THE ACADIA®

KNOWLEDGE MANAGEMENT PLAYBOOK

9 Proven Ways to Capture, Deliver, and Apply Institutional Knowledge at Scale
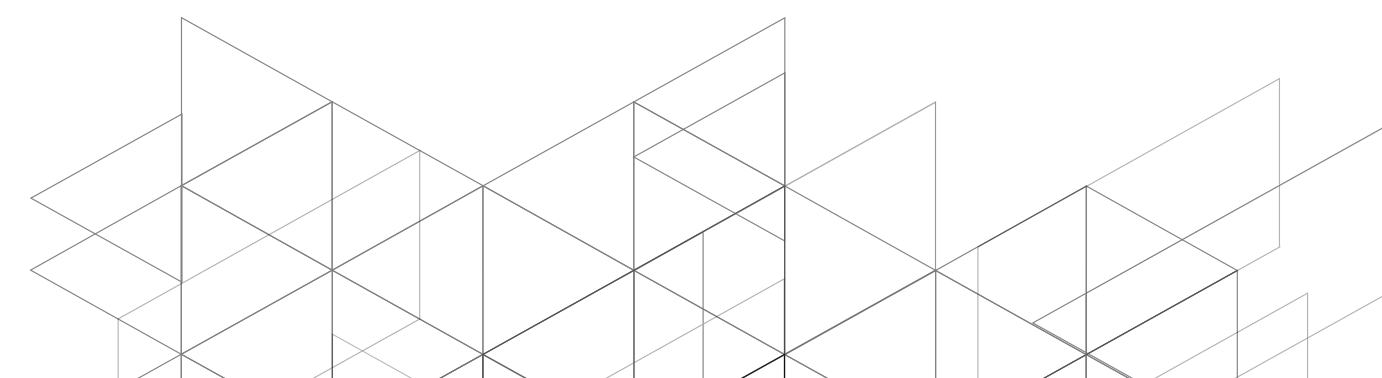
Executive Alert

Manufacturers, distributors, and other businesses supporting the make, move, and sell economy must urgently address the knowledge gaps in their workforces or lose to their competitors that do. Job shadowing, uncontrolled digital or paper standard operating procedures (SOPs), and traditional document management systems are not enough to pass along tribal knowledge, build the skills required by today's frontline workers, and deploy standard work at scale.

Shifting workforce dynamics, factory and warehouse automation, new technologies, and diverse external factors are driving the need for more effective onboarding, cross training, and upskilling.

If you don't invest in the people who keep your operations running, you're less likely to achieve the productivity, safety, and quality metrics you need to compete. Companies must invest in capturing and managing critical organizational knowledge as part of the fabric of work or fall behind those that do.

You embed knowledge into workflow with these proven best practices:

1. Embed knowledge directly into work
2. Make learning digestible for today's frontline workers
3. Make It Easy to Do the Right Thing
4. Establish Signoffs for Critical Information
5. Reinforce your most important procedures with quizzes
6. Objectively evaluate work against the standard
7. Track proficiency and proactively develop your workforce's skills
8. Engage workers in continuous improvement and follow through
9. Keep it all consistent

A **Connected Worker Platform** helps you build the independent, capable workforce you need to succeed.

Traditional document management platforms are failing frontline workers

Manufacturers and distributors have long relied on traditional training methods to guide frontline workers. But today's business realities demand more. Job shadowing, paper-based SOPs, traditional document management tools, and standalone learning management systems (LMSs) can no longer keep up with the speed of operational change.

Shifting workforce dynamics, automation, new technologies, and diverse external factors are creating knowledge and skills gaps at a pace never seen before. For operations leaders responsible for frontline worker productivity, the stakes to close these gaps couldn't be higher. What's at risk: productivity, quality, safety, and employee retention.

The skills crunch is real – here's what's driving it

Recruiting and worker retention was the greatest challenge aside from inflation according to 1,700+ supply chain executives who responded to a 2024 MHI survey.

As long-tenured Baby Boomers leave the workforce and take valuable knowledge with them, a new generation is entering factories and distribution centers. Younger workers arrive on the scene with limited experience that isn't improved with green-on-green training. 84% of manufacturers, in a recent study by LNS Research, reported that the loss of experienced personnel has negatively impacted their organization and operational performance.

