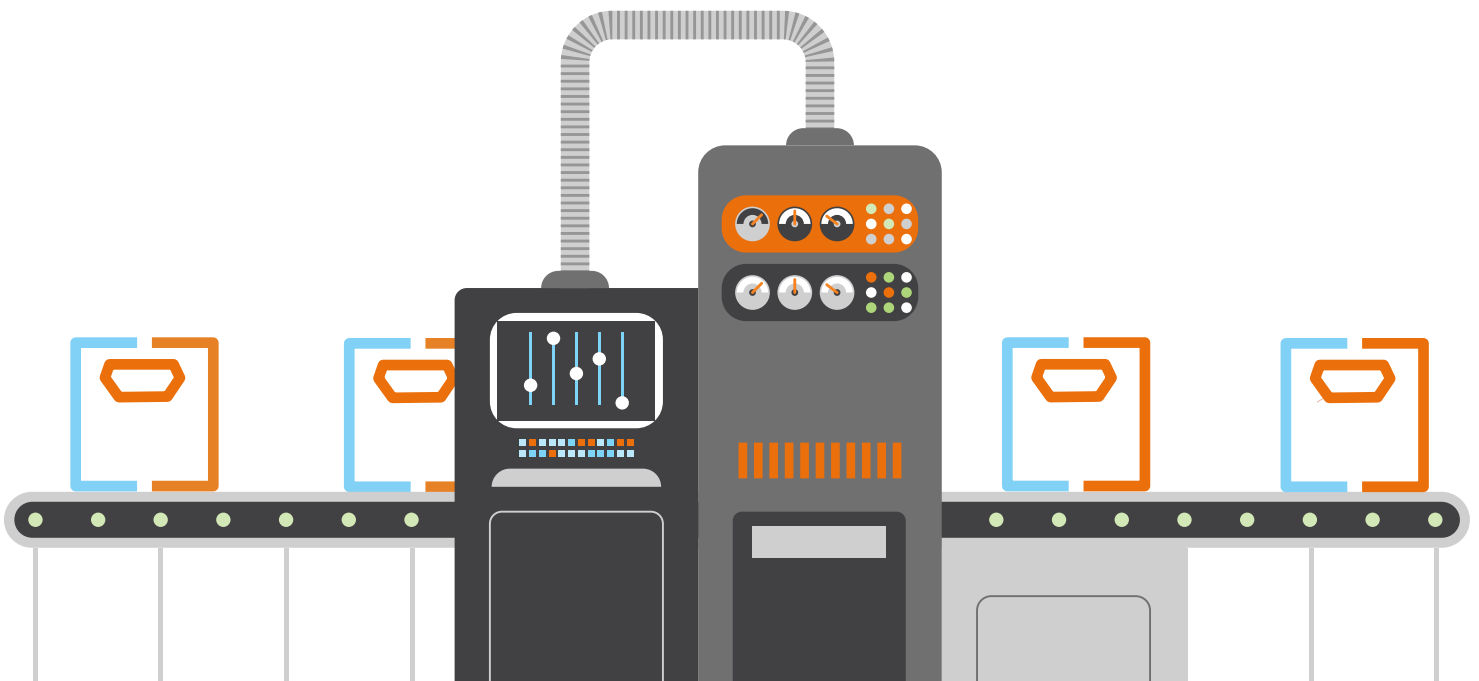


REPORT

Fresh-Food Labor Crisis: Is **Automation** the Answer?

5 questions supply chain leaders must answer now in order to help their companies thrive.



One of the biggest challenges faced by companies that are part of America's fresh-food supply chain is a lack of workers needed to do the tough jobs in production and distribution facilities.

Plant managers spend an inordinately large percentage of their time on efforts related to hiring and training those who are at the core of keeping the supply chain moving.

Not surprisingly, these challenges – which existed before the COVID-19 pandemic but certainly were worsened by it – have led to calls from company executives to increase automation and, in doing so, decrease the reliance on increasingly hard-to-find human labor.

