
GENERAL NOTICES • ALGEMENE KENNISGEWINGS

INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

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Independent Communications Authority of South Africa

350 Witch-Hazel Avenue, Eco Point Office Park

Eco Park, Centurion

Private Bag X10, Highveld Park 0169

Telephone number: (012) 568 3000/1

FINDINGS DOCUMENT ON THE REVIEW OF THE DIGITAL MIGRATION REGULATIONS, 2012.

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- 1.1. On 22 March 2024, the Independent Communications Authority of South Africa ("the Authority") published a notice in the Government Gazette¹ of its intention to conduct an inquiry on the Review of Digital Migration Regulations, 2012 in terms of section 4(B) of the Independent Communications Authority of South Africa Act No. 13 of 2000 ("ICASA Act").
- 1.2. The Authority published a Discussion Document in the Government Gazette² inviting interested parties to make written representations within forty-five (45) working days.
- 1.3. The Authority held public hearings on the Discussion Document on 28 June 2024.
- 1.4. The Authority found that there is a need to formulate a regulatory framework for Digital Terrestrial Television (DTT).
- 1.5. The Authority, under section 4C (6) of the Independent Communications Authority of South Africa Act, 2000 (Act No. 13 of 2000) ('ICASA Act'), hereby publishes the Findings Document on the Review of Digital Migration Regulations, 2012.
- 1.6. The Findings Document captures the key issues raised in stakeholder submissions and oral hearings in response to the Discussion Document.



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Mothibi G. Ramusi

CHAIRPERSON

DATE: 25/03/2025

¹ Government Gazette No. 50329 of 22 March 2024.

² Ibid.

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LIST OF ACRONYMS

ASO	Analogue Switch Off
AAVCS	Audio and Audio-Visual Content Services
DTT	Digital Terrestrial Television
DTH	Direct-to-Home
DVB-T2	Digital Video Broadcasting – Second Generation Terrestrial
ECA	Electronic Communications Act, 2005 (Act No. 36 of 2005)
FTA	Free to Air
HD	High Definition
GE06 Plan	Final Acts of the Administrative for the Planning of VHF sound broadcasting (Region 1 and part of Region 3), Geneva 2006
ICASA	Independent Communications Authority of South Africa
ICT	Information Communication and Technology
ITU	International Telecommunication Union
JSAG	Joint Spectrum Advisory Group
MHz	Mega Hertz
Mux	Multiplex
MMA	Media Monitoring Africa
NAB	National Association of Broadcasters
OTT	Over-the-Top
SABC	South African Broadcasting Corporation
SD	Standard Definition
SFN	Single Frequency Network
SOS	SOS Support Public Broadcasting Coalition
TBFP	Terrestrial Broadcasting Frequency Plan
VHF	Very High Frequency

1. INTRODUCTION

- 1.1. The move from analogue to digital television broadcasting represents a major step forward in South Africa's broadcasting sector. This transition has brought significant changes to how the sector operates and is regulated. It offers new opportunities for technological innovation and better services but also presents challenges that need to be addressed.
- 1.2. On 22 March 2024, the Independent Communications Authority of South Africa ('the Authority') published a Discussion Document³.
- 1.3. The purpose of the Inquiry was to *"solicit views and input from relevant stakeholders on the review of the Digital Migration Regulations, 2012 ("the Regulations"). The Regulations provided a framework for the migration of television broadcasting services from analogue to digital services. The Inquiry will consider factors to be considered post-ASO"*.
- 1.4. The Discussion Document provided an overview of the current state of Digital Terrestrial Television (DTT) in South Africa. It addressed key issues such as technological advancements, spectrum allocation, licensing frameworks and consumer access to broadcasting services. The aim was to facilitate a balanced discussion on the opportunities and challenges posed by the digital transition, focusing on promoting innovation while addressing the needs of all stakeholders. The Authority sought to understand how the post-migration landscape should be regulated to ensure an effective and efficient digital broadcasting environment.
- 1.5. Stakeholders were invited to submit written representations on the Discussion Document by 29 May 2024, which was extended to 13 June 2024 following requests for an extension from interested parties. Following the receipt of submissions from seven (7) stakeholders, the Authority held oral hearings on 28 June 2024, attended by six (6) of those who had provided written input. Following the public hearings, stakeholders were requested to make supplementary submissions within seven (7) days, from the date of the public hearings, for further clarification.
- 1.6. The Authority is committed to creating an inclusive and fair regulatory environment that reflects South Africa's social, economic and technological realities. To that end, the Authority would like to thank stakeholders for their written submissions and oral inputs, which have been critical in shaping its

³ Government Gazette No. 50329

understanding of the current state of DTT and the necessary steps to support the sector's growth.

- 1.7. The Findings herein will guide the development of a regulatory framework that aligns with the objectives of the Electronic Communications Act, 2005 (Act No. 36 of 2005) ('ECA'), including efficient spectrum management, equitable access to broadcasting services and the promotion of innovation and competition in the ICT sector.

2. FINDINGS

The Authority received seven (7) written submissions from the following stakeholders:

- i. Community Broadcasters⁴
- ii. eMedia
- iii. MultiChoice/Mnet
- iv. National Association of Broadcasters (NAB)
- v. South African Broadcasting Corporation (SABC)
- vi. Sentech and
- vii. Support Public Broadcasting Coalition (SOS) and Media Monitoring Africa (MMA)

This section summarises the key findings based on the stakeholder submissions to the Inquiry⁵, and according to the following themes:

- Broadcasting Licensing Framework
- Multiplex 1
- Multiplex 2
- Multiplex 3
- Multiplex 4-7
- Policy concerns in the Multiplex allocation
- Licence Terms
- Digital Incentive
- Channel Authorisation

⁴ A combined submission by Cape Town TV, Soweto TV and 1KZN-TV

⁵ <https://www.icasa.org.za/legislation-and-regulations/regulations-underway/digital-migration>

- Rollout Targets/Coverage and Access
- Signal Distribution
- Data Services
- Engineering Channel
- Technical Bodies Supporting the Migration
- Technologies for DTT

2.1. **Broadcasting Licensing Framework**

Question 1

In considering international practices such as the UK's competitive bidding for Multiplex allocation and Australia's mix of competitive allocation and licensing processes, what insights and recommendations do stakeholders offer for the assignment of Multiplexes in South Africa's DTT framework, aiming to ensure fairness, competition and sustainability within the three-tier system?

Community broadcasters advocate for a mix of competitive allocation and licensing processes aligned with broadcasting policy and regulation to protect the public interest, maintain the three tiers of television, including public, private and community television; and license television operators in the public interest.

eMedia maintains that, at this stage, the current regime remains as it is, and neither the UK nor Australian models have been adopted.

Multichoice advises that international examples are always helpful to look at, but at the end of the day, the Authority is a creature of statute and must implement the licensing model according to the legislation that is in place.

