internet services?

The NAB respectfully submits that in order to allow digital broadcast networks (radio and television) to reach their the full potential, the operation of these networks should not be restricted and these networks should be licensed to carry any service including Internet services. However, the NAB submits that the focus during the migration process - before the release of vacated spectrum - should be on accommodating primarily broadcast content.

3.29. (4.3.8) Should television services be received on mobile platforms and Internet?

The NAB submits that convergence of platforms and technologies will allow for services to be delivered and received on any number of digital devices and platforms. This trend is to be encouraged and supported through technology-neutral regulation. However, given the current limited broadband capacity available in South Africa there is little if any prospect that live broadcast quality content would be delivered cost effectively via mobile platforms and the Internet

and this should not be mandated as technology-choice is essentially a commercial issue.

3.30. (4.3.9) *Should the existing remaining frequency be used for creating multiplexes to carry the free to air television services: three SABC channels, the new regional language services and e-tv?*

The NAB respectfully reiterates that ICASA has in terms of its mandate to ensure orderly frequency management made provision for the introduction of digital broadcasting. It has done this and has articulated its view on this matter clearly in its Position Paper on Regional Television. The NAB refers the Department to 3.1. Further, the NAB submits that the structure of the multiplex is essentially a commercial decision of the broadcasters and they should determine the structure thereof.

3.31. (4.3.10) *How many multiplex operators should be sufficient for South Africa's needs?*

The NAB respectfully submits that limiting or fixing the number of multiplex operators, whether these are signal distributors or some other category of licensee, at this early stage would constitute an unwarranted interference in the broadcasting markets. The NAB encourages the development of several entities operating multiplexes.

3.32. (4.3.11) *In what manner should Government intervene in order to create content enterprises and thus encourage new entrants in the content creation industries?*

The NAB respectfully suggests that there is nothing inherent in digital broadcasting that would warrant a different approach in regard to the content creation industries.

3.33. (4.3.12.) *During the transitional period, what strategies should be put in place in order to promote production,*

distribution and redistribution of broadcasting services and thus address equity and redress?

The NAB submits that this question is repetitious and refers the Department to its responses in 3.14 and 3.19.

3.34. (4.3.13) *In the digital environment, how should South African languages, cultural diversity and norms be promoted?*

The NAB submits that the fact of digital technology will not change the regulatory role and function of ICASA which is mandated to promote language and cultural diversity in terms of the existing broadcasting legislation. This legislation and regulations passed thereunder are enforced by the regulator. This basic regulatory framework would apply to digital and ICASA would be able to take note of available spectrum to impose additional local content and language requirements either in regulations or in additional licence conditions as it sees fit.

3.35. (4.3.14) *What policies should be put in place in order to protect copyrights, keeping in mind neighbouring rights and right of access to information?*

The NAB respectfully submits that all existing measures to protect copyright would apply equally in a digital environment.

3.36. (4.3.15) *What measures must be put in place to combat piracy?*

The NAB respectfully submits that this is a repetition of the previous question and refers the Department to its response thereto.

3.37. (4.3.16) *What will be the impact of transition to digital broadcasting on production and distribution of South African content?*

The NAB submits that this question is essentially a repetition of previous questions and refers the Department to its responses in 3.32 and 3.33.

3.38. (4.3.17) *Should the use of television space be altered in order to encourage viewing of South African programmes?*

The NAB submits that this question is essentially a repetition of previous questions and refers the Department to its responses in 3.22 and 3.37.

3.39. (4.3.18) *In what manner can value be created at all stages leading to content production?*

The NAB submits that this question is essentially a repetition of previous questions and refers the Department to its response in 3.19.

3.40. (4.3.19) *Should digitisation be used to create ancillary revenue streams, if so how?*

The NAB respectfully submits that digital broadcasting should be licensed in such a manner as to ensure that new technologies deliver maximum benefit to South Africans. This implies that additional interactive-, multimedia- and data services may be included. The NAB wishes however to caution that not every new or data-related service may be viable or contribute a significant revenue stream and it submits that whether or not to make use of new technologies to provide new services is essentially an operational and management issue that ought to be left to the broadcaster to decide. The NAB refers the Department to its response to 3.4 and 3.5.

3.41. (4.3.20) *What measures should be put in place in order to deal with issues of anti competitive gate keeping behaviour?*

The NAB submits that the existing broadcasting and competition²⁵ legislation and regulators are sufficiently well equipped to deal with anti-competitive behaviour and that no additional measures are required at this stage.

²⁵ See the provisions of the Competition Act, 1998.

3.42. (4.3.21) What measures should be put in place to ensure that the South African information content is transmitted on a global scale?

The NAB respectfully submits that this question has little relevance to the issue of digital broadcasting.

3.43. (4.4.1) Should industry levies (ad valorem) on services be introduced to cover the initial capitalisation requirements for digital migration?

The NAB respectfully submits this question makes certain assumptions regarding the capital requirements for digital broadcasting without having undertaken the economic research and with there being sufficient economic data available. The NAB therefore reiterates its view that the recommendation in the DBAB Report be followed to the effect that a detailed economic study be undertaken. The NAB reiterates that such a study ought to consider a number of different rollout strategies and business plans therefor and reach conclusions and calculations as to the required capital needed. Further, the NAB submits that the practice of introducing levies on services to fund capital requirements is likely to introduce abnormalities in the business models used in broadcasting and may lead to inefficiencies. The NAB does not support the introduction of levies.

