



**THE NATIONAL ASSOCIATION OF BROADCASTERS'
SUBMISSION
ON
THE NATIONAL INTEGRATED ICT POLICY GREEN PAPER**

30 March 2014

1. Introduction

1.1. On 24 January 2014, the Department of Communications (“**the DoC**”) published in General Notice No 44, Government Gazette 37261, its National Integrated ICT Policy Green Paper (“**the Green paper**”) for general information and comment from interested persons.

1.1. The National Association of Broadcasters (“**the NAB**”) welcomes the opportunity to make a submission on the Green Paper and supports this important process. The NAB extends its thanks to the DoC for having acceded to stakeholders’ requests for the postponement of the closing date. We would like to be given the opportunity to participate in oral hearings, if these are held.

1.2. The NAB is the leading representative of South Africa’s broadcasting industry and aims to further the interests of the broadcasting industry in South Africa by contributing to its development.

1.3. The NAB membership includes:

1.3.1. Three television public broadcasting services, and eighteen sound public broadcasting services of the South African Broadcasting Corporation of South Africa (“**the SABC**”);

1.3.2. The commercial television broadcasters and sound broadcasting licensees;

1.3.3. Both the licensed common carrier and the selective and preferential carrier broadcasting signal distributors;

1.3.4. Over thirty community sound broadcasting licensees and community television broadcasting service, Trinity Broadcasting Network (“**TBN**”).

1.4. This submission does not address every issue raised in the Green Paper, but focuses on the aspects of the Green Paper which are most critical to the broadcasting industry. This submission will commence with recommendations on a few process issues and then proceed to address the following key policy issues:

1.4.1. Independent regulation

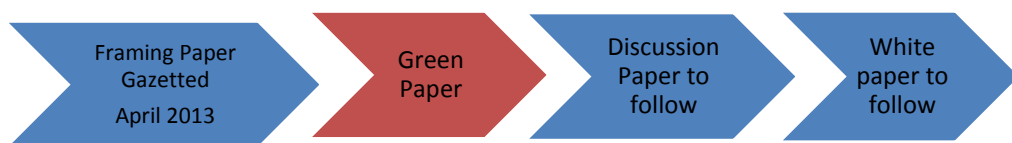
1.4.2. Impact of convergence

- 1.4.3. Ownership and control
- 1.4.4. Radio frequency spectrum
- 1.4.5. Universal service and access
- 1.4.6. Content
- 1.4.7. Skills Development
- 1.4.8. Public broadcasting

1.5. Members of the NAB will also be making individual submissions on the Green Paper and the NAB submission will focus on general principles.

2. Recommendations on Process

2.1. The Green Paper outlines the steps to be undertaken in the formulation of the National Integrated ICT Policy. Below is the diagram mapping out the steps the DoC will follow:¹



2.2. Prior to drafting the Green Paper, the DoC published a draft Framing Paper for public comment. The Framing Paper outlined 14 key objectives underpinning the ICT framework. Stakeholders were invited to comment on the relevance of the proposed objectives. The Framing Document further solicited additional objectives from stakeholders which would be added to the list. In its written submission dated 16 August 2013 to the DoC, the NAB supported all 14 objectives, and further recommended that since some of the objectives overlapped, that they be reworded to ensure coherence.

2.3. The NAB proposed an additional objective which related to the preservation of the independence of the Regulator and we note that this objective has been incorporated into the Green Paper.

¹ At page 8 of the Green Paper

- 2.4. The NAB further recommended strongly (a view which we still hold), that before finalizing the principles that will guide the ICT Policy review, an international benchmarking exercise should be conducted, focusing on countries that are not only world leaders in ICT but also developing nations that are comparable to South Africa in terms of size, economic structure as well as stage of development of their National ICT Policy and strategies.² We note that the Green Paper largely refers to the South African position, and provides an overview of the ICT landscape. The Green Paper does not include specific international benchmark studies. We therefore believe that in the proceeding processes, as outlined in the DoC's project map, the DoC will provide studies conducted internationally, which will provide an analysis of how other jurisdictions have integrated their ICT policies. Drawing on international best practice can inform the development of relevant, appropriate and viable policy options for South Africa.
- 2.5. The NAB notes that whilst the DoC has embarked on this ICT Policy Green Paper process, ICASA has recently (20 March 2014) published a notice on its intention to conduct an inquiry into the state of competition in the ICT sector³. ICASA states that this 'high level' inquiry will be done in terms of section 4B(1)(a) of the ICASA Act 13 of 2000 as amended.
- 2.6. ICASA states further that this inquiry will go through a number of iterative stages and will call for written and oral submissions. On completion of the process, ICASA aims to issue its findings and a position paper. It anticipates that this process will take between six to eight months to finalise. Notably, ICASA states that "while it may appear that many of the issues are policy matters, and could be addressed in the ICT Policy Green Paper consultation process, the Authority in its mandate of safeguarding the public interest is compelled to guard against market failure and to establish what corrective measures can be put in place to ensure a competitive market".
- 2.7. The NAB would propose that the DoC and ICASA considers working collaboratively where possible in scoping the timelines of their respective processes.

² Page 4 of the NAB written submission on the Framing Paper 15 June 2013

³ Published in Notice no 229, Government Gazette no 37456

2.8. The NAB notes that the DoC will be issuing a new Community Broadcasting Support Policy⁴; this will no doubt also feed into the ICT Policy Review process.

POLICY ISSUE NO 1: INDEPENDENT REGULATION

3. The independence of the regulator is fundamental to the regulation of broadcasting in South Africa. This is enshrined in section 192 of the Constitution which provides that:

“national legislation must establish an independent authority to regulate broadcasting in the public interest and to ensure fairness and diversity of views broadly representing South African society”.

4. By virtue of enacting the Independent Communications Authority of South Africa Act (“**the ICASA Act**”), the DoC, complied with its constitutional obligation of ensuring that national legislation indeed establishes an independent authority to regulate broadcasting. Consequently, the ICASA Act provides in section 3(3) that ICASA *“is independent, and subject only to the Constitution and the law, and must be impartial and must perform its functions without fear, favour or prejudice”.*
5. In light of the Constitutional mandate to establish an independent authority to regulate broadcasting, any national policy arising from the current review process must preserve the constitutional independence which ICASA enjoys.
6. On the issue of what constitutes independence, the Report of the ad hoc Committee on the review of Chapter 9 and Associated Institutions to the National Assembly (the Asmal report) pointed to the Constitutional Court judgment in the **Independent Electoral Commission v Langeberg Municipality** that, although a Chapter 9 institution such as the Electoral Commission is an organ of state as defined in section 239 of the Constitution, these institutions cannot be said to be a department or an administration within the national sphere of government over which Cabinet exercises authority. These institutions are state institutions and are not part of the government. Independence of the

⁴ In line with Minister’s commitments made to the PPCC on 20 August 2013

institution refers to independence from the government.

