Written by Bob Williamson, Contributing Editor
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As maintenance and reliability professionals, we know that unreliable equipment and facilities can impact the bottom line of the business. Unfortunately, equipment reliability all too often ends up as a low priority in many American businesses.

What many executives don’t realize is that equipment and facility reliability is *as important* as health, safety, environmental and quality (HSE&Q) systems to the bottom line (emphasis on “AS IMPORTANT”). It takes all these “systems” working together to achieve productive, low-cost, customer-focused results.

The challenge is to stop believing that ONE system of the business is MORE IMPORTANT than another. They MUST work together as seamlessly as possible.

Business priorities

There are, in fact, certain necessities of a business—*or “business imperatives”*—that aren’t linear or sequential in their importance. They shouldn’t be prioritized one over another (as is often the case with HSE&Q systems). All too often, this type of prioritization is in response to regulatory compliance issues or customer complaints. By prioritizing HSE&Q when addressing problems or opportunities for improvement, leaders often send a conflicting message.

Responding to a spate of customer complaints, a plant manager might proclaim that “Quality is job one, and the customers are always first.” What a conflicting linear statement! Employees

could take the plant manager's proclamation to mean that they're less important than they had thought. Maybe they had become number two in level of importance (or lower). Moreover, quality would seem to have replaced safety as the plant's top priority. Is it any wonder that employees give up when another improvement program or priority is announced? *"This, too, will change. We just have to wait it out…"*

Systemic business imperatives

Businesses basically run as big interconnected "systems" producing goods or services in ways that make a profit. Health, safety, environmental, quality and equipment/facilities reliability are, in truth, sub-systems of the bigger operating system. That's why we have them.

Business success is much more than "compliance" with regulations or implementing training and improvement programs. Success comes from consistent deployment of HSE&Q along with reliability methods, in ways that address regulatory issues, as well as significantly improve and/or sustain desired levels of performance (HSE&Q+R).

Speaking of "deployment," one of the most connected senior executives I've ever been blessed to work with put it this way when it came to improvement goals: "On time, lead time and cost!" To him, these were the most important goals for the business to improve and sustain. He would never say that "safety is our top priority" or that "quality is job one." He communicated the big picture in a big way. Let me explain.

What would happen if this executive's plant were unsafe, had people working in unhealthy situations, demonstrated poor environmental performance, produced inconsistent quality and tried to operate with unreliable equipment? You guessed it: It would take longer to make products, they would be shipped late and costs would be high. That's why the "on time, lead time and cost" mantra spread through every improvement initiatives at the plant. These three goals were the connection, or the line of sight, from the annual corporate strategic plan to workers on the plant floor. Accordingly, when the executive asked managers, supervisors, engineers and hourly workers what the goal from all this was, they would respond in unison, "On time, lead time and cost!" This is an excellent example of "winning with teamwork focused on common goals" if I ever saw one.

By the way, the results that this very traditional aforementioned manufacturing operation realized were significant, rapid and sustained over many years—*which helped save jobs when they were on the verge of being outsourced*

. The plant achieved major business success by doing the right things the right way, the first time, every time, and did so without compromising HSE&Q+R. These "business imperatives" were just that: fundamental requirements.

Performance-oriented work cultures

Businesses and workplaces that achieve high levels of competitiveness tend to be performance oriented.

- When we dissect the systems and methods of the Toyota Production System or those espoused by "Lean Manufacturing," we see a relentless focus on driving out waste in ways that quickly and sustainably achieve strategic business goals.
- When we analyze the principles of Reliability-Centered Maintenance (RCM) and pillars of Total Productive Maintenance (TPM), we see root-cause analysis used to identify, quantify, and address the most penalizing losses.
- Likewise, looking into the ways that top NASCAR race teams aggressively pursue 100% reliability in their racecars, we also see a focus-on-results approach to their business: Peak performance, right the first time, every time, on-time, within budget.

In any one of these performance-oriented work-culture examples, we see a strategic approach to improving performance, improving competitiveness and improving bottom-line results. In all of them, you would be hard-pressed to see safety, health, environmental, quality or reliability as a single top priority, independent of the others. They are embedded as business imperatives. Their HSE&Q+R priorities are interconnected. Better yet, they are interdependent—*each relies on the other.*