But is automation the right place to start?

In this paper, we will examine the scope of the problem confronting those in key positions of America's fresh-food supply chain today. We will detail how it came to be such a large problem and clearly identify exactly how big of a threat it is.

We will then look at the oft-mentioned solution of increased automation and investigate why it might not be the best place to start to address problems created by the current worker shortage. In doing so, we will provide a guide for warehouse managers to follow into the future – whether or not large-scale automation is the right choice for their company right now.



More than 220,000 manufacturing jobs in non-durable goods went unfilled in October 2023.



Nearly 100 million American workers quit their jobs in 2021 and 2022. An additional 3.5 million quit during the first eight months of 2023.



Wages for manufacturing facility jobs increased by 4.2% year-over-year in August 2023. That followed a 5.8% increase the previous year.



The number of consumers who shopped for groceries online jumped from 24% in 2018 to more than 52% in 2022.

'It's hard to find good help these days.'

Pinning down exactly who first said these words is as difficult as the challenges posed by the truth of that statement. The line is frequently quoted in movies and television shows, but it is far from fiction for those in charge of moving fresh food along America's supply chain.

A combination of factors brewing long before the COVID-19 pandemic created a labor shortage at just about every step of that supply chain, leading to higher labor costs, increased food prices and a never-ending cycle of hiring and training woes for leaders at the wholesalers, distribution centers and retailers along the way. While the pandemic exacerbated the labor problem, it merely served as an exclamation point to the reality that hiring, training and retaining a competent labor pool is one of the biggest challenges – if not the biggest challenge – executives and managers who are part of the nation's food supply chain face today.

Roughly 222,000 manufacturing jobs in non-durable goods – or 4.3% of all jobs in the field – went unfilled in October 2023, according to preliminary data from the Bureau of Labor Statistics.¹ The cost to hire or retain those laborers who remain has shot up dramatically. For example, a Hormel Foods executive told investors in June 2022 that the company's spending on

What to know

- **The factors that caused current labor shortages pre-date COVID-19, although the pandemic exacerbated the problem**
- **The solution to labor shortages is often not automation, at least not right away**

production labor jumped by more than 50% since 2015.² This is especially challenging for food retailers that operate on razor-thin margins to begin with.

The result of this growing storm is that those whose job it is to ensure fresh food moves swiftly and safely from source to consumer are increasingly burned out. The 2023 Food and Beverage CPG Innovation report from TraceGains showed that 86% of professionals responsible for food production and supply chain management feel overworked.³

Introduction

These managers and executives are under increasing pressure to find solutions to the instability created by the labor crisis while improving the bottom line in an increasingly competitive environment.

One of the loudest drum beats to accomplish both is automation. The belief is that large-scale automation will lead to a system that relies less on fickle workers and more on machines that can't quit, don't need to be trained, can't get hurt and can run as many hours as necessary to get the job done.

The biggest problem with this automation-at-all-costs approach is that automation isn't for every company and that the term itself means different things to different executives. Simply put, automation isn't the place to start.