Ministerial Policy Directives – roles and responsibilities of policy maker *vis-a-vis* the Regulator

7. Chapter 2 of the Electronic Communications Act (“**the ECA**”) distinguishes the roles of the DoC from those of the Regulator. Currently, provisions governing the Minister’s powers to make Policy and Policy Directives are governed by chapter 2 of the ECA. In terms of section 3 of the ECA, the Minister may make policies on matters of national policy applicable to the sector, consistent with the ECA. Furthermore, the Minister may issue to the Authority policy directions consistent with the objects of the ECA. Consequently, in exercising its powers, the Authority must consider policies made by the Minister.
8. When the ECA was finalised, its drafters were careful to avoid compromising section 192 of the Constitution, and the independence granted to ICASA in legislation, when dealing with policy directions made by the Minister. To this end, the ECA, provides the Minister with the power to make policies and issue policy directions in terms of section 3(1) and (2) of the ECA whilst at the same time preserving the independence of the regulator, by not making these policies and policy directions binding upon the regulator. In terms of section 3(4) of the ECA, ICASA only has to consider such policies and policy directions in exercising its powers and performing its duties in terms of the Act. Furthermore section 3(3) of the ECA prohibits the Minister from making policy or policy directions that may influence ICASA in terms of granting, amending, transferring, renewing, suspending or revoking a licence, except as directly permitted by the Act.
9. The policy review process should not compromise the independence of the Regulator. To the extent that the Green Paper contemplates the best way to structure such an independent regulator, we set out below the proposals considered and /or adopted in other jurisdictions.

Australia

10. The Australian Government in its Convergence Review Report⁵ has recommended that two independent regulatory bodies be established (similar to ICASA), the first one being a statutory regulatory body, to replace the current Australian Communications and Media Authority (“**ACMA**”). The second regulatory body envisaged would be a self-regulatory body, which will focus on media content standards.

Canada

11. In Canada, an exercise to review convergence policies has not been undertaken aggressively. However, the Canadian Radio-Television and Telecommunications Commission (“**CRTC**”) has published two independent reports addressing the issue of convergence.⁶ Canada is exploring a regulatory regime that combines ex-ante regulation with market forces. It is argued that technological convergence has created a control crisis in the broadcasting media and regulatory circles, Canada is moving towards advocating a light- touch regulation, with consumer interest to the fore.

UK

12. In the UK, the Office of Communications (“**Ofcom**”) is the independent regulator and a creature of statute, formed in terms of the Communications Act 2003. It acts as an independent regulator responsible for broadcasting, telecommunications, spectrum and postal services. Ofcom is accountable to Parliament and is funded through regulatory fees derived from the industry.

13. The NAB does not seek to be prescriptive, and notes that there are various progressive international models that can be considered such as the ones alluded to above. The NAB suggests that the entire structure and staffing/resourcing of the regulator be reviewed. Furthermore, the ICASA Council must be equipped to respond to a converged environment, and to address current inadequacies in dealing with broadcasting. To that end the following can be considered:

13.1. The introduction of a Chairperson for Broadcasting (with relevant broadcasting and regulatory understanding and industry expertise). Similar models have been adopted

⁵ Convergence Review Report March 2012

⁶ (1) The 2011 Navigation Convergence II: charting Canadian Communications Change and Regulatory Implications (2) Environmental Scan of Digital Media Convergence Trends: Disruptive Innovation, Regulatory Opportunities and Changes

in a number of jurisdictions: in Canada, legislation provides for two standing committees within the CRTC, one for broadcasting and the other for telecommunications. The UK model on the other hand provides for the establishment of a Content Board, tasked with all matters relating to content across various platforms, a Consumer Panel as well as various advisory committees;

13.2. The introduction of part-time Councillors operating as non-executive directors, as opposed to full time Councillors. This will address governance issues and provide a clear distinction between operational functions of the regulator and the regulation making process as the purview of Councillors;

13.3. The possible reduction of the number of full-time Councillors from the current nine to five. This could be done by way of natural attrition;

13.4. Of the total number of Councillors, one must be a Chair of Broadcasting.

14. While the NAB acknowledges that the ICASA Act 13 of 2000 as amended categorically stipulates the objects of the Act, and outlines the functions of the Authority as well as those of the Chairperson of the Authority⁷, the NAB believes that principles of efficiency, transparency, clarity and predictability of the regulatory landscape should underpin the operational machinery of the Regulator. To reinforce this, the NAB is of the view that other jurisdictions that have expressly included General Duties of the Regulator in their legislation could be considered. These include, as contained in the UK Communications Act 2003:

14.1. promoting competition across networks and services;

14.2. Providing equal treatment of technology, network and means of communications;

14.3. reviewing regulatory burdens and carry out regulatory impact assessments on a regular basis;

14.4. increasing the ease with which business can be conducted in the ICT sector;

14.5. publishing its decisions, policy statements and resolutions promptly and adhering to legislated time frames;

⁷ Section 4 of the ICASA Act

14.6. adhering to reasonable timeframes during public processes and the issuing of licenses;

14.7. conducting and take into account local and international research and/or conduct relevant international benchmarking.

15. The NAB is aware of studies undertaken by ICASA and the DoC on funding models and optimal organisational structure/design for the regulator. It is suggested that these studies should be made available for the public and stakeholders to engage during the next phase of this Green Paper process.

POLICY ISSUE NO 2 : IMPACT OF CONVERGENCE

16. Whilst the role of ICASA as an independent regulator remains relevant and important in the new digital era, it goes without saying that the technological advancements introduced by the internet have changed the playing field and blurred distinctions between platforms.

17. It has become more pressing now than ever before, for policy and regulation to adapt and evolve to stimulate innovation and allow operators greater flexibility to meet consumer demands. Since the advent of democracy, the South African communications sector has matured and the sector should be moving towards minimal regulation. This is more so because unlicensed “content services” continue to mushroom and thrive at the expense of the heavily regulated licensed traditional broadcasters.

18. The preamble of the Electronic Communications Act (“**ECA**”) provides that the purpose of the Act is *“to promote convergence in the broadcasting, broadcasting signal distribution and telecommunications sectors and to provide the legal framework for convergence of these sectors; to make new provision for the regulation of electronic communications services, electronic communications network services and broadcasting services; to provide for the granting of new licenses and new social obligations...”*

19. Section 2 sets out the objects of the Act and these include *“to promote and facilitate the development of interoperable and interconnected electronic networks, the provision of*

the services contemplated in the Act and to create a technologically neutral licensing framework”.

