



# Case Study

**AT A GLANCE INDUSTRY:**  
Telecommunications

**COMMODITY:**  
Broadcasting and Connectivity

**CLIENT:**  
SENTECH (Pty) Ltd

**LOCATION:**  
Gauteng

**PROBLEM SUMMARY:**  
Challenges relating to asset ownership lead to the decision to develop an Asset Management Strategy

**SERVICE:**  
Asset Management and Risk Consulting

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## Asset Management Strategy

**Ensuring service reliability  
through strategy for asset  
lifecycle management**



### **Abstract:**

SENTECH's vision is to be a world-class provider of sustainable communications platform services in South Africa and the rest of the African Continent. An Asset Management Strategy was required to ensure that the assets used to supply these services and the management of assets are sustainable.

### **Keywords:**

Asset Management, Telecommunications, Risk Based Asset Management, Asset Performance, Asset Insurance, Asset Lifecycle, Maintenance, Capital Planning



## Problem Statement

**SENTECH needed an Asset Management Strategy to ensure assets used to provide services are sustainable.**

SENTECH is a State Owned Enterprise (SOE) operating in the broadcasting signal distribution and telecommunications sectors and reporting to the Minister of Communications. SENTECH began as a technical division of the South African Broadcasting Corporation ("SABC") responsible for signal distribution services of the Corporation. In 1992, the SABC corporatised the division as SENTECH, a wholly owned subsidiary of the Corporation. In 1996, the SENTECH Act 63 of 1996 was amended, converting SENTECH into a separate public company responsible for providing broadcasting signal distribution services as a 'common carrier' to licensed television and radio broadcasters.

SENTECH's main corporate strategy is to enable access to universal, open, interoperable and affordable network platforms for broadcasting and content distribution. In order to ensure customer satisfaction, SENTECH must ensure network availability meets SLA requirements across all platforms. Daily operations therefore strongly depend on the performance of the physical assets. Due to the stress in the global economy, the conversion from analogue to digital television technology and the aged asset base, SENTECH experienced many challenges associated with asset ownership.

An asset management strategy provides a roadmap on how to progress from the current state to a planned future state and how current and future assets will be managed in terms of their total life cycle to enable the planned future state. Lerumo was asked to develop an Asset Management Strategy that support's SENTECH's vision. VBKOM was invited to assist with the project.



## Project Objectives

**The Asset Management Strategy will provide a roadmap for the long-term, optimized approach to the management of the assets, derived from, and consistent with, the organizational strategic plan and the asset management policy.**

**The asset management strategy will provide the long term action plan for SENTECH Asset Management to achieve the following:**

- Adjust the existing asset base to align with the future strategy for service delivery
- Ensure the most effective utilisation of the current asset capability to meet future technological requirements
- Determine whether the proposed outcomes/services and resultant physical asset requirements are sustainable within realistically anticipated funding levels
- Identify asset risks and developing risk management strategies to address the risk of assets not supporting services to the required level, underutilised assets and also not protecting the optimal value of assets at every stage of their life cycle
- Effectively plan for capital investment, maintenance and disposal



## Method

The process followed to develop the Asset Management Strategy is shown in the figure below:

Methods used to gather information inputs to the Asset Management Strategy include:

- Facilitation of information sessions with groups of subject matter experts
- Individual interviews with stakeholders and subject matter experts
- Site Visits to Brixton, Kameeldrift and the Network Operations Centre at Radiokop
- Data Analyses of the Asset Register



## Project Results

Services to be provided by the assets were defined and assets were categorised according to service and asset type.

The following table shows a summary of the asset categories:

Asset	Services								
	Broadcasting						Digital Media	Connectivity	Public Safety
	ATV	DTT	D Rad	FM	MW	SW			
Service Specific or Shared Assets per Site									
Shared Assets	X	X	X	X	X	X	X		
Service Specific	X	X	X	X	X	X			
Spares	X	X	X	X	X	X			
Service Specific or Shared Assets per Support Office									
VSAT								X	

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#### Key findings from the Gap Analyses include:

- The Asset Age Analyses concluded that a significant portion of the existing assets are already out of their useful life and that the book value of the assets is low in comparison to the replacement value.
- The capital budget allocated to the replacement of assets is very small compared to the value of assets already out of their useful life.
- Total life cycle cost of assets, including maintenance cost, is not managed per asset.
- The current measure of asset performance is Return on Net Asset Value (RONA). Due to the low book value of total assets this provides a false impression of the return on assets and the funds required for asset replacement.

