1. Introduction:
An integrated and holistic approach to the effective management of the asset base through its entire life cycle is fundamental to the success of an asset centric business. Without Executive Management strategic direction setting and active sponsorship of the asset management programme, business performance, at best, will be less than optimal. In the longer term, the lack of a leadership driven asset management strategy and the effective implementation thereof, results in an unsustainable business where the risk of unpredictable and catastrophic asset failure is high.

2. Why Leadership is required
   - Business leaders success depends on the flawless execution of business strategy, but this seldom happens in practice with failure rates for major projects reaching 80 to 90% (Kaplan & Norton, The Strategy Focused Organisation, 2001)
   - High turnover of Executive Leadership is closely linked to the inability to execute strategic plans and major projects (Scientific American, June 2006)
   - So why do so many business strategies fail? The five most prevalent and costly barriers to project success are:
     o Fact Free Planning – deadlines and resources are set up with no consideration for reality.
     o Absentee Sponsors – lack of visible leadership, political clout, time or energy to see a project through to completion.
     o Skirting real issues – people work around the priority setting process.
     o Lack of openness on project problems – team members wait for someone else to speak up first.
     o Team failures – team members perpetuate dysfunction when they are unwilling or unable to support the project (Vital Smarts: Silence Fails, 2006)
• The real problem is not that these barriers are common, but that they are not effectively confronted and resolved.
• When leaders successfully address one or more of these five barriers, success in achieving project objectives increases by 50 - 70 percent.

• What this means in an Asset Management context
  i. Business world wide is faced with the need to improve company performance while lowering costs. In a utility context, performance improvement can include increasing system reliability, reducing lost time accidents, optimising people performance, improving stock turn ratios and a host of other critical processes. Optimising cost means spending critical and required capital, focusing on projects that add appropriate value, reducing operating and maintenance expenditures whilst still focusing on optimising system integrity.
  ii. The UK Publicly Available Standard (55) defines asset management as “The systematic and co-ordinated activities and practices through which an organisation optimally manages its physical assets, and their associated performance, risks and expenditures over their lifecycle, for the purpose of achieving its organisational strategic plan”
    Or in plain English, making smart decisions to achieve desired asset performance.
  iii. An effective asset management business model helps turn possible contradictory objectives into complimentary goals. Whilst asset management models vary, the core principles of fact-based decision making integrated with risk management are critical to balancing spending and performance, through application of consistent best practices that support an effective and efficient asset management business model.

3. SA Electric Utility Reality Check
• Asset management strategies/plans and appropriate systems do not exist across the industry.
• Some asset owners do not provide for sufficient investment in existing and planned network assets.
• Plans are generally based on what can be achieved, not on what is required.
• Demand growth, in many areas, exceeds the loading capacity of the networks and plant which complicates plant availability for “dead condition” maintenance and refurbishment.
• Insufficient skills to perform “hot work”.
• The demand for competent staff is rapidly increasing while there is a severe lag in the training and development of skills.
• Lack of experienced and effectively trained contractors results in safety and quality challenges.
• The number of outages due to poor performing networks and incidents related to electric cable and associated equipment theft, indicates that the number of sites with poor network reliability is increasing.

• The asset maintenance, refurbishment and strengthening backlog was calculated at R27,3b in 2008, projected to grow at R2.5b per annum.

<table>
<thead>
<tr>
<th>Maintenance</th>
<th>Refurbishment</th>
<th>Short Term Strengthening</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>R 2,736,914,699.00</td>
<td>R 8,210,744,098.00</td>
<td>R 16,421,488,197.00</td>
<td>R 27,369,146,994.00</td>
</tr>
</tbody>
</table>

**NOTE:** 2008 data with backlog growth projected at R2.5b per annum

4. **Leadership is critical**

• We have seen that business strategy fails through lack of leadership and inability to confront the problems.

• We know that there are fundamental flaws in the management of the South African Distribution networks and that there is a huge backlog.

• The challenge to leadership in the industry is to address the real issues and play a strong Executive Leadership role.

• But how is this achieved?

• **By managing assets well**
  
  i. What does managing assets well mean?

