



Key challenges to migrating to a digital Platform

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Overview

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“It is government’s conviction that every region, every province, every community, and every citizen, whether urban, rural or remote, reaps the benefits of access to the new, networked economy. This is at the core of the political mandate of improving and securing a better life for all South Africans”

Minister of Communications, Dr Ivy Matsepe Casaburri, 9 March 2001



- “ Our digital migration strategy should take the following strategic imperatives into account;**
- That broadcasting services should be seen within the context of convergence of the Information and Communication Technologies**
 - That Digital Migration should be driven by the need to expand services to all South Africans particularly the poor whilst ensuing market growth and socio-economic development**
 - The migration to digital broadcasting regime will be a gradual transition of discontinuities of analogue technologies**
 - That digital migration should be a thoroughly managed process that creates consumer and investment confidence”**

Minister of Communications, Dr Ivy Matsepe Casaburri, 29 November 2006

Background to DTT in South Africa

The first DTT transmitter in SA, based on the DVB-T standard, was switched on during 2000 from the Sentech Tower in Brixton, JHB. This DTT transmitter accommodates 5 TV services, and covers the greater JHB area, some 15% of the total South Africa population.

This DTT service is currently operating as a test transmission with a license issued by ICASA.



RSA Signal distribution landscape

- Migration to digital platforms would require a ***change in policy*** to accommodate the new medium. Since more than one broadcaster would use channels on the same transmitter, it is essential that the ***frequency be assigned to the signal distributor/network operator***. This also holds true for the function of multiplex operator, as world best practice has shown that an ***independent network operator ensures effective operation***. The use of Single Frequency Networks (***SFN***) using existing high site infrastructure will also ensure effective use of frequencies as well as minimize capital expenditure. Any other migration approach is simply not possible without major public broadcast service disruption.

Why migrate to DTT?

- Migrating current services only, will just not make sense.
- The economic model and business plan will only make sense once new services as well as value added services are deployed on spectrum that will become available, after switching off analogue.
- The advantage of a digital network will only be realised once analogue services are switched off.



Main objective of migration

- To migrate current analogue services to a DTT platform over a five year period.
- To meet the requirements of the DOC and key broadcasters.
- Make spectrum available for additional services as well as channels required for the World Cup Soccer 2010.
- First phase should be based on implementing two multiplexes for seven services:
 - SABC 1
 - SABC2
 - SABC3
 - M-Net
 - e-tv
 - SABC Regional 1
 - SABC Regional 2
 - Spare channels for WCS 2010

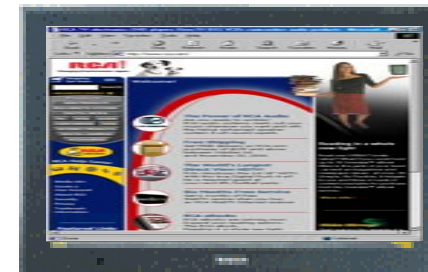


Convergence and Universal Access

- Approximately 7 million households have television sets
- It will be possible to use DTT STB's in conjunction with broadband services.
- Every television set potentially becomes an internet access point
 - Add a keyboard
 - Broadband as the request path
- This offer approximately 5.5 million homes with potential internet access instead of the current 1.2 million
- Combining broadband with digitisation is the key

ASGISA objectives become reality

- Once the television broadcast signal distribution network is digitised it will become a platform for:
 - E-government, e-health and e-education services
 - Development and growth of broadband access
 - Focus on under-serviced areas and SMME development
- A converged broadcasting and broadband solution
 - Great leap in internet access to the homes of our people.



Dual illumination

Although digital transmissions are more cost-effective than analogue transmissions, broadcasters/authorities cannot simply switch-off their analogue transmissions and replace them with digital transmissions the following day. ***Most countries have adopted a simulcast policy in which digital and analogue transmissions are transmitted in parallel for some years.*** Only when most of the consumers are equipped with digital TV receivers, switching off of analogue transmissions may be contemplated. The problem with this concept is that broadcasters face an ***increase in transmission*** costs during the simulcast period. At face value, broadcasters, therefore, have a strong financial incentive to make the simulcast period as short as possible.

Dual Illumination (Cont.)

