

Asset Management as the Backbone of Long Term Infrastructure Value

by

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Asset management is often discussed in operational terms, yet its real significance lies in its ability to shape how infrastructure delivers value over time. Assets are not static objects. They are systems that must perform reliably, safely, and efficiently over decades of service while adapting to evolving regulatory, financial, and societal expectations. Asset management provides the discipline that connects daily operational decisions with long term strategic outcomes.

More than twenty years of experience managing major physical assets across the globe has reinforced a consistent lesson. Infrastructure performance is rarely determined by individual decisions or isolated interventions. It is the cumulative result of thousands of informed choices made consistently over time. Asset management creates the structure within which those choices can be aligned, prioritised, and justified.



A lifecycle perspective on performance and value

Effective asset management begins with a lifecycle perspective. Assets are conceived, designed, delivered, operated, maintained, renewed, and ultimately replaced. Each phase introduces decisions that influence cost, performance, safety, and resilience. When these decisions are made in isolation, organisations drift toward reactive maintenance, rising costs, and increasing risk. When they are made within a structured asset management framework, organisations gain control, visibility, and predictability.

The benefits are tangible and measurable. Maintenance costs are optimised rather than simply reduced. Asset utilisation and performance improve. Safety and regulatory compliance are strengthened. Investment decisions become evidence based and defensible. Maintenance productivity increases as reactive intervention gives way to planned activity. Sustainability and resilience become operational outcomes rather than aspirational objectives.

A defining strength of this approach lies in working across the full asset lifecycle, combining the perspectives of investor, engineer, operator, and advisor. This transversal position allows asset strategies to be grounded in operational reality while remaining aligned with strategic intent and financial constraints. Supported by international networks of asset management specialists, this model enables critical infrastructure to be managed consistently and effectively on a daily basis.

Leadership in international asset management standards has followed naturally. Six international projects have been taken to ISO 55001 certification across road and rail networks in Europe, Australia, and the Middle East. These include long duration concessions and complex operational environments where certification reflects the embedding of asset management systems into everyday practice rather than compliance alone.

Delivering measurable value through operations and digital capability

The impact of asset management is most clearly visible in operation. On the M25 DBFO in the United Kingdom, involvement has been continuous since 2009 within both the special purpose vehicle and the operations and maintenance company. Around eighty staff support an asset base of approximately one hundred and forty thousand assets, including five tunnels and more than eight hundred bridges. Over a thirty year contract period, a renewal fund of one point eight billion pounds at 2009 prices is being managed through structured asset strategies.

Through improved investment targeting and performance led asset strategies, cost reductions exceeding sixty million pounds have been achieved while maintaining safety, availability, and service standards. These outcomes were delivered not through short term cost cutting, but through disciplined asset management applied consistently over time.



A similar philosophy underpins involvement in Egnatia Odos operations and maintenance. Modelled on the M25 approach, a dedicated asset management team of around twenty specialists oversees inspections across the full asset base, including fifty kilometres of tunnels and forty kilometres of bridges. Condition assessments inform a thirty five year investment plan aligned to a renewals fund of approximately one point five billion euros at 2020 prices. This ensures that investment decisions remain proportionate, transparent, and aligned with concession objectives throughout the contract duration.

Digital capability increasingly enables asset management to operate at scale. On Network Rail ACE, beginning in 2019, analytics platform development, digital transformation, and benefits analysis have supported the creation of predictive fault analysis capability. By leveraging data from asset management information systems, actionable insight is provided to users, allowing emerging issues to be addressed before they escalate into service affecting failures.

In Saudi Arabia, asset management development and deployment has been supported since 2023 across twenty seven airports serving approximately one hundred million passengers each year. A team of more than ten specialists has delivered gap analysis of existing asset management processes, condition assessments of assets, and implementation of improvement plans grounded in best practice methodologies. The scale of this programme demonstrates how asset management frameworks can be applied consistently across diverse portfolios while remaining responsive to local operational realities.

Partnerships play an important role in strengthening this ecosystem. Collaboration with specialist digital partners brings deep expertise in enterprise asset management systems, analytics, and continuous engagement models. Industry solutions that integrate data, artificial intelligence, and engineering insight accelerate time to value

and support organisations as they progress toward higher asset management maturity.

Across sectors and geographies, the same pattern emerges. Asset management aligns investment with risk. It replaces reactive intervention with informed planning. It creates a common language between technical teams, operators, and decision makers. Most importantly, it ensures that infrastructure continues to deliver value long after initial delivery.

Asset management is therefore not a support activity. It is a core enabler of resilience, performance, and long term value creation. In an environment of constrained budgets, rising expectations, and increasing complexity, the ability to manage assets intelligently is no longer optional. It is fundamental. The distinction is clear. Managing assets keeps infrastructure operating. Managing asset value prepares organisations for the future.





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