Empower Frontline Workers with AI on the Factory Floor

How Industrial AI is Transforming Frontline
Performance, Safety & Agility

IFS

Introduction
Now is the Time for AI on the Factory Floor

Unlocking Productivity by Empowering People with Intelligent Tools

Manufacturing has reached a critical inflection point. Margins are tighter. Complexity is rising. The labor market is more volatile than ever. But amid these pressures lies a powerful catalyst for change: **Industrial AI**.

Far from replacing frontline workers, AI is here to **augment their capabilities**—to make them faster, more confident and more connected. When used wisely, AI equips teams with the information they need, precisely when they need it. It reduces the time spent searching for answers, accelerates training and helps resolve issues in real time.

At IFS, we see AI as a strategic enabler of **human performance**—not a substitute for it. The real opportunity lies in using AI to unlock the full potential of every worker on the factory floor.

This resource explores how manufacturers are achieving that vision today, and how your organization can take the next step toward an AI-augmented workforce.

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Manufacturing's New Workforce Reality

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The Talent Crisis isn't coming—It's Already Here.

Manufacturers are facing an unprecedented set of workforce challenges. Talent gaps, turnover and a rapidly aging workforce are colliding with the demands of an increasingly complex, fast-moving production environment.

The result? A deepening disconnect between the skills available on the factory floor and the performance required to stay competitive.

Consider the data:

1 in 3 frontline workers is expected to retire by 2030

Decades of tribal knowledge is set to walk out the door—unless we find better ways to capture and transfer it now.

37% average turnover across manufacturing in 2023

Retention is eroding, even in plants with strong training programs. Burnout, unclear expectations and lack of engagement are major contributors.

Rehiring costs range from 50% to 200% of annual salary

The financial burden of finding, onboarding and training new workers is only growing—and too often, those investments are lost within months.

$1.9 trillion in lost productivity annually due to disengaged employees

Disconnection isn't just a morale issue. It's a bottom-line issue. When workers aren't equipped, informed or empowered, operational performance suffers.

Chapter 1
Manufacturing's New Workforce Reality

The Cracks Are Showing

The traditional methods of training, knowledge sharing and problem-solving are falling short in today's dynamic environments. What used to work–manual SOPs, tacit knowledge sharing, job shadowing–is no longer scalable or consistent enough to meet current demands.

Some of the critical symptoms:

Onboarding takes too long, with new hires struggling to become productive in a reasonable timeframe.

Training is inconsistent, hindering standardization and reducing productivity.

Skills tracking is often manual and outdated, making it hard to identify and close critical competency gaps.

Frontline teams are overwhelmed, lacking easy access to up-to-date procedures or expert guidance when they need it most.

This isn't just a workforce problem—it's a systemic productivity crisis.

A Turning Point for the Front Line

If manufacturers are going to thrive in this new reality, they need a new approach–one that meets workers where they are, equips them with the tools to succeed, and supports them continuously, not just at onboarding.

This is where AI-driven Connected Worker platforms are making a transformative impact.

By digitizing knowledge, identifying skills gaps and delivering real-time support directly to the shop floor, AI enables faster onboarding, smarter upskilling and greater autonomy for every team member, from new recruits to seasoned operators.

In short: The future of workforce performance isn't just digital. It's intelligent. And it's already reshaping the factory floor.

Chapter 2

Defining the AI-Augmented Worker

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Enhancing Human Performance with Intelligent Tools

The idea of an AI-augmented workforce is no longer futuristic. It's already transforming how work happens on the factory floor–quietly, practically and powerfully.

At its core, the **AI-Augmented Worker** is a frontline team member who is supported–not replaced–by smart, embedded technologies. These tools don't automate human ingenuity out of the process. Instead, they equip workers with faster access to knowledge, real-time support and the confidence to solve problems independently.

