

WE MAKE IT LOOK EASY

Leadership, People, Change, and Data

Lessons from a decade of implementing, certifying, sustaining, and advancing an ISO 55001 Asset Management System

Melody Laven, AMP, MIAM, MBA

Krystin Berntsen, PE, PMP | Pollop Phonpornwithoon, PE, PMP

Palm Beach County Water Utilities Department



Abstract

On paper, building an Asset Management System (AMS) looks like a straight line: assess the gaps, write the processes, stand up the supporting systems, prepare for audit, get certified. Our experience at Palm Beach County Water Utilities Department (PBCWUD) did not run that way. After more than a decade of implementing, certifying, and now sustaining an AMS, we found that ISO 55001 certification is an important milestone but not the finish line. The longer, harder work is integrating asset management into how the organization sets priorities, makes decisions, does the work, and improves.

This paper lays out the lessons we would give another organization starting or strengthening an AMS. Four factors that kept mattering for us: leadership, people, change, and data - and how those four had to work together rather than sit as separate initiatives. Leadership had to show up in real decisions and funding, not just policy language. People had to see why the system mattered to their own jobs. Change could not be treated as a training rollout. And data had to move a decision, not just populate a dashboard. We also look at what happens after certification, when an implementation team has to step back and let the organization own the system.

Keywords: asset management; ISO 55001; asset management system; leadership; change management; data governance; utilities; organizational learning

PAPER PREMISE Certification is a milestone. The real test of an AMS is whether leadership, people, change, and data come together in decisions, in daily work, in what the organization learns, and in the outcomes it gets.

1. Introduction

People starting an asset management journey often ask us where to begin - ISO 55001, an asset register, an Enterprise Asset Management System, a SAMP, a risk framework, and a maturity assessment. All of those matter, but leading with the tools or the clause list tends to send an organization in the wrong direction. We learned, sometimes the hard way, to start with the organization itself: what is it trying to

achieve, what are the services it provides, what are the risks it carries, what are the decisions it makes, and what work has to happen every day.

PBCWUD achieved ISO 55001 certification in 2021 and was recertified in 2024. Both milestones mattered as these gave us an external test of the system and a reason to stay disciplined about what we had built. But the value of the AMS never came from the certificate itself. It came from what changed around it: how people understood asset management, who owned which process, how evidence from the field moved through the organization, and whether we kept improving once there was no audit on the calendar.

That is the angle of this paper. It is not a clause-by-clause guide to ISO 55001. It is a practitioner account of what it took to make the requirements work inside a utility, and what we learned once the system had to stand on its own.

This paper picks up where PBCWUD's 2022 ISO/TC 251 case study, *Implementing People-Led Asset Management Using ISO 55001 Framework*, left off. That paper covered much of the implementation period from building internal ownership, developing champions, communicating why asset management mattered, capturing knowledge, improving the use of data, to working deliberately on culture. Those efforts got us to certification. The question afterward was different: could we sustain the system, learn from it, and keep moving forward?

2. Organizational Context and Evolution of the AMS



PBCWUD is a large public water and wastewater utility in Florida, serving more than 620,000 residents with a workforce of over 600. The utility manages an asset base with an estimated replacement cost of roughly \$8 billion and an annual capital improvement program of about \$100 million. Scale like that means asset management cannot sit with one team or one manager - operations, maintenance, engineering, capital planning, technology, finance, procurement, and leadership all touch decisions that shape asset performance and value.

Looking back, five verbs capture the journey: learn, build, certify, sustain, and excel. We first had to learn what asset management actually meant for us, moving past the idea that it was simply maintenance, an asset register, or a piece of software. We then built the governance, processes, capability, data, and technology needed to run the system. Certifying and recertifying to the standard tested what we had built. Finally, we had to sustain our efforts without an audit forcing the issue.

Currently, we hope that we excel in turning asset management from a program into the way the organization thinks and works.

