

The Business Case For PAS 55: An Emerging Global Standard For Asset Management

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Time to get ready. A standard's coming. Here's some insight into this framework for maximizing the return on your assets and improving safety. You'll need to think 'best practices.'

A holistic and efficient approach to the management of physical assets is vital to the operation of any organization, especially those with a high dependency on physical infrastructure or equipment. For asset-intensive businesses in particular—*such as mining, electric utilities, transportation and defense*—optimizing the sustainable productivity and performance of assets is mission-critical to achieving core business objectives. Until recently, though, determining what constitutes this type of optimization has, in large part, been left to the discretion of individual organizations/operations: What's been missing is a globally recognized standard to guide them. That's changing.

Known as PAS 55, the Publicly Available Specification (PAS): 55-1:2008 for Asset Management is being rapidly accepted worldwide as “good practice” guidance for optimizing asset management systems and processes and reducing risks to people, the environment and the business. Developed by industry experts at the Institute of Asset Management (IAM) (<http://theiam.org/>) in collaboration with the British Standards Institution (BSI) (<http://www.bsigroup.com/>), it was first published in 2004 and revised in 2008. In its current version, PAS 55 provides clear definitions and a requirements specification for establishing and verifying a comprehensive, optimized management system for all types of physical assets across their life cycle.

Similar in approach to the ISO 9000 series specifications, PAS 55 is non-prescriptive and outcome-based. In other words, it describes what to do, not how to do it. Now internationally recognized and on its way to becoming an ISO standard, it is proving to be an essential, objective definition of what is required to demonstrate competence, establish improvement priorities, and make clearer connections between strategic organizational plans and the day-to-day realities of asset and work management.

The business value of PAS 55

Asset-intensive businesses are well aware of the value of best-practice asset management for reducing costs and risks and for facilitating regulatory compliance. Nearly every asset-intensive operation is under increasing pressure to control costs and maximize return on assets, while providing high service quality and continuing to protect the safety of its employees and the public. For these organizations, the productivity and performance of assets is central to their core business objective. Significant investment, and ongoing expense and risk, are all associated with the acquisition/creation, utilization, maintenance and renewal/disposal of asset portfolios. But that's not the whole story: Strong regulatory accountability for the safe management of assets and related services is another important driver for the adoption of PAS 55.

In contrast to some standards (which can be met simply by generating extensive paperwork), PAS 55 requires evidence of alignment between good intentions and the actual day-to-day activities of capital-project implementation, operations and—*ultimately*—the business

goals and objectives of the organization. Thus, it's a valuable mechanism to ensure confidence in results and support good governance, long-term planning and sustainable performance.

The ability to demonstrate compliance with PAS 55's requirements not only reduces operational and compliance costs and risks, it can also drive competitive advantage through improved service and greater operational proficiency.

By embracing PAS 55 guidelines, an asset-intensive business can more effectively:

- Assess the gap between its current procedures and those considered to be optimal asset-management activities.
- Align the company's asset-management approach with its overall business strategy.
- Improve the integration between asset-management and financial-management processes.
- Foster an organizational culture centered on quality, safety, risk management and continuous improvement.
- Maximize return on assets by increasing uptime of mission-critical equipment and facilities.

Understanding the PAS 55 approach

The optimal management of assets and their related costs, risks and performance calls for a comprehensive life cycle approach: You need to determine what assets to build or obtain; how best to maintain and use them; and how best to renew, recondition and/or when to dispose of them.

The PAS 55 approach to whole-life asset management is based on the widely used Plan-Do-Check-Act (PDCA) cycle for continuous improvement. As applied to asset management per PAS 55, the components of the PDCA cycle are:

1. **Plan.** Establish the asset-management strategy, objective, plans and performance measures needed to deliver results in alignment with the organization's asset-management policy and strategic plan.
2. **Do.** Establish the enablers (e.g., EAM software) and other essential requirements—*such as regulatory requirements*—and implement the asset-management plan(s).
3. **Check.** Monitor and measure results against asset-management policy, strategy objectives, regulatory and other requirements and then record and report the results.
4. **Act.** Take actions to make sure that asset-management objectives are achieved and to continuously improve the asset-management system and the asset-management performance.

PAS 55, however, goes well beyond a "paper" checklist of what needs to be done. To truly optimize asset health and utilization, an organization must employ the right people, processes and technology to become a top-flight maintenance organization.

Key elements that drive the asset-management PDCA cycle include:

- Establishing an asset-management policy, providing direction on how to effectively manage physical assets in line with the organization's strategic direction. (Most organizations have no asset-management policy and, therefore, will have difficulty realizing the benefits of PAS 55.)
- Establishing an asset-management strategy to define how that policy is implemented, outlining specific direction and high-level initiatives as required for policy implementation.
- Identifying the asset-management enablers (i.e., the organizational structure of roles, responsibilities, authorities and tools to carry out the strategic level plan). This is essential because it's accountable people—*not just policies*—that ultimately ensure sound asset management.
- Developing asset-management plans with specific objectives, enabling the business to implement change, carry out its asset-management functions and detect potential defects before they escalate into incidents that might impact safety, environment or operational performance and/or increase the cost of initiating maintenance.
- Instituting measurements for asset management. According to Sandy Dunn, a specialist in maintenance and asset management, PAS 55 requires organizations to have reactive and proactive monitoring using leading/lagging performance indicators to identify corrective actions and achieve continual improvement.