Poka AI brings this to life in four critical ways:

Knowledge at their fingertips
Workers gain instant access to digital work instructions, SOPs and tribal knowledge generated by AI–anytime, anywhere. This eliminates the delays and inconsistencies of paper-based systems and ensures every task starts from a position of clarity.

Turning tribal knowledge into digital standards
Operators can quickly capture their know-how as digital work instructions, making expertise accessible across teams. Managers see where knowledge lives, spot gaps, and ensure consistency. AI streamlines the process–delivering guidance when and where it's needed.

AI-enhanced communication
With multilingual transcription, auto-enhanced messaging and real-time updates across shifts, AI helps break down language and communication barriers–improving collaboration and inclusion across the workforce.

In-the-moment troubleshooting
When something goes wrong, workers no longer need to wait for help. They simply ask a question and receive the most relevant answers, pulled directly from trusted documentation and past solutions.
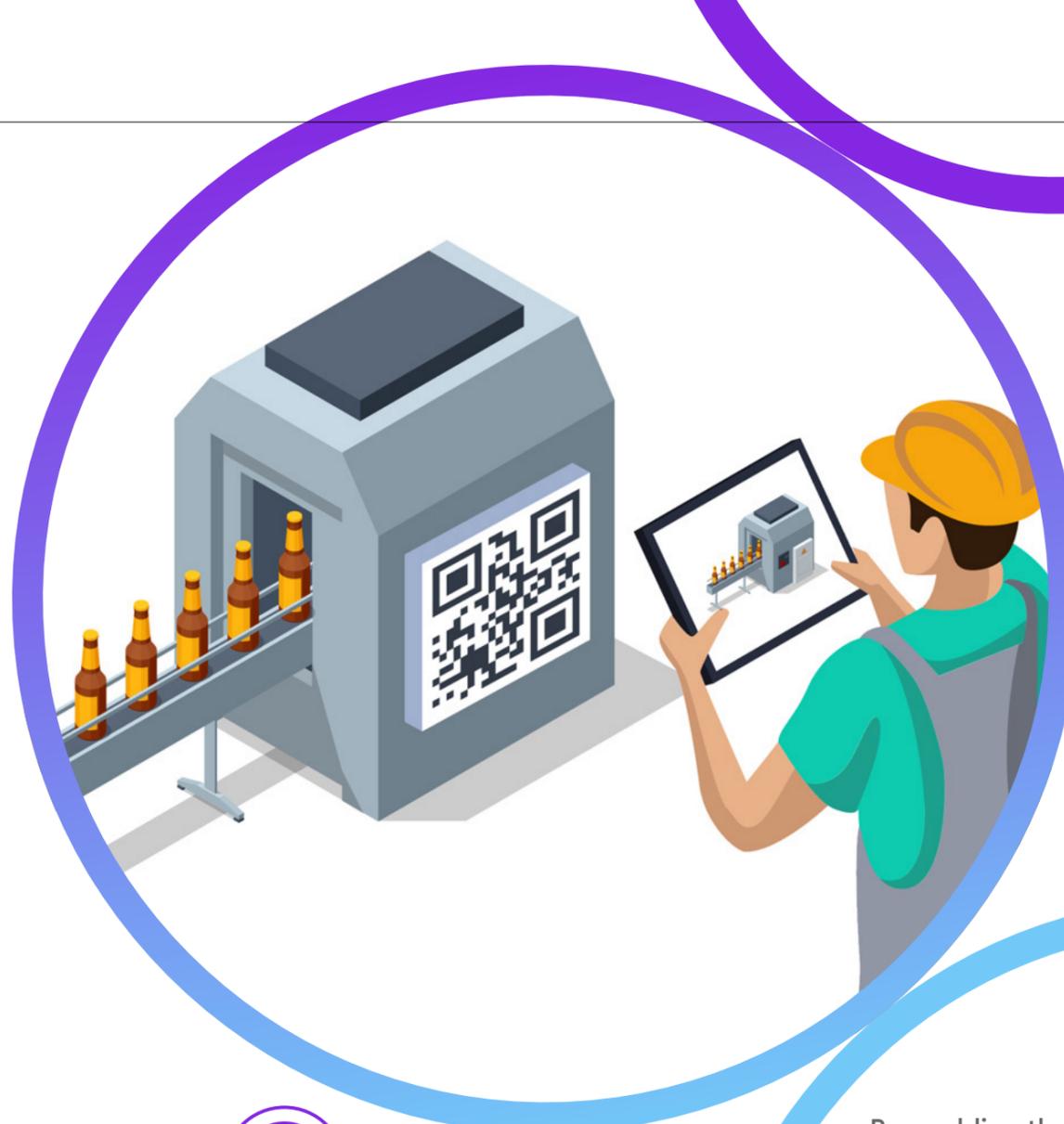
By enabling these capabilities, AI gives workers the tools they need to move faster, stay safe and continuously improve. It enhances the agility, precision, and confidence of the entire frontline—core values of **Industry 5.0**, where the human is central, supported by technology and empowered to lead.

