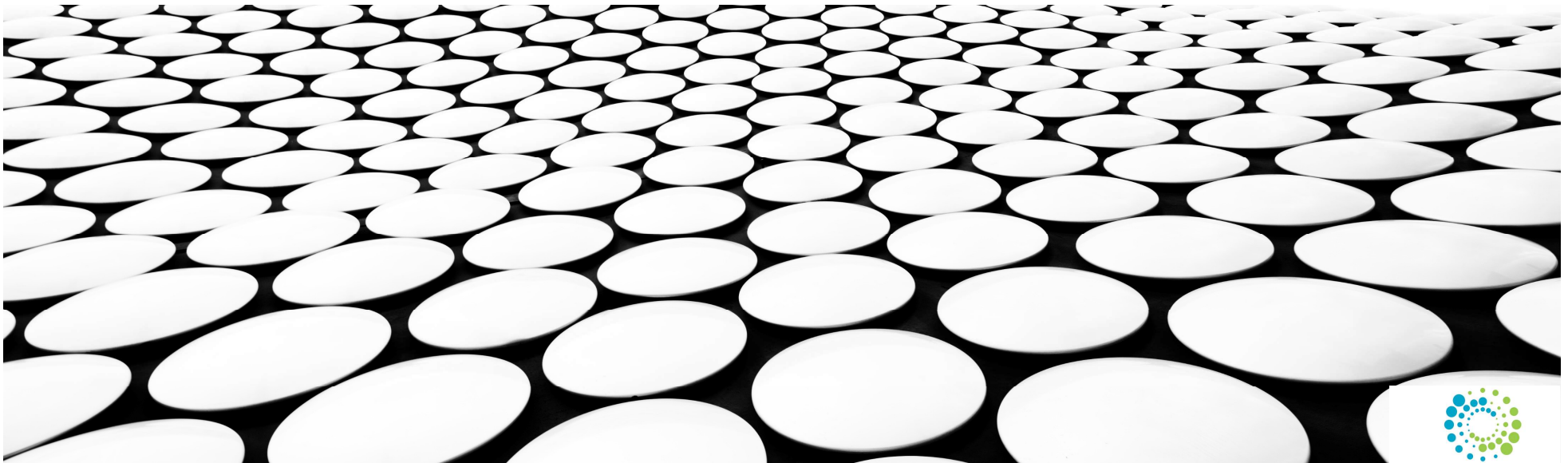

ASSET MANAGEMENT JOURNEY

STEP BY STEP

Rashed Chowdhury P.Eng. PMP, MBA



Asset Management Overview



What is Asset Management

"Systematic and coordinated activities and practices through which an organization optimally and sustainably manages its assets, and asset systems, their associated performance, risks and expenditures over their life cycles for the purpose of achieving its organizational strategic plan".

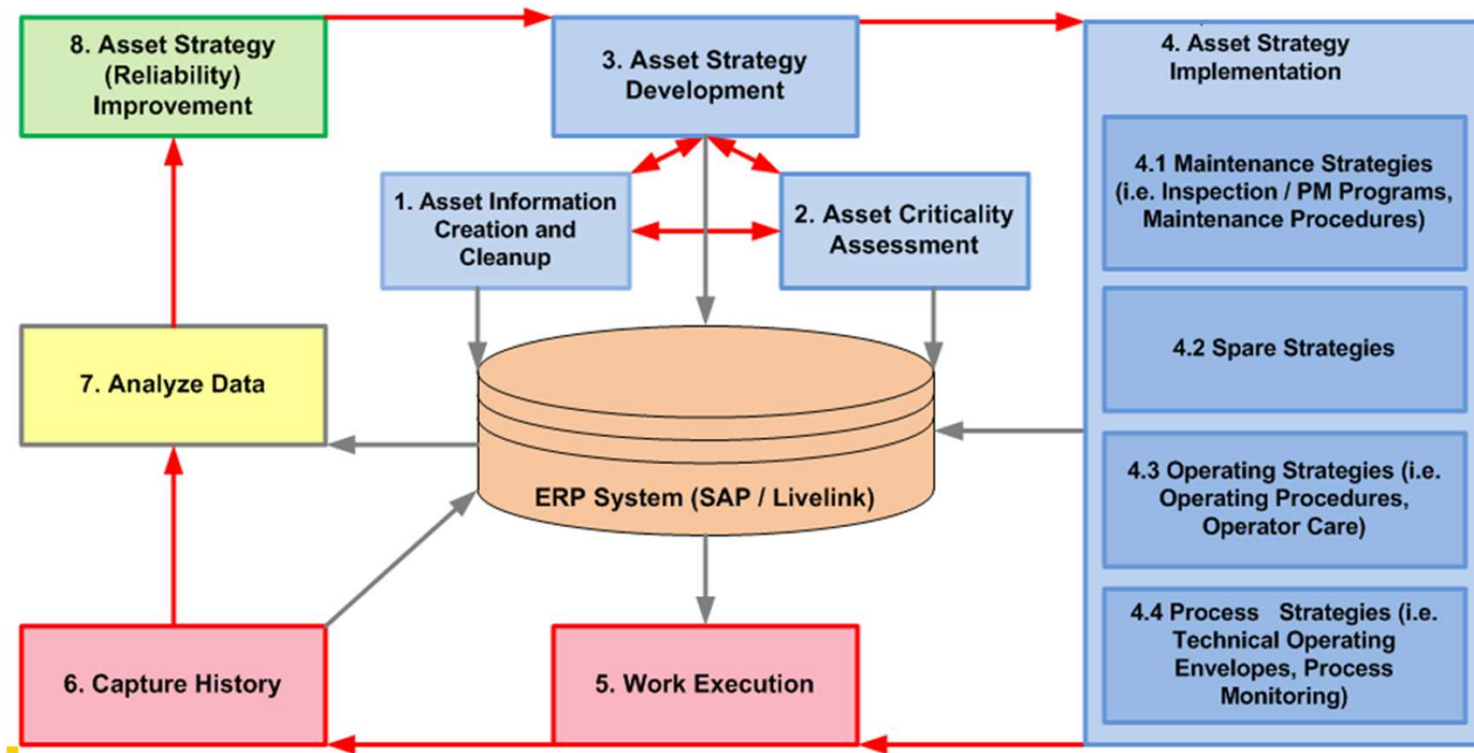
Institute of Asset Management / British Standards Institute PAS 55: 2008