3.44. (4.4.2) Should broadcast licence fees be increased to cover the capitalisation and operational expenditure of the national broadcaster?

The NAB submits that the above question is unclear because it refers to the national broadcaster (which The NAB assumes is the SABC) but it also makes reference to capitalisation (an issue for the signal distributors by and large) . The NAB submits that in principle, it is not good policy to impose fees or levies on all broadcasters to benefit only a single stakeholder in the broadcast sector. The NAB refers the Department to 3.43 above with regard to the need for an economic study. Consequently, the NAB does not support the introduction of levies or fees.

3.45. (4.4.3) *Should a new licence fee be introduced to cover the capital expenditure of multiplexing?*

Again, the NAB does not support the introduction of levies or fees. The NAB refers the Department to 3.44 above. In this regard, the NAB submits that licence fees should never be raised to cover capital costs but should instead cover administrative costs. The NAB submits that all operators licensed by ICASA ought to pay licence fees.

3.46. (4.4.4) *What fiscal measures are necessary to attract investment?*

The NAB reiterates that a proper enabling regulatory environment is more important in attracting investment than introducing particular fiscal measures. The NAB refers the Department to 3.20.

3.47. (4.4.5) *What economic measures should be followed in replacing ageing analogue equipment at State Owned Enterprises?*

The NAB has a number of responses to this question:

3.47.1. The NAB respectfully submits that the replacement of aging equipment is a standard maintenance or operational matter that needs to be addressed in the normal course of business by the respective State Owned Enterprises in accordance with the Public Finance Management Act. For the Department to publish detailed policy on this issue would be micro-managing to an extent that is unwarranted.

3.47.2. The NAB respectfully submits that ageing analogue television transmitter equipment may be replaced at the end of its operational lifetime with “digital ready” transmitters. Such transmitters can serve as analogue transmitters and may be re-

configured for digital broadcasting almost at the switch of a button.

3.48. (4.4.6) *In what manner should the benefits of manufacturing digital devices locally be optimised?*

The NAB submits that in-depth consultations with representatives of the local consumer electronics industry be considered at part of the detailed economic study that The NAB has previously asserted is required to be carried out, in order to explore the more relevant mechanisms that may be implemented to support local industry and to create jobs.

3.49. (4.5.1) *Should a percentage of the South African GDP be set aside for consumer research, education and diffusion to inform digital migration strategy and policy?*

The NAB respectfully submits Parliament must ensure that its funding of ICASA is sufficient to ensure that ICASA is adequately equipped to manage the digital migration process in accordance with its Constitutional and legislative mandate.

4.5.2 If so, what would be a reasonable percentage that South Africa can afford?

The NAB refers the Department to its response in 3.49.

3.50. (4.5.3) *To achieve Universal Access and to prevent marginalisation due to digitization, should the basis access devices such as set-top-boxes be leased or subsidised in a digitized environment?*

Again, the NAB submits that this issue ought to form part of a detailed economic study into digital broadcasting to be undertaken by the ICASA standing committee on Digital Broadcasting as proposed in the DBAB paper. While The NAB is of the view that universal service is an important goal of broadcasting legislation, it suggests that subsidization of receivers be considered only at the end of the migration process to facilitate the switch off of

analogue services and that market forces be allowed to operate to bring down the costs of digital receiver equipment.

3.51. (4.5.4) *What other measures need to be put in place to ensure digitization enhances the provision of a broadcasting service in South Africa?*

The NAB is of the view that the existing provisions of the IBA and Broadcasting Acts will enable ICASA to regulate the broadcasting industry, including digital broadcasters to ensure enhanced provision of broadcasting services.

3.52. (4.5.5) *Should Government take steps to ensure that rural and provincial areas are guaranteed access to certain digital services in the future? If so, what services are necessary and what steps should be considered?*

The NAB has a number of responses to this question:

3.52.1. The NAB submits that it is likely that the initial introduction of digital broadcasting services is likely to be in heavily populated areas that can be covered by a few transmitters in order to keep capital expenditure costs as low as possible;

3.52.2. The NAB further submits that as the biggest hurdle to overcome in respect of digital broadcasting is consumer uptake of digital receivers, it is likely that the general rural population in South Africa will benefit from digital technology in the latter stages of the digital migration process. However, depending on Government's approach to funding digital receivers and digital capital expenditure, this may happen earlier.

3.53. (4.5.6.) *Should Government take steps to facilitate arrangements for the broadcast of all free-to-air services on satellite platform? What approach should be taken for other non-commercial broadcast services*

and services which are only economic on a terrestrial platform?

The NAB submits that this issue is currently being addressed by ICASA in its Inquiry into Subscription Broadcasting and that this is not an issue that requires to be addressed by the Department in setting enabling policy for digital broadcasting. As it happens, the NAB is aware that many interested persons made submissions against imposing "must carry" obligations on satellite broadcasters and urged that this be left to the market to determine. In this regard, it is important to note that currently, all free-to-air television services are already broadcast on satellite.

