

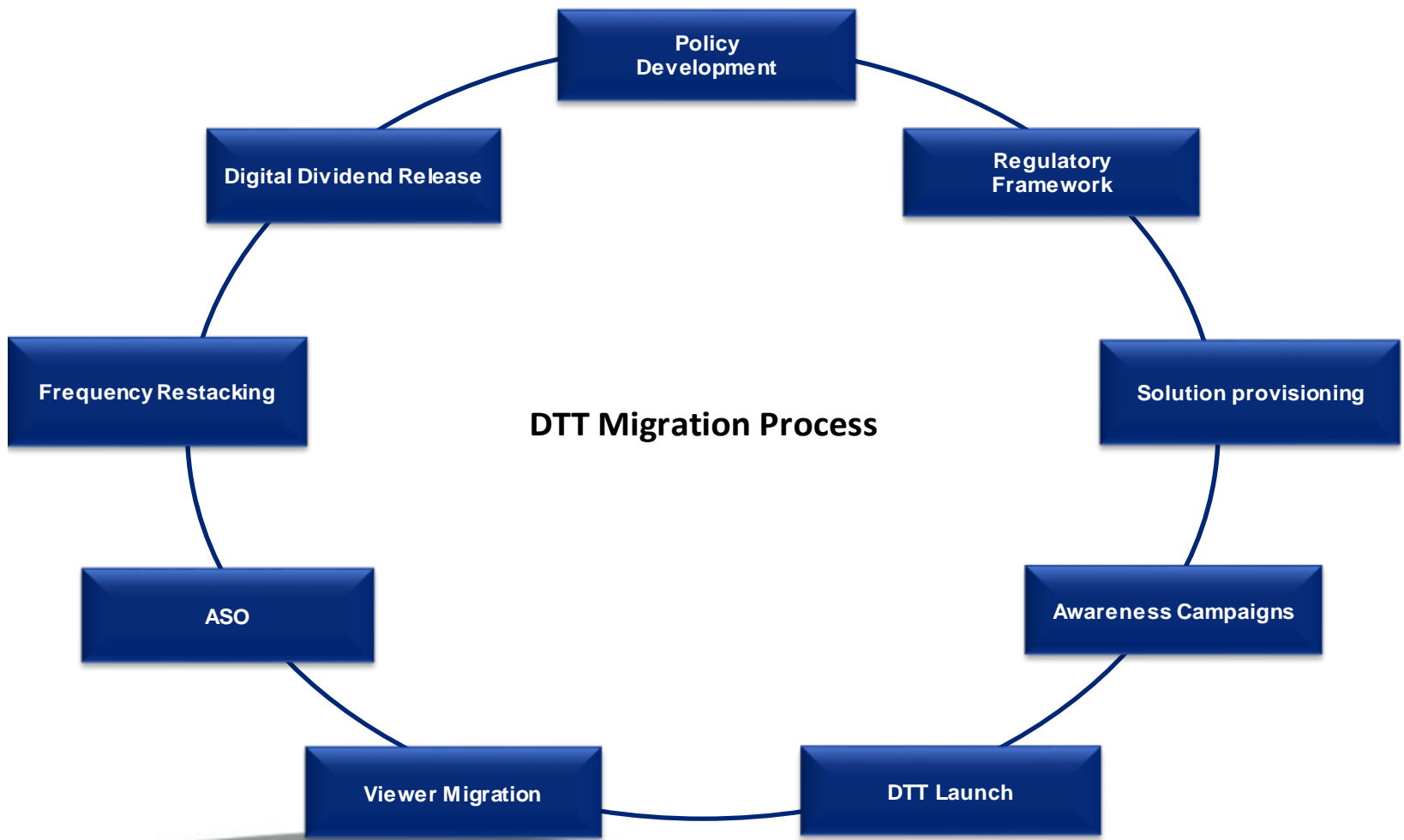


SENTECH SOC LIMITED

DTT STATE OF READINESS

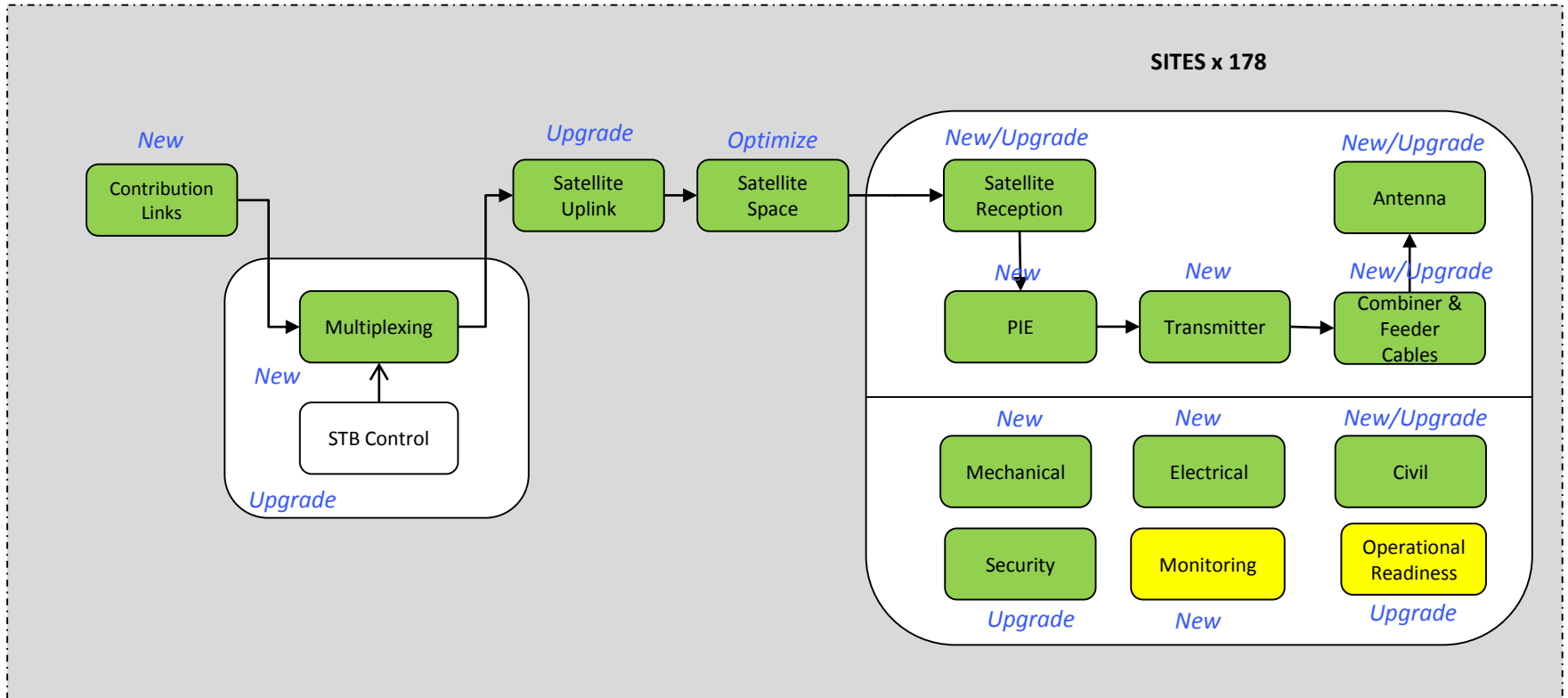
**PRESENTATION TO THE JOINT COMMITTEES ON
TELECOMMUNICATIONS AND POSTAL SERVICES AND
COMMUNICATIONS:**

