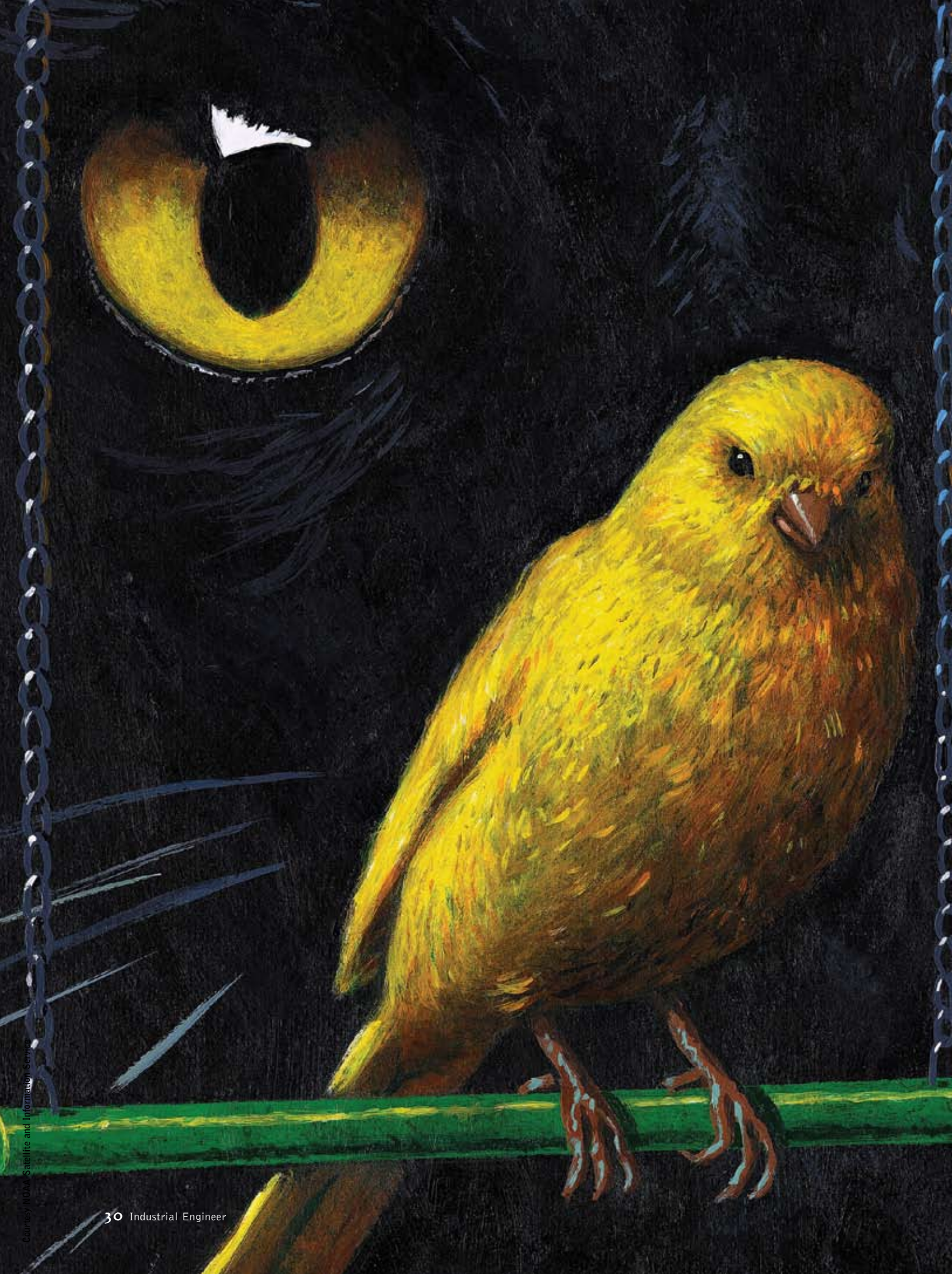
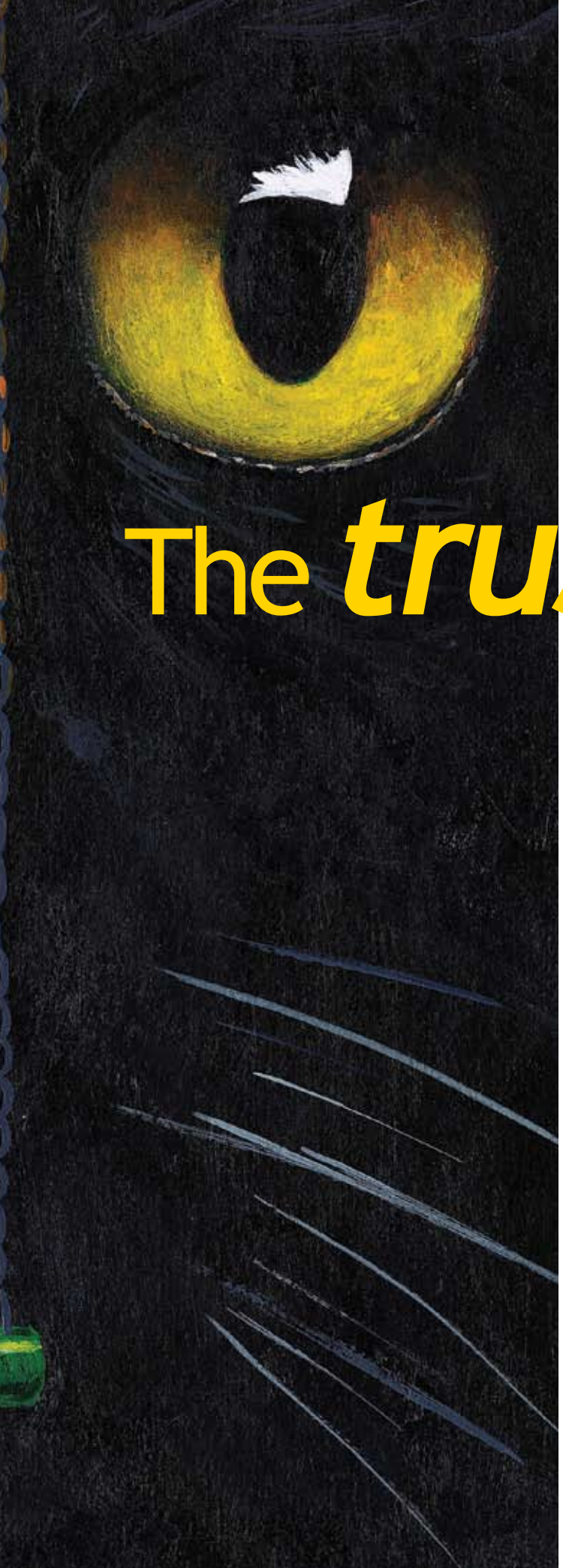