3.54. (4.5.7) *Are rural areas likely to face greater costs than urban areas in the transition from analogue to digital?*

The NAB respectfully submits that due to the low population densities the cost of coverage per person is and will be much higher in rural areas than in urban areas. However, the NAB also submits that for more or less the equivalent capital outlay to cover an area with one service on analogue, the same area may be covered with a digital signal that delivers four to five different services. Therefore, coverage per service on the digital platform is cheaper than on the analogue one – regardless whether this is in a rural or urban area.

3.55. (4.5.8.) *Are there any considerations that suggest that the transition to digital television services in rural areas should follow a different time frame to that for the rest of the country?*

The NAB reiterates that in its view, the migration process ought to be managed by an ICASA standing committee on Digital Broadcasting as recommended in the DBAB Report. However, the NAB submits that the gradual phased introduction of digital broadcasting should commence in the heavily-populated urban areas where a relatively small capital investment is required to reach a large market and the launch of digital may therefore be initiated at relatively low cost at launch. The NAB submits that thereafter, ICASA ought to monitor the situation and develop appropriate and on-going roll out plans.

3.56. (4.5.9) *Are there any other issues facing rural areas in the transition to digital television that should be taken into account in the policy development process?*

The NAB submits that this is a repeat of previously-posed questions and refers the Department to its responses in 3.13, 3.52 and 3.54.

3.57. Spectrum Management Issues:

3.57.1. Before proceeding to answer the questions set out in section 5 of the Digital Paper, the NAB submits that it is important to have regard to a number of issues.

3.57.2. The NAB submits that the issues raised in section 5.1 of the Digital Paper are factually incorrect with respect to the ITU. The NAB submits that the ITU has been involved in the development of broadcasting frequency plans that aim to ensure equitable access to spectrum for all since 1947. Indeed, in terms of No. 196 of Article 44 of the ITU Constitution, spectrum is recognised as a limited natural resource that must be used rationally, efficiently and economically so that countries may have equitable access to the spectrum, taking into account the special needs of developing countries. By 1963 ITU broadcasting frequency plans for sound and television were in existence for the African Broadcasting Area. There are currently three ITU broadcast plans applicable in South Africa, all of which are based on the principle of equitable access to spectrum. These are:

3.57.2.1. the plan for the assignment of frequencies to broadcast stations in the medium frequency bands (other than to stations using low power channels) in Regions 1 and 3 in the low frequency bands in Region 1 (GE 75);

3.57.2.2. the frequency assignment plan for FM sound broadcasting stations in Region 1 and Part of Region 3 in the Band 87.5 -108 MHz (GE 84); and

- 3.57.2.3. the frequency assignment plan for VHF/UHF television broadcasting stations in the African broadcasting area and neighbouring countries (GE 89).
- 3.57.3. In terms of sections 29,30 and 31 of the IBA Act and sections 28, 29 and 30 of the Telecommunications Act, 1996 ("the Telecommunications Act"), ICASA is vested with the control, planning, administration, management and licensing of the radio frequency spectrum.
- 3.57.4. The NAB submits that ICASA is, provided that it is adequately resourced, able to deal properly with spectrum management issues, including the additional challenge of finding spectrum for the introduction of digital terrestrial radio and television broadcasting during which process it ought to be assisted by the standing committee on digital broadcasting. In this regard, the NAB has little cause for complaint in regard to the transparent manner in which ICASA assigns broadcasting frequencies.
- 3.57.5. The NAB submits that ICASA is legally responsible for spectrum management, the equitable distribution of frequency allocations and assignments and progress made towards the provision for digital broadcasting within the Frequency Spectrum Band Plan.
- 3.57.6. The NAB submits that the current planning process underway in the International Telecommunications Union ("the ITU") is not focused on allocating non-broadcast services as is alluded to on page 14 of the Digital Paper but rather on the implementation of digital broadcast services²⁶.
- 3.57.7. Further, it is important to note that international practice has shown that spectrum fees for broadcast services have as a rule not been more than access fees whilst the practice of auctioning spectrum has not, as is demonstrated in the telecommunications

²⁶ Final Acts of the RRC May 2004, Chapter 7, 7.5.4.8 refers

examples across Europe, contributed to service delivery or fast tracked network roll-out.

3.58. (5.1.1) Does ensuring public choice and access to a full range of digital television content and services warrant specific Government policy interventions, e.g. mandated standards for open access and set top boxes?

The NAB submits that it is unclear why this question is listed under the heading “Spectrum Management”. It is furthermore unclear whether the question aims to solicit information on interventions in spectrum management or on a specific transmission standard for digital broadcasting or on the use of condition access technology. Suffice it to say that all of these issues are significantly differentiated areas each of which warrants proper investigation and clarification. The DBAB Report's recommendations 3, 4 as well as 7 and 8 speak to the above question and the NAB supports these and recommends that the Department adopts these formally.

3.59. (5.1.2) If so, what aspects should such requirements cover (potentially terrestrial, satellite, and cable transmissions, free-to-air, pay TV, conditional access and middleware)?

The NAB refers the Department to its response in 3.58.

3.60. (5.1.3) What spectrum should be made available for terrestrial digital television services?