20. These sections demonstrate previous attempts to come to grips with the challenges of convergence. Many of the issues raised in the Green Paper were debated at great length in the 2003 National Colloquium on Convergence Policy which culminated in the draft Convergence Bill, published for comment in 2003. After a lengthy process, the Convergence Bill became the Electronic Communications Act 36 of 2005.
21. When the ECA came into law, the majority of the ECA chapters were convergence orientated. At the time, the introduction of a license category called “content services” was contemplated, but ultimately not pursued because of objections to the overly broad definition of content services and Constitutional concerns arising from the provisions of section 192. For this reason, chapter 9 dealing exclusively with broadcasting services was inserted into the Act.
22. Chapter 9 reinforces the three tier broadcasting system, as provided for by the Broadcasting Act⁸, but adopts a technology neutral approach, by eliminating the various categories of broadcasting technologies outlined in the Broadcasting Act.⁹
23. The three tier broadcasting system (community, commercial and public) still has a role to play in the converged environment. The three tier system advances the principles of diversity and plurality. It allows for broadcasting at a local, regional and national level and encourages the inclusion and participation of a much wider base than a single or two-tier system. The role of the public broadcaster in the three tiers is of paramount importance to a country such as South Africa, given that it is mandated to serve the language, cultural and religious diversity whilst maintaining a strong focus on education, information and entertainment.
24. However, convergence means that the three tier broadcasting system must evolve— South African broadcasters (radio and television) can now be accessed online, public interest and local content can be made available on various platforms, broadcasters are no longer geographically confined to a specific footprint and audiences engage with broadcasting content on a range of social media platforms . This warrants new thinking on the way in which broadcasters meet a variety of objectives.

⁸ Broadcasting Act 4 of 1999

⁹ Section 5(2) of the Broadcasting Act

25. The Green Paper also correctly reflects on the emergence of new online services providing exactly the same content as broadcasters, but not subject to any regulation. Many of these operators are global players operating from outside the country and broadcasters will need greater flexibility in order to respond to these services.

Regulatory parity

26. The NAB supports the approach in the Green Paper that regulatory parity should aim at ensuring that like services are treated in a similar manner, regardless of how they are delivered. Convergence is increasingly blurring the distinction between content delivered over various platforms.

27. The NAB has considered a report done by CASBAA (2012 report)¹⁰ on Asia-Pacific Pay-TV and OTT. That report states that many “new media” services arrive in the consumer’s home over broadband data lines which access the entire range of services and media available over the internet. Furthermore that unlike traditional pay-TV offerings or IPTV services (marketed by telcos in many jurisdictions), the vast majority of internet video is obtained from third parties disaggregated from the networks over which data is transmitted. This has given rise to “OTT” video or television programming delivered “over the top” of broadband networks. OTT video uses internet infrastructure to reach consumers with an array of offerings from major media companies as well as new entrants.

28. The CASBAA report provides an overview of the regulatory frameworks for OTT services in 14 Asian markets. They found that few governments in Asia distinguish between different types of services and have implemented differential regulatory approaches. However, that in Asian markets OTT video is subject to only the relatively loose regulations applied to internet services.

29. It is useful to note that on detailed examination the CASBAA study found that a video stream delivered over a traditional, regulated network, is subject to numerous constraints and requirements -referred to as ‘holdovers from legacy ‘broadcasting’ regulatory approaches. They established that identical video stream, delivered “over the top” is much more lightly regulated. Lower taxation, lighter content regulation, fewer constraints

¹⁰ The CASBAA 2012 report “A tilted playing field – Asia Pacific Pay TV and OTT”.

on business models (e.g. advertising), and weak or non-existent intellectual property protection.

30. The CASBAA report recommends that governments must review their existing regulatory constraints on broadcasters in light of the competitive challenge from legitimate OTT video. Steps should be taken to reduce regulatory codes, taxation policies, content controls, etc. to reduce the burden on traditional broadcasters.
31. The overarching policy response to the emergence of unlicensed, foreign operators in the Asian region, and arguably in other regions, is to reduce the regulatory load on licensed industry players which contribute to job creation, indigenous/local content and the national fiscus through taxation by enabling them to compete more effectively – policy should recognise that licensed, local operators make an invaluable contribution to the national economy.
32. From the NAB point of view, policy should take into account technological developments and their impact to the industry. This must also take into account that new services have come into play, that, for all intents and purposes provide similar content to traditional broadcasters but without regulatory constraints.
33. On the other hand, online services are regarded as being difficult to regulate. The NAB therefore suggests that in order to achieve regulatory parity between like services, a light touch approach should be adopted for broadcasting services whilst at the same time introducing light touch regulations for online services, for example protecting children from harmful content.

Is the internet a regulatory-free zone?

“There is already some form of regulation of OTT TV/internet content in every jurisdiction – the myth of the wholly unregulated internet is indeed a myth”

(CASBAA’s examination of regulatory frameworks in Asia, 2012)

34. In many jurisdictions access to videos promoting child pornography or illegal gambling is prohibited. It is also argued that as broadband penetration increases in the developing world and online consumption of media becomes more mainstream, regulation in many jurisdictions look set to increase. The details of how and when and the effect regulations will have on off-shore service providers (if at all) is all dependent on the regulatory approach of individual countries.

35. It is useful to draw on international examples:

Malaysia

36. In Malaysia OTT-TV services are subject to reduced regulation. The Malaysian legislation contemplates cross-platform regulation, online content services are currently exempt from the general licensing regime. Local content requirements do not apply online and the online content code is voluntary.

Singapore

37. Local OTT-TV service providers in Singapore must be licensed, although foreign OTT-TV service providers are not. The licensing regime is more relaxed than those applying to traditional pay-TV platforms. However it is expected that content controls for pay OTT will be similar to those of pay-TV.

Indonesia

38. There is little regulation of OTT-TV services in Indonesia, ISP's are required to block pornographic content. Regulation of OTT in Indonesia is not a priority given the relatively low internet access in that country.

Taiwan

39. In Taiwan the government has proposed numerous legislative amendments which could extend several aspects of pay-TV regulation to the OTT-TV platform. These include an approval process for both domestic and foreign content providers, which process would include a review of rates and content mix and foreign investment restrictions.