Courtesy NOAA Satellite and Information Service



The trust factor

A little reliance goes a long way in meeting lean goals

BY KAREN MARTIN

Trust and organizational waste may appear to be unlikely bedfellows at first glance, but they are closely linked. The lean enterprise business model has taught us that process waste is a symptom of an underlying root cause. To eliminate waste permanently, we must focus improvement efforts on eliminating the reason for non-value-added activity. If we examine processes closely, we find that trust — or the lack of it — is one of the most common root causes of waste.

Industrial engineers, process design specialists, and lean practitioners are in unique positions to solve this common organizational woe. If we wear a psychologist's hat as we simplify, streamline, and standardize processes, we discover wonderful opportunities to create agile, flexible, responsive organizations by building trust into workflow. Efficient and effective processes require high degrees of trust between leaders and the work force, among departments and teams, and among individuals.

But before we jump to solutions, let's explore how a lack of trust results in waste in the first place.

The eight types of waste commonly found in both manufacturing and non-manufacturing processes are as follows:

- Overproduction
- Unnecessary processing
- Waiting
- Errors or defects
- Inventory
- Motion (of people)
- Transportation (of product)
- Underutilization of people

These wastes rarely exist in isolation. Like pesky ants, where you find one, you'll likely find another. For example, unnecessary processing, motion, and transportation often co-exist with inventory waste and that often results in underutilization of people. Incorrectly applied solutions for preventing errors and defects can create unnecessary processing. And so it goes.

