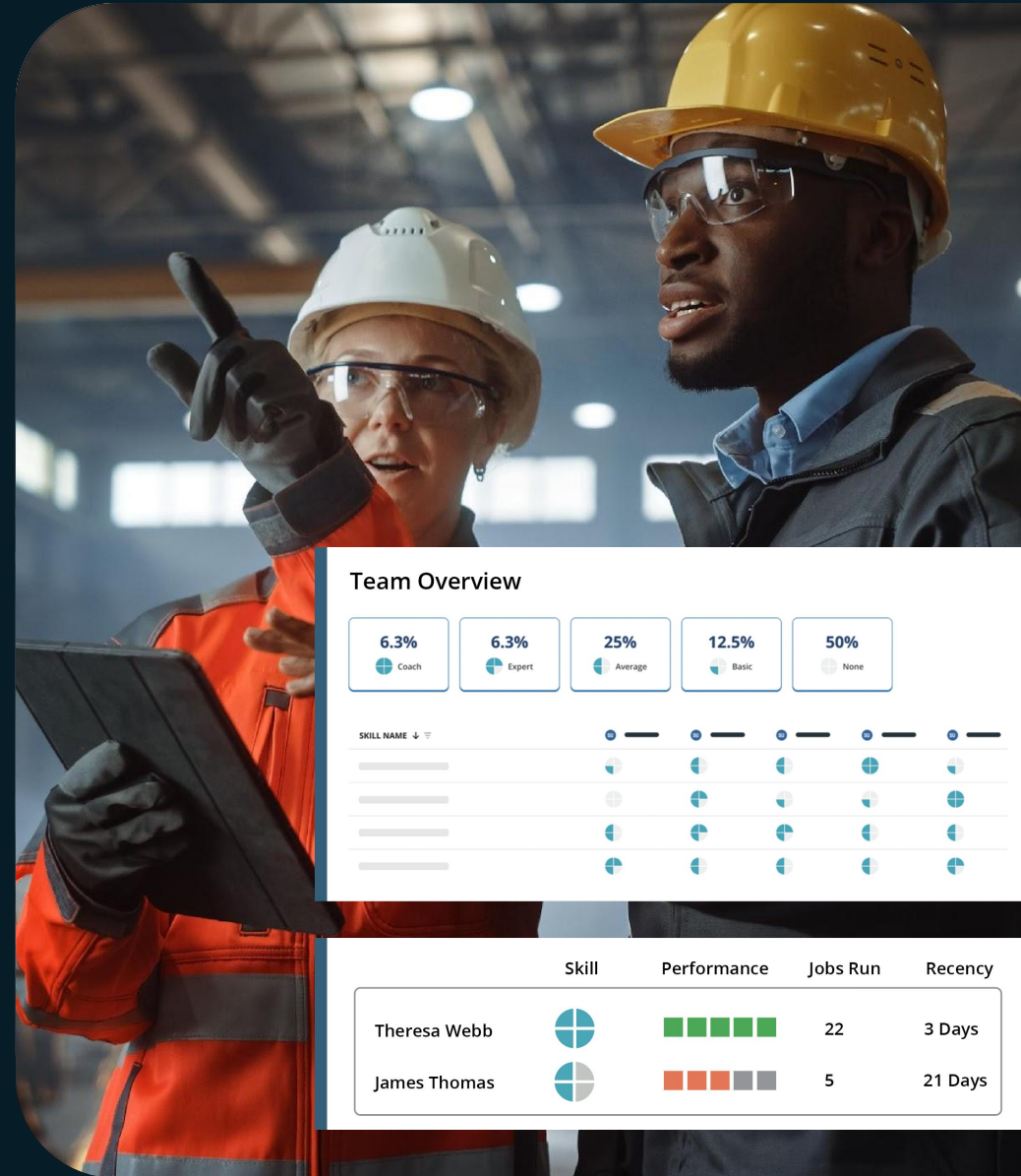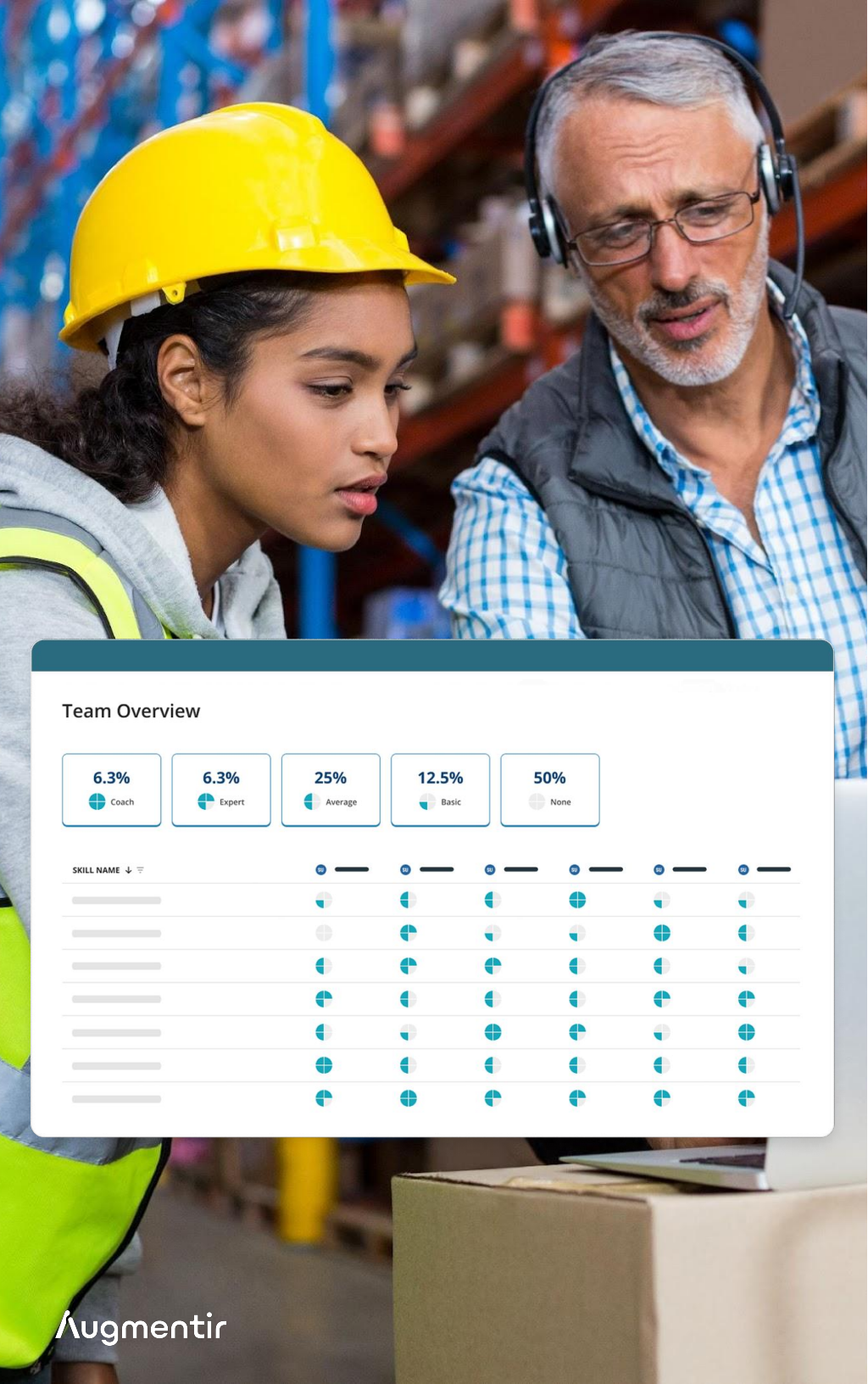eBook