LEARN	BUILD	CERTIFY	SUSTAIN	EXCEL
Broaden the definition of AM	Governance, process, capability, data, technology	Demonstrate system conformance and operation	Maintain effectiveness after certification	Embed AM into organizational decision-making

3. The Four Conditions That Must Converge

For a while, leadership, people, change, and data looked like four separate workstreams to us. They weren't. We could improve the data and still make a poor call. We could have strong executive backing and still struggle to get a new process adopted. We could train people thoroughly and still see the work stay the same. Leadership, people, change, and data only created value once they met in an actual decision and in the work that followed it - individual excellence doesn't automatically add up to organizational performance; the system has to connect the two.

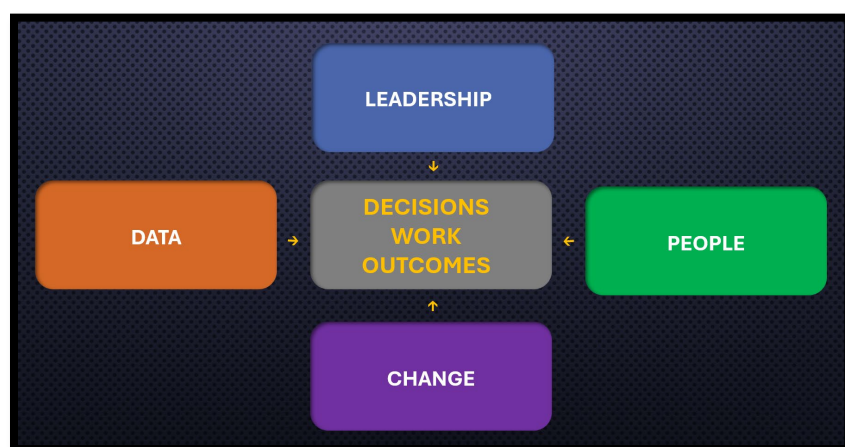


Figure 1. Leadership, people, change, and data must converge in decisions, work, and outcomes.

4. Leadership: Make Commitment Visible in the Work

Leadership commitment is easy to write into a policy; it's harder to put into practice. We endeavored to reflect that commitment in priorities, in funding, in resource decisions, in the risks leaders were willing to accept, in management reviews, in which barriers were removed, and in what leaders did with the information placed in front of them. This lines up with the IAM's Asset Management Leadership guidance, which treats leadership as something exercised at multiple levels and ties it to strategic alignment, governance, decision-making, accountability, and learning (IAM, 2026a).

Leadership became more meaningful to us once we could observe it directly, whether a risk discussion actually changed a priority, whether performance information led to action, whether a barrier got

removed because it was holding the AMS back, whether attention kept up after certification. Leadership isn't something that sits above the AMS looking down on it. It has to show up inside it.

4.1 Leadership Is Distributed

We also learned not to equate leadership with the executive suite alone. Executives set direction and make big trade-offs. Managers turn that direction into priorities and resources. Supervisors make it real in daily work. Practitioners translate the standard and asset management principles into processes people can use. Frontline staff see the condition of the assets, and the consequences of our decisions, before anyone else does. A working AMS needs information and influence moving in both directions.

That matters for sustainment. An AMS that depends on one executive sponsor is vulnerable to the moment priorities shift. One that depends on the asset management team is vulnerable when people leave. We knew the system was getting stronger when ownership started to spread, when people stopped waiting for the implementation team to tell them what asset management required of them.

5. People and Change: Treat Adoption as System Design

Almost every meaningful asset management improvement changes somebody's job. A revised risk process changes how priorities get set. A new inspection requirement changes field activity. A new data standard changes what someone has to enter and maintain. A dashboard changes what a manager is expected to review and act on. Somewhere along the way we stopped treating change management as something bolted onto implementation. The change is the implementation.

5.1 Four Questions for Any Change

When a new practice wasn't taking hold, the easy answer was usually, 'they need more training.' Sometimes that was true. More often it wasn't. We started asking four questions instead: Do people understand why the change matters? Do they know how to do the work? Do they have the time, tools, information, and authority to do it? And are leaders and supervisors reinforcing the same behavior we're asking for?

Those questions helped us separate awareness from capability. Someone can understand a requirement perfectly and still be unable to carry it out because the process doesn't fit the workload, the technology gets in the way, responsibilities are unclear, or their supervisor is reinforcing something different. No amount of training fixes a badly designed process or a conflicting management signal.