Changes in average manufacturing workforce
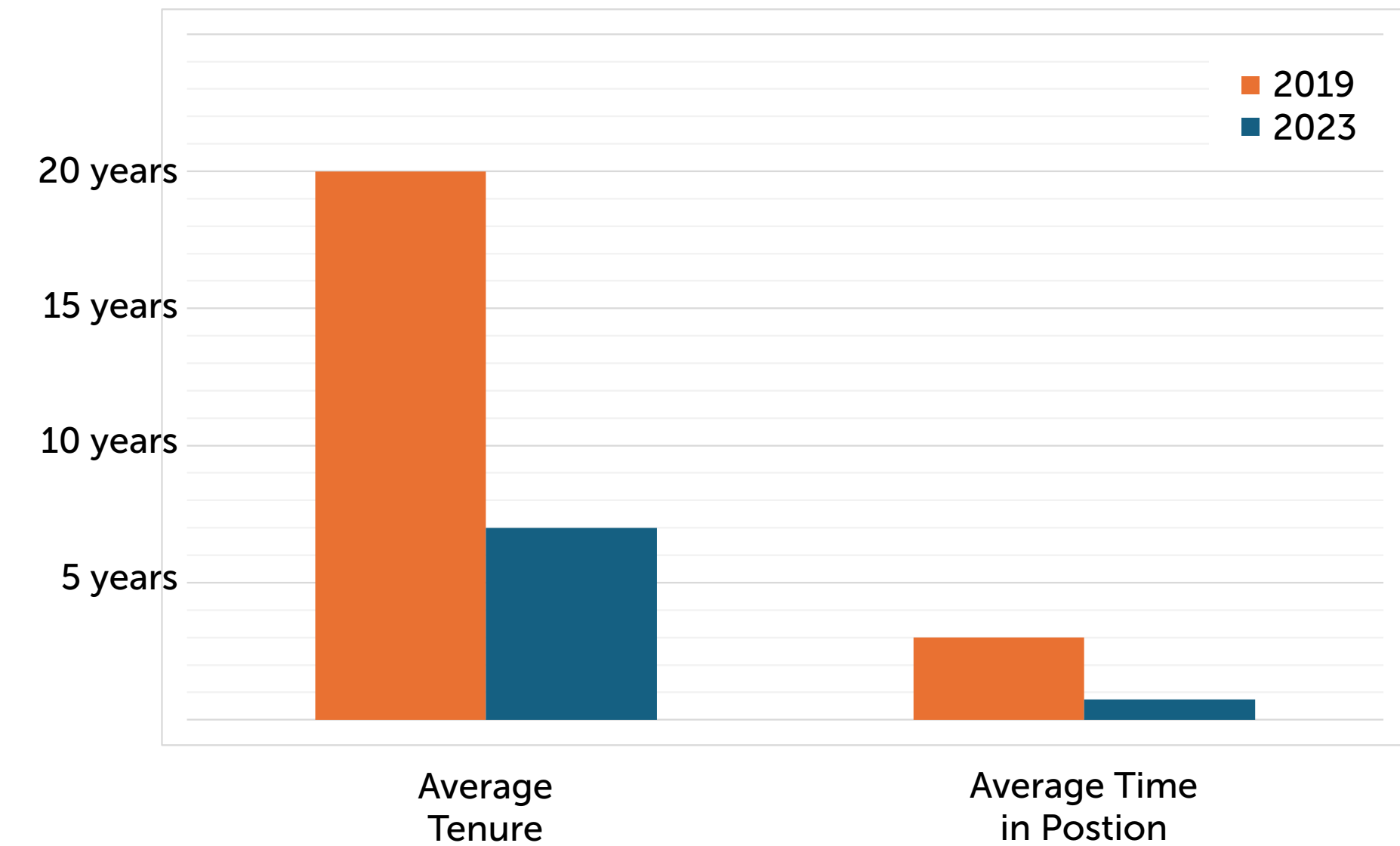
Data source: LNS Research

3.8 MILLION

Net new employees needed by manufacturers between 2024 and 2033 (*Deloitte and The Manufacturing Institute*)

4.2 MILLION

People turn 65 in 2025, making it a peak retirement year for this generation (*The Wall Street Journal*)

48 PERCENT

Gen Z manufacturing workers who intend to leave their jobs within the next three to six months (*McKinsey*)

New technologies drive new procedures

AI and other manufacturing technologies are changing how frontline work gets done — but traditional training and document systems can't keep up. Without dynamic, accessible knowledge, organizations face:

• Outdated job aids and disconnected information
• Increased errors and operational delays
• Higher stress, turnover, and green-on-green training cycles

Automation won't drive results if your people can't keep up. Embedding knowledge into daily workflows is now essential for consistent performance and growth.

Unexpected external pressures are increasing

It's a challenging time to run a factory or distribution center. A range of external factors — from natural disasters to supply chain issues — are forcing companies to adjust processes, sometimes overnight. For example, North Carolina manufacturers had to quickly shift their production to different facilities in the aftermath of Hurricane Helene, an event that no one anticipated or included in disaster planning. This year, manufacturers are looking closely at the impact of tariffs on their production processes knowing that disruptions could swiftly emerge. As the world rapidly changes in more unexpected ways, companies need to build more agility into their operations and their workforces.

Case Study: Poorly trained employees drive down ROI

An independent beverage bottler invested millions in a new filling machine to boost production capacity. Despite the machine's clear advantages, the lack of structured training and documentation for operators led to major issues. After the machine was installed, the operators were taught how to use it — just once by the experts who installed it. No one captured any of the training details or work instructions. Soon afterward, the company experienced higher-than-average turnover and found itself without skilled operators. When errors or calibration issues arose, downtime could last a full day. Operators attempts to fix the problems only worsened them and the new machine's anticipated ROI went unmet.

An agile, connected workforce is your most valuable asset

It's a fact: [Employees leave](#) if they don't have the support they need to manage exceptions in daily work. Those equipped with knowledge to handle whatever the job might throw at them tend to stay long-term. Invest in supporting the people who keep your operations running and you'll see a return in the productivity, safety, and quality metrics you need to compete.

AVERAGE 3-MONTH RETENTION RATE

90% 50%
2019   2023

Today's frontline workers learn differently

If you want to meet the new skills crunch head-on, don't go back to old playbooks. Only about 20% of information learned through traditional training methods is retained. Front-line workers don't want to stop what they're doing to get trained. They don't want to flip through binders looking for answers. They're more likely to ask a coworker for advice, but you won't know if they're learning the right way to do something.

Ignore your frontline workers' needs at your peril: Unmet needs result in higher turnover and more production problems. Training and job aids need to come to employees where they are, so they can learn and work independently. Effective learning is continuous, autonomous, and embedded in how employees carry out their daily tasks. **The rest of this guide will show you how to deploy knowledge at the frontline.**
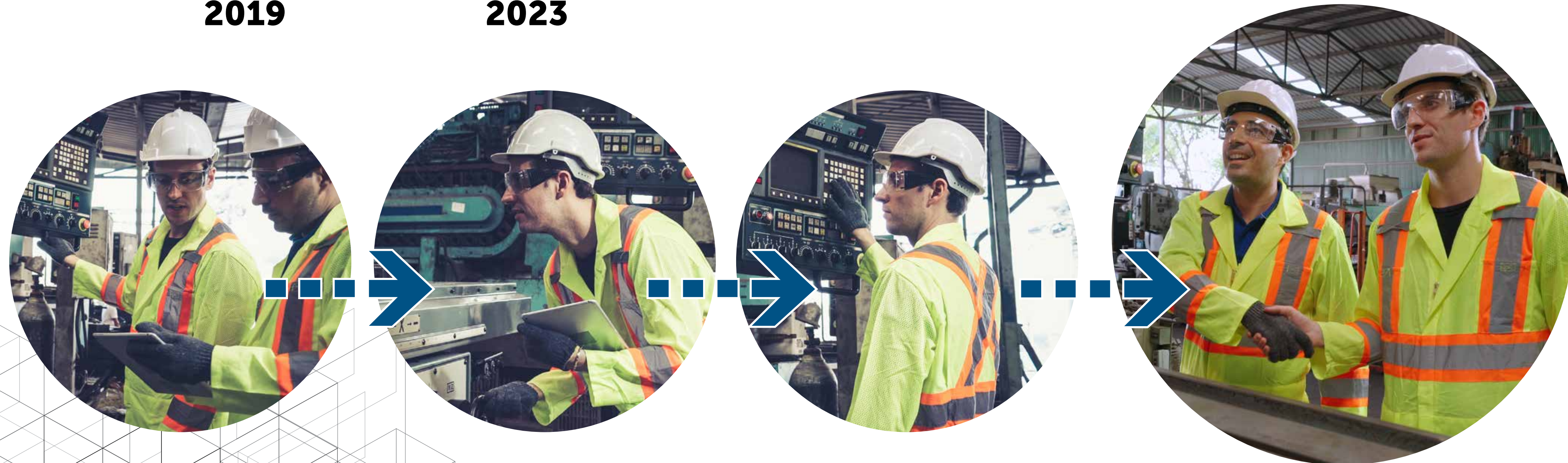
1 Embed knowledge into work

