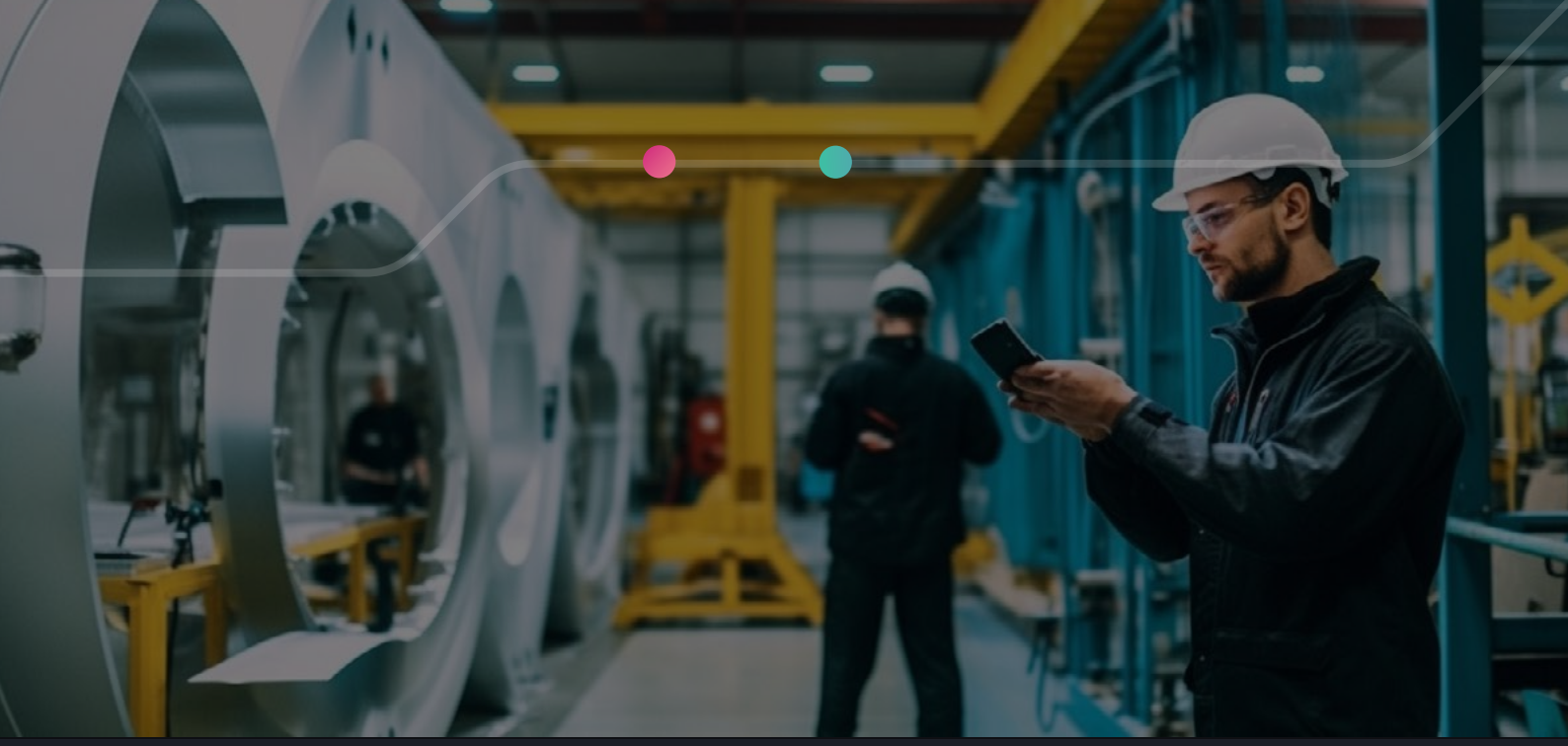

workerbase

Connected Worker: Meeting manufacturing's most pressing challenges

December 2023

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Introduction

Manufacturing as a whole is having to evolve in an environment that is more volatile, uncertain, and complex than ever before. The biggest challenges many manufacturers are facing, as a result, stems from the fact that traditional production systems that were brought in 20 to 30 years ago were built with stability in mind. That makes them **incapable of adapting to today's ever-changing, oftentimes ambiguous market requirements.**

- Outdated, siloed IT architectures make **production processes totally inflexible**, and whilst some manufacturers attempt modern 'facelifts' on the surface, they soon realize that the underlying monolithic code is clunky and limiting.
- Trying to keep up with rapid changes in customer orders or respond to supply chain disruptions is becoming increasingly difficult, as i**mplementing the smallest changes in production operations takes months.**
- Workers were often overwhelmed with the introduction of the first digital tools in the factory. This is because legacy tools simply weren't built with workers in mind, and lack the augmentation and connectivity to fit seamlessly into workflows. End-users e**xpect easy-to-use digital interfaces they can get used to intuitively.**

Overall, most manufacturers today, still, voice concerns about the **lack of transparency in their production process.** Not knowing what's happening on the shopfloor leads to cumbersome workflows that aren't scalable at speed, and leave space for a lot of inefficiencies to creep in.

