

2.4 POLICY APPROACH TO TELEVISION AND RADIO

There are some critical differences between digital radio and digital television, which leads the WG to advocate that government follow two different policy approaches for the introduction of these digital broadcasting services in South Africa.

Digital television requires the same frequency bands used by the analogue television broadcasting services for the introduction of digital television broadcasting services, necessitating an eventual switch-off of the existing analogue television broadcasting services in the UHF/VHF Frequency Bands. This switchover from analogue to digital television broadcasting has been the subject of an International Telecommunications Union (ITU) Regional Radiocommunications Conference (RRC-06) which resulted in a Digital Plan for the UHF/VHF Frequency Bands for Europe and Africa (GE-06).

The main benefit to government of implementing the digital switchover for television as planned at RRC-06 is that after analogue switch-off there should be sufficient spectrum to accommodate not only the planned digital terrestrial television transmission networks and digital radio transmission networks in Band III, but also the freeing-up a significant amount of radio frequency spectrum (the so-called “Digital Dividend”) for new broadcasting services and potentially electronic communication services. It is apparent from this digital switchover approach adopted at the ITU that digital television is intended to be a replacement for analogue television. A timeframe has also been put in place by ITU RRC-06, in that protection against harmful interference for analogue transmission caused by digital broadcasting transmissions in the UHF/VHF frequency bands will end on 17 June 2015, compelling government to put in place a digital switchover plan for existing terrestrial television broadcasting services in South Africa.

Digital Radio, in contrast to Digital Television can co-exist with traditional analogue radio transmissions as Eureka 147-DAB, the standard adopted at ITU RRC-06, uses a different Band, namely Band III and not the frequencies traditionally associated with AM and FM. Digital Radio implemented in Band III in South Africa is therefore dependent on either the shifting of or the switch-off of existing analogue television broadcasting services occupying frequencies in that band before it can be introduced. This highlights the urgent need for government and the regulator to hold an inquiry to investigate policy options for either moving or initiating a faster switchover path for public and commercial television broadcasting services utilising analogue frequencies in Band III, in order to make frequency spectrum available for the introduction of T-DAB services to meet the needs of the sound broadcasting industry before 2015.

Although the introduction of digital radio in Band III would not require a switch-off of existing analogue sound broadcasting services in the AM/FM frequency bands, the risk of sound broadcasting services being marginalised in a converged broadcast environment is exceedingly high and the digitisation of sound broadcasting services should not be delayed while the switchover of television broadcasting services takes place. Existing sound broadcasting licensees are of the view that any approach that delays the introduction of Digital Radio until the switch-off of existing analogue television broadcasting services in 2015, would severely discriminate against the further development of the sound broadcasting sector in South Africa.

In the licence conversion process that will take place in terms of the ECA, ICASA should convert existing sound broadcasting services on the basis of technological neutrality (there should be no reference to analogue in the licence) and facilitate an enabling regulatory environment that would allow new and existing sound broadcasting services to apply for radio frequency spectrum licences as frequencies become available in Band III.

The WG proposes that without derogating from the rights of existing radio frequency spectrum licensees in 174-230 MHz (VHF – band III) that this band should be used primarily for the introduction and development of multimedia services based on the Eureka 147 DAB and DMB platforms. The reasons are that the Eureka 147 technology is a proven technology and comprises standards for traffic and safety information (TPEG), mobile television broadcasting and data transmissions (DMB) and digital radio (DAB), devices and receivers are available commercially, the technology is spectrum efficient and a range of cultural, social and democratic benefits associated with FTA or low cost sound broadcasting would be translated into the digital broadcasting and information society/economy environment.

The WG notes that RRC-06 only considered DAB in the context of Band III, but it is possible for Eureka 147 technology to also make use of L-Band (1452-1492). L-Band already forms part of the national plans of a number of European countries for the introduction of T-DAB. In some cases L-Band is the primary band for the digitisation of sound broadcasting services, in others it is planned together with Band III in order to avail sufficient spectrum for use by digital sound broadcasting services. The availability of technology suitable for the economic use of L-Band for T-DAB services has only recently become available. Once again the WG would like to propose that without derogating from the rights of existing radio frequency spectrum licensees in L-Band that the future use of L-Band for multimedia services based on the Eureka 147 family of DAB and/or DMB standards be prioritised by government in South Africa.

Based on the above policy considerations, it is the view of the WG that a process involving the switchover of existing broadcasters from analogue transmission networks to digital transmission networks as contemplated for television is not required for digital radio in South Africa. Ideally, digital radio should augment and not replace AM and FM, which is possible as Eureka 147-DAB would be introduced in Band III and/or L-Band. Instead there should be a commitment, accompanied by clearly defined policy processes, by government to prioritise the introduction, development and licensing of digital radio in South Africa.

RECOMMENDATIONS:

Noting the fact that after 17 June 2015 there will be no more protection against interference for analogue transmission caused by digital broadcasting transmissions in the UHF/VHF frequency bands, the WG therefore makes the following recommendations, namely that:

1. in respect of digital radio, there should be no switch-off date for existing sound broadcasting services as FM/AM broadcasting can continue indefinitely, but rather a commitment to grant fair access to frequency spectrum in Band III and/or L-Band for the purposes of licensing digital sound broadcasting services;
2. as the timeframes for the introduction of Digital Television and Digital Radio are different, government should plan the digital switchover of existing analogue television broadcasting services according to ITU timeframes and as a matter of urgency address, without derogating from the rights of existing analogue television broadcasting services, the need for the allocation of Band III and/or L-Band spectrum to allow sound broadcasting services to roll-out Digital Radio transmission networks; .
3. ICASA consider applications for DRM broadcasts in the MF band and closely monitor developments with regard to DRM+ technology standardisation; and
4. the Minister must instruct ICASA in terms of section 3 of the ECA to consider as part of any inquiry into Digital Broadcasting, public access issues relating to the carriage of community sound broadcasting services on digital broadcasting platforms.

2.5 POLICY CONSIDERATIONS IN PLATFORM SELECTION

In the switchover to digital television in the European Union and other parts of the world terrestrial commercial television broadcasting services have been allowed to choose to be on a terrestrial, satellite or cable digital transmission network based on their own economic considerations. However, when it comes to the migration of public television broadcasting services that choice because of universal service obligations and the public interest has been to a large extent determined by the national government, leading to a continued policy emphasis on a terrestrial transmission network.

Internationally, in countries where the population was not dependent on a single analogue transmission platform, a multi-platform approach has been adopted with various platforms (terrestrial, satellite, cable, IPTV) collectively providing full digital coverage. However, where the contrast has been true and a large proportion of the population has been dependent on a given transmission platform, policymakers have taken the view that a shift towards alternative platforms would be politically difficult to sell to the public. A rapid analogue migration may also be hampered by a shift to alternative platforms.

In a large country, such as South Africa, widespread digital television coverage can more easily and cost effectively (from the broadcaster and network operators perspective) be achieved by means of satellite direct to home (DTH) than by terrestrial (DTT) platforms. A satellite platform (DTH) also offers the advantage of being able to broadcast more content than terrestrial platforms (DTT), which is constrained by spectrum availability and freeing-up terrestrial spectrum for alternative usage. There was some support for a DTH platform in the WG, but it was conceded that from a public policy perspective cost is only one factor that needs to be considered. Factors in favour of DTT are that:

- it enables a higher level of local content broadcasts;
- it provides greater robustness than DTH, where there is a risk of catastrophic satellite failure;
- delivery of FTA content via DTH may result in content rights issues, although DTH operators have addressed this in South Africa and abroad by using encryption;
- DTH reception is likely to be less than 100%, as steep cliffs and high buildings create shadow areas. The DTT modulation system is designed to take advantage of reflected signals. Furthermore, in the case of DTT, gap-fillers may be easily installed;
- portable and indoor television reception can be enabled by DTT, which is not easily possible via DTH;
- although the STB costs may be broadly similar for the different platforms, the need for satellite dishes and specialist installation implies a higher end-user cost for DTH; and
- there is continuity in the minds of users as DTT is the closest to analogue television in terms of its strengths and weaknesses.

It is the view of the WG that:

- Digital cable and IPTV are economically unsuitable as systems in South Africa to replace FTA analogue terrestrial broadcasting systems for the lower LSM groups, although such fixed wire and wireless systems may contribute to digital migration by serving subscribers that are willing to pay towards the high costs of rolling out such services to benefit from high transmission capacities and advanced interactive services;
- Digital mobile television and radio is a new evolving type of broadcasting service which is, based on field trials globally, seen as being complementary to traditional broadcasting services rather than being intended to replicate or replace existing terrestrial broadcasting services in households;
- from a network cost perspective, satellite is the only alternative to terrestrial networks for television, but network economics should not be the only factor considered by government when selecting the platform for FTA broadcasting services to be offered to South Africa; and
- the needs of South Africa may best be achieved through a hybrid platform approach where the roll-out of DTT should be based on economic as well as legacy infrastructure, with the remaining universal obligations being met through the implementation of DTH solutions in some areas.

RECOMMENDATIONS:

In light of the above views, the following recommendations are made by the WG, namely that the:

1. existing terrestrial coverage of analogue television broadcasting services should be duplicated by DTT to the extent that it is economically feasible to do so, and that the meeting of universal access and service obligations in respect of non-urban areas where DTT is not economically feasible may be achieved by means of satellite (DTH);
2. any existing analogue terrestrial broadcasting service should be allowed to choose the digital transmission network (terrestrial, satellite, cable) they wish to migrate too based on their own commercial strategy and economic considerations; and
3. ICASA must conduct an inquiry to determine a policy on FTA satellite broadcasting services, other than those licensed terrestrial broadcasting services being provided by means of DTH in order to meet universal access obligations.

3. PUBLIC POLICY OBJECTIVES FOR DIGITAL BROADCASTING SWITCHOVER

Over the last two decades in South Africa the field of communications has grown from one where telephone, television, and radio defined the field to one where radio, television, fixed line, cellular, and satellite are only an introduction to modern digital telecommunications. The next two decades will see a further transformation of the industry that not only has the potential to make it the centre of a knowledge intensive manufacturing national economy, but also the lives of all South Africans. These changes, driven by technological innovations that are promoting a convergence of telecommunications, broadcasting and data, will bring enormous competition and public interest impacts to the business of communications that require a modernisation of the policy and regulatory framework under which the entire communications sector operates.

Broadcasting in particular will see an extraordinary change as the oncoming multi-channel, multi-service communications paradigm-shift creates a dynamic new environment that will require a comprehensive review of communications regulation by the government and the regulator. A new policy and regulatory approach must be explored in the current climate of multi-channel digital broadcasting and converging technologies.

The major industries affected by the development of a multi-channel, multimedia environment and by the convergence of broadcast and information technologies are television and sound broadcasting. The most important public policy objective in this area has been, and continues to be, the preservation of free over-the-air broadcasting for all the public. Notwithstanding the proliferation of cellular phones and computers and the day not too far in the future when radio, television, computers, and telephones may be one and the same (one conduit into the home), broadcasting in South Africa remains the principal means whereby South Africans receive the information and entertainment that constitutes such a vital part of their daily lives. More than any other medium, broadcasting not only reflects, but also helps shape our culture and values.

The vital role broadcasting plays in defining our South African identity sets up an important set of issues for public policymakers who must establish ground rules for the coming of the new Information Age and economy. As the most important component of the current information infrastructure, which includes broadband, satellite, and wired and wireless communications, broadcasting must still be viewed as an industry whose operations are guided by a strong public interest requirement. Because of the unique place broadcasting holds and the importance of the service it provides, broadcasters have a special obligation to serve the needs and interests of their communities, one that has historically distinguished them from traditional telecommunications service providers. Scarcity of frequency spectrum has prevented the broadcasting sector expanding in terms of ownership, diversity and the ability to address the needs of all 11 official languages, in the digital era all opportunities should be provided for television and radio to grow in relevance and diversity of services in order to promote social, cultural and national economic goals in a converged environment.

Digital broadcasting offers consumers improved reception and new services. The switchover to digital television broadcasting is also particularly significant because it has the potential to free large amounts of spectrum currently allocated to analogue television channels, providing opportunities for new entrants into the market, more competition, and additional services. It is important to conceptualise this major development in terms of the Global Information Society, Africa and national government objectives.

3.1 GLOBALISATION AND NEPAD

One of the most important policy challenges facing South Africa today is to respond to the globalisation, which is changing the way in which the world economy operates. Globalisation refers to the fact that international flows of trade, finance and information are being integrated into a single global market. This is happening in a context where there are major advances in technology, particularly in the information and communication industries. Globalisation has been facilitated by the introduction of new information and communication technologies. These technologies have made capital, financial and commodity flows much quicker, and are the main driver of globalisation. There are of course other factors also at work, such as the spread of consumer knowledge about what is available that comes from travel and from advertising, itself encouraged by the communications revolution and global information broadcasting channels available over satellite broadcasting networks.¹⁷

Africa has recognized that its potential has been untapped because of marginalisation from the global economy. One of the focus points of the Abuja Treaty was how Africa could be a value partner in the struggle to interact with the process of globalisation in a manner that benefits the African continent and its people. This has led to the New Partnership for Africa's Development (NEPAD), which is a vision and strategic framework for Africa's renewal. NEPAD acknowledges that the one of the critical drivers of globalisation, namely the development of technology is a priority. This is articulated as the need for policy reforms and increased investment in human development with a focus on health, education, science and technology and skills development and building and improving infrastructure, including Information and Communication Technology (ICT).

The roll-out of digital broadcasting networks will support the principles and priorities of NEPAD in integrating Africa into the global economy and building infrastructure that supports the provision of information critical for human development and knowledge development, as well as the provision of new electronic communication services. In response to the NEPAD initiative and the focus on the integration of Africa into the processes of globalization there will be a need to investigate options for the opening of South African markets to the Southern African Development Community (SADC) and African Union member countries based on a principle of reciprocity.

¹⁷ Williamson, J. 1998. Globalization: The Concept, Causes and Consequences. Keynote Address to the Congress of the Sri Lankan Association for the Advancement of Science held in Colombo on 15 December 1998.

RECOMMENDATION:

The WG recommends that the Minister review section 64 of the ECA with a view to investigating options for an African Union exemption based on a principle of reciprocity. ,

3.2 GLOBAL INFORMATION ECONOMY

The development of technology is more than just a driver of globalisation, communication networks and interactive multimedia applications are providing the foundation for the transformation of existing social and economic relationships into an “information economy”. The development of an information society is expected to stimulate economic growth and productivity, create new economic activities and jobs. A number of social benefits are also expected to develop through an information economy, including improved education opportunities, improved health care delivery and other social services, and improved access to cultural and leisure opportunities.

A key aspect is that these technologies facilitating the information economy are digital, interactive multimedia applications and content require digital networks. In South Africa broadcasting networks are lagging behind in offering new services and content that will facilitate the information economy and access to new services by the public as they are still analogue. It is clear that in the South African context the switchover to digital broadcasting cannot wait for market demand to drive it as this will result in South Africa falling even further behind in integrating into the global information economy. Instead the transition from analogue to digital broadcasting and the roll-out of digital transmission networks will need to be supply side driven and this will require government to engage in pro-active strategies together with the commercial sector.

The information economy will also benefit from the introduction of digital sound broadcasting and the switchover to digital television broadcasting because there will be new interactive services and freed-up spectrum that potentially could be used for introducing wireless broadband to rural and even urban areas in South Africa. Of course the non-broadcasting use of the spectrum will have to accord with International Telecommunication Union treaties and regulations and would have to be carefully introduced to prevent interference to broadcasting services already operating in the UHF/VHF bands.

RECOMMENDATION:

The WG recommends that the introduction of digital radio and the switchover to digital broadcasting should be prioritised at a national government level, as it will assist South Africa to integrate into the global information society by enabling new electronic communication services on digital broadcast networks and freeing-up frequency spectrum for new broadcasting services and other services in the knowledge economy.

3.3 NATIONAL GOVERNMENT POLICIES

The transition from analogue to digital broadcasting can contribute to the National Policy Priorities of Government by:

- encouraging investment in the electronic communications sector;
- introducing competition through a managed programme of licensing new players thereby creating new jobs, while ensuring the sustainability of existing players;
- addressing constraints in the area of signal distribution by moving to digital transmission infrastructure;
- address the developmental needs of the second economy through proactive licensing of digital broadcasting licensees in the nodal points identified by the Urban Renewal and Integrated and Sustainable Rural Development Programme;
- encouraging broad based black empowerment when licensing new entrants; and
- re-engineering of systems to address convergence of telecommunication, data and broadcasting services.

In the Communications Sector the objectives of government have been articulated in the White Paper on Broadcasting Policy, 1998. The objectives set out in this policy document for multi-channel distribution systems which require digital and not analogue transmission are stated as follows:

“Multi-channel delivery systems should be introduced in a manner that will serve social goals cost effectively and efficiently. In particular, these systems should play a significant role in meeting the following goals:

- *Universal access by all South Africans to broadcasting and multi-media services.*
- *Provision of a diversity of types of programme content.*
- *Delivery of relevant services to all official language groups.*
- *Efficient rollout of regionally relevant services.*
- *Delivery of public and educational services.*
- *The introduction of multi-channel systems should bring economic advantages to South Africa by:*
 - *Providing employment and training for South Africans both in the roll out of the services and in their operation.*
 - *Creating opportunities for South African entrepreneurs to manufacture hardware for such systems.*
 - *Creating opportunities for South African content providers to introduce new services.*
 - *Providing services to marginalised groups that will allow them greater participation in the economy.*
- *The introduction of multi-channel distribution should not favour one technology over another.*
- *Multi-channel distribution services have the potential to allow the delivery of multiple local services as well as international services. The introduction of the multi-channel delivery systems should be in line with policy and strategy of prioritising South African content and ownership*
- *Multi-channel distribution services should play a role in the financing of the production of local content. They can do this in two ways:*
 - *By the payment of license fees.*
 - *By contributing to production funds.*

- *Multi-channel distribution services can provide competition in the delivery of voice and data to businesses, educational institutions and homes.*¹⁸

In approaching the introduction of digital broadcasting the following regulatory principles were identified at the 3rd General Assembly of the Southern African Broadcasting Association in 1995, amongst others:

- The need to broaden access and choice for the majority of South Africans in broadcasting and information service through the most cost effective means, which offer the lowest reception, costs to the consumer.
- The need to test new technologies and services against their impact upon the dominant policy goal of universal access to broadcasting, telecommunications and information services.
- The need to counterbalance international broadcasting services distributed from satellite, which South Africa cannot regulate, by a range of readily accessible domestic broadcasting services which have a high degree of local content and which reflect the cultural diversity of South Africans.
- The need to cooperate with Southern African countries in the development or adoption of uniform standards for broadcasting and telecommunications hardware so that the market and the public are protected against dumping of multiple standards, redundant or obsolete technologies, and to take advantage of economies of scale.¹⁹

RECOMMENDATION:

The WG recommends that the roll-out of digital electronic communication networks to replace analogue signal distribution should be viewed as supporting the principles of NEPAD in integrating Africa into the global economy and implementing the national policy objectives set out in the White Paper on Broadcasting Policy, 1998.

3.4 GOVERNMENT INTERVENTION

Government intervention in the market can only be justified on two counts, firstly that public interests are at stake and secondly where there is market failure. In this case intervention is justified as there are public interests at stake as the potential benefits and problems relating to digital broadcasting affect South Africa as whole rather than just certain groups. Broadcasting is not comparable to any other sector, its widespread penetration provides almost complete coverage of the population across different broadcasting networks; provision of news, current affairs and cultural programming means that it influences and reflects public opinions and values. It is therefore critical to ensure the continuing availability of broadcasting services to all parts of the population where it is technically feasible to do so.

