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# Mitigating Labor Shortages with Plant Management Software

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How to Attract, Engage, and Retain Talent,  
and Grow Amid Manufacturing's Digital  
Transformation



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# Foreward

I have the unique privilege to speak with and learn from manufacturing executives on a regular basis as we discuss the myriad of challenges facing their companies and the industry. Invariably, there are three common characteristics among them:

- 1.) They are growing fast – in many cases unable to keep up with demand
- 2.) They don't have enough people – hiring is the top priority and challenge for most
- 3.) They are collecting data (lots of it) – it's everywhere, and yet often, underutilized

In the face of labor shortages and increasing demand, a plant's ability to drive efficiency and productivity is more important than ever. That's where plant management software plays a critical role in delivering plant performance. By leveraging both human and machine collected data, manufacturing leaders are enabling continuous improvement across departments (quality, operations, safety, maintenance, etc) to boost bottom line with fewer resources.

This guide will help you understand how software can:

- Help attract, engage, and retain the workforce you need to operate efficiently
- Simplify hiring, training, and retention
- Increase safety and ease the workload for your front line employees
- Consistently provide the quality promised to your customers

I encourage you and your team to learn more about how plant management software can solve the challenges currently facing the industry and lay a strong foundation for measurable growth and success in the future as manufacturing becomes increasingly intertwined with technology.

*Brian Sharp*

Brian Sharp  
President of SafetyChain Software



# 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. Ongoing labor issues amplified by the COVID-19 Pandemic are set against the backdrop of a digital transformation in manufacturing and production. Leaders in manufacturing know that modern tools and software solutions can improve operations, but the rate at which technology is becoming intertwined with all stages of production and operations means that many manufacturers are investing in solutions that optimize operations from start to finish to mitigate the issues facing the industry now and lay a foundation for success in an ever-evolving industry.

By streamlining operations, maximizing productivity, prioritizing compliance and safety, and flattening the learning curve for new hires, plant management software can help mitigate labor shortages, minimize human error, and cut down on the time it takes to complete tasks— leaving you with more time to engage with employees and retain valuable talent while increasing yield, maximizing productivity, and maintaining compliance.

In this guide, we’ll encourage you to take a closer look at the benefits of implementing plant management software to automate processes that make production easier and faster without having to hire additional labor. Reduce human error with an easy-to-use, configurable platform designed for the new digital world of manufacturing. Read this guide to understand:

- **The fundamentals of plant management and common challenges manufacturers face**
- **The factors contributing to the ongoing labor shortage**
- **Strategies to attract, engage, and retain talent in the face of current labor shortages and changing workforce demographics**
- **How plant management software can help mitigate labor shortages and supply chain issues to streamline operations, increase yield, maximize productivity, and mitigate financial and operational costs of turnover by improving retention**
- **How implementing plant management software has helped companies overcome common plant management obstacles in manufacturing**

# Plant Management Software

Plant management software allows teams to quickly identify and mitigate issues in plant management 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 plant management software to improve performance, productivity, and profits.

## Typical Manufacturing Silos



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



## Plant Management 101

**Successful plant management relies on people, processes, and technology working in harmony.**

Successful plant management relies on people, processes, and technology working in harmony. For manufacturing plants, roles have traditionally been siloed into five key areas: Safety, quality, operations, IT, and general management.

Together, these roles are responsible for:

- Receiving, suppliers, and shipping
- Audits
- Maintaining compliance with regulations
- Ensuring product is wholesome, safe, and meets quality expectations
- Overseeing production lines, operations, and shift changes
- Maximizing throughput and yield
- Monitoring and maintaining equipment and software
- Network security
- Data management and reporting
- The overall production process from start to finish

The overwhelming number of moving pieces involved in process manufacturing means that a knowledgeable, and well-equipped workforce is critical to maintaining compliance, avoiding unplanned downtime, meeting production goals, and maximizing yield.

The common obstacles of traditional plant management methods are amplified when labor shortages are added to the mix. For this reason, manufacturers need to rethink how they attract workers, reduce turnover, and modernize their overall operations.



## Unified Solution for Modern Process Manufacturing

Primary Solution

# ERP

(SAP, NetSuite, Dynamics, Other)

SCADA  
Historian

# SafetyChain

Plant Management Platform

The only enterprise solution uniting production, quality, compliance, and safety

### Benefits of Plant Management Software

Plant management software 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 up cost and time needed to train new hires**

# Mitigating Labor Shortages:

## Strategies to Attract, Engage, and Retain Workers



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. 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 highly skilled and specialized jobs. According to Deloitte, we're currently on track to fill just 1.5 million of those jobs.

**Manufacturers report that finding the right talent is**

**36%**

**harder than it was four years ago.**

Additionally, a reported 2.6 million baby boomers will exit the manufacturing industry by 2030. As they retire, this will further exacerbate the labor shortage issue.

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 becoming more technical. Lack of job prestige is fading and the skill level needed to keep production moving efficiently is going up. Without adjusting to this shift, manufacturers could face up to 2.1 million unfilled jobs between now and 2030.

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.

## Attract

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

### Change Job Perceptions

Many entry-level workers view manufacturing jobs as lacking in opportunities to build a fulfilling, long-term career. There are also concerns for safety on the job, increased demand for more 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 need to communicate that the industry is changing— the increase in technology and software is only creating more opportunities for entry-level workers to build life-long, fulfilling careers in an industry with more workplace flexibility.

Far from making manufacturing jobs obsolete; cobots, wearable technology, and plant management software have 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 that the opportunity to work with modern tools in a modern or digital environment would influence their decision to leave their current company.

Manufacturers that invest in modern tools and software can attract experienced workers in the industry. 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.