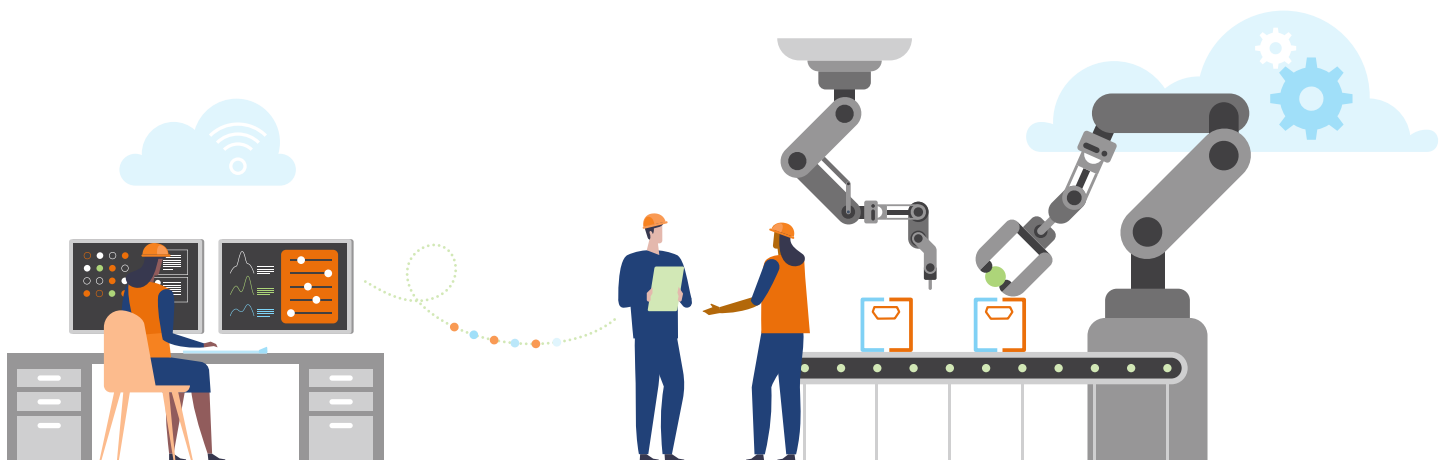
It may or may not be the ultimate endgame for some companies in the food supply chain, but before even considering large-scale automation, there are several steps food supply companies must take first.

The good news is these steps are valuable and necessary whether or not the finish line involves large-scale automation.

Executives and managers are wise to remember that the problem that needs to be solved is the lack of capital available to hire and retain workers. Higher hourly wages allow companies to build the most stalwart labor force and fence it in from competition.

The means to be able to offer higher wages is to capture increased efficiencies in warehouses that save money and leave more capital to pay the smaller supply of laborers without negatively impacting the business's bottom line.

In this paper, we will examine how we arrived at this point and then dive into how to achieve greater efficiencies in your warehouses to leave more money for higher wages and, if necessary, large-scale, long-term automation. We will also give you concrete steps to start you off on the road to the savings needed to build a reliable workforce that reduces hiring pressures on general managers and executives.



The Current Situation

Working conditions in many production and distribution centers at the heart of America's fresh-food supply chain are far from those that would win "Best Workplace Environment" awards.

They are cold. They are wet. They are filled with fast-moving sharp objects. They involve heavy lifting. Those who work there often do so at odd hours for pay that falls below the median in the United States.

"Those are really difficult jobs," said Eric Frank, CEO of reusable plastic packaging and pooling company Tosca. "Whether it's in the beef plants or at produce harvest facilities or out in fields, it's a lot of manual labor. You're in a freezer lifting heavy containers. You're out in a field under the blistering sun, bent over and picking produce. You're driving a tractor trailer across the country, gone from your family for weeks at a time. The conditions are pretty harsh, and because of that, there's a lot of turnover."

Thus, it's not surprising that, even in the best of times, hiring and retaining employees is a challenge for plant managers and food supply executives. And as any of these general managers or executives would tell you, these most certainly aren't the best of times.

The COVID-19 pandemic led to the heavily publicized Great Resignation, during which nearly 100 million American workers quit their jobs in 2021

What to know

- The COVID-19 pandemic worsened a growing labor problem caused by the aging American population.
- Changes in consumer behavior make the current situation even more challenging.

and 2022 and another 30.5 million did the same through the first eight months in 2023.⁴

This Great Resignation is misnamed, though, as a deeper dive into the numbers showed it to be more of a Great Reshuffling. Most of those who resigned weren't leaving the workforce altogether but rather were leaving less desirable jobs in search of better or different opportunities.