It is too early to tell whether there will be market failure in the provisions of digital broadcasting in South Africa. Undoubtedly, as shown in the report of the economics committee, there will be a negative impact on the profitability of those broadcasters who

¹⁸ Extract from the South African White Paper on Broadcasting Policy, 1998

¹⁹ Southern African Broadcasting Association (SABA), 1995. 3rd General Assembly held in Johannesburg on 6-7 July 1995.

rely on advertising revenue. However digital broadcasting is critical to stimulating an information society and accessing the benefits of the global economy, digital television and radio also has the potential to overcome in a limited way the digital divide in South Africa through the provision of certain electronic communications services on the digital broadcasting transmission networks. This highlights the concern that if the roll-out of digital broadcasting is left to the market alone a new digital divide could be created in broadcasting, between those who have access to digital broadcasting and the additional electronic communication services provided by this technology and those who only have access to analogue broadcasting. On these grounds proactive intervention may be justified as in South Africa there has been no collective action or agreement on implementation of digital broadcasting by the industry or market, rather a 'wait and see' approach has been adopted. This is the result of structural failures mostly free-riding²⁰ behaviours and 'chicken and egg' deadlocks²¹. Also those who stand to benefit the most from a migration to digital broadcasting (equipment manufacturers, beneficiaries of freed spectrum) are different from those who will bear the costs (consumers and current broadcasters/signal distributors). So there has been little incentive for the costs of migration to be internalised by these parties, especially as in the short term the provision of the digital broadcasting services will have to be supply side driven rather than demand driven. To overcome this there will be the need for co-ordination mechanisms on how to share the benefits and costs while still ensuring that there is proper market competition and government is best suited to play this facilitative role.

RECOMMENDATION:

The WG recommends that the government intervene to accelerate the introduction of digital radio and the consumer acceptance of the digital switchover of existing television broadcasting services by developing a national digital switchover strategy to facilitate the licensing of digital sound broadcasting services and setting firm dates for analogue television switch-off, as well as playing the role of neutral facilitator in assisting market players to work together to fast-track the introduction of services, STBs and the roll-out of digital electronic communications networks.

3.5 PUBLIC POLICY ADVANTAGES OF DIGITAL BROADCASTING

Often when it comes to digital broadcasting in South Africa the wrong policy question is asked. Policy makers ask "What is the cost of migrating to digital broadcasting?" whereas the correct macro-policy question probably is "What is the cost to South Africa, in terms of competitive advantage, of not migrating to digital broadcasting networks?"

At a macro level digital electronic communication networks and broadband infrastructure development are an important component of South Africa becoming more competitive internationally and linking into the forces of globalisation and the global information

²⁰ Individual market player avoid contributing to the migration costs as they will share in the collective benefits associated with the process anyway.

²¹ Signal distributors will only roll-out digital broadcasting networks if there are services that will pay to be on them, content providers will only develop services for digital broadcasting networks if there is an audience that will receive them and consumers will only buy new digital reception devices if there are new services that are not available elsewhere. As there is an element of risk no part of the value chain is prepared to invest unless the other part of the value chain does so first, this results in nothing happening.

economy. A key driver of the global information economy is digitalisation and digital content. In the context of the national government priorities the digital switchover of existing broadcasting service and the licensing of new digital broadcasting services can encourage investment, create new jobs and support the goals of black economic empowerment in South Africa.

In the context of the sector digital switchover will promote spectrum efficiency, free-up spectrum that can be used for mobile television, HDTV, wireless broadband in rural areas to broaden access to the information economy, encourage competition, and promote ICT development. Consumers will benefit from more content, improved quality in terms of sound and video and potential access depending upon the selection of the STB standard to electronic communication services that cannot be offered by broadcasters in an analogue environment. A critical public policy objective will be to ensure that in this switchover to digital broadcasting and the freeing-up of frequency spectrum social deprivation does not occur and that South Africa is able to promote the public interest and cultural objectives in a digital environment.

Digital broadcasting brings many advantages compared to analogue broadcasting:

- a better image (including wide-screen aspect ratio and possibly high definition) and sound quality;
- lower transmission costs or the ability to transmit more channels or services for the same cost;
- better efficiency in spectrum use (as more data can be transmitted within the same bandwidth);
- the ability to transmit associated data allowing for enhanced television or fully interactive applications when associated with a return-path facility; and
- a more robust system of transmission against interference.

These can be achieved whatever delivery network is used, though some benefits are more specific to a particular network. Digital television can be offered a number of platforms ranging from cable to satellite and in a converged communications environment it is not limited to traditional broadcasting networks. However, wireless indoor reception and mobile reception can be best implemented through digital terrestrial broadcasting. The better spectrum efficiency expected from digitisation has much wider consequences in the case of a scarce public resource like the UHF and VHF spectrum bands used for terrestrial broadcasting, than in the case of radio-electric frequencies used in 'closed' systems like those used by cable operators, or the high frequency bands used by satellite transmission operators. Some of the expected benefits from the digital migration come at the very start of the introduction and adoption of digital broadcasting (i.e. the turn-on and switchover period), while other benefits, like the release of spectrum and more efficient spectrum management, would specifically derive from the turn-off. The termination of analogue broadcasting can therefore be considered as the future consequence of the introduction of digital broadcasting.

The specific benefits for South Africa and the economy are that digitisation of broadcasting will create the necessary conditions for the further development of broadcasting and for information, communications and radio technologies to converge. In this way, it will open up markets for new digital uses and diverse innovative processes. Furthermore, it will reduce existing frequency shortages. In concrete terms, the digitisation of broadcasting will create the infrastructural basis for the market introduction of new, digital products and services for conventional broadcasting as well as new, multimedia services.

The faster digitisation of broadcasting is completed, the greater will be the market opportunities, which open up for radio and new multimedia services. The digitisation of broadcasting will therefore help to ensure that South Africa remains attractive as a business location and that South African companies and service providers are not left behind in terms of competition. It will moreover contribute to the consolidation and expansion of South Africa's leading edge in this field. Digital broadcasting and multimedia services will therefore enable new markets to be opened up and will promote growth and employment in this dynamically developing sector.

RECOMMENDATION:

The WG recommends that the preservation of access to FTA broadcasting for all members of the public should remain a central public policy objective of government in the introduction of digital sound broadcasting and the switchover of existing television broadcasting services to digital electronic communication networks

4. PUBLIC INTEREST ISSUES IN SWITCHOVER FROM ANALOGUE TO DIGITAL BROADCASTING

At the rate at which new technologies are being developed, it is not possible to predict the future of the industry with any real certainty. However, the advent of new digital technology that frees up broadcasting spectrum does require the government to act. There will be policy changes and there will be de-regulation, but some aspects of broadcasting regulation will continue into the digital broadcasting era that is dawning in South Africa. This will be especially true for the public interest regulation and rules governing ethical behaviour. Just because programming is now being broadcast in digital does not mean that the principles governing journalistic behaviour no longer apply, or that the development of South African content is no longer important. At the very least government will need to put in place a policy framework for the licensing of digital sound broadcasting services and a legal framework to enable existing television broadcasting services and broadcasting signal distributors to migrate to the new spectrum with appropriate legal protection to ensure that there is certainty in the market and that there is no deprivation of rights, but what else should government be doing?

Essentially, governments have three policy options available to them to make impacts on the market. First they can attempt to control the conduct of those in the market, second they can attempt to change the structure of the market and thirdly, they can provide public participation in the market itself for some regulation to be effective. The ultimate question is of course why should government act at all? The answer of course is the public benefit of undertaking such actions. Assessment of the public benefit will always look at the perceived desirable economic outcomes, such as investment in the sector, job creation, or increasing the country's competitiveness in a global economy. Then there are the desirable social and cultural outcomes, such as policies to promote basic rights, consumer protection and the advancement of the country's culture.

The present laws, regulations and policies may no longer be appropriate and could hinder competition in a converged media environment, by creating obstacles to the introduction of new services, raising the cost of business to the point that investment in the sector is not forthcoming. For example, cross-media rules or local content rules need to be reviewed in a digital era. Government, therefore needs to decide what it wants to achieve economically, socially and culturally and this means that public interest principles need to be reviewed to determine if they should continue, notwithstanding the way in which content is being delivered to the public.

South Africa was slow to introduce television, mostly due to politics, and a nationwide television broadcasting service was only rolled out in 1976. Despite this fact, the public interest and broadcasting does have a long history in South Africa. The first experimental radio broadcast was undertaken in Johannesburg on 18 December 1923 by the Western Electric Company. By 1926 radio broadcasts had grown to the extent that legislation was necessary and the Radio Act of 1926 was promulgated. The Radio Act saw the role of broadcasting as being to educate, inform and entertain and this was the first time these public interest broadcasting principles were articulated in South African legislation. The high importance of public interest broadcasting principles to the

government and the people of South Africa led to the “public interest” being specifically mentioned in section 192 of the Constitution of the Republic of South Africa, which provides that:

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

This emphasis on the “public interest” was highlighted in the primary objects of the Independent Broadcasting Authority Act of 1993 and the Broadcasting Act of 1999, and this trend has continued in the recently promulgated ECA of 2005 which repeals and/or amends these pieces of legislation.

4.1 PUBLIC TRUSTEE MODEL

The public trustee model originated in the United States of America and Europe and was adopted in South Africa’s regulatory approach to broadcasting.

In an analogue broadcasting environment one justification for the regulation of broadcasting media by government is that frequency spectrum is a scarce national resource. As it is a scarce resource not everybody can have access, also un-coordinated use of the frequency spectrum leads to interference levels that result in nobody benefiting from the spectrum. So despite constitutional guarantees of freedom of expression, broadcasting is a form of media that is treated differently to other forms of media, such as newspaper and magazines. This led, in broadcasting, to governments granting freedom of expression rights to licensees, while denying such freedom to non-licensees. In order to justify this privileged treatment government imposed public interest obligations on licensees so that to a certain extent licensees can be viewed as public trustees of the airwaves. In a nutshell therefore, the “public trustee” model is one where the commercial exploitation of the potential of the frequency spectrum is allowed, but this exclusionary licence arrangement comes at the cost of imposed public interest obligations. For example, the requirement to present those views and voices which are representative of the licensee’s community and which would otherwise, by necessity (i.e. frequency scarcity), be barred from the airwaves could be imposed in the licence conditions of a licensee by a regulator to meet the public interest obligation.

In South Africa, The Constitution of the Republic of South African provides for freedom of expression as one of the important rights to be protected. Of significance within this provision on freedom of speech is s16(1)(b): freedom to receive and impart information or ideas. The exclusionary broadcasting licensing framework limits this right and the South African government, in line with other jurisdictions, has therefore adopted the public trustee model. In particular, the White Paper on Broadcasting Policy 1998 indicates national government’s support for a public trustee policy approach to the regulation of broadcasting.

It states that:

“The frequency spectrum is a valuable natural resource, which is an asset that belongs to society at large. The use of the spectrum is, therefore, a privilege and it is in the public interest that the frequencies are allotted such that broadcasting is available, universally, to all of the people and that it caters for the diverse needs of the total population.

Broadcasting Media uses airwaves, which are a limited public resource and to which there cannot be unlimited access by individuals. Airwaves should be utilised for maximisation of the public good. In case of any conflict between public interest and private commercial interest, public interest should prevail. The public also legitimately expects returns for the use of its property.”

The White Paper also clearly indicated government’s view that the advent of the digital age did not undermine the public nature of radio frequencies and that the right of public institutions to determine policy on the allocation of frequencies in the digital age based on public interest would remain a feature of the broadcasting policy landscape. The White Paper also indicated that regulating the use of radio frequencies in the public interest also stems from other considerations, including:

- The need to define broadcasting parameters to avoid interference with consumer services;
- The need for radio frequencies for other socially important activities such as the defence of the country, emergency and other communication services;
- The need to affirm the role of the previously disadvantaged in the broadcasting system;
- The international responsibilities of the South African government;
- That in its social, cultural and economic dimensions, the public interest is served through the provision of broadcasting services to the entire range of diverse interests in the South African community. And that broadcasting plays an integral role in developing and reflecting a South African identity, its character and cultural diversity within the framework of national unity.
- Broadcasting policy formulation functions in the context of the identified national goals of democracy, development and nation building. The national goals provide the framework for the development of regulatory policy which recognises the role of broadcasting in society; and
- The need to ensure that the public is adequately compensated for the use of the broadcasting spectrum. Operators must, therefore, pay license fees for the use of the spectrum. This excludes the cost of administering the regulators processes.

The WG is aware that there has internationally been some opposition to the continued use of the “public trustee model” in a digital era. Opponents have argued that a digital environment delivers a multitude of media outlets promoting access and expression. In such a competitive environment, it is argued that the marketplace alone is the best guarantor of diversity of expression as it is responsive to the needs of consumers. These same opponents also point out that as the world enters an era of digital broadcasting the scarcity of frequency spectrum argument falls away as rationale for government imposing public interest obligations on commercial broadcasters.

The WG acknowledges that in a digital broadcasting environment multi-channel broadcasting on a single frequency will result in a freeing up of spectrum in the broadcasting service frequency bands (the so-called 'Digital Dividend'). However, not all of the radio frequency spectrum that will become available through multi-channel digital broadcasting will be used for broadcasting traditional content, some may be used for wireless communication services or data services. There is also the consideration that interactive broadcasting services will require return path channels and if broadcasters decide to offer high definition broadcasting services the number of channels on a single frequency will be significantly reduced.

The WG holds the view that there will always be substantially more individuals who want to broadcast than there are channels or frequencies available to be allocated, therefore there will continue to be a situation in broadcasting where individuals will continue not to have the same constitutional guarantee comparable to their right to speak, write or publish (freedom of speech). The WG is in agreement with the White Paper on Broadcasting Policy that the "public trustee model" still applies in the digital broadcasting environment; however that agreement is balanced by the view that government will have to review how public interest obligations are applied to licensees in a multi-channel digital broadcasting environment and the extent to which these obligations in a converged digital environment should be applied to "substitute services" or "like services" offered on new or non-traditional broadcasting networks. It is acknowledged that although there is still scarcity, it has been alleviated somewhat and accordingly there should be some reduction in public interest obligations to reflect that improvement in access to the radio frequency spectrum.

RECOMMENDATION:

The WG recommends that the public trustee model continue to inform the development of broadcasting policy in South Africa, subject to the fact that the alleviation of frequency spectrum scarcity should be balanced by a reduction of public interest obligations. ICASA must, therefore, conduct an Inquiry into Digital Broadcasting to address the issue of the public interest in a digital era.

4.2 PUBLIC INTEREST OBLIGATIONS

Internationally, the public interest standard has most often been applied to six major arenas, diversity of programming, political debate, localism (serving local communities need for expression) children's educational programming, access to persons with disabilities, and equal employment opportunity (in the workplaces of licensees).

The Independent Broadcasting Authority's (IBA) Triple Inquiry Report, 1995, was the first time in South Africa that the broadcasting regulatory approach to public interest obligations were set out. The IBA identified a number of public interest values:

- Universal Access – the availability of broadcasting services to all citizens, which related not only to simple access to information, but extended the notion to include the quality of the information received.
- Diversity – diversity of media functions, diversity of content within these, of representation of different groups and people in society, and geography or locale.

- Equality – media should reflect different groups in society equally or equitably, ie. Fair treatment.
- Independence – independence of the regulator from state and commercial interests and editorial freedom of broadcasters.
- Unity – nurturing a sense of nationhood within a wider context of globalization.²²

These values were supported in the White Paper on Broadcasting Policy, which elaborated at a macro-policy level, how the public interest could be supported by:

- Universal access;
- Diversity;
- Democratisation of the airwaves;
- Nation building;
- Education; and
- Strengthening the spiritual and moral fibre of society.²³

The White Paper in relation to the public interest in broadcasting stated that:

“This brings into focus the need for a strong and committed Public Broadcasting Service. Such a service should cater for the needs and aspirations of all sections of our society, particularly the underprivileged and historically disadvantaged. It should ensure universal availability and access and should meet the education, information and entertainment needs of all of the people of South Africa. It should also meet the needs for children's programming and human resource development. Above all it should contribute to nation building.”

The White Paper identified that the public interest was a collective responsibility of public, commercial and community broadcasters, but also acknowledged that in meeting the public interest different levels of public interest obligations and responsibilities would be imposed on such broadcasters. The WG agrees with the principle that it is broadcasting services as a collective that have to meet the public interest standard and that different levels of public interest obligations should be applied to public, commercial and community broadcasting services.

The public interest values have recently been re-affirmed and captured in section 2 of the ECA.

RECOMMENDATIONS:

The WG makes the following recommendations, namely that:

1. the achievement of public interest standards continue to be approached by viewing broadcasting service licensees collectively; and
2. when imposing public interest obligations, different levels should be considered for different categories of licence, i.e. a higher level would be appropriate for public broadcasting and community broadcasting and lower levels for FTA commercial broadcasting and subscription broadcasting.

²² Independent Broadcasting Authority, Triple Inquiry Report (Johannesburg: IBA, 1995)

²³ Department of Communications, Broadcasting Policy White Paper (Pretoria: DoC, June 1998)

4.3 PUBLIC INTEREST IN A DIGITAL BROADCASTING ENVIRONMENT

Government is faced with two competing goals in broadcasting. Firstly, the need in line with national government economic priorities to foster the commercial development of the industry and secondly, to ensure that broadcasting serves the public interest needs of the South African people. These goals are not always competing; at times they can be complementary. It is also important to remember that the public interest can also be achieved through other regulatory tools and not just by the imposition of public interest obligations on commercial broadcasting licensees. In South Africa, the public interest and human rights to freedom of expression have also been supported by the:

- establishment of a non-profit, community broadcasting sector;
- establishment and maintenance of a public broadcasting system; and
- regulation of competition, ownership and control to ensure that there are competitive markets.

Analogue broadcasting services send one signal for 24 hours a day. Digital broadcasting services may send one or multiple signals, at many different periods of the day. Some of these signals may be programmes, others may involve data transmissions or other electronic communication services. It is clear, from this example, that the public interest standard as applied in an analogue broadcasting environment cannot be simply translated to the digital broadcasting environment. The WG has considered whether the traditional public interest standard obligations are still appropriate and also, given the enhanced broadcasting opportunities in a digital environment, what additional public interest obligations may be appropriate.

4.3.1 Fostering Democracy and Democratic Values (Diversity)

The media, including broadcasting media, are the principal source of political information and access to public debate, and the key to an informed, participating, citizenry. Democracy, therefore, requires a media system that provides people with a wide range of opinion and analysis and debate on important issues, reflects the diversity of citizens, and promotes public accountability. It is therefore in the public interest that a broadcasting regulatory system ensure pluralism in the provision of news, views and information.

In South Africa, the following regulatory tools have been used to achieve this public interest standard:

- limitations on ownership and control;
- programming requirements to encourage diversity of content and specific types of content;
- rules relating to the political parties and broadcasting; and
- establishing a licensing framework for public and community broadcasting.

The WG hold the view that this public interest standard is still applicable in a digital broadcasting environment and support the continued use of public and community broadcasting to support the objectives of this public interest standard. However, the WG have noted that in respect of the other regulatory tools used some amendments will be required in terms of their implementation in a digital environment.