Embracing technologies that go beyond conventional paradigms allows us to **become more resilien**t. It ensures competitiveness by saving costs, increasing throughput and coordinating workers more efficiently.

Luckily, **Connected Worker solutions have emerged as a beacon, offering a holistic approach to address these challenges** while fostering sustainability, flexibility, and prosperity.

Connected Worker solutions pave the way

By leveraging digital technologies, Connected Worker solutions offer a **strategic pathway to integrate AI into machines and human workflow**s and thus empower frontline operators to work more efficiently. They provide a means to up-skill and re-skill workers, particularly in digital skills, creating a workforce adept at navigating the evolving technological landscape.

Here are some areas of the factory where Connected Worker implementation yields the best results, the quickest:

- **Machines:** Connected workers streamline machine operations, ensuring optimal efficiency, reducing downtime, and integrating AI for increased productivity.
- **Assembly:** The digital thread woven by Connected Worker solutions enhances assembly processes, minimizing errors, and fostering collaboration among workers.
- **Quality and maintenance:** These solutions revolutionize quality control and maintenance by providing real-time monitoring, reducing errors, and ensuring compliance with industry standards.
- **Intralogistics**: Connected workers in logistics benefit from improved collaboration, real-time tracking, and streamlined processes, optimizing the flow of materials and products.

This white paper delves into the facets of **Connected Worker solutions**, exploring how they address challenges and drive prosperity in manufacturing. From streamlined work instructions and continuous improvement to enhanced collaboration, digital checklists, training, and robust quality and compliance measures, Connected Worker solutions offer a **comprehensive framework for a resilient, human-centric, and sustainable future in manufacturing.**

Summary: Navigating the future of manufacturing with Connected Worker solutions

In the ever-evolving landscape of manufacturing, the integration of Connected Worker solutions emerges as a **transformative force, offering unparalleled opportunities for efficiency, precision, and innovation on the shop floor.** This white paper explores the multifaceted impact of Connected Worker solutions, addressing key challenges and charting a path toward manufacturing excellence.

The pressure to build agility is mounting - fast

The manufacturing industry is at a crossroads, compelled to navigate the complexities of successfully delivering a digital transition rooted in sustainability while **placing humans back at the center of the manufacturing process.** The evolving skills and training needs, the imperative to adopt circular production models, and the integration of AI into processes are examples of the multifaceted challenges faced by the industry.

Amid these challenges, empowering workers and growing adaptability to external factors become paramount.

Key highlights

Work instructions: Streamlined and digitized work instructions enhance operational efficiency, offering benefits such as real-time updates, multimedia support, and customizable templates.

Collaboration: Increased transparency, knowledge codification, and real-time updates empower effective collaboration, solving coordination challenges and resulting in improved service levels and reduced costs.

Continuous improvement: Connected Worker solutions drive continuous improvement by providing real-time insights, identifying trends, and facilitating data-driven decision-making.

Checklists: Digital checklists streamline processes, reduce errors, and provide real-time tracking, ensuring adherence to quality standards and facilitating efficient data collection.

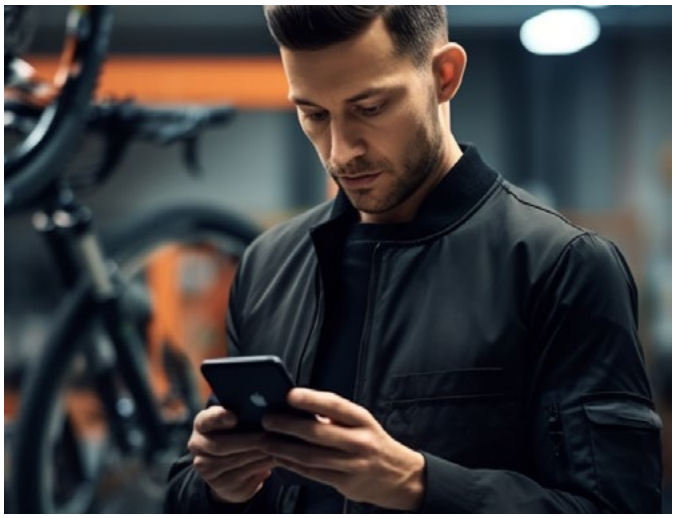
Training and knowledge sharing: These solutions revolutionize training and knowledge sharing, ensuring efficient onboarding, continuous upskilling, and the sharing of best practices.

Quality and compliance: Connected Worker solutions ensure real-time monitoring, robust audit trails, and reduced errors, elevating quality assurance and compliance to new levels.

Change management: A comprehensive change management strategy, rooted in clear communication, stakeholder involvement, and user-centric design, is crucial for successful implementation.

