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# Mitigating Labor Shortages Through Digitized Plant Management

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How to Attract, Engage, and Retain Talent To Promote Growth Amid Manufacturing's Digital Transformation



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# Introduction

**“In the face of labor shortages and increasing demand, a plant’s ability to drive efficiency and productivity is more important than ever.**

– Brian Sharp, President of  
SafetyChain Software

The manufacturing industry is at a crossroads. A digital transformation in manufacturing that will create an influx of job openings for skilled workers is set against the backdrop of an ongoing labor shortage amplified by the COVID-19 pandemic.

Before the pandemic, a 6 million worker shortage was projected by 2030 and isn’t going away anytime soon. Rapidly advancing technology in the industry is projected to create an estimated 3.5 million new manufacturing jobs by 2025, particularly in highly skilled and specialized areas. According to Deloitte, the manufacturing industry is currently on track to fill just 1.5 million of those jobs. Additionally, a reported 2.6 million baby boomers will exit the manufacturing industry by 2030. Their retirement will only exacerbate the labor shortage issue.

Luckily, the modernized processes and new tools rooted in the industry’s digital transformation will brand future job openings as more favorable than in the past. However, the newest technology doesn’t mean much if getting your product out the door takes too much time, wastes valuable labor, and ruins profit margins. The ability to attract, engage and retain a skilled workforce is what will sustain a profitable business during the manufacturing industry’s digital era.

In this guide, we’ll identify how a digital transformation should be recognized and leveraged as a way to cultivate a strong workforce. The right approaches will ensure your business can develop skills efficiently and preserve them to avoid sunk costs. Read this guide to understand:

- The ways factories contribute to their ongoing labor shortage
- The factors that attract enthusiastic entry-level and experienced workers
- The value of training in a way that upskills new workers and engages experienced ones
- The methods to retain the talent you’ve worked to attract and develop
- The tools other manufacturers have used to help mitigate labor shortages while overcoming common plant management obstacles

# Mitigating Labor Shortages:

## Strategies to Attract, Engage, and Retain Workers



Manufacturers report that finding the right talent is

**36%**

harder than it was four years ago.

Job openings are at record highs and remain impossibly difficult to fill. While the COVID-19 pandemic shed light on the issue, labor shortage issues in the manufacturing industry are anything but new.

The rising generation of workers is more hesitant to pursue jobs in manufacturing due to preconceived notions about the industry and different career priorities than previous generations.

Experienced workers are more prone to leave their current organization in favor of jobs that further their careers, develop new skills, and offer a better work environment.



Between a rising workforce hesitant to join the manufacturing industry and the baby boomer generation steadily exiting the workforce, manufacturers report that finding the right talent is 36% harder than it was four years ago.

Manufacturing is also becoming more technical, and the skill level needed to keep production moving efficiently is going up. Without hiring that adjusts to this shift, manufacturers could face up to 2.1 million unfilled jobs between now and 2030.

## Attract

High demand and short supply of both skilled and entry-level workers means that manufacturers must identify why workers shy away from the manufacturing industry and reapproach how to attract the right talent.

### Change Job Perceptions

Many entry-level workers view manufacturing jobs as lacking in opportunity to build a fulfilling, long-term career. There are also concerns regarding safety on the job, lack of workplace flexibility, and the age-old fear that robots will eventually make manufacturing jobs a thing of the past.

To attract the talent they need, manufacturers must communicate that the industry is changing for the better – the increase in technology and software is creating more opportunities for entry-level workers to build life-long, fulfilling careers and will support workplace flexibility.

Far from making manufacturing jobs obsolete; robots, wearable technology, and digital plant management has increased the demand for skilled workers that can operate the complex Internet of things (IoT) that make up production lines.

### Investing in Modern Tools and Technology Creates a Competitive Edge

45% of workers reported they would consider leaving their current company to work for organizations with digital environments and tools.

Manufacturers that invest in modernization, such as digital data capture and programmatic documentation, can attract a wider group of workers who use technology, such as smartphones, in their daily lives. Using software and tools that are already familiar, such as smartphone and tablet-based software, cuts down on training time for both entry-level and experienced workers by implementing devices that your workforce already uses on a day-to-day basis.

