SENTECH PRESENTATION:

Select Committee on Labour and Public Enterprises

15 August 2012

● Mr Thabo Mongake — Chairperson

●Mr Mesuli Dhlamini — Non-Executive Director

●Ms Zanele Hlatshwayo — Non-Executive Director

●Ms Leah Khumalo — Non-Executive Director

●Mr Paris Mashile — Non-Executive Director

●Mr Sipho Mjwara — Non-Executive Director

●Mr Steven Molala — Non-Executive Director

●Dr Setumo Mohapi — Chief Executive Officer

●Mr Kganki Matabane — Chief Operating Officer

●Ms Makhotso Chimombe — Company Secretary (Acting)

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- In its Corporate Plan for the MTEF period 2012-2015, SENTECH noted that the Minister had cautioned that the country's commitment to complete analogue switch-off by 2013 may not be met;

- The Minister however made a commitment that there will be a launch during the third quarter of the year ahead; the key requirements of the launch are:
    - Passage of the amended BDM Policy by the Minister
    - Passage of strategies dealing with STB ownership support and the STB manufacturing by Cabinet
    - Passage of the amended DTT migration regulations by ICASA
    - Network coverage in all provinces of the country by SENTECH
    - Content readiness by DTT broadcasters (SABC, etv, Mnet and Community broadcasters)
    - Availability of STBs in the market

- In consideration of these challenges, the Department of Communications, together with its SOE's have recommended that a staggered provincial DTT rollout be implemented;

- SENTECH has since reviewed its DTT rollout plan to enable a rolling Provincial infrastructure rollout programme. SENTECH believes that this strategy will ensure that the country has a common implementation and communication plan for DTT.
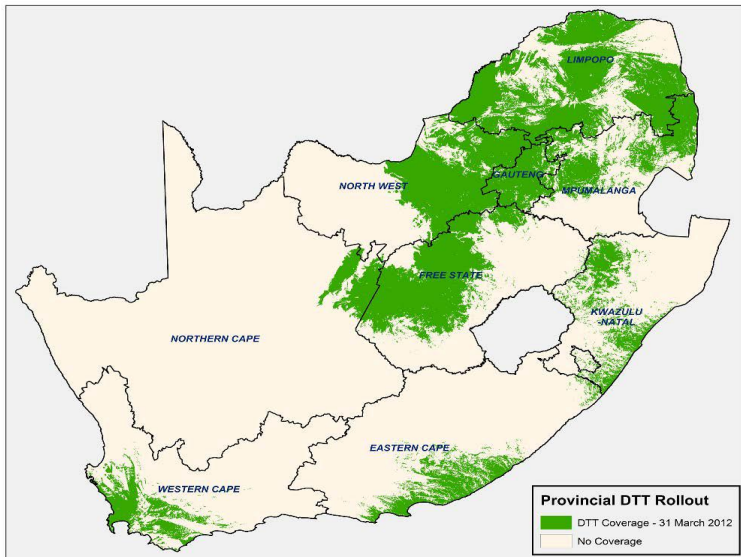
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SENTECH
connecting You

Provincial DTT Rollout
- DTT Coverage - 31 March 2012
- No Coverage

	Actual Population	60% DVB-T2 Population Coverage			Full Rollout DVB-T2 Population	
Gauteng	22%	10 718 135	21.44%	96%	22%	97%
North West	6%	2 954 486	5.91%	92%	6%	93%
Mpumalanga	7%	1 184 794	2.37%	33%	7%	90%
Limpopo	11%	3 229 438	6.46%	59%	9%	83%
Eastern Cape	13%	2 079 638	4.16%	31%	10%	74%
Free State	6%	1 304 773	2.61%	46%	5%	88%
Northern Cape	2%	329 943	0.66%	30%	2%	68%
Kwazulu-Natal	21%	4 834 159	9.67%	45%	19%	89%
Western Cape	10%	3 814 336	7.63%	73%	8%	77%
TOTAL	**100%**	**30 449 701**	**60.9%**	**60.9%**	**87%**	**87%**

* Based on Statistics SA's 2010 population estimates

	Rural	Urban
Launch (60% roll-out)	12%	49%
Gauteng	9%	91%
Limpopo	82%	18%
Free State	22%	78%
Mpumalanga	51%	49%
Kwazulu Natal	43%	57%
Eastern Cape	52%	48%
North West	55%	45%
Western Cape	6%	94%
Northern Cape	26%	74%
TOTAL	36%	64%

- The current coverage is based on plans that were made in 2006;

- However, the DTT coverage still touches every province even though there is a skew towards urban areas;

- The provincial rollout programme moving forward will ensure that moving forward, there is always a balance between rural and urban areas.

GAUTENG	LIMPOPO	KWAZULU NATAL	WESTERN CAPE	NORTH WEST
PRETORIA	THABAZIMBI	GLENCOE	TYGERBERG	KLERKSDORP
SUNNYSIDE	POTGIETERSRUS	DURBAN	FRANSCHHOEK	RUSTENBURG
WELVERDIEND	LOUIS TRICHARDT	OVERPORT	VILLIERSDORP	ZEERUST
PRETORIA NORTH	HOEDSPRUIT	PORT SHEPSTONE	CAPE TOWN	
MENLO PARK		THE BLUFF	AURORA	NORTHERN CAPE
HELDERKRUIN	MPUMALANGA	VERULAM	HOUT BAY	KIMBERLEY
JOHANNESBURG	NELSPRUIT		PAARL	
HEIDELBERG	MIDDELBURG	EASTERN CAPE	FISHHOEK	
LINMEYER		EAST LONDON	STELLENBOSCH	
MONDEOR	FREE STATE	PORT ELIZABETH	TABLE MOUNTAIN	
MULBARTON	THEUNISSEN	DESPATCH	SEA POINT	
BEZ VALLEY	BLOEMFONTEIN	GRAHAMSTOWN	SIMONSTOWN	