Complement shoulder-to-shoulder training with standardized, guided resources that employees can access on an ongoing basis through a digital hub – a Connected Worker Platform. Every time they perform a task, they learn more. By integrating work instructions or SOPs with manufacturing execution systems (MES), enterprise resource planning (ERPs), and quality management systems (QMS), you reinforce that accessing digital resources is just part of how work gets done. **Your enterprise systems tell people what to do; your Connected Worker Platform tells them how.** Your learning resources need to meet people where they work: out in the field, on the shop floor, and in the back office.

Case Study: New hire onboarding

Facing a surge in retirements, a leading consumer goods manufacturer struggled to onboard new maintenance technicians and electricians working at its highly automated facility. Their outdated, paper-based training required new hires to spend hours in the company library – not very appealing for younger workers – in addition to shadowing a dwindling group of experienced technicians. Without work instructions or job aids, technicians had to wait until a machine broke down to learn how to fix it. None of this met the company's urgent need to replace retiring team members.

After adopting the Acadia Connected Worker Platform, the company transformed its paper-based system into a dynamic knowledge repository. Employees can now easily search, filter, and find the answers they need in seconds—eliminating the need to dig through binders or outdated files. They have a structured onboarding path with step-by-step, on-the-job training for technicians that enables new hires to work more independently. Digital SOPs, videos, and job aids are all accessible directly on the plant floor. As a result, the time it takes for new hires to become productive dropped from 500 days to 125 days—a 75% improvement.

CONNECTED WORKER PLATFORM RESULTS

77% Faster time to productivity for new hires

READ THE CASE STUDY
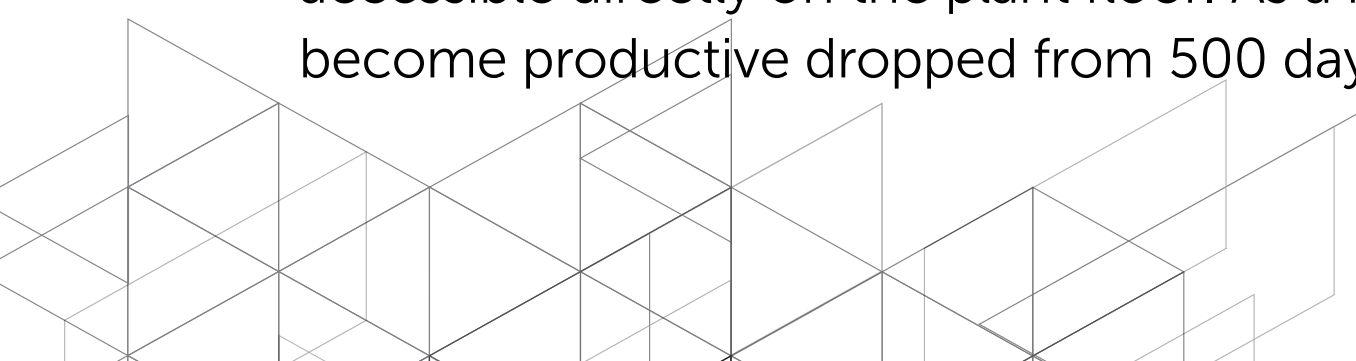
CONNECTED WORKER PLATFORM RESULTS

6 months
to improved efficiency

READ THE CASE STUDY

2 Make learning digestible for all frontline workers

As our consumer goods manufacturer discovered, the current generation of workers don't want to go offline to learn how to do their jobs. They're used to Googling answers and watching two-minute videos on how to fix things. They learn better when they have this same experience on the job. Information, images, diagrams, and videos should be available at their fingertips.

Case Study: Improving efficiency at a global scale

A global beverage manufacturer invested tremendous resources to maintain, distribute and track its paper-based SOP system. To improve efficiency and operator compliance, the company replaced its system with the Acadia Connected Worker Platform.

SOPs became a resource instead of a hindrance. The system now provides job aids to employees as they complete daily tasks. It also enables them to provide feedback on process improvements. It also helps managers see which team members are following procedures and which ones need more training support.

The company used the data they captured on their employees' work and training to track their capabilities. They began to schedule shifts based less on their role and more on their skills.