The Future of Work:
Connecting Skills Management with Work Execution

How **Smart** Skills Management Software is helping manufacturers bridge the gap between training, skills, and work to build a more resilient and agile workforce

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Team Overview

6.3%	6.3%	25%	12.5%	50%
Coach	Expert	Average	Basic	None

SKILL NAME ↓

	Skill	Performance	Jobs Run	Recency
Theresa Webb			22	3 Days
James Thomas			5	21 Days

Developing an effective skills management program in an era of high turnover

Today's rapidly changing manufacturing environment has made tracking worker skills and competencies extremely challenging. Worker turnover and absenteeism, combined with shifting production plans due to supply chain disruption, make effective skills management essential to meeting production goals. When done right, it can help companies make better informed decisions about staffing, improving safety and overall productivity.

Deploying a modern skills and competency management program helps with organizing, standardizing, and tracking the skills of your workforce. This is especially useful in large workforces, where manually maintaining individual worker records on paper or in spreadsheets can be timely and expensive. Knowing the skills and competencies of their workforce in real time allows managers to better assign tasks, fulfill specific roles, provide targeted training, and identify skills gaps.

Standalone skills management solutions that attempt to automate skills tracking fall short of meeting the needs of today's manufacturers because they do not connect the "skills that workers know" with the "work being done". **These standalone skills management solutions may have been ideal for the stable, unchanging workforce of the past, but they are not suited for today's era of high workforce variability.**

Team Overview

6.3% Coach	6.3% Expert	25% Average	12.5% Basic	50% None

Today's workforce challenges are forcing us to rethink standalone training and skills management

The manufacturing sector is facing an increasingly unpredictable, unstable, and diverse workforce. The sector that was already stressed with a tight labor market, rapidly retiring baby-boomer generation, and the growing skills gap is now facing employee absenteeism, turnover, and quality issues that are increasingly hitting manufacturers' bottom lines.