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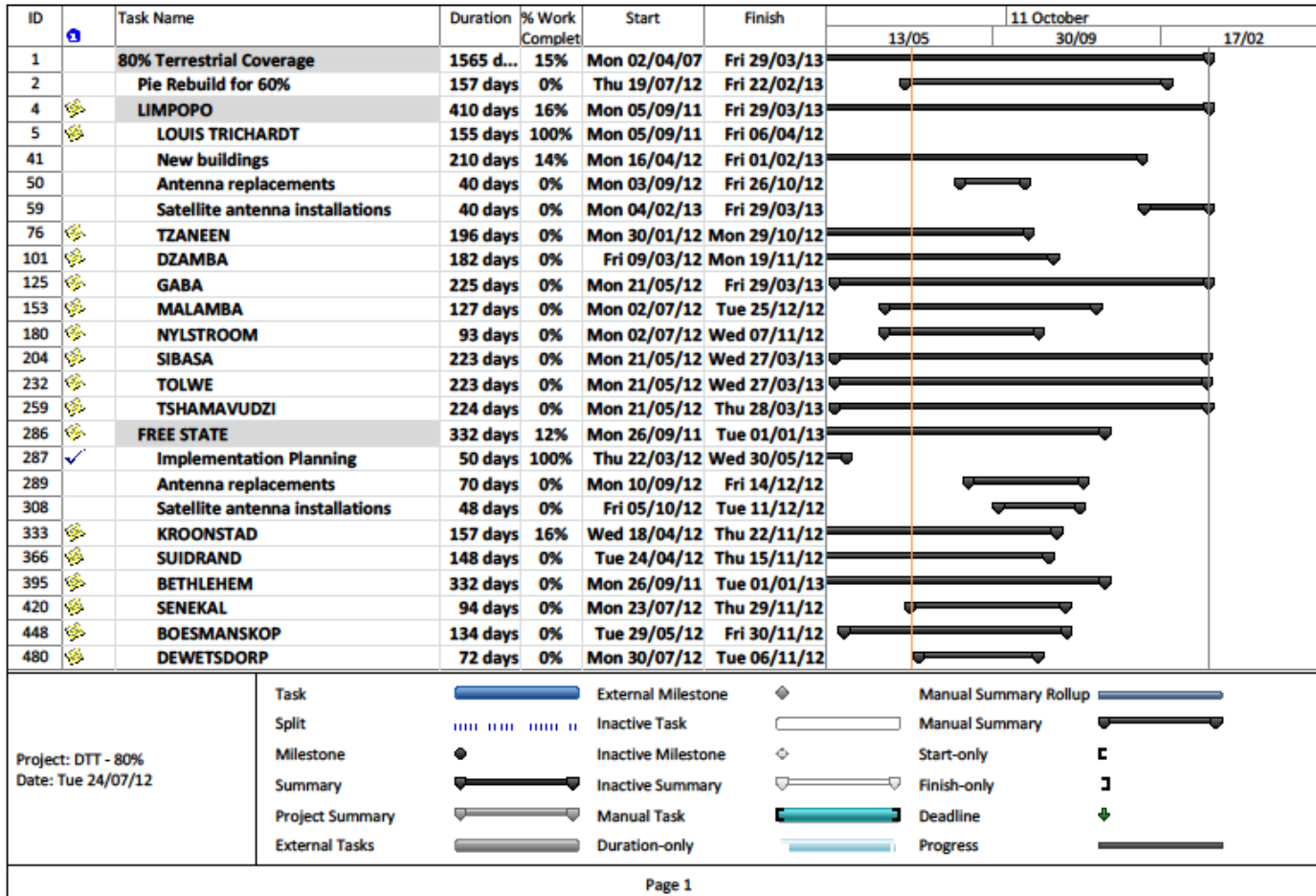
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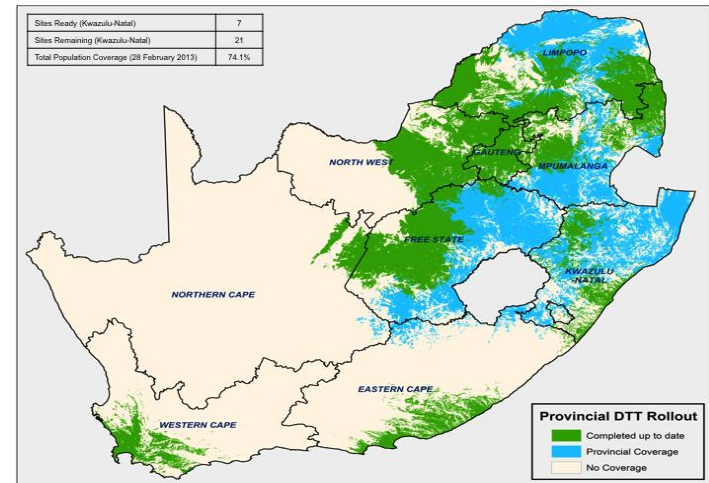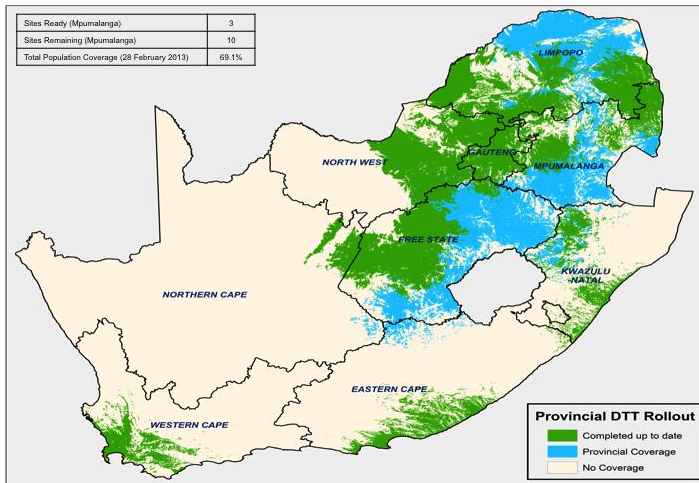
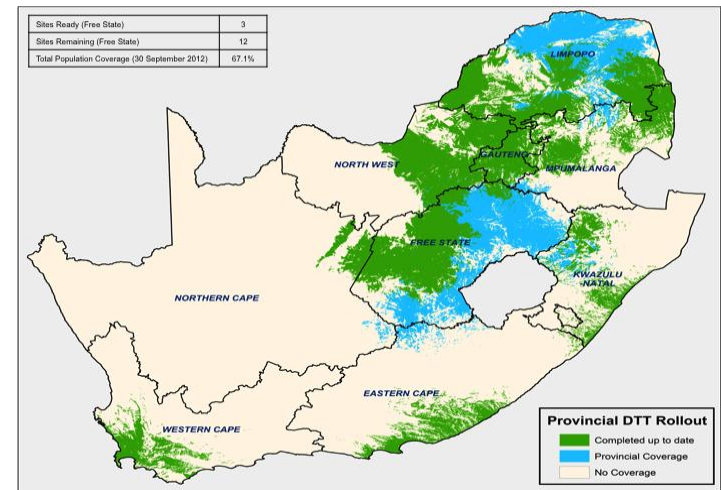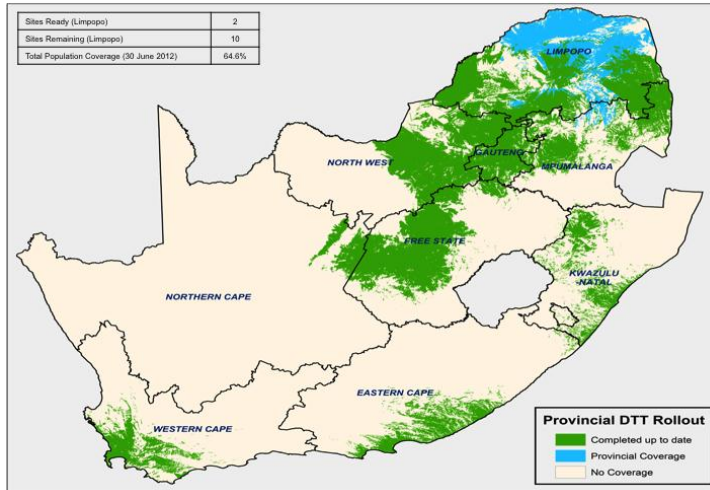**Towards the Launch and 80% Population Coverage**