Sentech recommends adopting a balanced combination of Ofcom's and ACMA's licensing principles, focusing on public interest, efficient spectrum use and technological neutrality. They support a framework that licenses multiplex operators through a structured process ensuring efficient spectrum use, public service broadcasting support and adaptability to technological changes. Sentech proposes a beauty contest/comparative licensing process for spectrum allocation based on qualitative factors aligned with regulatory and public policy goals.

SOS/MMA advocates for an equitable allocation of Mux capacity, with preference given to the needs of public and community broadcasting services.

The SABC recommends that the allocation of Muxes should follow a competitive process.

The Authority's Finding

The Authority found that stakeholders support insights from international benchmarking and the competitive allocation process; however, they suggest that the Authority adopt an approach aligned with the legislation.

2.2. Multiplex 1

According to regulation 4 (1) and (3) of the Digital Migration Regulations, 2012⁶ ('the Regulations'), the SABC is allocated eighty-five per cent (85%) of the capacity in Multiplex 1 (Mux 1) and community broadcasting services are allocated the remaining fifteen per cent (15%) of the available capacity on Multiplex 1.

Question 2

How do stakeholders perceive the current capacity allocations within the DTT Multiplexes, especially in Multiplex 1 where the SABC holds 85% and community broadcasting services have been allocated 15%?

Question 2.1

Considering the ongoing licensing process for the remaining 15% in Multiplex 1, what recommendations or insights do stakeholders have regarding the equitable distribution of this capacity?

Community broadcasters recommend licensing HD community channels on Multiplex 1 and increasing bandwidth to allow for datacasting as an additional revenue stream. They propose cross-subsidisation to address the transmission affordability issue, enhance fairness and provide HD capacity to both existing and new community TV channels on Mux 1. They highlight that the current policy environment, which requires community TV stations to become regional or provincial broadcasters, results in high transmission costs due to the need to hire multiple transmitters from Sentech. In their

⁶ Notice No. 1070 of 14 December 2012, Government Gazette No. 3600.

view, this is a condition aimed at protecting the future of legacy broadcasters in the digital landscape.

MultiChoice believes that it is inappropriate for the SABC and local community broadcasting services to share a national multiplex, as local community broadcasters focus on narrowly addressing the citizens of a city. They suggest creating local and/or provincial multiplexes to address the needs of locally defined communities. According to MultiChoice, the review of Mux 1 should ensure sufficient capacity for digital broadcasting now and in the future, including new transmission standards and broadcasting-adjacent services.

eMedia does not have a view on the capacity allocation of Mux 1 but highlights the inefficiency of spectrum use due to the SFN configuration. They stress that the SABC is licensed as a national broadcaster while community broadcasters serve local communities, leading to inefficient spectrum use when the same spectrum cannot be reused in different provinces.

The SABC submits that it currently utilises approximately 28Mbit/s of its allocated capacity on Mux 1, limiting its ability to expand into high-definition (HD) broadcasting. Therefore, they recommend being allocated two (2) dedicated Muxes post-ASO to facilitate the transition to HD, reflecting the consumer demand for HD content on television.

SOS/MMA did not provide a specific response regarding the allocation of the remaining 15% in Mux 1. They recommend that public interest content be guaranteed capacity allocation, ensuring fairness and diversity in the DTT landscape.

Sentech argues that the current capacity allocation for Mux 1 is not conducive for community broadcasters to share a multiplex with the public broadcaster due to different licence obligations. They recommend that community broadcasters should have local coverage instead of provincial coverage, and the 15% allocation for community broadcasters in Mux 1 translates to 4.9 Mbps, which supports 2x SD channels per province.

Sentech notes that the move from a single analogue transmitter to a large provincial SFN is neither affordable nor sustainable for a forced coverage increase. They suggest that a frequency replan, and hybrid network of SFN/MFN can accommodate a variety

of requirements while minimising revenue loss by the ECNS licensee providing signal distribution services.

The NAB supports the review of Mux 1 to ensure it accommodates the needs of different types of broadcasters post-ASO. They emphasise the need to ensure sufficient spectrum for future broadcasting services and suggest a light-touch regulatory approach to encourage investment and innovation in the DTT platform.

The Authority's Finding

The Authority found that the current capacity allocation for Mux 1 is not conducive for community broadcasters to share a multiplex with the public broadcaster due to different licence obligations. The current capacity allocation for Mux 1 also limits the ability to expand into high-definition (HD) broadcasting. There is support for reallocating capacity under Multiplex 1 for greater flexibility and efficiency for future broadcasting services.

The Authority also found that the SFN configurations are unsustainable for community broadcasters due to high costs. Stakeholders suggest that a frequency replan, and hybrid network of SFN/MFN can accommodate various requirements while minimising revenue loss by the ECNS licensee providing signal distribution services.

2.3. Multiplex 2

Regulations 5 (1) and (3) of the Regulations initially allocated e.tv fifty per cent (50%) and M-Net forty per cent (40%) of the available capacity for their digital broadcasting on Multiplex 2 (Mux 2). Ten per cent (10%) of the available capacity on Multiplex 2 was utilised by existing holders of temporary licences issued by the Authority to provide services on a test or trial basis on the frequencies included in Multiplex 2 at the commencement of Digital Terrestrial Television Regulations. Upon the expiry of the temporary licences referred to in sub-regulation (5) of the Regulations, the 10% capacity in Multiplex 2 was shared equally between e.tv and M-Net. Ultimately, e.tv is allocated fifty-five per cent (55%) and M-Net forty-five per cent (45%)⁷ of the capacity.⁸

⁷ Mnet has since surrendered its license.

⁸ Regulation 5(5) and 5 (6) of the Digital Migration Regulations, 2012.

Question 3

Similarly, in Multiplex 2, where e.tv initially had 50% and M-Net had 40%, with the remaining 10% used by temporary licence holders and later divided equally between e.tv and M-Net, are there suggestions for improving the allocation in Multiplex 2?

Community broadcasters stress the need to resolve the issue of DTT transmission tariff affordability, suggesting that this could open Mux 2 for new television operators. They assert that only broadcasters licensed and regulated by the Authority in the public interest should be accommodated on DTT, as it is a public resource.

MultiChoice suggests revisiting the allocation in Mux 2 to support a broad range of DTT services. They propose a transparent review and optimisation of the 7 Multiplex Plan to ensure the growth of digital broadcasting and support new transmission standards.

eMedia believes that the percentage allocation and sharing of Mux between FTA and subscription television broadcasters is problematic. They argue that e.tv, as an FTA broadcaster, should have had more capacity than Mnet, which is a subscription broadcaster with decreasing reliance on terrestrial television. They suggest reallocating Mux 2 to ensure a fairer distribution favouring FTA broadcasters like e.tv, which have significant coverage obligations.

The SABC propose that the SABC be allocated 2 Muxes, including Mux 1 and an additional Mux (Mux 4), to ensure adequate capacity for HD broadcasting and fulfilling its public service mandate.

