



The 23rd International Asset
Facility and Maintenance
Management Conference

Integrating Master Data Governance into Asset Lifecycle Management for Automated Data Driven Operations

ALM - MDG



12-14 January 2026

Riyadh, KSA

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Summary: Integrated ALM x MDG

In the **utilities sector**, effective Asset lifecycle management (**ALM**) is the foundation for **financial planning, regulatory reporting, risk mitigation and operational excellence**.

Utilities industries manage **complex networks of high-value assets**, where accuracy of asset master data plays a vital role in optimizing performance and **regulatory compliance**.

This case study explores about **Saudi Electricity Company's (SEC) strategic approach** to integrate Master Data Governance into Asset lifecycle management through a unified solution - **for managing assets from initial planning, acquisition to retirement across** all SEC business lines. The strategic ALM solution engages all below stakeholders:

- Projects,
- Planning,
- Materials procurement,
- Cataloguing,
- Engineering,
- Maintenance,
- Finance and
- Accounting departments

To create, maintain, and retire assets through **One common ALM x MDG solution**, thereby significantly eliminating manual work and **enabling data driven automation**.



1. Introduction – ALM

Asset Lifecycle Management (ALM):

Involves structured approach for governing and maximizing the value of assets over their intended lifespan, where assets broadly classified into two:

- (i) **Tangible Assets / Physical Assets** such as - Manufacturing Plants, Pump Stations, Power plants, Transformers, etc.
- (ii) **Intangible Assets** such as intellectual and financial assets. (Software / Digital)

Managing assets involves various departments and cross collaboration between different teams, as a result, data quality plays a crucial role – often overlooked.

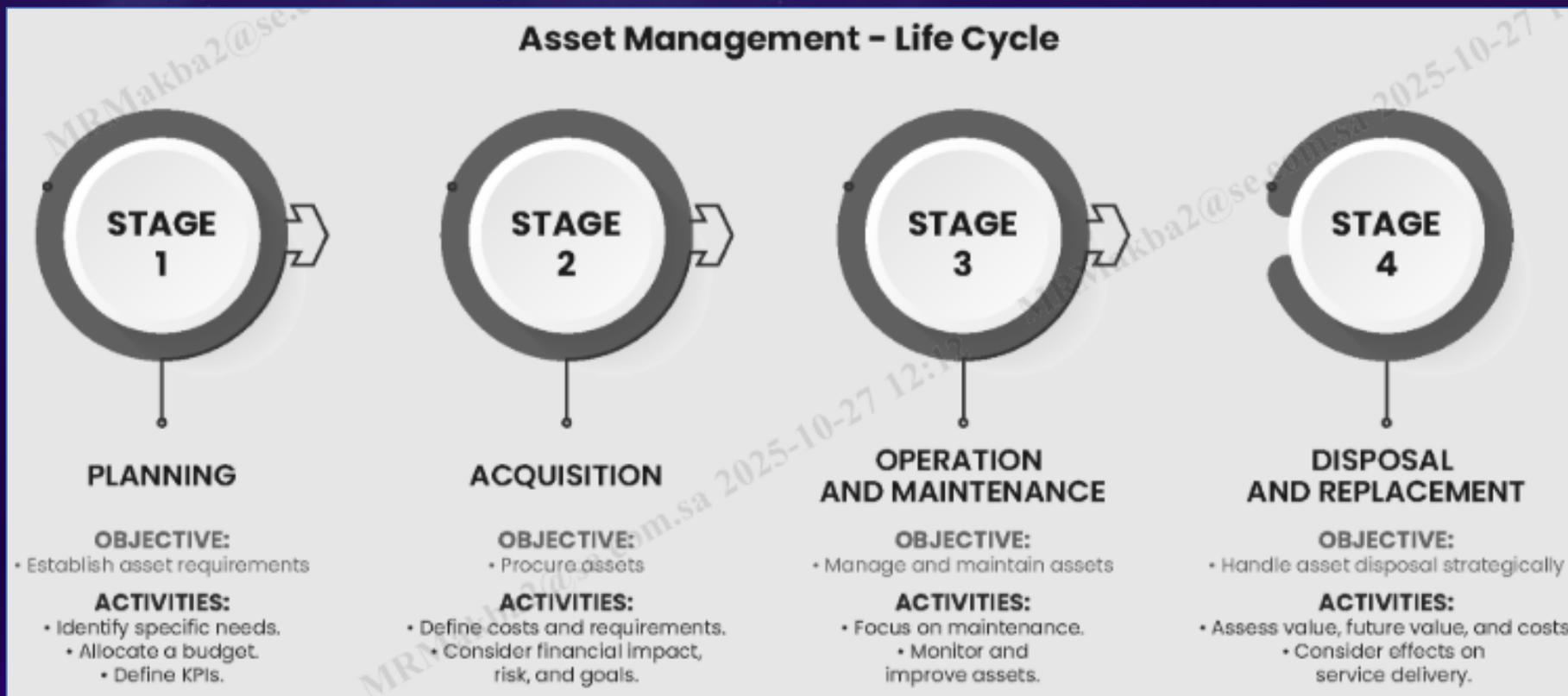
Stakeholders involved: Project Teams, Contractors, Planning & procurement, Operations, Maintenance, Finance & Accounting.



1. Introduction – ALM

Asset Lifecycle Management (ALM) – Stages

1. Planning
2. Procurement
3. Operations & maintenance
4. Disposal / Replacement Retirement



1. Introduction – MDG

Master Data Governance (MDG) for ALM:

Assets generate vast amounts of data throughout their entire operational life where each sub section of data is maintained by respective organizational departments in data silos.

The **MDG framework** governs core business data:

- Assets,
- Materials
- Equipment, Etc.,

Consistent, accurate, and controlled manner across the organization through a core foundation and governance framework. Improving data quality, ensuring data integrity, financial compliance, and operational efficiency

Generic Steps:

1. Maintain
2. Validate (Data Validation)
3. Approve
4. Activate (Publish the Data)



SEC's Methodology – MVP

4 Step Solution

1

Asset Induction

All new asset creations to be centrally managed through common ALM solution.

2

Asset Maintenance

All asset maintenance activities to be managed centrally through common ALM solution.

3

Asset Retirement

All Asset retirements / disposals / replacements to be managed through common ALM solution.

4

Asset Transfers

All asset transfers (intercompany / locations) to be managed through common ALM solution.

SEC's Achievements through ALM

95%

**Asset Data Quality
and
Data Completeness**

80%

**Increase in
Asset Planning
& Throughput**

100%

**Realtime Data
Synchronization
across all
Departments**

4 Days

**Significant
Reduction of
processing days**

From 29 to 35 days.



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THANK YOU!



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