      ➡ **Infrastructure Rollout**

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ID		Task Name	Duration	% Work Complet	Start	Finish	13/05	30/09	17/02
1		**80% Terrestrial Coverage**	1565 d...	15%	Mon 02/04/07	Fri 29/03/13			
2		**Pie Rebuild for 60%**	157 days	0%	Thu 19/07/12	Fri 22/02/13			
4		**LIMPOPO**	410 days	16%	Mon 05/09/11	Fri 29/03/13			
5		**LOUIS TRICHARDT**	155 days	100%	Mon 05/09/11	Fri 06/04/12			
41		**New buildings**	210 days	14%	Mon 16/04/12	Fri 01/02/13			
50		**Antenna replacements**	40 days	0%	Mon 03/09/12	Fri 26/10/12			
59		**Satellite antenna installations**	40 days	0%	Mon 04/02/13	Fri 29/03/13			
76		**TZANEEN**	196 days	0%	Mon 30/01/12	Mon 29/10/12			
101		**DZAMBA**	182 days	0%	Fri 09/03/12	Mon 19/11/12			
125		**GABA**	225 days	0%	Mon 21/05/12	Fri 29/03/13			
153		**MALAMBA**	127 days	0%	Mon 02/07/12	Tue 25/12/12			
180		**NYLSTROOM**	93 days	0%	Mon 02/07/12	Wed 07/11/12			
204		**SIBASA**	223 days	0%	Mon 21/05/12	Wed 27/03/13			
232		**TOLWE**	223 days	0%	Mon 21/05/12	Wed 27/03/13			
259		**TSHAMAVUDZI**	224 days	0%	Mon 21/05/12	Thu 28/03/13			
286		**FREE STATE**	332 days	12%	Mon 26/09/11	Tue 01/01/13			
287		**Implementation Planning**	50 days	100%	Thu 22/03/12	Wed 30/05/12			
289		**Antenna replacements**	70 days	0%	Mon 10/09/12	Fri 14/12/12			
308		**Satellite antenna installations**	48 days	0%	Fri 05/10/12	Tue 11/12/12			
333		**KROONSTAD**	157 days	16%	Wed 18/04/12	Thu 22/11/12			
366		**SUIDRAND**	148 days	0%	Tue 24/04/12	Thu 15/11/12			
395		**BETHLEHEM**	332 days	0%	Mon 26/09/11	Tue 01/01/13			
420		**SENEKAL**	94 days	0%	Mon 23/07/12	Thu 29/11/12			
448		**BOESMANSKOP**	134 days	0%	Tue 29/05/12	Fri 30/11/12			
480		**DEWETSDORP**	72 days	0%	Mon 30/07/12	Tue 06/11/12			

Project: DTT - 80%
Date: Tue 24/07/12

Task		External Milestone		Manual Summary Rollup
Split		Inactive Task		Manual Summary
Milestone		Inactive Milestone		Start-only
Summary		Inactive Summary		Finish-only
Project Summary		Manual Task		Deadline
External Tasks		Duration-only		Progress

Page 1

Sites Ready (Limpopo)	2
Sites Remaining (Limpopo)	10
Total Population Coverage (30 June 2012)	64.6%

Provincial DTT Rollout
- Completed up to date
- Provincial Coverage
- No Coverage

Sites Ready (Free State)	3
Sites Remaining (Free State)	12
Total Population Coverage (30 September 2012)	67.1%

Provincial DTT Rollout
- Completed up to date
- Provincial Coverage
- No Coverage

Sites Ready (Mpumalanga)	3
Sites Remaining (Mpumalanga)	10
Total Population Coverage (28 February 2013)	69.1%

Provincial DTT Rollout
- Completed up to date
- Provincial Coverage
- No Coverage

Sites Ready (Kwazulu-Natal)	7
Sites Remaining (Kwazulu-Natal)	21
Total Population Coverage (28 February 2013)	74.1%

Provincial DTT Rollout
- Completed up to date
- Provincial Coverage
- No Coverage

Sites Ready (North West)	3
Sites Remaining (North West)	13
Total Population Coverage (30 April 2013)	81.4%

Provincial DTT Rollout
- Completed up to date
- Provincial Coverage
- No Coverage

Sites Ready (Western Cape)	13
Sites Remaining (Western Cape)	22
Total Population Coverage (31 May 2013)	82.9%

Provincial DTT Rollout
- Completed up to date
- Provincial Coverage
- No Coverage

Sites Ready (Northern Cape)	0
Sites Remaining (Northern Cape)	14
Total Population Coverage (31 October 2013)	83.6%

Provincial DTT Rollout
- Completed up to date
- Provincial Coverage
- No Coverage

- The target for this financial year is to complete roll out of DTT to Limpopo, Free State, Mpumalanga and Kwazulu Natal and an additional 18 sites in Western Cape, North west and Eastern Cape to reach 80% population coverage.

DTT 80% population coverage rollout				
Province	Planned Stations	Remaining stations	Cumulative population Coverage	Target Date
Limpopo	8	1[##]	63.85%	29-Mar-13
Free State	11	1[##]	66.32%	15-Jan-13
Mpumalanga	10	0	68.84%	08-Mar-13
Kwazulu Natal	21	1*	75%	15-Mar-13
Western Cape	6	16**	75.93%	28-Mar-13
North West	2	11**	76.60%	07-Mar-13
Eastern Cape	10	21**	80%	29-Mar-13
Nothern Cape	0	14**		
## - New transmitter stations to constructed, Harrismith & Burgersfort				
* - Ulundi requires a new Mast and UHF antenna system				
**-Sites beyond 60%				

Limpopo (8)	Free State (11)	Mpumalanga (10)	Kwazulu Natal (21)	Eastern Cape (10)
DZAMBA	SUIDRAND	SABIE	ESHOWE	PORT ST JOHNS
MALAMBA	FICKSBURG TOWN	STANDERTON	PIETERMARITZBURG	ALIWAL NORTH
NYLSTROOM	DEWETSDORP	HECTORSPRUIT	HOWICK	KIRKWOOD
TZANEEN	KROONSTAD	LYDENBURG	LOSKOP	MOUNT AYLIFF
GABA	BETHLEHEM	DULLSTROOM	EMPANGENI	KING WILLIAMS TOWN
SIBASA	BOESMANSKOP	PIET RETIEF	UBOMBO	QUEENSTOWN
TSHAMAVUDZI	SENEKAL	DAVEL	ESTCOURT	UMTATA
TOLWE	LADYBRAND	CAROLINA	GREYTOWN DORP	BUTTERWORTH
	SPRINGFONTEIN	VOLKSRUST	KOKSTAD	KAREEDOUW
	WITSIESHOEK	MBUZINI	LADYSMITH	SUURBERG
	PETRUS STEYN		NEWCASTLE	
Western Cape (5)	**North West (2)**		MATATIELE	
GEORGE	SCHWEIZER RENEKE		PONGOLA	
KLEINMOND	CHRISTIANA		DONNYBROOK	
PIKETBERG			MOOIRIVIER	
KNYSNA			GREYTOWN	
MONTAGU			NONGOMA	
			VRYHEID	
			LOUWSBURG	
			NQUTU	
			QUDENI	

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Due Date	Description	Status
29 June 2012	Full Fixed Assets re-evaluation	Completed
18 July 2012	Finalise DTT commercial tariffs and submit to EXCO for approval	Completed
24 July 2012	EXCO Approval of DTT Commercial Tariffs	Completed
31 July 2012	Workshop with Customers	Completed
27 July 2012	Board Consideration of Draft Commercial Tariffs	Completed
Mid August 2012	Further Customer Engagements	On-going
Mid September 2012	Long-term Business Plan Development	
Mid September 2012	Board Approval of New Long Term Business Plan	
End September 2012	Shareholder Engagement on Long Term Business Plan	
End September 2012	Final Submission of Tariffs and Commercial Offers to Customers	
End September 2012	Submission of Customer Commercial Offers to ICASA	

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- The amended Broadcast Digital Migration (BDM) policy, issued under government gazette no. 35014, requires that the STB includes a STB control system to protect the investment by government in subsidy scheme, as well as the electronic manufacturing industry;

- SANS 862 states that the main elements specified for security within the STB control function are:
    o a secure over-the-air software and bootstrap loader;
    o a mechanism to prevent STB decoders from functioning in non-RSA DTT networks;
    o STB control system that will enable mass messaging.