According to an April 2022 report by the Workforce Institute at UKG, nearly every manufacturer surveyed said that labor challenges impacted their ability to meet production demands, with most describing impacts as "severe".

As workforce variability increases, it is becoming harder to maintain an accurate record of skills inventory, and even harder to achieve standard work.

"Not only are we having trouble attracting new workers, but we also have no visibility as to who will show up each day, and inaccurate visibility into worker competencies, making it virtually impossible to meet our production goals."

Plant Manager
Fortune 500 Food Manufacturer

In the past, standalone skills management systems were sufficient because:

- Turnover was infrequent so line supervisors knew everyone on their team and their current skills and endorsements , making it easy for the supervisor to assign work safely and optimally

- Investments in training, reskilling, and upskilling were performed either in a one size fits all approach or through a purely subjective or anecdotal approach

Today, however, a different situation exists.

Line supervisor are dealing with team members that they don't know well, new ones starting every day, and experienced ones leaving. This creates safety issues and makes optimally assigning work difficult as not only are the workers variable, but their skill levels and skill expirations are a constantly moving target.

An integrated, closed-loop skills management system is the solution for this era of high workforce turnover and absenteeism.

Skills management solutions that combine skills tracking capabilities with connected worker technology and on-the-job digital guidance can deliver significant additional value. Data from actual work performance can inform workforce development investments allowing you to target you training, reskilling, and upskilling efforts where they have the largest impact.

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What does the future of skills management look like?

The future of training and skills management includes the use of modern, digital tools that can connect, digitize, and optimize what your employees know and how they are doing on the job.

Solutions that close the loop between training/skills and the work being done allow organizations to:

- Validate at the time of work assignment who has the skill level to safely perform a specific task. This helps to mitigate risk and ensure safety.
- Prevent through the power of digital workflows any worker from doing work they don't have a current endorsement for (or doing work independently when they are required to have supervision).
- Use data from actual work performance to inform your reskilling and upskilling decisions.

A critical requirement to make this a reality is a digitally connected workforce and access to data about the work being done. Data from actual work performance can inform workforce development investments allowing you to target your training, reskilling, and upskilling efforts where they have the largest impact

This **Smart Digitization** path can be summarized as follows:

1. Digitize your frontline operation

2. Connect skills and work

3. Provide value throughout the employee lifecycle

The following sections outline this digitization process.

1. Digitize your entire frontline operation

Digitizing Skills

Skills management programs that are digitally tracked using skills management software provide numerous benefits, including:

- Instantly visualize the skills gaps in your team
- Quickly assess team and individual readiness
- Identify upskilling/reskilling opportunities
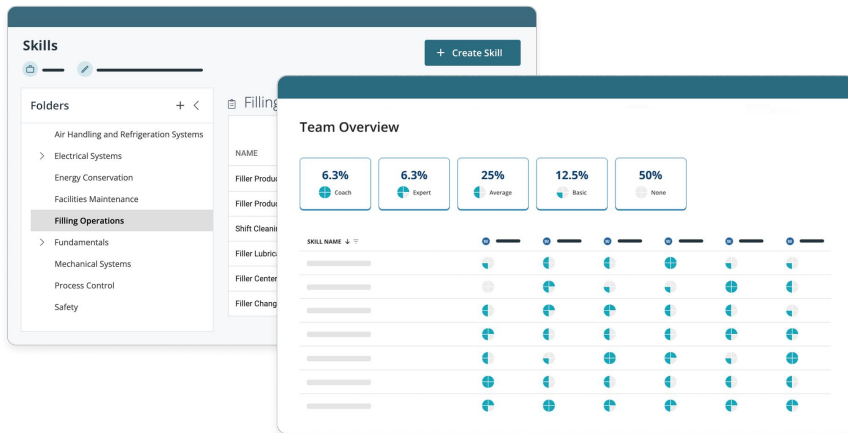
Furthermore, using software solutions like Augmentir, organizations can digitize and easily manage skills tracking and training programs and connect them with frontline operations. This provides additional benefits, including the ability to assign work to employees with the required skill level, increasing safety and equipment uptime.

Digitizing Work

Digital work instructions are electronic versions of work instructions or SOPs that provide necessary visual aids and real-time contextual information to help improve processes and guide operators through complex tasks. Digital work instructions improve standardization and quality for a wide range of use cases and help optimize workforce performance in all aspects of manufacturing.

Digital guidance can include images, videos, augmented reality (AR) experiences, and live support from colleagues or subject matter experts.

2. Bridging the gap between skills and work execution

As workers become more connected, companies have access to a new rich source of job activity, execution, and tribal data, and with proper artificial intelligence (AI) tools can gain insights into areas where the largest improvement opportunities exist.