(a) *Limitations on control and cross-media control of commercial broadcasting services*

Ownership, Control and Cross Media Ownership of broadcasting properties has always been subjected to a strict set of limitations. This is an international phenomenon and by no means unique to South Africa. An analysis of both local and international jurisdictions indicates that historically the purpose to impose horizontal and cross media limitations on ownership and control of broadcasting licences related to:

- an economic objective, namely to address the concerns about market concentration and the risk of abuse associated with market power;
- a diversity objective, namely to ensure a plurality of voices and diversity of programming with a particular emphasis on news and current affairs programming; and
- a equal access objective, related to the scarcity of the frequency spectrum and the need to ensure equitable access to it.

Internationally, governments have recognized that content is being distributed through an increasing range of services and across an increasing number of platforms (digitisation). In an era of convergence, many governments have responded by adopting a more flexible approach to dealing with concerns regarding economic concentration and diversity. Specifically, government have refrained from extending limitations on ownership and control to digital services which do not use scarce terrestrial frequencies. There appears to be consensus that with the digitisation of production and distribution facilities, media organisations around the world are under pressure to invest in new technologies and to recoup that investment through efficiency and savings. Most of these governments, in removing or lessening these limitations, have indicated that they consider other means more appropriate to address concerns about economic concentration and diversity. Regulatory tools being adopted by such governments include competition law to address concerns about economic concentration and abuse of dominance and content regulation / licence conditions to ensure plurality of voice and diversity of programming.

The limitations on the control and cross-media control of commercial broadcasting services as set out in sections 65 and 66 of the ECA, 2005, are not only 12 years out of date as they were taken “as is” from the Independent Broadcasting Authority Act, 1993, they also reflect an analogue environment where a broadcasting service equalled a single service and a single frequency, they do not reflect a multi-channel digital environment.

The Independent Communications Authority of South Africa (ICASA) conducted an inquiry into ownership and control and made recommendations to the Minister of Communications in 2004. These recommendations have not yet been tabled to the National Assembly.²⁴ ICASA was also required, in terms of section 31(3) of the Broadcasting Act, to make a recommendation to the Minister as to whether sections 49 and 50 of the IBA Act, relating to limitations on ownership and control are applicable to broadcasting services carrying more than one channel. This inquiry was held under the umbrella of the inquiry into subscription broadcasting. In this inquiry process ICASA concluded that these limitations are more justifiable when imposed on terrestrial FTA broadcasting services. On the basis that the distinction between FTA broadcasting and subscription broadcasting services is an important distinction, ICASA recommended to the Minister that sections 49 and 50 of the IBA Act should not apply to subscription broadcasting services.²⁵

The WG, in line with international developments, have formed the view that ICASA is able to deal with market abuse and market concentration through the implementation of the provisions relating to Competition Matters set out in Chapter 10 of the ECA, and that diversity and plurality can be achieved by ICASA, as empowered by the ECA, through content regulation and the imposition of appropriate licence conditions. The objective of equitable access to frequency spectrum remains a concern only for broadcasting services using terrestrial frequencies, as other digital broadcasting services would not be faced with this constraint. It should also be kept in mind that this particular concern about terrestrial frequencies is now far less in a digital environment than an analogue environment because of the ability to broadcast multiple channels on a single frequency. In a digital environment, scarcity of radio frequency spectrum may no longer be the factor limiting market entrants; instead the limiting factor may now become economic viability and how many broadcasting services the market can support.

The WG are therefore of the view that the recommendations made by ICASA in 2004 to amend sections 49 and 50 of the IBA Act (which has now been repealed) for the purposes of analogue terrestrial FTA broadcasting services have been overtaken by the promulgation of the ECA and that the proposed amendments should now be implemented, by amending sections 65 and 66 of the ECA for this purpose. In regard to the later recommendations made by ICASA in 2005 that these ownership and control limitations not apply to subscription broadcasting services, the WG concurs that these recommendations should continue to form part of any amendments to sections 65 and 66 of the ECA. The principle applied was that subscription broadcasting, although adding to diversity in broadcasting, does not broadcast to the general public and as such should not be limited by a tool, which is essentially aimed at protecting the broader public interest not a smaller subscriber base.

24 Independent Communications Authority of South Africa. Review of Ownership and Control of Broadcasting Services and Existing Commercial Sound Broadcasting Licences: Position Paper (Johannesburg: ICASA, 2004) p.37.

25 Independent Communications Authority of South Africa. Subscription Broadcasting Services: Position Paper (Johannesburg: ICASA, 2005) p.69-71

RECOMMENDATIONS:

The WG makes the following recommendations, namely that:

1. sections 65 and 66 of the ECA dealing with limitations on ownership and control of commercial broadcasting services need to be amended to reflect the recommendations made by ICASA to the Minister in 2004 and 2005 on ownership and control issues; and
2. Notwithstanding, the inquiry into ownership and control already conducted by ICASA, there is a need for a further inquiry into media ownership with a view to initiating the lowering of limitations against the backdrop of a diverse multi-channel and multi-platform broadcasting environment.

(b) Programming Requirements

The legislature has given the regulator a broad discretion to formulate public interest obligations with regards to programming requirements in the licences of broadcasting services. This power while extensive is limited by the freedom of expression provisions in the Constitution. The government and the regulator may not censor broadcasters for example, nor may they regulate content except in the most general fashion such as requiring broad categories of programming such as news or public affairs. The regulator is thus empowered to deal with public interest programming shortfalls, but not to interfere with the editorial discretion of the licensee.

In the ECA we therefore find that the section 2 objectives, that require, broadcasting services collectively to provide regular news services, actuality programmes on matters of public interest, programmes on political issues of public interest; and programmes on matters of international, national, regional and local significance; as well as the programming needs of children, the youth and the disabled are balanced by contrasting requirements to refrain from undue interference in the commercial activities of licensees.

The WG supports the notion articulated in the ECA of these public interest programming requirements being met collectively by the industry when viewed as a whole. ICASA when considering the imposition of these programming requirements should take into consideration the nature of the broadcasting service being provided, as it would make no sense trying to impose such obligations on a shopping channel or other type of niche broadcasting service which are likely to exist in a multi-channel environment. The WG hold the view that ICASA needs to take a flexible regulatory approach where the nature of a commercial broadcasting service offering is ill suited for the imposition of public interest programming requirements such as news, public affairs or drama.

RECOMMENDATION:

The WG recommends that the approach outlined in the ECA for the imposition of programming requirements as a condition of licence is adequate and submits that there is no need to amend the ECA in this regard.

(c) *Rules relating to Party Politics and Broadcasting*

The ECA has a number of rules pertaining to party politics and broadcasting, the objective being to ensure that in the public interest fair treatment and equitable opportunities are offered to all political parties. Section 52 of the ECA prohibits the granting of broadcasting service licences to party political entities. Section 56 of the ECA prohibits the broadcasting of party election broadcasts and political advertisement except during an election period. Section 57 of the ECA sets out the rules for ensuring equitable treatment for the broadcasting of party election broadcasts on public broadcasting services. Commercial and community broadcasting services do not fall within the ambit of this provision unless they elect to carry broadcasting party election broadcasts of their own accord. Section 58 of the ECA sets out the rules for political advertising on broadcasting services, with the intention of ensuring equal treatment of political parties by broadcasting services.

The WG supports the continued application of this public interest principle to ensure fair and equitable treatment of political parties during elections, but notes that ICASA in implementing these provisions of the ECA will need to give proper consideration to the drafting of regulations that take into account the multi-channel nature of digital broadcasting.

RECOMMENDATION:

The WG recommends that the rules pertaining to party politics and broadcasting as outlined in the ECA are sufficient and submit that there is no need to amend the ECA in this regard.

4.3.2 Reflection of National Identity, Culture and Character

Globalisation does present a challenge for developing countries in that when building the Information Society the domination by certain languages and cultures is not perpetuated. Two policy tools to prevent this occurring is limiting foreign ownership and introducing local content requirements..

(a) *Local content and language*

In essence, the public interest standard in broadcasting has attempted to invigorate the diversity, languages and democratic culture of South Africa.

Public and Commercial broadcasting has often delivered in this area to a high level, but when it has fallen short, the legislature and ICASA have developed regulatory tools aimed at achieving those goals. For example, specific policies trying to foster diversity of programming, ensure political parties have equitable access to the airwaves, provide diverse views on public issues, encourage news and public affairs programming, promote localism, develop quality programming for children, minorities and persons with disabilities, etc.

The challenge has been how to use public policy to integrate public goals into the commercial terrain. This challenge has been increased in recent years by rapid and far-reaching changes in technology and market structures. Digital television once again raises the question of whether it is appropriate to use public policy to pursue public goals in commercial broadcasting, especially when the technology involved may result in the market delivering diversity without the need for government involvement.

i. *Language and Cultural Rights*

The Constitution of the Republic of South Africa has declared eleven official languages at national level. The Constitution advocates the promotion and development of languages that were not official in the past. But, one of the major challenges to the promotion of multilingualism in South Africa is the overwhelming dominance of English as a consequence of the discriminatory policies of the past and the power of English internationally. South Africa's discriminatory policies of the past have ensured that the majority of South Africans continue to see proficiency in English as the key to social mobility and economic advancement. There is a general agreement that such perceptions have to be corrected and new policies have to be put in practice to ensure the development, promotion and appreciation of African languages.

In our quest to develop and promote multilingualism the following issues must be dealt with:

- How to forge a society that is truly pluralistic yet possess a shared sense of belonging;
- What are the policies that can better serve and respond to the needs of diverse linguistic and cultural communities?
- Whose history is being remembered and whose is being forgotten?
- What voices are being heard and which are being silenced?
- Who is representing whom and on what basis?
- How can marginalised language, cultural and religious groups be empowered to change their social position?
- How can linguistic and cultural democracy be achieved?

The declaration of eleven official languages by the South African Constitution is a realisation that the plurality of South African languages is a fact that cannot be wished away without provoking deep resentment and arousing the suspicions of one language group wanting to establish some hegemony or condemning others to cultural and linguistic extinction. However, constitutional provisions do not in themselves define a policy on language in areas such as broadcasting, education, telecommunications, commerce, etc, but they provide entrenched language and cultural rights and state explicit language policy principles which bind national and provincial governments.

Other pieces of legislation, like the ECA and the Pan South African Language Board Act (“the PANSALB Act”), are there to spearhead the promotion and development of South Africa’s various languages in broadcasting²⁶, education, and other spheres of public life.

ii. South African Content Regulation

Section 61(3) of the ECA, provides for the imposition of specific broadcasting licence conditions regarding local television content in respect of the television broadcasting service licence. ICASA’s 2002 position paper on South African content set out that the primary aims of South African content regulation are:

- the development, protection and promotion of a national and provincial identity, culture and character; and
- the creation of a vibrant, dynamic, creative and economically productive local industries.

The Position Paper on SA Content on Television and Radio noted that South Africa has a rich and diverse cultural heritage protected by the Constitution and promoted by the policy and legislation that has emerged within this sector since 1994. It was ICASA’s stated intention to see this reflected on television screens and emanating from radios in South Africa. ICASA, as the national custodian of South African content regulation, was committed to the ideal espoused in the White Paper on Broadcasting Policy that television and radio should be predominantly South African.

ICASA’s approach to the television sector was that whilst public broadcasting is predominantly responsible for the development of South African content, the responsibility should be shared by the various licensees. The regulations for South African content, therefore, specify minimum requirements across the various categories of programming and time-slot allocations. At its most effective, this approach ensures quality South African programming by requiring competing broadcasters to schedule specific programme categories in prime time. The position paper set new quotas, which became effective in August 2003. The quotas for individual programme types on public, commercial and subscription broadcasting services are set out in the tables below.

²⁶ Section 2(u) of the ECA.

The policy document clearly indicated that ;

“South African television and radio need to reflect and engage with the life experiences, cultures, languages, aspirations and artistic expressions that are distinctly South African. Through South African music and television programming, radio and television can make a vital contribution to democracy, nation building and development in South Africa. South African content quotas seek to protect and develop our country’s national cultures and identities and to extend choice for the public. South African music and television programmes need to be produced by a wide range of South Africans, for South African audiences, in languages of their choice.

South African content regulations also aim at redressing historical imbalances in the cultural and broadcast industries. Broadcasters are encouraged to commission independent production companies which are controlled by previously disadvantaged individuals.”

While ICASA was committed to keeping the regulation of South African content as simple as possible, it has become clear that some differentiation is required within categories of programming for the specific objectives of regulating South African content to be met. South African content regulation results in the production of quality programming that best showcases South African talent and creativity and ultimately creates exportable products. The filling of airtime with South African content of low quality would be counterproductive. ICASA, therefore, decided to introduce, in addition to the quotas for categories of broadcasting, a weighting system that favoured the most neglected genres like drama and promoted indigenous languages.

The current policy framework for South African content as located in the ECA does not provide ICASA with the mandate to enforce the airing of African music or television content, or to recognize the airing of such content by broadcasters. The current statutory definitions for local content do not include recognition of African content, the monitoring of compliance would also be difficult. The fact that subscription broadcasting and the future of television in Africa are not necessarily being bound by frontiers raises the need for African countries to develop a framework for the reciprocal recognition of each others content.

ICASA’s position paper on South African content states that the Authority understands the concerns of locating South Africa in Africa and of acknowledging the broadcasting of African television programming by South African broadcasters. ICASA also appreciates initiatives taken by broadcasters to air programming from the rest of Africa. ICASA is, however, not in a position to enforce the flighting of African television programming or to recognise such programming in terms of content regulations. The ECA and the White Paper on Broadcasting Policy specifically mandate ICASA to promote South African content.

RECOMMENDATIONS:

The WG makes the following recommendations:

1. when the SA Content Regulations are reviewed in 2007/08, ICASA should consider promulgating regulations for FTA DTT services as well. The provisions for terrestrial and cable television multi-channel subscription television services already in the regulations could serve as a guide for DTT FTA services and DTT pay services; and
2. it may be necessary to amend the ECA to allow for the promotion of African content in addition to the existing regime for promoting SA Content.

iii. *Approach to regulation of programming in a digital environment*

Broadcasting exists against the background of constitutional principles. The South African constitution guarantees a number of fundamental rights, which should be taken into account in determining broadcasting policy and its regulation. Amongst these are:

- freedom of expression for all South Africans;
- the right to equality;
- the equality of all languages;
- the multi-cultural nature of South African and the right of all South Africans to the promotion of their cultures; and
- choice and diversity.

The South African broadcasting system in contributing to unity should serve to safeguard enrich and strengthen the cultural, political, social and economic fabric of South Africa. It does so by encouraging the development of South African expression and displaying South African talent.

Consequent upon this role, it is appropriate that all broadcasters contribute to meeting the public interest.

- The technological evolution has ushered in a diversity of channels that can be received from throughout the world. While this technological change has increased the choice of programmes that can be received and enjoyed by South Africans, it has thrown up challenges which must be addressed relating to the cultural and economic aspects of the broadcasting system.
- At a cultural level, the reflection of the cultural realities of South Africa decreases at a rate that is proportional to the increase of foreign programmes in the South African broadcasting system. Simply stated, the

more our broadcasting system is defined by programmes about other cultures and from the creative output of others, the less it is defined by programmes about the South African way of life, values and context.

- At an economic level the production capacity and therefore the employment opportunities for South African cultural producers and creative artists, is influenced by the level of South African programming in the broadcasting system. The development of the cultural sector is therefore influenced by policy considerations that determine the extent to which the South African broadcast content is prioritised.
- The South African broadcasting system should reflect the identity and the multi-cultural nature of South Africa by promoting the entire spectrum of cultural backgrounds in South Africa. To ensure this, it is necessary that broadcasting entities in South Africa are owned and controlled by South Africans and that ownership patterns of the past are reformed.
- The requirement that South Africans must own broadcasting services goes a long way to securing the tools for South African cultural determination. Yet on its own, it does not and can never ensure appropriate South African content. Local content should also be addressed and broad policy principles for its development included in law to inform the regulatory framework. This is a policy function and not a regulatory function. The policy ends must define the regulatory and other strategies that may be adopted.
- The choice of programming should entail a choice of South African programming. This calls for a deliberate policy to ensure that the South African broadcasting system offers South African programmes about the conditions, life styles, behaviour and cultural heritage of all South Africans. This policy should encourage the presentation of entertainment, educational and informational programming from the South African perspective in whatever format and distribution mechanism

(b) Foreign control

The principle of limiting foreign ownership was captured as follows in the White Paper on Broadcasting Policy:

“The South African broadcasting system should reflect the identity and the multi-cultural nature of South Africa by promoting the entire spectrum of cultural backgrounds in South Africa. To ensure this, it is necessary that broadcasting entities in South Africa are owned and controlled by South Africans and that ownership patterns of the past are reformed. “

These policy principles have been implemented in legislation. In the ECA, section 64 places a 20% limitation on foreign control of commercial broadcasting services. The Independent Communications Authority of South Africa (ICASA) conducted an inquiry into ownership and control and made recommendations to the Minister of

Communications in 2004.²⁷ ICASA proposed a marginal increase in the limitation, but also recommended that they be empowered to exempt persons from this limitation. Various industry representations at the time suggested that the limitation should remain in place in line with the policy articulated in the White Paper on Broadcasting Policy and that any exemption would be a deviation from the public interest standard. The WG continue to hold such a view, but suggest that in line with the principles embedded in NEPAD, that the Minister should investigate mechanisms for allowing persons or companies in SADC and African Union member countries access to the South African market based on a principle of reciprocity by that country.

RECOMMENDATION:

The WG makes the recommendation that section 64 of the ECA dealing with limitations on foreign control of commercial broadcasting services needs to be amended to reflect the recommendations made by ICASA to the Minister in 2004 and 2005 on ownership and control issues.

4.3.3 Universal Access and Redress

The ECA objectives require amongst others:

- the promotion of the universal provision of electronic communications networks, electronic communications services and connectivity for all;
- the promotion of an environment of open, fair and non-discriminatory access to broadcasting services, electronic communication networks and to electronic communication services;
- promote the empowerment of historically disadvantaged persons, including Black people, with particular attention to the needs of women, opportunities for youth and challenges for people with disabilities

In relation to licence conditions, ICASA is empowered in terms of section 8(2)(g) of the ECA to impose universal access and universal service obligations. Section 62(1)(b) requires electronic communications network service licensees providing broadcasting signal distribution to provide universal access for all South Africans to broadcasting services, subject to the terms and conditions of its licence. The ECA requires all licensees, including, Broadcasting Services, to contribute to the Universal Service and Access Fund. Provision is made for contributions made by Broadcasting Services to the Media Development and Diversity Agency (MDDA) to be offset against the annual contribution to the Universal Service and Access Fund.

The legislation ensures that the empowerment of historically disadvantaged groups takes place by requiring in section 9(1)(b) of the ECA that applications for individual licences include the percentage of equity ownership to be held by historically disadvantaged groups which may not be less than 30%.

²⁷ Independent Communications Authority of South Africa. Review of Ownership and Control of Broadcasting Services and Existing Commercial Sound Broadcasting Licences: Position Paper (Johannesburg: ICASA, 2004) p.37.

RECOMMENDATION:

The WG hold the view that ECA adequately deals with Universal Access and Redress in a manner that is technology neutral and therefore it is recommended that no amendments are required in this regard for the digital switchover process.

4.3.4 Consumer Protection

Chapter 12 of the ECA puts in place a consumer protection regime for codes of conducts and service charters. This chapter applies to all licensees, with the exception that in respect of codes of conduct broadcasting services are able in terms of section 54 to put in place their own codes of conduct and self-regulatory mechanisms.

The WG hold the view that Chapter 12 of the ECA read together with sections 54 and 55 are adequate to provide consumer protection. It is recommended that no amendments to the ECA in respect of consumer protection are required for the digital migration process.