- Furthermore, SANS 862 states that STB decoder manufacturers are responsible for the implementation of the security requirements specified by the free-to-air individual broadcasting service licensees in South Africa and for the proper configuration of the chipsets. In this regard, manufacturers can obtain the security requirements from the free-to-air individual broadcasting service licensees in South Africa or from their appointed agents (trusted third parties).

- A directive from Minister mandated SENTECH to establish and operate the STB control system. SENTECH understands that the scope of the directive does not necessarily include the STB User Interface (UI) and the Subscriber Management System (SMS) operations other than that for STB control operations. SENTECH will be upgrading its existing conditional access system (CA) to implement the STB control mechanism and the mechanism will constitute a combination of a robust conditional access system (CAS) to allow full control of STBs by the operator for activation, revocation, geographical zone locking, messaging and a secure bootloader. This design will meet the requirements of the BDM policy and the SANS 862 and SENTECH hopes, through the ongoing negotiations, that the design will also meet the requirements of the broadcast licensees as specified in SANS 862.
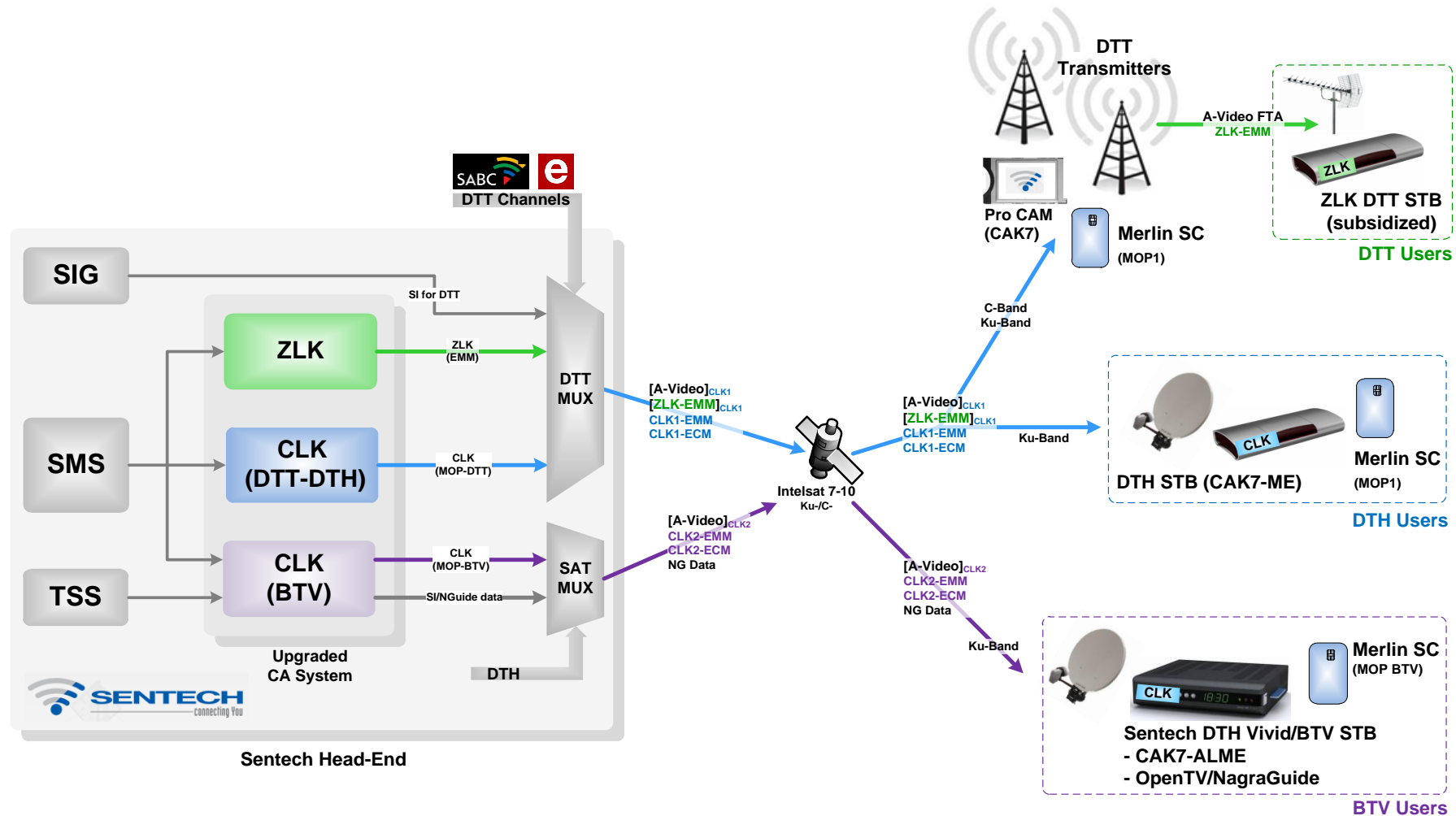
SAP SMS

Nagra SMS

TSS

DTH

DTT

DNASP2 SAS

Aladin CAS

SI

MUX SAT

MUX DTT

FTA DTT is encrypted for SAT uplink

Sentech Head-End

DNASP2

Intelsat7 Ku

DNASP2 +EIT

Aladin

Intelsat10 C

Aladin

DTT Transmitters

FTA

30k DTH STB (CAK5)

DNASP2 SC

DTH Users

FTA STB

DTT Users

Pro CAM (CAK6)

Aladin 142 SC

Set Top box control funding requirements	Amount ZAR
CA system upgrade	1 000
IMS hardware and software upgrade and adaptation	1 500
System adaptation for DTT over DTH platform	500
Business TV customer migration	500
Smartcard and ProCAM	3 000
Annual maintenance costs	3 000
60 man-days system engineers	500
Total	**10 000**

Broadcast Digital Migration Policy (Amended) states that STBs will:

5.1.2.7 include an STB control system that will protect the investment by Government in its STB subsidy scheme, as well as the electronic manufacturing industry. A robust STB control will benefit consumers by ensuring that they do not have to own multiple boxes. The STB control system provided will be interoperable with other systems;

5.1.2.8 enable access to a secure bootloader mechanism by a Government entity or agency or any entity so designated by Government to ensure access to the STBs control system by future broadcast licensees on the DTT platform.

SABS STB National Standard states that:

Introduction The STB decoder should also be capable of providing interactive services, and control means are required to prevent subsidized STB decoders from being used outside South Africa.