Workerbase: More than a Connected Worker platform

Workerbase's platform stands out as a comprehensive solution tailored to the unique needs of the manufacturing sector. It doesn't just connect the workforce; it u**nlocks the potential of data for informed decision-making and operational optimization.** With powerful process automation capabilities, a low-code app builder, robust data connectors, data analytics, and a commitment to governance and compliance, Workerbase seamlessly integrates human expertise with advanced automation to transform outdated and inflexible production systems into **agile, transparent, and worker-centric environments**. It's most importantly purpose-built for the manufacturing industry and tried and tested at some of the world's largest manufacturers.



Road To digitalisation

As organizations move forward, the rules to digitize the shop floor outlined in this paper provide a strategic framework, emphasizing the importance of user-centric approaches, careful challenge selection, and placing the workforce at the center of the transformation. The journey toward manufacturing excellence, guided by these insights and innovations, promises a **future where connectivity, data, and human expertise converge to forge a resilient and agile manufacturing landscape.**

Work instructions in the Digital Age

One pivotal aspect of Connected Worker solutions is the evolution of work instructions. Traditionally confined to paper manuals or isolated digital systems, **work instructions are undergoing a digital metamorphosis**, becoming dynamic, interactive, and accessible in real-time.

Digital work instructions enhance productivity and quality

The transition from static work instructions to dynamic, digitally-driven guidance provided in context brings forth a whole host of benefits. Most importantly, they play a huge role in **increasing productivity and reducing errors on the shopfloor.** With real-time access to up-to-date, step-by-step instructions, workers can perform tasks more efficiently, minimizing downtime and optimizing production processes. When compared to folders of paper instructions or PDF guidance, **the digital format can be edited quickly whenever required, ensuring the workforce operates with the latest information, ultimately enhancing the quality of outputs.**

Key features for digital work instructions

If you're looking for Connected Worker solutions to optimize work instructions, here are some key features that are paramount:

- **User-friendly** interfaces that facilitate easy comprehension
- **Multimedia** integration for visual aid
- **Adaptability** to various smart devices
- Ability to **incorporate feedback** loops, ensuring continuous improvement in instructions
- Ability to **turn data input into follow-up workflows** that automatically coordinate tasks
- Integration with **AI-based third-party systems** to combine human and artificial intelligence
- Most importantly, look for solutions that offer customizable templates to suit diverse manufacturing processes, and can therefore **integrate seamlessly into your existing workflows.**

Example

Boosting assembly line efficiency

Consider a manufacturing scenario where assembly line operations are a critical determinant of overall productivity. Connected Worker solutions introduce a digital work instruction system that provides assembly line workers with **instant access to step-by-step guidance, visual aids, and supplementary multimedia elements**. In this context, the benefits are tangible – the assembly process becomes more streamlined, errors are reduced, and workers can adapt swiftly to changes in production requirements. The result is not just efficiency but an elevated standard of quality in the final product.

A strategic approach to making the first step towards digital work instructions

01 **Map out your processes:** Begin by comprehensively mapping existing processes that would benefit from digital work instructions and connected workflows. Identify bottlenecks, frequent changes, or areas prone to errors.

02 **Consider where you're starting from:** Ensure compatibility with existing systems and a smooth transition from traditional methods to digital instructions.

03 **Detail the technical roadmap:** Develop a detailed technical roadmap that outlines the implementation process. This should include considerations for data security, user access, and system scalability.

04 **Embed this project within your digital transformation strategy:** Integrate the digitalization of work instructions into the broader digital transformation plan of the organization. Ensure alignment with overarching goals and strategies.

05 **Drive user adoption:** Successful implementation ultimately hinges on user adoption. Involve end-users early on, and implement training programs, workshops, and incentives to instill a digitally-focused culture among the workforce.

Transforming collaboration in manufacturing through a connected workforce

Collaboration stands as a cornerstone of operational efficiency and excellence. Connected Worker solutions elevate collaboration between humans, machines, and systems by introducing a dynamic and interconnected ecosystem that transcends traditional boundaries.

The benefits of augmenting collaboration with Connected Worker tools are far-reaching

Increased transparency throughout the manufacturing process

Connected Worker solutions break down silos, providing real-time visibility into every stage of the manufacturing process. This transparency fosters a holistic understanding of operations, enabling informed decision-making.

Knowledge sharing

By codifying institutional knowledge and expertise within a digital framework, organizations can mitigate the risks associated with employee turnover and ensure a continuous transfer of skills and best practices.

Real-time updates and reporting

The ability to access real-time updates and reporting empowers stakeholders with timely information. This not only streamlines decision-making but also allows the flexibility for rapid adaptation to changing circumstances.

Root-cause investigation
Connectivity enables thorough root-cause investigations, helping organizations identify and address the underlying issues and bottlenecks contributing to inefficiencies or quality concerns.

Operational processes with high collaboration potential
Certain operational processes inherently benefit from effective collaboration. Connected Worker solutions identify and streamline these processes, optimizing overall efficiency.

Speedy problem resolution
Poor coordination too often leads to delays in problem resolution. Enhanced collaboration accelerates the identification and resolution of issues, minimizing disruptions to the manufacturing workflow.