POLICY ISSUE NO 3 : OWNERSHIP AND CONTROL

40. Prior to the publication of the Framing Paper in 2013, the DoC published the Electronic Communications Act Amendment Bill (“**the ECA Amendment Bill**”) for public

comment¹¹. In the Memorandum of Objectives of the ECA Amendment Bill, the Minister indicated that since the overall ICT Policy Review was underway, amendments to the ECA amendment process would be limited to technical amendments, and major policy amendments would be referred to the ICT Policy Review Panel - ownership and control of licensees (section 65 of the ECA Amendment Bill)¹² was identified as one such major policy amendment to be referred to the ICT Policy Review.

41. The ECA Amendment Bill has gone through the Parliamentary public processes, and is now waiting to be assented to by the President. Despite the assertion by the DoC that certain issues will be deferred to the ICT Policy review process, the NAB notes that the Amendment Bill to be tabled to the President by the Parliamentary Portfolio Committee on Communications (“**the PPCC**”) incorporates amendments to section 65 of the ECA dealing with ownership and control of licensees.¹³ To this end, the NAB reiterates its position in line with its written submission.
42. Currently, the position in terms of ownership and control of broadcasting services is that one can control two FM and two AM commercial sound broadcasting services, permitting a person to control a total number of 4 commercial sound broadcasting service licenses. These limitations have been detrimental to growth in the commercial sound broadcasting sector.
43. Currently ownership and control principles are based on coverage and reach, and are aimed at ensuring diversity and plurality of views. Although the Green Paper recognises the emergence of unregulated content services which are not subject to any regulation whatsoever - it does not consider how the myriad of local and global sources of news and information impacts on the objectives of diversity and plurality as previously applied exclusively to broadcasting. The fact that broadcasters are no longer the only suppliers of content necessitates a review of certain regulatory impediments which have been placed on traditional broadcasters.
44. The NAB proposes that the limitations on control of commercial broadcasting services must be reviewed. In particular to increase the number of commercial sound

¹¹ Government Gazette 36550 Memorandum on the Objects of Electronic Communications Amendment Bill 2013 at page 23

¹² At page 23 of the gazette number 36550.

¹³ Bill 17B-2013 at page 14

broadcasting service licenses which may be controlled by a person (the NAB made a similar submission in its written submission to the ECA Amendment Bill).

POLICY ISSUE NO 4 : RADIO FREQUENCY SPECTRUM

45. The Green Paper states that ‘a primary goal of spectrum management is to ensure optimal use of the radio spectrum, in social, economic and technical terms’. It states further that the radio frequency is reusable and that the purpose of spectrum management is to mitigate radio spectrum pollution and maximize benefits of usable radio spectrum.
46. Radio Frequency Spectrum is a finite and scarce resource, which must be used efficiently and effectively by licensees. National Policy must ensure that spectrum is allocated equitably and managed according to orderly spectrum management principles.
47. The Green Paper must ensure that not only future spectrum needs of broadcasters are taken into account when allocating spectrum, but existing broadcasting services must enjoy protection and be given an opportunity to flourish.

Key spectrum considerations

48. The following key considerations must be taken into account in discussing future allocations of spectrum:
 - 48.1. During a DoC industry consultation on spectrum issues in 2013, the DoC acknowledged the need to conduct studies in certain bands to ascertain the viability of spectrum sharing between telecoms and broadcast operators.
 - 48.2. Spectrum must be categorized for specific use with applicable spectrum pricing policies. The allocation of spectrum for national services (e.g. defense, national safety and security, aeronautics etc. would be priced differently for commercial use and potentially zero rated where special spectrum allocation is required for research

and development. These are core principles to be considered in the review of spectrum policy and spectrum management.

48.3. Spectrum plans must adopt a holistic approach that accommodates the creation of additional multiplexes that cater for the country's future spectrum needs for broadband, DTT, digital radio as well as possible future technologies in order to ensure capacity for new broadcasting services;

48.4. Migrating broadcasters have still not been adequately compensated for the migration to digital and the release of licensed spectrum for the creation of the digital dividend – this needs to be addressed in order to ensure broadcasters are able to offer the kind of services discussed below;

48.5. The principle of sharing must be retained as IMT and broadcasting services should be enabled to develop new and innovative services;

48.6. Contiguous band assignments for sharing must be adopted as this is the most spectrum efficient and feasible means of spectrum sharing;

48.7. Regular spectrum audits are essential to weed out any 'ghost' services;

48.8. Plan effectively for future technologies and services - National Policy must accommodate a consultative process that will determine how the digital dividend spectrum will be made available to operators, to this end, a portion of the proceeds of the sale of both dividend 1 and dividend 2 could be used to fund the migration (as has happened in the US);

49. Consideration must be given to how processes such as digital to digital migration by broadcasters or restacking will be funded;

50. Spectrum must be allocated for trials of new services and Research and Development ("R&D") in various spectrum categories. This proposal will ensure a culture of continual research, and foster innovation and creativity within the ICT sector. It will also ensure that R&D spectrum is readily available on request. Currently the radio frequency spectrum for trials and testing is assigned on case-by-case basis. The Regulator currently encounters hurdles in this regard: there is no spectrum to test DVB-T2 lite functionality in the DVB-T2 mux; there is no spectrum available to test DVB+ and DMB

concurrently. Furthermore, JSAG had planned to test the SFN's capabilities and the extent of self-interference, however this trial has not been conducted due to the unavailability of spectrum as shifting and planning is required.

Future Spectrum Needs of Broadcasting Services

51. Currently, only two national multiplexes are available to accommodate all migrating terrestrial television broadcasters. This is insufficient for the current needs of broadcasters and certainly insufficient when we consider the spectrum demands of future television technology like HD, Ultra HD and 3D.

52. In 2009 an EBU Technical Committee study indicated that in future all TV programmes would be in high definition (HD) and that a minimum of 20 to 25 HDTV channels would need to be provided on the terrestrial platform in order to make it competitive and attract viewers.¹⁴

53. In order to demonstrate the extent of the immediate spectrum shortage facing broadcasting, consider that the two national DTT multiplexes which will accommodate all the migrating terrestrial broadcasters (SABC, e.tv, M-Net and community television broadcasters) could deliver 4 to 5 HD channels each – a long way from the 20 to 25 HD channels recommended by the EBU to ensure a competitive terrestrial platform.