5.2 Communication Must Connect the AMS to Real Work

Communication worked best once we stopped explaining asset management the same way to everyone. An operator, a planner, an engineer, a manager, and an executive don't need the same message; each needs to see where asset management touches the decisions they make and the outcomes; they're accountable for. Stories and real examples helped because they made risk, reliability, service, cost, and lifecycle-thinking tangible instead of theoretical.

One test we still use: ask the person doing the work why the process matters. If the honest answer is ‘because ISO requires it,’ the process hasn’t been embedded yet. The standard may be what drove the requirement, but the person doing the work should be able to tie it back to the asset, the service, the risk, or the decision it supports.

6. Data and Decisions: Begin with the Decision

Utilities rarely suffer from a shortage of data. The harder problem is knowing which data actually matter and whether anyone will use them. We stopped starting with the dashboard and started with the decision: What are we trying to decide? What information would make that decision better? What data support that information? Where do the data come from, who owns them, and what action should follow? ISO 55001:2024 and the IAM’s Asset Management Decision-Making guidance both point toward this same tighter link between information, value, and decisions (ISO, 2024b; IAM, 2026b).

That sequence sounds obvious, but it changes the conversation. Instead of ‘what can we build with the data we have,’ the question becomes ‘what do we need to know to make this decision well.’ Technology and analytics end up supporting the decision instead of becoming the point of the exercise.

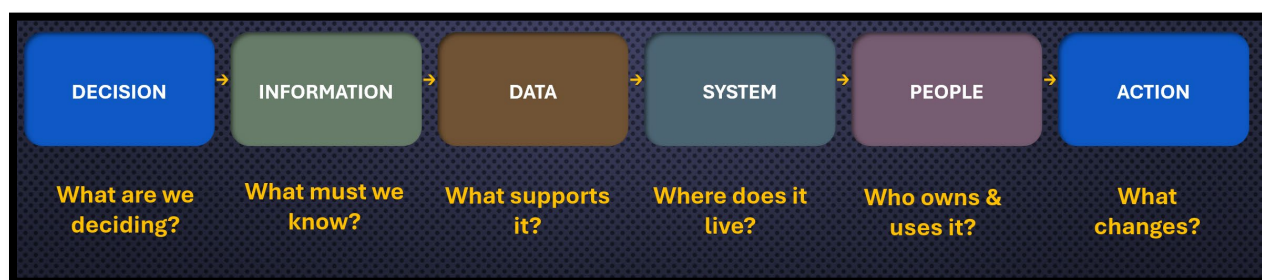


Figure 2. Decision-first analytics: begin with the decision and work backward to the information, data, systems, people, and action required.

6.1 Operational Evidence Must Travel Through the AMS

Take a work order for example. On its own, it just records that work happened. Across time and across assets, work orders add up to a failure history. A failure history can expose recurring patterns, and those patterns should make us question whether the maintenance strategy is actually working. Maintenance experience should feed risk and lifecycle understanding, and eventually that evidence should reach a capital decision. If it stalls anywhere along that path, we just have data - we don’t yet have the value the AMS is supposed to deliver.

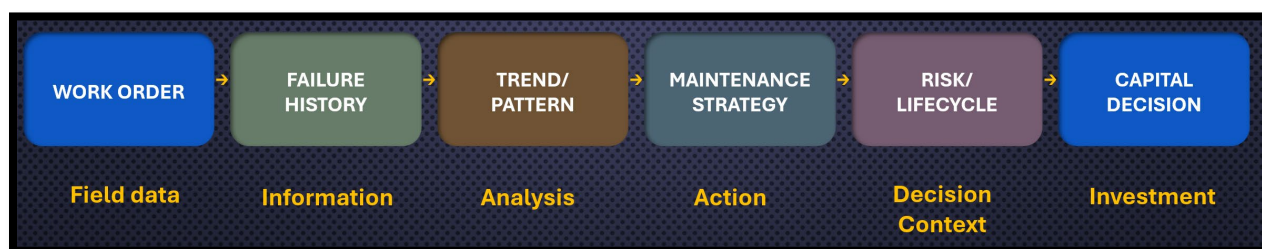


Figure 3. Example of operational evidence moving from work order history to maintenance, risk, lifecycle, and capital decisions.