While mistrust can result in any of the eight wastes, it's a particularly common root cause of unnecessary processing and inventory — wastes that are often causes and effects of the other six wastes. Therefore, let's focus on these two process offenders to develop a nose for detecting trust issues and eyes for designing and implementing trust-building remedies.

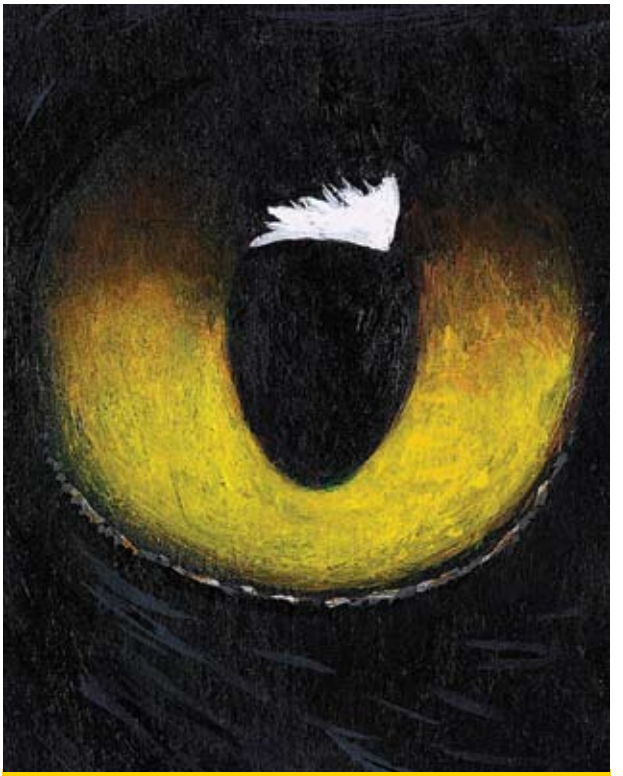
Futility in action

Unnecessary processing can be defined as any activity that customers do not care about (or value, in lean-speak) and would not be willing to pay for if they knew the incremental cost of that activity. Common examples of unnecessary processing include review, inspections, audits, approvals or authorizations to proceed, and reconciliation.

While checks and balances are important, processes often include time-sapping touches and handoffs because we don't trust that the work is being done right the first time. When we peel the onion further, we may find that indeed the work isn't being done right the first time or worse, that it wasn't being done right when the extra steps were built into the process. In either case, adding reviews and inspections isn't the solution for assuring high-quality output. In the second case, it's particularly offensive since the trigger for requiring additional approvals may no longer exist. Requiring non-value-added steps is a superficial, knee-jerk solution that slows the process and does not resolve the fundamental problem.

The root cause for unnecessary processing is often a lack of trust in either the people performing the task or the material and equipment being used in the process. We don't have confidence that the output will be of predictably high quality. We lack faith in the process. The interesting thing about trust is that it is built or destroyed through experience. It may take only a single painful experience to destroy an entire base of trust.

We must build trust into the process by creating reliable processes that produce consistent results. We need to strip away reviews, inspections, and approvals and implement permanent fixes to the process problem such as:



DEFINING TRUST

trust *v.* **1.** To have or place reliance; depend. **2.** To be confident.

- Mistake-proofing (quality at the source or poka yoke)
- Creating simple, visual standard work instructions
- Providing effective worker training
- Assuring that workers performing a particular task have the proper knowledge and authority to make decisions
- Monitoring performance and taking immediate corrective action when necessary (revising visual work instructions, providing additional training, etc.)

But before we get into how to implement remedies, let's

take a look at the similar way in which mistrust causes inventory waste.

The bane of just-in-time

Excessive inventory often results from lack of trust in our suppliers, our customers, and ourselves. If we don't trust our suppliers' abilities to deliver material when we need it, our customers' ordering patterns, or our own internal scheduling, inventory control, and purchasing processes, we will likely create just-in-case inventory, a costly and ineffective solution to an underlying root cause.

Since it's easier to improve processes within our control, let's look at the all-too-common result of unreliable internal processes — the development of rogue inventory.