SOS/MMA emphasised that allocations should be based on the type of content provided rather than capacity, ensuring that broadcasters offering South African content and public interest programming are prioritised.

Sentech indicates that e.tv and Mnet, having different target audiences, find it difficult to agree on preferred transmitter sites and multiplex configurations within an SFN environment. They reiterate that commercial and FTA broadcasters should not share a multiplex due to differing target markets and network configuration challenges.

The NAB recommends revisiting the allocation of Mux 2 to support the diverse needs of broadcasters. They propose a light-touch regulatory approach and emphasise the need for a clear framework to encourage investment in the DTT platform.

The Authority's Finding

The Authority found that the percentage allocation and sharing of Mux between FTA and subscription television broadcasters presented challenges for broadcasting services licensees. Stakeholders suggest that the Authority must revisit allocation with preference to a non-sharing allocation. They advocate that preference should be given to FTA than subscription service since subscription is becoming less dependent on terrestrial and FTAs have obligations to fulfil. They propose that the SABC be allocated 2 Muxes, including Mux 1 and an additional Mux (Mux 4), to ensure adequate capacity for HD broadcasting and fulfilling its public service mandate.

There is consensus on the need for a fair and transparent process for Mux 2 allocation, especially considering the surrendering of allocation by a key subscription broadcaster. This creates an opportunity to review the allocation process to better align with the needs of FTA broadcasters.

Additionally, differing operational requirements between FTA and subscription broadcasters have reinforced the need for separate multiplexes to ensure efficiency.

2.4. Multiplex 3

In Multiplex 3 (Mux 3), fifty-five per cent (55%) was assigned to commercial free-to-air television broadcasting services and forty-five per cent (45%) was assigned to commercial subscription broadcasting services⁹. In March 2019, the Authority awarded Kwese TV an individual commercial free-to-air television broadcasting service licence and a radio frequency spectrum licence for 55% of the Mux 3 capacity¹⁰.

Question 4

For Multiplex 3, where 55% is assigned to commercial free-to-air television broadcasting services and 45% to commercial subscription broadcasting services, and considering the specific licence awarded to Kwese Tv for 55% of MUX 3 capacity, what are stakeholders' perspectives on the balance between free-to-air and subscription services?

Question 4.1

⁹ ICASA. (2012). Promotion of Diversity and Competition on Digital Terrestrial Television Regulations. Government Gazette No. 22 August 2014.

¹⁰ ICASA, 2017, Kwese Free Tv is the successful applicant to provide free-to-air television services in South Africa. <https://www.icasa.org.za/news/2019/kwese-free-tv-is-the-successful-applicant-to-provide-free-to-airtelevision-services-in-South-Africa>.

Are there recommendations for ensuring diversity and competition within this multiplex?

Question 5

Overall, what considerations and recommendations do stakeholders propose to enhance the effectiveness and fairness of the DTT Multiplex capacity allocations?

Community Broadcasters note an appetite among commercial organisations for local or regional commercial licences, which could be accommodated on Mux 2 or 3. They also propose using a third multiplex for a public service broadcaster.

MultiChoice suggests maintaining the balance between FTA and subscription services in Mux 3 by ensuring sufficient capacity for both types of services. They advocate for introducing new services and accommodating special event broadcasts.

eMedia echoes similar concerns raised for Mux 2, recommending that subscription broadcasters share Mux, while FTA broadcasters should be allocated separate Mux with greater capacity. They argue that mixing free-to-air and subscription broadcasters on any Mux should be avoided to promote diversity and competition.

The SABC did not provide specific recommendations for Mux 3, but their overall proposal includes allocating 100% of Mux 4 to the SABC and another Mux to community broadcasters, ensuring dedicated capacity for different broadcaster categories.

SOS/MMA believe that the Mux allocation should be based on the type of content provided. They recommend that the Authority should consider imposing pro-competitive licence conditions where applicable and prevent larger players from dominating the Mux and encourage fair competition between broadcasters.

Sentech did not provide specific recommendations for Mux 3 but reiterated that differing target markets between broadcasters in a shared SFN environment create configuration challenges. They suggest that regulatory frameworks should ensure efficient use of spectrum and support diverse broadcasting needs.

The NAB supports the review of Mux 3 allocation to ensure sufficient capacity for both free-to-air and subscription broadcasters. They propose a competitive bidding process to ensure efficient spectrum use and encourage investment.

Authority's Finding:

The Authority found that stakeholders consistently emphasised the need for balanced and efficient use of all the muxes, with strong support for separate allocations for FTA and subscription broadcasters to address operational and market needs. The importance of introducing new players were widely highlighted as opportunities to enhance innovation, diversity and competition.

2.5. Multiplex 4-7

Currently, Multiplexes 4-7 are not licensed, and certain frequencies may remain unused even after the implementation of Annexure J of the Terrestrial Broadcasting Frequency Plan, 2013¹¹.

Question 6

Stakeholders are requested to provide insights and recommendations on ensuring efficient spectrum use, including considerations for frequency reuse where appropriate.

Question 7

How should the Authority allocate the remaining MUXes?

Community broadcasters propose a three-multiplex plan that would free up spectrum from Mux 4-7 for use by the telecommunications sector. This plan includes cross-subsidising broadcasting costs of FTA channels on DTT and DTH via Universal Service and Access Agency of South Africa (USAASA). The group suggest that if all broadcasters move towards providing HD channels, the three multiplexes allocation needs to be reviewed. Consequently, they submit, the Authority needs to evaluate the feasibility of implementing a DTT transmission system considering the increased bandwidth needs of modern television services.

¹¹ ICASA. (2013). Terrestrial Broadcasting Frequency Plan. Government Gazette No. 36321 of 02 April 2013.

MultiChoice supports reserving frequencies in the terrestrial broadcasting bands for future technologies, trials, special events and Programme Making and Special Events (PMSE) use. They believe this approach will ensure sufficient capacity for digital broadcasting and related services.

eMedia believes the viability of DTT is threatened by the low number of DTT decoders installed in low-income households. They suggest that additional Muxes should be allocated to existing broadcasters to increase the number of HD channels available, supporting the public interest given the reliance on FTA broadcasting. eMedia adds that the only way FTA broadcasters transitioning to DTT can compete is by offering multiple channels through allocating available MUXs to existing FTA broadcasters. They also recommend a comprehensive regulatory review to determine consumer demand for digital television services and to support existing FTA broadcasters.

eMedia highlights that the 7 Multiplex DTT frequency plan is based on province-wide single frequency networks (SFN), changing the coverage for class licensees from regional or local to provincial. They recommend updating class licences to reflect this change.

The SABC recommends a competitive process for Mux allocation. The SABC proposes that the remaining Muxes be allocated to ensure a dedicated Mux for community broadcasters and to increase the SABC's capacity for HD broadcasting. They recommend the following allocation:

- Mux 1: 100% SABC
- Mux 2: 100% e.tv and DSTV
- Mux 3: 100% Commercial
- Mux 4: 100% Community Broadcasters
- Mux 5: 100% SABC

SOS/MMA did not provide specific recommendations for the allocation of Muxes 4-7 but emphasised that community TV should be allocated its own Mux to ensure adequate capacity and support for local broadcasting.