RECOMMENDATION:

The WG recommends that no amendment of Chapter 12 of the ECA is required for the digital migration process, but if the ECA is reviewed in the future, government should consider adding a definition of the term “service charter” in section 1 of the ECA.

4.3.5 Public Broadcasting

The main rationale for public broadcasting existing stems from the public interest and the provision of a public service. It is generally accepted that a public broadcasting service should be neither state controlled nor commercial. Public broadcasting has been defined:

“as a meeting place where all citizens are welcome and considered equals. It is an information and education tool, accessible to all and meant for all, whatever their social or economic status. Its mandate is not restricted to information and cultural development-public broadcasting must also appeal to the imagination, and entertain. But it does so with a concern for quality that distinguishes it from commercial broadcasting.”²⁸

The public-service model is based on the idea that neither the market nor the State can adequately meet the public-service objectives of broadcasting and act in the public interest, this view therefore holds the inherent opinion that the public interest does not coincide either with commercial interests or the interests of incumbent political parties forming the government of the day.

²⁸ UNESCO. Public Broadcasting Why? How? (Paris: UNESCO, 2001) p.7

The guiding principles for public broadcasting in the public interest are universality, diversity, independence and distinctiveness. These principles can be summarized as follows:

- **universality** means it must be accessible to every citizen in the country and that it should attempt to be used by the largest possible number. This does not involve only technical accessibility, but also ensuring that people can understand and follow the programming made available;
- **diversity** means that the service offered by public broadcasting should be diversified, in terms of the genres of programmes offered, the audiences targeted, and the subjects discussed. At the end of the day, public broadcasting should reach everyone, not in respect of each programme broadcast, but through all programmes and their diversity viewed as a whole;
- **Independence** means that public broadcasting is a forum where ideas should be expressed freely, where information, opinions and criticisms disseminated. This is possible only if independence is maintained against commercial pressures or political influence. Where government influences information, the broadcaster is viewed as being a state broadcaster and the information provided becomes tainted in the minds of the public as being propaganda. Similarly, if all the programming of the public broadcaster was designed for commercial outcomes, the public would begin to question why they need to fund a service whose programming is not appreciably different from the services provided by commercial broadcasting; and
- **Distinctiveness** means that the service offered by public broadcasting needs to distinguish itself from that of other broadcasting services. The public must be able to identify what distinguishes a public broadcasting service from other services, in terms of the quality and character of its programming. This does not simply mean addressing audiences ignored by other broadcasting services or providing programming other services are not interested in as that would lead to the “ghettoisation” of public broadcasting which would undermine the principle of universality. It simply means doing things differently without excluding any genre, so that the public can appreciate the difference between this public-service and commercial offerings.²⁹

These principles lead to specific missions, a specific model of public funding, distinct programming in the public interest and public accountability. This model of general interest programming has survived competition with commercial broadcasters, but in a digital era characterised by media and audience fragmentation and special interest programming, questions are raised about the viability of the public broadcasting model to continue to support the public interest.

It is clear that digital broadcasting requires a different approach not only for public broadcasting, but of all broadcasting. The technical limits imposed on broadcasting in terms of the scarcity of frequencies for FTA broadcasting in an analogue environment are of lesser concern in a multi-channel digital environment. Government intervention in programming in the public interest therefore becomes harder to justify in a digital environment and it will become more difficult in the future to oblige commercial

²⁹ UNESCO. Public Broadcasting Why? How? (Paris: UNESCO, 2001) pp.11-13

broadcasters to carry-out public-service obligations. The convergence of broadcasting, telecommunications and the information technology sector brought about by digitisation will not ease the situation either as we are seeing a move to deregulate the telecommunications sector and a reluctance to regulate the internet. If this extends to a reluctance to regulate broadcasting services offered on converged networks, the best means to ensure that public interest and service obligations are met is to ensure the continued existence of a public body responsible for carrying out these objectives, namely the public broadcaster.

The relevance of public broadcasting in the digital era is summed up by Werner Rumphorst's statement:

"[...] the future of public service broadcasting follows on from its mission, from its role within and for civil society. The more diversification and individualization of information sources there is, the more audiences become fragmented, the more important it will be to maintain at least one strong service which performs the function of a national point of reference and of national identification, and the role of the market place for opinion."³⁰

Public broadcasting will have to evolve and adapt to the new digital environment, but the principles underlying the existence of public broadcasting remain and public broadcasters will have to use these new technologies to improve and complement their public service vision and mission. In Germany, for example, public stations have created two theme channels to complement their basic offering: a news and documentary channel and a children's channel. These channels are fully consistent with a public-service mission.³¹ It is the view of the WG that there is still a role for public broadcasting as a primary vehicle or policy tool to support the public interest objectives of universality, diversity, access, South African content development and preserving a national identity.

The WG has dealt with public broadcasting in general as a tool for supporting the public interest, but is also necessary to deal specifically with the public broadcaster in the South African context. The South African Broadcasting Corporation (SABC) is South Africa's public broadcaster. The SABC's functions and duties are laid out, firstly, in a Charter, which forms part of the Broadcasting Act of 1999. The SABC is required to achieve the objects specified in this Charter while the Independent Communications Authority of South Africa (ICASA) has the responsibility to monitor and enforce the SABC's compliance with the Charter. In addition, ICASA is given the responsibility to set licence conditions for the SABC's various stations and channels. These licence conditions which may relate to local content, programming, coverage and language service provision amongst others, specify a second layer of functions and duties for the SABC.

³⁰ UNESCO. Public Broadcasting Why? How? (Paris: UNESCO, 2001) p.28

³¹ UNESCO. Public Broadcasting Why? How? (Paris: UNESCO, 2001) p.28

Public broadcasters around the world share many similar features relating to independence, accountability and diversity. Generally public broadcasting services have three essential features. Firstly, they have purposes different from those of the market. Secondly, these purposes apply across genres rather than being restricted to a particular genre. Thirdly, they are free at the point of use to everyone.³²

The SABC's functions and duties are based upon a policy for public broadcasting, which was first developed in the Independent Broadcasting Authority's (IBA) Triple Inquiry Report published in 1995. The report, which was the outcome of South Africa's first public discussion on the transformation of the SABC from state to public broadcaster, highlights the following aspects of the SABC's public broadcasting role:³³

- Universality – the need to provide national coverage;
- Accessibility – provision of programming which audiences find interesting, relevant and enjoyable in languages that they choose;
- National and provincial identity – promotion of national culture and sense of identity that reflects our nation's common experience;
- Diversity and choice – provision of a wide range of programming which meets the needs of the public as a whole;
- Quality – in all services, through new and innovative programming;
- Independence – autonomy from vested interests, political or financial, and
- Accountability and efficiency – the need to operate effectively and give value in what it provides.

The core role for the SABC that the Triple Inquiry Report identifies is to strengthen South Africa's democracy. The report states that:

“For South Africa's new democracy to take root and flourish, people will need the information to participate in the processes and decisions that affect their daily lives...For the mass of the population, the only way this will be achieved is through the mobilisation of the public broadcasting services...It is only through a massive programme of public provision that the majority of South Africans will gain access to the broad range of programming and information necessary for effective citizenship”³⁴.

While the Triple Inquiry Report prepared the groundwork for the SABC's transition, rapid developments in the broadcasting market resulted in the South African government undertaking a broadcasting policy review in 1998. This took the form of a Green Paper / White Paper process. The White Paper concluded that the SABC required a statutory Charter with many of the features that were identified in the Triple Inquiry Report:³⁵

- To be comprehensive and to offer services to the whole country;
- To be innovative and to offer programming of a high standard;
- To enrich South Africa's cultural heritage through support for the Arts;
- To contribute to a sense of national identity;

32 Graham, A – The future of communications – Public Service Broadcasting

33 Independent Broadcasting Authority, op.cit. p34-35

34 Independent Broadcasting Authority, op.cit. p33

35 Department of Communications (SA) “White Paper on Broadcasting Policy”, 1998, p19

- To inform, educate and entertain;
- To reflect South Africa's cultural diversity within the framework of national unity, and
- To report news and current affairs fairly and impartially.

It should be noted that there are unique aspects to the SABC's context which must also inform its positioning. These relate to South Africa's challenges as a young democracy and a society in transition, with many aspects of that transition still being contested. These challenges are captured neatly in the preamble to the Constitution³⁶, which states the following objectives:

- To heal the divisions of the past and establish a society based on democratic values, social justice and fundamental human rights;
- To lay the foundations for a democratic and open society in which government is based on the will of the people and every citizen is equally protected by the law;
- To improve the quality of life of all citizens and free the potential of each person; and
- To build a united and democratic South Africa able to take its rightful place as a sovereign state in the family of nations.

There is much within these objectives that is relevant to the SABC's role as a public broadcaster in South Africa; to play a role in healing divisions of the past; to promote respect for democratic values and human rights; to provide information which allows citizens to exercise their rights, and, to reflect the rich diversity of a united South Africa.

(a) *SABC and Digital Broadcasting*

When considering the impact of digitisation on the public broadcaster, it is clear that a number of public interest benefits may flow from digitisation if the policy and regulatory environment is sufficiently enabling. In other territories the benefits arising from digitisation have included efficiency gains in spectrum use, the prospect of lower transmission costs in the long-term, additional choice for the public and new opportunities for broadcasters and content providers.

In the South African environment, the benefits could extend to facilitating the national objective of integration into the information society. There are for instance potential synergies with digital broadcasting and the introduction of e-government, which could be explored. Other benefits could include increased public interest programming, increased multi-lingual programming and greater regional representation on-air. Digitisation could also spur skills development and job creation and drive employment equity programmes in the industry as well as Black Economic Empowerment (BEE) initiatives.

³⁶ Act 108 of 1996

While there are a range of potential social and economic benefits arising from digitisation, digital migration is not without risks. The difficult experience of some territories in the introduction of digital terrestrial broadcasting has been witnessed, and the approach of policy makers should be to carefully lay the foundations for migration and to ensure that through the successful introduction of digital broadcasting the stability of the broadcasting industry, and the public broadcaster in particular, is maintained.

Digitisation will undoubtedly have an impact on many facets of the public broadcaster's operations including funding, programming, human capital and technology. Given the crucial role that the public broadcaster plays in the provision of news and information, local content and African language programming, the public service mandate must without question continue to be delivered in the digital context. This means that during digital switchover and beyond the role, functions and viability of the public broadcaster should be secured in the regulatory and licensing arrangements.

International experience demonstrates that in many territories the public broadcaster has been the leader in undertaking digital broadcasts. However, in many of these cases, in contrast to the SABC, these public broadcasters are entirely funded by public sources of revenue.

Digital broadcasting will potentially give the SABC the opportunity to offer a number of new and complementary services although many of these will require additional expenditure. For instance, digital technologies will allow for multiple audio tracks to accompany visual content. This will allow the SABC, provided audiences have the appropriate reception equipment, to more effectively fulfil its language mandate. Cognisance however must be paid to the complexity of operation of remotes and menu driven systems and the language used in remotes and menus, as this could potentially prove a barrier to consumer operation.

The SABC is also likely to look to digital broadcasting to offer innovative solutions for educational content across the spectrum of its audiences from early school through to adult literacy programmes. Digital broadcasting would allow for educational content to be delivered in a truly interactive manner and this dimension could bring significant changes to the delivery of educational content and aid distance learning. Similarly the SABC is likely to take advantage of the text services and interactivity features available through digital broadcasting technologies.

Digital production and broadcast facilities will eventually be required in order for the full benefits of digitisation, such as enhanced quality, multiple language tracks and text services etc to be realised. The SABC television and radio services broadcast today could be broadcast "as is" on platforms such as digital terrestrial television and radio. In addition to this, the SABC also believes that there are many data applications that could be carried on new digital terrestrial transmission platforms. Applications such as video and/or radio streamed to a handheld device, t-commerce, and interactive services are services that could typically be implemented on the PBS platforms of the SABC.

The viability of such services would have to be addressed in the business planning phase of development. Worldwide there is presently great interest in DVB-H and, in the case of Korea in particular, DMB technologies, received by handheld devices such as cell-phones, PDA's etc.

The SABC has been granted regional television licences and frequencies to roll-out SABC 4 and SABC5, but these licences have not been issued by ICASA as the SABC still needs to prove funding for these services. The WG holds the view that it would encourage consumer adoption of digital broadcasting if SABC 4 and SABC 5 were not made available on an analogue platform, but instead were introduced as part of the SABC digital offering, it would also in the public interest reduce the costs of funding the roll-out of analogue terrestrial networks for regional television which would be switched-off before the costs of the analogue network roll-out could be recouped. Another benefit to SABC 4 and SABC 5 being introduced as digital only broadcasting offerings is that it would allow the radio frequencies set aside for these services to be used to create an additional national digital broadcasting transmission network or networks.

RECOMMENDATION:

The WG recommends that SABC 4 and 5 be introduced on a digital broadcasting platform only, and that the SABC, in conjunction with Sentech, instead use the spectrum to create an additional national digital broadcasting transmission networks.

(b) Public Broadcasting Considerations in the transition to digital broadcasting

The WG has identified the following public policy considerations, in relation to the transition of public broadcasting (SABC) from analogue to digital transmission networks:

- the role, functions and viability of the public broadcaster should be secured in the regulatory and licensing arrangements;
- that an enabling policy and regulatory environment could facilitate the national objective of integration into the information society;
- that public service programming which should remain the focus of the public broadcaster and that interactive multimedia programming should serve to augment existing services;
- that multi-channel broadcasting will provide the public broadcaster with the opportunity to offer a number of new and complementary services;
- that digital production and broadcast facilities required in order for the full benefits of digitisation, such as enhanced quality, multiple language tracks and text services, etc to be realised will result in the need for more funding initially;
- that international experience demonstrates that in many territories the public broadcaster has been the leader in undertaking digital broadcasts;
- that the approach to content rights in the digital environment is set to change, creating a new and potentially more difficult situation for

- broadcasters, which could hamper the PBS ability to operate and compete effectively in the broadcasting market;³⁷ and
- that advertising revenue may fragment even further in a multi-channel environment creating a challenge for the public broadcaster in terms of funding quality public service programming.

RECOMMENDATION:

The WG recommends that the public broadcaster take the lead in undertaking digital broadcasts and that the SABC and government jointly formulate strategies for promoting and securing the viability of the public broadcaster in a digital environment”.

DISSENTING VIEW:

M-net agrees that the public broadcasting service should take the lead in driving digital broadcasting consumer take-up, but would suggest that on the basis of international examples, the lead is limited to FTA digital broadcasting.

4.3.6 Community Broadcasting

Community broadcasting provides news, information, cultural content and entertainment to communities defined by geographical location or common interest. The emphasis is on the provision of access to the airwaves to groups that are inadequately served by mainstream media. In South Africa, with regards to Community Sound Broadcasting, ICASA has stated that:

“The model of community broadcasting challenges the traditional division between broadcasters on one side and listeners on the other side. In community sound broadcasting the listener becomes the broadcaster. Listeners get access to the airwaves. Community participation means mechanisms to ensure the participation in the running of the operations, policy making, and programming of the licensee, and representation of the different sectors of the community in influencing the direction the licensee should take.”³⁸

Section 1 of the ECA, 2005, defines a community broadcasting service as a service which-

- is fully controlled by a non-profit entity and carried on or to be carried on for non-profit purposes;
- serves a particular community;
- encourages members of the community served by it or persons associated with or promoting interests of such community to participate in the selection and provision of programmes to be broadcast in the course of such broadcasting service; and

³⁷ Goldsmith, B; Thomas, J; O’Regan, T; Cunningham, S – Cultural and Social Policy Objectives for Broadcasting in Converging Media Systems. Australia Key Centre for Cultural and Media Policy. May 2001, 5

³⁸ Independent Communications Authority of South Africa. Community Sound Broadcasting Policy- Position Paper (Johannesburg: ICASA, June 2006)

- may be funded by donations, grants, sponsorships or advertising or membership fees, or by any combination of the aforementioned.

The ECA also provides for two types of community broadcasting services. These include broadcasting services catering for a geographic community and broadcasting services catering for a community of interest. These characteristics apply to both community television and community radio.

The WG has already made recommendations in this report that access by community sound broadcasting services to digital broadcasting networks form part of an inquiry to be conducted by ICASA. The WG notes that Trinity Broadcasting Network (TBN) is the only existing licensed community television broadcasting service in South Africa and that it will need to be accommodated in the digital switchover process envisaged for existing television broadcasting services in South Africa.

In terms of the switchover from analogue to digital transmission networks it is also important to note that the ICASA Position Paper on Community Television noted that frequencies are available for allocation to community television in the following towns:

- Eastern Cape: Aliwal North, Bedford, Despatch, Kareedouw, and Queenstown;
- Free State: Bethlehem, Senekal, and Ladybrand;
- Limpopo: Blouberg, Mokopane, and Punda Maria;
- Kwazulu-Natal: Vryheid;
- Western Cape: Grabouw; Hexrivier, Knysna, Ladismith, and Matjiesfontein;
- Northern Cape: Calvinia, Fraserburg, and Williston;
- North-West: Christiana; and
- Mpumalanga: Davel, and Dullstroom.³⁹

The position paper indicated that there are no community television frequencies in metropolitan areas such as Johannesburg, Pretoria, Cape Town, Durban, and Port Elizabeth, though it mentioned that once South Africa migrated to a digital platform frequencies would be freed up in these areas for use by community television broadcasting services.

The Authority in the position paper also proposed the re-categorisation of spare commercial television frequencies in Johannesburg, Durban and Port Elizabeth, and the spare public television frequency in Durban North for community television use. This proposed re-categorisation has not taken place as yet. There were no spare public or commercial television frequencies in Cape Town. There was, however, one spare frequency available for digital terrestrial television service use. The Authority therefore, amended the regulations on special events licences to allow community television broadcasting licensees, in cases where there are unallocated frequencies and demand can be shown to exceed 30 days, to apply for a non-renewable temporary community television broadcasting licence for a period not exceeding 12 months.

³⁹ Independent Communications Authority of South Africa. Community Television Broadcasting – Position Paper (Johannesburg: ICASA, 2004) p.12-

It was anticipated that such broadcasting licensees would be allowed to broadcast on the frequencies reserved for use during the switchover from analogue to digital broadcasting until there was need to clear such spectrum for usage in the dual illumination⁴⁰ period of the switchover to digital transmission networks.⁴¹

The WG holds the opinion that it would be better not to licence any new analogue television broadcasting services as such a licensing process may compromise the digital switchover. The WG suggested that instead of licensing, ICASA should continue to issue temporary community television licences to the extent that frequencies reserved for the digital switchover at RRC-06 are not compromised.

ICASA in contrast to this view argued that aspirant community television (CTV) broadcasting operators have been waiting for more than 12 years to start operating, and that any further delays would be perceived as negatively impacting on CTV operators and also result in public protest.

The WG, therefore, suggested a compromise, namely that the licensing of community television broadcasting services can take place as long as it does not have any impact on the digital switchover process, and that community television broadcasting licensees surrender their broadcasting service licences and frequencies to ICASA on 17 June 2015 in return for guaranteed carriage as authorised channels on digital broadcasting transmission networks. Technical experts, however, indicated that there may not be frequencies available in any event as RRC-06 may have used them when planning for digital switchover.

RECOMMENDATION:

The WG recommends that ICASA should not be licensing any new television broadcasting services on analogue, but can continue to issue temporary community television licences to the extent that it does not compromise frequencies reserved for the digital switchover process at ITU RRC-06.