Ultra High Definition

54. In May 2012, ITU announced a new Recommendation that will create an entirely new television broadcast environment, under the heading of 'Ultra High Definition Television' or UHDTV. ITU's Radio communications Sector (ITU-R) has developed the standard – or Recommendation – in collaboration with experts from the television industry, broadcasting organizations and regulatory institutions in its Study Group. The recommendation defines Level 1 Ultra High definition as having 3840 x 2160 pixels and Level 2 having 7680 x 4320 pixels resolution. They are sometimes referred to as 4k and 8k UHDTV.¹⁵ To illustrate the implications for radio frequency spectrum for broadcasting services, HDTV has the equivalent of 1-2 megapixels in contrast 4k UHDTV is 8

¹⁴ EBU. 2009. Tech 3334 – Accommodation of HDTV in the GE-06 Plan. Geneva, February 2009. p.5

¹⁵ A video on UHDTV development can be viewed as <http://youtu.be/hT2XluvAjwQ>

megapixels and 8k UHD TV is 32 megapixels.¹⁶ This means that as HDTV, 4k and 8K UHD TV are introducing the capacity required to broadcast each television channel increases and more radio frequency spectrum is required.

3D Television

55. 3DTV is a television that conveys depth perception to the viewer by employing techniques such as stereoscopic display, multi view display or any other form of 3D display. Most 3D TV sets use an active shutter glasses or polarized 3D glasses in conjunction with the TV set. At this point in time 3D remains primarily a cinema experience. Despite this, TV manufacturers continue to promote 3D as the next big development in TV. It is expected that all large display TV sets will be 3D capable in the future and that approximately half of all display devices will be 3D capable by 2014. There are several broadcasting led initiatives in standards organizations working towards a 3D broadcasting standard, and attempts such as lenticular screen technology to provide 3D without glasses.¹⁷ There are also a growing number of broadcasters globally who are launching 3D channels for the purposes of testing viewer response. In terms of spectrum requirements, 3D HDTV broadcasts require more capacity than HDTV only broadcasts and will require further radio frequency spectrum in the future.

Hybrid broadcasting services

56. Hybrid television services would include information services such as weather and news, electronic program guides, catch-up television, interactive advertisement and on-demand video. Many of these additional services can make use of the broadband connection for on-demand and low-bandwidth content. There are currently three standards which can provide hybrid television services. In addition, many equipment manufacturers have made available proprietary hybrid solutions. The three standards are MHEG-IC (Interaction Channel) which is an extension of the MHEG interactive middleware developed by the Digital Television Group (DTG) in the United Kingdom, GEM/MHP is an open standard for interactive services developed by the DVB Project, and HbbTV is an interactive middleware that makes use of existing broadcast and web technologies such as OIPF (Open IPTV Forum), CE-HTML, HTML and the DVB Application

¹⁶ ITU. 2012. Press release: Ultra High Definition Television: Threshold of a new age. Geneva, 24 May 2012. http://www.itu.int/net/pressoffice/press_releases/2012/31.aspx#.UQI8EOiPVhh

¹⁷ EBU. 2010. Technical Report 10 – 3D Briefing Document for Senior Broadcast Management. Geneva. December, 2010. pp.5-7

Signalling.¹⁸

The First Digital Dividend

57. In 2006, the International Telecommunications Union (ITU) developed the Geneva 2006 (GE-06) Agreement. This agreement was developed for planning the digital terrestrial television (DTT) broadcasting service in parts of Regions 1 (Africa and Europe) and 3 (Asia and Australasia), in the frequency bands 174-230 MHz and 470-862 MHz. In terms of GE-06, the frequency bands currently used for analogue television broadcasting would be used for digital terrestrial television broadcasting, although provision was made that other uses were possible, so long as they cause no more interference than the planned usage based on DVB-T standard.

58. In 2007, the ITU held the World Radio-communication Conference (WRC-07). In this conference, an allocation, on co-primary basis, in the upper part of the UHF broadcast band was made for mobile services. This was to provide for international mobile telecommunications (IMT) in Region 1 in the range 790 to 862 MHz (800MHz band).¹⁹²⁰

59. In Europe, the 800 MHz band has been identified specifically for IMT after the broadcasting digital migration is completed, and countries have re-farmed the UHF frequencies (previously identified for DTT use) in the 800 MHz band for mobile services. However, there have been interference issues in Europe which have still not been resolved:

59.1.A 4G long term evolution (LTE) uplink can affect the DTT service operating below 790 MHz, as LTE handsets near a television can block TV reception;

59.2.Strong LTE downlink signals near a mobile service IMT base station can cause severe degradation of television picture quality where the DTT signal is weak compared to the LTE signal.²¹

60. Concerns about interference suffered by broadcasters led to the following comment by the European Broadcasting Union's Director of Technology & Development:

¹⁸ DigiTAG. Discussion Paper: The implementation of Hybrid Television Services in Europe. November 2011.

²⁰ <http://www.ictregulationtoolkit.org/en/Section.3514.html> [accessed 16 January 2013]

²¹ <http://www.itu.int/net/newsroom/wrc/2012/features/broadcast.aspx> [accessed 19 December 2012]

“The major impact of interference from mobile communications devices on TV reception will be to confuse viewers, whose TV pictures break up or simply go black. The viewer would have no way of knowing that there was actually nothing wrong with his TV or the service. It is therefore essential, in the public interest, that great care is taken in the planning and implementation of mobile communications services in the former broadcasting band, so that the risk of such confusion is totally avoided.”²²

61. In 2012, the UK government admitted that interference from LTE licensing in the 800 MHz band could be an issue for DTT and committed to collecting a £180 million from the forthcoming LTE auction to fix the problem. DTT viewers experiencing digital TV interference will either have to switch to satellite TV or fit a RF filter.²³
62. In light of the interference issues faced in other territories, we cannot neglect this issue on our planning around the release of the first digital dividend.

The Second Digital Dividend

63. After WRC-07, there was an increase in wireless broadband speeds and growth in consumer demand for mobile services delivered to a range of mobile devices such as smart phones and tablets. Consequently, the telecommunication sector in ITU Region 1 proposed a second digital dividend from the UHF spectrum for mobile use.
64. The WRC-12 provided the opportunity for the telecommunication sector to push for allocation of 694-790 MHz (700MHz band) to the mobile service as from the end of 2015. Several African countries supported this proposal – the impact on broadcasting in these countries would be minimal because this band of radio frequency spectrum has been mostly under-utilised. The situation is very different in South Africa and many European countries where terrestrial broadcasting is the primary platform of delivery of television broadcasting services.²⁴

²² Press Release on 9 September 2011 by DigiTag, EBU-UER, Broadcast Networks Europe and the Association of Commercial Television in Europe.