If we explore basic human behavior, we find that most workers are well intentioned. They want to contribute, to serve. But they want to do so easily. They want to complete a task well and move on to the next one. If processes aren't well designed, what begins as a desirable work ethic can result in a waste-filled corollary: Generally, workers will do whatever it takes to get their jobs done. When they have low trust in having the right, easily accessible tools they need to do their jobs well, they often create secret stashes of equipment, materials, and office supplies.

Eliminating rogue inventory requires rebuilding trust in the process by designing error-free methods for workers to get what they need, when they need it, in close proximity to where it's needed. Improvement efforts of this sort can be particularly challenging. Once trust is lost, it takes time to rebuild it. Some workers will do anything to hold on to their secret stashes. But if they are directly involved in the improvement process, they will begin developing trust in the process, and over time, rogue inventory will disappear. From the work force's perspective, the proof is in the pudding: They won't trust your improved process until they experience it working well consistently.

Building on a strong foundation

Building trust into a process requires that we talk openly and candidly about trust issues as we move through the four basic steps for implementing rapid improvement:

1. Thorough current-state analysis that uses relevant mapping (value stream or process-level mapping) and root cause analysis tools (i.e., Ishikawa diagrams, checklists, Pareto charts, and the five whys) and is conducted by a cross-functional team comprising people who actually do the work, upstream suppliers to the process, downstream customers, and at least one pair of outside eyes.
2. Future state design that assures consistent, high-quality output at each step in the process. To assure continuity, the future state should be designed by the same cross-functional team that conducted the current state analysis.
3. Implementation of the future state using relevant lean tools, especially kaizen events, whenever appropriate.
4. Development and execution of a sustainability plan including well-defined accountability, frequent measurement, and a clearly communicated strategy for issuing rewards and consequences.

During current-state analysis, leaders and improvement teams should be encouraged to abide by a cards-on-the-table rule: Discussions about interdepartmental, interpersonal, and organizationwide mistrust must be candid and blame-free. These discussions require us to go beyond physical process details and into the root cause psychology. Heightening organizational awareness about the degree to which mistrust causes process sluggishness and frustrates workers sets the stage for effective trust-building improvements as we design the future state.

Another psychological requirement for successful implementation of rapid change centers on the word "why." Throughout the change process, the entire work force, from leadership to frontline workers, must understand the organizational impact of process waste. Often in process improvement efforts, workers are never shown the impact of their work methods nor how changing those methods will benefit their customers and themselves. Psychology teaches that when people understand the impact of their current behavior and why they need to perform differently, they are far more likely to alter their behavior. To be effective ambassadors of change, we cannot forget this basic tenet of human behavior. Providing "why" information up front mitigates much of the resistance to change that might otherwise be present. And structuring improvement events so that the workers discover the why's is far more effective than a facilitator or manager dictating change.

Using less to get to yes: An example

For sustainable improvement, trust-building solutions need to be tailored to the type of waste present. To illustrate the improvement process, let's take a look at the issues that often arise when seeking to create flow in a process riddled with review or approval steps, a common type of unnecessary processing waste.

First, it's important that the process improvement team and,

ideally, the entire organization acknowledge upfront that reviews and approvals (and their cousins, inspections and audits) are pure muda — wasteful, non-value-added (NVA) activities as viewed through the customer's eyes. While they may be necessary NVA activities (for example, reporting, approvals, and documentation required for monitoring organizational performance or meeting regulatory requirements), they are nevertheless NVA. Focusing on the customer's perspective helps approvers and reviewers let go of their role as approvers and creates an innovative environment for minimizing necessary NVA and eliminating unnecessary NVA.

Before eliminating review or approval steps, interview reviewers and approvers to assess their information needs. Review and approval steps are often built into a process to notify leadership about specific actions or the status of a request. Therefore, we must design ways to meet the leader's information needs without adding handoffs that slow the process. The current-state interview can range from a quick conversation to inviting the

EXERCISING FAITH

People want others to trust them, but engendering trust requires practice ... and sometimes embarrassing group activities. Everyone has heard about the trust fall, which involves one person falling back into the arms of a group of people. Here are a few other activities to try.