The WG when making the above recommendation is aware that ICASA holds a different view, namely that where spectrum is available without impacting on the switchover, they can issue 4 year analogue community television licences. The WG has no objection to this view, so long as it is made clear to prospective applicants that analogue licenses will have to be surrendered when analogue switch-off occurs in South Africa.⁴²

⁴⁰ Dual illumination refers to the existing broadcasting service being available both on analogue and digital transmission networks during the switchover period

⁴¹ Independent Communications Authority of South Africa. Community Television Broadcasting – Position Paper (Johannesburg: ICASA, 2004) p.12-13

⁴² There is a recommendation later in this report that capacity be set aside for Community TV broadcasting services be carried on the commercial national digital transmission networks identified at RRC-06, with their signal being distributed in the specific geographic area for which they are licensed.

4.3.7 Minimum public interest requirements

The WG are of the view that any set of minimum standards for digital television and radio should be drafted by ICASA in consultation with broadcasters and representatives of the public, and phased in over a period five to seven years. The following aspects were identified as being relevant and falling with the powers of the regulator to determine in terms of section 8(3) of the ECA:

a) Public Interest Disclosures

ICASA requires Broadcasters to make reports on a range of public interest issues contained in regulations and the licence conditions of individual broadcasters.

RECOMMENDATION:

The WG recommend that ICASA needs to investigate the possibility of establishing an online/electronic reporting mechanism for broadcasters as a move to paperless/electronic reporting on licence obligations will facilitate compliance and reduce the regulatory costs associated with compliance.

b) Closed Captioning

Closed captioning is embedded in the television signal and becomes visible when a special decoder is used, either as a separate appliance or built into a television set. The decoder lets viewers see captions, usually at the bottom of the screen that will tell them what is being said or heard on the programme they are watching. The captions are hidden in the line 21 data area found in the vertical blanking interval of the television signal.

Closed captioning can be extremely helpful in at least three different situations:

- It can be used to assist hearing-impaired television viewers.
- It can also be helpful in noisy environments. For example, a TV in a noisy airport terminal can display closed captioning and still be usable
- Some people use captions to learn English or learn to read.

In a digital environment the closed captioning or subtitling of a number of languages may be transported via DVB to the STB and stored and displayed from the STB. The user has the ability to display subtitles and to select different language subtitles. Due to DVB bandwidth, subtitles can be enhanced with new fonts, different colours for the different characters portaged on the video and new types of symbols etc.

This possibly is a more cost effective way to get language options to SA other than the costly time consuming language dubbing. Many facilities world wide provide real-time subtitling services for live programs like news and sports events.

Hard of hearing subtitles is quite different from language subtitles. Presently this service is offered on current digital platforms. These subtitles are more advanced and require new skills to generate these hard of hearing subtitles; however the country lacks these skills.

According to the Deaf Federation of SA, 10% of the population is deaf (4.4 million). However deaf is made up of 65% hard of hearing, 25% deaf needing a hearing aid and 10% profound deaf. This possibly constitutes less than 1 million of the TV households (7.8m) suffer from some degree of hard of hearing.

RECOMMENDATION:

The WG recommends that television broadcasting services should also explore the possibility of using digital technologies to cater for people who are hard of hearing (deaf) by introducing close captioning/sub titling for all current affairs and news programming.

(c) *Multi-language transmissions*

Digital technology now allows numerous audio services to be provided with the video services to provide different language options. However this requires very costly language dubbing skills and facilities.

The DVB-T and DVB-S standards make provision for associated multi-language transmissions. Additional audio language channels also require additional capacity on the digital broadcasting transmission network – stereo, Dolby, etc. The number of audio channel per video channel should not be limited and it is up to the broadcaster to decide how it wants to make use of this facility.

RECOMMENDATION:

In light of this, the WG recommend that broadcasters should be left the choice of how many language channels they wish to carry, if any. In addition, SABC television should explore international best practice in fulfilling the SABC's language mandate by making use of digital technologies to offer content in all eleven official languages.

(d) *Access for Persons with Disabilities*

The objectives of the ECA provide that “*an environment of open, fair and non-discriminatory access to broadcasting services...*” be promoted and that broadcasting services collectively “*cater for a broad range of services and specifically for the programming needs of children, woman, the youth and the disabled*”.

ICASA in consultation with industry developed a Code of Good Practice for the Broadcasting Industry on meeting the needs of people with disabilities. This is a voluntary code, which was signed by the licensed broadcasters on 27 March 2006. In terms of section 70 of the ECA ICASA must prescribe regulation setting

out a code on people with disabilities that will be applicable to all categories of licences. It is envisaged that this code of practice will form the basis of such regulations now that the ECA has come into effect.

The ICASA Code of Good Practice indicated that technology solutions to be considered should include the following.

1. Uniformity of access to subtitling via analogue teletext pages.
2. Use of non-schedule services such as access via PVRs and TV Anytim.
3. The practicality of single multimodal devices bridging across all platforms and media connectivity to and between devices.
4. Consider navigational controls particularly relating to people with sensory impairments. These include but are not limited to;
 - * means of identifying services especially those provided by the broadcaster;
 - * receiver controls - their ease of use and labelling;
 - * receiver displays - the clarity and logical positioning;
 - * remote controls - the size of buttons and functionality;
 - * the possibility of combining controls within a single wireless device;
 - * the possibility of voice driven commands;
 - * on-screen menus - visibility and simplicity of use;
5. EPGs and other forms of listings – their identification, ease of access to relevant services and their ease of access to relevant services determine best practice in service presentation techniques for both audio and visual means.⁴³

The WG are satisfied that there is sufficient legislative provision in the ECA to provide for minimum public interest obligations for persons with disabilities. The WG hold the view that broadcasters should take full advantage of new digital technologies to provide maximum choice and quality for South Africans with disabilities, where doing so would not impose an undue burden on the broadcasters. These steps should include the gradual expansion of closed captioning on programming; the allocation of sufficient audio bandwidth for the transmission and delivery of video description; disability access to ancillary and supplementary services; and collaboration between regulatory authorities and set manufacturers to ensure the most efficient, inexpensive, and innovative capabilities for disability access. Video description as a form of providing access has been hindered in an analogue environment, in contrast digital technology can easily accommodate video descriptions (e.g. sign language by an interpreter) on the multiple audio channels available which have sufficient bandwidth for opening services with moving pictures that fill only a part of the screen (a quarter screen or less).

RECOMMENDATION:

The WG recommends that where it would not impose an undue burden, broadcasters take advantage of digital technologies to offer a text option for material that is presented orally and an audio option for material otherwise presented visually.

⁴³ Independent Communications Authority of South Africa. Meeting the needs of people with disabilities – A Code of Good Practice for the Broadcasting Industry. (Johannesburg: ICASA, March 2006) pp.11-12

d) *Education*

'We, in South Africa, strive to nurture and consolidate the tenets of a people- centred-society, creating, while using the means of information and communication a Learning Nation where innovation and knowledge are promoted, protected and rewarded' - *Deputy President Thabo Mbeki addressing ISAD Conference in May 1996.*

DTT can contribute to the objective of Learning Nation stated above by the President. The opportunity for DTV to improve student achievement and provide access to educational information has very high value for South Africa. The acquisition and use of knowledge as captured in the quotation above indicate its value as a major resource for South Africa in the next few decades. South Africa's success as an economically competitive nation on the world stage depends upon how effectively all members of our society are prepared to use information technologies, which in turn means that the proficiency of our citizens depends upon the quality of our educational offerings and the capacity of students to utilise information technologies for educational ends.

South Africa would place its people at a competitive disadvantage in the global economy if we do not invest wisely in educational resources. The capacity of digital television to expand the flow of information and communication to and within our school systems, and to the population as a whole will require new and imaginative decisions on the dedication of entire channels or sub-channels, and the interaction between programming and datacasting in the digital form.

The WG is aware that internationally there is a trend that once digital broadcasting services are functional, the existing analogue frequencies are returned to government, converted to digital and then auctioned off. This process tends to be at the detriment of broadcasting initiatives benefiting the public interest, especially those that emerge from the non-profit broadcasting sector. The WG proposes that when analogue frequencies are returned to government after the switch-off of analogue that frequencies be reserved specifically for broadcasting use (for example, HDTV) and that an orderly process be created to allocate such channels in a manner that would also suit non-commercial educational purposes such as preschool, elementary, secondary, and post secondary education, lifelong learning, distance learning, literacy, vocational education, public affairs, multicultural, arts and civic education, and other programming directed to the educational needs of the underserved communities. In fact a very high priority should be accorded to ensuring that these educational channels serve the underprivileged and minority communities that generally have fewer opportunities present in the information age.

Potentially, non-commercial educational channels should also benefit from access to television licence fees if this continues to be the preferred manner of funding public broadcasting programming. The Department of Education should also be encouraged to work with educational institutions to suggest programming and datacasting ideas to support the educational needs of the underprivileged and other underserved communities in South Africa.

As in many cases educational channels will only require two or three channels on multi-channel broadcasting services capable of hosting 10 to 12 television channels (where MPEG 4 compression is used), opportunities for public-private partnerships could also be investigated for sharing of the channels on digital frequency networks.

RECOMMENDATIONS:

The WG make the following recommendations, namely that:

1. when analogue frequencies are surrendered to government after the switch-off of analogue that frequencies be reserved specifically for broadcasting use (for example, HDTV) and that an orderly process be created to allocate such channels in a manner that would also suit non-commercial health and educational purposes such as preschool, elementary, secondary, and post secondary education, lifelong learning, distance learning, literacy, vocational education, public affairs, multicultural, arts and civic education, and other programming directed to the educational needs of the underserved communities; and
2. ICASA should conduct an inquiry into advertising and whether such educational services are limited in terms of the advertising or advertising revenue they can generate.

e) *Must Carry*

The “must carry” concept is based on the idea of making public interest programming available to citizens on all platforms and not just FTA terrestrial. The advantage in the USA and the European Union is that these rules extend the reach of the public broadcaster and other FTA broadcasting services to areas where there may be no coverage, and therefore serve the public interest by ensuring that viewers who use cable or satellites as a means of access to broadcasting services continue to have access to public service programming on these commercial platforms. It benefits subscribers in the sense that they do not have to have a satellite dish and a VHF/UHF aerial on their roof and at the same time allows terrestrial FTA broadcasters access to a lucrative market segment.⁴⁴

In South Africa the ECA provides in section 60(3) that ICASA must prescribe [our own emphasis] regulations regarding the extent to which subscription broadcast services must carry, subject to commercially negotiable terms the television programmes provided by a public broadcast service licensee. In the Position Paper which pre-dated the commencement of the ECA, ICASA indicated that it would prescribe in licence conditions [our own emphasis] the extent to which satellite/cable subscription television broadcasting services may carry the public service television channels of the SABC. The policy position further indicated that the SABC shall be required to offer its public service channels subject to agreed terms.⁴⁵ The WG notes that although the policy principle articulated in the

⁴⁴ Independent Communications Authority of South Africa. Inquiry into Subscription Broadcasting – Discussion Paper (Johannesburg: ICASA, 23 April 2004) pp. 49-50

⁴⁵ Independent Communications Authority of South Africa. Subscription Broadcasting Services: Position Paper (Johannesburg: ICASA, 2005) p.75

Position Paper is in harmony with ECA, the decision taken by ICASA to impose by means of licence conditions, is not in line with the ECA that requires that ICASA prescribe by means of regulations. It is recommended that ICASA amend its existing regulations to be in conformity with the ECA on this point.

It is important to point out that “must carry” rules were formulated in an analogue environment where there were limited terrestrial broadcasting services and they could easily be accommodated on a DTH or cable platform without placing excessive compliance burdens on operators. In a digital broadcasting environment where one frequency can accommodate up to 10-12 channels (if MPEG 4 compression is used) it would have a considerable impact on satellite and cable operators to require them to carry the whole range of FTA multi-channel broadcasting services since it would restrict the operators’ ability to use their own capacity freely and in a competitive manner.⁴⁶

ICASA acknowledged this in regard to digital terrestrial subscription television services when it indicated that such services would not be required to carry the public broadcasting FTA services, but would have to reserve a channel for public access television instead.

RECOMMENDATIONS:

The WG makes the following recommendations, namely that:

1. ICASA in implementing the “must carry” provision set out in section 60(3) of the ECA, should restrict it in application to the existing public broadcasting services provided by SABC 1, 2 and 3 and that it should not apply to any new digital broadcasting services introduced by the SABC; and
2. the decision taken by ICASA to impose “must carry” by means of licence conditions in 2005 predated the commencement of the ECA, and is not in line with the ECA which requires that ICASA prescribe by means of regulations. Accordingly, ICASA must amend its existing regulations to be in conformity with the ECA on this point.

4.4 IMPLEMENTATION POLICY CONSIDERATIONS

There will be a heavy burden on existing broadcasters during the period of dual illumination and in terms of the costs of creating new content for new multi-channel offerings to drive the take-up of digital broadcasting services in South Africa. This being the case the WG proposes that some principles be put in place specifically for the transition process from analogue to digital broadcasting with regards to public interest programming requirements imposed on broadcasters.

⁴⁶ Independent Communications Authority of South Africa. Inquiry into Subscription Broadcasting – Discussion Paper (Johannesburg: ICASA, 23 April 2004) p.50

RECOMMENDATIONS:

The WG recommends that government and ICASA consider applying the following principles during the digital switchover process, namely that:

1. promises of performance made in an analogue environment and incorporated into analogue licences should not be converted into a digital broadcasting environment where they may not be appropriate in any event;
2. to compensate existing broadcasters for the enforced shift to digital broadcasting this licence period should be for the maximum period allowed by the ECA for Individual or Class licences i.e. 20 years and 10 years respectively;
3. in the period of dual illumination existing broadcasters should not be expected to comply with any public interest programming requirements and South African content requirements for digital broadcasting, while they are fulfilling similar requirements in an analogue broadcasting environment. Such a moratorium on the application of digital broadcasting public interest programming and SA Content requirements should continue until at least 18 months⁴⁷ after the cessation of analogue broadcasting in South Africa to allow broadcasting services sufficient time to restructure programming on their previous analogue channels across their bouquet of new offerings; and
4. digital broadcasting public interest requirements and South African content requirements must be applicable to broadcasting services who are not engaged in dual illumination.

DISSENTING VIEW:

Sentech hold a dissenting view on recommendation 4 above, namely that the moratorium on doing digital public interest programming and SA content requirements until switch-off recommended for existing broadcasters engaged in dual illumination, should not be limited to existing broadcasters.

⁴⁷ This 18 month period is suggested as it reflects ICASA's usual period for requiring a broadcaster to commence compliance with SA content regulations and public interest. This was in line with section 53(6) of the IBA Act (subsequently repealed by the ECA) which stated that "a condition imposed...in respect of any television broadcasting licence shall become binding on and enforceable against the licensee concerned on the expiration of a reasonable period, not shorter than 18 months,..." . The implication being that a reasonable period is a minimum of 18 months, although scope was created for ICASA to make such period longer if there was sufficient grounds to do so.

5. IMPACTS OF TRANSITION ON BROADCASTERS AND THE EXISTING LICENSING REGIME

Broadcasting is facing fundamental changes, triggered by the new digital means of production and use of digital broadcasting technology (the so-called “digital revolution”). At the same time electronic communications is becoming an international business no longer operating only within the borders of states. This has advantages as South Africans will become more exposed to programming intended for both a national and international audience and consumer choice will be come enhanced in this digital era. At the other end of the spectrum are the dangers inherent in globalisation of losing national identity. This leads to the needs for carefully considered public interest regulation aimed at promoting diversity, language, culture and national identity. The major impact on regulators and broadcasters is that this evolving environment characterised by technological developments and globalisation of the media industry will require a new approach or paradigm.

The changes in this evolving environment appear to be happening in four inter-connected areas:

- Technology
- Market environment
- Consumer behaviour
- Regulatory environment.

Digital technology creates the potential to produce and deliver media in new ways and leads to an increasing use of multimedia, interactivity, multi-channels services, video and audio on-demand services and more picture and sound quality options. Market environment changes relating to globalization also have the effect of requiring organisations to expand and seek larger markets. Media organisations will almost inevitably in a digital environment have to produce content for multiple delivery means. In some cases broadcasters may only have rights in a circumscribed sense as rights owners could directly use some digital outlets themselves without an intermediary between themselves and the market. Consumer behaviour does not change overnight so it is likely that television and radio will still be used in a linear fashion with interactivity experiencing a slow take-up.

Recent developments indicate that viewing patterns are becoming less of a collective experience and more of an individual experience (e.g. PVRs allowing for time shifted viewing and new technologies which allow for a more personalised viewing experience). Regulatory changes are driven by the fact that the broadcasting landscape is changing from one of scarcity to diversity of content and multiple delivery options for consumers. New regulatory frameworks are needed to deal with a multi-channel broadcasting environment and substitute broadcasting services being delivered on non-traditional broadcasting networks.

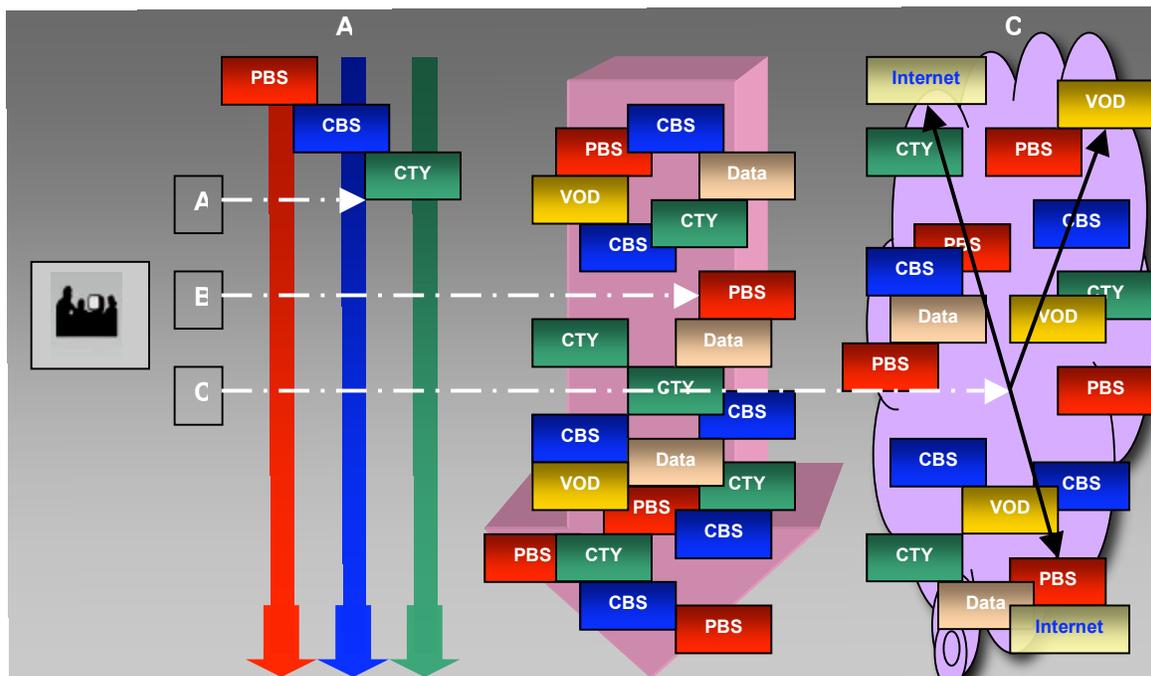
5.1 CONTENT DELIVERY AND THE CONTENT VALUE CHAIN

There are two aspects relating to content that have to be considered in terms of policy impacts on the regulatory environment and the business of broadcasters. The first is new ways for delivering digital content (television or radio programmes and channels) and the second is the changes in the broadcasting content value chain.