Across the enterprise, within six months of deploying Acadia, each facility has seen a significant improvement in throughput, quality, and safety metrics.
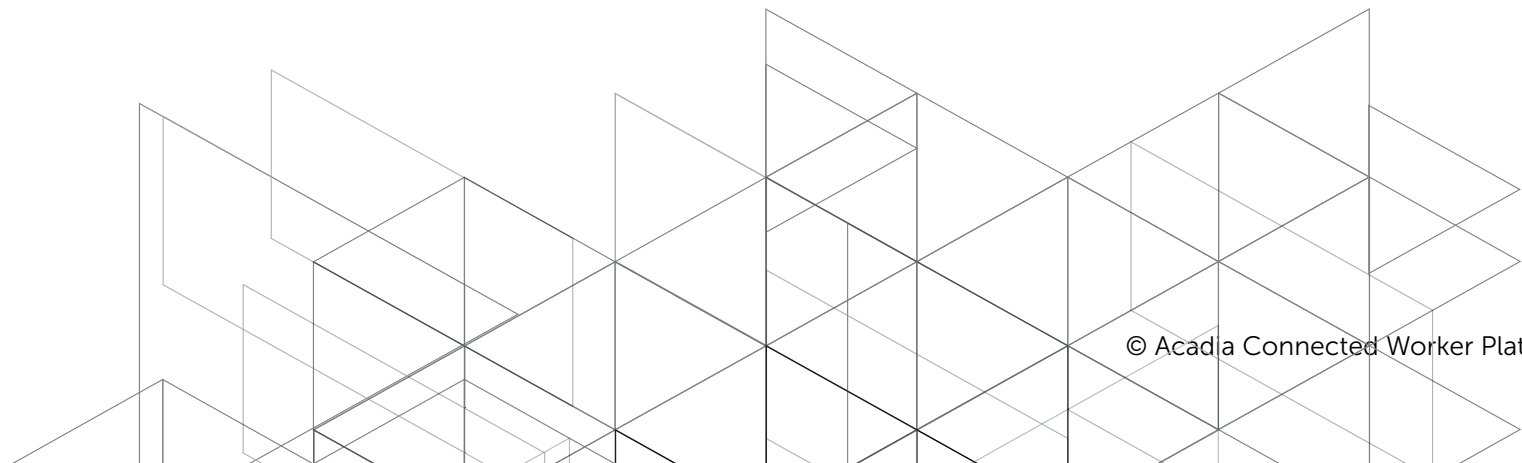
3 Make it easy to do the right thing

No one can keep a 50-step process in their head. If it's critical to your business – whether it's safety, quality, sanitation, or something else – provide interactive, digital resources to guide employees through their work. They shouldn't have to rely on remembering their initial training, and you should be able to hold them accountable to your standards. You can assign work instructions directly to the people who need them by integrating with your ERP. Or make them easy to find with QR codes strategically placed in the workspace.

Today, a lot of manufacturers and distributors still use paper checklists. The problems with paper go far beyond your workers' preferences:

- Paper checklists don't communicate information any farther than the people who see that single piece of paper.

- They don't easily pass information across shifts.

- They can't hold people accountable unless a supervisor is observing work and collecting paper every time a checklist is completed.

In other words, paper checklists don't always tell you what work was done, done right, and done once. Digital instructions and checklists do.
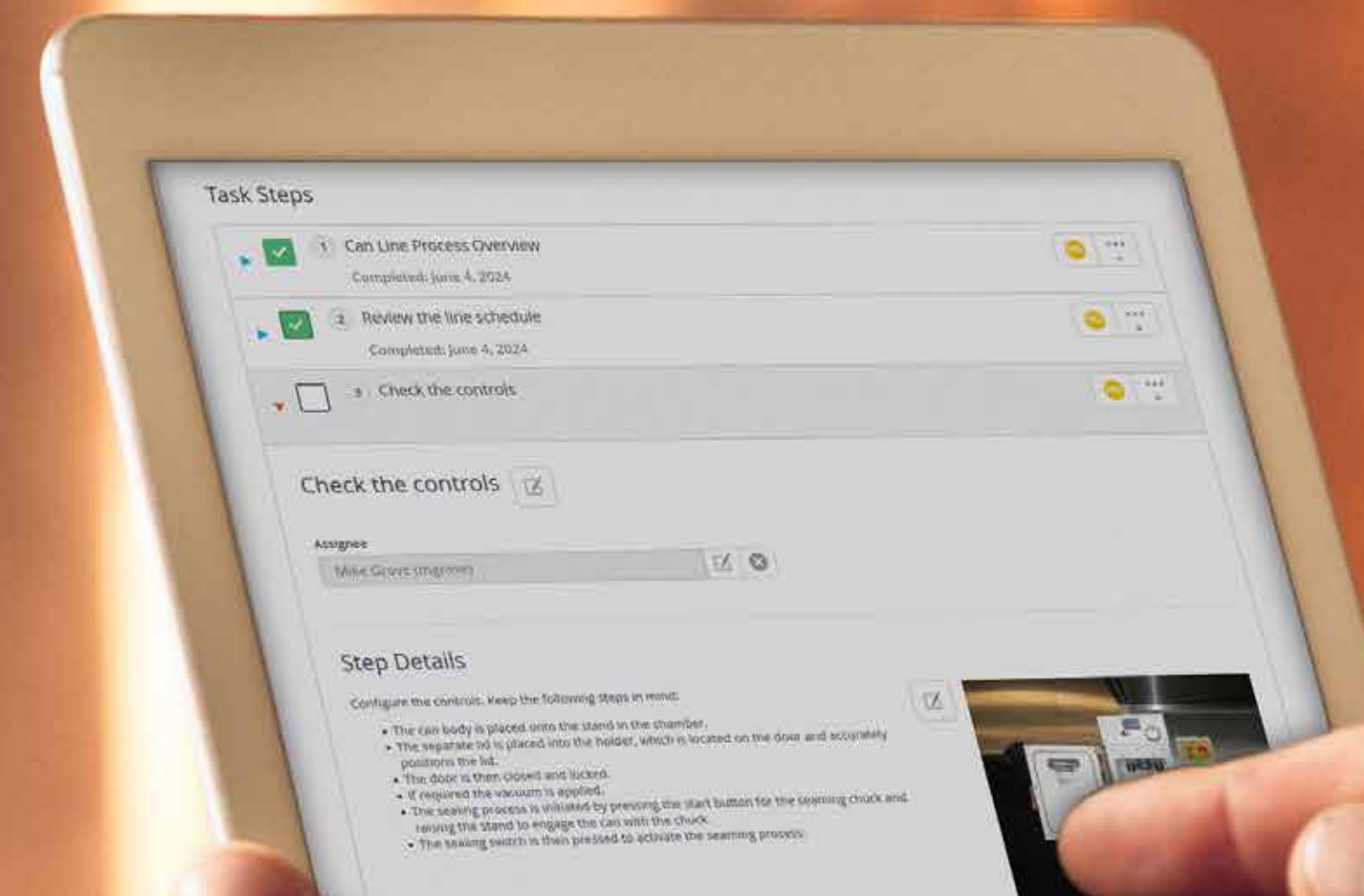
A checklist for creating a good checklist

☑ Record what you do, not what you think you should do.