3.60.1. This matter has been superseded by the ITU process that clearly confirms the planning process that is to be followed in ITU Region 1 in which South Africa falls. i.e. Part I: Band III (174-230 MHz) with provisions for T-DAB and DVB-T and Part 2, Bands IV and V (470 MHz to 862 MHz) with provisions for DVB-T .

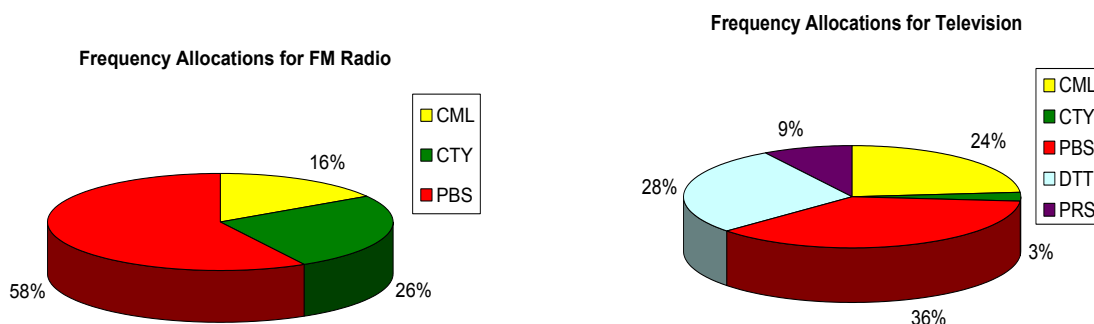
3.60.2. Further, the NAB reiterates that this is an issue that ICASA is legislatively mandated to regulate. In this regard, the NAB reiterates the importance of ensuring that the spectrum needs of sound radio broadcasting services are not overlooked by a focus on terrestrial digital television services.

3.61. (5.1.4) *In what form should spectrum be allocated, in the form of management rights, spectrum licences, or a combination of both?*

The NAB respectfully submits that spectrum should be allocated in the form of spectrum licenses associated with broadcasting licences.

3.62. (5.1.5) *What measures should be put in place to ensure equitable allocation of spectrum?*

3.62.1. The NAB submits that the figures below show spectrum allocations per service as reflected in the Terrestrial Broadcasting Frequency Plan 2003. It is expected that any changes in the Draft Terrestrial Broadcasting Frequency Plan 2004 would not give rise to significant changes²⁷.



3.62.2. It is not directly apparent from the above that there are significant problems in respect of the equitable allocations of spectrum.

²⁷ Note that the key for the tables is as follows: CML: commercial; CTY: community; PBS: public broadcasting services; DTT: digital terrestrial television and PRS: public regional services.

3.62.3. However, it is critical that equitable allocations be made for digital radio in Band III and in the Band 1452-1492 MHz (L-band). To this end it is critical that digital policy addresses how and when television services are to be migrated from the designated T-DAB bands to ensure adequate spectrum availability for sound broadcasting services.

3.63. (5.1.6) *Should any special provision be made for existing broadcasters to manage the transition to digital television?*

3.63.1. It was previously stated by DBAB that “in developing new policy, government has a responsibility to protect the interests of existing licensees and service providers while creating an enabling environment for the introduction of new services and market entrants”²⁸. It is thus important that all existing broadcasters have a future in digital and thus that they have access to digital spectrum and may participate on a digital multiplex.

3.63.2. A number of licensing incentives that may encourage investment, promotion and favourable support of existing broadcasters have been outlined in previous submissions. The NAB refers the Department to its response in 3.13.

3.64. (5.1.7) *If so, should any such provision incorporate a requirement to implement particular transmissions in, and for specified timeframes?*

3.64.1. The NAB reiterates that the international case studies previously referred to confirm that there is a real risk in setting overly ambitious and aggressive rollout targets which could lead to unnecessarily large upfront capital investments, thereby jeopardising the successful introduction of digital broadcasting.

²⁸ Digital Broadcasting Advisory Body, Final Report, 28 October 2002, page 32

- 3.64.2. An approach in which transmissions are to start in the large cities and other areas with high population density would allow for the establishment of new digital networks (for both T-DAB and DVB-T) in key market areas and possibly an more sustainable business case on which services may then be gradually rolled out to larger geographical areas.

3.65. (5.1.8) *If so, are either of the options discussed above suitable, or are there further preferable alternatives?*

The NAB submits that in the case of T-DAB the large scale availability of network coverage and specifically road coverage for in-car reception was found to be a key to getting car manufacturers interested in range fitting T-DAB receivers and might similarly be important in South Africa.

3.66. (5.1.9) *What different modulation types (QAM, DVB-T, DVB, COFDM, etc) should be standardised?*

- 3.66.1. The NAB is perturbed by this question given the ITU planning processes currently underway. In this regard, very clear recommendations on systems and standards have previously been made. The DBAB Report recommended that:

3.66.1.1. the DVB family of standards (which includes DVB-T as per ETS 300 744 and ITU-R BT.1306) be adopted in South Africa for digital television broadcasting²⁹;

3.66.1.2. the Eureka 147 (or T-DAB as per ETS 300 401 and ITU-R BS.1114) be adopted as a standard for digital audio broadcasting³⁰; and

3.66.1.3. South Africa carefully monitor DRM (Digital Radio Mondial) developments for Digital AM and adopt DRM as a standard as

²⁹ Digital Broadcasting Advisory Body, Final Report, 28 October 2002, Recommendation 3, page 40

³⁰ Digital Broadcasting Advisory Body, Final Report, 28 October 2002, Recommendation 4, page 40

soon as it becomes the *de facto* standard and low cost receivers become available³¹ .