5.1.1 Content Delivery in a Digital Environment

An analysis of past, current and future delivery options reveals that there are essentially three main content delivery options. The first stage (the A component of Figure 2) is programme choice based on traditional channel flow. This is an analogue environment where the viewer has a small number of channels on individual frequencies where the viewer has to watch the programmes as they flow past. Programme choice is limited to channel selection and flow (time specific viewing). Channels available can be public broadcasting services (PBS), commercial broadcasting services (CBS) and community broadcasting services (CTY). This reflects the traditional model of broadcasting where extensive public interest regulation is imposed because of the scarcity rationale.⁴⁸

FIGURE 2: CONTENT DELIVERY NOW AND IN THE FUTURE⁴⁹



Legend: PBS – Public Broadcasting Service; CBS – Commercial Broadcasting Service; CTY – Community Broadcasting Service; VOD – Video on demand

⁴⁸ Strategy Group. Media with a purpose: Public Service Broadcasting in the Digital Era. Report of the Digital Strategy Group of the European Broadcasting Union. (Switzerland: European Broadcasting Union, 2002) p.7

⁴⁹ Adapted from diagram in the Digital Strategy Group. Media with a purpose: Public Service Broadcasting in the Digital Era. Report of the Digital Strategy Group of the European Broadcasting Union. (Switzerland: European Broadcasting Union, 2002) p.8

The second stage is the multi-channel broadcasting environment (the B component of Figure 2), where the viewer has access to a much larger base of channels provided now on a single frequency or on a number of frequencies. This environment was first driven by cable and satellite and now has entered the terrestrial frequency domain through the use of digital compression technologies. This second stage can exist with the first stage, but in practice replaces the first stage as limited channel flow becomes unnecessary once there is universal access to the multi-channel digital flow environment. In essence this is the process of “digital switchover”. As there are so many channels on offer the viewer/listener needs help in navigating the choices available and resorts to using an electronic programming guide (EPG) to assist in finding programmes. The viewer can also combine the EPG and STB with a digital PVRs in order to create the ability to have time shifted viewing, however the aspects that applied in the first stage namely channel selection and flow (time specific viewing) still apply.

The third stage is the on-demand delivery of content to the viewer/listener (the C component in Figure 2). This reflects a personalised content delivery model where the viewer/listener is able to choose from a wide range of media and can watch or listen when he or she wants. This means that the user becomes their own programme scheduler, although in practice pre-determined channel flows will still be there for those who want them. This stage while representing the future, in practice is already available in those parts of the world where high-speed broadband networks have been rolled out (these services are still evolving and reflect the promise rather than the end-product). Broadband is also very expensive so it is highly likely that simpler forms of on-demand programming may become available using digital broadcasting or a hybrid solution of digital broadcasting and the internet.

It is important to realise that these stages are not consecutive and that they do overlap with each other. However the second stage is essentially a more improved substitute for stage 1 and once digital multi-channel broadcasting become universal in a country and analogue is no longer required it can be switched-off. The relationship between stage 2 and stage 3 is likely to be one of co-existence rather than substitution.

The impact of multi-channel viewing and on-demand services on the regulatory environment is vast. Firstly, the sheer number of channel offerings mean that regulators cannot be as specific as they were in the past in terms of setting public interest regulatory requirements at the level of types of programming on a specific channel. Instead the regulatory focus is likely to shift from specific channels to the bouquet (multi-channel) operator in terms of carriage requirements. Secondly, the ability of the user to control the content viewed through features on the STB, or in some cases to request the content viewed will most likely result in a more self-regulation and a ‘light touch’ regulatory approach.⁵⁰

Similarly, there will be a large impact on broadcasters as in a multi-channel environment they will lose control over the ability to guide the listener or viewer to their favourite programming. Instead viewers/listeners will rely on the EPG to catalogue and find their programming, in this scenario it is the EPG that becomes the anchor for the viewer rather than the individual channels themselves. Lack of visibility on the EPG may have

⁵⁰ Strategy Group. Media with a purpose: Public Service Broadcasting in the Digital Era. Report of the Digital Strategy Group of the European Broadcasting Union. (Switzerland: European Broadcasting Union, 2002) pp.8-9

It was noted by all three broadcasters that they rarely specify a format for production. Broadcasters are primarily concerned with the quality of the completed product and generally leave it to the producer to determine in what technical form that product is best produced.

The WG found that digitised production is not necessarily a requirement for the migration to digital transmission systems and does not need to be a focus of government's migration strategy.

RECOMMENDATION

The WG recommend that digitised production should not be a focus of government's digital switchover strategy as broadcasters will be able to migrate to digital transmission even if the production process is not digital.

(a) State of readiness of production industry

Although the WG made numerous attempts to consult with the independent production sector, this consultation was unfortunately only partially successful. Representatives from the sector were unable to consistently attend meetings and the response to the questionnaire was poor. At the time of writing this report, only seven questionnaire responses had been received, although over 800 questionnaires were sent out. In addition to these responses, the BFN made available a written report which reflected the views of 10 of their members.

This report therefore reflects the views expressed by 17 independent production companies. The WG therefore recommends that government consult further with the independent production sector on these matters.

In the consultation undertaken, contrary views were expressed by independent producers as to their state of readiness for digital production. Whereas some responses expressed the view that virtually all content is now produced in digital, the BFN stated that this was not always the case and that there were many emerging members of the production sector without access to digital production facilities. In this regard the BFN expressed the fear that the migration to digital could exacerbate the stark differences in resources among established and emerging members of the production industry. The BFN recommended that government's migration strategies take this into account.

Producers agreed that the greatest production weaknesses facing the South African industry presently is the lack of adequate investment in content, especially in the areas of script development and audience research. The WG noted that there is a danger that this weakness is exacerbated rather than alleviated in a digital environment, especially given the pressures broadcasters will face to generate additional content to fill additional channels and the possibility that broadcasters will face competition from content providers without the same regulatory constraints. Additional government support mechanisms for content development should form part of government's migration strategy.

Notwithstanding concerns about the capacity, the WG noted that for the purposes of migrating broadcasting services, it is not essential that producers produce in a digital format – once transmission is digital, broadcasters would be able to undertake the necessary conversion to a digital format. In this regard, the WG concluded that digitised production is not necessarily a requirement for the migration to digital transmission systems and therefore does not need to be a focus of government's initial migration strategy

While the WG acknowledges the need for greater support for the development of South African content, the WG reiterates that any lack of readiness by producers for digitisation is not an obstacle to migration and therefore does not need to be a focus of government's initial migration strategy.

RECOMMENDATION

A joint task team should be formed between the Department of Arts and Culture, the Department of Communication and with the participation of industry to assess the production industry's capacity to create content for a digital environment, to evaluate existing structures which support the production industry and to advise regarding additional governmental support which may be required for this sector.

(b) Human resource capacity, training and development

While lack of digital production may not be an obstacle to migration, the WG noted that as the state of readiness of broadcasters is of less concern than the state of readiness of the production industry, it is important that the production industry's state of readiness for the digital environment is evaluated and that steps are put in place to address any skills gaps. In this regard, the following concerns arise:

- Does the production industry have the necessary skills to undertake digital production?
- What skills development programmes are in place to address skills gaps in the independent production sector?

Due to the limited involvement of the independent production industry in the WG's work, it is not possible to provide conclusive answers to the above questions. It is recommended that any further consultation with the independent production sector focus also on these skills issues. The WG also approached the MAPPP-SETA to provide advice on training and development for a digital domain. The SETA reported that apart from an NCRF research project, which is looking at technology plans to meet the digital broadcasting standard, and a Broadcasting Engineering qualification being undertaken in partnership with the NAB, which will prepare the learner for working in the digital environment, the SETA sector skills plans has obvious shortcomings in terms of focusing on digital migration and implications for development. The SETA stated that it would want this to be included in the '06/'07 annual sector skills update.

RECOMMENDATION:

The WG recommend that the joint task team, suggested in a previous recommendation, conduct a full evaluation of the digital skills shortages in the production sector. As the WG identified the need for a comprehensive digital sector skills plan, although such a skills plan would not be required to form part of the current digital switchover strategy.

(c) *Technology and standards*

In examining issues of technology and standards the WG noted that HDTV production presents an entirely different set of challenges from standard digital production. In this regard, broadcasters agreed that the state of readiness for HDTV production was low and would need to be addressed, especially in light of South Africa's commitments on 2010. But while HDTV production capacity is required for the 2010 World Cup, it is not recommended that HDTV be prescribed for the digital switchover process as the costs appear to outweigh the potential benefits at this stage.

The SABC reported that it had procured an HDTV outside broadcast vehicle and had also, with Sony, started a training academy for HDTV cameramen with a view to 2010. M-Net also reported that it was considering investment in HDTV but that this would have to be commercially sustainable.

e.tv has established an HD documentary unit and is investigating further HD programming opportunities.

It was noted that in respect of HDTV there were likely to be significant cost implications for both broadcasters and the independent production sector.

In addition to transmission standards, representatives from the production sector raised concerns regarding the proliferation of delivery standards put in place by various broadcasters. As a number of channels increases, so to could the number of formats specified by broadcasters for delivery of content.

RECOMMENDATIONS:

The WG make the following recommendations:

1. HDTV should not be prescribed for the digital migration process, but should be a commercial decision made by individual operators subject to the availability of capacity on the digital transmission networks; and
2. In anticipation of a multi-channel environment, broadcasters and the production sector should form a group, which will consider and agree on a limited number of digital delivery formats.

(d) *Support for content development*

As far as cost implications of digitisation are concerned, the WG noted that in order for digitisation to be successful, the advertising revenue “cake” must grow to balance the significant investment from broadcasters, which will be required in content. International experience suggests that instead of growth, digitisation may in fact precipitate fragmentation in the advertising market, leaving broadcasters to find new revenue streams. It was noted that in light of the above issues, the business case for broadcasters to make the investment in digitisation is unclear and this should be taken into account by government and the regulator when the policy and regulatory environment is established. This environment should attempt to create a positive investment climate for broadcasters.

RECOMMENDATION

The WG recommends that additional government support mechanisms for content development should form part of government’s digital switchover strategy.

(e) *Multi-media distribution platforms and interactivity*

While a lack of digital production may not necessarily be an obstacle to digital switchover, the WG noted that for the full benefits of digitised content to be realised from a creative point of view (interactivity, additional options for viewers, additional revenue opportunities and potentially increased mandate delivery by the public broadcaster), ideally production should be digitised. To realise these benefits, the whole broadcast value chain would therefore need to be digitised.

Government’s migration strategy should therefore take into account the eventual need for digitisation of the full value chain, although, as noted earlier, digital switchover is not dependent on this happening.

RECOMMENDATION

The WG recommend that the digital switchover strategy should take into account the eventual need for digitisation of the full value chain and long term strategies should be put in place to ensure our content producers are equipped to create content for a converged, digital environment.

(f) *Compatibility with export markets*

The WG was not able to look in any detail at the issue of compatibility with export markets, aside from noting that broadcasters had experienced very limited success to date in breaking into export markets. Broadcasters noted that western markets did not currently exhibit any active interest in South African content and in cases where developing markets were interested in this content, they were only willing to pay a nominal fee, making it uneconomical to sell in those markets. The WG concluded that there was little evidence to suggest that this situation would improve in a digital environment.

(g) *Intellectual property issues*

The WG was of the view that specialized legal expertise was required to make meaningful recommendations on intellectual property issues. Consultants were briefed to advise the WG in relation to various matters arising from the migration of broadcasting services from analogue to a digital.

The terms of reference provided to the consultants required a consideration of the following issues:

- Rights acquisition and disposal in the digital environment;
- Research into the extent to which issues of acquisition and disposal of rights are dealt with in current legislation;
- An analysis of relevant international legislation;
- The adequacy of current legislation and common-law in the digital environment;
- The period of dual illumination and the rights regime in relation to dual illumination, particularly whether copyright holders will be entitled to receive an additional royalty for copying content to digital platforms;
- An analysis of copyright as it relates to films, literary works, musical works and underlying applications such as scripts, broadcasts, public performances and so on;
- An analysis of whether legislation deals adequately with piracy and unauthorised copying and whether anything needs to change to deal with this element in a new environment.

The process involved research into legislative changes dealing with the digital era in other territories and an analysis of current legislation in South Africa and its shortcomings. The full report prepared by the consultants is attached as Appendix E. The report informs the recommendations made by the WG, which are set out below.

In order to understand the intellectual property issues that may arise in respect of digital migration, it is critical to understand how content is acquired in the television industry.

In relation to television, content is usually acquired in one of two ways. It is either commissioned or it is licensed by virtue of agreements with independent producers or studios, which make films, series and other types of programming available.

In the South African environment, the sector is dominated by the commissioning of the independent production sector to fulfil the local programming requirements. Broadcasters generally undertake the commissioning of news and current affairs programming internally. Finally, programming is acquired via licensing arrangements in relation to international content. This programming is either acquired as part of a package or on a programme-by-programme basis.

The role of broadcasters and their interaction with the independent production sector is crucial. This relationship is governed by copyright law and the law of contract. Copyright law is concerned not only with works and content, but with matters in relation to policy. Contract law is concerned with commercial issues. As a result, it is necessary to understand that issues related to the way in which broadcaster acquire rights to content can only be dealt with partly by law and partly by contract and that neither provides a complete answer.

RECOMMENDATION

The WG recommend that the digital switchover strategy should not regulate the relationship between the broadcasting and independent production sectors in relation to the production of content. The reason primarily is that in migrating services from analogue to digital, the nature of the copyright generally, does not change. Therefore, the nature of the relationship between broadcasters and the independent production sector should be developed in other environments.

➤ **Copyright Act**

The consultants were required to advise regarding the adequacy of the provisions of the Copyright Act, 98 of 1978 (“the Act” or “the Copyright Act”) to address the challenges of a digital environment. The consultants advised that there is nothing in our Copyright Act, which causes concern for the acquisition or disposal of the rights of copyright. However, the report raised the following concerns in relation to the Copyright Act:

- the Act does not deal adequately with all forms of digital broadcasting;
- in a converged environment, the Act should contemplate the inclusion of a right of “making available” or “communicating” a work of copyright;
- The Act does not make allowance for digital rights management.

There are various different kinds of digital broadcasting:

- terrestrial;
- satellite;
- cable;
- mobile

The WG is concerned that the definitions contained in the Copyright Act may not be adequate for a digital environment.

RECOMMENDATION

The WG recommends that the Department of Communications and the Department of Trade and Industry initiate a review of the Copyright Act to determine whether the current provisions of the Copyright Act adequately protect copyright owners in a digital environment. In particular, such a review would need to consider the appropriateness of the definitions contained in the Act, like the definition of “broadcast”.

➤ **Right of “making available”**

In various international jurisdictions, legislators and policy makers have recognized the need for technology neutral definitions to protect copyright owners on a range of platforms and distribution mechanisms, which may not have been adequately provided for in legislation dealing with copyright. This resulted in the inclusion of a general, technology neutral right of “communication” or “making available”.

In broad terms, the right of “making available” is a technology neutral right granted to copyright owners which allows them to make their work available on any platform. The Consultants have described the right of making available as a right which “entitles the author to make available the content on wire or wireless means” In short, the “making available” principle provides that authors or owners should have a right to choose where, when and on what platform their media is consumed. The right is therefore platform neutral.

RECOMMENDATION

In order to achieve technology neutrality in the Copyright Act, the WG recommends that the review of the Copyright Act proposed above also consider the possible inclusion of a general right of “making available”.

➤ **Digital Rights Management**

The Copyright Act has, up until the advent of digital technology, been able to deal with infringement in a comprehensive manner. Now, as we move towards a digital environment, infringements will grow in sophistication and type. The law needs to adapt to take into account the control of infringing copies and infringement generally.

Digital rights management or as it is sometimes called ECM (electronic copyright management) are terms for technology components to protect content. The benefit of digital rights management is that it allows, in a digital age, where files are distributed to third parties, the capacity to enforce limitations on the distribution of such files, no matter where the third party or the work is located.

DTV and DSB will allow for easy copying and distribution of content. The WG holds the view that South Africa cannot be focused solely on the digital

switchover strategy without having proper regard for the requirement of mechanisms to control proper distribution of content.

Digital rights management is not currently dealt with in the Copyright Act other than to the extent that reliance can be placed on current control mechanisms to protect owners.

It is important to note that in countries, which have made changes to their Copyright legislation to accommodate digital rights management, this change was not driven by digital switchover. Rather, the changes were necessitated by the economic impact of the capacity of new mechanisms to distribute unauthorised content. In other words, the rapid process of the digitisation of content and the simple processes, which made its distribution possible, caused other jurisdictions to consider legislative amendments to deal with this unauthorised distribution. In certain instances, this dovetailed with the process of digital switchover. In the South African case, it appears as if this process will be conducted to some extent, in parallel.

RECOMMENDATIONS

In order to ensure protection of the rights of copyright owners, the WG recommends a review of the Copyright Act to include mechanisms for digital rights management. The WG further recommends that since the implementation of digital rights management systems may have implications for privacy rights of consumers, the Department of Communications should conduct a specific study on digital rights management.

➤ **Royalties**

The report by the Consultants revealed that there is no international support for the contention that a second or further royalty should be paid by broadcasters during the period of dual illumination.

This digital environment will ultimately provide greater frequency availability, the opportunity for more content to be distributed, new opportunities for revenue creation for content holders and therefore, government should be advised to be cautious when imposing new royalties in the short term.

In all likelihood it will be a combination of government, broadcasters and signal distributors that will bear the brunt of the cost of digital migration. In that regard, broadcasters are already burdened with obligations to pay levies, fees for blanket licences and civil society obligations. These include ICASA licence levies for the right to broadcast, blanket music rights fees to SAMRO, RISA, SARRAL and NORM, Media Development and Diversity Agency Levies and Skills levies.

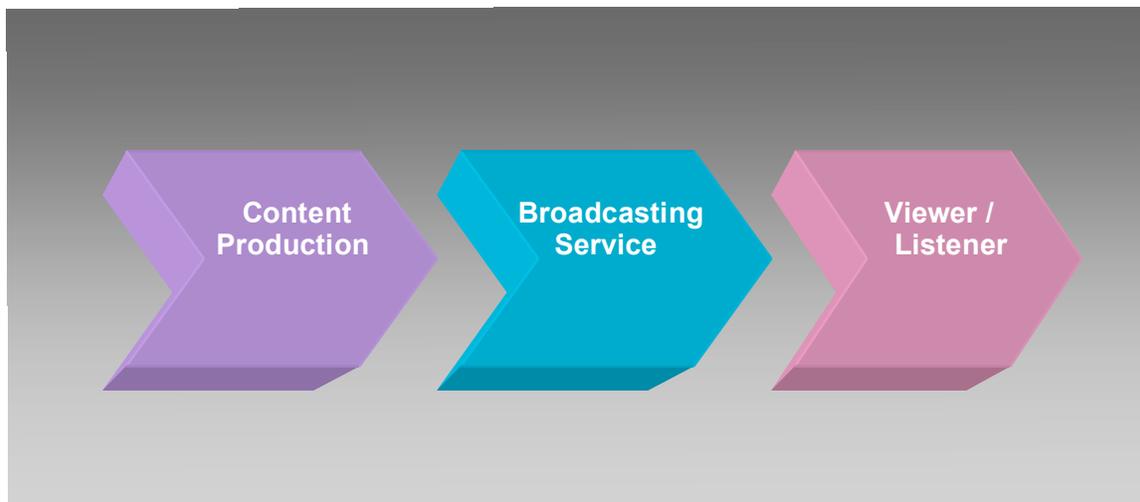
RECOMMENDATION

The WG recommends that analogue broadcasters should not be required to pay royalties twice for the dual illumination of their existing analogue services either on DTT and/or digital radio. The Copyright Act should not, during dual illumination, create further obligations upon an already stretched industry.

