

Case Study - Product Lifecycle Management (PLM)

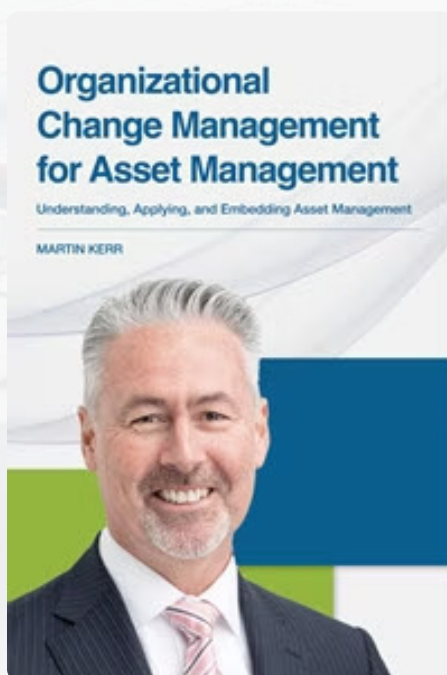
Transforming Engineering Information into Organisational Capability

A real-world case study demonstrating how Product Lifecycle Management (PLM) became the foundation for better decisions, improved collaboration, and whole-of-life asset management.



The software did not transform the organisation. The ability to manage information, decisions, and change across the lifecycle did.

Based on the case study from Martin Kerr's book **Organisational Change Management for Asset Management**



Asset Management and Organisational Change Management are often treated as separate disciplines. In reality, successful organisations need both. Asset Management provides the structure, while Change Management helps people adopt and sustain it.

This book combines practical experience, real-world case studies, and lessons learned to demonstrate how Asset Management and Organisational Change Management work together to create alignment, capability, and sustainable value. Its purpose is to help organisations bridge the gap between strategy and execution and turn Asset Management into an embedded organisational capability.

When Critical Information Exists Everywhere and Nowhere

The organisation was operating within a complex environment spanning engineering design, manufacturing, supply chain, maintenance, project delivery, and operations. Each function relied upon information to make decisions. The problem was that information existed in multiple locations, multiple formats, and often multiple versions creating a fragile foundation upon which consequential decisions were being made daily.

The consequences of this fragmentation were felt across every level of the business. Engineers could not confidently identify the current revision of a drawing. Operational teams experienced delays accessing accurate asset data. Project teams were delivering work based on outdated specifications, generating costly rework. The organisation was not failing for lack of effort it was failing because its information architecture had never been designed to serve the lifecycle as a whole.

Engineering Challenges

- Multiple drawing revisions in circulation
- Poor configuration control across design stages
- Unclear ownership of information assets
- Opinion ahead of calculated advice

Operational & Business Challenges

- Difficulty identifying current design status
- Delays accessing accurate information
- Rework caused by incorrect data
- Inefficient decision-making and increased project risk
- Escalating lifecycle costs across the asset base



The critical question: How do you manage assets effectively when nobody can confidently identify which information is correct?

PLM Was Never About Software

Most organisations approach Product Lifecycle Management as an IT project. They procure a system, configure it to their existing processes, train users on the new interface, and declare success. This case study revealed something profoundly different and far more instructive for organisations genuinely seeking transformation.

The root cause of poor lifecycle performance was not the absence of software. It was the absence of lifecycle thinking. Information was being managed by functions rather than by lifecycle stage. Engineering managed engineering information. Projects managed project information. Maintenance managed maintenance information. Operations managed operational information. Nobody managed lifecycle information as a coherent, trusted whole.

The Real Issue

Information was owned by functions, not by the lifecycle. Each silo maintained its own version of the truth none of them complete.

The Consequence

Decisions were being made using incomplete, inconsistent, or outdated information increasing risk at every stage of the asset lifecycle.

Asset Management View

Without trusted information, risk increases, costs increase, and performance declines. Information integrity is foundational to Asset Management.