11 August 2015



DIGITAL TERRESTRIAL TELEVISION

SENTECH Readiness - Infrastructure

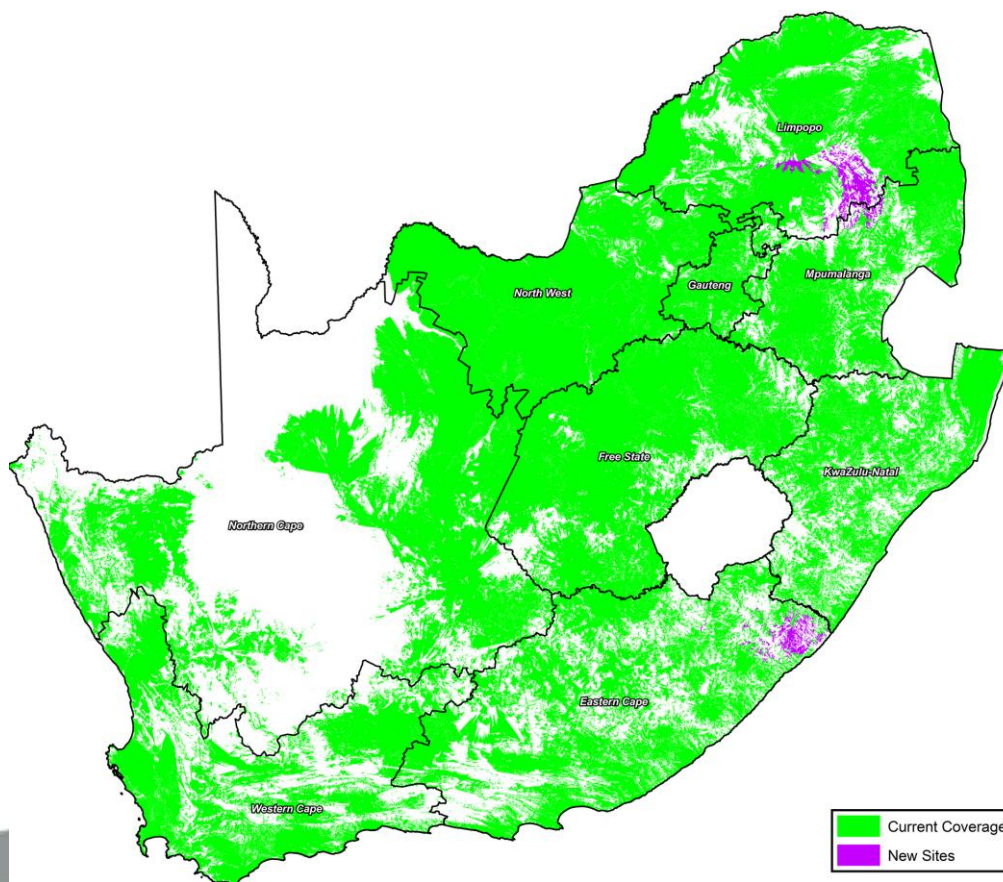


- Completed
- On going and on track

DIGITAL TERRESTRIAL TELEVISION Coverage Overview

	Number of sites	Population Coverage	Geographic Coverage
Completed	180	84.46%	58.49%
Greenfield Sites	2	0.74%	0.42%

By the end of June 2015, SENTECH had completed the rollout of digital infrastructure. The remainder of the coverage will be serviced by the Direct-to-Home satellite (DTH-S) service – which is 100% complete.