☑ Make sure that each step is necessary before you include it.

☑ Make each step clear and concise.

☑ Tie each step to a concrete action.

☑ Test your checklist to make sure it works in the real world.

READ MORE ABOUT CHECKLISTS

4 Establish signoffs to call attention to important information

If you want employees to know they're responsible for something that really matters, underline its importance by making them sign off on it. That simple step gets their attention and establishes an audit trail should you need it.

Real world examples of signoffs in action

- A distribution center found that its customized shipping requirements were often riddled with errors. The company started requiring the lowest-performing outbound shipping team members to acknowledge their work instructions. Afterward, returns and re-work dropped, dramatically reducing waste.

- A consumer durable goods company has digitized its safety procedures and signoffs. When it updates policies in response to an incident, workers get those updates immediately, instead of after several hours or days. Leadership knows when each employee has seen and acknowledged the new protocol.

- The manager of a customer service group at a large public company, identified agents who were repeatedly failing to process new orders correctly. The manager asked them to sign off on the procedures used to correctly open new accounts. The company quickly saw a decrease in errors of this kind.

LEARN MORE ABOUT SIGNOFFS
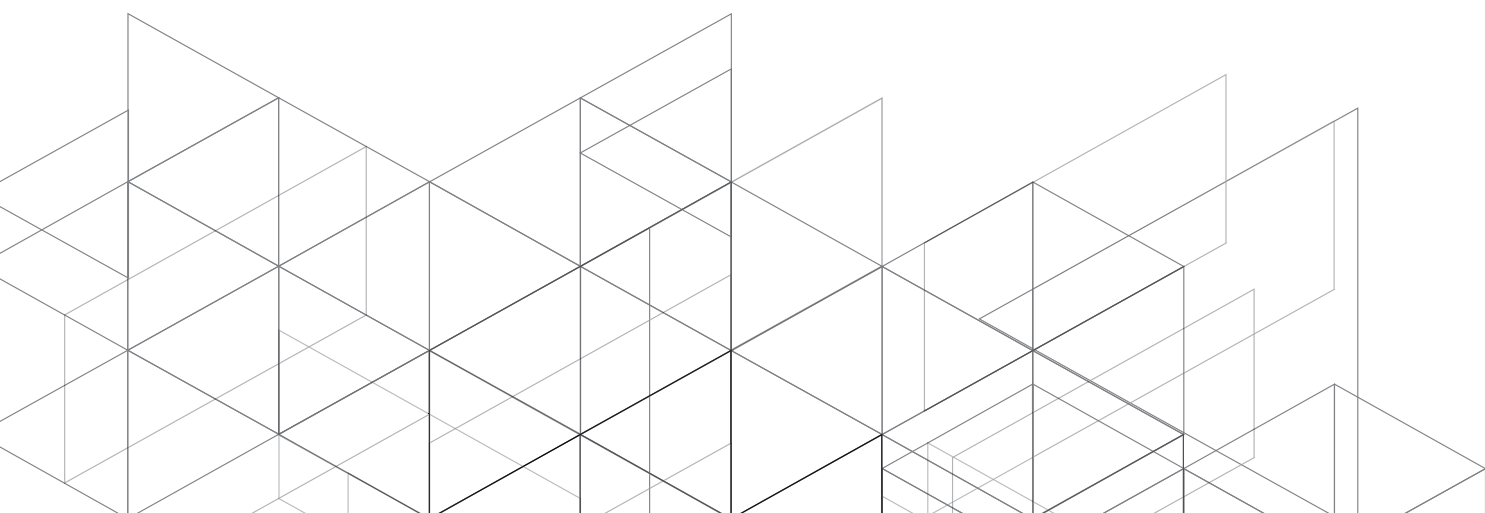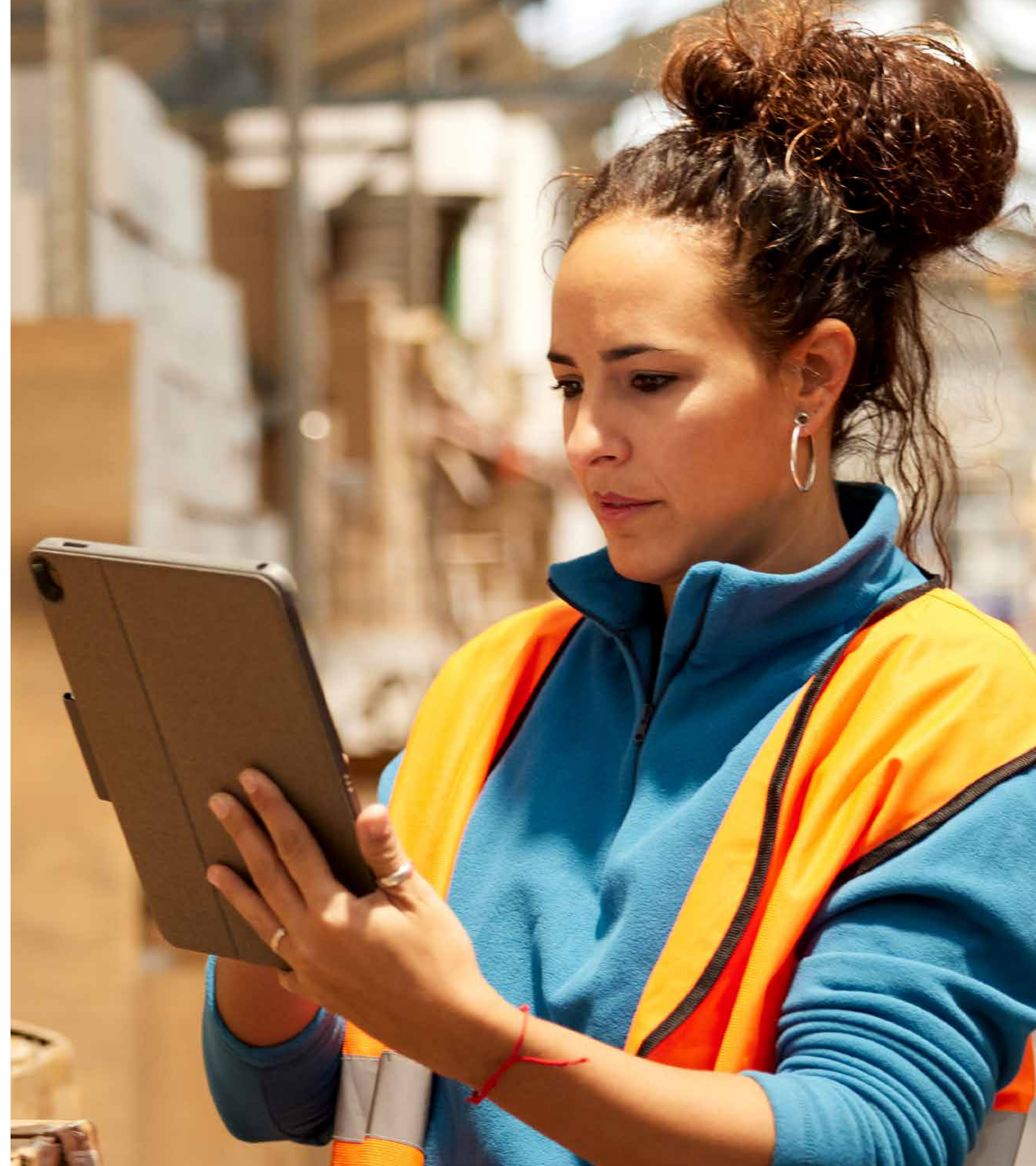
5 Reinforce your most important procedures with quizzes