Better for business
The domino effect from better problem-solving extends to improved service levels, increased customer satisfaction, and a notable reduction in the cost of quality, particularly the scrap rate.

Example

Collaboration reduces downtime and quality costs in maintenance

Consider the maintenance department within a manufacturing facility as an example use case for collaboration enhancement through Connected Worker solutions.

Reduced mean-time-to-repair: The implementation of Connected Worker solutions in maintenance leads to significant reductions of mean-time-to-repair (MTTR)

Increased value-added task time: Workers, freed from lengthy downtime and slow response times, spend an additional 5% to 10% of their time on value-added tasks, significantly boosting productivity.

Decreased annual maintenance spend: The annual maintenance spend as a percentage of the Replacement Asset Value (RAV) sees a substantial decrease by 5% to 10%, indicating a more efficient allocation of resources.

Key collaboration features in Connected Worker platforms

Key capabilities in a Connected Worker solution that can supercharge collaboration include:

- **Real-time communication tools:** Facilitate instant communication among workers, promoting swift information exchange and issue resolution.
- **Knowledge management systems:** Enable the codification and accessibility of institutional knowledge, ensuring a continuous transfer of skills and best practices.
- **Task management features:** Streamline workflows by providing tools for organizing and tracking tasks to enhance overall efficiency.
- **Cross-functional collaboration platforms:** Foster collaboration among different departments and functions, breaking down silos and promoting a holistic understanding of operations.

How to start supporting collaboration efforts with a Connected Worker platform

Here are the first steps you can take if you're considering how to implement a Connected Worker solution to improve collaboration:

01 **Identify operational processes** with high collaboration potential, focusing on areas that can yield significant efficiency gains.

02 **Shortlist the Connected Worker solutions** that cater to your collaboration needs. Ensure compatibility with existing systems for a seamless transition.

03 **Develop a technical roadmap** outlining the implementation process, addressing potential challenges, and ensuring scalability.

04 **Integrate collaboration enhancements** into the broader digital transformation plan. Align with organizational goals and strategies.

05 **Implement training programs** and incentives to foster a culture of collaboration among the workforce, ensuring successful adoption and utilization of the Connected Worker solution.

Elevating operational excellence with Connected Worker continuous improvement tools

As industries seek to transition into the digital era with as few disruptions to operations as possible, Connected Worker solutions have emerged as vital in fostering a culture of continuous improvement. Much more than that, Connected Worker solutions is redefining this lean manufacturing concept, offering a real-time and data-driven approach that goes beyond incremental gains. It's about creating a nimble and adaptive environment where improvement is not just an initiative but a fundamental aspect of everyday operations.

Connected Worker enables continuous improvement

Integrating Connected Worker solutions into the continuous improvement framework reaps serious benefits.

Iterative process enhancement
Connected Worker solutions empower organizations to continuously enhance their processes by providing real-time data analytics, identifying bottlenecks, and suggesting improvements.

Dynamic feedback loops
Establishing responsive feedback loops ensures that insights from the workforce contribute to ongoing improvements, fostering a culture of collaboration and innovation.

Performance analytics
Leveraging data analytics, organizations gain deep insights into the performance of various processes, enabling informed decision-making and targeted improvements.

Fast adaptation to change
The agility afforded by real-time information allows organizations to adapt swiftly to changes in market demands, regulatory requirements, or internal dynamics

Example

Digital shift handover workflows for continuous improvement

Picture a manufacturing facility trying to **smoothen the shift handover process**. With a Connected Worker solution in place, all activities are tracked and documented during a shift. When the time comes to handover, tasks are automatically assigned based on skill sets and priority to ensure that all the information is passed along and nothing gets missed. **Operators can review images, voice notes, videos attached to open issues, and then get straight to work guided with step-by-step instructions** on their smart device. What's more, customized dashboards and reports on real-time insights means supervisors, managers and executives always have 100% visibility of what's going on during each shift.

Key Connected Worker features for continuous improvement

When considering Connected Worker solutions for continuous improvement, several key features are instrumental:

- **Performance analytics and reporting:** Robust analytics tools that provide real-time performance metrics and comprehensive reporting capabilities.
- **Feedback mechanisms:** Platforms that facilitate feedback from workers at all levels, promoting a culture of collaboration and continuous improvement.
- **Integration capabilities:** Seamless integration with existing systems to ensure a unified and comprehensive approach to continuous improvement.
- **Customization and flexibility:** Solutions that are customizable to the unique needs of the organization, allowing for flexible implementation and scaling.

How to start using Connected Worker capabilities to drive continuous improvement

- Clearly **articulate the improvement goals** you want to achieve, whether it's reducing defects, increasing throughput, or enhancing efficiency.
- **Start small** by implementing iterative changes in specific processes. This approach allows for quick assessment of the impact and fine-tuning of strategies.
- **Leverage performance analytics tools** to gain insights into existing processes, identify areas for improvement, and track the impact of changes.
- **Implement feedback mechanisms** to capture insights from the workforce. This can include surveys, suggestion boxes, or digital platforms for real-time feedback.
- **Promote a culture of continuous improvement** within the organization by recognizing and rewarding innovative ideas, fostering collaboration, and providing ongoing training on improvement methodologies.