When faced with a sometimes fatal virus that swept across the globe, "Better" or "Different" often meant "Somewhere other than where people work in close proximity to one another."

In other words, not in factories and warehouses.

The Current Situation

More competition for workers

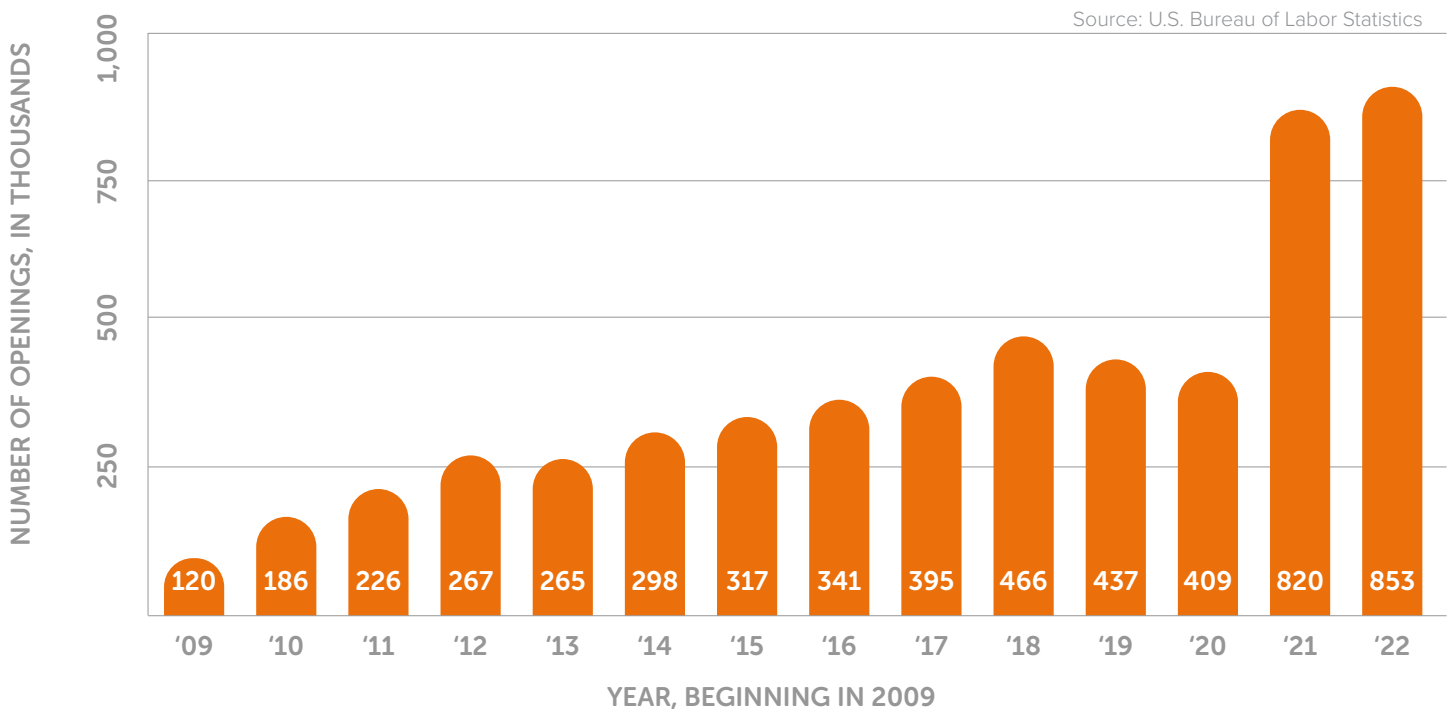
The dip in the supply of willing laborers pushed up demand for those who remained. That meant increased competition for the workers necessary to keep America's fresh-food supply moving. These combined forces drove up wages. In fact, wages for manufacturing facility jobs increased by 4.2% year-over-year in August 2023,⁵ and that followed a 5.8% increase from the year before, according to information gathered by the Consumer Brands Association.⁶

But the COVID-19 pandemic was hardly the start of this problem. The food supply chain has been under threat for years from a combination of factors. Analysts looking at America's aging population of Baby Boomers and the comparably smaller generations that followed have long forecasted a labor shortage. This demographic shift was joined by technological advancements and shifting consumer expectations to create what Dean Starovasnik calls, "a perfect storm."