- What will drive dual illumination?
 - Determined by STB roll-out and access to DTT services.
 - Should be as short as possible.
 - Funding options to be finalised.
 - Could take as long as 10 years for PBS.
 - Commercial broadcasters may demand shorter periods.
 - The Challenge would be to have a dual illumination strategy in place that will benefit all broadcasters.
 - Could be site/area based.



Ownership of MUX?

- Who should the MUX frequency be assigned to?
- Since more than one broadcaster would use channels on the same transmitter, it is essential that the frequency be assigned to the signal distributor/network operator. This also holds true for the function of multiplex operator, as world best practice has shown that an independent network operator ensures effective operation.
- Broadcasters want to own their own mux which could pose a problem in terms of available spectrum prior to analogue switch-off.

Awareness Campaign

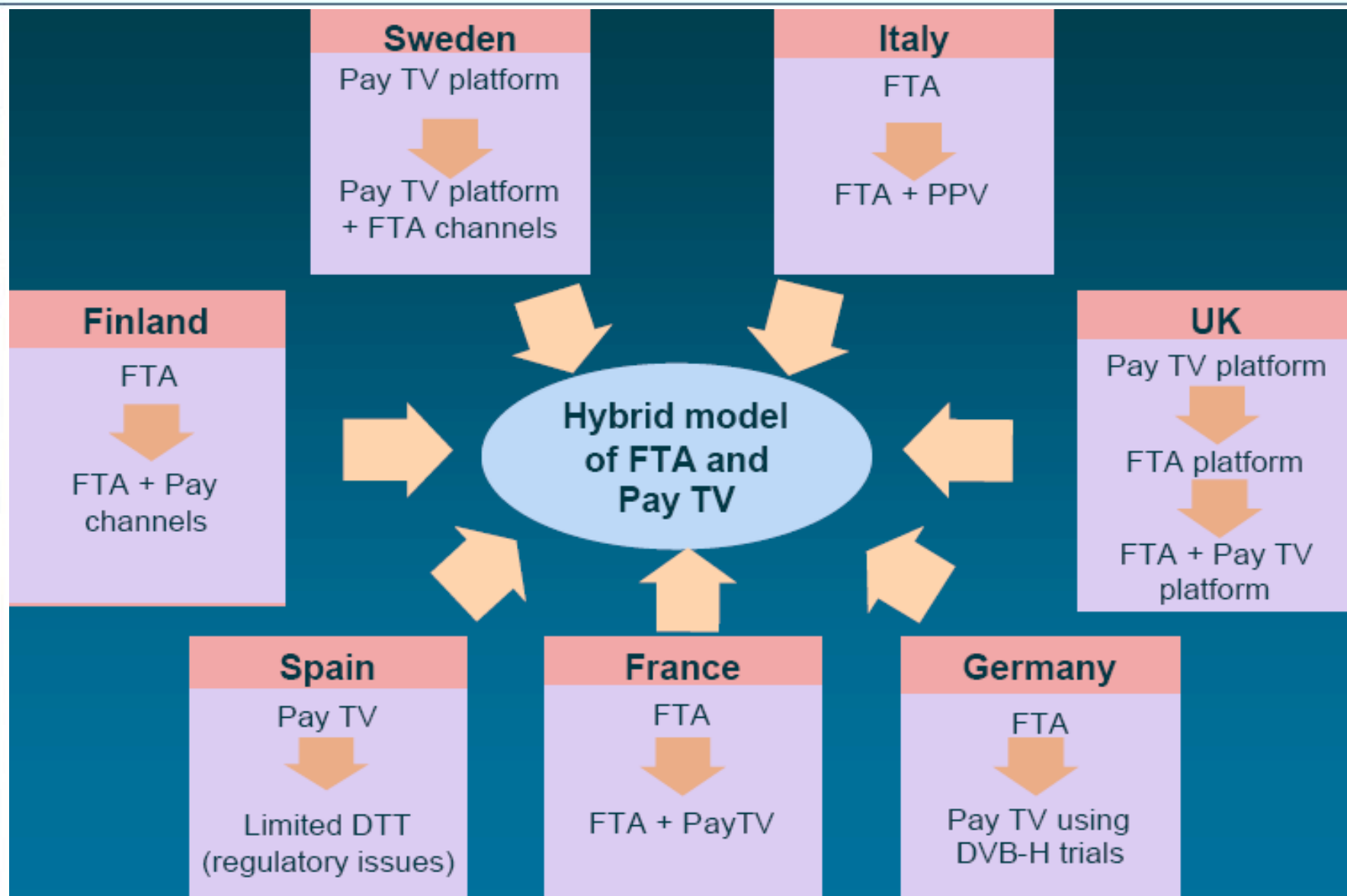
- There has to be close cooperation between Government, the Regulator, broadcasters, signal distributors and industry.
- To ensure effective communication to all stakeholders during the migration process. Establish a Communications team to effectively deliver on a Communication strategy. This strategy will encompass aspects such as press releases, forum discussions, industry communication, stakeholder workshops, advertorials in advertising etc.
- Most people probably don't even know what DTT is. Confusion in the market on DTT, DVB-H, HDTV, DTH, 3G, HSDPA, etc.