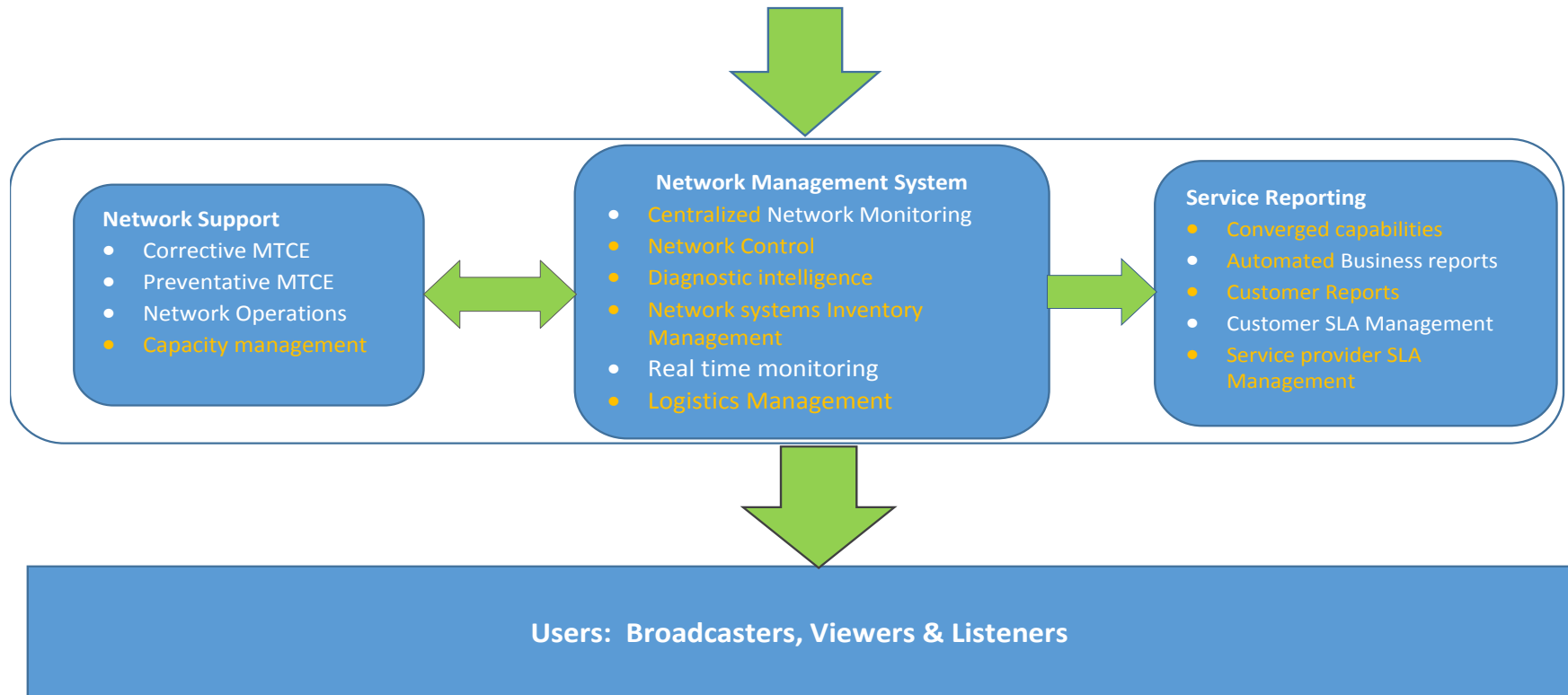


Province	Completed Migration Sites	Completed Greenfield Sites
Free State	13	1 (Harrismith)
Gauteng	12	
Kwazulu Natal	29	
Limpopo	10	
Mpumalanga	13	
North West	16	
Eastern Cape	33	1 (Ngqeleni)
Northern Cape	17	
Western Cape	35	
TOTAL	178	2

DIGITAL TERRESTRIAL TELEVISION

DTT Operating Model Developed

Integrated Network Operations
DTT, DTH, VSAT, FM, Power Supply & Ancillary Equipment



DIGITAL TERRESTRIAL TELEVISION

Analogue Switch Off (“ASO”)

- The national project currently runs ASO in simulcast mode (dual illumination) (ITU Guideline Model I(1)), with the ASO starting after a national network rollout (ITU Guideline Model III(ii)). For the actual ASO, SENTECH proposes adoption of a phased approach (ITU Guideline Model II(a)). In the phased approach, the ASO takes place in a given province or region at a time before moving onto the next province. These are some of the benefits and advantages of a phased provincial approach:
 - South Africa will apply the lessons learned from one province to the other to improve processes and approaches for the next province.
 - In a case of something going wrong, the impact will be limited to one province.