Sentech recommends introducing a multiplex operator regime with small provincial SFNs and MFNs to enhance spectrum use efficiency. They suggest using unused DTT infrastructure for various services, including new technologies like 5G broadcasting.

The NAB supports the implementation of the seven-MUX plan and recommends that sufficient spectrum be safeguarded for future broadcasting services. They advocate for a competitive bidding process for MUX allocation and a light-touch regulatory approach to encourage investment and innovation in the DTT platform.

The Authority's Finding

The Authority found differing opinions among stakeholders regarding the future of the seven multiplexes.

While some argue for freeing up spectrum for telecommunications, others stress the importance of preserving capacity for broadcasting, particularly considering HD and future technological advancements. Stakeholders submit that there is a need for a strategic allocation plan that balances efficiency with the sustainability of broadcasting services. Some stakeholders recommend redistributing spectrum among existing broadcasters to enhance HD content delivery; others recommend prioritising a structured, competitive approach that ensures long-term sustainability and technological innovation in broadcasting.

2.6. Policy concerns in the Multiplex allocation

Question 8

How can the lessons learnt from Multiplex sharing during the transition from analogue to digital be applied in the future?

Community broadcasters state that Multiplex sharing has resulted in both challenges and opportunities for community broadcasters. The opportunity is that community channels are now available everywhere despite being geographically restricted. The challenge is the cost implication due to increased coverage. When it comes to the question of multiplex sharing, accommodating community channels means including them at both national and local levels. Community broadcasters have suggested that community channels be accommodated on a Mux, which has been allocated to serve local areas.

Multichoice states that it is inappropriate for the SABC and local community broadcasting services to share a national multiplex because of its obligations. The sharing arrangement brought a host of complications for both commercial

broadcasters, as it was not based on any commercial rationale. Another complication was that, in analogue e.tv and M-Net did not share the same size geographic coverage and the economic drivers for coverage between a commercial free-to-air and a subscription broadcaster are different in future, if broadcasters are going to share a multiplex there should be mutual agreement between them on the geographic coverage and it is this agreement that should guide the signal distributor on network roll-out.

eMedia suggests that there should be a remedy for further allocation of Muxes to e.tv, enabling its channel to be available in the same areas as the SABC channels.

Sentech submits that the Authority must consider the non-money-based spectrum allocation processes, commonly known as "beauty contests" or comparative selection. The Authority can evaluate applicants based on the criteria that includes the following:

- Technical Competence: Demonstrated ability to efficiently use the spectrum.
- Service Quality: Proposed quality and coverage of services.
- Public Interest: Contribution to public service objectives or broader societal benefits.
- Innovation: Introduction of innovative services or technologies.

These processes should aim to allocate spectrum based on qualitative factors that align with regulatory and public policy goals.

The Authority's Finding

The Authority found that stakeholders are not in favour of multiplex sharing and propose that each broadcaster must be allocated their own Mux. A key takeaway is that multiplex sharing changes the geographical reach and therefore has cost implications.

2.7. Licence Terms

Question 9

From a broadcaster's perspective, how does the length of the license renewal period influence long-term investment decisions in infrastructure and content production?

Community Broadcasters consider the seven-year licence period adequate for operational stability and attracting funding. They add that addressing the challenges

posed by the digital environment through consultation and policy processes is necessary.

MultiChoice supports a fifteen (15) year licence term for individual broadcasting service licensees to allow for long-term investment in infrastructure and content production. They advocate for regulatory certainty and stability to encourage investment in the DTT platform.

eMedia emphasises that the capital investment required for specialised studio and broadcast infrastructure and the growth of channels necessitates a longer licence period for stability and long-term planning. This will allow a smooth transition to a multichannel environment, ensuring flexibility and adaptability to emerging technologies.

The SABC advocates for a licensing framework that provides holistic quotas for television rather than channel-based quotas, allowing flexibility in scheduling and assisting the SABC in repositioning channels and incubating new ones across DTT, DTH and OTT platforms. They propose that the licensing framework be considerate of the competitive environment and allow for flexibility to meet audience needs.

Sentech supports a structured licensing process ensuring efficient spectrum use, public service broadcasting support and adaptability to technological changes. They propose a beauty contest/comparative licensing process for spectrum allocation based on qualitative factors aligned with regulatory and public policy goals.

The NAB supports a light-touch regulatory approach and longer licence terms to encourage investment in the DTT platform. They emphasise the need for a clear and stable regulatory framework to provide certainty for broadcasters and attract investment.

The Authority's Finding

The Authority found that stakeholders broadly agree on the importance of extending licence duration to provide stability and encourage long-term investment in digital broadcasting platforms. While some stakeholders consider the seven-year term adequate, others advocate for longer terms, ranging from ten (10) to fifteen (15) years to better support infrastructure and content development.

The Authority also noted support for flexible and adaptable licensing frameworks that reflect the evolving digital broadcasting environment. Stakeholders highlighted the need for licensing frameworks that reflect emerging technologies, shifting audience behaviours and the competitive challenges posed by on-demand content providers.

2.8. Digital Incentive Channel

Question 10

What are stakeholders' perspectives on the consequences of assigning digital incentive channels to broadcasters?

Question 10.1

Do stakeholders believe this allocation is essential in the Digital Terrestrial Television (DTT) environment?

Currently, community TV channels are prohibited from introducing incentive channels. Community broadcasters suggest this could be addressed in new DTT regulations, noting that some community TV operators have the capacity and interest to develop such channels. They add that allowing incentive channels would require a larger allocation of spectrum on Mux 1, depending on affordability.

MultiChoice believes that incentive channels were important for encouraging consumers to migrate from analogue to DTT during the dual illumination period. In the post-ASO world, MultiChoice's view is that broadcasters need to provide an attractive package of channels catering to viewer interests. Therefore, the new regulations must ensure that DTT broadcasters can offer new channels of interest to audiences.

eMedia argues that additional channels are essential to encourage viewers to migrate from analogue to digital, as they offer a significant benefit besides improved picture and sound quality. As much as there are consumer benefits, eMedia states that broadcasters also benefit. eMedia advises that, to achieve these benefits, government interventions and management is important to drive migration through consumer awareness and affordability of STB. They believe that access to a multichannel environment enhances the competitiveness of FTA broadcasters against subscription broadcasters and increases advertising potential.

eMedia further suggests that the Authority must consider the multi-platform, multi-channel digital television environment and incorporate that into the future of the

regulatory environment; to ensure effective migration from a single-channel licence regime to a multichannel and that broadcasting licences are issued accordingly. According to eMedia, the current single-channel licence regime is restrictive and does not allow for further investment in digital technology, promote innovation or allow broadcasters to meet the audience's diverse needs.