5.1.2 Digital Content Value Chain

The impact of digitalisation and changes in delivery also lead to progressive changes in the media value chain between the broadcaster and the consumer in a multi-channel and on-demand environment. Traditionally the chain involved the broadcaster, a transmission network owner and the consumer. The transmission network was merely a technical service, which did not interfere with the content, the rights or the financing of the broadcasted programmes (see Figure 4).⁵¹

FIGURE 4: TRADITIONAL BROADCASTING VALUE CHAIN



In a multi-channel environment however new functions such as multiplexing, EPG), CA and SMS control access to programmes (for audiences) and audience (for broadcasters). This control also determines the flow of funding, and thereby changes the way broadcasting may be financed. Of course some of these functions are dependent upon whether a FTA, free access or conditional access regime are adopted by the digital broadcasting service. Even in a non-subscription broadcasting environment, conditional access and electronic payment are an important feature of digital broadcasting as they allow FTA broadcasters to access alternative revenue streams from additional services, such as datacasting, video and audio downloads and e-shopping.

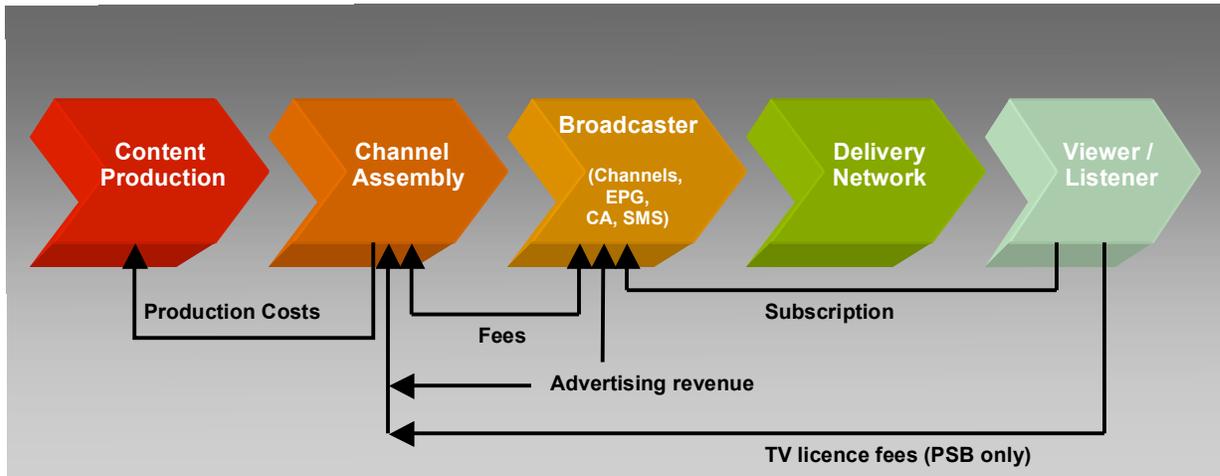
Navigation aids become essential devices to enable the viewer to locate desired content. Navigation aids therefore have the potential to influence viewing and listening patterns, and *“any bias in the listing will have serious implications for content providers”* and for viewers/listeners. Another facet of the digital era is the introduction of a multitude of new digital outlets that allow viewers and/or listeners to access content via non-traditional consumer access devices such as mobile telephones, personal digital assistants (PDAs) and the internet.⁵² The two critical elements added to the value chain are therefore a

⁵¹ Strategy Group. Media with a purpose: Public Service Broadcasting in the Digital Era. Report of the Digital Strategy Group of the European Broadcasting Union. (Switzerland: European Broadcasting Union, 2002) p.10

⁵² Goldsmith B, Thomas J, O'Regan T, Cunningham S . Cultural and Social Policy Objectives for Broadcasting in Converging Media Systems. Australia Key Centre for Cultural and Media Policy. May 2001, 62.

technology based multiplexing⁵³ service and the number of new delivery networks (see Figure 5 below). The broadcasting service can also be further sub-divided if needed into a separate multi-channel content packager and the technical function (multiplexing) of managing channel combination, EPG, CA and SMS.

FIGURE 5: NEW DIGITAL BROADCASTING CONTENT VALUE CHAIN⁵⁴



It is obvious that where the FTA broadcasting services are spread across a number of digital radio frequency networks, interoperability between such frequency networks becomes critical to ensure that the viewer/listener is not disadvantaged in terms of product support or interoperability. In the context of the DTT marketplace, interoperability can be defined as the:

“assurance that all the elements of the end-to-end broadcast system will operate and work together as intended. Furthermore, any one element in the system must be able to be replaced by its equivalent, or successor version, without compromising the performance of the system in any way.”⁵⁵

In order for interoperability to exist there must be agreement between all the industry players, on the setting of:

- Common standards, interface protocols and specifications;
- Minimum acceptable performance requirements for system operation;
- Profiles and extensions for more advanced features and a future-proofed operation;
- Common test procedures, tools and methods, available to all for product development;
- Reference test systems to ensure consistency, accessible to all on fair and equitable terms;

⁵³ Multiplexing has been defined by the ITU-R as being “A reversible process for assembling signals from separate sources into a single composite signal for transmission over a common transmission channel. This process is equivalent to dividing the common channel into distinct channels for transmitting independent signals in the same direction”. Recommendation ITU-R V.662-3 (2000) – Ap. 2, 71(3.11)

⁵⁴ Adapted from diagram in Strategy Group. Media with a purpose: Public Service Broadcasting in the Digital Era. Report of the Digital Strategy Group of the European Broadcasting Union. (Switzerland: European Broadcasting Union, 2002) p.11

⁵⁵ Digital Television Group (DTG). Action Plan Task 5.13: Product and Interoperability Testing and Support (DTG, London: August 2003)

- Sharing of information on known issues, so others can take steps to circumvent problems for consumers;
- Regular communication between the parties to avoid problems before the event wherever possible, and speedily resolve issues once they arise;
- Clear strategy setting for future technological and commercial development of the system.⁵⁶

In a vertical marketplace, such as subscription broadcasting, the performances of all other parties are governed by commercial agreements with the subscription broadcasting service and their signal distributor, who are responsible for specification, testing and operation of the entire system. The subscription broadcaster, who in turn is responsible to the consumer for its performance, and must deal with all consumer issues, markets the system. In the FTA DTT environment the consumer expects to access the services of all the FTA broadcasting services irrespective of the fact that each broadcasting service (consisting of multiple channels) resides on different digital broadcasting transmission networks and frequencies that may even be operated by different broadcasting signal distributors. In such a horizontal market, agreements between the parties are generally non-contractual, and any commitments made are voluntary. In a horizontal market it rapidly becomes clear that some form of central co-ordination is necessary to avoid duplication and expensive mistakes.

In the United Kingdom (UK), the Digital TV Group (DTG) was established as an industry association for digital television that is independent, platform neutral, technology agnostic and operates on a not-for-profit business model. Its main focus is on technology and products to ensure testing and interoperability of products on the market (i.e. established to deal with the technical aspects of the Freeview system in the UK). The Digital Network Group (TDN), is voluntary association made up of all the multiplex operators⁵⁷, and is responsible for the co-ordination between the services offered to the public. The Freeview consortium's founding members were the BBC, National Grid Wireless and British Sky Broadcasting, who were joined later by ITV plc and Channel 4. The service broadcasts FTA television channels, radio stations and interactive services. In addition to the Freeview service in the UK, there is a subscription broadcasting service known as Top Up TV which was launched using unused channel space on the existing digital broadcasting transmission networks. It is not part of the Freeview service, it runs alongside it on the DTT platform and can be received only by those freeview STB or digital televisions equipped with a card slot or CI slot, alternatively a conditional access module (CAM) needs to be purchased to plug in to freeview STB or digital televisions not equipped with a card slot.

It should be kept in mind that although the value chain in Figure 5 is intended to apply to both digital television and radio, it was developed primarily for DTT (DVB-T standard). In practice, the implementation of digital radio using the T-DAB standard may be significantly simplified by technology largely focussing on a FTA content delivery rather than subscription based. However, the content value chain for the T-DMB and DVB-H standard is expected to be very similar to Figure 5 depicted above.

⁵⁶ Digital Television Group (DTG). Action Plan Task 5.13: Product and Interoperability Testing and Support (DTG, London: August 2003).

⁵⁷ "Multiplex Operators" in this context refers a distinct licence category in the UK which relates to the combining of the channels into a single multiplex data stream intended for reception by the public. It should not be confused with the legal definition broadcasting signal distribution in the South African context.

RECOMMENDATIONS:

The WG makes the following recommendations, namely that:

1. An industry initiative is required to establish industry bodies or broaden the mandate of existing industry bodies to deal with the DTT STB standard, create industry forums on technical matters and deal with matters relating to interoperability.; and
2. the broadcasting services and electronic communication network services operating on the DTT platform should form a voluntary committee similar to The Digital Network Group (TDN) in the UK to co-ordinate services (e.g. the electronic programming guide, software updates, etc.).

5.3 EVALUATION OF EXISTING POLICY AND LICENSING REGIME

The WG held the view that the starting point is to determine the key issues, from a licensing and regulatory perspective, which will need to be addressed in the introduction of digital radio and the switchover of existing analogue television broadcasting services from analogue to digital terrestrial broadcasting. A brief consideration of the approaches in other jurisdictions was useful in this regard.

5.3.1 Policy and Licensing of Digital Terrestrial Television in Europe

The WG selected Europe on the basis that it falls into Region 1 together with Africa and that in terms of the ITU processes related to the frequency spectrum planning for digital broadcasting in the frequency bands 174-230 MHz and 470-862 MHz resulting in the co-ordination exercise which was done across Region 1 and parts of Region 3.

The WG looked at the development of DTT in Europe against the backdrop of:

- Business models;
- Policy approaches;
- Role of different stakeholders;
- Incentives provided to broadcasters and signal distributors; and
- Key factors influencing market take-up.

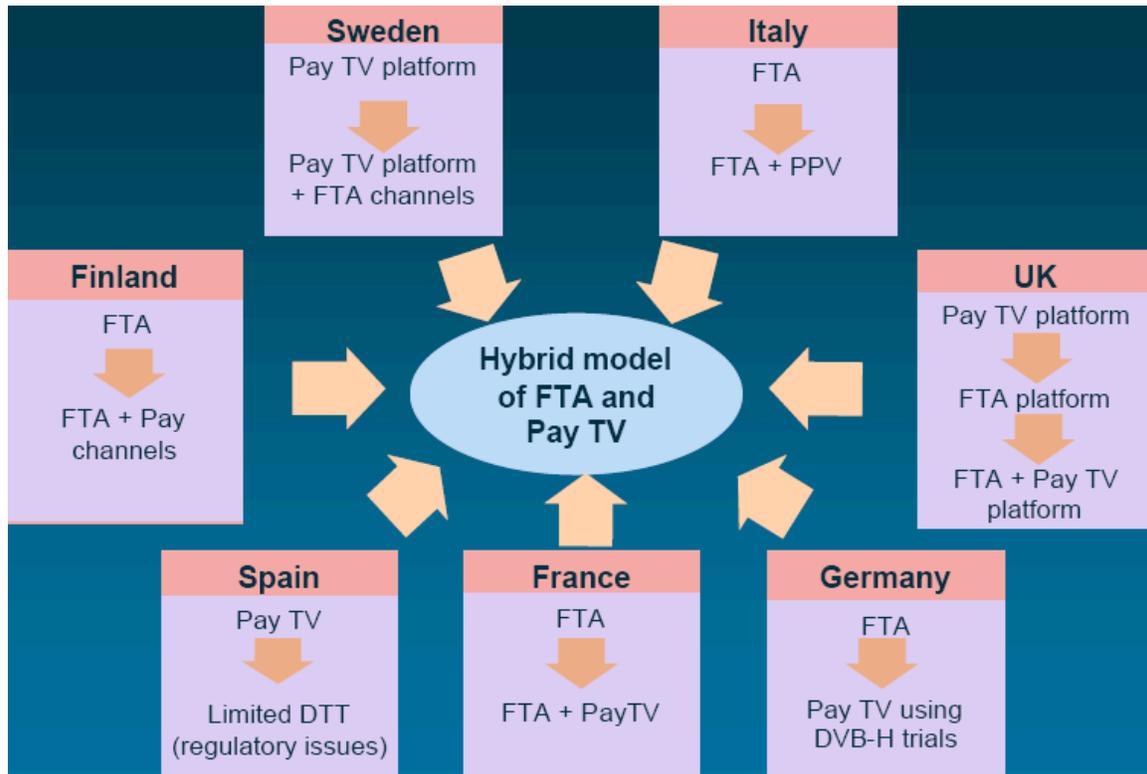
(a) Business Model

In Europe three business models have emerged in DTT:

- A pay-tv platform – a premium content offering in direct competition with cable and DTH. This was the original business model adopted in the UK, Spain and Sweden and an evaluation of those countries shows that it was not successful as a stand-alone business proposition for various reasons, but mostly because of over-regulation that reduced the commercial options available to the operators.
- A FTA (FTA) platform – a variety of FTA channels which was the original business model in Italy, Finland and Germany and which has become the business model in the UK since May 2002.

- A Hybrid platform – this is an offering which combines a number of FTA channels together with a limited pay offering. Migration to a hybrid DTT business model has taken place in the UK, Sweden, France and Finland (see Figure 6).⁵⁸

FIGURE 6: MOVE TOWARDS A HYBRID BUSINESS MODEL⁵⁹



The hybrid business model appears to be the most successful offering on a DTT platform. The arrival of the hybrid model has also led to some innovation in the pay-TV market, for example the introduction of using pre-paid cards in some countries (pay-per-view in Italy and subscription in Sweden). Similar to mobile telephony the introduction of pre-paid cards appears to assist with take-up by consumers and the operators find that such a revenue collection mechanism is more suitable for customers who only generate low-medium monthly revenues for offerings not containing premium content.

⁵⁸ Analysys. Public Policy Treatment of digital terrestrial television (DTT) in communications markets. Final Report for the European Commission (Madrid: Analysys, 2005) p.8

⁵⁹ Analysys. Public Policy Treatment of digital terrestrial television (DTT) in communications markets. Final Report for the European Commission (Madrid: Analysys, 2005) p.26

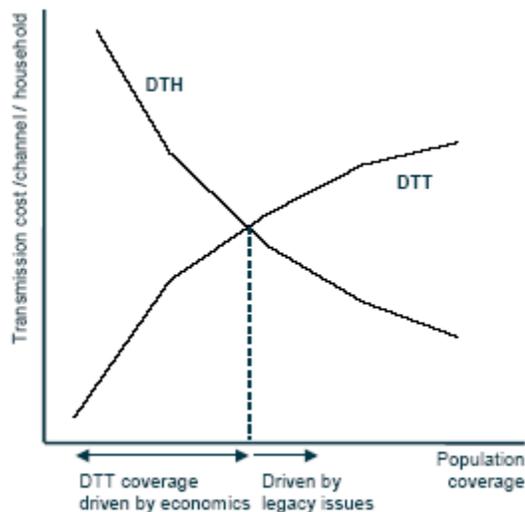
RECOMMENDATION:

The WG recommends that any regulatory approach to digital migration in South Africa should be flexible enough to accommodate a DTT Hybrid Business Model that creates scope for a mix of FTA broadcastings and pay service offerings.

(b) Policy Approaches

Policy approaches to platforms, licensing and technical issues in Europe were examined by the WG. In examining approaches to platform selection in Europe, once again it is clear that each country has adopted a platform or hybrid solution based on their own circumstances and policy objectives. It is clear that in a large country DTH is cheaper than DTT even when considering a hybrid or two platform scenario (i.e. broadcasters using DTT to cover part of the population and DTH used to obtain universal coverage). As demonstrated in Figure 7 below DTT costs increase non-linearly with the coverage. Figure 7 considers the full DTT coverage costs, the DTT costs for an increase in coverage from 70% to 100% and the costs of an alternative platform such as DTH.⁶⁰

FIGURE 7: CHART SHOWING COVERAGE COSTS OF DTT/DTH IN EUROPE ⁶¹



In essence various digital television platforms exist with different characteristics that make some more appropriate depending upon policy objectives. A broad statement can be made that where a country is extensively dependent upon analogue terrestrial broadcasting, DTT has been selected as the primary platform. This choice is not based upon economics, but primarily a policy preference for terrestrial networks because of familiarity and the ability to

⁶⁰ Analysys. Public Policy Treatment of digital terrestrial television (DTT) in communications markets. Final Report for the European Commission (Madrid: Analysys, 2005)

⁶¹ Analysys. Public Policy Treatment of digital terrestrial television (DTT) in communications markets. Final Report for the European Commission (Madrid: Analysys, 2005) p.17

exercise more control over local content. There are other policy reasons, a good example, is that the UK which already had an extensive analogue terrestrial broadcasting network, selected a full roll-out of DTT to the extent that coverage matches the existing analogue terrestrial coverage and no dependency upon satellite for universal coverage is planned for. This decision was based on the fact that:

- Full availability was required - some households would not be able to receive DTH (for topographical reasons or legal restrictions on the erection of satellite dishes in some areas);
- Consumer costs – DTT premise equipment is cheaper than DTH;
- Equity – the costs of migration are the same for all consumers irrespective of geographic area; and
- Communication – facilitates market communication if all households can receive DTT.

In contrast where a country has a higher penetration of cable or satellite broadcasting services, DTT has not been selected as the primary platform for digital broadcasting. For example, in Germany where there has historically been a greater penetration of cable and satellite broadcasting services (terrestrial analogue only accounted for 7% of the market) the decision was made that a mix of platforms would collectively contribute to digital television services. At switch-off in Germany, DTT is expected to be available in most urban areas with the remaining areas being dependent upon alternative platforms.

Early DTT ventures in Europe suffered from government policy that specified an unviable pay-tv business model, imposition of high coverage obligations on commercial broadcasters and technical specifications leading to expensive STBs. These issues have been addressed by recent regulatory developments:

- in most countries the choice of the business model is either left up to the industry or policymakers have selected a FTA business model;
- regulators still expect widespread DTT coverage of the PSB channels, but coverage obligations for commercial broadcasters have either been reduced or lifted altogether; and
- despite continued interest in the ICT potential of digital TV and the MHP standard, policymakers no longer impose specific services or standards on the market.

Exceptions to this general regulatory trend do exist. France, for example imposes a hybrid business model combining FTA channels with pay channels and it plans to mandate the use of the Multimedia Home Platform (MHP)⁶² standard. Also policymakers in that country have selected the MPEG-4 standard for Pay TV services.

