LEAD ASSET MANAGEMENT

CAPABILITY STATEMENT

2026

RELIABILITY ENGINEERING

Reliable Today, *Ready for Tomorrow*

LEAD ASSET MANAGEMENT

// Lead Asset Management Pty Ltd (LAM) is a Perth-based engineering consultancy specialising in asset management solutions.

+120 PROJECTS for clients in the Mining, Electricity and Renewables, Water Infrastructure and Oil and Gas sectors

+250 YEARS of combined expertise

Asset Management

- Alignment with ISO 55001
- Strategic Asset Management Plan (SAMP)
- Asset Management Plan
- Asset Management Assessment & Audit
- Asset Management Benchmarking
- Asset Management Coaching & Mentoring
- Asset Management System Audit
- Asset Health Dashboards
- Lifecycle Cost Development and Optimisation

Operational Readiness

- Material & Critical Risk Management
- Spare Parts & Materials Cataloguing
- Change Management
- Project Management Support

Reliability Engineering

- Equipment Criticality Assessment
- Root Causes Analysis (RCA)
- Asset Performance Management
- Master Data Optimisation
- Defect Elimination Program
- Spare Parts Management Optimisation
- Reliability Centred Maintenance (RCM) Analysis
- Maintenance Strategies & Tactics Optimisation
- Failure Mode, Effects, and Criticality Analysis (FMECA)

Maintenance

- Precision Maintenance
- Maintenance Capabilities Assessment
- Work Management Process Improvement
- Budgeting Process & Cost Control
- Material & Critical Risk Audit
- Troubleshooting & Breakdown Management
- Planning and Scheduling Processes Optimisation
- Shutdown (Turnaround) Performance Improvement
- Condition Monitoring Program Management



Reliability Engineering

// Reliability is a foundation for safe, efficient, and cost-effective operations. At Lead Asset Management, we apply engineering discipline and technical expertise to improve the performance and availability of physical assets across their entire lifecycle.

Our approach focuses on preventing failures before they occur, through data analysis, structured methodologies, and alignment with international standards. Rather than reacting to breakdowns, we help organisations shift to proactive, risk-informed decision-making that improves long-term asset reliability.

By targeting critical assets, **our work contributes to higher availability, improved maintenance planning, lower lifecycle costs, and safer operations**.

Expected outcomes

- Increased equipment availability and stability across critical system
- Reduction in reactive maintenance tasks and unplanned interventions
- Greater accuracy in maintenance planning and resourcing
- Enhanced operational safety through risk-informed maintenance practices
- Optimised lifecycle costs and asset performance over time
- Improved Mean Time Between Failures (MTBF) and Mean Time to Repair (MTTR)

What we deliver in Reliability Engineering

Equipment Criticality Assessment (ECA)

A structured criticality assessment is developed and/or validated using risk-based criteria that reflect safety, production impact, financial exposure, legal obligations, and community considerations.

Parameters such as likelihood and consequence of failure are defined with the client, supported by stakeholder workshops. Redundancies in both design and operation are considered across fixed plant and mobile assets.

Deliverables include a validated criticality matrix, documented rationale for asset rankings, and recommended actions related to maintenance strategy, spares, and risk control.

Root Causes Analysis (RCA)

Failures are analysed using a structured RCA process, including data review, workshop facilitation, and validation of hypotheses with site personnel.

Outputs include formal reports, system updates, and action tracking tools, ensuring findings are integrated into the client's reliability processes and future events are mitigated.

Failure Mode, Effects, and Criticality Analysis (FMECA)

Failure modes are identified and assessed based on their potential impact on safety, environment, production, and cost. The process supports understanding of where failures are most likely to occur and which consequences are most critical.

Workshops are conducted to prioritise risks and define mitigation actions.
Deliverables include a structured FMECA register with risk ratings, proposed controls, and links to maintenance strategy updates where relevant.

Spare Parts Management Optimisation

Inventory data is assessed in relation to asset criticality, historical usage, lead times and failure modes.

Outputs include spare parts rationalisation recommendations, minimum/maximum stock level updates, and identified gaps in availability for critical assets.

Asset Performance Management

Operational and maintenance data is reviewed to identify asset performance trends, losses, and intervention opportunities.

LAM supports interpretation of reliability indicators, enabling the client to plan corrective actions, equipment replacements, or investment reviews with greater clarity.

The deliverable is a structured assessment of asset performance, with recommendations to support decision-making across the asset lifecycle.

Master Data Optimisation

Client CMMS or EAM system are reviewed to assess data structure, completeness, and alignment with the asset hierarchy and system configuration requirements.

Inconsistencies, missing fields and misaligned naming conventions are addressed.
Deliverables include a cleansed and updated master data set, with recommendations for ongoing governance and data quality control.