If you want to ensure your team will understand something that really matters, reinforce their learning with a quiz. That quiz should take place where the work is being done, not after the fact in a classroom. Workers should see quizzes as a tool for awareness, not as a way to trip them up or hold them responsible for unrealistic expectations.

Case Study: Upskilling truck drivers

A yard management company trained truck drivers far away from their trucks: through classroom instruction delivered by a LMS. Unfortunately, their training efforts didn't deliver the expected impact: namely, a reduction in the number of accidents and dropped trailers. The company eliminated its LMS and moved most new hire training to the field. As part of their training, new drivers are quizzed on standard procedures deployed in the shipping yard.

With the new training method, recently hired drivers began to outperform drivers who had been there longer. After retraining the veteran drivers, the company began to see accident rates drastically decline, in some cases by as much as 50%.

READ THE CASE STUDY

A quick quiz on what makes a good quiz (select all that apply):

☐ Quizzes should focus on knowledge you want to reinforce

☐ Questions should avoid minor details unless highly relevant

☐ Questions should be clear, simple, and easy to understand

☐ Correct answers should be provided along with contextual information after employees answer each question

☐ Quizzes should be given more than once, over time, to increase retention of critical information

Answer: Each of these best practices help employees retain information.
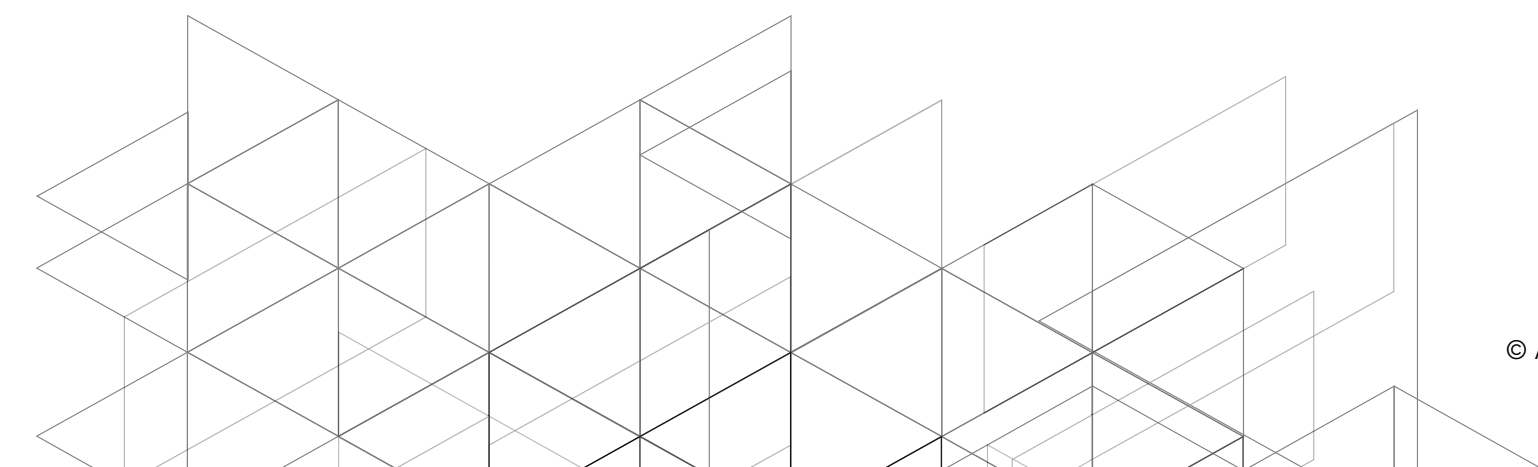
CONNECTED WORKER PLATFORM RESULTS

19%
Improved downtime in two weeks

READ THE CASE STUDY

6 Objectively evaluate work against the standard

The time to evaluate an employee's capability is while they're doing their work. Make sure managers are completing evaluations in real time, not at the end of the shift or the end of the month. When you use a clearly defined evaluation process, you can ensure that employees are performing the most important work correctly, based on a single set of standards. Skills acquisition can be measured through a combination of observations – accurately completing a procedure – passing a comprehension quiz and acknowledging compliance of critical policies.

Case Study: Process Improvement at a Manufacturing Facility

A common procedure for a durable goods manufacturer requires planned downtime 20-30 times per day. At one of their largest facilities, it happens up to 60 times per day on a single line.