²³ <http://www.fiercewireless.com/europe/story/lte-interference-uk-digital-tv-will-cost-180m-fix/2012-02-22> [accessed 20 December 2012]

²⁴ EBU. 2012. Technical Report 15: Defining Spectrum Requirements of Broadcasting in the UHF Band. EBU Strategic Programme on Spectrum Management. Guidelines Document. Geneva, July 2012. p.5

65. Resolution 232 of WRC-12 resolved to allocate the frequency band 694-790 MHz in Region 1 to mobile services on a co-primary basis with other services to which this band is allocated on a primary basis after WRC-15. Furthermore, the technical and regulatory conditions applicable to the mobile service allocation in this band will only be determined at WRC-15 after considering ITU-R studies on the impact of implementing on broadcasting services currently occupying 700 MHz band.²⁵

66. There are several working groups internationally comprising regulators and policy makers all focusing on the proposed changes to the allocation of the 700 MHz frequency band. The EPRA (an informal network of 52 regulatory authorities in the field of broadcasting In Europe), recently made an important point on the issue as follows:

“The overarching theme to emerge was perhaps that this debate should not be reduced to a conflict between the needs of broadcasting vs. mobile: rather, it should focus on finding the right way to get the right content to viewers and meet the needs of citizens”.

67. Following the WRC12 conference the DoC undertook positive steps in line with Resolution 232, and to this end:

67.1.the DoC commissioned a study by ZComs/Deloitte. However the outcome of this study has not been made public. It is therefore difficult for the broadcasting sector to know with certainty what future needs will be catered for.

67.2.the DoC published Policy Directives in Government Gazette 34848: directing ICASA to: undertake an inquiry to the rational and effective exploitation of the remaining VHF and UHF spectrum for future digital dividends and the future spectrum needs for the three tiers of broadcasting. This government gazette was withdrawn.

68. In a nutshell with these two processes not having been completed, the DoC has not determined with certainty what the future spectrum needs for broadcasters will be.

²⁵ Resolution 232 [COM5/10] [WRC-12] <http://www.itu.int/oth/R0A0600004B/en> [accessed 19 December 2012]

69. From a broadcasting perspective, a second digital dividend will be particularly problematic for digital terrestrial television channels, platforms and transmission/network providers, and in some cases may be costly to implement (if it is feasible at all). This is because many digital terrestrial television systems have already been re-planned once to make way for the first dividend. Access to UHF spectrum is still essential in maintaining existing digital terrestrial television networks and enabling services to expand (for example, by creating more multiplexes to carry additional digital channels).²⁶
70. The primary concern of terrestrial broadcasters is that if the 700 MHz band is re-farmed in addition to the 800 MHz, it will result in a spectrum scarcity for terrestrial broadcasting services similar to what occurred in the analogue broadcasting environment with the result that there is no investment, no development, and no innovation resulting in the decline of the DTT platform.

Digital Audio Broadcasting

71. Unlike television, radio services are not mandated to migrate to digital. National Policy must however ensure that future spectrum allocations are made for digital radio, and notably provision has been made for audio services on the DTT platform. The Authority has also taken a stance in its Terrestrial Broadcasting Frequency Plan 2013 that there will not be a switch-off date for AM and FM transmission in South Africa, but rather digital audio will be an additional audio service to FM services. . FM spectrum has already reached saturation point in the major metro poles in Gauteng, Western Cape and Kwa-Zulu Natal and no further high power FM broadcasting licences can be issued in these areas. While the NAB agrees that FM and AM switch-off is not likely in the short to medium term, the decision whether or not to switch off FM and AM is a policy decision to be taken by the Policy maker. The NAB believes that in keeping with technological developments, and consumer preferences, South Africa ought to move quickly towards digital audio services. International trends have revealed that in countries such as Norway, Denmark and Germany, governments have taken policy decisions to ultimately switch off FM transmission. In the UK trials are currently being carried out to test the effect of a potential FM switch-off on a selected community. This ever growing number of countries which now includes Australia, The Netherlands, Italy, Poland and

²⁶ <https://itunews.itu.int/En/2066-Exploiting-the-benefits-of-UHF-spectrum-%C2%97-what%C2%A0future%C2%A0allocations%C2%A0are%C2%A0needed.note.aspx> [accessed 15 January 2013]

Switzerland with the exception of the UK which adopted DAB, have fully adopted DAB+ as their preferred standard. Major car brands, such as VW and Lexus have DAB receivers as standard equipment. Household DAB and DAB+ receiver penetration in these countries is also increasing, and the receivers are readily available in leading electronics stores. Consequently, receiver prices have dropped drastically in line with increased supply.

72. DAB was adopted as a South African standard by the SABS on the 13 December in 2005 ref SANS 300401. This standard is the same as the ETSI EN 300401 European standard. DAB was subsequently elected by the Minister of Communications in a Policy Directive, and South Africa has made provision in the ITU register for DAB Eureka 147.

73. Flowing from this, ICASA made allocations for two DAB multiplexes in each province in the 2008 Plan as well as the current draft Plan. However, these allocations are not sufficient and will allow only 36 radio stations onto the digital platforms in each province. To illustrate the lack of capacity this offers, Gauteng already has more than 50 radio stations operating in the province. The allocations made by ICASA do not sufficiently cater for the spectrum needs of existing radio services nor do they take into account new services by existing licensees and/or new licensees.

Allocation of spectrum

74. Countries that have already migrated to digital broadcasting have realized benefits of the dividend. Increasingly jurisdictions are auctioning the digital dividend spectrum: India auctioned its 3G spectrum in 2010. Furthermore, in Australia, the 700MHz and 2.5 GHz spectrum has been auctioned. The decision to allocate the 700MHz band came after the Australian Government directed the ACMA in July 2010 to clear 126 MHz of digital dividend spectrum (694–820 MHz) and reallocate this spectrum for new uses. In many countries the proceeds of the digital dividend auctioning have been used to fund the migration.

75. Though auctioning of spectrum may appear viable for other countries, in South Africa this is not a viable model due to socio-economic and developmental imperatives. In 2010 ICASA called for interested parties to participate in a bid process for the auctioning of access to the crucial 2,6GHz and 3,5GHz bands. This process did not proceed as there was no policy framework to support this. The NAB vehemently objects to any policy that

wholly relies on auctioning of spectrum as we believe this will not yield the policy goals set for the South African ICT sector.

76. The NAB reiterates our proposal that spectrum should rather be categorized for specific use with applicable spectrum pricing policies. The allocation of spectrum for national services (e.g. defense, national safety and security, aeronautics etc.) would be priced differently to commercial use and potentially zero rated where special spectrum allocation is required for research and development or community services.

77. The role of controlling, planning, administering and managing the use and licensing of the radio frequency spectrum must lie with the independent regulator, ICASA.