Reliability Centred Maintenance (RCM) Analysis

Assets are analysed according to their function, failure modes, and operational context to define the most appropriate maintenance strategies.

RCM workshops are facilitated with operational and maintenance teams.
The output is a documented RCM analysis, with defined failure consequences, recommended tactics, and implementation-ready maintenance plans.

Maintenance Strategies & Tactics Optimisation

Existing maintenance plans are reviewed using work order history, failure data, OEM documentation, and asset criticality to identify gaps, excess tasks, or misaligned intervals.

Outputs include revised maintenance strategies and task lists, aligned with asset condition and operational context, ready for implementation in the CMMS.

Defect Elimination Program

Recurring failures are traced back to design, operational, or maintenance process causes through structured analysis.

Client teams are supported in implementing long-term corrective actions.
Deliverables include defect logs, root cause documentation, and an action plan for permanent resolution, aligned with site systems and reliability goals.

Case Studies

// Strategy Optimisation and Data Integrity

Challenge

After commissioning, a new mine site faced persistent reliability issues due to gaps in operational readiness. Maintenance strategies were generic, BOMs incomplete, critical spares uncatalogued, and stocking strategies ineffective, resulting in low Mean Time Between Failures (MTBF), high Mean Time to Repair (MTTR), and reduced overall plant reliability.

Solution

LAM worked alongside the client's Maintenance and Reliability teams to close these gaps. We reviewed asset data, engaged stakeholders, and co-developed fit-for-purpose strategies, refined BOMs, improved spare parts management, and optimised stocking. All improvements were integrated into the client's existing systems.

Outcomes

- MTBF increasing; MTTR decreasing
- Fit-for-purpose strategies owned by frontline teams
- Complete BOMs enabling better planning and execution
- Improved spare parts availability and reduced inventory excess
- Stronger culture of continuous improvement

// Wear Study - Strategy Optimisation

Challenge

A processing facility was experiencing excessive equipment wear in the fixed plant, leading to shutdowns every six weeks. Critical assets required maintenance interventions as frequently as every two weeks, disrupting operational continuity and straining maintenance resources.

Solution

LAM initiated a targeted wear study to identify high-wear zones through visual inspections and operational analysis. Quick-win actions were developed, including upgraded liner materials, operational adjustments, and the introduction of structured Preventive Maintenance Inspections (PMIs) aligned with site conditions.

Outcomes

- Wear-prone components identified and prioritised for intervention
- Liner upgrades and process improvements scheduled for next shutdown
- Custom PMIs designed to extend time between interventions
- Client now positioned to reduce maintenance frequency and extend runtime stability
- Condition monitoring plan established to evaluate impact and support long-term optimisation

Case Studies

// Root Case Reassessment on Conveyor Reliability

Challenge

A client was replacing conveyor belts approximately every 16 weeks, resulting in high maintenance costs and repeated operational interruptions. Despite internal assessments focusing on the conveyor components, the issue persisted, and the root cause remained unresolved.

Solution

LAM facilitated a structured root cause reassessment, bringing in a chute design specialist to evaluate upstream influences. The investigation identified that a poorly designed chute was causing uneven feed onto the conveyor, leading to misalignment and premature wear.
A cost-effective design modification to the training plate was implemented in collaboration with the site team, addressing the root cause directly.

Outcomes

- Belt misalignment eliminated, improving conveyor reliability
- Conveyor belt lifespan extended by resolving upstream causes
- Reduced maintenance interventions and resource demand
  Internal RCA capability strengthened through structured collaboration

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// Asset Compliance with Australian Standards

Challenge

A client required confirmation that their fixed and mobile assets complied with the latest Australian Standards, aiming to reduce both operational and legal exposure. Gaps in documentation, maintenance practices, and inspection readiness posed risks to ongoing operations.

Solution

LAM performed a compliance review across selected asset classes, identifying non-conformities and areas for improvement. A prioritised action plan was developed, aligned with site risk levels and operational realities. In parallel, LAM delivered coaching sessions to the site team, supporting knowledge transfer and future self-sufficiency in managing compliance requirements.

Outcomes

- Non-conformities identified and addressed through a structured roadmap
- Improved alignment with current standards and reduced compliance risk
- Enhanced internal capability through team coaching and knowledge transfer
- Greater confidence in audit readiness and regulatory reporting

LEAD ASSET MANAGEMENT

Contact Us

Whether you're planning a new project or looking to improve an existing operation, we're here to help you make it ready - reliably, efficiently, and with measurable impact.

Speak to our team to explore how we can support your goals.

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Experts in **Asset** Management | **Maintenance** **Reliability** Engineering | **Engineering** Projects