"Workerbase makes the whole shopfloor more dynamic, more agile. We are much quicker in reacting to the ups and downs every production has."

Paul Mairl
CDO, GKN PM

Next-generation checklists ensure conformance

Checklists have been a staple in manufacturing for ensuring procedural adherence, and their digitization through Connected Worker solutions opens up a new realm of benefits. Done right, they elevate precision, enhance efficiency, and contribute to overall operational excellence.

Digital checklists: from static pen-and-paper solutions to real-time data goldmines

Closer adherence to processes
Paperless checklists streamline and standardize operational processes, reducing the likelihood of errors and ensuring that tasks are executed consistently.

Real-time tracking
The transition to digital checklists allows for real-time tracking of tasks, providing immediate insights into progress and completion status.

Customizable templates
Digital checklists are not static. They empower organizations to tailor checklists to specific processes and adapt them to changing requirements with little effort.

Low-effort data collection
Digital checklists facilitate efficient data collection, enabling organizations to gather valuable insights into operational performance and compliance.

Example

Quality control checklists

Consider a manufacturing scenario where adherence to quality standards is paramount. Digital checklists within Connected Worker solutions can be employed in quality control processes. Workers utilize tablets or mobile devices to access detailed checklists outlining specific quality criteria. As each criterion is met, the checklist is updated in real-time, providing supervisors with instant visibility into the quality assurance process. **Any deviations or issues are flagged immediately, and follow-up workflows are automatically triggered by the systems**, allowing for swift corrective actions.

Key Connected Worker features for digital checklists

When integrating checklists as part of a Connected Worker solution, these are the capabilities that will enhance their effectiveness:

- **Customizable templates:** The ability to create and modify checklist templates to align with specific processes and evolving requirements.
- **Real-time updates:** Ensuring that checklists are updated in real-time, allowing for immediate visibility into task completion status.
- **Multimedia support:** Integration of multimedia elements such as images or videos within checklists for clearer guidance and documentation - and breaks down language barriers.
- **Offline accessibility:** The capability for workers to access and complete checklists in offline environments, ensuring uninterrupted operational processes, even if the network doesn't reach all corners of the factory.
- **Automatic coordination of follow-up actions:** Ability to turn data input into follow-up workflows that automatically coordinate co-workers
- **Integration with AI-based third-party systems:** leverage artificial intelligence to create checklists, assess data quality, and continuously improve quality workflows

Transitioning from Paper to Digital checklists

Here's a starting point:

01 **Identify critical checkpoints** in your operational processes where checklists can enhance adherence and quality.

02 **Design checklists:** Develop comprehensive checklists that encompass all necessary criteria. Ensure that these checklists are clear, concise, and aligned with organizational goals.

03 **Integrate digital checklists into workflows:** Seamless integration into existing workflows is crucial. Choose a Connected Worker solution that facilitates easy integration and compatibility with your current systems and machines.

04 **Employee training:** Emphasize the benefits and the importance of adherence to the new digital process early on. Provide thorough training to employees on how to use digital checklists.

05 **Continuous improvement:** Regularly review and update checklists based on feedback and changing operational requirements. Encourage workers to provide insights for continuous improvement. As seen in a previous section, Connected Worker solutions can also help you embed continuous improvement into your digital workflows by design.

Empowering the workforce for excellence with training and knowledge sharing

In the fast-evolving landscape of manufacturing, the need for continuous training and effective knowledge sharing is pivotal. Connected Worker solutions have **transformed training methodologies, ensuring that the workforce remains adept, informed, and ready to tackle the challenges of modern manufacturing.**

Connected Worker solutions build competence and agility

The integration of training and knowledge sharing within Connected Worker solutions positions organizations to thrive in the face of change:

Faster onboarding
Streamlined onboarding processes ensure that new employees quickly learn workflows, reducing the time it takes for them to become productive contributors. It also makes it easy to quickly onboard a current employee onto another line or station when help is needed.

Continuous upskilling
Connected Worker solutions facilitate ongoing training programs, allowing employees to continuously upskill, adapt to new technologies, and stay abreast of industry best practices. This boosts employee engagement and, in turn, motivation.

Information retention
Incorporating multimedia elements into checklists such as videos and interactive content enhances the learning experience, caters to diverse learning styles, and improves information retention.

Progress tracking
Real-time tracking of employees' training progress provides managers with insights into the effectiveness of training programs and can help identify quickly areas that may require additional focus.

Best practices sharing
Connected Worker solutions create a platform for employees to share and disseminate best practices, fostering a collaborative environment where knowledge and expertise are shared across the organization.

