



# Presentation on the Draft Digital Terrestrial Television Regulations 2025

30 September 2025



# Presentation Overview

- Regulatory Framework Challenges
- Technology Neutrality Concerns
- Multiplex Operation Issues
- Technical Compatibility Requirements
- 5G Broadcasting Integration
- Recommendations for Future-Proofing



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# Legal & Regulatory Context

## High Court Order

Case 2025-008928 (27 March 2025) impacts ASO and D2D migration in EC, GT, KZN, WC

## Draft White Paper

Proposes converged framework for traditional broadcasting and OTT platforms

## Technology Neutrality

ECA principles require flexible, non-prescriptive regulatory approach

# Critical Definition Concerns

## Digital Broadcasting Definition

- **Problem:** Current definition too narrow - excludes satellite, cable, IP-based broadcasts
- **Issue:** Circular definition creates regulatory confusion
- **International Standard:** ITU defines as "transmission of audiovisual media by bit streams"
- **Impact:** Limits innovation and creates technology lock-in

# Multiplex Operator Definitions

Operator Type	Function	Level
Transport Stream Multiplex	Content aggregation from multiple broadcasters	Source packaging
Multiplex Operator	Signal distribution infrastructure management	Network distribution

## Multiplex Operator Definitions

**Key Distinction:** Aggregation vs Distribution Services

# Technology Framework Limitations

## Current Regulatory Constraints

- Mandates DVB-T2 and MPEG-4 (2012-2015 technology)
- Ignores next-generation standards (DVB-I, HbbTV)
- Conflicts with ECA technology neutrality principles
- Limits hybrid and IP-based platforms

**Result:** Technology lock-in prevents innovation and competitiveness

# Shared Multiplexing: Lessons Learned

## Operational Challenges

- **Coverage Conflicts:** Different broadcaster requirements
- **Cost Inefficiency:** Fixed costs regardless of utilization
- **Business Model Conflicts:** Competing strategies create friction
- **Technical Complexity:** SFN optimization difficulties

*Experience shows shared multiplexes dilute broadcaster control and increase operational complexity*

# Learned Recommended Multiplex Assignment

Multiplex	Primary Licensee	Capacity	Usage
MUX 1 & 5	SABC	100%	SABC channels + authorized content
MUX 2	e.tv	100%	e.tv channels + authorized content
MUX 3	Kwesé/FTA	55%/45%	Mixed commercial/FTA
MUX 4	Subscription TV	100%	Competitive licensing
MUX 6	Community TV	25% each	4 community broadcasters max
MUX 7	Innovation	Variable	Trials and experiments

# Technical Coordination Challenges

## Critical Technical Factors

- **Equipment Compatibility:** Multiplex and PIE processing alignment
- **SFN Synchronization:** DVB-T2 timestamps and markers coordination
- **Encryption Integration:** Cross-platform scrambling for DTH/DTT
- **Regional Services:** Content substitution at transmitter sites

**Proposal:** Technical Coordination Group for operational oversight

# Frequency Network Challenges

## Multi-vendor Risks

- SFN requires bit-by-bit synchronization across all transmitters
- Multiple off-site multiplexes targeting same SFN cell create conflicts
- Timestamp coordination critical for SFN functionality
- Current system designed for single-vendor operation

**Risk Assessment:** Multi-vendor multiplex operations may compromise SFN integrity and service availability

# DTH-DTT Integration Requirements

## Current System Benefits

- Same satellite carrier for DTH and DTT links reduces costs
- 86% land coverage requires DTH gap-filler services
- Integrated encryption system across platforms
- Regional content substitution capability

**Concern:** Third-party multiplex operators may compromise DTH compatibility and increase operational costs

# Engineering Services Channel

## Technical Requirements

### Capacity Allocation

4 Mbps for software updates to DTT receivers

### Coverage

Multiplex with largest coverage area

### Users

Up to 20 STB manufacturers @ 200 kbps each

**Purpose:** Over-the-air firmware updates for DTT receiving equipment

# Levelling the Playing Field

## Regulatory Asymmetry Issues

- **IMT/OTT:** Light-touch regulation enables innovation
- **DTT:** Heavy regulation limits competitiveness
- **Technology Lock-in:** Prevents adaptation to market changes
- **Investment Barriers:** Rigid standards discourage innovation

**Solution:** Technology-neutral approach for terrestrial television

# 5G Broadcasting: Future Integration

## FeMBMS Opportunities

- **HPHT Networks:** High-power, high-tower deployment using existing infrastructure
- **Mobile Integration:** Audio-visual content without data costs
- **Public Safety:** Emergency services capability
- **Spectrum Efficiency:** Complementary use of DTT spectrum

*FeMBMS designed on OFDM standards (like DVB-T2) enables seamless integration*

# Converged Media Delivery Platform

## Integrated Service Delivery

### Terrestrial Broadcasting

High-power transmission for wide coverage

### Satellite Networks

Gap-filler and backup services

### Mobile Cellular

5G broadcast integration

### Fiber Networks

Backhaul and distribution

**Goal:** Ubiquitous coverage through technology convergence

# Rural Coverage Enhancement

## 5G-DTT Synergy Benefits

- Addresses cost challenges of 5G rural rollout
- Leverages existing broadcast infrastructure
- Accelerates universal service delivery
- Optimizes network usage across technologies
- Minimizes overall investment requirements

**Impact:** Combined platform facilitates cost-effective 5G services for entire population

# Key Regulatory Recommendations

## Technology Neutrality

Remove DVB-T2/MPEG-4 mandates, allow any digital standards within 8 MHz bandwidth

## Multiplex Management

Dedicated multiplexes by broadcaster category, eliminate forced sharing

## Transition Provisions

Allow temporary use of spare capacity for cost recovery

## Technical Coordination

Establish Technical Coordination Group for industry oversight

# Timeline and Implementation

## Proposed Modifications

- **36-month to 24-month:** Reduce transition timeline for cost efficiency
- **Interim Capacity Use:** Allow multiplex operators to use spare capacity
- **Phased Implementation:** Align with ASO and D2D court order requirements
- **Technical Audits:** Annual capacity reviews for optimization

**Rationale:** Balance operational costs with implementation flexibility

# Strategic Implications

## Industry Impact

- **Innovation Enablement:** Technology neutrality encourages new services
- **Investment Attraction:** Flexible framework supports next-gen services
- **Competitive Positioning:** DTT remains viable against OTT/IMT platforms
- **Service Differentiation:** Enables hybrid broadcast models
- **Market Entry:** Supports new entrants and innovation

# Conclusion

## Path Forward

- Regulatory framework must enable technology evolution
- Dedicated multiplex allocation improves efficiency
- Technical coordination essential for network integrity
- 5G integration offers sustainable future
- Technology neutrality is not optional—it's essential

## SENTECH's Vision

**"A future-proof DTT environment that survives, competes, and evolves alongside emerging technologies"**



# THANK YOU