3.66.2. The NAB further submits that it is important to note that the question of standards and their respective modes of operation have been superseded by the agreements reached on standards and planning parameters decided upon at the ITU Regional Radio Conference in May 2004. The final report on the RRC respectively defines Digital terrestrial television broadcasting and Digital terrestrial sound broadcasting as Digital Video Broadcasting – Terrestrial (DVB-T) as per Recommendation ITU-R BT.13056 and Terrestrial –Digital audio broadcasting (T-DAB) as per Recommendation ITU-R BS.1114³².

3.67. (5.1.10) *Should current licensed broadcasters be entitled to the freed spectrum?*

The NAB submits that any freed spectrum should be reallocated for digital broadcasting services or services ancillary to broadcasting and return path channels. This implies that as spectrum is freed the appropriate invitation to apply for a licence ought to be issued and the respective applications be considered in accordance with the objects of the applicable legislation and that the successful applicant(s) whether these are existing or new licensees broadcasters be awarded the right to use the spectrum. In this regard the NAB points out that in the analogue environment spectrum is assigned to a particular broadcaster but in the digital environment this might change, for example, spectrum might be assigned to a signal distributor.

3.68. (5.1.11) *What allocative mechanisms should be instituted to encourage access by new comers to frequency?*

The NAB reiterates that the existing legislation has sufficient mechanisms to promote the diversification of ownership of broadcasting resources, including access to spectrum.

³¹ Digital Broadcasting Advisory Body, Final Report, 28 October 2002, Recommendation 11, page 46

³² Final Acts of the RRC May 2004, Chapter 1, section 1.2.

3.69. (5.1.12) What measures should be put in place to ensure that spectrum is allocated to its highest value usage?

The NAB reiterates that the existing legislation has sufficient mechanisms to ensure the efficient and appropriate use of spectrum.

3.70. (5.1.13) What tenure is appropriate to secure investment measures?

The NAB submits that this question is repetitious and as it has previously suggested, initial licence periods should be in the order of 10 to 15 years with the possibility of the renewals thereof.

3.71. (5.1.14) Are there any particular characteristics of spectrum suitable for digital television, or of broadcasting markets, which justify acquisition limits for spectrum over and above the current regulatory and legislative frameworks?

The NAB submits the regulation of ownership and control should, as is the case today, focus on limits in terms of broadcasting and signal distribution licences and not on spectrum.

5.1.15 If so, what are these factors and what form and level of limits are appropriate?

The NAB refers the Department to 3.71.

3.72. (5.1.16) Should Government revise its tariff structure for spectrum allocation?

3.72.1. The NAB submits that broadcast spectrum is currently not charged for. Implementing spectrum charges for broadcasting and more so for digital broadcasting would significantly discourage investment.

As was previously submitted, a system that encourages investment in infrastructure rollout and in which only an administration fee is charged for a licence is favoured.

3.73. (5.1.17) *Nationally, where should the management of spectrum be located?*

The NAB is perturbed by this question. The management of spectrum is clearly a function of the ICASA in terms of section 192 of the Constitution and also in terms of the IBA, Broadcasting and Telecommunications Acts this should remain as such.

3.74. (5.1.18) *What should happen to freed spectrum?*

The NAB submits that this question is repetitious and reiterates that any freed spectrum should be reallocated to digital broadcasting services or services ancillary to broadcasting and return path channels. This implies that as spectrum is freed the appropriate invitation to apply is issued and the respective applications be considered in accordance with the objects of the applicable legislation. The NAB refers the Department to its response in 3.67.

3.75. (5.1.19) *Should analogue services be “switched off” at a certain date, what policies should apply?*

3.75.1. Insufficient information exists to compile a comprehensive migration plan at this stage. The NAB respectfully reiterates that the recommendations in the DBAB Report be adopted and that ICASA establish a standing committee to manage the migration process. This would review the approaches followed by others internationally and first address the fundamental issues that require urgent and clear short-term resolution and then based on the experiences, knowledge and insight gained define the medium to long-term mile-stones. The NAB submits that defining a migration process in terms of a launch scenario, the frequency planning, fast tracked licensing process and metropolitan network

roll-out and establishing a framework and milestones for review dates may very well be possible. However, setting dates and uptake targets cast in stone is not.

- 3.75.2. T-DAB and DVB-T should be allowed to launch as soon as possible. After a certain period (say 5 years) a review process that considers digital broadcasting take-up should be initiated, after which a revisable switch-off date for analogue could be set within the parameters of the ITU's RRC process which is currently underway.
- 3.75.3. The migration of digital broadcasting will be a process and must be a well-managed, include target dates as well as review dates and may require extensive revision over time.
- 3.75.4. It is foreseen that the migration process would take a significant amount of time and that appropriate revision of the market uptake and positive regulatory measures could best be accommodated as recommended through the establishment of a standing committee of ICASA .
- 3.76. (5.1.20) *Should a policy of mandatory termination be established, and if so, at what time should Government consider establishing the actual termination date, and what criteria should be used in determining the date?
Or***

The NAB submits that this question is repetitious and refers the Department to its response to 3.75.