The SABC did not provide specific recommendations regarding incentive channels. Its general stance focuses on increasing capacity for HD broadcasting and ensuring flexibility in meeting audience demands across multiple platforms.

SOS/MMA propose that the incentive channels should incentivise viewers to invest in the necessary equipment needed to ensure access to digital terrestrial television. This will encourage audiences to buy STBs.

Sentech did not provide specific recommendations regarding incentive channels but highlighted the need for a framework ensuring efficient spectrum use and supporting public service broadcasting.

The NAB supports the inclusion of incentive channels in the new DTT regulations to encourage consumer migration from analogue to digital. They recommend a framework that supports the introduction of new channels to attract viewer interest and enhance the competitiveness of the DTT platform.

The Authority's Finding

The Authority found that stakeholders agree on the significant role that incentive channels played in encouraging migration to DTT. These channels offered consumers added value, making the transition from analogue to digital more appealing. The new regulations must ensure that DTT broadcasters can offer new channels of interest to audiences.

2.9. Channel Authorisation

Question 11

What factors should be considered to maintain a diverse and competitive broadcasting landscape in the post-ASO period in relation to channel authorisation?

Community broadcasters argue that channel authorisation should be managed to protect the interests of the non-profit sector. This is due to the unfair competition it creates where a regulated platform must compete with an unregulated platform. Licensed FTA TV channels must be prioritised and a level playing field must be established where all broadcast channels are regulated by the Authority in the public interest. They add that competition from commercial operators should be avoided at the local level unless cross-subsidisation is introduced, where commercial operators subsidise the transmission costs of community operators.

MultiChoice recommends addressing the legal gap in the current channel authorisation regime by introducing new technology-neutral regulations for free-to-air channel authorisation. This approach would level the playing field between traditional broadcasters and on-demand content service providers.

eMedia believes that to level the playing field between subscription and FTA broadcasters, the process for obtaining channel authorisation should be the same for both. They highlight the importance of regularly updating non-performing channels in a multichannel environment.

The SABC highlights that Regulation 6(6) of Digital Migration Regulations requires public hearings for SABC public service channels, which lengthens the channel authorisation process. They argue that no other broadcaster is subjected to this, and as such, it creates an unnecessary delay for the SABC.

SOS/MMA believes that the process of channel authorisation should be an instrument for giving preference to South African-owned and packaged channels. Consequently, these channels should be given preference when granting channel authorisations for broadcasters to include them in their offering.

Sentech recommends that the Authority introduce a coordination framework to manage channel authorisation, ensuring efficient spectrum use and supporting the sustainability of the DTT infrastructure.

The NAB recommends a light-touch approach to channel authorisation to encourage investment and innovation in the DTT platform. They support a competitive bidding process for channel authorisation to ensure efficient spectrum use and support the diverse needs of broadcasters.

The Authority's Finding

The Authority found support among stakeholders for streamlining the channel authorisation process to promote innovation and improve operational efficiency. Current requirements, which include public hearings for certain broadcasters, were identified as barriers to timely channel deployment. The SABC highlighted the need to address these delays to ensure that public service channels can respond swiftly to audience needs.

2.10. Roll-Out Targets /Coverage and Access

Question 12

Do stakeholders believe there is a need for specific coverage targets in the DTT landscape post-ASO? (Yes/No)

What considerations or criteria do stakeholders propose for establishing and evaluating these coverage targets to ensure an effective and inclusive DTT environment?

Community broadcasters believe that there is a need for coverage targets. This is because some community TV stations are licensed according to their geographic broadcast footprint, such as Cape Town TV, while others are serving communities of interest, such as 1KZN TV. The increased accessibility of multiple content channels in the digital environment decreases the need for universal terrestrial broadcast coverage, which should be confined to those areas where it is economically feasible to run digital transmission sites due to population density.

Sentech also believes there is a need for coverage targets. Given the different target markets and affordability of broadcasting it will be fair to have specific targets in DTT. Community broadcasters can be allocated smaller SFN configurations on the same MUX that are not shared with public, free-to-air, commercial broadcasters as they carry fewer broadcasting obligations. The same can be applied to public, free-to-air and commercial broadcasters. Sentech is of the view that consideration should be taken on the broadcasters that have different obligations, the different target markets and the broadcasting costs.

eMedia believes that there is no need for coverage targets, instead television broadcasters that utilise multiple transmission platforms should have the ability to determine the extent of their DTT. Post-ASO broadcasters such as e.tv will aim to

make their content accessible to every South African citizen. In terms of how they achieve this, they believe it should be left to each television broadcaster to decide.

MultiChoice does not believe there is a need for coverage targets in the DTT landscape post-ASO. Licensees should be able to decide what DTT coverage targets make sense for them commercially and contract for such with their signal distributor. MultiChoice adds that there is no sense in burdening licensees with large DTT coverage targets if the costs are economically unfeasible.

The NAB submits that it will not be necessary to set coverage targets. A light-touch approach should be adopted to allow broadcasters and the market to set any necessary targets.

SABC believe it will not be necessary to set coverage targets. The SABC's program is not only watched on television sets but also other devices. The number of receiving devices is increasing due to technological advancements and the Authority will not be able to catch up as quickly as needed. In such cases, it is important to leave it to market forces to set the necessary targets, they add.

SOS and MMA suggest setting coverage targets should be considered only in so far as this assists in achieving universal access to broadcasting services for all citizens and prioritise public interest content.

The Authority's Finding

The Authority found that most stakeholders are not in favour of setting coverage targets post-ASO. They believe that broadcasters should determine what targets make sense commercially. A few support the need to set coverage targets because of the different target markets.

2.11. Signal Distribution

Question 13

Are there any foreseeable issues or concerns that should be considered regarding the appointment of a signal distributor to provide signals within a multiplex post-ASO?

Community broadcasters highlight the lack of competition in signal distribution, which leads to high transmission costs. They emphasise the need for the government and

ICASA to devise a solution for funding transmission costs for public and community broadcasters in the digital environment. Suggested solutions include that the outcome of signal distribution inquiry by ICASA be used to put in place mechanisms to subsidise community TV signal distribution costs either through cross-subsidisation from the commercial operators or through a USAASA subsidy (determine the increase on the levy imposed on Telcos who benefit from the release of spectrum).

Further, there must be provision for appeal by broadcasters to a higher body, either ICASA/Minister of Communication should they believe Sentech rates are too high or unfair.

Community broadcasters also submit that they seek an affordable tariff for digital broadcasting, which is difficult under the Sentech DTT transmitters environment. They argue that greater geographic reach of digital transmission does not necessarily translate to an increase in viewership. Therefore, that spillage will not have a huge impact on reducing costs or achieving significantly larger audiences. If the audience size does not increase, or if it shrinks significantly at the analogue switch-off, the broadcasters will have no basis for increasing advertising fees. This will in return impact local or non-corporate clients who would then not be able to afford the increased costs of reaching that audience.