Starovasnik is a client partner for enVista, a supply chain and enterprise technology consulting firm that offers warehouse management services to help businesses drive efficiencies. For more than 25 years, Starovasnik has assisted companies with the logistical challenges of moving things from Point A to Point Z through all the often complicated and geographically dispersed points in between. He said the rise of e-commerce has exacerbated the labor problem food supply leaders now face.

Growth of a labor crisis

The COVID-19 pandemic impacted the labor crisis in the fresh-food supply industry, but the data of average annual seasonally adjusted available manufacturing jobs shows the crisis was already brewing.



The Current Situation

“Now we pay someone else to walk down an aisle and find the stuff we want and get it to us,” Starovasnik said. “Whether it’s Amazon or a grocery store, we’re not there doing it anymore. Now someone else is, and we’ve got to pay that person.”

The pandemic accelerated this trend. Tosca’s Eric Frank said another part of the problem is that those very people who do the selecting were deemed essential workers and were disproportionately affected by COVID-19. Those who didn’t suffer from the effects of the virus itself faced the challenges of working through it.

“They didn’t get a break,” Frank said. “Our hourly team has worked the entire time since COVID hit that first day, and I think COVID has changed people’s perspective. People have started their own jobs, own companies, they’ve moved to different professions or entered the gig economy with companies like Uber, taking temporary and part-time jobs as independent contractors rather than going full-time.”

Additional organizational demands

Yet the demands on the fresh-food supply system continue to grow. Not only are domestic and global populations rising, but so are the average American consumer’s expectations for the foods they enjoy.

“We’ve lost seasonality,” said Judson Armentrout, founder of Building Block Solutions and a former supply chain leader for Kroger. “For example, you grow strawberries in the wintertime in California, but consumer preference and demand says ‘I want strawberries year round.’ That adds the complexity of figuring out where we are sourcing things from, transportation routes and things like that.”



86% of all professionals in food production and supply chain management feel overworked



Manufacturing facility job wages increased by more than 4% year-over-year in August 2023.



More than 52% of consumers shopped for groceries online in 2022; in 2018, that percentage was 24%.



In the last week of November 2023, more than 11% of total weekly grocery spending was done online.

“... those different modalities for delivery are causing additional complexity. How do we have the right amount of product available in the right place to be able to meet the customers’ needs?”

— Judson Armentrout
Founder of Building Block Solutions
Former supply chain leader for Kroger

Armentrout, who has more than two decades of experience moving fresh foods across the country, also points to American consumers’ expectation to have what they want available on-demand as a cultural shift that makes the labor supply situation worse. Starovasnik agrees.

“Amazon has gone way too far in training us to expect stuff tomorrow,” he said. “We call it the ‘Amazon Effect.’”

That means average American consumers who place mobile grocery orders expect what they purchase to be available for pickup in a matter of hours, not days. Add up the growing number of consumers relying on pickers to select their groceries instead of traversing the store themselves and you have an entirely new labor category retailers have to account for when looking to maintain profitability.

A Mercatus/Incisiv study predicts online grocery sales will exceed 20% within the next five years. Online sales accounted for 11.7% of total weekly grocery spending during the last week of November 2023,⁷ and the percentage of those who shopped for groceries online jumped from 24% in 2018 to nearly 53% in 2022.⁸

Retailers once expected to fund these pickers’ wages with money saved through the rise of self-service checkout. But unexpected increases in theft are leading many retailers to roll back their do-it-yourself initiatives.