78. Furthermore, in its written submission to the ECA Amendment Bill, the NAB further identified other amendments to the ECA which were of policy nature, and suggested that these should not be dealt with in the ECA Amendment Bill process, but be deferred to the ICT Policy Review Panel. The amendments related to the amendment of section 13 of the ECA, and the amendment sought to introduce the concept of Letting and subletting principles of an individual licence. Similarly, despite the concern raised by the NAB, these amendments have been incorporated into the Bill before the Presidency. The amendments to clause 13 read as thus:

(1) An individual licence may not be let, sub-let, assigned, ceded or in any way transferred, and the control of an individual licence may not be assigned, ceded or in any way transferred, to any other person without the prior written permission of the Authority.

(2) An application for permission to let, sub-let, assign, cedes or in any way transfer an individual licence, or assign, cede or transfer control of an individual licence may be made to the Authority in the prescribed manner...

78.1. To this end, the NAB would like to reiterate its submission to the DoC in its written submission on the ECA Amendment Bill ("B17-2013"),²⁷ as the NAB is of the view that this issue ought to be addressed in this policy review process.

²⁷ Page 4 para 3 and page 9 para 8 of the NAB submission.

POLICY ISSUE NO 5 : UNIVERSAL SERVICE

79. In order to ensure that telecommunications services and access is made available to marginalized communities, ICT policy the world over requires electronic communications service licensees to fulfill universal service obligations, often reflected as licence conditions in their service licenses.

80. For good reason, universal access and universal service policies and strategies do not traditionally include broadcasting. This is because broadcasting policies and regulatory frameworks have critically different objectives to universal service and universal access as developed in the traditional telecommunications sector, which go beyond affordable access and service.

81. Broadcasters focus on diversity of content, pluralism, choice, media freedom, and protection against illegal and harmful media content. These are not universal service objectives, which is why the obligations placed on licensees in the broadcasting sector are called public service obligations (“**PSOs**”) rather than Universal Service Access Obligations (“**USAOs**”), which have traditionally been applied to only telecommunications licensees. In the ECA, these PSOs are captured in Chapter 9 of the ECA and ICASA is empowered to make regulations in this regard.

82. From the NAB point of view, the converged landscape, and the move towards broadband penetration and accessibility, rather than telephony penetration, has dramatically changed universal services and universal access targets. The DoC has already moved in the right direction in devising strategies to chase new targets and for increasing the affordability and access to ICT’s. From the NAB point of view, the key driver for ICT’s in the converged dispensation is broadband availability. Broadband Policy²⁸ has already charted a way forward, and sets the agenda for the universal service and access targets for licensees. The principles underpinning the Broadband Policy are universal service and access driven and they include *inter alia*:

82.1. Openness;

²⁸ Government Gazette 37119 dated 6 December 2013: South African Connect: Creating Opportunities, Ensuring Inclusion: SA Broadband Policy

- 82.2. Service and technologically neutral;
- 82.3. Universality;
- 82.4. Equitability;
- 82.5. Efficiency.

83. In terms of setting targets the Broadband Policy has the following to say:

“to guide the implementation of this policy the overall goal is to achieve a universal average download speed of 100 mbps by 2030. To reach this target in a progressive manner, reviewable targets have been set starting with an average user experience speed of 5 mbps to be reached by 2016 an available to 50% of the population and to 90% by 2020, with the quality of the service monitored by ICASA. Targets are also set for schools and clinics and general public sector connectivity. The rapid evaluation of broadband technology means that these targets will be monitored and evaluated on an on-going basis to determine if the targets need to be reviewed”²⁹

84. The Broadband Policy has set the universal service and access agenda the next 16 years (2014 to 2030), and the role of the regulator is to allocate and monitor the responsibilities.

POLICY ISSUE NO 6 : CONTENT

85. The NAB agrees with the statement in the Green Paper that *“one of the cornerstones of South Africa’s broadcasting related policies is diversity of content; different types of content in different languages, from different sources, at a national, provincial and local level”*. The policy framework has provided for a three tier system of broadcasting to ensure that the principles of diversity are achieved across the system.

²⁹ Ibid at page 8

86. It is apparent that digitisation and convergence create more opportunities to further the principle of diversity and that content can be produced by any number of operators and made available across a range of platforms, both licensed and unlicensed.
87. New technologies have allowed new relationships to develop between content providers and the audiences/users that they serve. There is greater interaction between the content provider and user, with the user able to determine *what* to consume and *when* to consume. Increasingly, audiences control how and when they consumer content – podcasting, time shifting, PVR (programme recording for later consumption) and VOD (video on demand) applications have been game changers for operators and audiences alike.
88. The NAB supports the principle of access to public interest content in a converged environment. Citizens/end users must be able to access content across platforms and devices with relative ease. Policies aimed at promoting public interest content is supported by the NAB.

Responses to specific questions

89. *Question 1: What new regulatory approaches should be adopted to support innovation, access to affordable services and the creation and promotion of diverse range of high-quality South African public interest programming to all audiences?*
90. Reduce regulatory burden on broadcasters - light touch regulation for traditional broadcasting services to achieve some parity with unregulated content providers/ content provision enterprises and allow broadcasters greater flexibility.
91. Allocate additional spectrum to broadcasting to enable the introduction of new channels, new services and new technologies. This should include access to spectrum for R&D of new broadcasting services e.g. digital audio broadcasting technology options.
92. A complete rethink of local content obligations which could see quotas replaced with a Production Fund to which all content providers could contribute and which could be accessed by any broadcasters and digital content providers to ensure that dedicated funding is set aside for the production of public interest programming.
93. *Question 2: How should policy ensure that there is diversity of services and content and that audiences have access to international, national, provincial and local news,*

information and other programming of relevance to them give that new services will be limited to special licence areas?

94. The licensing regime must continue to support a three tier system of broadcasting.
95. Incentives/concessions must be considered for the development of alternative news sources and innovative programming.

Content standards and protection of children

96. The NAB supports the existing co-regulatory approach to the development and enforcement of South African broadcasting standards. The NAB is also committed to considering ways to strengthen self-regulatory and co-regulatory arrangements as is currently the trend internationally.
97. Content regulation globally is focused on the protection of children and South Africa has implemented a watershed rule to address this on both radio and TV. However, given the convergence issues as discussed above, and the ability to view content outside of set programme schedules, the watershed is not applicable in such circumstances. It must be noted that the primary services of the public broadcaster, free-to-air and subscription (pay TV) channels all comply with the watershed and also provide warnings and audience advisories. Similarly, radio services provide audience advisories and are required to broadcast age appropriate content during times when children are likely to be a significant part of the audience. In addition to this, subscription (pay TV) broadcaster's also have parental controls in place through pin-locked applications.
98. The different bodies responsible for content standards and protection of children (FPB, ICASA, BCCSA) have worked collaboratively over the years and there is definitely need for these organisations to revisit the current scenario with a view to filling any gaps in their current processes.