- Minefield: Objects are scattered in an indoor or outdoor place. In pairs, one person verbally guides his or her blindfolded partner through the minefield.
- Hug a tree: In a forested area, pairs take turns being blindfolded, led to a tree, and then led away. After removing the blindfold, the tree hugger tries to locate his or her tree.
- Boundary breaking: Group or team members sit in a circle and take turns answering questions to discover things about each other and break down boundaries within the group. Examples include What quality do you look for in a really good friend?, If you could choose one talent to possess, what would it be?, and What is the greatest problem in the country?

Source: *Wilderdom.com*

reviewers and approvers to participate in mapping activities so they can visualize their role in slowing the process. Whichever method is used, the approving authority gains trust that he or she won't lose vital information and, in fact, may gain better information by removing a review or approval step and creating an offline method for notification.

Signing authorities should also be interviewed (preferably during current-state mapping) about their decision-making process as they review and sign. At a minimum, two criteria must be met for a signature to be of value in a process: The reviewer must engage in a mental decision-tree process to determine whether to sign and should at least occasionally deny the request. If neither of those criteria is met, the signature is merely a rubberstamp activity, and the handoff should be removed from the process. In lean enterprises, standard work applies as much to decision making as it does to entering data, creating a drawing, completing a report, or building a widget. As such, decision trees should be written down in the form of visual, standard work instructions. With this tool in place, leaders can begin to build trust that lower-level staff will make decisions that are similar to the leader's decisions.

Another consideration is how many signatures are required. If we accept that review and approval steps are NVA and are required because leaders don't trust the work force to make the right decisions, then we should at least minimize the number of handoffs while rebuilding trust. Ideally, no more than two signatures are required to take any action. If more are required, the work force may be overspecialized and require crosstraining to build a broader knowledge base. Or it may be that two of the signing authorities have redundant skill sets and one handoff could be eliminated. But the improvement focus should always be how to build trust into the process to assure high-quality decision making and output so that we reserve process-slowing reviews for the most critical organizational checks and balances.

Finally, who is in the best position to review or approve? A good rule of thumb is that approvals, if required at all, should be pushed down to the lowest level possible. The signing authority should be the person closest to the work who has the most complete knowledge base to make an effective decision. Often, the leader who has signing authority doesn't have enough information to make a decision, so a version of rework occurs in providing the signing authority with data that has already been considered. The alternative may also occur: The signing authority signs without adequate information, rubberstamping the request.

Leaders begin letting go of their role in the approval process only when they have high degrees of trust in the work force. Creating a visual decision tree is the first step in building this trust. Another solution is to implement temporary periodic audits to demonstrate to leaders that the decisions are being made accordingly and provide the opportunity to modify the decision tree document when new thinking is discovered. A final strategy is to raise signature limits to reduce but not eliminate a leader's involvement in the process. All of these strategies will build trust, a necessary step in effectively improving a process that includes review or approval steps.

The root of all efficiency

When seeking to build trust into processes to reduce inventory, the same rules apply as described above. Involve the work force in analyzing the current state and designing a future state. Include upstream suppliers and downstream customers. Provide clear answers to the "why" question. Create detailed yet simple visual work instructions that clearly describe how to produce error-free output. Train, train, and train the workers involved in the process. And above all, make sure everyone in the organization understands the basic principles of lean so they can begin to see how mistrust in the process affects their customers, organizational performance, and their own morale.

A high degree of trust is necessary for efficient and effective processes. Building trust and eliminating waste requires cross-functional teamwork, collaboration regarding solutions, and overall understanding of the process. To assure sustainability, leaders needs to be as engaged in the change process as are the workers designing improvements. Holding frequent briefings helps leaders build trust in process improvement teams and vice versa. During these briefings, leaders can ask "Have you considered this?" and "How will we handle this?" Teams prove they have been thorough in analyzing possibilities and leadership proves its willingness to let go. Through all of these exercises, trust is built and flow is created, and that's the goal of lean.

Karen Martin is principal consultant of Karen Martin & Associates based in San Diego and specializes in applying lean principles and tools to service, transactional, and administrative processes. She is a member of IIE and a co-developer of the White-Collar Lean and White-Collar Kaizen approaches to organizational improvement.