



Whitepaper– SmartITM™





SmartITM™

Intelligent Training & Knowledge Management

Industrial organizations around the world are confronting an accelerating knowledge crisis. Senior technicians with decades of experience are retiring faster than ever, while new operators face increasingly complex systems, tighter compliance expectations, and operational environments that demand precision from the very first day. Traditional training structures—slides, binders, classroom sessions, or unstructured knowledge transfers—struggle to keep pace with the demands of modern facilities and field operations.

Telepresenz® SmartITM™ addresses this gap by offering an integrated platform that turns real-world operational expertise into structured, AI-enriched training and procedural guidance. Rather than treating learning as a static activity, SmartITM™ establishes an ongoing, intelligent knowledge lifecycle that evolves with the organization. It captures expert insights directly from frontline activities, transforms them into standardized procedures and micro-learning modules, delivers training precisely at the moment of need, evaluates readiness through continuous assessment, and optimizes workforce performance with analytics and predictive insights.

Together, these capabilities reshape the way industrial organizations build competency, preserve institutional knowledge, and ensure safety, readiness, and operational excellence across the entire workforce.

EXECUTIVE SUMMARY

The Accelerating Knowledge Crisis

Industrial organizations around the world are confronting an accelerating knowledge crisis. Senior technicians with decades of experience are retiring faster than ever, while new operators face increasingly complex systems, tighter compliance expectations, and operational environments that demand precision from the very first day.



Key Performance Indicators

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ONBOARDING TIME

40-60%

↑ Faster Training

TASK EXECUTION

30-45%

↑ Improved Accuracy

KNOWLEDGE PRESERVATION

80-100%

✓ Complete Capture

SAFETY INCIDENTS

↓ 65%

↓ Significant Reduction

The SmartITM™ Solution



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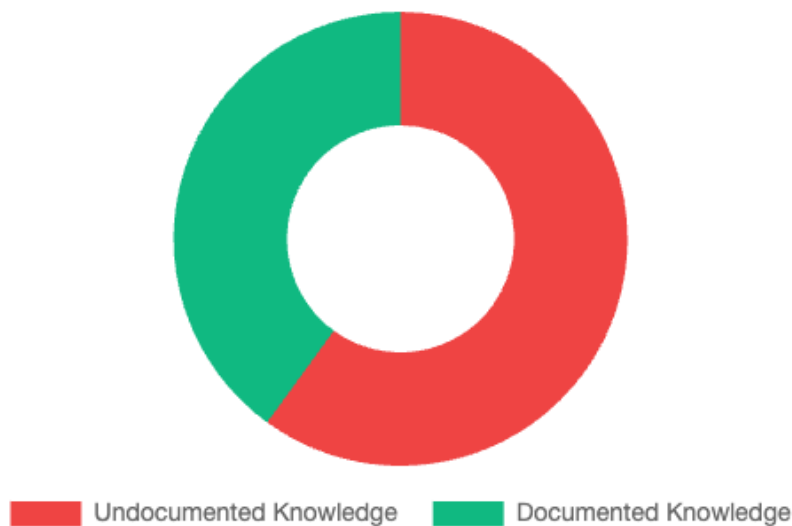


THE CHALLENGE

The Shifting Knowledge Landscape

Across industrial environments—from power plants to manufacturing floors, maritime vessels, mines, and district energy systems—organizations depend on workers who understand not only what to do, but why and how to do it safely, consistently, and in accordance with evolving operational constraints.

 Knowledge Gap Analysis

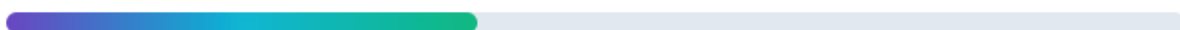


The long-standing model of gradual skill transfer, reliant on shadowing and mentorship, is increasingly difficult to sustain. Retirements, turnover, and the scarcity of domain experts make it nearly impossible for this historical approach to scale.

Undocumented Knowledge 60%



Retiring Workforce (5 years) 40%



Training Time Increase 75%





THE SOLUTION

Introducing SmartITM™

SmartITM™ provides a coherent, mobile-first structure for capturing, creating, delivering, and governing knowledge across the entire operational lifecycle. Its design reflects the daily realities of industrial work—where information must be accessible immediately, where procedures must remain accurate and standardized, and where the learning process must support workers in environments ranging from low-connectivity sites to high-stakes facilities.

⚡ Training Efficiency Improvement



At its core, SmartITM™ transforms how organizations create and sustain their operational knowledge. It captures expertise directly from the field through videos, wearable device streams, images, voice notes, and SmartEye™ sessions. It then uses embedded AI capabilities to interpret, extract, and refine this knowledge into precise procedural content.



The Challenge

- Undocumented expertise leaving with retiring workers
- New hires taking months to reach competency
- Inconsistent training across locations
- Manual processes that don't scale
- Difficulty tracking compliance
- Outdated materials buried in silos

The SmartITM™ Solution

- AI-powered knowledge capture from experts
- Interactive, asset-specific training modules
- Mobile-first delivery in the field
- Contextual search and instant discovery
- Automated skills tracking and analytics
- Continuous AI-driven optimization

"Telepresenz® SmartITM™ unifies knowledge capture, intelligent organization, and AI-driven delivery into one powerful platform."