 - This approach apportions scope and also allows focus and concentration of human and financial resources per province and will eventually enable smooth and manageable ASO.
- Based on the scope related to STB rollout and viewer migration, June 2015 ITU deadline and the Astronomy Geographic ACT of 2007, SENTECH developed a logical regional ASO plan to ensure compliance with the AGA act and protect services from the likely cross border interference considering time required to migrate viewers.

DIGITAL TERRESTRIAL TELEVISION

Analogue Switch Off

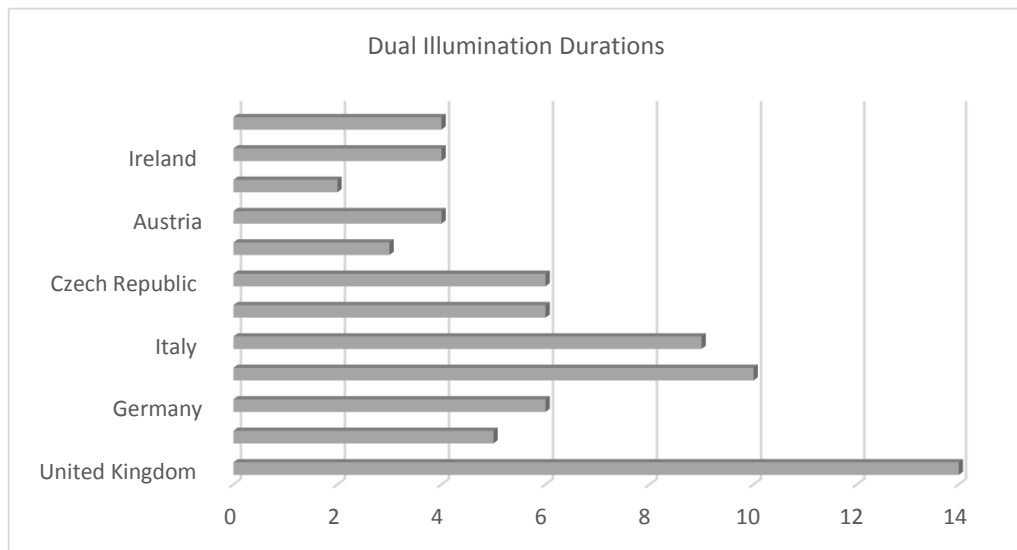


Table 2.15.1 National ASO organizations.

Country	ASO organization	Website
Estonia	Committee for DTV Transition	n/a
France	France Télé Numérique	n/a
Germany	Ueberallfernsehen	http://www.ueberallfernsehen.de
Italy	Italia Digitale	n/a
Netherlands	Signaalopdigitaal	n/a
Norway	NTV	http://www.ntv.no/
Sweden	Digital SwitchoverCommission	http://www.digitaltvoergangen.se
United Kingdom	Digital UK	http://www.digitaluk.co.uk
United States	NTIA	http://www.dtv.gov

The main drivers of the model that the Company has worked on are the distribution and logistics programmes from SAPO and USAASA. Our estimates of the ASO period have also been benchmarked against countries that have completed their migrations in Region 1.