When continuous improvement managers at the plant designed an improved process, they deployed work instructions through Acadia. Each team member read and acknowledged the proper preparation and execution of the procedure. They completed a quiz and were formally evaluated while executing the procedure live.

Acadia tracked individual progress and flagged team members needing extra support. After just two weeks of training and operating using the new method, the team had already improved their planned downtime by 19% and reduced product waste. When implemented across all plants producing the same products, the savings will be in the millions of dollars.

7 Track proficiency and proactively develop your workforce's skills

Once you put the right digital resources in place, you'll have a much clearer picture of how proficient your teams are at doing their jobs. The next step is to connect these digitized procedures to the skills required to complete them – and actively build those skills across your workforce.

Operations leaders may see skills management as time consuming and difficult to execute in a way that delivers helpful results, but it's literally the nuts and bolts of production. The steps are pretty simple. If you're using a Connected Worker Platform, much of this process can be automated.

5 Keys to tracking employee capabilities

1. Capture role requirements for each functional role on the team based on the procedures the team members are required to perform.

2. Map these role requirements to skills. In many organizations, roles also contain multiple skill levels that employees can attain by completing work.

3. Validate what workers need to demonstrate to prove they're capable of doing the work independently. Identify the critical procedures that need to be mastered and put evaluations in place for each one.

4. Outline the skills needed to transition to the next level of competency and how to evaluate the individual's ability to meet the standard.

5. Finally, create visibility for the employee and the manager – so both know what's needed to be successful and what comes next if the employee wants to grow in their job.

HOW TO CLOSE SKILLS GAPS

CONNECTED WORKER PLATFORM RESULTS

600 Employees reskilled in a few months

READ THE CASE STUDY

Bringing visibility to work instructions, procedures, and skills development provides your company with many levels of opportunities. You can show employees and their managers the progress they've made and the next steps to advance – strong motivators for Millennial and Gen Z workers. You can use skills matrices to identify workers who are ready to advance and detect gaps that could put operations at risk.

Case Study: Reskilling to adopt automation technology

In an aftermarket automotive parts distribution facility, "travel waste," the time it takes an employee to travel from one picking location to another, was the main source of inefficiency. To solve the issue, the company reworked its picking processes and invested in autonomous mobile robots (AMRs) and Vertical Lift Modules (VLMs).

Introducing such a big change in the way the facility operated meant that everyone on the team immediately had a skills gap: 250 employees' jobs changed overnight. Others needed to be trained to maintain and troubleshoot the AMR fleet. And some needed to be cross trained to operate the VLMs as well. In total, 600 employees had to be re-trained to do part or all of their jobs.

The company created comprehensive SOP documents and distributed them via the Acadia Connected Worker Platform. Employees now use these resources for training, revisit them on the job, and reference them an average of four times per day. The company created an AMR manual – with acknowledgments, quizzes, and procedures – and incorporated it into their leadership training regimen.

The AMR project became the company's most successful project in years. More importantly, the changes were adopted with minimal disruption. The operational excellence manager said Acadia has decreased employee apprehension and made automation and new technology more exciting. No orders were delayed, and many employees have received promotions.

8 Engage employees in continuous improvement programs

To drive further engagement, provide a mechanism to capture employees' suggestions on how to improve processes, documentation, and training resources. The feedback that comes from workers as they are performing tasks is most likely to be actionable.

For example, shortly after initiating an employee feedback program, a consumer packaged goods company's employees submitted feedback on a common procedure. A packaging machine with a worn part was creating frequent jams. Each jam meant the machine had to be shut down, cleared and restarted, wasting both material and time. The employees didn't want to have to deal with the jams, but there wasn't a clear method to escalate the issue. So, they just cleared the jams and went on with their work.

Once the plant manager was made aware of the issue, he was able to quickly work out a solution. It's unclear when or if he would have learned about the issue otherwise. Seeing quick changes made it clear to the team that their feedback wasn't landing on deaf ears and the plant continues to see relevant improvement suggestions coming in from every team.

Employees who feel a sense of ownership of their work processes are way more likely to follow them and to recommend improvements. Most importantly, **managers need to listen and make changes based on the feedback**. That creates a virtuous cycle of improvement that improves work and employee retention.

MAKE FEEDBACK ACTIONABLE

9 Keep it all consistent

Use the same continuous learning approach for new hire onboarding, cross-training, and reskilling efforts. When employees see learning as a part of their jobs, they get on board. And continuous learning is a critical ingredient in an effective continuous improvement strategy.

Case Study: Maintenance Excellence time to proficiency

For a U.S. Medical Supply manufacturer and distributor, it previously took 90 days for new maintenance technicians to become proficient in their position. Employees were led through training by supervisors which the company tracked manually in spreadsheets.

Now, technicians are assigned skills in the Acadia Connected Worker Platform. They become owners of their onboarding. Acadia automatically tracks their progress for managers. After just five months, time to proficiency has improved by 76% to just 21 days. The company has also seen a 20% reduction in management time spent onboarding new hires.

Employees who have learned this way and are accustomed to accessing resources on the job are better prepared for the next change.