Copyright and intellectual property

99. The NAB supports the view advanced by the Green Paper that the broadcasting sector is a major developer of content, and indeed content generation is set to expand, not only to supply demand for traditional broadcasting, but also to meet the demands of the proliferated platforms availed by convergence.

100. In South Africa, intellectual Property rights are governed by the Copyright Act 98 of 1978, and Performers Protection Act 11 of 1967, which fall under the Department of Trade and Industry (“**the DTI**”). To the extent that IP issues emerge in the current policy discussion, the DoC should raise these with the DTI which is in the process of devising a national IP Policy.

101. With regard to the recommendations of the Copyright Review Commission (“**the CRC**”) which was established by the Minister of Trade and Industry in 2011, this Commission was tasked with investigating the collection, administration and distribution of music royalties and we would caution against the adoption of these recommendations without a proper consideration of the implications.

Broadcast Signal Piracy

102. From a national perspective, broadcasters have no legislative protection against signal piracy as was initially afforded by legislation. The NAB therefore proposes that this ICT policy process should reinstate provisions that criminalised signal piracy into legislation in this way broadcasters will have an expedient legal recourse, rather than resorting to common law processes that are lengthy.

103. At an international level, WIPO is in the process of drafting a Treaty for the Protection of Broadcasting Organisations. The Treaty seeks to grant protection to broadcasting organisations against piracy of their broadcast signals. Both South Africa and Mexico have made a joint submission in support of the Treaty. The NAB commends the DoC on its involvement in this process, and we urge the DoC to continue engaging aggressively on this issue as it will gain South Africa international protection.

104. On the other hand, national policy will still need to devise mechanisms of dealing with piracy on unregulated online platforms, as this is yet another window for piracy, and it would seem even international trends reveal that intellectual property control remains a challenge as this is a new phenomenon. For this we will look to international best practice in the section below:

International Trends

105. Whilst the transmission of video content over the internet is growing at a phenomenal rate in Asia, unfortunately a significant portion of this is transmitted unlawfully by

companies and syndicates ignoring copyright and seeking to profit from the work of others. It is apparent that respect for intellectual property is not an established concept in many parts of the world.

106. According to the CASBAA study (as referred to earlier in the submission), Asian indigenous creative industries are suffering huge damage from competition from OTT – based pirate websites. These impact on and unfairly compete with efforts by Asian artists, producers and creators to earn a livelihood from their work.

107. National copyright regimes are usually ill-equipped to deal with online copyright infringement. Piracy remains widespread even though various national governments have implemented enforcement campaigns targeting illegal up-loaders of copyright material. Legitimate services have to compete with a growing number of infringing services online, some of which are well-funded. The CASBAA study posits that “at a time when many governments are attempting to encourage the development of innovative content services for the high-speed broadband networks they are building, the failure to address systemic copyright infringement discourages the very entrepreneurial investment governments are seeking to promote”.

108. In the digital era, piracy and counterfeiting of recorded works whether aural or visual is indeed common and prevalent. This is perpetuated by the fact that with the crisp quality of digital content, it is difficult for one to distinguish between an original and copied content.

POLICY ISSUE NO 7 : SKILLS DEVELOPMENT

109. The Green Paper notes that the National Development Plan (“**NDP**”) has developed targets to be obtained by 2030 in order to eliminate poverty reduce inequality and spur the economic development of the country. Education, training and innovation are considered key priorities for South Africa’s development and life-long learning is to be encouraged. Furthermore, the NDP calls for an e-literate society by 2030.

110. The NAB supports the targets set in the NDP as well as the DoC's National e-Skills Plan of Action ("**NeSPA**"). The NAB successfully nominated one of its members to serve on MICT SETA as it has prioritised the training and development needs of the broadcasting sector over the last two decades. The NAB has also spearheaded an engineering learnership programme that resulted in effective employment for young engineers in the industry.
111. The skills gaps in the ICT sector is wide-ranging and the Green Paper states that the skills gap in broadcasting includes authors and radio journalists as well as spectrum management and business analytical skills and e-leadership capabilities. The NAB has found that whilst there are training programmes that cover radio station management, journalism and engineering, there is a gap in overall Content and Broadcast Management. The need to consolidate the management of radio, television and online has become critical. Curriculum development and accreditation must be prioritised toward addressing this current gap.
112. The focus of e-skills and the development of an e-literate society must be done in partnership with the Department of Education ("**DoE**"). The knowledge society must be harnessed at primary school level if we are to be effective in the digital economy.
113. A partnership between the DoC, DoE and Department of Science and Technology is required so that the key objectives set in the NDP and the Green Paper can be realised. There is also need to partner with the Department of Arts and Culture and Home Affairs (for purposes of the Film and Publications Board) to promote and accelerate media literacy and media awareness programmes at school level.
114. The options for promoting innovation and supporting research and development could include incentives for ICT licensees, for example the provision of dedicated spectrum for research and development purposes. Innovation hubs could be developed as joint-ventures and public-private partnerships.
115. The focus on skills and training must include the needs of people with disabilities in both the provision of technologies and skills development. The regulator and the DoC have worked toward greater participation and access for people with disabilities. Codes of Conduct and the End User Charter address the particular needs of people with disabilities, these must be reviewed regularly.

116. Technical skills remain a challenge in the ICT sector. The technical and engineering aspects of electronic media are not adequately promoted and this needs to be addressed if we are to meet the needs of the rapidly changing environment.

POLICY ISSUE NO 8 : PUBLIC BROADCASTING

117. The NAB believes that a credible and sustainable public broadcaster is critical to the success of a three tier broadcasting system. As the largest broadcaster that serves the majority of citizens, the public broadcaster's mandate must be shaped by the needs and interests of South Africans and must be adequately funded and supported.

118. The viability and sustainability of the public broadcaster is the responsibility of both government and the regulator. The mandate of the public broadcaster must be reviewed immediately by both the DoC (as the shareholder) and the regulator (who determines the licence conditions and monitors compliance).

119. Mechanisms to determine the actual 'cost' of the mandate of the SABC must be prioritized. Funding the mandate must then be put to national treasury whilst considering alternative revenue streams and options to address the apparent culture of non-payment of TV licence fees.

Conclusion

120. The NAB welcomes the opportunity to make its written submission to the Green Paper; the NAB supports the DoC's ICT Policy Review process.

121. The NAB looks forward to the next phase when the DoC publishes a discussion document. The discussion document should consider, and incorporate international best practice, and provide recommendations tailored to the South African local and economic environment.