Example

Context-based training modules for assembly workers

Imagine a manufacturing facility introducing a new assembly process for a complex product. Connected Worker solutions can **deploy context-based training modules accessible through mobile devices or on-site terminals.** These modules provide step-by-step instructions at the time they are needed, visualizations, and interactive multimedia elements to simulate the assembly process. **Workers can engage with training materials, reducing the learning curve and ensuring a smooth transition to the new process.**

Key Connected Worker capabilities for knowledge sharing

When evaluating Connected Worker solutions for training and knowledge-sharing initiatives, these are some key features to look out for:

- **Multimedia support:** Platforms that allow the integration of multimedia elements, providing a rich and engaging learning experience.
- **Adaptive learning paths:** Personalized training paths that adapt to individual employee skills and knowledge levels, ensuring targeted and efficient learning.
- **Real-time feedback:** Systems that provide real-time feedback on training performance, allowing for immediate correction and improvement.
- **Integration with existing systems:** Seamless integration with existing learning management systems or training platforms for a unified approach to employee development.

How to rollout a Connected Worker solution for knowledge management

- **Identify training needs:** Conduct a thorough assessment to identify areas where training and knowledge sharing can enhance operational efficiency and employee competence.
- **Develop context-based modules**: Create engaging and interactive training modules accessed on the job that cater to the identified needs. Ensure these modules align with organizational goals and industry standards.
- **Implement adaptive learning:** Leverage Connected Worker solutions that offer adaptive learning paths, tailoring training programs to individual employee needs, skill levels, and the task at hand.
- **Employee familiarization:** Conduct workshops and training sessions to familiarize employees with the new training platform. Highlight the benefits and provide resources for self-learning.
- **Provide training and best practice sharing in context:** Having employees sit through a whole unit of training modules may not always yield the best results. Provide training and access to best practices at the workstation - for example through a video demo or checklist displayed as the worker scans a part.
- **Continuous improvement:** Regularly assess the effectiveness of training programs, gather feedback from employees, and make iterative improvements to the content and delivery methods.

Implement standards across factories

Connected Worker solutions contribute to **precision and adherence to standards** across multiple sites and factories.

Connected Worker for better adherence to corporate standards

The incorporation of Connected Worker solutions in the realm of quality and compliance reinforces the commitment to delivering products and services that meet or exceed corporate standards.

Real-time monitoring of multiple sites
Connected Worker solutions enable real-time monitoring of manufacturing processes, ensuring that quality standards are consistently maintained throughout production and across multiple sites.

Robust audit trails
Digitalization facilitates the creation of audit trails, providing a comprehensive record of every step in the manufacturing process. This is invaluable for compliance purposes and quality assurance.

Reduced errors
By automating and standardizing quality control processes, the likelihood of human errors is significantly reduced, resulting in higher product quality and compliance with corporate regulations.

Key Connected Worker capabilities for quality and compliance

Here are some core capabilities you should have front of mind when considering Connected Worker solutions for a quality and compliance project:

- **Templating:** Create standardized templates for various processes and workflows to ensure consistency across different tasks and operations at multiple factory sites.

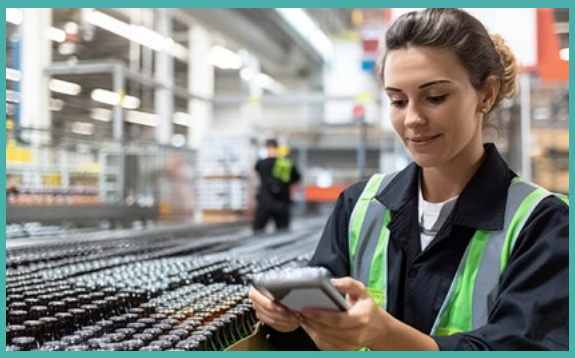
- **Role-based access control:** Administrators can assign specific roles and permissions to different users based on their responsibilities and requirements. This ensures that only authorized personnel have access to certain functionalities or data within the platform.

- **Incremental data backups:** Regularly back up the data that has changed since the last backup. This incremental approach helps optimize storage space and reduces the time required for backup processes.

- **Create and share best-practice workflows:** Facilitate standardized knowledge sharing across different teams and locations to boost adoption of best practices, and in turn improve efficiency, quality, and consistency.

Example

Automating compliance checks



Consider a scenario where a manufacturing facility is subject to stringent regulatory compliance requirements. Connected Worker solutions can **automate compliance checks by embedding regulatory criteria into the digital workflow.** As each step is executed, the system performs real-time checks, flagging any deviations from compliance standards. This not only ensures adherence to regulations but also expedites the identification and rectification of non-compliance issues.

A methodical implementation approach for quality and compliance

Here's how you can get started and ensure a seamless transition whilst maximizing the benefits:

- **Pilot implementation:** Consider a pilot implementation in a specific area or product line to test the effectiveness of the Connected Worker solution. Gather feedback from users as early as possible, and make necessary adjustments.
- **Establish best practices and templates:** Develop comprehensive documentation outlining best practices and create templates for using the Connected Worker solution. This should serve as a reference guide for both users and administrators.
- **Scale across operations:** Once the pilot phase is successful, scale the implementation across the entire manufacturing operation, rolling out to multiple sites.
- **Improve continuously:** Monitor performance, gather ongoing feedback, and continuously refine the system for optimal results.