Change Management View

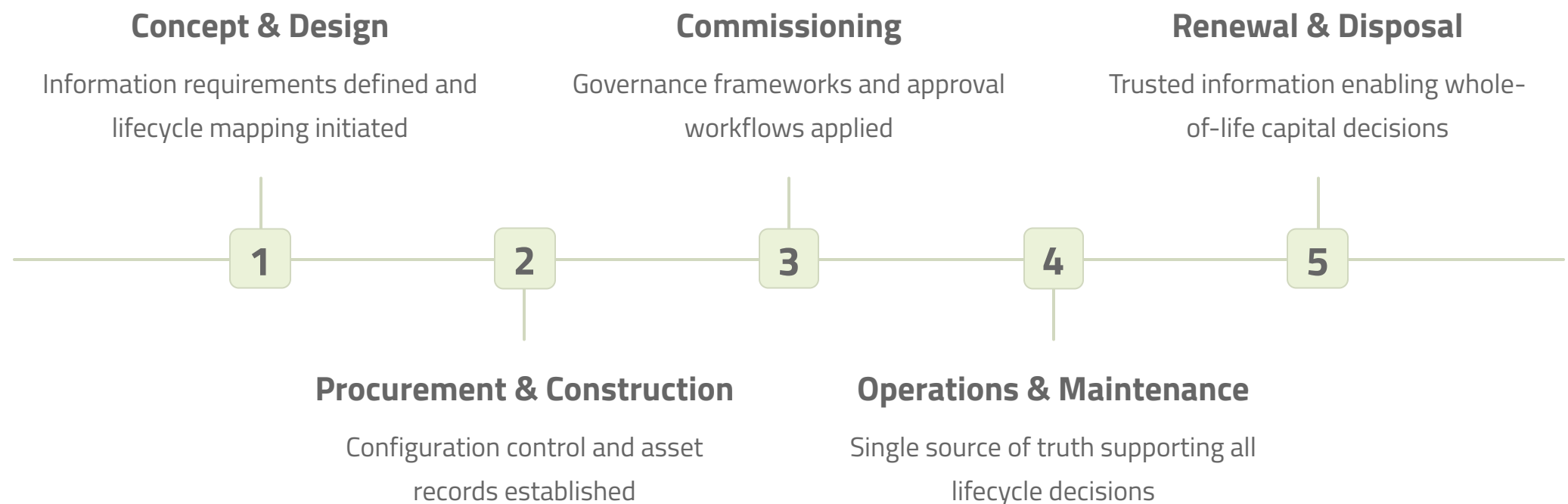
Every department had developed its own way of working. Changing the system meant changing deeply embedded behaviours not merely workflows.

The distinction between implementing a PLM system and building PLM capability is not semantic. It is the difference between a technology investment and an organisational transformation. This case study illustrates why that distinction matters and what it takes to get it right.

Creating a Whole-of-Life Information Perspective

The PLM initiative was approached through an Asset Management lens beginning not with the software, but with the lifecycle itself. The organisation mapped its information requirements across every stage of the asset lifecycle, from concept and design through procurement, construction, commissioning, operations, maintenance, renewal, and ultimately disposal. This exercise alone revealed significant gaps, overlaps, and inconsistencies in how information was being created, stored, accessed, and maintained.

Configuration management became a cornerstone of the programme. The organisation established far greater control over asset records, design information, product structures, and engineering change processes. Information governance was formalised, with clear ownership, accountability, approval workflows, and version control applied consistently across the lifecycle. These were not bureaucratic additions they were the structural prerequisites for trusted information.



Key Asset Management Insight: Information is an asset. If information cannot be trusted, decision-making cannot be trusted. The goal was to ensure that all lifecycle decisions were based on trusted and current information a single (trusted) source of truth.

Changing the Way People Think About Information

The technical challenge of implementing a PLM system was, in many respects, the simpler part of the programme. The tools existed. The architecture could be designed. The data could be migrated. What could not be engineered was the human dimension the habits, beliefs, and working patterns that had evolved over years within functional silos.

Understanding why local workarounds existed was as important as eliminating them. People maintained their own systems because those systems had served them well within the context of their own function. Duplicate records existed because nobody had been given a compelling reason or a reliable alternative to abandon them. Before the programme could succeed technically, it had to succeed culturally. That required a deliberate, structured approach to change.

Stakeholder Engagement

Engineers, project teams, supply chain, manufacturing, maintenance, and operational personnel were engaged from the very beginning not as users to be trained, but as contributors to the solution.

Leadership Alignment

Leadership established a clear and consistent message: information integrity was no longer optional. It was critical to future performance. Without this mandate, localised resistance would have undermined systemic change.

Capability Development

Training was designed around new processes, new responsibilities, new governance requirements, and critically, lifecycle thinking. The goal was not tool proficiency. It was a shift in how people understood their relationship with information.

Understanding Existing Behaviour

The team invested time in understanding why workarounds existed before attempting to remove them. This built credibility, surfaced genuine barriers, and enabled more effective and sustainable solutions to emerge.

📌 **Key Change Insight:** People rarely resist systems. They resist losing control of familiar ways of working. Effective change management addresses the loss, not merely the transition.

What Asset Management Taught Us

The PLM programme generated a series of Asset Management insights that have broad relevance across industries particularly for organisations that manage complex, long-lived physical assets. These lessons challenge assumptions about where value is created and where risk is generated within asset-intensive organisations.



Information Is an Asset

Organisations rigorously manage equipment, infrastructure, and facilities yet often treat information as a byproduct rather than an asset in its own right. Information drives almost every decision. Its quality determines the quality of those decisions.

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Lifecycle Stages

Mapped end-to-end from concept through disposal



Lifecycle Visibility Matters

PLM enables organisations to understand what exists, why it exists, how it has changed, and what risks exist across the full lifecycle. Without this visibility, capital and operational decisions are made in the dark.

1

Source of Truth

The goal: one trusted version of every asset record



Governance Creates Confidence

Information governance is a prerequisite for effective Asset Management. When ownership, accountability, and version control are clearly defined, decision-makers can trust the information they receive and act with greater confidence.

4

Governance Pillars

Ownership, accountability, approval workflows, version control



Key Asset Management Lesson: Asset performance improves when information quality improves. Better decisions require better information and better information requires deliberate governance.