For us, this is one of the clearest tests of whether the system is integrated: can evidence from the field travel far enough through the organization to change maintenance, risk treatment, resource allocation, or capital investment? If not, adding another dashboard won't fix it.

6.2 The Last Mile of Data Is Leadership

Eventually, the analysis lands in front of someone who has to decide what to do with it - and that last mile is leadership, not data. Data-informed decision-making doesn't mean following a dashboard blindly; context, uncertainty, experience, and professional judgment still matter. But if an organization asks people to improve data quality, invest in systems, and build a case, and leaders keep setting that evidence aside because the preferred answer was already decided, that sends a message. People notice. Over time, they stop believing the quality of the evidence matters, and what looked like a data problem turns out to be a leadership and culture problem.

The data process doesn't really end at the published dashboard. It ends with the decision and at whether that decision shows people the work they put into building reliable information was worth doing.

7. Integration: What an Operating AMS Looks Like

We learned that having all the pieces of an AMS in place doesn't mean the system is actually working. Strategy can be sound, processes documented, dashboards built, and people trained, yet an organization can still land on the same decisions it always made. The real test is whether information from the work makes its way back into the next decision.



Figure 4. An operating AMS is a learning loop in which strategy shapes decisions and work, while performance and learning feed the next decision.

That's what the integration loop is meant to capture. Strategy shapes asset management objectives and decisions. Decisions drive capital and O&M work. The work generates performance information and data. We learn from that evidence, and the learning should change what we do next. Leadership, people, change, and culture aren't outside that loop, they're what keeps it turning.

8. Implementation Lessons for Organizations Starting an AMS

- 1. Start with the organization, not the clause list.** Understand the objectives, services, stakeholders, risks, decisions, and existing work first, then use ISO 55001 to test and strengthen the management system. Starting with the clauses tends to produce a system that looks compliant, but that people struggle to connect to their work.
- 2. Build around decisions.** Keep asking what decision a given process, KPI, requirement, or report is meant to support. If no one can answer that clearly, question why it exists or how it's being used.
- 3. Treat people and change as part of the AMS, not an add-on.** Training alone isn't capability - people also need purpose, workable processes, time, tools, authority, and consistent reinforcement from their leaders.
- 4. Make data everyone's responsibility.** Technology may host the system and analysts may build the reports, but the business owns the meaning, quality, stewardship, and use of the data it creates.
- 5. Design for sustainment from day one.** Don't build an AMS that only the implementation team understands. Share ownership early, make decision rights clear, transfer knowledge, and build review and improvement into normal management routines.

9. The Role of the Asset Management Champion



Champions matter, especially early on. They create momentum, translate the standard, connect people across departments, and keep work moving when competing priorities threaten to bury it. But there's a real risk: the champion can become the system. Every question comes back to the same person, every improvement waits on them, and knowledge stays concentrated in one place. That might carry an organization through implementation, but it won't sustain the AMS afterward.

Champion behavior	Purpose
Lead from where you are	Influence can translate intent into action even without executive authority.
Build a coalition, not dependency	Create owners across the business so responsibility for the AMS is distributed.
Translate the standard into the work	Make ISO 55001 relevant to the operator, planner, engineer, manager, and executive.
Protect momentum	Expect competing priorities, turnover, and resistance; use governance, evidence, visible wins, and recognition to sustain progress.

Champion behavior	Purpose
Build your successor	Share knowledge, coach others, and create a system that continues to operate after the original champion steps back.

The champion's role should shift as the system matures - from drive, to enable, to embed, to stepping back. Early on, the champion probably has to push. Later, the better measure of success is whether other people can carry the work without the champion. A champion's job is to enable the system, not to become it. The real sign of excellence is a system that survives its champions.

10. Moving From Sustainment to Excellence

Once the core AMS is running, the next step isn't automatically more process - it's learning how to make the system better. Most organizations already have pockets of excellent asset management somewhere: a supervisor who consistently sets better priorities, a team that actually uses evidence, a maintenance practice that keeps improving reliability, a project team that captures and applies lessons learned. The IAM's Pathway to Excellence frames maturity the same way - as a progression shaped by organizational context rather than a universal checklist (IAM, 2022).