WHAT A WORKER HAS BEEN TRAINED ON

HOW A WORKER IS DOING ON THE JOB
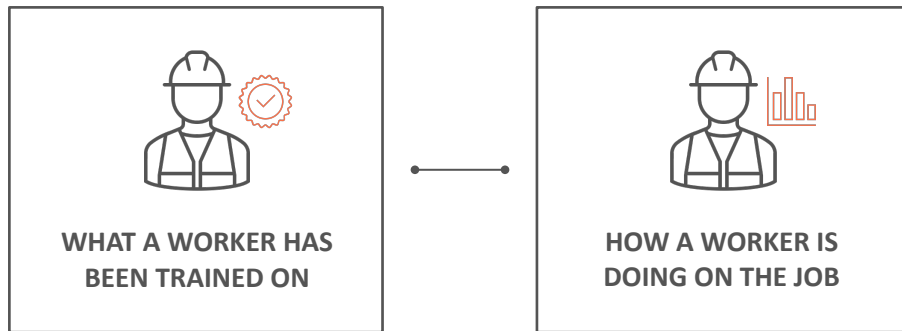
When this real-time worker data is combined with information on "what a worker has been trained on", the result is a connected worker that is being given personalized support. This leads to improved performance, higher worker engagement, increased worker satisfaction and reduced churn.

Once on the job, using Smart Digitization to not only digitize work instructions, but deliver that guidance in a way that is personalized to the individual worker and their performance.

The following pages highlight an example of what is possible with personalized guidance and support.

True Performance

Jobs Run
38

Recency
2 days

TRAINING RECOMMENDED

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Personalized Work Guidance

Deliver personalized guidance and support matched to the skill level, True Performance, and experience. Smart Work Instructions deliver guidance and support matched to the needs of each worker, so that everyone can work at their personal best.
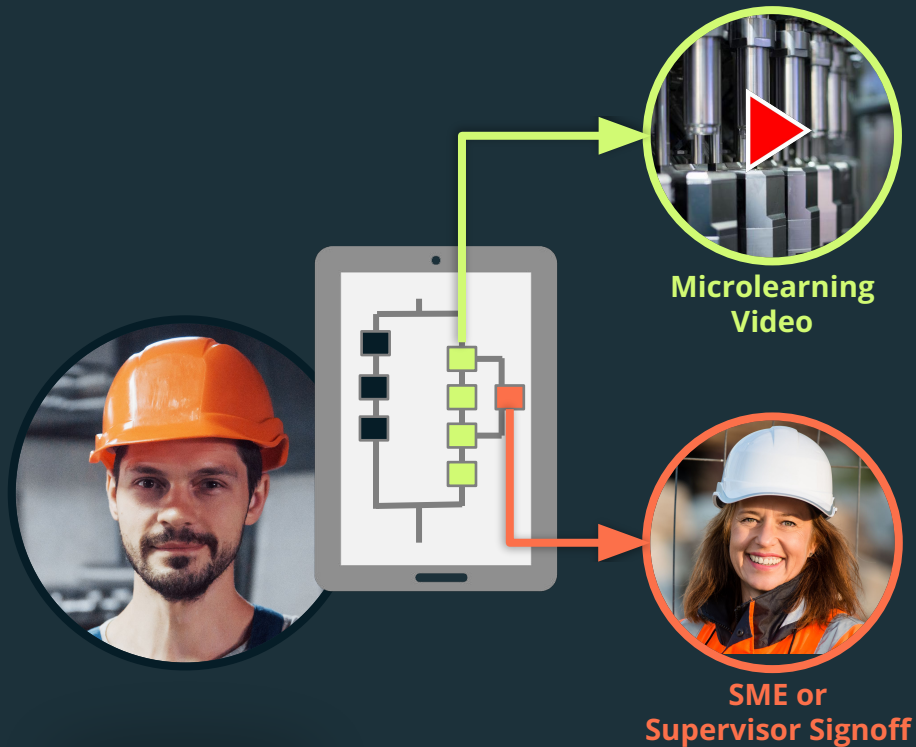
Filler Changeover

		Skill	Performance	Jobs Run	Recency
	Cameron Williamson			12	21 Days
	Theresa Webb			38	9 Days
	Joseph Black			51	2 Days

Joseph Black gets streamlined guidance due to skill level, True Performance, recency, and experience.

Personalized Work Guidance

Deliver personalized guidance and support matched to the skill level, True Performance, and experience. Smart Work Instructions deliver guidance and support matched to the needs of each worker, so that everyone can work at their personal best.

Microlearning Video

SME or Supervisor Signoff

Cameron Williamson gets enhanced guidance due to skill level, low True Performance, and recency.