As manufacturing continues to move further towards digitization, businesses can attract the talent they need at any experience level by providing skill training and using entry-level jobs as a launching pad for technology-centric careers. However, successfully attracting an enthusiastic workforce and developing their skills won't be sustainable if those workers don't stay.



## Engage and Retain

As manufacturers continue to evolve toward digitized plant operations, retaining skilled team members will require thoughtful training. Failure to prioritize training is costly. A study by IBM showed that failure to provide adequate training can cost companies 10–30% of their original capabilities every year, and a loss of 41% of staff within three years.

On the other hand, companies that offer comprehensive training have a 218% higher income per employee and a 24% higher profit margin than companies that choose not to invest in thorough training. The U.S. Bureau of Labor shows that employee turnover has risen every year over the last decade, and is costing companies a collective \$1 trillion annually.

In addition to a high turnover rate, inadequate training increases safety and compliance risk. When front-line workers are stretched thin, lack of training can lead to safety risks, quality control issues, and production delays.

Unfortunately, 46% of employees believe their employer penalizes staff for not already having certain skills on the job, resulting in nearly a third of employees feeling reluctant to ask for training out of fear of repercussions.

Manufacturing leaders need to actively engage with and listen to their employees to avoid turnover. The potential to engage and retain the talent you've attracted and grown largely relies on the ability to streamline communication, ease workloads, provide more flexibility, and foster a sense of community at work.

## Future-proof Training

Failing to train employees properly is costly. Without adequate training, employees have no qualms about walking away. More than 25% of employees feel their employers don't find training important, and one in three employees (35%) believe their employers do not take the time to understand what skills training is needed to help them be successful and advance in their roles.

The demand for specialized skills in the increasingly digital manufacturing world will only grow. By prioritizing training in software and automation technology, manufacturers provide employees with valuable skills that prepare them for future manufacturing needs, while keeping the business's production ahead of the curve.

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### **More Teamwork, Less Micromanaging**

Lack of interdepartmental collaboration often results in disparate processes and data silos that deepen the divide between your teams, and instigates more micromanaging. Conversely, access to the same information allows for defined processes that drive alignment across teams. Without the need for micromanaging, or going up the chain of command to solve a problem, employees can fix issues quickly and make adjustments to their work as needed. Access to the same information allows team members to help each other and communicate efficiently— a key factor in job satisfaction.

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### **Create Workforce Flexibility**

Automated processes and digital data capture allow for more flexibility at a time when work/life balance and the ability to work remotely are big priorities for the workforce.

Production processes can be updated to make data accessible anywhere without overhauling existing practices. Digital plant management allows Plant Managers to leverage employee-friendly tools to monitor production, such as smartphones and tablets, as well as existing investments, such as SCADA, PLCs, devices, and sensors.

Jobs that previously required employees to be on-site for manual data entry can become more accommodating while reducing the likelihood of human error. It also opens up the possibility of remote monitoring of plant performance – something very attractive to new job seekers. Data accessibility gives workers the flexibility they need without causing production delays or downtime.



## Offer Development and Mentor Opportunities

Career development and mentorship can help keep employees actively engaged and incentivized. Efforts from leadership to provide thorough training and mentorship for employees will help workers feel seen, heard, and cared for, as well as provide opportunities for them to pursue fulfilling careers.

The convergence of new technology in manufacturing means there are new opportunities for skills training and career development. By increasing automation and digitizing data capture in production, the workload for employees is lighter—providing more time to develop and fine-tune skills that make them even more valuable team members.

Mentorship and frequent training opportunities provide employees with tools and support to build lifelong careers in a rapidly changing industry. You don't want to lose the skill that your business has committed resources to develop.

## Digitizing Plant Management

Attractive and engaging employment is influenced by updated practices and processes defined by the right tools. New technology considered by Plant Managers must work within a business' ecosystem to empower growth, not overhaul existing processes and investments.