The promise of skills training in the new digital age of manufacturing and the ability to use entry-level jobs in manufacturing as a launchpad for a technology-centric career will help manufacturers attract the talent they need at every skill level.



## Engage and Retain

The digital transformation in manufacturing means it's more important than ever to retain skilled team members. Manufacturing leaders need to actively engage with and listen to their employees to avoid turnover.

Plant management software can help engage and retain the talent you've attracted by streamlining communication, easing workloads, providing more flexibility, and fostering a sense of community at work.

## Prioritize Efficient Training

Failing to train employees properly is costly. Without adequate training, employees have no qualms walking away. More than 25% of employees feel their employers don't find training important, and one in three employees (35%) feels their employers do not take the time to know them and accurately understand the skills gap or training areas that would be most beneficial to helping them advance in their roles.

The growing demand for specialized skills in the increasingly digital world of manufacturing is only going to grow bigger. By prioritizing training in software and automation technology, manufacturers provide employees with valuable skills that prepare them for the future of work and stay ahead of the curve in terms of their production.

## More Teamwork, Less Micromanaging

Plant management software de-silos workflows and automatically provides the data needed for efficient operations to the entire manufacturing team. This means problems can be solved and productivity monitored by anyone on the line in real-time. 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 quickly and as needed. Having 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 More Flexibility

Automated processes and cloud-based programs allow for more flexibility at a time when work/life balance and the ability to work remotely are big priorities for the workforce.

Plant management software goes beyond just smartphones and tablets to monitor production, and can integrate with equipment such as, SCADA, PLCs, devices, and sensors means that data is available anywhere. Jobs that previously required employees to be on-site can be done right the first time, every time. It also opens up the possibility of remote monitoring of plant performance – something very attractive to new job seekers. It also gives workers the flexibility they need without causing production delays or downtime.

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## Offer Development and Mentorship Opportunities

Career development and mentorship can help reduce turnover. Efforts from leadership to provide thorough training and mentorship for employees will help workers feel seen, heard, and cared for, and provide opportunities for them to pursue fulfilling careers.

The convergence of new technology in manufacturing means there are new opportunities for skill training and career development. By implementing software that increases automation in production, the workload for employees is lighter – providing more time to develop and fine-tune skills that make them an even more valuable team member.

Mentorship and frequent training opportunities provide employees with tools and support to build a lifelong career in a rapidly changing industry.



## The Hidden Cost of Training

As mentioned earlier, failing to train employees is costly. A study by IBM examining the percentage of capabilities that companies lose over time 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.

Further proof of the value of good training can be found in reports showing that 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 comprehensive training. The U.S. Bureau of Labor shows that churn has risen year on year for the last decade. And this is costing companies a collective \$1 trillion annually.

46% of employees believe their employer penalizes employees 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.

We've covered the reasons why lack of proper training can lead to turnover, but it can also increase risk. When the safety of staff and product quality is on the line in the manufacturing industry, lack of training doesn't just impact your turnover rates— it's a safety and compliance risk.

Plant management software that is easy to use flattens the learning curve, getting new hires trained and on the floor working faster, and with less risk for error.

And there's also the cost in terms of risk when it comes to inadequate training. When front-line workers are stretched thin, inadequate training can lead to safety risks, quality control issues, and production delays. Software solutions are not just easy to use, they make your operations fool-proof with safeguards in place to ensure that quality checks are made, corners aren't cut, and all boxes are checked, workers of any skill level can jump on the line and get the job done.





# Scaling Manufacturing Operations Without Adding Headcount



Using SafetyChain's plant management software, startup company Ricewrap Foods overcame regulatory challenges and scaled manufacturing operations without adding to their workforce headcount.

## Immediate ROI

With the ability to keep their headcount down, the ROI of the software 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.

## 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 since the system helps to ensure 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.

## 38% of QA Manager Time Saved 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 SafetyChain as a plant management software solution, Caribbean Produce 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 the 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 Caribbean Produce to collect data at the source and apply it immediately, leading to far better and more skillful decision making.

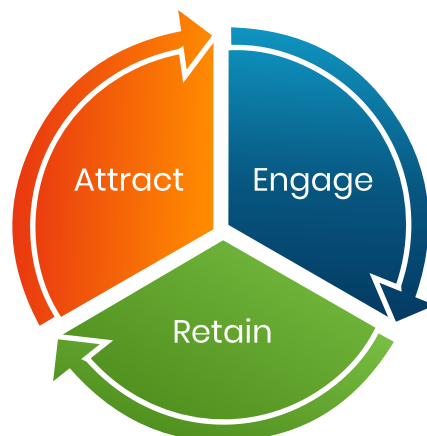
# Conclusion

Manufacturing is changing. The increase in technology and software is just getting started. 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.

Software can help **attract** workers by creating a lighter workload and safer, more flexible workplace. Easy-to-use platforms make 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 software offers allows you to avoid delays, outages, and keep growing.

By monitoring for safety risks and executing key processes automatically, plant management software is requires minimal training while simultaneously reducing the risk of human error, increasing safety in the workplace, and reducing the workload for employees without the need for additional workers.

Plant management software 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 the #1 Plant Management Platform that improves yield, maximizes productivity, and ensures compliance for process manufacturers. Trusted by over 1,500 facilities, SafetyChain is the only enterprise solution uniting production, quality, safety, and supplier management.

## INSIGHTS FROM THE • **see** suite

The SEE Suite from SafetyChain is our initiative to help evolve and extend modern plant management capabilities through action-oriented, real-time, operational visibility. From a leadership perspective, we understand today's manufacturing plants' ongoing digital transformation can appear like a daunting journey. The SEE Suite's overarching goal is to provide objective insight into the transformation process to accelerate that journey, proactively avoid the common barriers, and ultimately reach the destination known as your potential.