The foundations of change management

The introduction of Connected Worker solutions in a manufacturing environment heralds a transformative journey, requiring a strategic approach to change management. Successfully navigating this landscape is essential to ensuring a **smooth transition, acceptance, and optimization of the new digital workflows**. In this section, we explore the foundational aspects of change management in the context of a Connected Worker implementation project.

Get the foundations of change management right

Communicate clearly
Transparency and clear communication are foundational to successful change management. From the outset, communicate the reasons behind the implementation of Connected Worker solutions, emphasizing the benefits they bring to individuals and the organization as a whole.

Involve stakeholders at all levels
Involve key stakeholders in the decision-making and implementation processes. Engage with frontline workers, supervisors, and management to gather insights, address concerns, and foster a sense of ownership in the change.

Train staff and develop digital skills
Equip the workforce with the skills necessary to navigate the new digital landscape. Comprehensive training programs should be tailored to different roles, ensuring that individuals feel confident and capable in utilizing the Connected Worker solutions effectively.

Identify your change champions
Identify and empower change champions within the organization. These individuals play a crucial role in advocating for the benefits of Connected Worker solutions, providing peer support, and encouraging a positive attitude toward the transformation.

Establish feedback mechanisms from the onset
Establish ongoing feedback mechanisms to capture insights and concerns from the workforce. This not only helps in addressing issues promptly but also demonstrates a commitment to continuous improvement based on user experiences.

Roll out the solution gradually
Consider a phased or gradual rollout of Connected Worker solutions rather than a sudden, organization-wide implementation. This allows for smoother adaptation, reduces the risk of disruptions, and provides opportunities to fine-tune the system based on initial feedback. Scaling based on previous, quantifiable wins will also help you gain the buy-in you need to continue the roll-out.

Celebrate successes
Acknowledge and celebrate milestones and successes achieved through the implementation of Connected Worker solutions. Recognizing the positive impact reinforces the value of the changes and motivates the workforce to embrace further transformations.

Incorporating Change Management into Connected Worker Implementation

When introducing Connected Worker solutions in a factory, change management should be an integral part of the implementation plan.

- **Needs assessment:** Conduct a thorough needs assessment to understand the specific challenges and opportunities within the organization that Connected Worker solutions can address.
- **Tailored training programs:** Develop training programs that are tailored to the needs of different user groups. Consider hands-on workshops, simulations, and ongoing support to ensure a smooth transition.
- **Communication plan:** Develop a comprehensive communication plan that outlines the objectives, benefits, and timelines of the Connected Worker implementation. Ensure that this plan is consistently communicated through various channels, and at all levels of the company.
- **Place humans at the heart:** Involve end-users in the design and testing phases. Their input is invaluable in refining the user interface, identifying potential challenges, and building a sense of ownership. At the end of the day - the project will only be successful if the Connected Worker solutions are used consistently and correctly by frontline workers.
- **Pilot programs:** Implement pilot programs in specific departments and areas of the factory. This allows for real-world testing, feedback collection, and adjustments before a full-scale rollout.
- **Continuous monitoring:** Establish mechanisms for continuous monitoring of user satisfaction, system performance, and overall impact. Regularly solicit feedback and make iterative improvements based on the evolving needs of the workforce. Make sure you communicate those changes back.

Change management is not a one-time event but an ongoing process that evolves with the organization's digital transformation journey. **By prioritizing the foundations of change management, organizations can foster a positive and adaptive culture, ensuring the successful integration of Connected Worker solutions** into the fabric of the manufacturing environment.

Digitizing your factory? Follow these Golden Rules

As organizations embark on the journey of digitizing their shopfloor, the following seven guiding principles can help navigate the complex landscape of digital transformation in the manufacturing industry.

Bring the consumer's reality into the realm of industry
Embrace the user-centric approach prevalent in consumer technology. Prioritize user experience and design solutions that resonate with the daily reality of your workforce.

Select the right challenges
Identify the challenges that, when addressed, will have the most significant impact on operational efficiency and outcomes. Focus on areas where Connected Worker solutions can bring tangible improvements.

Place your workforce at the center
Recognize that the workforce is a crucial driving force in digital transformation. Involve them in the decision-making process, listen to their insights, and prioritize solutions that elevate their capabilities and experiences. Actively seek and value the feedback of your workforce. Their experiences and insights are invaluable in shaping the success of your digital transformation journey.

Weigh your options smartly
Evaluate different technologies and solutions thoughtfully. Consider scalability, compatibility with existing systems, and long-term benefits. Choose solutions that align with your organization's goals and growth trajectory.

Select the most promising operational area to start your journey
Begin your digital transformation journey in a focused and strategic manner. In other words: start small. Select an operational area where the impact of Connected Worker solutions will be most pronounced, allowing for a gradual and effective rollout.