5.1 The minimum hardware and software requirements for STB decoder control shall be implemented in accordance with the STB decoder control specification for free-to-air DTT in South Africa. Manufacturers can obtain the STB decoder control specification from the incumbent terrestrial free-to-air broadcasting service licensees in South Africa or their appointed agents (trusted third parties)

Government has mandated SENTECH, in terms of the BDM Policy, to make use of its existing infrastructure to implement STB control for the DTT STBs.

Set Top box control funding requirements	Amount ZAR
CA system upgrade	1 000
IMS hardware and software upgrade and adaptation	1 500
System adaptation for DTT over DTH platform	500
Business TV customer migration	500
Smartcard and ProCAM	3 000
Annual maintenance costs	3 000
60 man-days system engineers	500
Total	**10 000**

During the current financial year, SENTECH submitted a business case for to the Department for the funding of the STB control system upgrade.

The request was made as an adjustment to the budget allocated to SENTECH for the financial year 2012/2013. Current indications are that the additional request may not be accommodated in this current financial year and as a result, the SENTECH Board has agreed to use the current DTT project funds to fund the upgrade, whilst the company awaits budget allocations for the next MTEF cycle.

In this regard, an order for the upgrade has been issued and SENTECH should be in a position to support both the STB RFP process and also meet the timelines for having the STBs available in the market.

SENTECH SOC Limited

Project (R' million)	Capital	Interest earned	Total
Digital Terrestrial Television (DTT)	**312**	**40**	**352**
Capital for infrastructure	233	32	265
Dual Illumination	79	8	87
Broadband Network	**457**	**127**	**584**
NWBN Project	439	121	560
Eassy Project	18	6	24
2010 World Cup Soccer	**57**	**28**	**85**
Community Broadcasters	**4**	**6**	**10**
Total project funds	**830**	**201**	**1 031**

Treatment of Interest earned

- In a letter dated 07 Dec 2011, Sentech communicated to the Minister that interest earned on grant funds is recognised as income in the Company's accounting records, with the exception where NT has directed otherwise when funds were received;

- This accounting treatment is in line with the company's accounting policy for the recognition of interest earned and has been applied consistently in all other previous years; the external auditors have raised a concern however that NT has not formally given approval of this accounting treatment of the interest on grants; should NT rule otherwise, then SENTECH's audited financial statements may need to be restated from as far back as 2006;

- Part of the above exception includes the R32m earned on DTT funds where NT directed that it be utilised to fund the capital portion of the project;

Financial Year	2007	2008	2009	2010	2011	2012	2013	Cum to FY2013	2014	2015	Total	Less Vat
Capex Baseline	95	120	150	160	161	159	167	1 012	176	187	1 375	
Adjustments	-	-	-	-	-	-	(1)	(1)	129	(15)	113	
Net Allocation	95	120	150	160	161	159	166	1 011	**305**	**172**	1 488	1 305
Interest earned (Capitalised)	-	-	-	-	-	32	-	32	-	-	32	32
Total Capex	95	120	150	160	161	191	166	1 043	305	172	1 520	1 337
Opex (Dual illumination)	-	-	-	100	110	120	-	330	-	-	330	289
Total DTT project funds	95	120	150	260	271	311	166	1 373	305	172	1 850	1 627

Financial year	2007	2008	2009	2010	2011	2012	2013	Cum to FY2013	2014	2015	Total
Capital Received	95	120	150	160	51	269	166	1 011	477	-	1 488
Opex (dual illumination) received		-	-	100	20	120	-	240	-	-	240
Vat on funds received	(12)	(15)	(18)	(32)	(9)	(48)	(20)	(154)	(59)	-	(212)
Interest Earned	-	-	-	-	-	-	32	32	-	-	32
Net Capital Received	**83**	**105**	**132**	**228**	**62**	**341**	**178**	1 129	418	-	1 548
Capital expenditure								(938)	(400)	-	(1 338)
Set top box control system							(10)	(10)	-	-	(10)
Opex (dual illumination) costs	-	-	(16)	(39)	(39)	(39)	(78)	(210)	(106)	(107)	(423)
Net expenditure	**-**	**-**	**(16)**	**(39)**	**(39)**	**(39)**	**(88)**	**(1 158)**	**(506)**	**(107)**	**(1 771)**
Net funds balance	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**(29)**	**(88)**	**(107)**	**(223)**

Deficit is caused by:

|					
Set top box control system	**(10)**	**-**	**-**	**-**	**(10)**
Dual illumination additional funding required	**-**	**-**	**(106)**	**(107)**	**(213)**
	(10)	**-**	**(106)**	**(107)**	**(223)**

FY2015 allocation should be received in FY2014 to accomplish Dec 2014 project completion target.

Digital Terrestrial Television (DTT) Migration (R' Million)

| Financial Year	2013	2014	2015
Dual illumination opex	95	106	107

- The DTT project seeks to migrate from the analogue to the digital broadcasting system by June 2015 as sanctioned by the International Telecommunication Union (ITU) to which the South African government is a member. Sentech has been transmitting two signals since November 2008, i.e. analogue and digital to broadcasters and will continue to do so until analogue switch off. The dual illumination funding request is to cover the incremental costs arising from dual illumination over the MTEF period.

- The above requisition assumes analogue switch off in June 2015.

- In order to avoid charging broadcasters for the digital signal until analogue switch off, it is vital that Sentech receives the requisite additional funding allocation of R213 million (R106m & R107m in FY2014 and FY2015 respectively) as shown above.

- SENTECH commits that it is ready and able to support a national technical launch of DTT during the third quarter of the year, within the existing DTT coverage areas for terrestrial services;

- SENTECH further submits that in line with the requirements of the amended BDM Policy, it is able to the simultaneously demonstrate reception of digital channels via direct-to-home satellite;

- In particular, SENTECH notes that such a demonstration can coincide with the national technical launch and further provide demonstration of digital free-to-air television working simultaneously in urban and rural areas of the country;

- SENTECH is also working towards providing 80% coverage by the end of the financial year, with full conversion of sites in Limpopo, Free State, Mpumalanga and Kwazulu Natal and conversion of additional sites in Eastern Cape, North West and Western Cape.