Once an organization outlines a policy, enablers and a strategic plan, it needs to deploy a system for tracking the success of the initiative throughout the lifecycle of an asset, understanding how that asset works with other elements in an organization, and how multiple interdependencies can be managed and optimized for greater performance and output.

Leveraging EAM software to automate PAS 55

As management consultant James Reyes-Picknell says, “PAS 55 is not a framework for an Enterprise Asset Management software system. But EAM software is almost always a necessity to successfully implement the specification of PAS 55.”

For asset-intensive businesses to adopt PAS 55 and achieve commensurate benefits in cost and risk reduction, they need a standardized method for identifying, tracking and managing the condition of every known asset, managing risk before it becomes a problem, standardizing the asset-registry process and generating reports that show compliance to plans and strategic direction.

According to Reyes-Picknell, “Although many organizations are in fact carrying out successful asset-management practices, they cannot successfully demonstrate it with objective evidence. Utilizing a modern EAM solution that is aligned with this emerging standard can mean the difference between success and failure.” Such a system should allow users to do the following:

Manage risk proactively...

PAS 55 mandates proactively resolving risk before it becomes a problem, versus addressing it after an event via root-cause analysis. A company’s EAM solution should feature built-in risk assessment and management into inspections and defects, standard jobs, work requests and work orders. These entities prioritize work based on a risk assessment that reflects the criticality of the asset. The prioritization sets the required start and, more importantly, the required completion date. By collecting and analyzing all current defects and the risks they pose to the business across the enterprise asset base, a system of this capacity can ensure you know the potential risks, mitigating actions that are required, and help to ensure human and environmental safety.

Know the condition of every asset...

In the context of performance and condition monitoring, PAS 55 requires an Asset Manager to know the current condition of each asset. Organizations need an EAM solution that incorporates “inspection” and “defects” functionality, and can automatically calculate the current condition of each asset based on responses to inspection questions, and then automatically send out a triggered response if required.

Standardize the asset-registry business process...

An EAM solution should provide a simple and effective approach for registering assets in line with PAS 55 guidelines. The offering should enable the collection of asset data as mandated by PAS 55, while ensuring that asset registers do not become overly cumbersome or complex. It should also allow for the collection of data relating to currently unregistered assets, ensuring that data quality is maintained and available in the field.

From asset assemblies to components and associated equipment and systems, modern EAM solutions should ensure that costs, defects and history for all assets are collected at the correct level—and that any necessary changes to registration can be flexibly accommodated.

Are you ready for PAS 55?

To effectively manage cost and risk and align operations with business strategy, you must be able to answer some fundamental questions about the assets in your organization, including:

- What assets do we have, what condition are they in, what function do they perform and what is their contribution to value?
- Do we have sufficient capacity (or under- or over-capacity) in our asset portfolio? Are some assets redundant, under-utilized, unprofitable or burdensomely expensive?
- Are the risks of our assets causing harm to people and/or the environment at legally and organizationally acceptable levels?
- Can we accurately evaluate the performance, risk-reduction, compliance and/or sustainability benefits of proposed work or investments and, likewise, the impact of delaying or not performing the proposed actions?
- Can we confidently address these lines of inquiry and provide answers to stakeholders with a clear audit trail and reliable data?

If you’re unable to answer these questions, you should consider a PAS 55 approach to asset management.

Conclusion

PAS 55 provides a clear, internationally recognized definition of “good practice” asset management for any organization. It offers detailed guidance and examples for demonstrating competent governance of critical assets, along with a checklist of good practices in asset lifecycle planning and cost/risk optimization, and an extensive glossary of terms that provides a common language for all stakeholders.

Developed with the help of more than 50 public and private organizations across 10 countries and 15 sectors, PAS 55 has earned broad, enthusiastic acceptance and is gaining widespread adoption. It provides the model upon which a new international standard for asset management is being based. It represents a huge stride forward in the consistent application of asset-management techniques. Perhaps most importantly, PAS 55 is driving more realistic and risk-sensitive asset-management decisions at the boardroom level.

For more information on PAS 55 and how to leverage this framework for your own organization, visit [here](#), or [here](#). **MT**

In The Forefront: Mincom's Position On PAS 55

As a leading supplier of EAM solutions to businesses operating in asset-intensive environments, Mincom believes the PAS 55 standard will rapidly achieve global acceptance and be adopted as an ISO standard for the management of physical assets. Since the PAS 55 was first published in 2004, Mincom has been in the forefront of supporting its customers to align with PAS 55 guidelines—and has applied PAS 55 as the foundation of its EAM software design and development methodology.

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