Those examples are worth studying closely: what is that team doing differently, why does it work, what conditions made it possible, and can the practice transfer without turning into more bureaucracy? The same goes for practices we borrow from outside the organization - worth learning from, not worth copying just because they worked somewhere else. The real question is always what makes sense in our own context.

One sign we watch for now is whether people start asking the asset management questions on their own, without us prompting them - what's the risk, what does the evidence say, what's the lifecycle impact, what are we trading off, what outcome are we actually after. Once those questions show up in ordinary conversation, asset management has moved from a program into the culture.

11. A Practical Implementation Framework

Step	Implementation focus	Key question
1	Establish context and line of sight Define the organizational objectives, services, stakeholders, risks, value considerations, and decisions the AMS must support.	What decisions must the AMS improve?
2	Establish governance and decision rights Clarify ownership, accountability, escalation paths, and the forums in which asset-related decisions are made.	Who owns the decision and who acts?

Step	Implementation focus	Key question
3	Design the AMS around real work Translate requirements into processes and controls that fit how operators, maintainers, engineers, planners, managers, and leaders actually work.	How does the requirement fit the work?
4	Plan adoption with implementation For each significant change, address purpose, capability, tools/resources, authority, and leadership reinforcement.	What must change for adoption to occur?
5	Build decision-oriented information Define the decision first; then establish the data, ownership, validation, systems, analytics, and expected action.	What evidence is needed to make the decision?
6	Close the learning loop Use operational and performance evidence to modify maintenance, risk, lifecycle, resource, and capital decisions.	What changed because of the evidence?
7	Design sustainment and succession Distribute ownership, capture knowledge, audit for effectiveness, develop successors, and transfer proven practices across the organization.	Can the system operate without the original implementation team?

12. Conclusion



Certification is visible. Culture is harder to see, but it's the result that matters. We know the AMS is working when a supervisor engages in risk thinking without being asked, an operator questions the data, a manager asks for evidence before deciding, leadership ties investment back to outcomes, and someone pushes back on 'the way we've always done it' because the evidence points somewhere else. Those behaviors say more about asset management maturity than any certificate on the wall.

For organizations starting this work, our advice is to resist making the AMS bigger than it needs to be. Start with the organization and the decisions it needs to be made better. Build governance around those decisions. Keep the processes usable. Treat change as part of implementation, not an afterthought. Ask for data because it supports action, not because a dashboard would look good. Then build the ownership, learning, and succession that let the system keep working once the original implementation team steps back. That's when asset management starts to look easy - not because it ever was, but because it has become part of how the organization works.

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Author Profiles



Melody Laven, AMP, MIAM, MBA

Technical Compliance Manager

Melody is the Technical Compliance Manager at Palm Beach County Water Utilities Department, co-led the utility's ISO 55001 certification and leads the recertification efforts. Her work focuses on management-system integration, technical compliance, change management, data, organizational learning, and sustained asset management capability. Melody leads the South Florida Institute of Asset Management, an active contributor and mentor to the Asset Management community.

**Krystin Berntsen, PE, PMP****Deputy Director**

Krystin serves as Deputy Director of Palm Beach County Water Utilities Department, bringing more than 20 years of experience in water, wastewater, stormwater, and transportation infrastructure. She oversees implementation of the utility's five-year, \$600 million Capital Improvement Program, along with long-range capital planning, design, facility planning, and consultant selection. Krystin holds a Bachelor of Science in Civil Engineering from the University of Miami and a Master of Science from Florida Atlantic University.

**Pollop Phonpornwithoon, PE, PMP****Assistant Department Director, Operations, Maintenance & Technology**

Pollop serves as Utility Assistant Director for Operations, Maintenance and Technology at the Palm Beach County Water Utilities Department, overseeing water, wastewater, reclaimed water, distribution and collection systems. He is responsible for reliable, cost-effective utility services and advancing innovative, sustainable initiatives that strengthen long-term system resiliency. He is the executive sponsor and advocate for the utility's ISO 55001 asset management program and ensures its implementation across the organization.