What is Asset Strategy

An **ASSET STRATEGY** management system is the framework of processes and procedures used to ensure that an organization can fulfill all tasks required to ensure the asset delivers on its intended purpose.

- A key milestone towards PAS 55 / ISO 55000 compliance
- A risk-based approach
- A targeted approach/ methodology
 - Reliability Centered Maintenance (RCM)
 - Risk Based Inspection (RBI)/ regulatory
 - Safety Integrity Level Analysis (SIL)
 - Failure Modes Effects Analysis (FMEA)
 - Generic Assessment
 - Basic Care
- A proven asset management methodology
 - Knowledge gained through implementing over 500,000 assets

Asset Strategy Steps



Asset Strategy Deliverables



1. Asset Information Creation and Cleanup

- Define minimum information requirement for safe and reliable operations / maintenance
- Define “maintenance significant asset” definition
- Define a system boundary
- Ensure all **maintenance significant** assets are identified and master data records created in ERP system (i.e. SAP)
 - Create and clean-up **Master Data**.
- Ensure minimum design, non-design documents (i.e., data sheet, P&ID, PFD, VP, SLD, manuals, BoMs etc.), process safety information to perform maintenance and operations are available to users

Asset Strategy Deliverables



2. Asset Criticality Ranking

- In order to prioritize which to focus first
- Set ground rules & ensure consistency for conducting criticality assessment
- Ranks the assets based on what they are supposed to do, what are the consequences of failure

Asset Criticality	Category / Considerations	Consequence	%
A EH&S Critical	Health & Safety, Environment, Regulatory, Reputation (e.g. PSV, ABSA Pressure Vessels, SIS, S-23, BMS, Nuclear, Process Analyzer etc.)	High	A & B should account 20%
B Business Critical	Economic Consequence (Define your threshold)	High	A & B should account 20%
C Medium Priority	All consequence categories (Pumps, Motors, VFDs, control valves etc.) Develop maintenance/ operation strategies	Low-Medium	20% to 40%
D Low Priority	All consequence categories No maintenance (Run to Failure)	Low-Medium	40% to 60%

3. Asset Strategy Development

- Select most appropriate methodology to develop asset strategies for all A,B and C critical assets
 - Reliability Centered Maintenance (RCM)
 - Risk Based Inspection (RBI)/ regulatory
 - Safety Integrity Level Analysis (SIL)
 - Failure Modes Effects Analysis (FMEA)
 - Generic Assessment
 - Basic Care
- Develop “Asset Strategy Datasheet (ASDS)” that includes maintenance, spare, operation and process strategies.
- Please note: Global Asset Care is in the process to develop Asset Strategies Library for all asset class (approximate 500+ class by Dec 2023)

4. Asset Strategy Implementation

4.1 Develop Maintenance Strategies and Programs

- Develop maintenance & inspection strategies (e.g., Preventive, Condition Based, Predictive, Run-to-Failure) and activate in CMMS/ERP systems
- Optimize Inspection and PM programs across process systems
 - Across disciplines (e.g., rotating equip., fixed equip., E&I)
 - Across programs (e.g., all vibration analysis, lubrication, pipe thickness measurement)
 - Resource balancing
 - Aligned with production plans (Turnarounds, Major Events, Program work)
- Develop Maintenance Procedures, check-sheets and QA Inspection scopes.

4.2 Develop Spare parts and their Preservation & Service Strategies (e.g., identify PM and critical spares, create material masters, set order control, set preservation PMs)

4.3 Develop operation strategies and aligning with asset strategies

4.4 Enabling Process Strategies: Enabling Technical Operating Envelopes (IOW, SOL) and aligning them with Operating Procedures to meet the needs of the asset strategy requirements

- Please note: Global Asset Care is in the process to develop Maintenance Procedure and Maintenance Check Sheets Library for all asset class (approximate over 1000 by Dec 2023)

What Global Asset Care can do



Global asset care is providing complete Asset Management services from beginning to end. We bring expertise gained through working in one of the leading Canadian Oil & GAS integrated company. Our knowledge / expertise has been validated through over 500,000 assets.

- Business needs assessment
 - Gap assessment
 - Remediation scope development
- Asset Management system & asset strategy development
- Asset information / master data creation
 - Criticality assessment
 - Strategy development (RCM/ SIS/RBI/Generic)
 - Maintenance strategies
 - Spare strategies
 - Operation strategies
 - Process strategies
- Effectiveness measurement through meaningful stewardship /KPI
 - Business process development for each steps
 - Develop standards, guidelines, training material and deliver training for each steps
 - Deliver to sustainment group
 - End-to-end project management
 - Compliance and accreditation to company standards and/ or International Asset Management Standards : PAS 55 / ISO 55000).

Contact Details

Rashed Chowdhury, P. Eng. PMP, MBA

Email: rchowdhury@globalassetcare.com

Cell: 825 449 5539