- 3.77. (5.1.21) *Should the termination issue be left for industry to manage in light of their costs and viewer take up? Or***

The NAB submits that this question is repetitious and refers the Department to its response to 3.75.

3.78. (5.1.22) *Should the termination issue be left open, to be reviewed at a future date, and if so when should such a review be undertaken?*

The NAB submits that this question is repetitious and refers the Department to its response to 3.75.

3.79. (5.2.1) *What measures need to be put in place to ensure wider access by the public to digital broadcasting systems?*

3.79.1. The NAB submits that this question is repetitious and reiterated that the key barrier to entry is the cost of digital receivers. While it is acknowledged that network coverage must come first, in order to ensure the widest possible access by the public to digital broadcasting it is imperative that common base receiving equipment being mass-produced across the globe would function in South Africa. Ensuring full compliance to common harmonised standards would in addition ensure a world offset market for locally produced receivers. It is in this context that the recommendations on a common minimum receiver and conditional access operational standards are supported³³ to ensure consumer protection. These standards ought to be in accordance with the ITU's standards for DVB and Eureka. The NAB suggests that there be no particular standard for CA systems as what type of CA system is used ought to be determined by the market.

3.80. (5.2.2) *Taking into account multilateral and regional arrangements, national and local broadcasters prerogatives and national interests, what standards*

³³ Digital Broadcasting Advisory Body, Final Report, 28 October 2002, Recommendation 7, page 43

would be appropriate for the South African digital environment?

- 3.80.1. Again, the NAB submits that this question is repetitious as very clear recommendations on systems and standards have previously been made in the DBAB Report. In particular it was recommended that:
- 3.80.1.1. the DVB family of standards (which includes DVB-T as per ETS 300 744 and ITU-R BT.1306) be adopted in South Africa for digital television broadcasting;
 - 3.80.1.2. the Eureka 147 (or T-DAB as per ETS 300 401 and ITU-R BS.1114) be adopted as a standard for digital audio broadcasting; and
 - 3.80.1.3. that South Africa carefully monitor DRM (Digital Radio Mondial) developments for Digital AM and adopt DRM as a standard as soon as it becomes the *de facto* standard and low cost receivers become available.
- 3.80.2. The NAB further reiterates that the question of standards and the respective modes of operation have been superseded by the agreements reached on standards and planning parameters decided upon at the ITU Regional Radio Conference in May 2004. The final report on the RRC respectively defines Digital terrestrial television broadcasting and Digital terrestrial sound broadcasting as Digital Video Broadcasting – Terrestrial (DVB-T) as per Recommendation ITU-R BT.13056 and Terrestrial –Digital audio broadcasting (T-DAB) as per Recommendation ITU-R BS.1114 .
- 3.81. (5.2.3) What technical issues need to be addressed with our neighbouring countries in order to ensure harmonious digital broadcasting?**

The NAB submits that the ITU processes currently underway will develop the appropriate protection and co-ordination criteria for the introduction of digital broadcasting. In addition the development of a regional approach the introduction of digital broadcasting and the possible harmonisation of a minimum receiver specification could increase the market size in the region and through increased economies of scale speed up the introduction of digital broadcast services in the region.

3.82. (5.2.4) *What other substantive technical and technological issues need to be considered in digitizing broadcasting systems in South Africa?*

The NAB respectfully suggests that the Department focus on ensuring that an enabling regulatory environment is in place as previously suggested.

3.83. (5.2.6) *How can the issues identified above be addressed in order to ensure an effective and comprehensive digital broadcasting system?*

Again, the NAB respectfully submits that the Department focus on ensuring that an enabling regulatory environment is in place as previously suggested.

3.84. (5.3.1) *What are the pros and cons of single frequency vs multiple frequency? And which form of multiplexing will be suitable for South African purposes?*

3.84.1. The NAB is perturbed at this question and respectfully submits that the question demonstrates a lack of understanding of the basic terminology and operation of digital broadcasting systems and networks. The mode of operation of a digital transmitter network (i.e. SFN or MFN) is unrelated and independent of the multiplexing function.

3.84.2. The ITU provides the following definitions:

- 3.84.2.1. Multifrequency network (MFN) is defined as a network of transmitting stations using several RF channels³⁴; and
- 3.84.2.2. Single frequency network (SFN) is defined as a network of synchronized transmitting stations radiating identical signals in the same RF channel³⁵;
- 3.84.3. A Multiplex is a group of digital services (i.e. more than one radio or television service and additional data services) that are combined together for be broadcast³⁶;
- 3.84.4. Single Frequency Network operation would provide for the most efficient use of spectrum as well as better coverage due to Single Frequency network gain than may be obtained on multifrequency networks. However, the services on a SFN must be identical throughout the network where in a MFN different services may be accommodated.
- 3.84.5. Best practise Internationally shows that T-DAB networks are mostly SFN whilst for DVB-T combinations on SFN's and MFN's have been rolled out.

3.85. (5.3.2) How should licensing of multiplexing be structured?

