



WHITE PAPER

Unlocking the Secrets of **Knowledge Transfer**

Supercharge operational performance by preserving your team's most valuable skills.

Introduction

Businesses go to great lengths to contain risk – think of legal departments, HSE programs (Health, Safety and Environment), security audits, and the many other ways a business leverages risk to shield itself from loss. Industrial companies – such as power providers, manufacturers, and oil and gas firms – are no exception.

Recently, another vulnerability is generating growing alarm within these companies – **the loss of hard-won operational knowledge**. The alarm isn't about the well-reported departure of older workers to retirement. Industrial America is battling an issue that extends across all age groups and demographics.

This white paper examines the forces supercharging this risk for utilities, manufacturers, oil and gas enterprises, and the entire industrial spectrum. It also offers ideas on what steps leaders can take to mitigate or even reverse labor attrition's worst effects with knowledge transfer.

What is Knowledge Transfer?

Knowledge transfer is the process of identifying, capturing, documenting and sharing the firm's DNA, mojo, secret sauce – all of the operational magic that helps keep the company running smoothly and efficiently – with an access system that makes it easy to review and distribute.



It's different from the onboarding and offboarding programs some may equate to knowledge transfer. "True knowledge transfer works at the micro and macro level within a company," explains Chad Johnson, manager of training advisory services for HSI, a respected leader in training and compliance services for companies worldwide.

"At a micro level, knowledge transfer is about an employee who has a particular unit of knowledge that's important to the company. You want to make sure they are not the only person who knows that information. At a macro level, it's the collective sum of knowledge throughout the entire organization. The challenge for the company is to collect and maintain that knowledge over time, making it readily available to others as needed."

The trendline isn't encouraging for performance-minded utilities, manufacturers, and oil and gas companies. For industry observers like HSI's Johnson, the numbers are a slippery slope.

"Each departing employee takes a little bit of operational know-how as they go. Large organizations see this manifest itself several ways. It may be more errors in day-to-day work. People might take longer to finish tasks. There could be more safety violations and injuries. Field response times may lag. Equipment may break down more frequently. Unplanned downtime already costs industrial manufacturers about \$50 billion a year."

Why is this curation process particularly important today? A look at the numbers:

- Deloitte reports it's **38% harder to find the right talent** today than it was as recently as 2018.
- **Nearly 50% of manufacturing executives** say they've turned down business opportunities because of lack of talent.
- The Center for Energy Workforce Development reports electric cooperatives said good-bye to **6,570 workers in 2021 compared to just over 5,000 in 2020**.
- **The annual turnover rate for manufacturing reached 39.9% in 2021**, according to the U.S. Bureau of Labor Statistics (utilities: 49.0%).
- **Estimated 10-year job growth for the utility industry is projected at -7.7%, compared to +7.66% for all other industries.** Some sources assert that as many as **a third or more of power company workers will retire within the next five years.**

It's tempting to single out retiring Baby Boomers for the knowledge shortfall, but that's only part of the story. Other factors include:

Hybrid Work Schedules. The pandemic rapidly accelerated hybrid scheduling for many non-field staff, which increased the risk of siloed, compartmentalized knowledge, especially the tacit variety gained through experiences, observations, and personal insights.

Competing Industries. Engineers, IT professionals, field technicians, and supervisory personnel of all ages are subject to poaching from other industries. Smarter, more complex grid networks require workers with technical talent, skills often sought by large players in software development, cybersecurity, and data companies. Competing organizations can offer sign-on bonuses and other inducements to workers to jump ship with their talents.

Changing Employer-Employee Relationship. A 2021 survey from Great Places to Work revealed Millennials were 4x more likely to leave their job than baby boomers, and a startling 11x more likely than Generation X. This can be another reason why many firms are circling the wagons around a knowledge transfer system.

The good news is awareness often inspires action. "Over the last 10 years, there has been more awareness of the challenges," Johnson says. "People get the big picture. Many companies have a dedicated training manager who understands what's at stake. **The downside is, many executives are driven by metrics.** They're absorbed by 'What have I accomplished today?' This near-term focus can sidetrack strategies to capture and preserve valuable know-how."



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What About Know-How?

Know-how can be defined in several ways:

Explicit Knowledge. Most of us are very familiar with this type of knowledge. It's documented or shared through speaking, audio, video, researching online, simulations, or other direct information exchange.

Implicit Knowledge. This type of knowledge is shown by applying explicit knowledge in a real-world application. In effect, demonstrating hands-on skill. "I compare it to changing oil in your car," Johnson says. "I can tell you all about the ways oil helps your car. I can explain how it's done, even show you a video. But until you've changed the oil yourself, you haven't shown an ability to actually do it."

Tacit Knowledge. This type of knowledge is expressed through experiences, observations, and personal insight. It often defies documentation, as you would with explicit knowledge. Capturing tacit knowledge can take the form of mentorship, paired work, shadowing, and/or coaching, for example.