In short, AI makes great workers even better. And the manufacturers who harness it are building smarter, stronger and more resilient operations for the future.

Chapter 3

Strategic Levers: How Industrial AI Delivers Impact

Transforming Standardization, Communication, and Decision-Making on the Factory Floor

Industrial AI is not a layer added on top–it's a set of purpose-built capabilities embedded directly into the workflows your frontline workers already use. It enhances–not replaces– human performance by accelerating knowledge delivery, communication and action.

Here are the key ways AI is transforming manufacturing on the front line:

01

GenAI for Content Creation: Accelerate Standardization and Deployment

One of the biggest barriers to operational consistency is the time and effort required to document and distribute work instructions. Poka AI eliminates this bottleneck.

- **PDF to Work Instructions:** Automatically converts static SOPs into structured, editable digital formats.
- **Video to Work Instructions:** Translates real-world walkthroughs into step-by-step instructions, including image placement and optional language translation.
- **Image to work instructions:** Poka helps transform images–including handwritten notes–into clear, structured digital work instructions.

The Result: Drastically reduced time-to-value, faster rollout of standardized work and improved frontline adoption.

02

AI-Enhanced Communication: Break Barriers, Boost Clarity

Effective collaboration shouldn't be limited by language, literacy or tech confidence. Poka embeds AI directly into everyday communication to remove friction and empower every worker to contribute.

- **Multilingual Transcription:** Auto-translates videos and voice notes into multiple languages.
- **Text Enhancement:** Improves spelling, grammar, and clarity in posts, comments, and issues–instantly.

The Result: Clearer communication across shifts, sites and global teams; more inclusive participation from every worker.

Chapter 3

Strategic Levers: How Industrial AI Delivers Impact

03

Workforce Augmentation: Intelligent Guidance in the Flow of Work

AI isn't just about documents–it's about delivering answers at the moment of need. Poka AI augments the workforce with intelligent assistance baked into the platform.

- **Ask Poka:** Workers ask natural-language questions and get relevant, contextual responses from validated knowledge sources.
- **Smart Search:** Understands vague queries across languages, adapts to terminology and retrieves exactly what's needed– instantly.
- **Coming Soon: AI Co-Pilot:** An assistant that will help facilitate troubleshooting and documenting issues.

04

Designed to Scale: Extensible by Design

Down the line, Poka AI will be more than a tool for frontline optimization–it will be a **strategic data layer** that feeds intelligence back into the enterprise. All content and interactions generated in Poka will enrich corporate LLMs, making the platform a critical source of high-value, contextual manufacturing data.

- Supports integration with enterprise AI ecosystems.
- Feeds contextualized frontline insights to broader analytics tools.
- Future-ready architecture supports agent orchestration and voice input.

05

Built for Trust: Secure, Private, and Enterprise-Ready

Poka AI is developed with security and privacy at its core.