Wal-Mart and Costco both announced in August 2023 that they would be dialing back their self-checkout initiatives, and regional grocery stores are following suit. For example, Booths, a British supermarket chain, said it is removing self-checkout stations in all but two of its 28 stores.⁹

Part of the reason has nothing to do with theft and more to do with the topic at hand.

Grocery stores that sell many loose items, such as fresh fruits and bakery products, rely on customers to identify what they are purchasing on touch screens, and it can be challenging for them to identify, say, one type of apple vs. another that might cost significantly more or less.

The problems created by this combination of forces affects the spokes extending out from the labor shortage wheel.

This includes inventory woes.

The Current Situation

“Whether you go into the store, whether you order online and pick that up at the store, whether you order it online and it’s delivered to your house, those different modalities for delivery are causing additional complexity,” said Armentrout, who spent nearly a decade as coordinator for case-ready fresh meats for Kroger. “How do we have the right amount of product available in the right place to be able to meet the customers’ needs?”

The buzzword on the tips of the tongues of many food supply company executives when they are considering solutions to these problems is the same: “Automation.”

On one level, it makes sense to think of innovative ways to reduce the reliance on the labor market when the labor market is at the core of the problem these executives are facing.

This belief has left many managers tasked with answering the question: ‘How fast can we automate our processes to reduce the impact rising labor costs and a tighter labor supply have on our business?’

That’s the wrong question to ask, Starovasnik said. More specifically, it’s the wrong question to ask *first*.



Five questions to help address your labor challenges

Five questions to help address your labor challenges

Differentiators in the work environments inside the warehouses, distribution centers and retailers that make up the fresh-food supply system are hard to find.

Wages are and will be the most notable differentiator between companies that succeed and companies that continue to struggle with labor-related issues. The path to greater wages is to find greater efficiencies in and around these buildings.

“Nobody wants to drive a forklift truck in a freezer on a Friday night, right?” said supply chain consultant Dean Starovasnik. “But, if you pay people \$100,000, they’ll drive a forklift truck in a freezer on a Friday night. Of course, most companies can’t afford that.”

While \$100,000 a year might be far out of reach to pay the average laborer, wage improvement is not. And make no mistake: **Offering attractive wages is the most important factor in determining a fresh-food supply company’s ability to attract laborers and reduce turnover.**

In fact, a Lattice State of People Strategy report stated compensation is the number one driver of employee turnover, with 55% of employees leaving for jobs that pay more.¹⁰ Additionally, a CompTool poll of more than 400 compensation professionals revealed 59% believe salary increases are the most effective tool to retain talent.¹¹

With that understanding in mind, here are five questions to consider before worrying about how fast you can launch a full-fledged automated system.

Five questions to help address your current labor challenges

1. Does automation make sense right now?
2. Do I have a broad enough perspective to improve efficiency?
3. Are our systems and processes fully optimized?
4. Is there ‘low-hanging fruit’ that can be plucked to save money?
5. Do I have buy-in from the right people?

Five questions to help address your labor challenges

1. Does automation make sense now?

Starovasnik was winding down a 10-year career in the military in 1994 when he fell into a career in supply-chain efficiency. He said that, at the time, he was familiar with the receiving end of the “beans, bullets and parts” supply chain in the Navy but had no idea how those items made their way to him. In the nearly three decades since, he has become intimately familiar with those machinations.

At enVista, Starovasnik regularly confronts the “Let’s automate now” mindset when visiting with clients.

“The increase in demand for automation driven by the lack of labor has been consistently in the 15% range, give or take 5%, for a couple of decades,” he said. “What the pandemic did was spike a significant demand in automation very rapidly across a wide variety of industries, not just distribution.”