Filler Changeover

	Skill	Performance	Jobs Run	Recency
Cameron Williamson			12	21 Days
Theresa Webb			38	9 Days
Joseph Black			51	2 Days

3. Provide continuous value throughout the employee lifecycle

With a workforce that is connected and supported by a digitized skills management framework, organizations can continuously support workers from "hire to retire".

Enable truly personalized workforce development investments by understanding the proficiency and performance of every worker at every task. Target upskilling and reskilling based on True Performance™ insights from the point of work, reducing training costs and non-productive time.

Onboarding & Training

On the Job Guidance

WORKER

Upskilling & Reskilling

On the Job Support
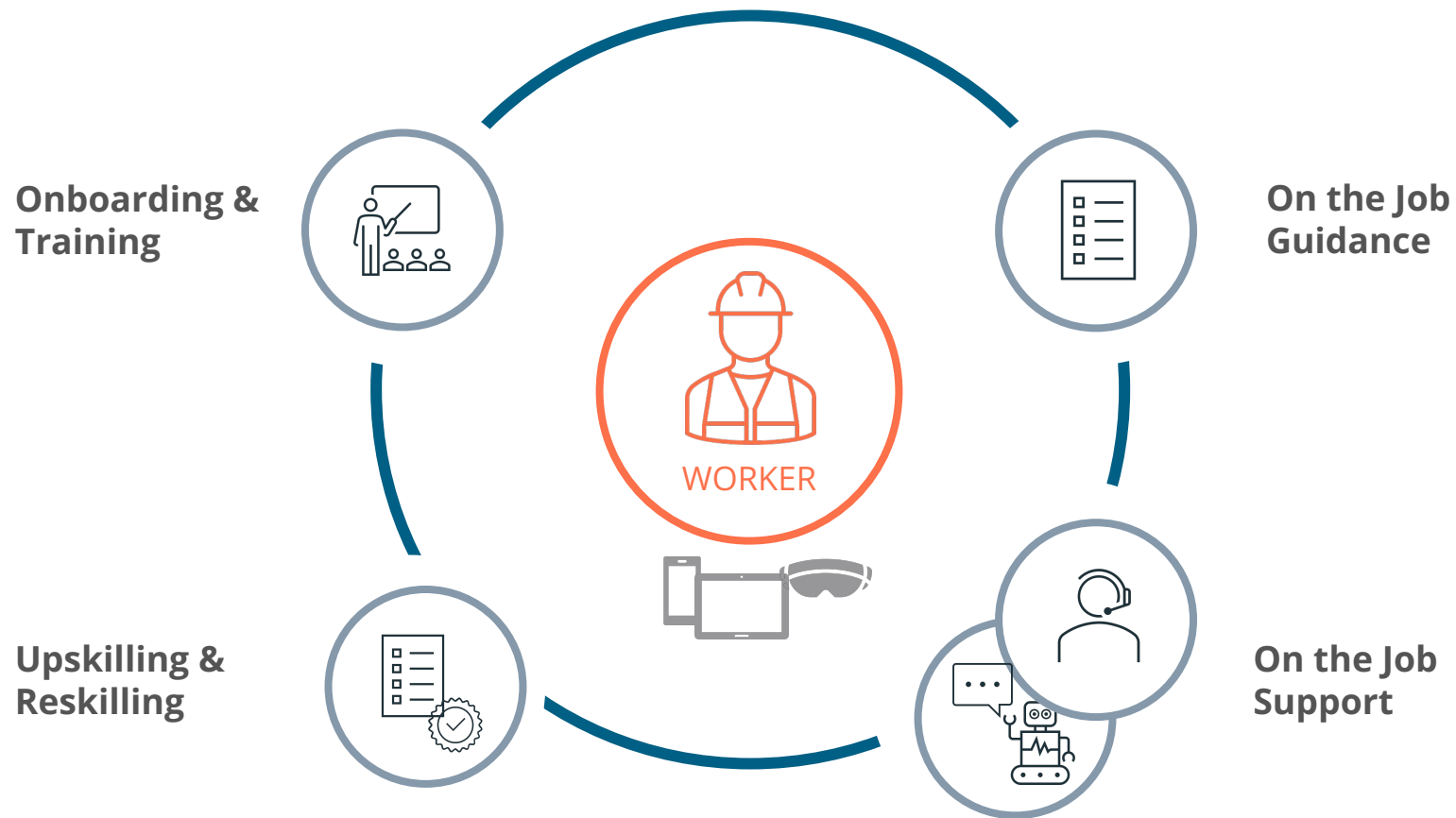
Smart Digitization is the future of training and skills management

The combination of a connected workforce and the digitization of skills management is helping manufacturers bridge the gap between training, skills, and work for today's changing workforce.

With Smart Digitization, companies can deliver continuous value. More specifically, real-time workforce intelligence can provide insights into training, guidance, and support needs, as well as provide real, actionable insights into continuous improvement opportunities.