- Data never leaves your environment
- All AI features operate within a secure, enterprise-grade infrastructure
- Designed to uphold transparency, compliance, and trust at scale

AI only delivers value if it's trusted. That's why Poka builds with intentional guardrails, enterprise governance, and secure infrastructure in mind.

Chapter 4

Real-World Results

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Real-World Results

Proof that AI-Augmented Workforces Deliver Measurable Impact

Forward-thinking manufacturers aren't just experimenting with AI—they're already achieving real business outcomes. By embedding intelligent tools into frontline workflows, they're accelerating transformation across productivity, safety, and performance.

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Here's what success looks like in action

Transforming Content Creation at Scale

One of North America's leading building materials manufacturers used Poka AI to dramatically streamline their training documentation process:

1,433
digital work instructions created in just 3 weeks

591 WIs
produced in a single week—an average of 118 per day

Achieved a **10x** acceleration in content creation compared to manual methods

This leap in productivity enabled faster onboarding, higher training consistency, and faster time-to-competency across their sites.

Efficiency Gains A cross the Factory Floor

Customers using Poka's AI-powered platform are unlocking system-wide improvements:

42%
reduction in Onboarding Time

8
Point Increase in OEE

31%
reduction in Downtime

The Bottom-Line Impact

Manufacturers leveraging AI-augmented workers report:

Lower cost per unit

Fewer safety incidents

Greater agility and autonomy on the front line

Faster time-to-value for digital transformation initiatives

The result? A more connected, more capable, and more committed workforce—ready to drive continuous improvement at every level.

Chapter 5

How to Bring AI to the Factory Floor

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How to Start Strong, Scale Fast and See Results Quickly

You don't need to overhaul your entire operation overnight to benefit from AI. The key is to begin with high-impact areas, prove value fast, and build momentum.

01
Start with Content

Digitize the assets you already have. Use AI to instantly convert SOPs, PDFs and training videos into standardized digital work instructions that are easier to access, update, and scale across sites.

Result: Faster onboarding, consistent training, and easier knowledge sharing.

02
Empower Autonomous Search

Give workers the autonomy to find answers in real time with "Ask Poka." This AI-powered assistant helps surface the most relevant procedures, guides or troubleshoot content–no matter how the question is phrased.

Result: Fewer interruptions, quicker resolutions, and a more self-sufficient workforce.

03
Close Training Gaps

Poka's skills management tools provide real-time visibility into workforce competencies–making it easier to identify gaps, assign the right training, and track progress across teams. While AI helps streamline content creation and delivery, it's the centralized Skills Matrix that ensures the right people have the right skills at the right time.
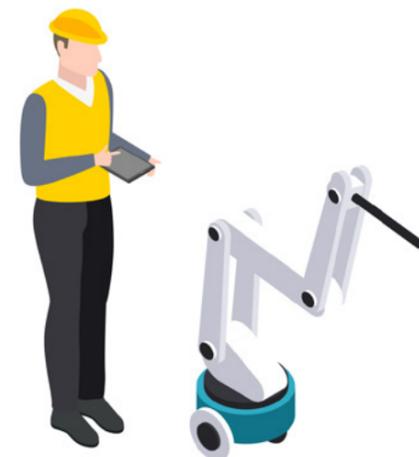
Result: Stronger compliance, faster upskilling and a more confident, capable workforce.
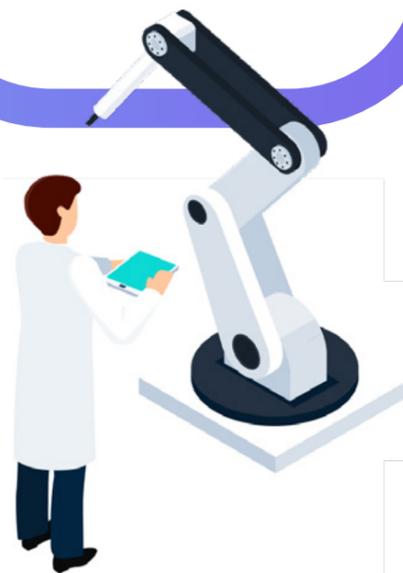
04
Connect Your Workforce