#### Key recommendations to close the gaps include:

- The Asset Register needs to be updated to reflect an accurate number for the asset book and replacement value. This implies that assets no longer in use must be disposed of and removed from the Asset Register and the useful life of the remaining assets already out of their useful life be reviewed and re-adjusted and then reviewed annually.
- All major repairs and maintenance above the current threshold must be re-capitalised and the useful life reviewed.
- An asset replacement schedule should be kept up to date indicating the sequence of replacements required and the financial implication.
- Total life cycle of assets should be managed with the use of a maintenance system.

#### The recommended Asset Performance Reference Model applies a simple Balance Scorecard approach.

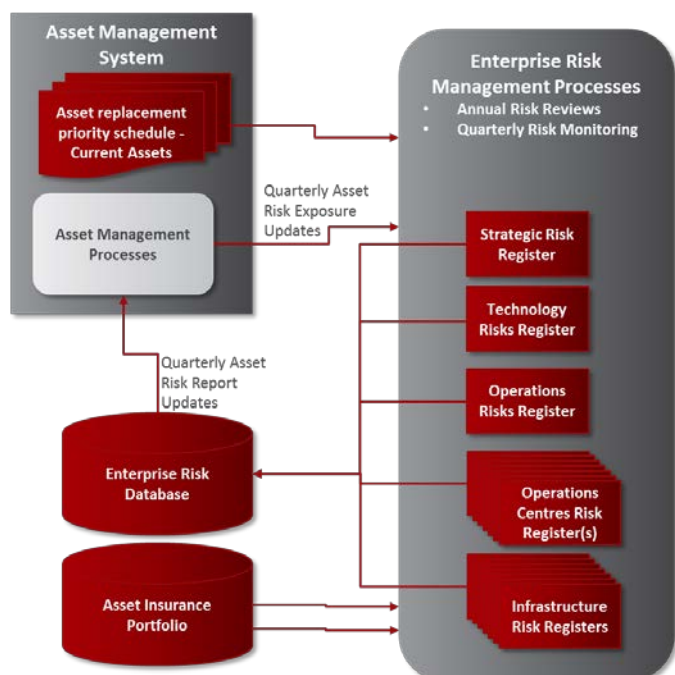
The Asset Performance Reference Model identifies critical success factors, key result areas of organisational performance and Key Performance Indicators (KPI's) which serve as the metrics for monitoring performance on critical success factors and key result areas. Four critical success factors were identified which support the achievement of each of the four corporate Strategic Goals which drive the corporate key performance indicators for 2016 to 2019.

#### The following KPI's were identified to measure the performance of Asset Management on some of the Critical Success Factors:

- Return on Replacement Value of Assets (RORA) – measure if the company is sufficiently profitable to sustain the assets
- Percentage of Work Orders completed on time
- Preventative Maintenance and Corrective Maintenance cost as a percentage of assets (book and replacement values)

#### The recommended process for Asset Risk Management is shown in the diagram on the right:

It was recommended that the issues identified during the gap analyses be uplifted as themes for risk exposure specific to asset risks and that asset risks are isolated from the consolidated risk register and communicated to all asset management stakeholders as input to asset management processes.





## Customer Value

**Customer value added through the gap analyses and Asset Management Strategy development include:**

- The risk of the aged asset base was quantified by defining the number, percentage and replacement value of assets already out of the useful life and assets expected to be out of their useful life in five and ten years' time.
- The income contribution of different asset categories was defined in relation to their asset value in order to empower decision making for funding strategies and capital investment on asset replacement and service expansion projects.
- Recommendations were made for the adjustment of the Asset Policy to align with the Asset Management Strategy.

A high level plan was developed for the implementation of the Asset Management Strategy.