  • Managing limited human and financial resources in the most effective way to meet business objectives, focused on performance rather than budget.

  • Investing in work/resources that best support the strategic objectives of the company.

  • Using fact-based, performance driven decision-making to support all spending decisions, to optimize the return on your asset.
By identifying Asset Management accountabilities

i. What are asset management accountabilities?
- Determining the right work to be done on the right asset at the right time.
- Finding the best course of action in terms of retire, replace, repair, refurbish, and run-to-fail options for any given asset.
- Developing an optimized work plan with the appropriate balance of cost, performance, risk and resources.
- Developing and maintaining the appropriate planning, design, construction, operating and maintenance standards.
- Understanding the entire risk exposure profile and determining the best level of risk tolerance.
- Defining the best mix of resources to complete work.
- Managing the regulatory environment.

By utilizing a management model

i. This example defines the core processes necessary for an effective business model, as well as the separation of decision and action components.

(Source: PA Consulting)
5. An approach to enhancing Asset Management performance

The approach shown below provides a structure for assessing current capabilities, defining opportunities, and crafting a plan for implementation. A project can include any combination or all four steps.

- **Define Boundaries**: The first step is to define the high-level processes that will be evaluated in terms of best practice assessment.
- **Conduct Gap Assessment**: With the boundaries fixed, a gap assessment is conducted to determine which best practices are currently in place, and which ones are missing. The assessment is much more than yes/no and accommodates many different levels of implementation.
- **Define Implementation Opportunities**: Not every best practice gap identified turns into an opportunity. Both internal and external constraints can limit the level of implementation. This part of the project identifies, in quantifiable terms, which best practice gaps can be effectively closed and how.
- **Build Implementation Plan**: The initial plan defines the best practice implementation in terms of effort (financial and human), benefits (both hard and soft), and difficulty (culture, IT, regulatory, etc.). The end result is a plan for capturing benefits as quickly as possible.

6. Why Best Practices?

- Strong correlation between consistent best practice implementation and utility performance.
- Implementation of best practices, as part of a holistic asset management strategy, improves utility performance.

(Source: PA Consulting Polaris International Benchmarking Programme)
• Observations of Top Asset Management performance
  i. Technology is a critical factor: virtually every best practice company has the technology infrastructure in place that integrates with and supports the business processes and practices.
  ii. Performance Management is a key component: most top performers have a comprehensive performance management system including regular dashboard reporting to measure a wide variety of metrics that support corporate goals.
  iii. Top performers tend to perform well across business processes, indicating the benefits of using a Balanced Scorecard approach.

• Which Best Practices really make a difference in the long term
  i. A comprehensive list of practices is available, but a limited selection tends to suggest critical role of strategic leadership, accountability and decision making.
    • Life Cycle Strategy – An asset data base with physical, operational and maintenance data for individual assets is in place and regularly updated.
    • Safety:
      o Executive management audits are conducted for all lost time accidents.
      o Corporate safety culture is emphasised by senior management focus and example.
    • Investment Optimisation – Business case documentation is formalised for each project and benefits tracking is done post project completion to validate original benefit assumptions.
    • Resourcing Strategies – Performance metrics are in place to measure progress, quality, budget, safety and customer satisfaction on a monthly basis (for contract resources and employees).
    • Performance Management:
      o Balance Scorecard metrics using financial, process, customer and people criteria are in place and regularly reviewed for validity.
      o Management compensation, including base salary and bonuses are directly tied to achievement of KPI targets.

(Source: PA Consulting Polaris International Benchmarking Programme: 2010)
7. Conclusion

- An asset intensive business requires a well integrated asset management strategy to ensure business sustainability and customer satisfaction.
- Executive management of an asset centric business have a critical role to play in defining the asset management strategy and ensuring that it is well understood, barriers to implementation are overcome, and performance against the strategy is measured and corrective action is taken.
- Without a well defined approach to asset management and effective implementation, maintenance efficacy will be limited, refurbishment costs will increase to address the maintenance gap and asset performance will be poor, with an increased probability of catastrophic failure in the longer term.
- Leaders who understand their business find effective solutions to the asset management constraints, even in an environment that is far from enabling.