The primary policy objective for migrating to digital broadcasting in most countries is spectrum efficiency and pluralism. The move to digital broadcasting

⁶² MHP is an open middleware system for interactive digital TV that was originally developed by the DVB Project. Since it has been adopted by a number of countries all over the world for future interactive TV broadcasts. The MHP standard enables the reception and execution of interactive, Java-based applications on a TV-set. Applications can be delivered over the broadcast channel, together with audio and video streams. These applications can be for example information services, games, interactive voting, e-mail, sms or shopping. For all interactive applications an additional return channel is needed.

will lead to a recovery of frequency spectrum (the so-called “digital dividend”) as digital broadcasting is more spectrum efficient than analogue broadcasting. It is more efficient because more channels can be broadcast on a single frequency and there is less interference leading to the frequency planning of single frequency networks (SFNs), rather than multi frequency networks (MFNs). Most countries also see the availability of more channels than in the analogue regime as a way of facilitating TV pluralism. The secondary policy objective is that interactivity and better service quality are considered to be key consumer benefits of DTT.⁶³

Differences do exist between countries on the expectations from interactivity. Countries such as Finland, Italy, Austria and Poland emphasise sophisticated applications, including e-government, based on the MHP standard, whereas other countries such as Denmark and Latvia focus on advanced teletext, EPG, sign language and other similar services.

An analysis of the introduction of DTT in Europe would seem to indicate that interactivity is not a key driver of DTT demand; instead it would appear that the key driver is a FTA multi-channel offering that sparks consumer DTT demand. In fact DTT take-up has accelerated in countries where DTT has offered a bouquet of channels that has significantly increased the number of FTA channels available. This has been the case in the UK and Sweden and particularly in Germany (Berlin) where the original objective of 20 channels has already been exceeded and 27 channels are being offered. In contrast take-up of advanced STBs that enable high-end interactive services or have conditional access facilities has been extremely limited unless driven by specific factors. For example, in Finland the MHP standard has been promoted to assist ICT development objectives; however sale of MHP compatible STBs only accounts for 5% of STBs sold in the market. In Italy where the government selected to subsidise STBs, the majority are MHP compatible.

Various licensing regimes exist in Europe and mostly there is no clear distinction in most regimes between a broadcast license (content related) and the granting of the right to radio frequency use:

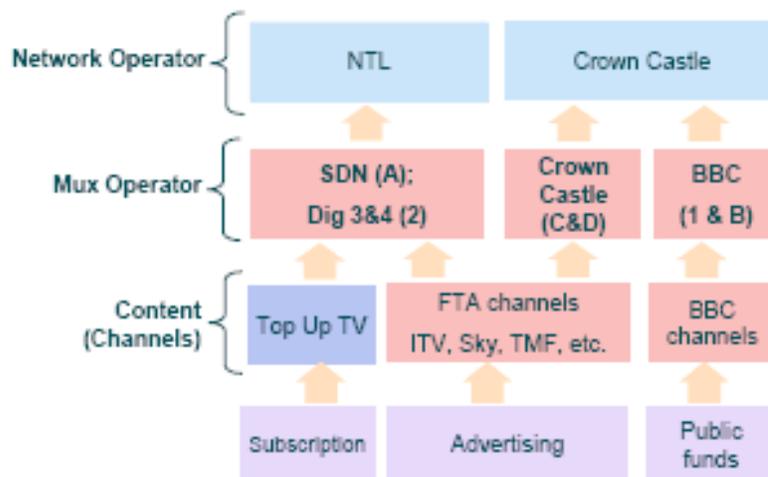
- In the UK different types of organisations (broadcasters, network operators, etc) are assigned frequencies for digital broadcasting transmission networks. Broadcasters may then obtain separate content licences from Ofcom to operate on the networks. In this case there is a clear separation between a content licence and frequency rights.
- In France the regulator selects individual channels via a beauty contest for inclusion on a digital broadcasting transmission network using frequencies. An association of broadcasters on each network then selects the signal distributor. In this case the content licence and frequency rights are intertwined.
- In other countries, such as Italy and Spain, the frequencies for digital broadcasting are assigned to individual broadcasters. Once again this means that the content licence and the frequency rights are again intertwined.

⁶³ Analysys. Public Policy Treatment of digital terrestrial television (DTT) in communications markets. Final Report for the European Commission (Madrid: Analysys, 2005) pp.17-21

Beauty contests have been the most common mechanism for assigning frequencies used for introducing DTT. Some exceptions do exist, such as Italy where all broadcasters that had a national analogue terrestrial broadcast frequency were offered the opportunity to migrate to individual DTT networks enabling them to each offer multi-channel broadcasting services⁶⁴, this enabled the trading of broadcasting spectrum in order to facilitate the creation of further national TV broadcasting networks. In many countries, although not all, frequencies are assigned to the broadcasters. Criteria used in assigning frequencies are usually financial viability, content offering (pluralism), population coverage and technical capabilities.⁶⁵

In the United Kingdom, the DTT television licensing value chain (see Figure 8 below) is divided into content (channels), Multiplex Operator and Network operator. The multiplex operator is a new category of licence, which may be awarded to an existing broadcaster, a network operator or even a new entrant. The UK also introduced a per channel licensing regime that was aimed at existing channels of broadcasters and new broadcasters. In South Africa, the definition of broadcasting service appears to be broad enough to capture both the UK multiplex operator and channel licensing categories.

FIGURE 8: DTT VALUE CHAIN IN THE UK⁶⁶



Berlin, Germany, established itself as being the model for a rapid digital switchover and analogue switch-off. It is therefore interesting to note that the DTT licensing value chain (see Figure 9), in contrast to the approach in the UK, did not create a new licensing category for multiplexing nor did it follow a channel

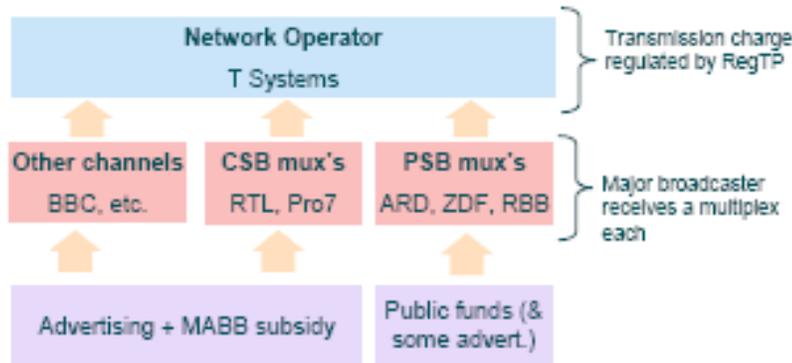
⁶⁴ It should be noted that to ensure pluralism when assigning DTT networks to existing analogue terrestrial broadcasters, Italy did impose a requirement that 40% of the capacity of a commercial multi-channel broadcasting service had to be used by third-party broadcasters.

⁶⁵ Analysys. Public Policy Treatment of digital terrestrial television (DTT) in communications markets. Final Report for the European Commission (Madrid: Analysys, 2005) pp.21_30

⁶⁶ Analysys. Public Policy Treatment of digital terrestrial television (DTT) in communications markets. Final Report for the European Commission (Madrid: Analysys, 2005) Annexe A.1

licensing regime, instead it followed an approach of licensing each major broadcaster to provide a multi-channel broadcasting service and created scope for new entrants as channels on other digital broadcasting transmission networks that were not licensed to any of the major broadcasters.

FIGURE 9: DTT VALUE CHAIN IN BERLIN⁶⁷



Both multi-channel broadcasting service and per channel licensing regimes are common in Europe, the selection is dependent upon how each country decided to approach the question of ensuring pluralism. Securing pluralism in France and Sweden has been done by per channel licensing enabling the regulator to have control over the content offered on each channel. In other countries per channel licensing was seen as being over-regulation, which could inhibit the successful introduction of DTT and increase the regulatory costs of monitoring compliance. In those jurisdictions other regulatory instruments were used to secure pluralism, namely:

- Licence commitments – in the UK multi-channel broadcasting licence applications made commitments in terms of the content to be offered and Ofcom refers back to these as part of the license conditions;
- Reserving DTT capacity for the public service broadcaster (PSB) – in some countries, such as the Netherlands, the reservation of spectrum for the PSB which has specific content obligations was seen as a way to ensure pluralism; and
- Specific rules to ensure a number of broadcasters – ownership and control rules (e.g. UK and Italy) limiting the number of television licenses a broadcaster can hold and rules specific to multi-channel broadcasting services such as Italy where 40% of a commercial DTT network of frequencies must be reserved for third-party broadcasters.

A common feature of most of the licensing regimes was the imposition of restrictions on the use of the capacity of the digital broadcasting transmission network. These restrictions were primarily aimed at ensuring that a minimum amount of television content is broadcast with the remaining capacity used by EPGs, radio, teletext, etc. An analysis of jurisdictions showed that the minimum

⁶⁷ Analysys. Public Policy Treatment of digital terrestrial television (DTT) in communications markets. Final Report for the European Commission (Madrid: Analysys, 2005) Annexe A.5

restriction for non-television broadcast was 10% of the capacity and the maximum was 20% of the capacity.⁶⁸

RECOMMENDATIONS:

The WG makes the following recommendations, namely that:

1. if South Africa adopts a hybrid (DTT/DTH) platform approach in South Africa it must ensure that from the perspective of urban and rural consumers the costs of migrating must be the same, irrespective if the consumer is on a DTT or DTH platform. Essentially, this means that if a broadcaster elects to meet the existing coverage obligations in its licence by means of DTH for economic reasons, the broadcaster must then subsidise the difference between the DTT and DTH consumer premise equipment (receiving antenna/dish), so that from the consumer's perspective they have incurred no additional cost by being on the DTH platform as opposed to the DTT platform;
2. the existing analogue services must be transitioned across to a digital in accordance with the licence currently held (i.e. FTA, subscription), but the ability to include a pay-tv or pay-per-view offering should be left open to the individual broadcaster when introducing new programming services; and
3. the licensing regime should exchange the basket of existing frequency rights being surrendered by an incumbent analogue national television broadcaster for at least sufficient frequencies to create a single national digital broadcasting transmission network, subject to the requirement that a percentage of the channels on such a commercial broadcasting service must be reserved for third-party channels (e.g. government information or e-government services or community TV) to ensure pluralism⁶⁹.

DISSENTING VIEWS:

Sentech oppose recommendation 2 and propose that instead normal licensing processes should be followed where a broadcaster intends offering services not falling within in its current broadcasting licence.

M-Net and Orbicom, in relation to recommendation 2, support the view that the existing analogue services must be transitioned across to a digital in accordance with the licence currently held (i.e. FTA, subscription), and that the ability to include a pay-tv, pay-per-view and/or FTA offering should be left open to the individual broadcaster when introducing new programming services. Based on fair competition it should not only be the preserve of FTA broadcasters to decide whether or not to introduce pay services, subscription broadcasters should also be able to decide whether to introduce FTA services.

Sentech has placed on record its dissenting view to recommendation 3, namely that in a digital environment, frequencies must be assigned to the Electronic Communication Network Service licensee instead of the broadcaster. The assignment of frequencies to

⁶⁸ Analysys. Public Policy Treatment of digital terrestrial television (DTT) in communications markets. Final Report for the European Commission (Madrid: Analysys, 2005) p.54-57

⁶⁹ A requirement that a percentage of the capacity of the multi-channel broadcasting service and digital broadcasting transmission networks be reserved for government or community TV channels will promote pluralism and encourage the independent production of South African content.

broadcasters in a digital environment will inhibit the process of migration and the freeing up of spectrum, which is a scarce resource.

Orbicom shares the Sentech view on recommendation 3, namely that frequencies should be assigned to the Electronic Communication Network Service licensee instead of the broadcaster in a digital environment.

c) *Roles of different stakeholders*

In most jurisdictions in Europe, the PSB has been singled out to be the champion of DTT and drive take-up of DTT through content promotion. Similarly, commercial broadcasting has a role to play in content promotion on the DTT platform. All successful implementations of DTT have required an extensive communication campaign as consumers are unaware of the value of DTT and need information benefits of technology, technical issues (coverage, STBs, etc), presence of digital offerings and precise switch-on and switch-off dates. DTT requires that a range of stakeholders need to be brought together. This includes policy makers, regulators, content providers, network owners, etc. A study of DTT roll-out in Europe shows that market education and co-operation between a varied group of stakeholders requires an enabling organisation to direct the roll-out of DTT. In some cases government together with stakeholders have formed independent organisations to co-ordinate the switchover to digital TV, such as Digital UK. These bodies generally have three main tasks:

- To communicate with the public about digital switchover and switch-off to ensure that everybody knows what is happening, what they need to do and when;
- To liaise with TV equipment manufacturers, retailers, digital platform operators and consumer groups to ensure understanding of and support for the digital migration programme and standards;
- To co-ordinate and monitor the technical roll-out of DTT, region by region, to a timetable determined by government.⁷⁰

RECOMMENDATION:

The WG recommends that government form an independent, non-profit organisation to co-ordinate and monitor the roll-out of digital broadcasting (radio and television) in South Africa, jointly funded by government and industry. The board of this body should comprise representatives nominated from government, the broadcasting (radio and television stakeholders) sector and consumer bodies.

⁷⁰ Analysys. Public Policy Treatment of digital terrestrial television (DTT) in communications markets. Final Report for the European Commission (Madrid: Analysys, 2005) pp.44-50

d) *Incentives for broadcasters and broadcasting signal distributors*

The switchover of the incumbent analogue broadcasters to digital is not necessarily in their interest as it imposes more competition (risk of lower advertising revenues in face of fragmenting audiences) and potentially higher transmission costs where a period of dual illumination is required. Therefore, incumbent broadcasters just like consumers require incentives to migrate to DTT.

There have been one or two jurisdictions in Europe that experimented with the idea of treating DTT as a new licensing process based on beauty competition without giving preference to incumbents in the broadcasting market. It makes sense that consumers will not migrate from analogue to digital unless there are new channels, but an interesting fact is that the most watched channels on DTT in Europe remain those of the previous analogue terrestrial broadcasters. Those jurisdictions that did not accord preferential treatment to the incumbents have demonstrated that the roll-out of DTT cannot succeed if the content from the incumbent broadcasters is not included in the DTT platform.

In Europe there is a tendency to give the public service broadcasters a significant stake in DTT in order for them to face competition and promote the take-up of DTT by the public. In most of the countries looked at in Europe, with the exception of Spain, public service broadcasters have been awarded at least one digital terrestrial network of frequencies on the DTT platform.

The main resistance to change in Europe tends to be from the commercial broadcasters as they require a viable business plan before they are prepared to migrate. In Europe, member countries have attempted to provide incentives to commercial broadcasters in ways, which are consistent with European Community law. Incentives, which have been given, include the following:

- A significant stake in DTT by awarding multiple channels or frequency networks on the DTT platform, example Mediaset in Italy, as it helps commercial broadcasters to retain share of viewers and advertising revenues. Where incumbent commercial broadcasters do not have a significant stake they opposed the development of DTT. Of course the award of frequency networks frequencies must be balanced against policy considerations such as fair access to spectrum by all users and the need for pluralism;
- Must carry obligations have been put in place in some countries to ensure that terrestrial broadcasters have to be carried on alternative platforms, however this may place an undue burden on cable and satellite if approached incorrectly. In South Africa, there is already a must carry provision in the ECA and no amendment is required;
- Lower transmission costs, as DTT is cheaper per channel than analogue;
- Subsidies for broadcasters can facilitate rapid adoption of DTT, as in Berlin where transmission costs were subsidised by government.

However, such subsidies are controversial and have raised competition concerns in Germany and other countries.

- Allowing FTA DTT incumbents an opportunity to compete against alternative platforms such as cable and DTH pay offerings. The UK for example revised its stance that FTA DTT could not offer pay services in addition to FTA broadcasting services.

However, an observation of the European market did make it clear that there is no single answer or approach to incentives, as the appropriate incentive or mix of incentives used depends upon the dynamics of the broadcasting market of each country and the value of the DTT commercial opportunity.⁷¹

Broadcasting signal distribution is a key component of a successful switchover to digital transmission and existing signal distributors in South Africa will need to be accommodated and incentivised. In Europe, governments have subsidised the roll-out of infrastructure by signal distributors in order to accelerate in some cases the speed at which switchover (e.g. Berlin) takes place.

RECOMMENDATIONS:

The WG makes the following recommendations, namely that:

1. government should consider implementing a mix of incentives (preferential treatment in terms of access to frequencies for the purposes of initiating digital transmissions, reductions in licence fees, lowering of SA content requirements for additional digital broadcasting services offered by existing broadcasters, signal distribution subsidies or lower tariffs, etc), appropriate to South Africa, to facilitate the switchover to digital broadcasting by television broadcasters and broadcasting signal distributors; and
2. incentives should also be considered to assist existing television broadcasters to retain viewers during the switchover; and
3. consideration should be given to the use of contributions made to the Universal Service and Access Fund to be used to promote roll-out of DTT by subsidising STBs.

e) Key factors influencing market take-up

The following key factors have been identified in Europe as impacting on the successful take-up of DTT:

- Attractive offering – the DTT platform must provide viewers with tangible benefits at an affordable cost. This of course differs from country to country, but is dependent upon three things, namely content that is not already available in terms of quality and quantity; technology improvements in sound and picture; and the total cost of the platform (including once-off costs such as the STB).

⁷¹ However, while there may be debate on the mix of incentives, there is no debate on the fact that they are needed. In Spain the lack of incentives for commercial broadcasters has led to a slow-down in the process of digital migration in that country.

- Low-cost and widely available STBs – this is dependent on market conditions, including business model, subsidies and technology developments.
- Strong communication – clear market communications are essential for take-up and are only possible where a clear and stable regulatory regime is in place.
- Co-operation – the success of DTT requires the co-operation between stakeholders.⁷²

5.3.2 Policy and Licensing of Digital Sound Broadcasting in Europe

The WG considered a benchmark of coverage, technology, services offerings, licensing and regulation of Digital Sound Broadcasting in Europe (table below) Although significant differences exist in the policy and licensing approaches followed in Europe the following commonalities could be established.

(a) License Period

The capital costs of deploying new DAB transmitter networks and the fact that it takes approximately between five and seven to recoup the associated capital means that a longer license period is required to encourage investment and to sustain Digital Sound Broadcasting services. The Southern African Digital Broadcasting Association (SADIBA) drawing on the analysis of the licensing approaches in the EU further recommends incentives such as, long-term term licences, an administrative licensing and renewal process on “beauty contest” basis and limiting license fees to an administration fees.

(b) Programme Content

DAB Digital Radio enables the delivery of exciting new stations, both audio and data. The data services can be either “stand-alone” or related to audio content. All of these provide the potential for a true multimedia listening experience via DAB Digital Radio. While the laws regarding delivery of data services vary substantially across the EU, data and multimedia services are generally accepted as one of the major advances that can be delivered by DAB. Based on an analysis of the licensing approaches followed the SADIBA recommends that existing and new services including audio, video and data services be accommodated. Commercial services be introduced first as stimulus for receiver sales. Public services can subsequently be considered as frequency capacity is released in Band III.

(c) Bit-rate of Audio Services

The technology of DAB packages a finite number of kilobits into audio and data services on a multiplex. It is possible to broadcast 10 or 11 audio stations on one multiplex, but only if legislation permits them to be carried at lower bit-rates.

⁷² Analysys. Public Policy Treatment of digital terrestrial television (DTT) in communications markets. Final Report for the European Commission (Madrid: Analysys, 2005) pp.33-35

Across Europe, there are differing views as to how many kilobits per second are required to broadcast music effectively. In some countries, the level is 256 kilobits per second, but if this is applied across the multiplex, then a maximum of only four audio stations can be carried. This may not leave room for new stations, and denies DAB Digital Radio listeners the increased choice they should expect when they invest in new receivers. In other countries, such as the UK, stereo music is broadcast using 128 kilobits per second, with an acceptable result. All that is needed is careful consideration of the content, and degree of audio processing applied. The advent of more advanced audio coding techniques will impact on this matter and significant benefits in terms of capacity utilization would be gained if South Africa adopt an approach were the new coding and compression technologies would be implemented.