Smarter Onboarding and Training
Digitize onboarding and training processes to help get workers skilled and operational faster to combat the rapidly churning workforce.

Personalized Guidance at Work
Automatically provide personalized guidance and support so that each worker can perform each task at their individual best, maximizing the performance of your workforce every day.

Support at the Moment of Need
Support workers in the flow of work with easy access to curated knowledge and remote expert support. AI-bots provide autonomous support.

Smarter Upskilling and Reskilling
Understand your workforce at an individual level, in real-time. Use AI-driven insights to intelligently target re-skilling and up-skilling investments to close skills gaps.
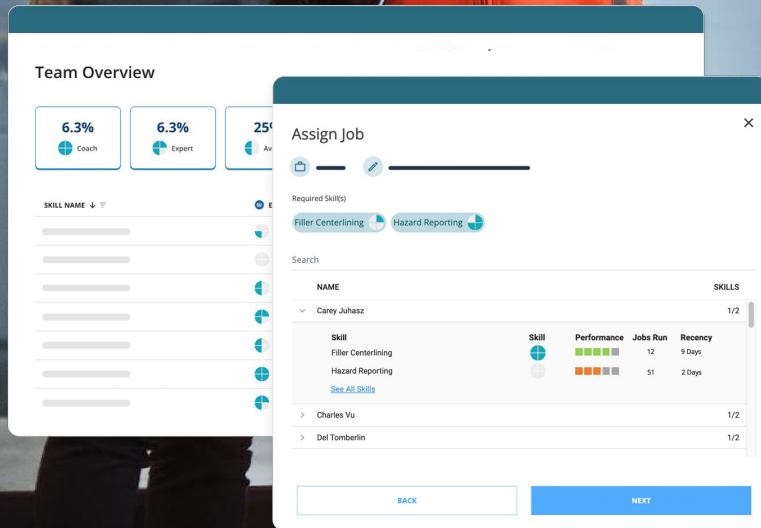
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Interested in learning more?

Connect with us to schedule a live product demonstration and experience first-hand how skills management solutions like Augmentir can help you take your first step towards a digitally connected frontline workforce.

- Track and manage workforce skills, qualifications, and certifications to intelligently schedule work and deliver personalized guidance and support

- Create and run digital work instructions on any iOS or Android mobile device or industrial smart glasses