MultiChoice believes that sufficient spectrum should be available post-ASO to avoid the need for free-to-air and subscription broadcasters to share a multiplex. They advocate for self-regulation and coordination between broadcasters and signal distributors on technical issues, transmission standards, and Service Information.

eMedia raises concerns about Sentech's dominance in signal distribution, which allows it to impose non-negotiable terms on broadcasters due to the lack of alternatives. They view Sentech's tariffs as high and problematic for FTA broadcasters.

The SABC supports the finalisation of the signal distribution inquiry and emphasises the need for competitive options in signal distribution. They argue that the current monopoly held by Sentech exposes the public broadcaster to high tariffs and limits its financial viability. The SABC seeks the freedom to choose its signal distributor to ensure competitive pricing. The SABC also highlights the need to review the BDM policy regarding the split between satellite and terrestrial transmission, advocating for autonomy to negotiate this split with its signal distributor.

SOS/MMA believe that competition is key to regulating unreasonable pricing in signal distribution. They argue that Sentech's monopoly has allowed it to charge exorbitant prices, contributing to the financial difficulties faced by the SABC.

SOS/MMA believes that the cost of signal distribution is significantly high which makes DTT highly unsustainable not only for the public broadcaster but for community broadcasters as well. SOS/MMA advised the Authority to ensure that it introduces competition in the signal distribution space to mitigate high signal distribution costs. SOS/MMA also recommends that the government should subsidise the public and community broadcasters' signal distribution costs by a significant percentage post-ASO to ensure their sustainability.

Sentech recommends introducing a multiplex operator regime, allowing them to source content producers if multiplexes are underutilised. They propose including Mobile Network Operators and Fixed operators in the value chain, considering services like streaming. Sentech emphasises the need for a policy directive to expedite the introduction of multiplex operators.

Sentech discusses the benefits of separating MUX operations from signal distribution, citing specialisation and efficiency, enhanced competition, flexibility, scalability and investment opportunities. However, they also recognise challenges such as coordination and integration, regulatory and compliance complexity and the potential for increased operational costs.

Sentech acknowledges the finite amount of bandwidth in an 8 MHz channel, which limits the number of simultaneous TV channels and additional services. To mitigate these challenges, they propose strategies like advanced compression technologies, efficient multiplexing, and hybrid broadcast-broadband solutions.

The NAB supports the finalisation of the signal distribution inquiry and advocates for competitive options in signal distribution to ensure affordable and efficient services. They recommend a light-touch regulatory approach to encourage investment and innovation in the signal distribution sector.

The Authority's Finding

The Authority found that high transmission costs and the lack of competition in the signal distribution sector remain significant challenges for broadcasters, particularly smaller and community broadcasters. Stakeholders highlighted the need for

competitive measures to address Sentech's dominance and ensure fair and regulated pricing. The Authority also found that there is a proposal for a Mux operator.

2.12. Data Services

Question 14

How can "data services" be defined to mitigate regulatory uncertainty?

Question 15

What specific services should be considered as "data services" within the context of the DTT?

Question 16

Should the Authority continue to put a cap on data services? If not, what practical measurement will be deemed adequate by stakeholders?

Question 17

How can the Regulations adapt to or leverage emerging technologies that may impact the provision and measurement of data services on DTT Multiplex?

Community broadcasters define data services as, any digital information conveyed over and above the AV stream of a television broadcast. They suggest maintaining the current cap on data services in the interests of maintaining the integrity of television transmission in the digital environment but allowing for higher levels if broadcasters can demonstrate significant public benefit. They recommend that data services be measured by the amount of stored data and the bandwidth required for its delivery.

MultiChoice supports the view that the cap on data services is unduly prescriptive. They recommend that regulations provide for a predominance of television broadcasting channels in any capacity assigned to licensees on any multiplex, eliminating the need to define data services separately.

eMedia suggests that the current cap on data services is unnecessary due to the high cost of DTT transmission and limited bandwidth. They propose allowing broadcasters to determine their capacity usage based on commercial rationale. They also mention that early DTT plans for additional data services, such as games and e-Government services, were halted due to negative outcomes.

The SABC defines data services as, broadcasting data over radio frequency networks for providing news, broadcasting programs, and other information. They believe that data services should be defined to make data easily available, resilient and comprehensible, enhancing their utility for users and programs.

SOS/MMA recommend that data services include Electronic Programme Guide (EPG) data, engineering service channel and Service Information for efficient operation of digital distribution platforms. Preference should be given to broadcasters providing public interest content and in so far as they provide channels, these should be given prominence on the EPG.

Sentech indicates that data services should include EPG, interactive services, software updates, internet access and digital media materials. They propose capping data services at 20% of multiplex capacity to ensure they do not interfere with traditional linear services or digital TV content.

Sentech justifies a 20% data cap on ancillary services within DVB-T2 multiplexes, noting that the current allocation for these services sums up to approximately 4.012 Mbps. This is well within the 20% cap, leaving additional room for other ancillary services, overheads or future expansions.

The NAB supports a flexible approach to data services, allowing broadcasters to determine their capacity usage based on commercial rationale. They recommend a light-touch regulatory approach to encourage innovation and investment in data services.

The Authority's Finding

The Authority found that stakeholders provided two distinct submissions on the definition of data services. The first submission defined data services as any digital information conveyed over and above the audiovisual stream of a television broadcast. The second submission described data services as the broadcasting of data over radio frequency networks for providing news, broadcasting programmes, and other information.

The Authority found that there is a preference among stakeholders for flexible regulations that enable broadcasters to determine their capacity usage, allowing them

to adapt to evolving market demands and technological advancements. Stakeholders also expressed a clear interest in expanding data services, including Electronic Programme Guides (EPG), interactive content and other innovative applications. These services enhance viewer engagement and provide broadcasters with opportunities to diversify their offerings.

2.13. Engineering Channel

Question 18

What specific challenges have stakeholders encountered in the current implementation of the regulation regarding the engineering service channel?

Question 19

How can the definition and scope of "engineering service" be clarified within the regulatory framework to alleviate uncertainties?

Question 20

Should the engineering service channel be excluded from the calculation of allocated capacity for broadcasting service licensees on DTT Multiplexes? Please provide reasons for your proposal.

Question 21

What do you propose as a fair and transparent method for allocating the required Mb/s for the engineering service within the broadcast transmission?

Question 22

What are stakeholders' opinions on licensing the engineering service capacity to a common carrier on the Multiplex, designated by the Authority, to ensure transparency and non-discrimination?

Question 23

How can such a licensing approach be structured to accommodate the interests of various stakeholders, including the common carrier and other potential service providers?

Question 24

What factors should be considered when determining the optimal capacity for the engineering service in the evolving landscape of digital broadcasting?

Community broadcasters have not utilised the engineering service channel and note that the STBs distributed by Sentech have not received software updates. They assert that Sentech is responsible for software updates and STB support, not broadcasters. Moreover, the provision of an engineering channel should be provided as part of the remit in terms of commercial agreements between Sentech and Broadcasters who need such service. Therefore, they recommend excluding the engineering service from the calculation of allocated capacity for broadcasting service licensees on DTT Multiplexes.