Front-line workers are the heart of every manufacturer's ecosystem, but when stretched thin, can increase the likelihood of safety risks, quality control issues, and production delays. A digital plant management can help mitigate labor shortage issues by flattening the learning curve for new hires, minimizing human error, and cutting down on the time it takes to complete tasks — leaving managers with more time to engage employees and retain value.

Digital transformation should be understood and leveraged as a way to cultivate a strong workforce, in addition to optimizing production.





# Digitizing Plant Management: Success Stories

## RiceWrap Foods: Scaling Manufacturing Operations Without Adding Headcount



Ricewrap Foods overcame regulatory challenges and scaled manufacturing operations without adding headcount by digitizing key production areas using SafetyChain's Digital Plant Management Platform.

### Immediate ROI

With the ability to keep their headcount down, the ROI of the platform surfaced immediately. RiceWraps didn't have to hire extra personnel and still maintained high quality standards

### Executive Visibility

Performance data is accessible in real-time, from anywhere. The ability to actively track KPIs instantly – instead of keeping performance data locked away on a shelf or in a filing cabinet – has been instrumental in driving efficient management practices.

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## Everything in One Convenient Platform

With all of the production data they need at their fingertips, RiceWraps has been able to say goodbye to their cumbersome three-ring binders. Tablets are available in each area, and employees can filter forms based on the specific processes of the area. Managers, too, can access the information they need from their workstations.

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## Reduced Training Time

With simplified, electronic data capture, and a user-friendly system, training time has been shortened to one week for new employees. Employees are also happier as a result and feel that the system is easy and intuitive to pick up. They can use the system to fill out forms as work, knowing at the end of the day that they've completed what they needed to do.

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## On-Demand Audits

On-demand audits can be executed with confidence. SafetyChain ensured thorough and accurate data through each and every check, sample, and non-conformance detected, which is accessible at any time from anywhere. The software can also help with CAPAs and working through RCAs, things that are often managed with paper, pens, whiteboards, and frustration.

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## Drastic Reduction in Document Errors

RiceWraps has seen a 90% reduction in their rate of errors – they now estimate seeing maybe one error per week at most. While their employees are still trained on proper documentation processes, having a tablet that guides them through what must be completed with time-stamped entries has drastically reduced errors and eliminated missing data.

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## Employee Productivity Gains

When data errors would occur, the RiceWraps team would have to make a lot of corrections. Now that SafetyChain guides employees through process steps seamlessly, there are fewer errors, and thus, considerable gains in productivity. When errors do occur, they can be resolved quicker.

“Employees have seemed much happier since the technology has been introduced. They're thrilled to spend less time writing, and since they know they're completing their tasks correctly, their confidence has increased tremendously. Additionally, they can receive instant feedback

– Erica, RiceWraps VP of Quality Operations



**“ On time saved due to fewer errors. We’re now saving roughly 30 hours per week on the production side, which is equivalent to having another employee.**

– Erica, RiceWraps VP of Quality Operations

Automated data collection available in real-time to everyone means leadership can allocate workers and resources to areas that need it most to solve problems and keep production on track.

Cloud-based tools and automation speed up productivity and increase efficiency without increasing the number of workers needed.

## Grupo Navis: Overcoming Labor Shortages While Saving Time Annually



Strategic investment firm Grupo Navis supports a portfolio of companies. To create value in the businesses they support, Grupo Navis executives identified key areas where digital solutions would benefit people, processes, and technology to ultimately deliver value to customers and build a strong operational foundation for Caribbean Produce, one of the companies they support.

After deciding to implement the SafetyChain's Digital Plant Management Platform, Grupo Navis has been able to absorb labor shortage challenges and even continue improvement. Employees can enjoy faster resolution and greater success when performing tasks. SafetyChain has also empowered continuous organic improvement through easy adoption and usability from the enterprise-level down.