76%
Improved time to proficiency
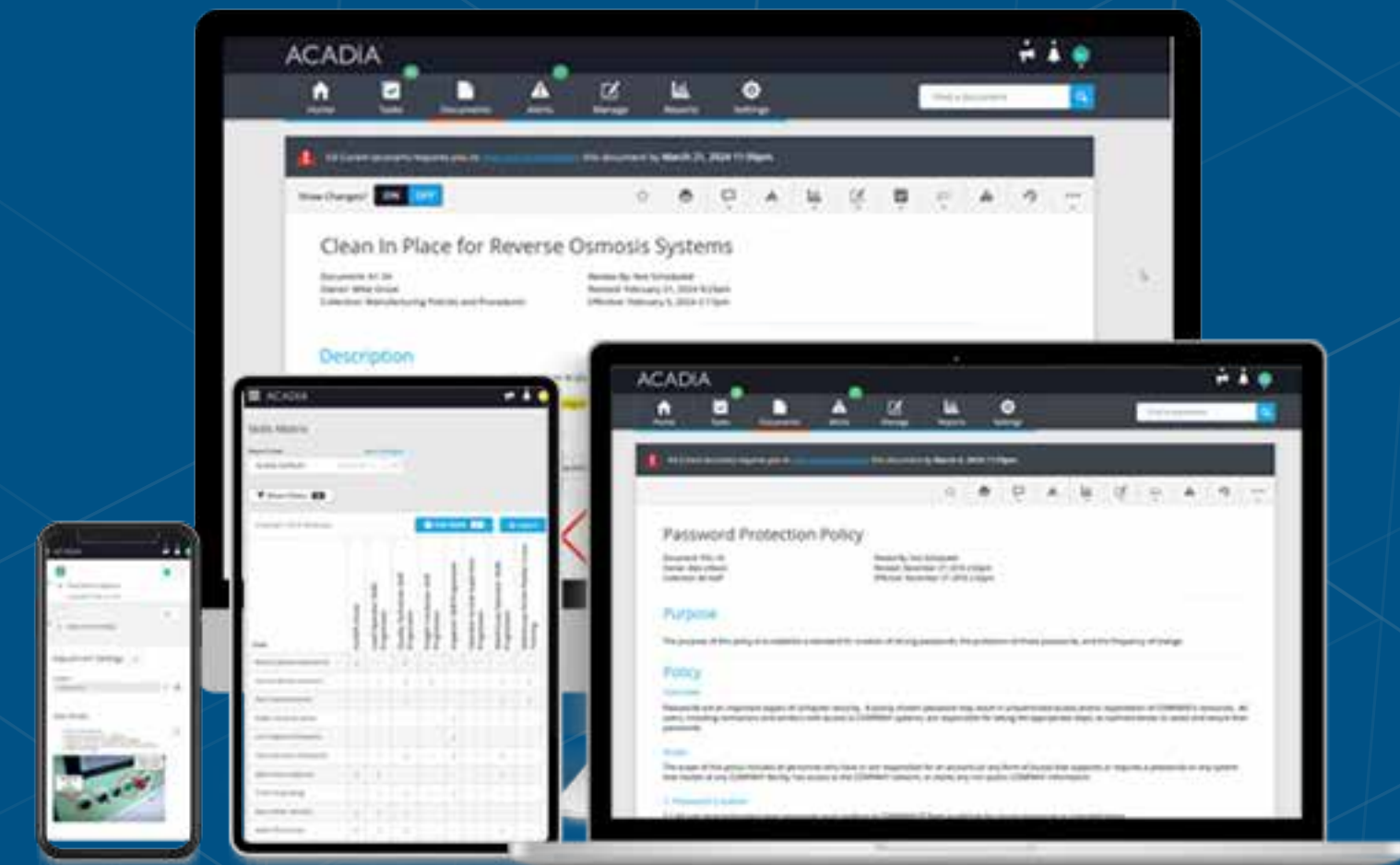
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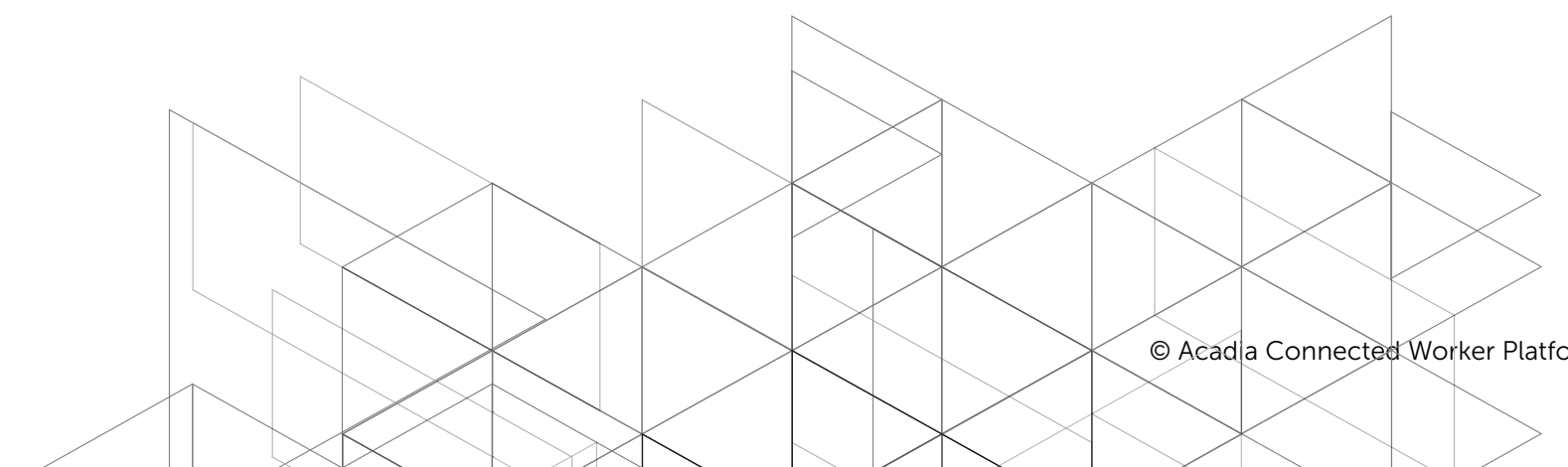
How a Connected Worker Platform Transforms Knowledge Management

Independent, capable frontline workers are essential to the success of top-performing organizations. A Connected Worker Platform connects digital resources, SOPs, checklists, and training directly to frontline workers through their mobile devices wherever they are doing work. This enables independent learning as part of work and an agile workforce capable of responding quickly based on information on the ground. When continuous learning and knowledge sharing is a fun-damental way to work, companies experience higher worker productivity, safety, and product quality — as well as higher employee retention.

About the Acadia Connected Worker Platform

The Acadia Connected Worker Platform provides real-time, action-able insights and step-by-step guidance directly to frontline workers in manufacturing and other supply chain industries. It empowers these employees to work efficiently, build new skills, stay safe, and demonstrate their abilities. Our highly intuitive software platform delivers vital information to employees anytime, anywhere, on any web-enabled device. It also gives businesses insights into employee performance, linking pro-ductivity directly to operational outcomes. The platform provides for more effective skills management, in-context learning for onboarding, cross-training, upskilling, and reskilling — and ultimately, better work.

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