Know-How:

- Explicit Knowledge
- Implicit Knowledge
- Tacit Knowledge



Effective knowledge transfer blends elements of all three forms in ways that vary with the task, company, and objective. One method or prescribed knowledge capture technique, say a video recording of a field technician on ways to diagnose a haywire substation, may not be the best long-term solution. That is especially true if there's no system in place to catalog and summon a certain unit of knowledge on demand.

It is important to quickly recognize the need for a rigorous training program before any more knowledge slips out the door. That necessity reminds Johnson of the challenges some face in passing the baton to relative newcomers when it involves a complex technical task.



“Sometimes there are maintenance procedures that are performed only once every three to five years. That’s a big issue when a key technician plans to retire years ahead of the next maintenance event. Without a rigorous training program in place, the remaining team may be inadequately trained for the maintenance task ahead,” Johnson says. “That exposes the company to risk and cost.”

“One organization took the time to create a smartly produced, professional training aid, walking staff through proper maintenance techniques and sequences in an engaging manner. The training was a revelation to everyone who experienced it. It demonstrated the way knowledge is presented can be just as important as the knowledge itself. **What good is a training tool if no one wants to use it?**”

Four Success Factors

Industrial companies that excel at stewarding high-value knowledge from employee to employee seem to share several characteristics, according to Johnson. Here are four success factors drawn from HSI’s broad training experience of working with utilities, manufacturers, and gas and oil companies throughout the U.S. and the world:

1. Identify the Experts

Researching the question online presents all sorts of subject matter expert (SME) identification methods. Some advocate polling the organization to identify the “go to” workers across high-priority knowledge areas. **You can then work with the SMEs to record their knowledge and expertise.**



What good is a tool if no one wants to use it?

Likely candidates in technical areas are field and factory floor performers near the end of their careers — but not always. It's a mistake to overlook recent hires that may have come from a competitor or similar company with valuable insights to share, but not yet well known to staff. Younger employees who have demonstrated ingenuity in their approach to problem solving should also be considered.

The process can be simplified by working through a board of advisors selected across relevant departments by HR. No outside advisor can know the firm's true rock stars as well as a plant manager, maintenance manager or a frontline supervisor.

2. Capture the Knowledge

With video? Audio? Document? Online course? Classroom? One-on-one mentoring?

Easy answer: **All the above.**

Every company is unique — their culture, technical requirements, business objectives, and personnel. The capture and delivery method should not be prescriptive. It should keep faith with the best interests of the company in tone, style, and content. A knowledge transfer program must be a tailored, mixed approach that is adapted to meet a wide range of learning objectives. One size does not fit all.



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3. Promote the Transfer

'Why are we doing this?' 'What's in it for me?' should be answered early on. This might include a word from a senior leader, affirming the need and value to the company, department, and individual. **Recognize this is an important investment in the company's future as well as the employee's.**

4. Partner with an Expert

Engaging an outside resource with unique qualifications in knowledge transfer offers welcome value and perspective.

Value in the sense, not every knowledge transfer objective may require a custom treatment. Some transfers may be suited to an existing e-learning or generic course. For example, mastering forklift operation in a manufacturing setting may be addressed with an off-the-shelf training module, augmented with any requirements unique to the manufacturer. This solution saves time and money without sacrificing instructional quality.

Perspective in the sense a training organization like HSI brings a broad global view to the company. What works? What doesn't? What in one situation can be adeptly applied to another? That counsel can be invaluable in not only formulating the correct knowledge transfer for a company, **but also gaining buy-in from senior leaders that may not fully understand the short- and long-term advantages.**

Four Success Factors of Knowledge Transfer

- Identify the Experts
- Capture the Knowledge
- Promote the Transfer
- Partner with an Expert



Recognize this is an important investment in the company's future as well.

Closing Thoughts

Your decision to capture, preserve, and disseminate your organization's most valuable operational knowledge is an important one. Look around. You likely work with field, floor, and support people who represent skill sets that help define the organization's essence. Call it your mojo, your secret sauce, the connecting tissue that helps sustain your enterprise through business ups and downs.

Shouldn't that understanding be harnessed so all may benefit? Especially now, **with so many organizations starving for talented newcomers while bidding retiring employees farewell, it makes sense to invest in a knowledge transfer system.**

As you weigh your options, keep the value and perspective of a respected training partner in mind. A trusted advisor's insights and methodologies frequently should go beyond the expected, serving your need for operational excellence today and tomorrow.

About HSI



HSI is your single-source partner for EHS, Compliance, and Professional Development solutions. HSI provides integrated e-learning content, training solutions, and cloud-based software designed to enable your business to improve safety, operations, and employee development. Across all industries, HSI helps safety managers, and technical employees, human resources, first responders, and operational leaders train and develop their workforce, keep workers safe, and meet regulatory and operational compliance requirements. HSI's focus is on training, software, and services for safety and compliance, workforce development, industrial skills, and emergency care. HSI is a unique partner that offers a suite of cloud-based software solutions including learning management, safety management, chemical SDS management, and more, integrated with content and training so businesses can not only monitor and manage multiple workflows in one system, but train employees via one partner.

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