In general, the ASO periods are affected by a number of issues, including but not limited by:

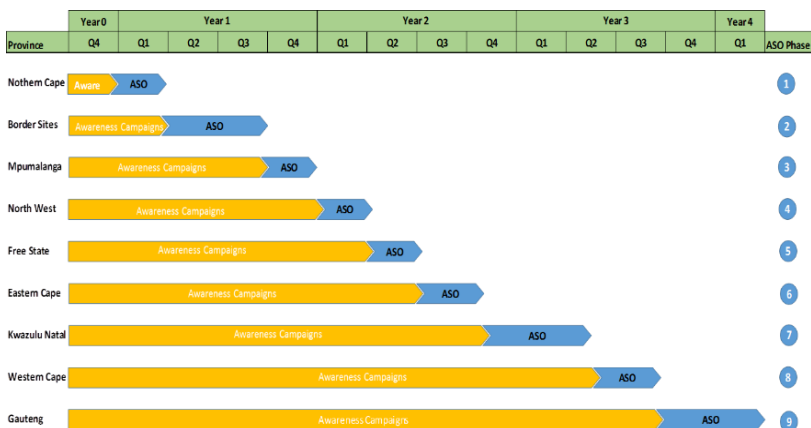
- The role of the Public Broadcaster and how the migration program is funded;
- The existence of Government/Industry bodies to drive the different aspects of the migration project;
- The extent of the terrestrial television network compared to other media for delivering broadcasting services.

In alignment with best practices for managing Analogue Switch Off, SENTECH welcomes the establishment of Government-driven ASO coordination committee called the DTT PMO Office under the Ministry of Communication. The PMO Office has been tasked with the co-ordination of all key stakeholders in the BDM Project ecosystem. SENTECH is represented and continues to contribute.

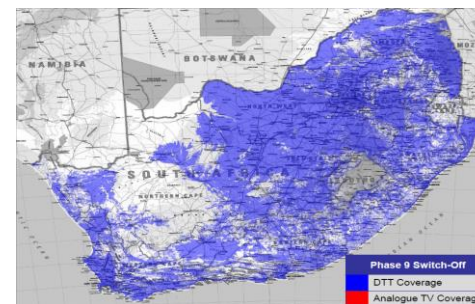
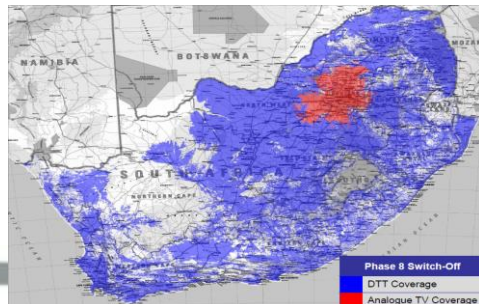
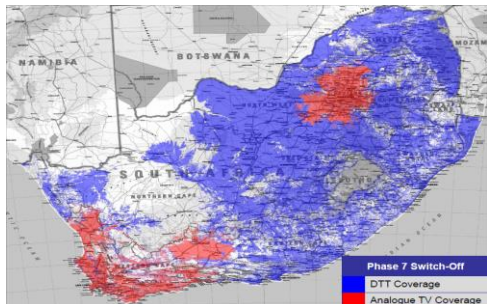
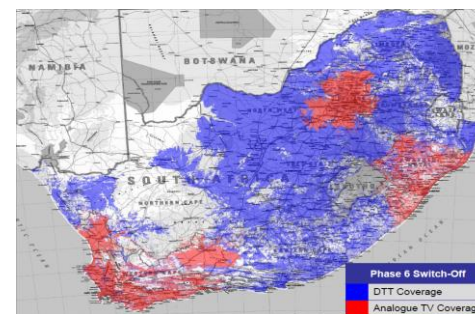
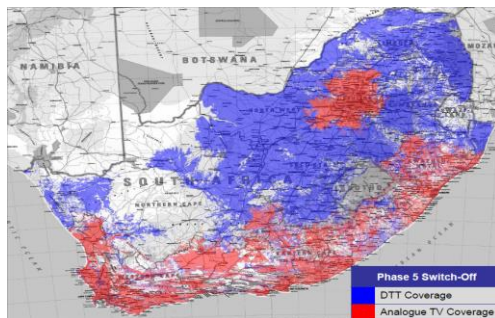
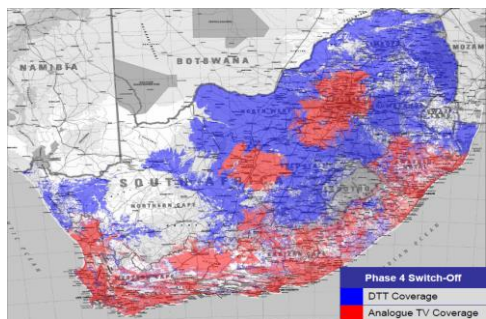
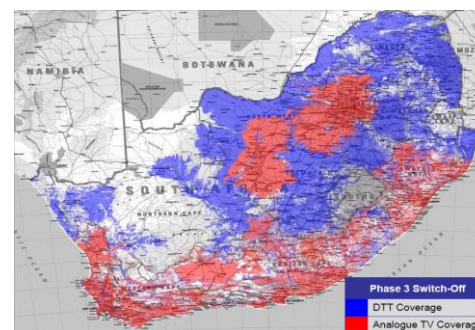
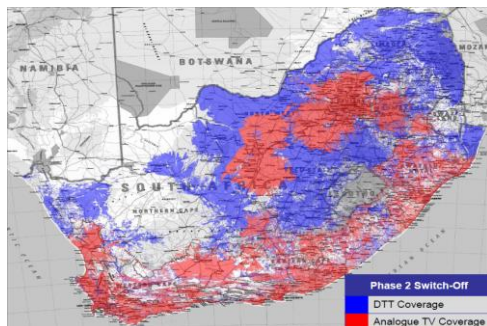
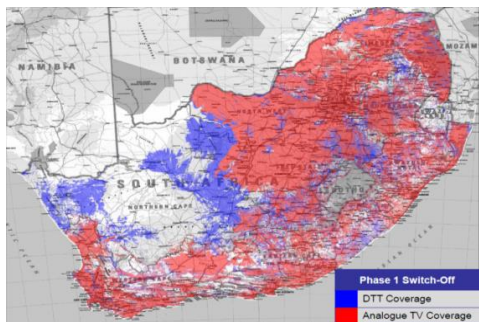
DIGITAL TERRESTRIAL TELEVISION