STB's (Set Top Boxes)

- Given the total TV households it should be noted that 63% of the population are grouped in the LSM 1 to 6 range (earning less than R 3 897 pm) This factor will weigh heavily in the determination of a funding model to be adopted as normal commercial initiatives will not attract this segment to move to DTT.



What model?



Source: *Analysys 2005/DOC DMWG*

Essence of successful migration.

- Has to be in line with government policy
- Extensive use of latest technology.
- Affordable.
- Well structured.
- Reserve existing available spectrum.
- Ensure minimum interference on all analogue services during implementation
- Ensure minimum discomfort for viewers.
- Success of workable strategy, network roll-out and approach.
- “Basic services on basic platforms in basic places”

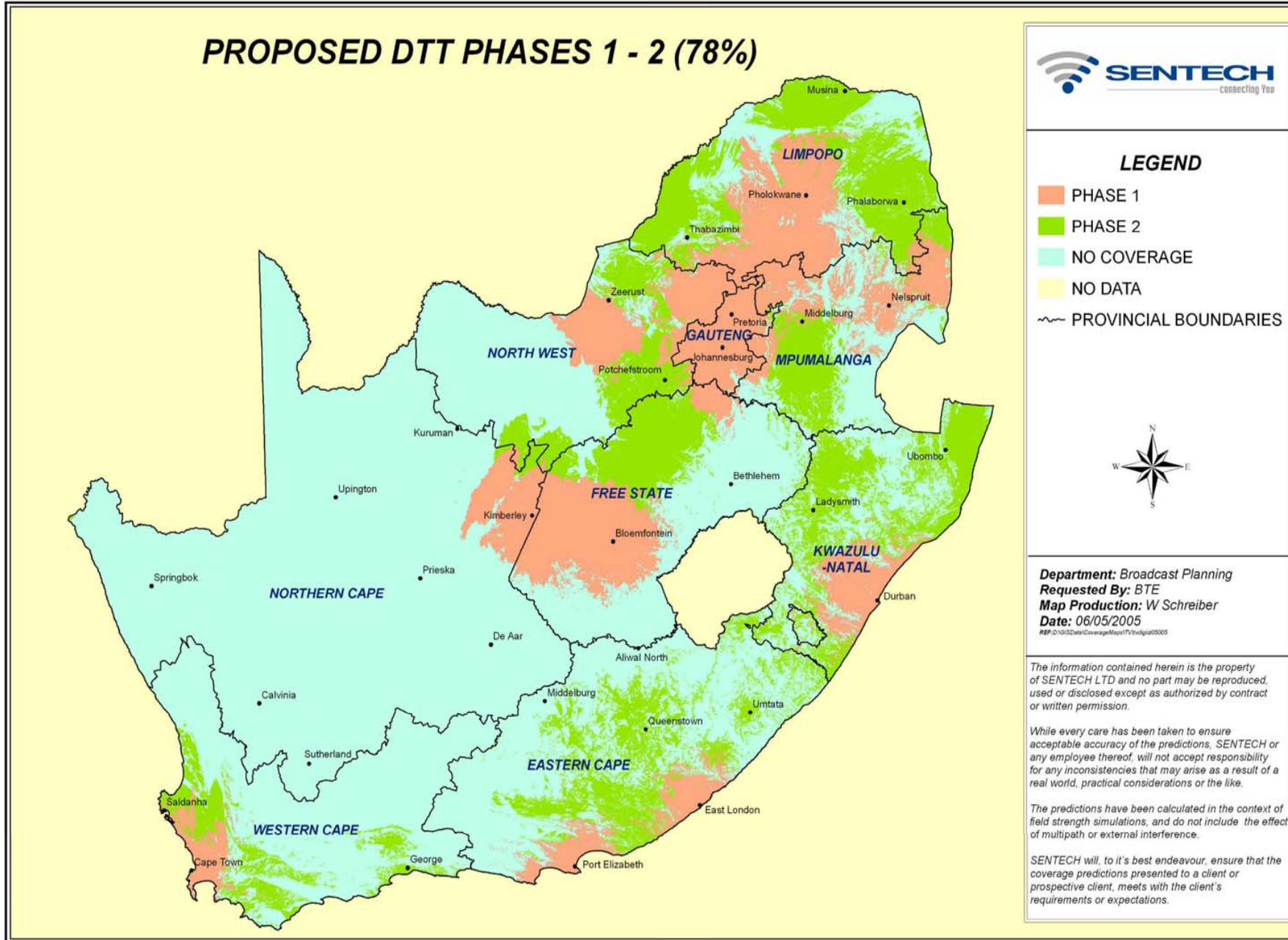


DTT and 2010

- In view of optimised spectrum usage, more channels will be available in 2010.
- It is anticipated that at least three DTT channels will be reserved for live soccer games during 2010.



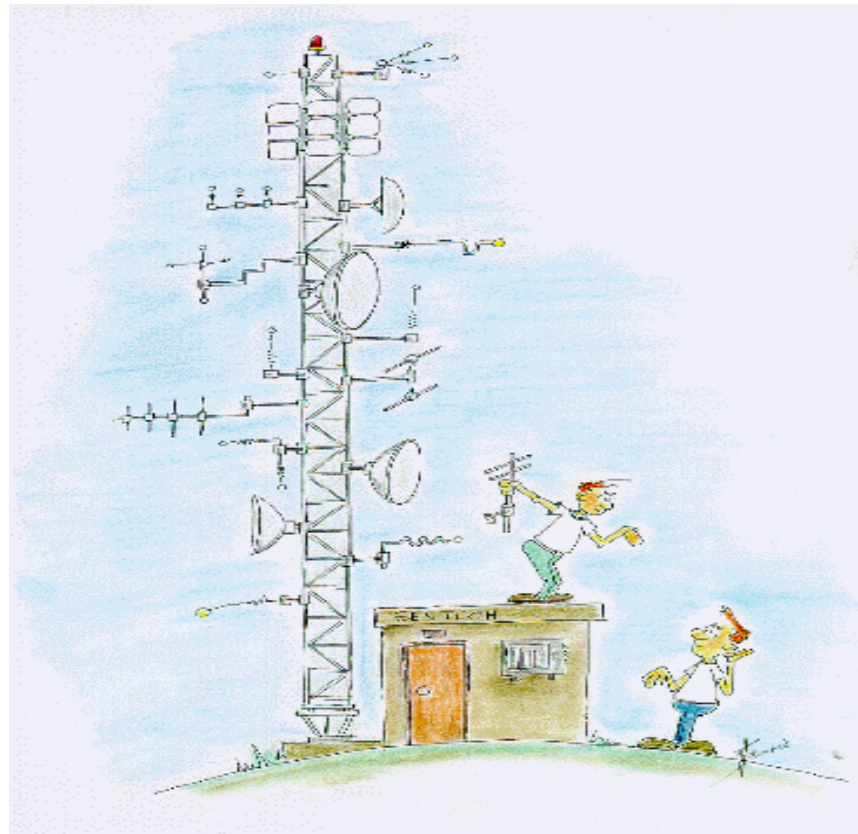
Digital Coverage end 2010: 78% of Population



What are the challenges?

- A workable policy framework.
- Protecting public broadcast services.
- Funding.
- STB (Set top box) cost.
- STB availability.
- Technology choices – MPEG-2/4, CA system
- Well planned dual illumination strategy.
- Awareness campaign.
- Industry support.
- Meeting the requirements of the World Cup Soccer in 2010.

The Future of Terrestrial Broadcasting is Digital





Thank you