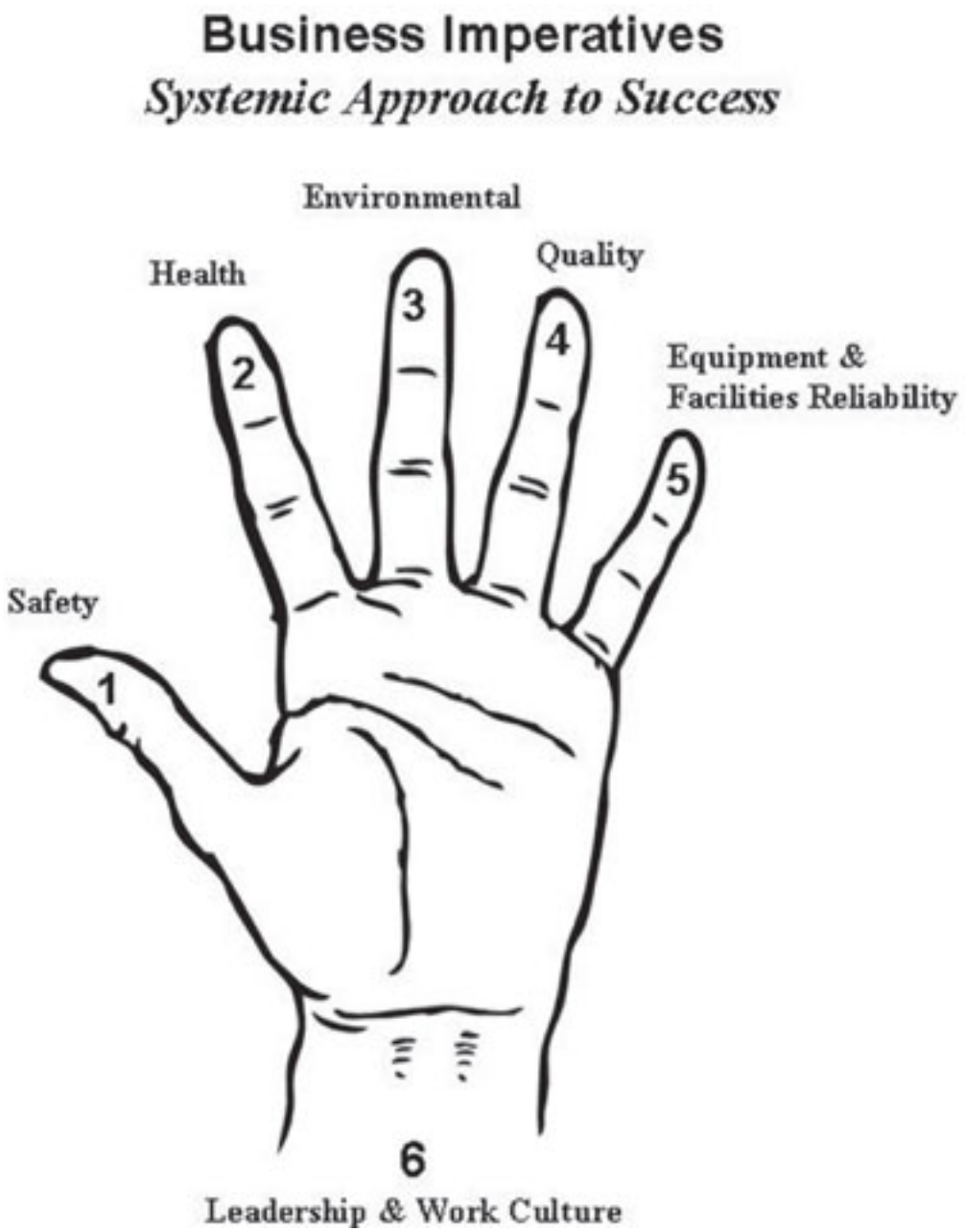
Talk to the hand

I recently used the following example to explain a model of the business imperatives of a performance-oriented work culture. I held up my hand and explained how this one seemingly simple system of the human body works: Each finger and thumb can work independently. Each finger and thumb is a sub-system of the hand. Jointed parts can be flexed and moved, but the work that can be accomplished by a single finger or a thumb is minimal. A "thumbs-up" means "great job," while the index finger is used to push a button or point to something for emphasis.

The real power of the human hand begins when we use the fingers and thumb as a single system of movement—*interdependent actions of each*—working together. For instance, grasping a wrench to remove a bolt uses all fingers and the thumb at a minimum. Picking up a golf ball requires only the thumb and index finger for success. Pitching a fastball calls for the

thumb, index and middle fingers to grip the ball, while the ring and little fingers stabilize it.

This “business imperatives of a performance-oriented work culture” model works in much the same way as the human hand. The five sub-systems—*safety, health, environmental, quality and reliability* —can, and often do, work independently of the others. But how efficient and effective is a single sub-system without the an interconnection with the others? The undeniable benefit comes when these sub-systems operate interdependently, relying on one-another for optimum efficiency and effectiveness.



The human hand can't function by itself. It takes muscles, tendons, nerves, bone and intelligence provided by the brain to make the fingers and thumb work together to accomplish any task that comes along. As with our hand, the five business imperatives of a performance-oriented work culture require a final "super-system" to make the interdependent parts work together in a disciplined manner—*let's call it the "sixth discipline."*

The sixth discipline

The "super-system" in this model includes both "leadership" and "work culture" working together in ways that keep the five HSE&Q+R sub-systems operating in unison.

- Leadership starts at the very top level of the business and cascades throughout the organization, leading with a common tempo in a common direction.
- Work culture (i.e, collective behaviors of people on the job) can evolve or be nurtured and developed. Undisciplined work cultures can ebb and flow and become radical or apathetic. Leadership provides the words and actions that create or determine a work culture (by design or default).

The sixth discipline begins with senior executives who embrace a purposeful, focused, engaging leadership style. It ends with successful strategic policy deployment that increases the business' competitiveness and profitability.

The business imperatives of a performance-oriented work culture demand that top leadership understands and communicates the strategic importance of equipment and facilities performance to the business. A sixth-discipline leader emphasizes the importance of improving equipment performance this way: "*The boiler is critically important. It produces steam that is used to operate our equipment, heat our products and warm the building."*
But his/her message wouldn't stop there.

"Safety and environmental incidents in the boiler room this year," he/she continues, *"have penalized our business. Boiler breakdowns and inconsistent steam pressure and temperatures have affected our plant operations, damaged work in process, and delayed shipments to our customers."*

The leader's expectation becomes abundantly clear when he/she concludes, *"Our goal is to produce our products on time, with less lead time than our competition, at the lowest possible cost. Boiler performance MUST improve. But we cannot compromise health, safety, environmental, quality and reliability excellence in our boiler room."*

Now, remember the hand

I believe that reliability is as important as health, safety, environmental and quality in a business that relies on equipment to make products to produce revenue through sales or occupancy. The "business imperatives of a performance-oriented work culture" and the "sixth discipline" (which incorporates leadership and work culture) demonstrate a sound model for improving business performance and equipment reliability. As maintenance professionals, we must continue to educate and engage top-level business leaders in equipment and facility reliability improvement. **MT**

RobertMW2@cs.com

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