The NAB respectfully submits that the licensing model in respect of multiplexing is currently being determined by ICASA through its Inquiry into Subscription Broadcasting. Many interested parties have argued that it is not clear that the multiplex function in fact requires a separate type of licence.

3.86. (5.3.3) Should the existing remaining frequency be used for creating multiplexes to carry the free to air television services: three SABC channels, the new regional

³⁴ Final Acts of the RRC May 2004, Chapter 2, paragraph 1.6.13

³⁵ Final Acts of the RRC May 2004, Chapter 2, paragraph 1.6.14

³⁶ Digital Broadcasting Advisory Body, Final Report, 28 October 2002, page 36

language services and E-tv? How many multiplex operators are sufficient for South Africa's needs?

The NAB submits that this question is repetitious and refers the Department to its responses in 3.67, 3.57 and 3.31.

3.87. (5.3.4) *What other barriers to digital migration must be addressed by policy intervention?*

The NAB submits that this question is repetitious and refers the Department to its response in 3.20.

3.88. (5.3.5) *Should DTV be a delivery platform for Internet services?*

The NAB submits that this question is repetitious and refers the Department to its response to 3.28

3.89. (5.3.6) *Should television services be received on mobile platforms and Internet?*

The NAB submits that this question is repetitious and refers the Department to its response to 3.29

3.90. (5.3.7) *Where and how should other terrestrial pay services be accommodated, if at all?*

3.90.1. The NAB reiterates that all existing licensees need to be accommodated on digital in order to ensure stability in the industry and to ensure the regulatory certainty required for the introduction of digital broadcasting³⁷.

3.90.2. Further, the NAB is of the view that digital subscription broadcasting services could play a critical role in stimulating initial

³⁷ Digital Broadcasting Advisory Body, Final Report, 28 October 2002, page 32

receiver sales and thus lead to greater economies of scale and lower receiver costs for every viewer.

- 3.91. (6.1) *Should the introduction of digital services adopt phase-by-phase approach as opposed to introduction of digital services within a fully converged policy and regulatory environment?***

This question is repetitious and The NAB respectfully reiterates its support for a phased approach.

- 3.92. (6.2) *How should digital migration be driven? Should it be left to market forces, driven by policy interventions or a combination of both?***

Again, this question is repetitious and The NAB respectfully reiterates that digital migration must be driven through policy interventions that provide regulatory certainty to secure investment and subsequent market driven introduction.

- 3.93. (6.3) *How should digital migration of TV and radio be phased in?***

The NAB submits that this question is repetitious and refers the Department to its response to 3.75

- 3.94. (6.4) *What should determine the stages for digital roll out – large markets vs. small markets***

The NAB submits that this question is repetitious and refers the Department to its response to 3.75

- 3.95. (6.5) *In the context of a digitized environment, what conditions if any should apply to pay and speciality services?***

The NAB submits that this question is repetitious and refers the Department to its response to 3.90

- 3.96. (6.6) *During the transition phase, what are the issues that should be considered in respect of the protection of existing services?***

The NAB respectfully submits that this question forms the basis of the current ITU RRC planning process and that the appropriate protection ratios and parameters that are defined in the ITU process be adopted.

- 3.97. (6.7) *Should there be preservation of simultaneous substitution during digital transition?***

The NAB submits that this question is unclear.

- 3.98. (6.8) *How can the digitization of broadcasting systems be accelerated in order to be at par with other already digitized ICT systems?***

The NAB submits that this question is repetitious and refers the Department to its response in 3.20.

- 3.99. (6.9) *What role should Government play to stimulate the demand for digital services?***

The NAB submits that this question is repetitious and refers the Department to its response to 3.63.

- 3.100. (6.10) *What processes should be followed to ensure wide stakeholder participation?***

The NAB respectfully reiterates that the implementation of the DBAB recommendation to establish a standing committee of ICASA consisting of

industry, government and experts in the field of digital broadcasting³⁸ would ensure wide stakeholder participation and should be implemented promptly.

3.101. (6.11) What should be the key policy consideration for government in setting the digital migration agenda?

The NAB submits that this question is repetitious and refers the Department to 3.63

3.102. (6.12) Given all relevant role-players, what should Government's role be in respect of innovative research and entrepreneurship?

The NAB respectfully submits that Government should actively pursue measures to ensure research and innovation in receiver development, manufacturing and distribution processes that may favourably reduce receiver costs.

3.103. (6.13) How should Government ensure market confidence in digital migration processes?

The NAB submits that this question is repetitious and refers the Department to 3.63

3.104. (7.1) In a digitised environment, what will be the permissible cross platform services, and what will be the implications for digital broadcast systems.

The NAB submits that ICASA is empowered by the IBA and the Broadcasting Acts to regulate certain media ownership issues and to review the requirements from time to time. The NAB is of the view that the same mechanisms would apply in a digital environment. Further, the NAB is of the view that this issue ought to be dealt with in terms of the Convergence legislation process.

³⁸ Digital Broadcasting Advisory Body, Final Report, 28 October 2002, page 38

3.105. (7.2) What strategies should be put in place to cater for those who cannot afford digital receiving devices?

The NAB submits that this question may be repetitious and refers the Department to 3.21 and the mechanisms that have been outlined previously. To reiterate, to ensure low cost receivers it is critical to set minimum receiver specifications and ensuring that the specified receiver may be mass produced and conforms to the DVB-T specifications. In addition marketing and funding needs to be channelled to local manufacturing and to placing bulk orders to reduce unit costs.

