Consider this: The new equipment was designed and purchased before maintenance and operations were consulted. The project team eliminated new equipment training and documentation in the final stages of the project as a cost-saving measure. Soon after installation, marketing launched a new product that the plant was not prepared to deliver. And operations pushed the new equipment to do something it was never designed to do in order to run the new product.

Would you anticipate problems when it comes to operations and maintenance and long-term reliability of the new equipment? Absolutely. Old habits in this organization must change to achieve the levels of operations reliability defined by their own objectives. Top management: Your job is to lead the culture change, knock down barriers, model the way, and reinforce new behaviors.

When the Line of Sight is Broken

In my career, which spans hundreds of companies and new facility and equipment startups, I’ve seen what happens when people who mean well focus on the narrow aspects of their job responsibilities and fail to consider the bigger impact of their decisions and actions. The line of sight that connects their activities and performance goals to the organization’s overall objectives is often broken. Here are a few examples:

- “If it wasn’t for the students, we could keep the vending machine area of the building clean.” (college campus maintenance superintendent)
- “We sent all our mechanics and electricians to the best-of-the-best A-B PLC schools.” (human resources manager) “Every time one of these guys touches our T-I process controllers, they screw something up. That training was totally ineffective.” (maintenance manager) “Why were they sent to the wrong OEM school for process controller training?” (maintenance engineer)
- “The new first-of-its-kind packaging line project was fast tracked and was a real success.” (corporate project engineering) “As soon as the new packaging line was turned over to us to run all these different products we had problems—big problems. Thankfully, we had a very responsive maintenance organization.” (plant production manager) “Since they installed that new packaging line, we spent maintenance 740 hours over the past three months making it run. The rest of the plant is suffering.” (plant maintenance manager)
- “Those new machines are being installed as we’ve planned from the beginning—ready to run next week Monday.” (project engineering manager) “Look at those new machines. All of them are up against the back wall with absolutely no access to the main drive motors. No overhead crane, no forklift access, can’t even reach in there with a boom pole.” (maintenance mechanics talking over coffee) “Production will have to be delayed 30 days because we have to install overhead doors in the wall so maintenance can get to the main drive motors.” (project engineering manager)
- “I cancelled the order for the recommended spare parts to keep the project on budget. These machines are new. We shouldn’t need parts for another two to three years.” (chief financial officer) “Our downtime on these new machines is adding up fast. Production delays are huge. We need to fix this!” ~operations VP “I know our maintenance budget is out of control. The cost to fly these conveyor motors over here from Japan and these machine parts from Italy is astronomical” (maintenance manager) “You’ll just have to cut the maintenance budget somewhere else to keep your spending in line” (plant engineering director)
- “We installed this state-of-the-art downtime recording system on Line #7 last year, and we’re getting ready to go plant-wide with it” (plant engineering manager). “Our CI leader is logging all the downtime causes here in this Excel spreadsheet from her notes in discussion with the Line #7...
operators” (continuous improvement manager). “The new downtime recording system just records the time and duration of downtime at 50 points on Line #7. The operator interface to allow us to capture the downtime reasons or causes was not included in the project because operations management didn’t want to waste the operators’ time entering maintenance information.”

(continuous improvement leader)

- “We just hauled this new multi-stage split-case pump up to the deck. The shaft is bent, and the oiler is broken. Case may have a crack in it. Had to send it back.” (offshore maintenance mechanic) “You would think the warehouse on shore would know the pump was being shipped offshore on an eight-hour boat ride.” (offshore maintenance superintendent). “It costs a lot more to wrap these pumps in plastic and strap them to pallets. And they take up a lot more room on the boats.” (contracted warehouse manager)
- “We have saved two cents per sheet of backing paper for our high-volume products. That adds up to a huge cost savings for the company.” (purchasing manager) “Since they started using this new backing paper, we have had more machine jams, and our scrap rate has gone through the roof. You can see how it’s already curling on the pallet over there.” (lead machine operator) “Production is on our backs. Our top maintenance technician has been working non-stop to fix the machine jams that have started recently. He’s stumped.” (maintenance manager)
- “We don’t do any PMs on this equipment because it’s still under warranty and the OEM rep is on site to keep an eye in things. Besides, PMs take too much time away from production and we are so far behind schedule.” (operations manager) “The trouble calls have been mounting on this new equipment and maintenance overtime is through the roof.” (maintenance supervisor) “The internals of this precision spindle are corroded beyond belief. It looks like they’re not monitoring the coolant pH.” (OEM technical engineer) “We check the coolant levels and keep it filled weekly.” (operations supervisor)