Analogue Switch Off

Province Priorities	Population Impact	% of Populaton	TV Households	Duration (Months)
Northern Cape	1,162,900.00	2.19%	280,946.74	2.00
Borderline areas (including Limpopo)	14,301,024.00	26.99%	3,455,005.61	6.00
Mpumalanga	596,253.00	1.13%	144,049.65	3.00
North West	1,296,037.00	2.45%	313,111.50	2.00
Free State	1,085,803.00	2.05%	301,611.94	2.00
Eastern Cape	6,064,302.00	11.45%	1,465,083.72	4.00
Kwazulu Natal	9,730,381.00	18.37%	2,350,777.18	6.00
Western Cape	6,016,900.00	11.36%	1,453,631.80	4.00
Gauteng	12,728,400.00	24.02%	3,075,073.04	6.00
TOTAL	52,982,000.00	1.00	12,839,291.19	35.00



- The Company has worked on several technical details of a phased ASO. The main drivers of the model that the Company has worked on are the distribution and logistics programmes from SAPO and USAASA.
- The model also allows for compliance in the SKA area in the Northern Cape and protection of services along the border areas.
- Further consideration has been made on the need to start with smaller and less complex provinces, to draw lessons learned and reduce general impact per ASO activity.
- Overall, based on the above, the estimate is that ASO will take about 3 years to complete.
- The period could be compressed if timelines for STB distribution and related logistics are shortened. This applies to both retail and subsidized STBs.
- The ASO plan is being socialised with industry stakeholders for further optimization and to ensure industry alignment.