- Provide easy-to-use tools for team collaboration and knowledge sharing

- Identify opportunities for improving worker skills and driving continuous improvement throughout the organization
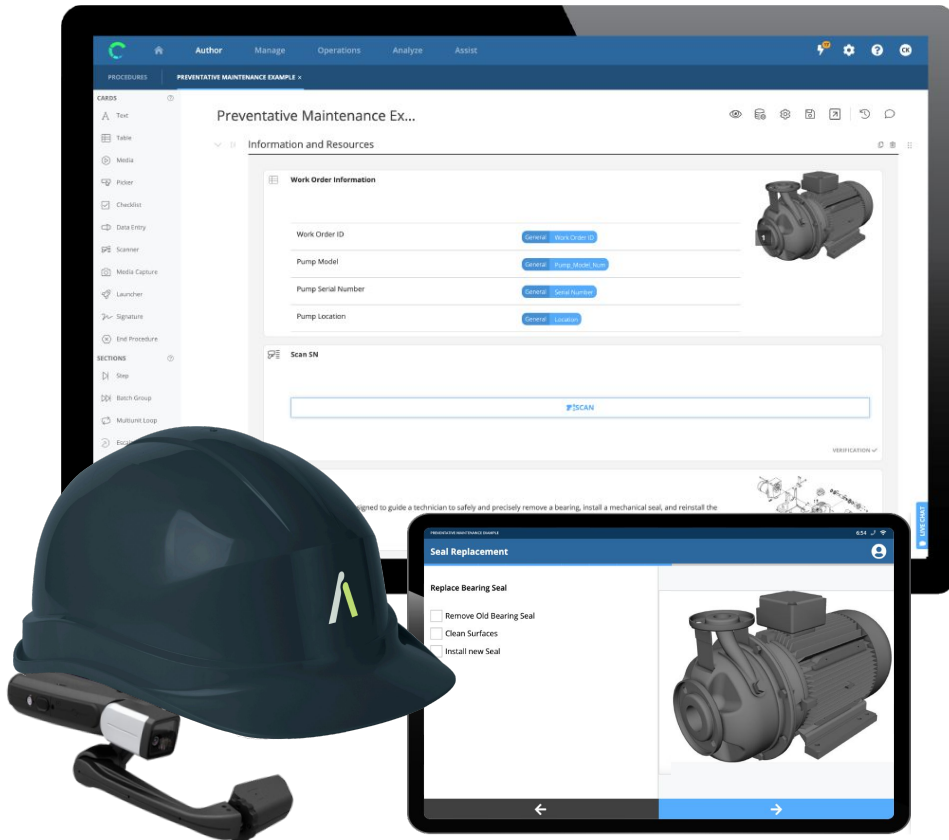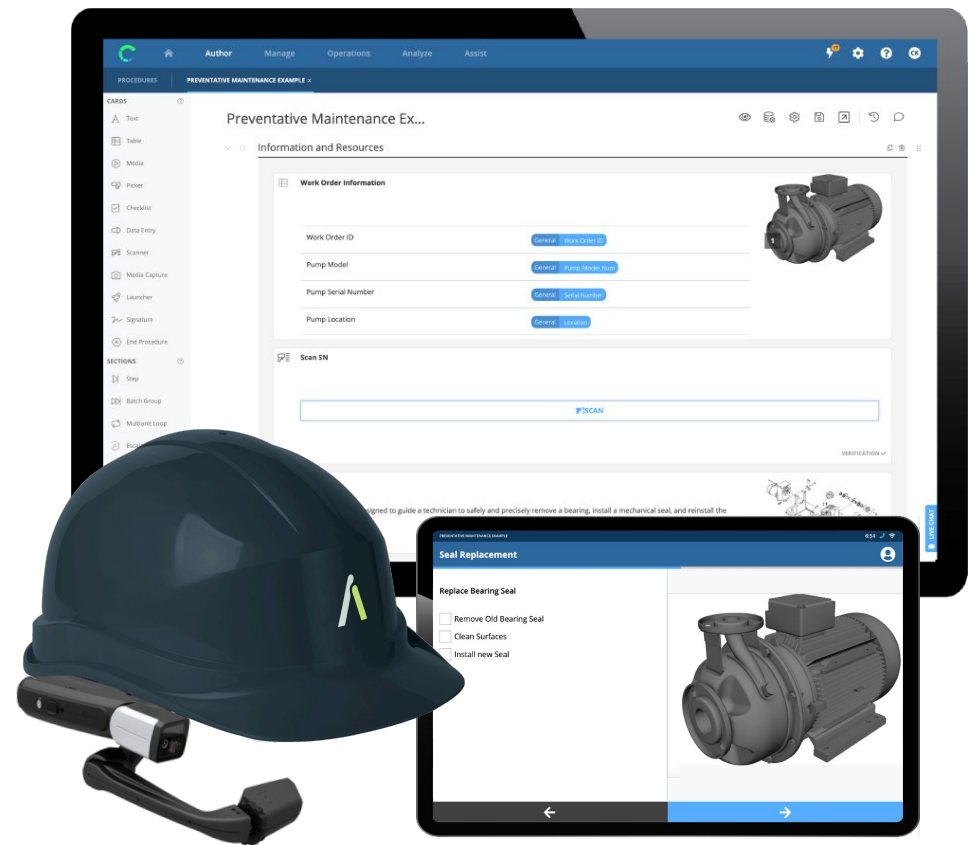
BOOK A DEMO

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![Augmentir logo]

About the Company

ABOUT AUGMENTIR

A Rich History of Founding Successful and Market-Leading Software Companies

The founding team at Augmentir has a deep history in starting and growing innovative software companies that have introduced transformational software to the manufacturing and service industry. Our team has been at the forefront of three of the most important software technology revolutions that have transformed the industrial sector, having co-founded 3 leading software companies over the past three decades:

- **Wonderware (IPO)**, a pioneer in human-machine interface software for industrial automation

- **Lighthammer (sold to SAP)**, which transformed manufacturing intelligence and integration

- **ThingWorx (sold to PTC)**, a pioneer in the Industrial Internet of Things

Our vision at Augmentir is to empower the industrial frontline workforce to perform at their best.

Artificial Intelligence-based connected worker technology holds the key to addressing the top challenges that are preventing frontline workforce excellence and is shaping the future of industrial work.

1987 — Wonderware / Nasdaq
- Pioneered the first human-machine interface for manufacturing
- Went public in 1994
- Today the world's #1 Factory Automation Software

1997 — Lighthammer / SAP
- Leader in manufacturing intelligence software
- Acquired by SAP in 2005
- Today the #1 Manufacturing Integration and Intelligence Platform in the world

2009 — ThingWorx / ptc
- The first IoT application platform
- Acquired by PTC in 2014
- Today, Gartner's pick as the leading Industrial IoT Platform

2017 — Augmentir
- Use AI to continually improve the quality, safety, and productivity of the industrial frontline workforce.