**What used to take the QA manager 17 hours a week now only took 1.4 hours, a 92% reduction in time use simply by digitizing them.**

## Impact of a Digital Plant Management Solution

- ▶ **800+ hours saved annually** – for a single QA Manager
- ▶ **Supplier Compliance** – visibility to Quality, Compliance & Operational Improvements
- ▶ **Document Control** – eliminates the use of data from incorrect & obsolete documents & error-free
- ▶ **Audit Ready** – documents needed for unannounced SQF audit are always ready in the SafetyChain platform
- ▶ **Paperless** – no wasted time searching for key documents

## The Takeaway

Great things happen when people have the right tools that allow them to make better decisions. Employees can redirect that energy to focusing on delivering better products rather than spinning their wheels. Everyone feels empowered to make continuous improvement a reality. Digital transformation allowed Grupo Navis to collect data at the source and apply it immediately, leading to far better and more skillful decision making.



# Unifying Plant Operations with Digitized Plant Management

Digital plant management allows teams to quickly identify and mitigate issues in ways that traditional methods cannot. As an enterprise platform, these systems can automate the tracking of key manufacturing metrics and provide real-time visibility into plant performance. By de-siloing traditional manufacturing metrics and providing data in real-time, management teams can use digital plant management to improve performance, productivity, and profits.

## Typical Manufacturing Silos



Silos distort performance metrics, slow production, and cost more to operate.

## Benefits of a Digital Plant Management Platform

A Digital Plant Management Platform provides solutions for a variety of common problems that impact overall productivity, performance, and profits. The solutions offered by plant management software benefit the operators, managers, and executives tasked with making sure production runs smoothly by:

- **Ensuring Compliance**
- **Reducing holds, rework, and waste**
- **Improving health and safety**
- **Increasing efficiency and yields**
- **Reducing unplanned downtime**
- **Maximize productivity**
- **Mitigating labor shortage issues**
- **Shoring upcost and time needed to train new hires**

## Unified Solution for Modern Process Manufacturing

Primary Solution

**ERP**

(SAP, NetSuite, Dynamics, Other)

SCADA  
Historian



**SAFETYCHAIN**

Digital Plant Management Platform

The only Digital Plant Management Platform trusted by thousands of process manufacturers unify production and quality teams with data and insights, tools, and deliver real-time operational visibility and control by eliminating paper and point solutions.

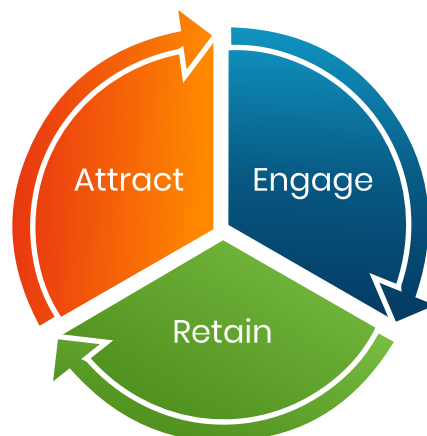
# Conclusion

Technological advances will continue to evolve the manufacturing industry. Manufacturers that invest in digital solutions now can mitigate the ongoing labor shortage by attracting new talent, giving employees the tools and skills they need for successful, fulfilling careers, and minimizing turnover with a safer, less stressful work environment that gives employees the flexibility they want.

Digitization can help **attract** workers by creating a lighter workload and safer, more flexible workplace. An easy-to-use platform makes training quick and efficient, helping you **engage** and **retain** workers by providing the tools they need to do their jobs smarter without working harder. And the automation and real-time data availability allows you to avoid delays, outages, and keep growing.

By monitoring for safety risks and executing key processes automatically, the Digital Plant Management Platform requires minimal training. The ability to decrease risk of human error, increase workplace safety, and reduce workload for employees without additional workers will promote a culture of continuous improvement.

Digitizing operations through a plant management platform will make manufacturers more agile and capable of maneuvering through labor shortages, supply chain issues, and other challenges facing the manufacturing industry now and in the future. The benefits of embracing the digital shift in manufacturing plant management— improved yield, maximized productivity, reduced risk, and enhanced compliance— will pave the way for growth and success in the future.



### **About SafetyChain**

SafetyChain is a digital plant management platform for process manufacturers trusted by more than 2,000 facilities to improve plant-wide performance. It unifies production and quality teams with data and insights, tools, and delivers real-time operational visibility and control by eliminating paper and point solutions.