MultiChoice supports the view that the engineering service should not be included in the calculation of allocated capacity for broadcasting service licensees on DTT Multiplexes. They recommend allocating 1 MB/s to the engineering service from the total broadcast transmission and potentially increasing this capacity to address the number of different STBs in the market.

eMedia proposes that the engineering data managed by Sentech should be excluded from the bandwidth calculation allocated to broadcasters. They suggest that the frequency spectrum should remain co-assigned to the broadcaster and signal distributor, with Sentech determining the optimal capacity for the engineering service.

The SABC did not provide specific recommendations regarding the engineering channel. Their focus remains on ensuring sufficient capacity for their broadcasting needs, including data services.

SOS/MMA did not provide specific recommendations regarding the engineering service channel but emphasised the need for efficient operation of digital distribution platforms through proper management of Service Information and engineering data.

Sentech indicates that stakeholders are not taking accountability for the distribution of the engineering channel and the network tests conducted before software updates can be transmitted. They propose that the signal distributor should have visibility of the bit budgets for all Muxes and their usage, including the mandated engineering channel.

Sentech suggests that the scope of engineering services can include maintenance of the field DTH and DTT STBs using in-band Satellite and terrestrial channels.

The NAB supports excluding the engineering service from the calculation of allocated capacity for broadcasting service licensees on DTT Multiplexes. They recommend a light-touch regulatory approach to ensure efficient spectrum use and support the diverse needs of broadcasters.

The Authority's Finding

The Authority found that the main challenge in the implementation of the regulations regarding engineering service channel was the exclusion of the responsible party for software update and STB support.

Stakeholders broadly agree on the exclusion of the engineering service channel from bandwidth calculations for DTT licenses. This approach ensures that the allocated capacity is used for broadcasting content rather than administrative or technical functions.

Additionally, there is consensus on the importance of efficient management of engineering data to support the effective operation of digital broadcasting platforms. Stakeholders propose that the scope of engineering services can include maintenance of the field DTH and DTT STBs using in-band Satellite and terrestrial channels. They recommend allocating 1 MB/s to the engineering service from the total broadcast transmission and potentially increasing this capacity to address the number of different STBs in the market.

2.14. Technical Bodies Supporting the Migration

Question 25

How effectively has JSAG facilitated the coordination of frequency spectrum usage and management of interference during the Digital Migration Performance Period as outlined in Regulation 13?

Question 26

Are there specific challenges or successes experienced in spectrum coordination that stakeholders would like to highlight?

Question 27

Is there a role that the JSAG should continue to play in the post-ASO era to ensure ongoing effective coordination of frequency spectrum usage for DTT?

Question 28

How can JSAG evolve to address emerging challenges or opportunities in spectrum management beyond the ASO phase?

Question 29

To what extent has the DTCAG influenced the supply of digital television content as per its advisory role outlined in the 2012 Regulations?

Question 30

Are there notable successes or challenges in encouraging end-users to acquire set-top boxes and initiating digital television service consumption?

Question 31

Do stakeholders perceive a continuing need for advisory groups like JSAG and DTCAG in the post-ASO landscape? Why or why not?

Question 32

What specific functions or roles should such advisory groups undertake to support the evolving needs of DTT stakeholders?

Question 33

Are there identified gaps or challenges in the current regulatory framework that may necessitate the establishment of new advisory or coordination bodies post-ASO?

Question 34

What functions or responsibilities could these potential new bodies fulfil to enhance the efficiency of DTT operations?

Community broadcasters acknowledge the success of the JSAG in coordinating frequency spectrum usage and managing interference. Should JSAG be retained, it must include community broadcasters. In addition, they propose the creation of a forum where broadcasters can interact with the government, ICASA and Sentech to address emerging opportunities and challenges. This body will be a structure that facilitates "bigger picture thinking" (as opposed to a current piecemeal approach) and should unite broadcasters to advance public interests and the reception of digital broadcast content services.

MultiChoice supports the continued existence of JSAG to coordinate, assist and advise on spectrum coordination post-ASO. They see no pressing need for the continued existence of the Digital Television Content Advisory Group (DTCAG) as it did not influence the supply of digital television content. They believe that no other advisory committees are necessary.

eMedia values JSAG's role in facilitating spectrum coordination and proposes its continuation until all viewers transition to DTT. They suggest establishing an expert group post-ASO to assist ICASA with spectrum-related issues. Conversely, they do not see the need for DTCAG, as it did not achieve its stated objectives.

The SABC acknowledges JSAG's effectiveness in managing interference between broadcasters and mobile operators. They support the dissolution of JSAG six months post-ASO but recommend that any interference after ASO should still be resolved by the Committee. They also state that ICASA should continue its normal function of managing the frequency spectrum.

SOS/MMA agree that JSAG has provided a valuable platform for multi-stakeholder consultation, although they believe the body primarily serves the needs of major players. They recommend that ICASA continue to provide platforms for public participation in regulation-making and licensing processes.

Sentech argues that JSAG has been more effective in addressing matters relating to Television White Spaces (TVWS) and IMT assignments rather than broadcasting issues. They suggest a new body is required with a different scope based on lessons learned, indicating that JSAG should not be revived post-ASO.

Sentech states that the new oversight body will only oversee the replanning process for the terrestrial television broadcasting frequency plan and dissolve once the objectives are met, not more than six (6) months after formation, instead of a permanent entity like JSAG.

The NAB supports the continuation of JSAG to coordinate frequency spectrum usage and manage interference post-ASO. They recommend that JSAG meet more frequently to address concerns expeditiously and ensure effective spectrum management.

The Authority's Finding

The Authority found that stakeholders value JSAG's role in managing spectrum coordination and addressing interference issues during the ongoing migration process. However, no support was expressed for the role played by DTCAG, as stakeholders indicated it had not been effective in influencing digital content strategies, during the ongoing migration process. There was a recommendation for reforming the JSAG following the completion of the ASO. Some stakeholders proposed establishing new advisory bodies to address post-ASO challenges and oversee future developments in broadcasting technology.

2.15. Technologies for DTT

Question 35

How has the implementation of this DVBT-2 contributed to enhancing capacity, ruggedness and flexibility?

Question 36

How are broadcasters and broadcast signal distributors taking advantage of Internet Protocol connectivity and wireless networks?

Question 37

How does the introduction of DTT complement or differentiate itself in comparison to alternative delivery methods and what advantages does it offer?

Question 38

In the context of next-generation DTTB systems, what are the anticipated enhancements in application-oriented technologies? How can these advancements contribute to delivering superior services while addressing the challenge of information expansion through the convergence of the Internet and broadcasting?

Question 39

What advantages do 5G technologies offer in terms of reducing barriers for live broadcasts and how can these technologies benefit remote production by traditional television broadcasters, potentially creating additional revenue streams?