Provincial DTT Rollout
- DTT Coverage - 31 March 2012
- No Coverage

SKA Core
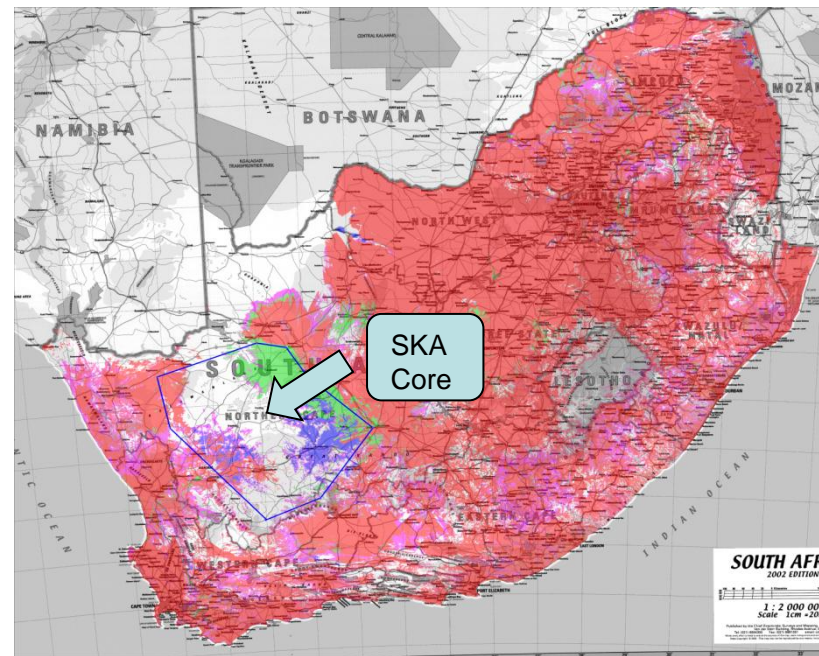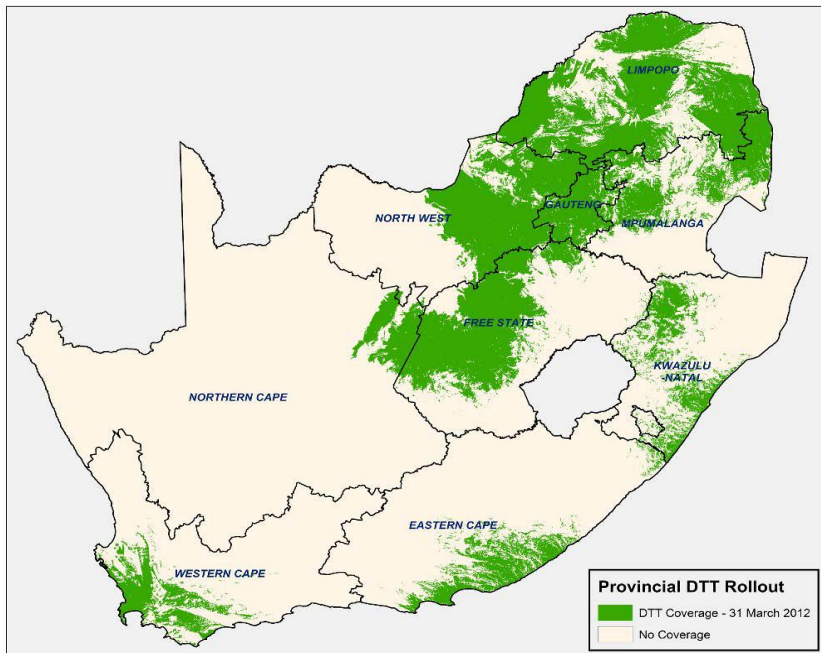
The soft launch of terrestrial reception can be at any of the green places shown above.

Simultaneously, the soft launch of satellite reception can be at any of the white places shown above. The core of the SKA area already does not have coverage and the demonstration/soft launch can confirm non-interfering reception of the digital broadcasting services.
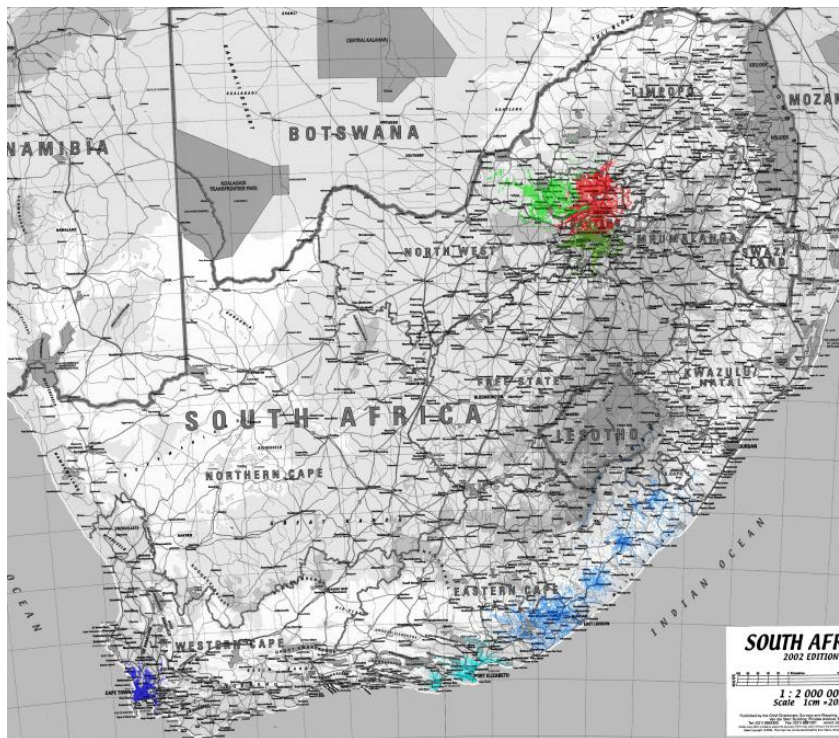
Current analogue coverage:

- Limited to metropolitan areas
- TBN has much wider coverage in EC
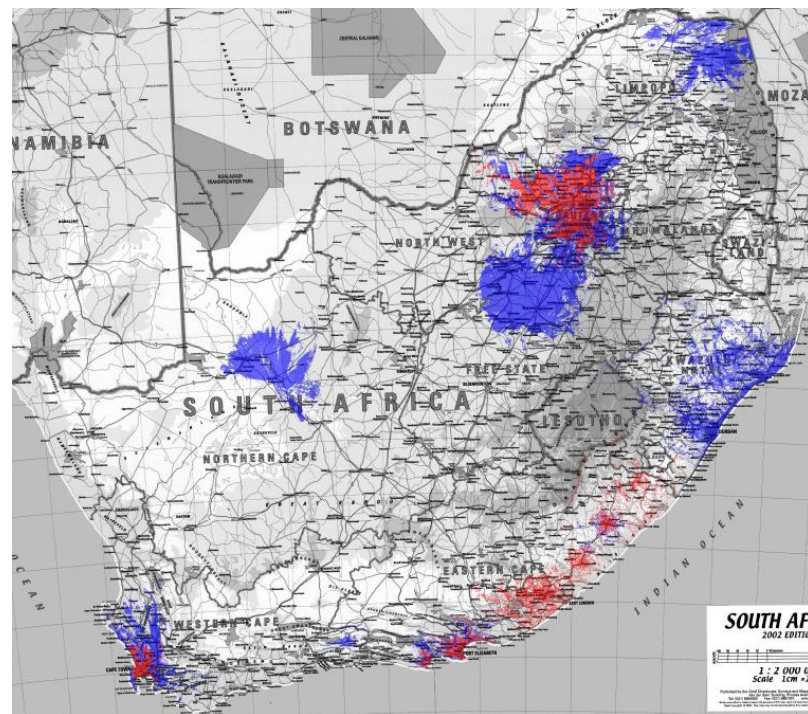
DTT coverage under current regulations:

- Still limited to metropolitan areas
- Coverage increases slightly with SFNs
- Highly inefficient use of spectrum on Mux 1
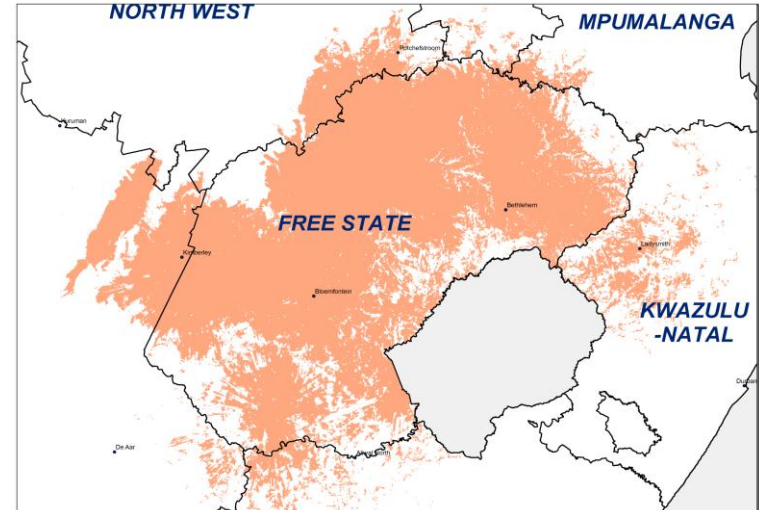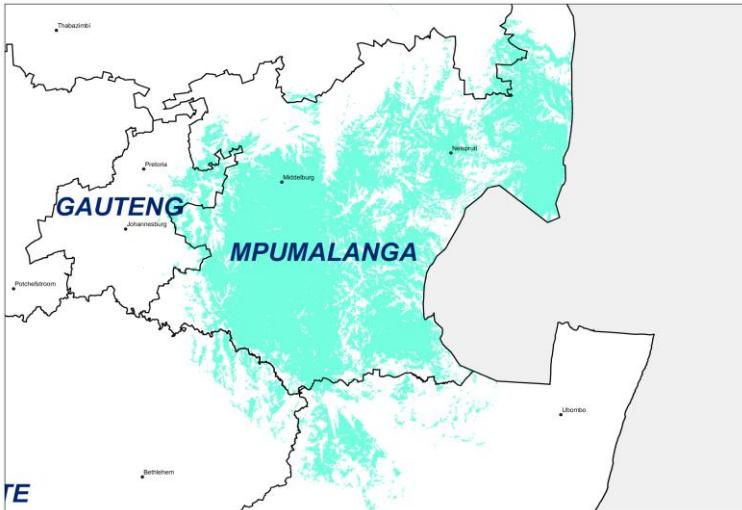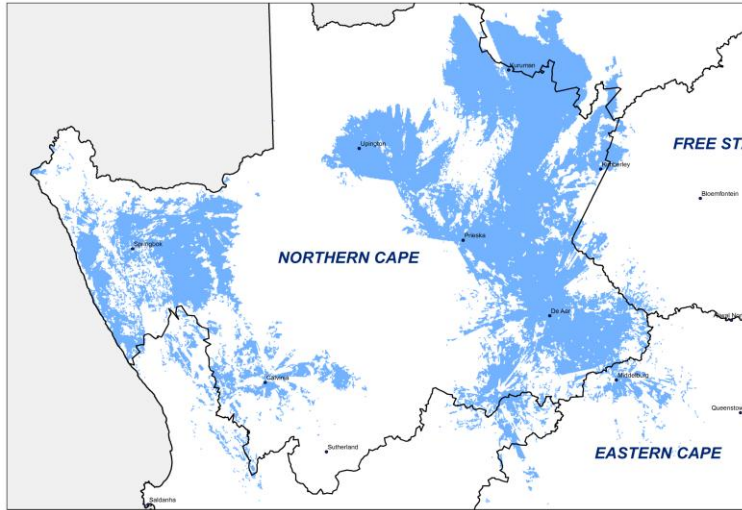- Not aligned with universal access imperatives