Break down communication barriers with AI-powered transcription, text enhancement and multilingual translation across posts, issues and comments.
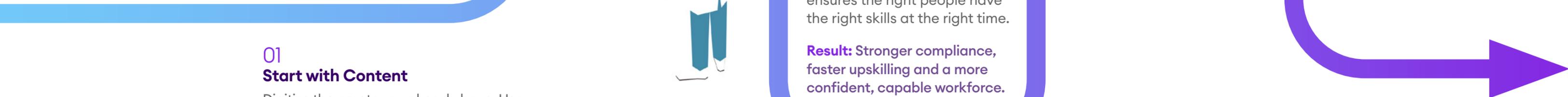
Result: Inclusive collaboration across shifts, languages, and geographies.

05
Measure and Optimize

Use built-in analytics to monitor adoption, spot trends and proactively address performance issues before they escalate.

Result: Continuous improvement driven by real-time insight—not guesswork.

Conclusion

People-Powered.
AI-Enabled.

Conclusion
People-Powered. AI-Enabled.

Reimagining Frontline Work for a More Agile, Connected and Resilient Future

AI isn't just a buzzword–it's a strategic tool for solving real challenges on the factory floor. From onboarding and training to safety, quality, and communication, AI is enabling frontline teams to do their best work with greater confidence, clarity, and speed.

At Poka, we believe technology should serve people–not replace them. That's why our Connected Worker Platform uses AI to augment human expertise, not automate it away. The result is a stronger, more autonomous workforce–one that's ready to adapt, solve problems, and continuously improve.

The path forward is clear:

Invest in your people

Equip them with the right tools

Let AI unlock their full potential

When you do, you don't just get better results—you build a more connected, capable, and competitive manufacturing operation.

The future of frontline work is here. And it's powered by people, enabled by AI.

"

We believe in a future where humans matter, where **optimal manufacturing performance** can be achieved by the seamless augmentation of frontline workers with cutting edge AI capabilities into their daily workflows.

Antoine Bisson
Poka CTO

About Poka

Bring AI to the Factory Floor

Poka AI empowers your workforce with intelligent tools embedded directly into their daily workflows.

- Convert SOPs, PDFs and videos into digital work instructions—instantly

- Enable smarter, faster search with "Ask Poka" AI assistance

- Break language barriers with AI-powered translation and transcription

- Improve communication across shifts, teams and sites

- Scale global operations faster with standardized, AI-augmented content

Discover how Poka can help bring AI to your factory floor.

| **Watch Video**

About IFS

IFS is the world's leading provider of Industrial AI and enterprise software for hardcore businesses that make, service, and power our planet. Our technology enables businesses which manufacture goods, maintain complex assets, and manage service-focused operations to unlock the transformative power of Industrial AI™ to enhance productivity, efficiency, and sustainability.

IFS Cloud is a fully composable AI-powered platform, designed for ultimate flexibility and adaptability to our customers' specific requirements and business evolution. It spans the needs of Enterprise Resource Planning (ERP), Enterprise Asset Management (EAM), Supply Chain Management (SCM), and Field Service Management (FSM). IFS technology leverages AI, machine learning, real-time data and analytics to empower our customers to make informed strategic decisions and excel at their Moment of Service™.

IFS was founded in 1983 by five university friends who pitched a tent outside our first customer's site to ensure they would be available 24/7 and the needs of the customer would come first. Since then, IFS has grown into a global leader with over 7,000 employees in 80 countries. Driven by those foundational values of agility, customer-centricity, and trust, IFS is recognized worldwide for delivering value and supporting strategic transformations. We are the most recommended supplier in our sector. Visit ifs.com to learn why.