Digitize and Optimize Frontline Workers from "Hire to Retire" with a Smart Connected Worker Solution

Augmentir is a complete suite of connected worker tools designed to digitize and optimize frontline work. The suite includes functionality to support skills and knowledge management, digitizing and optimizing work, and is built on an AI foundation to provide continual work process and workforce improvements.
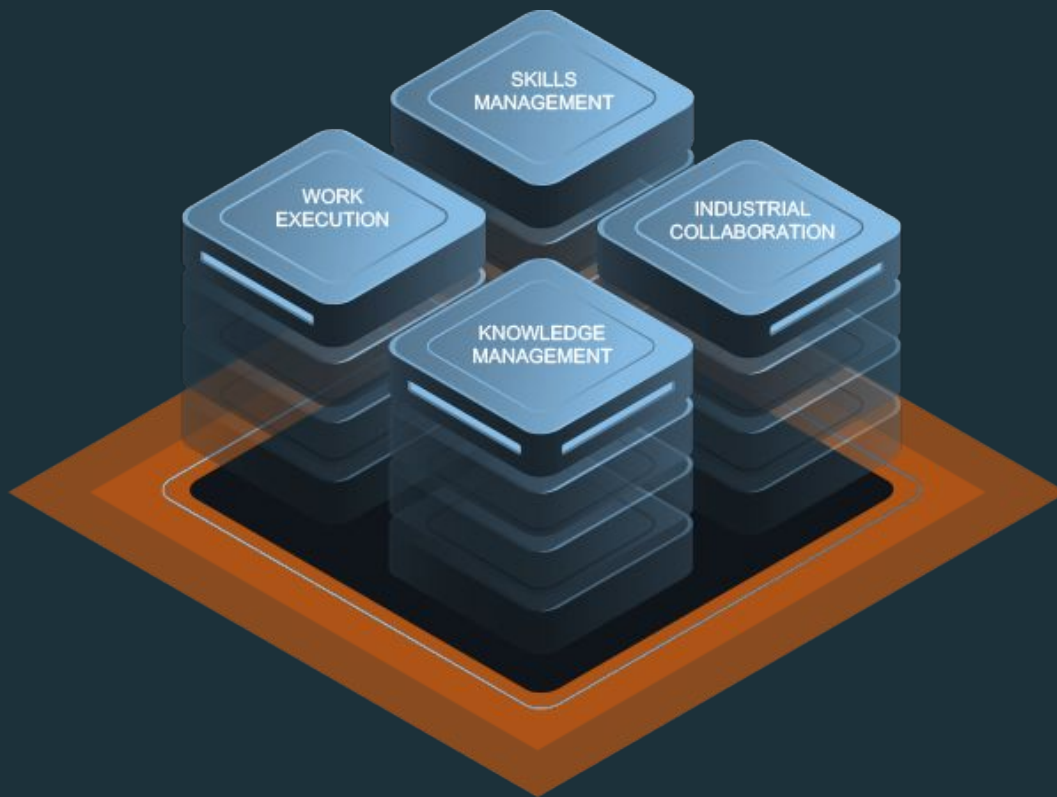
Digitize Work
Digital work instructions help independently guide workers of different skills levels to complete jobs safely and correctly. Continually optimize work though data-driven insights.

Skills Management
Track and manage skills and certifications and combine this with real-time performance insights to enable targeted workforce training.

Knowledge Management
Simplify workers' access to the entire body of knowledge around daily tasks. Capture and digitize tribal knowledge to aid in worker support.

Industrial Collaboration
Connect workers to speed communications, enable real-time collaboration, instant access to remote experts or AI assistants to provide autonomous support.

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Operational Excellence Across a Range of Use Cases

Augmentir's suite of *smart* connected worker tools delivers continuous improvement across a wide range of industrial use cases.

Safety

Improve safety and digitize safety incident and near-miss reporting. Digital checklists and safety instructions help ensure compliance and minimize impacts. Executive scorecards highlight key safety KPIs and at-risk procedures.

Quality

Standardize and optimize quality assurance and inspection procedures, resulting in fewer errors and reduced defects and rework. Digital work instructions help workers perform inspection checks that involve, line inspections, fluid level checks, etc.

Complex Assembly

Augmentir supports a range of simple and complex assembly scenarios, including one-piece flow and batch processing. Digital work instructions help guide technicians in kitting and assembly procedures, increase productivity, identify bottlenecks, and reduce training time.

Maintenance

Improve the quality, transparency, and efficiency of autonomous and preventative maintenance procedures. Digital work instructions and remote expert assistance help efficiently guide technicians and operators, resulting in minimized machine downtime.

Operations

Ensure equipment uptime and yield and improve the safety, quality, and efficiency of operator care routines performed by plant management, operations, and maintenance.

Field Service

Improve the quality, transparency, and efficiency of maintenance and repair procedures. Digital work instructions and remote expert assistance help guide technicians with more efficient maintenance and repair, resulting in minimized machine downtime.

Training & Development

Transform skills training and workforce development, and accelerate onboarding for new technicians, boosting productivity. Proactively and continually deliver the right level of training, support, guidance, and improvement.

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www.augmentir.com