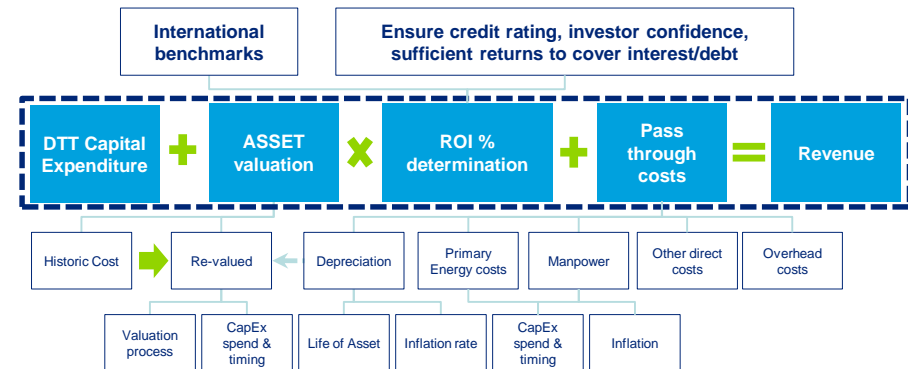
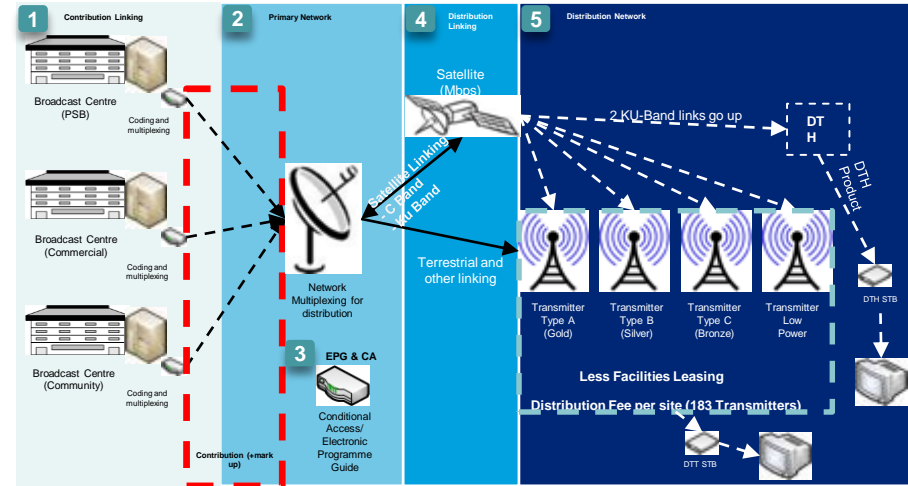


- Dual illumination activities are in respect of incremental costs arising from running both analogue and digital networks simultaneously - this will continue until analogue switch-off (ASO).
- The estimated incremental cost for dual illumination for the FY2016 is R131m, and the funds allocated amount to R99m, thus leaving a funding deficit of R32m.
- A request has been submitted to National Treasury for the above shortfall and requirements for the FY2017 (R140m) and FY2018 (R149m) through the MTEF process.

DIGITAL TERRESTRIAL TELEVISION

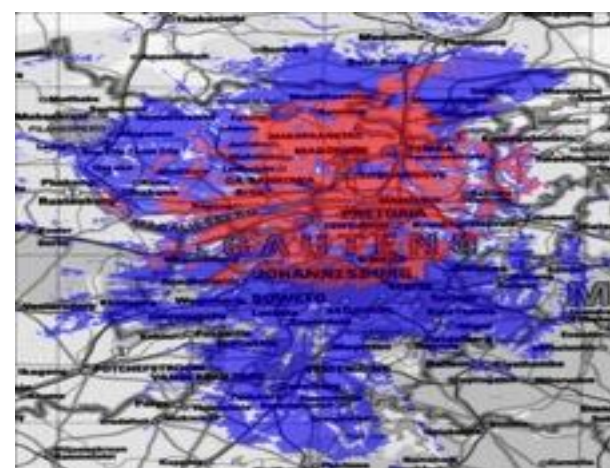
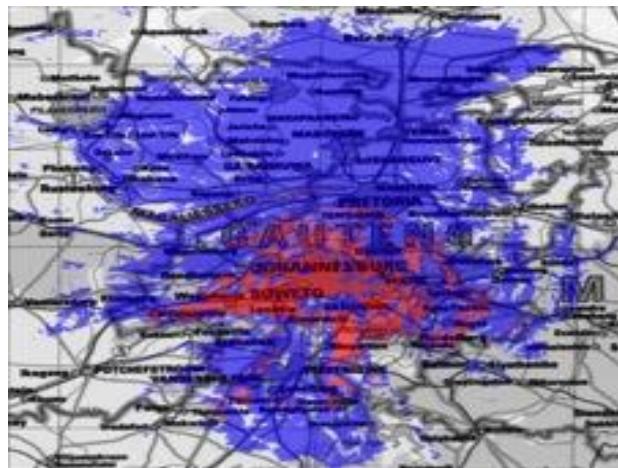
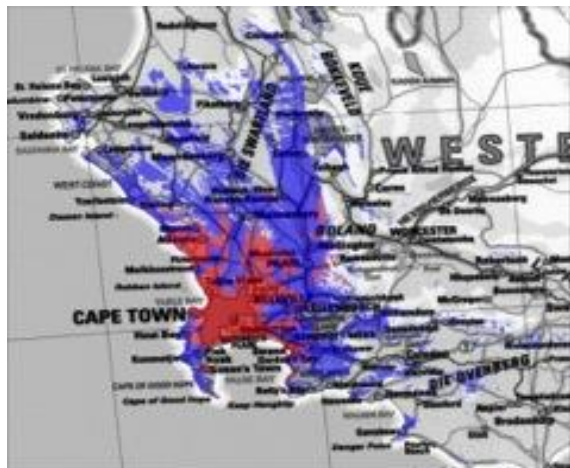
Impact of Network Frequency Plan to Community Broadcasters

- The tariff model is based on consideration of a number of factors, including but not limited to:
 - the acceptance of the discretion that broadcasters retain on the elements of the SENTECH network that they may choose to use;
 - shared assets and operating costs; and
 - costs that vary depending on multiplexor allocations and coverage areas.
- The model is based on re-valuation of assets and consideration of operating costs specific to DTT and SLA commitments.
- The tariff model has been shared with Broadcasters and the Regulator.