Question 40

Considering the active progress in implementing 5G networks by network providers, how might the introduction of the fifth generation of wireless networks reshape the landscape of content consumption, particularly beyond the scope of DVBT-2?

Question 41

How do 4G and 5G technologies contribute to the broadcast, multicast, and unicast of UHD television and what transformations can be expected in the television industry with the evolution towards XR and AR applications?

Community broadcasters foresee limited impact from 5G technology in the short term due to infrastructure costs. They suggest that 4G technology and channel bonding could be more useful for remote contributions. They acknowledge that next-generation technologies such as ATSC 3.0, based on Internet Protocol (IP), could complement 5G networks and help address the digital divide. They highlight the potential of datacasting for delivering multimedia information to under-serviced areas, supporting education and emergency services.

There is a call from Community broadcasters to build a sustainable ecosystem that includes Digital Terrestrial Television ("DTT"), Direct-To-Home ("DTH") and Over-the-Top ("OTT") services. This ecosystem consists of Free-To-Air ("FTA") broadcasters, ensuring that only broadcasters licensed and regulated by ICASA in the public interest are accommodated on DTT. They highlight that satellite DTH, initially intended as a "gap-filler", is now becoming the primary distribution platform for FTA TV and propose bringing FreeVision DTH into a regulated space.

MultiChoice believes that the DVB-T transmission standard is working well and should not be changed. They encourage the Authority to allow for the introduction of next-generation DTTB systems for future growth and innovation. They highlight the potential of 5G broadcasting for delivering content to large numbers of concurrent users on mobile devices and creating opportunities for new services.

eMedia acknowledges that DVB-T2 has reached the physical limits of spectrum efficiency and is not aware of any new emerging technologies within the DVB standard. They suggest that new standards, such as 5G broadcasting should be considered for future regulations, which should provide flexibility to accommodate technological advancements.

The SABC highlights the advantages of 5G technologies, including high-speed connectivity, flexible coverage and cost-effective solutions. They note that 5G allows broadcasters to deliver content quickly and efficiently, reducing delays or lags in transmission time. This technology, according to the SABC, also helps broadcasters reduce costs associated with satellite connectivity, making production more affordable.

SOS/MMA did not provide specific responses regarding the adoption of new technologies such as 5G but emphasised the need for ensuring access to STBs and addressing the challenges faced by citizens in accessing DTT services due to the shortage of STBs.

Sentech supports integrating complementing technologies like 5G to enhance user experience and optimise network usage. They highlight the potential of FeMBMS, which uses existing DTT infrastructure for broadcasting to mobile devices without data costs, as essential for public services. Sentech advocates for a regulatory framework encouraging DTT services to innovate and integrate new technologies like AI, UHD TV, and VR/AR to promote inclusive and expanded user experiences.

The NAB supports the introduction of new technologies, such as 5G to enhance the DTT platform. They recommend a light-touch regulatory approach to encourage innovation and investment in new technologies and support the diverse needs of broadcasters.

The Authority's Finding

The Authority found that the DVB-T transmission standard is working well and that DVB-T2 has reached the physical limits of spectrum efficiency. Stakeholders encourage the Authority to allow for the introduction of next-generation DTTB systems and future growth and innovation.

The Authority found consensus among stakeholders on the potential of emerging technologies, such as 5G Broadcasting, to enhance DTT by enabling improved service delivery and creating new opportunities for innovation. However, cost concerns were identified as a significant barrier, particularly for smaller broadcasters, limiting their ability to adopt and integrate these advanced technologies.

3. CONCERNS RELATING TO DTT VIABILITY AND SET-TOP BOXES

The Authority acknowledges the significant challenges currently faced in the migration process, particularly regarding the low uptake of DTT and the issues surrounding STBs. While this Inquiry focuses on the broadcasting landscape post-migration, it is important to acknowledge the immediate concerns impacting the success of the migration process, as raised by stakeholders in their submissions.

3.1. Low Uptake of DTT and Challenges with STBs

Stakeholders expressed concern that the viability of the DTT platform is under threat due to the low number of DTT decoders installed, especially in low-income households. The adoption of DTT has lagged significantly behind Direct-to-Home (DTH) satellite television, which is now becoming the primary distribution platform for Free-to-Air (FTA) television.

Several factors were seen as having contributed to this situation including:

- a. Government-Subsidised STB Programme: The government's subsidised STB registration and installation project has been plagued by ongoing challenges, including the closure of post offices, a non-operational online registration system, and limited public awareness of where to register for STBs.
- b. Definition of Indigent Households: The eligibility criteria for subsidised STBs remains tied to a combined household income of R3,500. This outdated definition excludes many households, as the legal definition of indigent income is now R6,500 according to Stats SA.
- c. Technical Issues: Reports indicate that a significant percentage of the installed STBs are faulty, exacerbated by a lack of software updates. These STBs were manufactured in 2015 and may no longer meet current technological requirements.
- d. Reception Problems: Poor reception in some areas has further discouraged households from adopting DTT.
- e. Commercial Availability: STBs remain unavailable in retail stores, leaving many households without access to the devices they need to transition to DTT.

3.2. General Comments

The Authority does not overlook or dismiss the challenges experienced by stakeholders moving from analogue to digital. While this Inquiry is intended to address the broadcasting landscape post-migration, the Authority remains committed to supporting the broader transition process and ensuring that lessons learnt during digital migration are incorporated into future strategies. To that end, following the public hearings, the Authority informed the Minister of Communications and Digital Technologies on the concerns raised by stakeholders and the challenge likely to be faced with the switch off date.

To effectively tackle the root causes of low adoption rates for DTT, the Authority strongly encourages ongoing and proactive engagement with a diverse array of stakeholders. This includes policymakers, industry participants, broadcasters and community organisations. Such collaboration is crucial for identifying barriers to DTT uptake and developing targeted initiatives that ensure equitable access to digital broadcasting services. Ultimately, the goal is to create a sustainable and inclusive digital broadcasting environment that benefits all South Africans, fostering greater participation and enhancing the overall viewing experience.

4. POSITION OF THE AUTHORITY

As a next step, the Authority will develop draft regulations for public consultation based on these findings. The consultation process is designed to engage all relevant parties, allowing for constructive feedback that will help refine the proposals and ensure they are effectively aligned with the needs and expectations of all stakeholders.

5. CONCLUSION

The Authority acknowledges the vital role that stakeholder contributions have played in shaping the findings of this Inquiry. The diverse perspectives gathered from broadcasters, regulatory bodies, industry experts and other key stakeholders have provided essential insights into the complex challenges and emerging opportunities faced by the broadcasting sector in the wake of the digital migration era. This collaborative process underscores the importance of joint efforts in developing regulations that serve both industry requirements and the interests of the public.

The Authority extends appreciation to all participants for their invaluable contributions and insights throughout this Inquiry. We look forward to sustaining this collaborative approach as we advance towards finalising regulations.