Community TV services
- Bay TV
- Cape TV
- Mandela Bay TV
- Platinum TV
- Soweto TV
- TBN
- Tshwane TV
- No Coverage
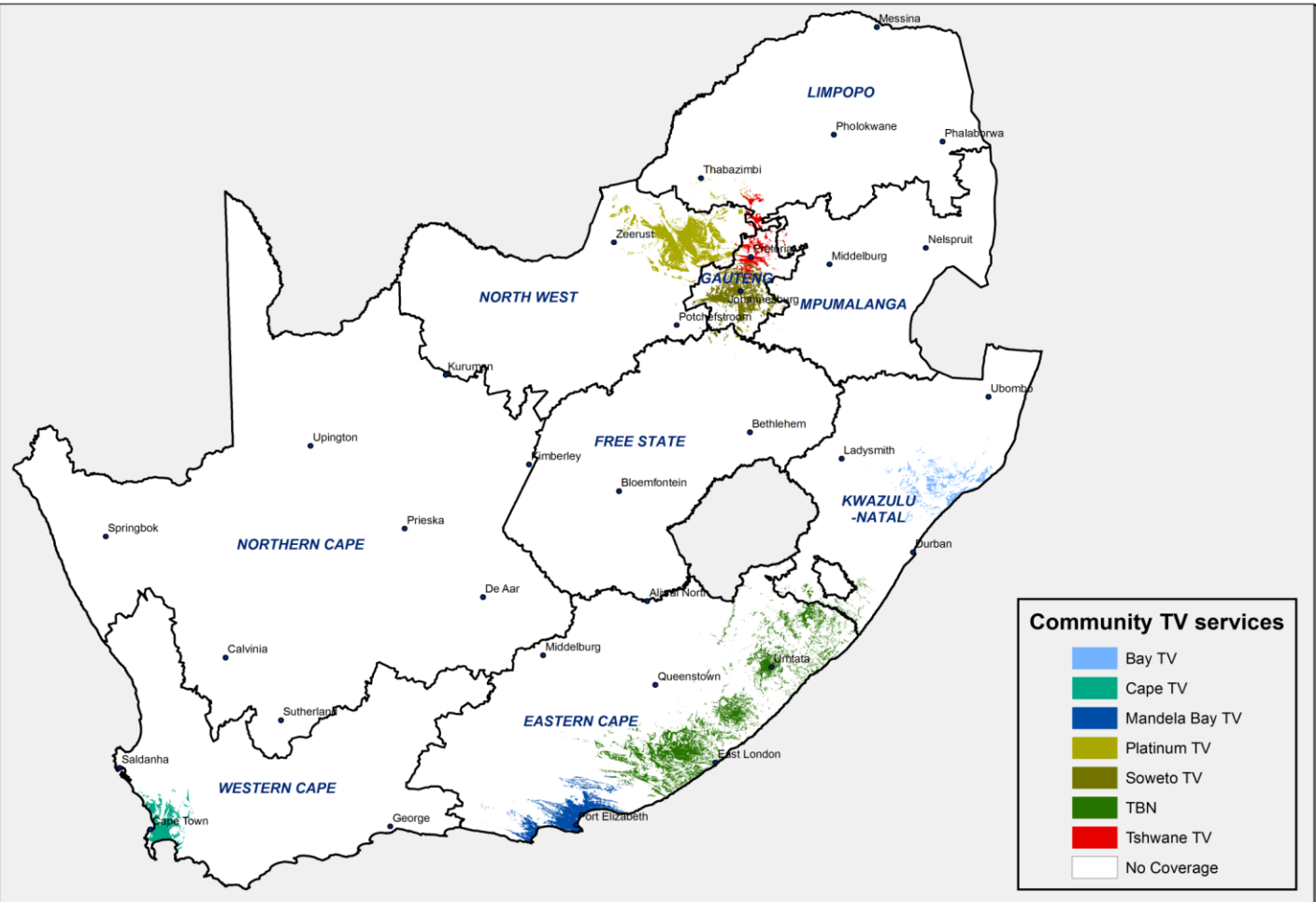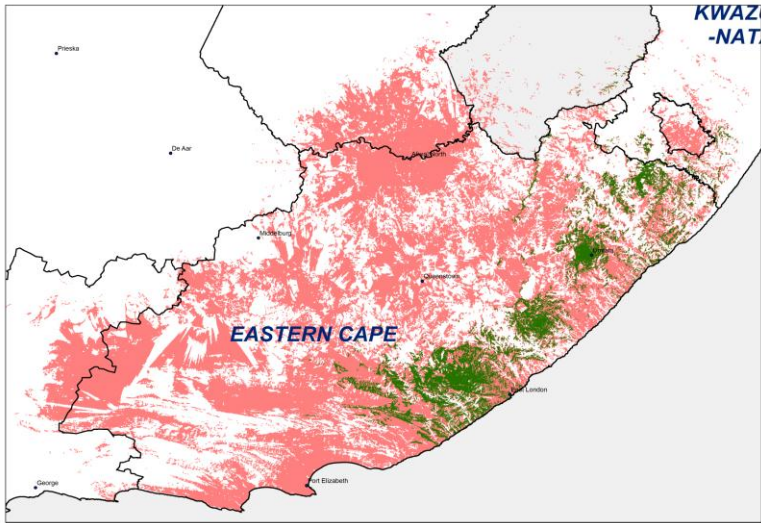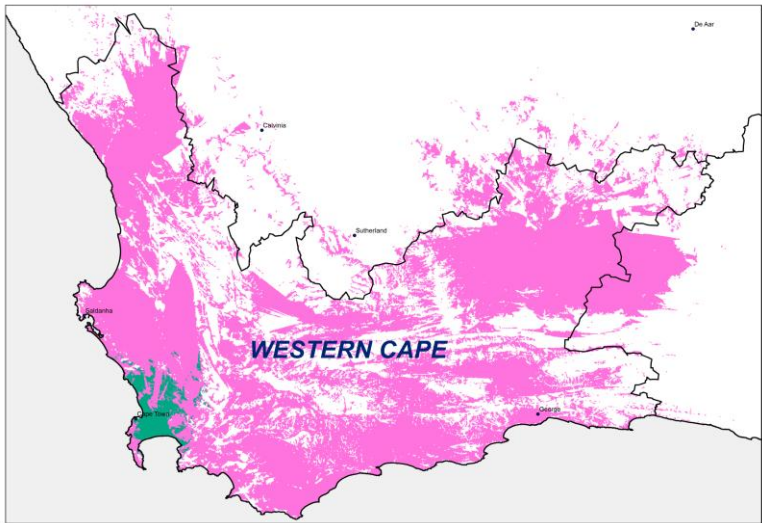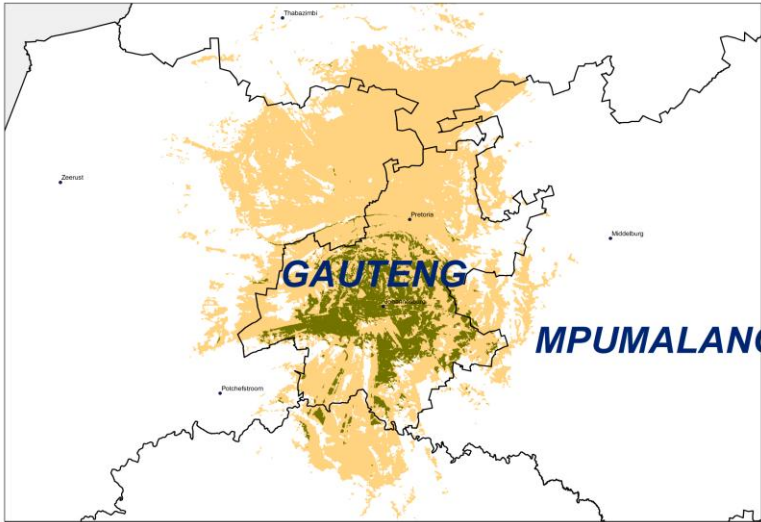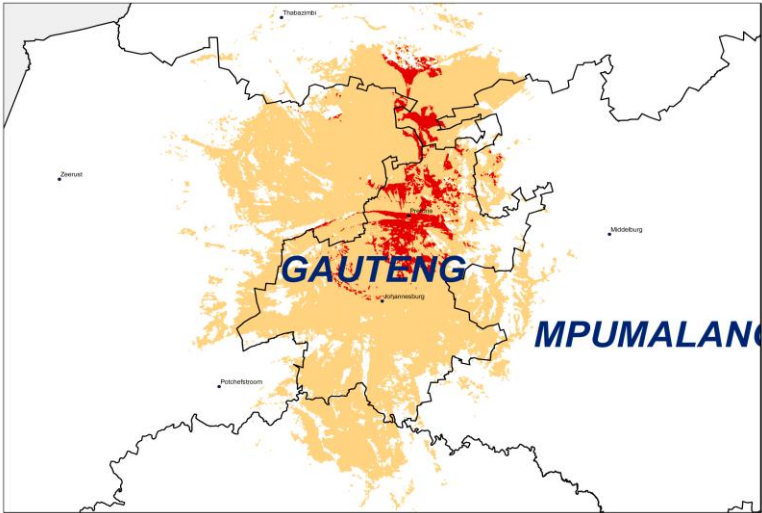
- Community broadcasters allocated 10% capacity on Multiplexor with only limited allocations have been made so far and with rural populations have not been catered for in local television (outside the programmes that may be generated by the public broadcaster);

- With respect to cost recovery, SENTECH is not in a position to recover the cost of the 10% Mux allocation in places where no such allocation has been made, from the incumbent broadcasters; as a result, SENTECH has to carry the cost of the rather insufficient mux allocation;

- SENTECH has made the following proposal in response to the draft regulations on DTT: *In regions where there are no community broadcasting services, SENTECH is of the view that an allocation of the spare capacity should be assigned to any interested broadcaster at regional level (i.e. minimum provincial coverage) in the spirit of efficiency, fairness and enhancement of competition in the broadcasting industry.*

- A similar problem arises on Multiplexor 2 where
  - ETV and MNET may not use all the spectrum assigned to them; this is normally addressed in broadcaster's license conditions and it is currently not clear what these will be; in the meantime, SENTECH is only intending to rollout Mux 2 in areas where one of the two sharing broadcasters requires coverage; the other will then have to follow, otherwise there will be under-recovery of costs;
  - 10% allocation for "test" purposes; there will be under-recovery as long as there is no allocation made to specific testers after ASO.

- The SENTECH proposals to the Shareholder with respect to community television broadcasters under DTT are as follows:
  - For incumbent broadcasters, with limited geographic footprints, applicable subsidies should be increased in line with the new cost dynamics facing these broadcasters;
  - For areas where there are no community broadcasters, the Regulator should be mandated to license regional commercial broadcasters who will make use of the 10% available capacity; this will be consistent with the BDM Policy as amended and universal access imperatives as contained in various other relevant policies.

SENTECH SOC Limited