What Change Management Taught Us

The change management lessons from this programme are as instructive as the asset management ones and equally transferable. Organisations investing in PLM, digital twins, enterprise asset management systems, or any form of information transformation will encounter the same human dynamics. The technology changes; the people challenges do not.

The programme demonstrated that engagement timing is not merely a project management consideration it is a change management imperative. Waiting until deployment to engage users creates resistance. Engaging stakeholders during the design phase creates ownership. The difference in adoption outcomes between these two approaches is not marginal. It is transformational.

→ Technology Does Not Create Adoption

People create adoption. The system enables the capability but only people can decide to use it consistently, correctly, and with genuine commitment to the intended outcome.

→ Functional Silos Must Be Broken

PLM requires genuine collaboration across engineering, operations, maintenance, projects, and supply chain. Structural silos do not dissolve through technology alone they require deliberate cross-functional engagement and shared accountability.

→ Leadership Reinforces Change

Without sustained leadership commitment, people naturally return to familiar behaviours. Leadership visibility, consistency of message, and willingness to hold the organisation accountable are non-negotiable for lasting change.

→ Sustainable Change Requires Governance

Governance provides clarity, accountability, consistency, and reinforcement. Without it, change programmes improve performance temporarily. With it, they transform organisations durably.

❏ **Key Change Lesson:** Changing systems is easier than changing habits. Sustainable transformation requires the same rigour applied to human behaviour as is applied to technical configuration.

Product Lifecycle Management Is Not a Software Project

It Is an Organisational Capability Uplift

Many organisations invest heavily in PLM systems, engineering information platforms, digital twins, asset information solutions, and enterprise technology. Yet a significant proportion struggle to realise the intended value. Systems go live but adoption lags. Information improves in isolated pockets but not across the lifecycle. The business case is partially delivered or not at all.

The reason is not the technology. The reason is that information management is ultimately a people challenge. It requires a shared understanding of what good information looks like, who is responsible for it, how decisions are made using it, and what behaviours are expected at every stage of the lifecycle. These are organisational questions not technical ones.

Asset Management ISO 55001 Provides the framework for managing information as a lifecycle asset with governance, accountability, and performance outcomes at its core.	Systems Engineering ISO 15288 Integrated through Structured Change to create sustainable organisational capability across the asset lifecycle.	Change Management ISO 10020 Provides the structured approach to engaging people, aligning leadership, and embedding new behaviours across functions and levels.
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Improve Information Governance

Build the ownership, accountability, and version control structures that make information trustworthy across the asset lifecycle.



Align Engineering and Operations

Break down functional silos and establish shared information standards that serve the whole lifecycle not individual departments.



Improve Lifecycle Decision-Making

Equip leaders and practitioners with trusted, current information to support risk, capital, maintenance, and performance decisions.



Deliver Sustainable Digital Adoption

Ensure that investment in digital solutions generates lasting organisational value not just technical capability.

About Martin Kerr

The PLM case study at the heart of this brochure is drawn from Martin Kerr's book *Organisational Change Management for Asset Management* a work that bridges the gap between technical asset management practice and the human dimensions of organisational change. Martin's career spans the full spectrum of engineering and asset management, giving him a perspective that is simultaneously practical, strategic, and deeply informed by lived experience in complex, asset-intensive environments.

01

Maintenance Fitter and Toolmaker

Began at the operational frontier understanding assets, failure modes, and the realities of maintenance from the ground up.

03

Maintenance Manager & CEO

Led heavy maintenance organisations applying asset management principles at an executive level across complex operational environments.

05

Technical Director, World Partners in Asset Management

Advances Asset Management capability globally supporting organisations to integrate strategy, people, and information into sustainable performance outcomes.

02

Production Engineer & Software Developer

Bridged the physical and digital worlds developing systems that connected engineering practice with information management.

04

Convenor of ISO 55001:2024

Shaped the international standard for Asset Management bringing global consensus to the principles of lifecycle value, governance, and performance.

06

Author

Authored *Organisational Change Management for Asset Management* the definitive guide to integrating ISO 55001 with structured change management practice.

Before Your Next PLM Initiative, Ask This

Many organisations believe that digital transformation is about technology. The reality is that digital transformation is about people making better decisions using better information. The platform is the enabler. The people are the capability. And the governance is what makes the capability endure.

Are we implementing software? Or are we transforming the way our organisation manages information across the asset lifecycle?

The distinction between these two questions determines whether your PLM investment generates a system or an organisational capability. One depreciates. The other compounds.

✓ Improve information governance

Build the structures that make information trustworthy and keep it that way across the lifecycle.

✓ Build trusted asset information

Establish a single source of truth that every function can rely upon for critical decisions.

✓ Align engineering and operations

Connect the people and information flows that span functional boundaries by design, not by exception.

✓ Strengthen Asset Management capability

Integrate ISO 55001 and ISO 10020 to create a framework that sustains performance improvement long after implementation.

🕒 **Because Information Only Creates Value When People Trust It, Use It, and Improve It.**