3.106. (8.1) What role should be played by Government in addressing Human Capital Development needs for digital migration?

The NAB submits that Government's existing national skills development policies for the sector which are carried out in the ISETT Seta and the MAPPP Seta, will be sufficient to develop the skills and capacity necessary to build and operate digital networks.

3.107. (8.2) What should be the key strategic thrust to Human Capital Development for digital migration?

The NAB submits that this question is repetitious.

3.108. (8.3) What broad-based empowerment initiatives in respect of Human capital Development should be put in place to address equity and redress for Digital Migration?

The NAB submits that the Broadbased Black Economic Empowerment Act and the ICT Charter will provide sufficient policy frameworks for broad-based empowerment initiatives in the digital broadcasting environment.

3.109. (9.1) What role the private sector play in the process of digital migration?

The NAB respectfully submits that private sector has a key role to play in introducing digital services and providing services that would stimulate receiver sales thereby providing access to new digital services across the board. The NAB refers the Department to 3.90 and 3.100

3.110. (9.2) *What should be the role of the private sector in identifying opportunities for economic growth, strategic combinations as part of digital migration?*

The NAB submits that this question is repetitious and refers the Department to 3.109.

3.111. (10.1) *What mechanisms should be adopted or followed to ensure the full participation of citizens in the digital migration process?*

The NAB submits that this question is repetitious and refers the Department to 3.100

3.112. (10.2) *How should consumer research, education and diffusion of information on digital migration be financed?*

The NAB submits that the Department, ICASA and the broadcasting industry all have important roles to play in educating the public about digital migration and in publicising the benefits thereof and the anticipated switch off date. These bodies ought to be encouraging the public, from the introduction of digital broadcasting, to acquire digital receivers to promote consumer uptake. However, the private sector will be key to publicising new content services available on digital only, thereby assisting in ensuring consumer update of digital receivers.

3.113. (10.3) *In doing the above, what percentage can South Africa afford?*

The NAB submits that this question is repetitious.

- 3.114. (10.4) *To achieve Universal Access measures and to prevent digital marginalisation, should the basic access devices such as the set-top-boxes be leased or subsidised?***

The NAB submits that this question is repetitious.

- 3.115. (11.1) *In digitizing broadcasting systems, which Constitutional Provisions must be complied with?***

The NAB submits that all Constitutional provisions must be complied with but in respect of digital broadcasting the most important one is section 192 which requires legislation to establish an independent authority to regulate broadcasting to regulate broadcasting in the public interest. The effect of this provision is that digital broadcasting regulatory functions must be carried out by ICASA. The NAB is also the view that section 25 of the Constitution, which protects the property rights of existing broadcasters, must be taken into account when planning for digital migration.

- 3.116. (11.2) *Which of the existing legislations enable digital migration and in what manner?***

The NAB submits that the provisions of both the IBA and the Broadcasting Acts are applicable to digital broadcasting and that it is for Parliament and the Department to develop macro policies with regard to digital broadcasting issues to create an enabling policy environment. ICASA is already proceeding to deal with digital broadcasting issues both in respect of frequency band planning and also in respect of broader content and ownership issues through its Inquiry into Subscription Broadcasting. The NAB further submits that the passage of Convergence legislation will further facilitate the development of digital broadcasting.

3.117. (11.3) *What regional and international arrangements must be complied with in formulating digital migration policies?*

The NAB submits that South Africa is already participating in the on-going ITU processes and suggests that the development of common regional approaches to digital broadcasting are likely to aid in the development of mass markets for receiver sets, something that is critical to the success of digital broadcasting.

3.118. (12.9) *At the end of dual transmission, what should happen to analogue and digital licences of the licensee?*

The NAB submits that this question can be dealt with only on an on-going basis by a standing committee of ICASA as suggested in the DBAB Report as the end of the dual transmission period is likely to be at least a decade away. In any event, licensing issues are quintessentially a regulatory function of ICASA.

4. CONCLUSION

4.1. The NAB wishes to stress that in its view the key policy challenge facing the Department at this stage is how best to facilitate the introduction of digital broadcasting rather than how best to manage the migration from analogue to digital broadcasting.

4.2. The NAB believes that the Department can best facilitate the introduction of digital broadcasting by adopting the recommendations made in the DBAB Report and by announcing policy that:

4.2.1. makes it clear that Government is committed to digital broadcasting;

4.2.2. sets a tentative target date for the switch-off of analogue transmission, particularly in respect of television;

4.2.3. adopts technology standards in line with the ITU's approved standards, namely DVB and Eureka; and

- 4.2.4. encourages the establishment of an ICASA standing committee on digital broadcasting to manage digital migration, including, dealing with issues such as: frequency allocations and assignments - particularly in the dual illumination period, digital signal distribution roll-out, monitoring of consumer uptake of digital receivers and on-going assessment of the appropriateness of the target date for analogue switch-off.
- 4.3. The NAB thanks the Department for the opportunity of making written comments on the Digital Paper and trusts that its views and suggestions will be considered by the Department in its formulation of enabling policy to drive digital broadcasting in South Africa.