**Organization Silos**

As ridiculous as these stories may sound, they are real-life examples of individual organizational silos in action. Each silo has specific roles and responsibilities, budgets to manage, and performance goals to achieve. While each organization may be deemed successful, the misalignment of their actions and decisions contributes to the failure to achieve overall business objectives. The value that the equipment (asset) brings to the business is severely diminished.

The problem, however, is not the equipment. The problem is the lack of an asset management system promoted by top management—a shared sense of purpose that spans the entire life cycle of the assets through each of the appropriate organizational silos—to assure the value contribution of the equipment.

Asset management activities and an overall asset management system to improve equipment and facility performance is the next frontier for improving organization competitiveness. Maintaining disconnected organizational silos because of historic habits, traditions, behaviors, and egos continues to be the biggest barrier to performance improvement.

**Culture Eats Strategy**

“Culture eats strategy for breakfast,” a phrase originated by Peter Drucker and made famous by Mark Fields, president of Ford Motor Company (2006), says it all. Without a supporting organization (work) culture, new strategic initiatives are dead. The culture must be aligned with the strategy to be successful. And organization leadership has the power to shape the culture. Unfortunately, the new Asset Management Standard does not require leadership, culture, motivation, and behavior changes.
“An asset management system is used by the organization to direct, coordinate and control asset management activities. It can provide improved risk control and gives assurance that the asset management objectives will be achieved on a consistent basis. However, not all asset management activities can be formalized through an asset management system. For example, aspects such as leadership, culture, motivation, behaviour, which can have a significant influence on the achievement of asset management objectives, may be managed by the organization using arrangements outside the asset management system.” (ISO 55000: 2.4.3) [emphasis added]

A strategic approach to asset management may require an entirely new organization (work) culture. Connecting improvement activities and metrics to the objectives of the business, and having a clear line of sight from the work that everyone does to those metrics and objectives is a requirement of ISO-55000, and any other strategic-focused asset management system.

**Asset management is not new. ISO-55000 is.**

The ISO-55000 Asset Management Standard issued in January 2014 outlines the requirements for an asset management system. This new standard is based on the proven principles of terotechnology from the 1970s and Total Productive Maintenance (TPM) from the 1980s and 1990s, and on the successful British Standard PAS-55:2008 Asset Management Specification. Each of these is based on sound principles of economic life-cycle equipment performance improvement.

The new ISO-55000 Asset Management Standard is designed assure stakeholders, regulators, insurance underwriters, and investors that the organization has a system in place to manage their assets in ways that brings value aligned with the organization’s (business’) objectives. The Asset Management System specified in ISO-55001 spans the entire life cycle of the assets: design, engineering, procurement, installation, startup, operation, maintenance, restoration, decommissioning, and disposal.

When the line of sight is broken, an organization meanders in many different directions, and silos are reinforced. **If you don’t know where you’re going, any road will get you there.** Someone in the organization’s top management must have a map and a compass and share that same map and compass with everyone involved in changing their approach, their habits, and their culture for asset management as defined in ISO-55000. Having a compelling business case for changing the way things are done, to focus on organizational objectives, form the foundation for aligning and changing an organizations culture.

Let’s start creating that unbroken line of sight to the organization’s objectives for everything we do with our most critical assets now.

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