DIGITAL TERRESTRIAL TELEVISION

Impact of Network Frequency Plan to Community Broadcasters



	Cape TV Analogue	DTT Mux 1 – minimum sites required
Population Covered	3 194 922	3 974 835
% of Total Population	6.4%	7.95%
% Change	-	24%
Geographic Coverage (km ²)	2 194	9 626
% of Total RSA Area	0.17%	0.76%
% Change	-	347%
Number of sites	1	12
Tariff	R474 567	R1 738 795
BSD Subsidy		
Net Tariff	R474 567	R 1 738 795

	Soweto TV Analogue	DTT Mux 1 – minimum sites required
Population Covered	4 417 763	12 270 810
% of Total Population	7.85	24.54%
% Change	-	213%
Geographic Coverage (km ²)	3 732	31 001
% of Total RSA Area	0.29%	2.44%
% Change	-	731%
Number of sites	1	10
Tariff	R449 507	R1 688 622
BSD Subsidy		
Net Tariff	R449 507	R1 688 622

	Tshwane TV Analogue	DTT Mux 1 – minimum sites required
Population Covered	4 136 553	12 270 810
% of Total Population	8.27%	24.54%
% Change	-	197%
Geographic Coverage (km ²)	8 677	31 001
% of Total RSA Area	0.68%	2.44%
% Change	-	259%
Number of sites	1	10
Tariff	R786 458	R1 688 622
BSD Subsidy		
Net Tariff	R786 458	R1 688 622

The tariffs of the Cape TV, Soweto TV and Tshwane TV have increased significantly and this is in alignment with the increases in the number of transmitters and the increased geographic coverage, both of which are determined directly by the national frequency plan.

- SENTECH has had fruitful discussions with the incumbent broadcasters and has agreed on tariffs with SABC, M-net, e.tv and TBN.
- The Company is now in the process of finalizing the Master Transmission Agreements (MTAs) with these broadcasters, but in most cases, these agreements will not be signed until there is clarity on critical milestones such as the last date of ASO.
- Initial discussions with the DTSPS and DoC regarding challenges that are faced by other community broadcasters (i.e. other than TBN) in respect of DTT tariffs have been held – a workshop is confirmed for 07 August 2015.
- Specifically, the DTT tariffs of these community broadcasters have increased significantly as a result of the effects of the national frequency plan.

DIGITAL TERRESTRIAL TELEVISION

Release of the Digital Dividend

In order to release the digital dividend, SENTECH will need to Migrate services from the 470 MHz – 854MHz band to clear it for the Mobile IMT services, which is a requirement of GEO6 Agreement.

BROADCASTING - DTT

Position Pre ASO

Broadcasting Services being operated in 470Mhz to 854Mhz		
470 MHz	854MHz	862 MHz

Position Post ASO

Potential Candidate for Mobile IMT	Mobile -IMY (after WRC-15)	Mobile IMT
470 MHz	694 MHz	790 MHz
		862MHz

DIGITAL TERRESTRIAL TELEVISION

Release of the Digital Dividend

- In order to ensure that there is a speedy and resolute DTT-to-DTT migration process, the following issues must first be addressed and dealt with:
 - The DTT-to-DTT migration process will require that 93% of the current DTT network be reconfigured for a successful second migration process. SENTECH estimates that this process will take anytime between 12 and 18 months to complete. Consequently, it is imperative that the impact of restacking and detailed planning principles are discussed and agreed upon with stakeholders.
 - The discussion on the planning principle in line with the ICASA frequency assignment plan is critical in ensuring that there is alignment on the requirements for ASO and digital dividend release. This should be done in line with bringing the impacted stakeholders together prior to the DTT-to-DTT migration process. This will assist in minimizing implementation risks and ensure that the digital dividend is made available as quickly as possible.
- DTT-to-DTT migration will require complex orchestration of network reconfiguration, and it will be key that there is alignment between the ICASA published frequency plan assignment and the ASO plan. SENTECH believes that this can be achieved through an industry dialogue session to be led by the regulator, to review the planning scenarios, impact assessment and implementation roadmap.
- A Policy Directive is required whereby SENTECH is funded for the DTT-to-DTT migration.

THANK YOU