40%

Faster Time-to-Competency

60%

Higher Training Completion

50%

Reduced Admin Overhead



THE SMARTITM™ KNOWLEDGE LIFECYCLE

SmartITM™ operates through five interconnected stages that transform expertise into organizational capability. Each stage builds upon the previous, creating a continuous loop of improvement and optimization.

1	CAPTURE SmartITM begins with real-world expertise. Technicians record tasks as they perform them, supervisors conduct walkthroughs, and remote experts diagnose issues via SmartOPS™. These moments—rich in context and tacit knowledge—are automatically transcribed, analyzed, and organized by the platform's AI engine. Subtle details, step sequences, safety cues, and operational nuances are preserved so they can be learned, repeated, and standardized.
2	CREATE Once captured, SmartITM transforms raw footage into structured knowledge. The platform identifies logical step flows, generates preliminary SOP drafts, and highlights areas where procedural clarity or additional detail is needed. Training authors refine these insights, assembling them into polished training modules that combine videos, instructions, assessments, and contextual insights. What once required hours of manual documentation and formatting becomes a streamlined, AI-assisted process.
3	DELIVER Training flows seamlessly to the frontline. Operators receive tailored content based on their role, equipment responsibilities, or site requirements. They can access training through mobile devices or wearables, even when operating in low-bandwidth or offline environments. SmartITM keeps content synchronized with procedural updates and operational changes, ensuring workers always have access to the correct version. When used alongside SmartOPS™, the system can guide workers to prerequisite training directly connected to their task assignments.
4	EVALUATE Competency evaluation becomes an integrated part of daily operations. Workers demonstrate knowledge through assessments, scenario-based questions, or natural-language explanations—all of which can be reviewed by supervisors or automatically analyzed by AI. Certification status, renewal needs, and skill readiness are tracked in real time, giving managers the visibility required to plan staffing, address gaps, and maintain compliance.
5	OPTIMIZE SmartITM's analytics layer strengthens organizational intelligence. Leaders gain visibility into training effectiveness, operator proficiency trends, and potential knowledge weaknesses across shifts or locations. By understanding how training impacts operational performance, compliance outcomes, and safety indicators, organizations can refine their approach and ensure that training investments yield measurable benefits.



REAL-WORLD IMPACT

Cross-Industry Applications

SmartITM™ is designed to solve real operational challenges across diverse environments.



Energy & Utilities

A major energy operator uses SmartITM™ to standardize complex lockout/tagout procedures across multiple plants.

↓ 50% Operator Errors

↓ 45% Training Cycles



Large University with District Energy

A campus operations team digitized all equipment training—boilers, chillers, tunnels. The university leverages SmartITM™ to train technicians responsible for enormous thermal and electrical infrastructure.

↓ 40% Time to Operational Readiness



Maritime Shipping

A global fleet uses SmartITM™ to ensure consistent mechanical and operational training across vessels with intermittent connectivity.

↓ 60% Reliance on Senior Engineers

↑ 35% System Uptime



Mining

Mining operations in remote regions with minimal connectivity use SmartITM™ to deliver offline training and reinforce safety-critical behaviors.

↑ 55% Compliance Rates

↓ 45% Incidents



Industrial Manufacturing

A heavy equipment manufacturer converts expert inspections and maintenance tasks into standardized training modules.

↓ 30% Shift Variance

↑ 40% Audit Performance



Measurable Impact

Organizations adopting Smart ITM frequently report substantial reductions in onboarding time, more consistent and accurate task execution, and a noticeable decline in operational errors or near misses. Workers reach competency faster; supervisors gain clearer insight into workforce readiness, and leadership reduces reliance on overextended senior experts. Perhaps most importantly, knowledge that once existed only in people's memories becomes a permanent, structured asset that drives performance and resilience for years to come.

Organizations using SmartITM™ consistently report:

- ✓ 40–60% reduction in onboarding time
- ✓ 30–45% improvement in first-time-right task execution
- ✓ Reduction in safety incidents and near misses
- ✓ Standardization across sites and shifts
- ✓ Significant decrease in dependency on retiring experts
- ✓ Preservation of institutional knowledge into a permanent system



THE TELEPRESENZ ADVANTAGE

Why Telepresenz®

Telepresenz® distinguishes itself through its integrated, end-to-end operational ecosystem. SmartITM™ works in harmony with **SmartOPS™**, which delivers real-time remote assistance and manages digital workflows and SOP execution, and **SmartEye™**, which delivers computer-vision-based safety intelligence and incident management.

Seamless Integration



Together, these systems create a seamless flow of knowledge from live operations to structured training programs. A remote troubleshooting session can instantly become a training module. A change in a digital workflow can update corresponding training content. A safety incident can trigger immediate retraining. This level of integration ensures that knowledge is always relevant, accessible, and tied directly to real conditions.

CONCLUSION

A New Era in Industrial Training

SmartITM™ represents a new era in industrial training and knowledge management. It provides a living, intelligent foundation that supports workers, preserves expertise, strengthens operational consistency, and reduces the risks associated with knowledge loss.

By blending the strengths of artificial intelligence, mobile-first design, and real-world operational insight, Telepresenz® enables organizations to build a workforce that is not only more capable, but more confident, more compliant, and more resilient.



"In environments where safety, reliability, and precision matter above all else, SmartITM™ becomes essential infrastructure—empowering organizations to operate today while preparing confidently for tomorrow."

Transform Your Knowledge Management

See how SmartITM™ can revolutionize training and knowledge preservation in your organization.

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