Connecting your workforce is the only the means to an end
Bear in mind that the connectivity of your workforce is a strategic means to unlock valuable data. Don't stop at the first, false summit. Leverage this data to gain insights, optimize processes, and drive informed decision-making across the organization.

Gain the trust of your stakeholders
Start with manageable and achievable steps. Small-scale implementations not only minimize disruptions but also provide a foundation for scaling up as confidence in the digital transformation process grows.

"With Workerbase, our operators get all their jobs displayed directly on their smartwatch, real-time. We can show all the information they need on one screen."

Marco Eckert
Planning Engineer, Porsche

Connect frontline workers, automate processes, and make work flow with Workerbase

At the core of Workerbase's solution is a commitment to placing the workforce at the center of digital transformation while **unlocking the full potential of data-driven insights.**

Technology alone will only get you so far - the fusion of human connection with smart automation is what powers true productivity. **Collaboration, not soulless automation, is the key to unlocking unparalleled productivity and innovation.**

Workerbase accelerates factory responsiveness to market shifts by connecting workers and automatically coordinating work. It's the Connected Worker platform purpose-built for the manufacturing industry that s**eamlessly integrates human expertise with advanced automation to transform outdated and inflexible production systems into agile, transparent, and worker-centric environments.** The positive impact on production operations is considerable and tangible from day one:

- **Resilience**: Quickly adapt production processes to fast-changing market conditions
- **Worker-centricity**: Boost productivity by empowering workers
- **Business continuity**: Bring flexibility to the shopfloor IT architecture, and ensure the factory keeps running even as you move systems to the cloud

Workerbase delivers this value by:

1. Making processes fully adaptable with Dynamic Process Execution
Connected worker and process automation software that integrates humans, AI, machines, and legacy software into one environment

2. Enabling quick time-to-value through fast implementation
Proven application templates can be adjusted to individual requirements using a low-code app studio, and deployed within hours.

3. Bringing human-centricity to both software and hardware
Easy-to-use software frontline workers love, built to run on industrial-grade smart devices robust enough for the task at hand.

4. Unifying all your systems into one platform to gain visibility of your operations
Uncover in real-time the bottlenecks that are costing your business, and gain a complete view of your operations by implementing Workerbase as the one-stop-shop frontend for all your systems.

The engine powering the Workerbase platform comprises of:

- **Process automation:** Execute stable and scalable workflows based on configurable business rules, trigger workflows without manual intervention when the previous phase completes and automatically assign corrective actions when processes are disrupted.
- **Low-code app builder:** Organizations are empowered to tailor applications to their specific needs without extensive coding expertise. This flexibility ensures that the solution evolves seamlessly with changing operational requirements.
- **Data connectors:** The platform's robust data connectors facilitate seamless integration with existing systems and machines, allowing for a unified and comprehensive approach to data management. This integration ensures that organizations can leverage their data efficiently.
- **Data analytics:** Organizations can go beyond mere connectivity to gain deep insights into operational performance, identify trends, and make informed decisions based on real-time data.
- **Governance & compliance:** The platform is designed with security and regulatory standards in mind, ensuring that sensitive data is handled with the utmost care and in adherence to industry regulations.

Workerbase is not just a technology provider but a trusted partner in the digital transformation journey. With a **commitment to user-centric design, robust data management, and compliance,** Workerbase aligns seamlessly with the principles outlined in the previous sections of this white paper.

Workerbase's Connected Worker solution is a strategic enabler of manufacturing excellence, empowering organizations to leverage connectivity, data, and user-centric design for more efficiency and innovation on the shop floor.

Forging a Future of Manufacturing Excellence

In the landscape of modern manufacturing, the integration of Connected Worker solutions is not just a technological upgrade but a strategic imperative.

By embracing Connected Worker solutions, **organizations stand to benefit from streamlined work instructions, enhanced collaboration, continuous improvement, precise checklists, and effective training and knowledge sharing.** Quality and compliance become not just benchmarks but dynamic aspects of the manufacturing process, ensuring that products meet the highest standards.

Change management emerges as a critical pillar, guiding organizations through the transformative journey. The rules to digitize the shop floor provide a compass for decision-making, **emphasizing the importance of user-centric approaches, careful selection of challenges, and placing the workforce at the center of digital transformation.**

Workerbase's Connected Worker solution stands out as an exemplar in this landscape. With process automation, a low-code app builder, robust data connectors, data analytics, and a commitment to governance and compliance, Workerbase **offers a holistic platform tailored to the unique needs of the manufacturing sector.** It doesn't just connect the workforce; it unlocks the potential of data for informed decision-making and operational optimization.

As organizations move forward, these principles and solutions pave the way for a future where the shopfloor is not just connected but smart, responsive, and continuously evolving. **The digital transformation journey in manufacturing, guided by the insights and innovations presented here, promises a future where excellence is not just a goal but a reality forged through the synergy of technology and human expertise.**

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Visit workerbase.com to discover what you can achieve with a Connected Worker tool.

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Increase throughput | Reduce quality costs | Improve productivity