And yet, after Starovasnik finishes his consultation with his clients, only around 20% of them decide to proceed with automation. A large part of the reason is the upfront cost of large-scale automation. “The first question is ‘Does automation really make sense?’” he said. “Part of my job is to help clients understand that although automation seems like a very attractive, bright,

Why this question matters:

- Large-scale automation is not the immediate answer for the vast majority of companies.
- There are efficiencies that can be improved that will help make for a smoother transition to automation at a later time.

shiny toy that the boss wants, the payback on that investment in automation may be a dozen years. Most firms aren’t willing to invest in such a long term.”

Many companies do not have enough regular activity to warrant such massive investments, which can run into the millions of dollars but only lead to labor savings in the hundreds of thousands of dollars each year, he said.

This isn’t to suggest automation never makes sense. The key, Starovasnik and Armentrout said, is asking “Does automation make sense right now and, if so, how?”

“... although automation seems like a very attractive, bright, shiny toy that the boss wants, the payback on that investment in automation may be a dozen years.”

— Dean Starovasnik
Client partner for enVista

#1: Does automation make sense now?

Armentrout sees plenty of applications for wise investments in automation. During his time with Kroger, he was responsible for creating uniformity across the chain in how it packaged and presented meat.

The company moved away from sending bulk meats to individual retail locations or even distribution centers for slicing and dicing into individual cuts for display and sale.

In its place, Armentrout helped implement a new system to deal with the growing shortage of skilled meat slicers who worked in retail stores by using a more automated approach that allowed for greater consistency in product and packaging.

“You have more of what’s called case-ready fresh meats,” he said. “Rather than processing and cutting into steaks or grinding in a store, you’re having that production take place at a third-party location and then ship it into the retail store ready to be labeled and put on a shelf.”

That more centralized approach builds the case for automation because it allows for one machine at one location instead of 10 machines at 10 locations.

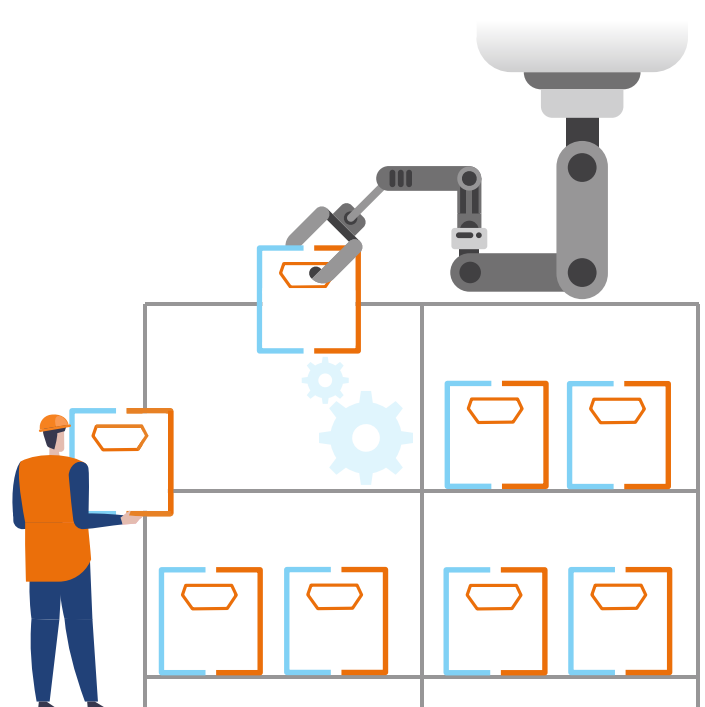
“A dispersed store base does not allow you to put automation into your stores,” Armentrout said. “Where you’re able to take advantage of the automation is by moving upstream.”

Upstream is Starovasnik’s specialty. What he’s talking about are the warehouses and distribution centers at the core of many businesses. One of the most common areas he sees effective automation make sense is in picking.

Using tech to make a difference

In a grocery store, the most common activity isn’t buying items. It’s walking. If a person is familiar with the store and knows where things might be, 70% of the time is spent walking to find the items they need, Starovasnik said. Send in a newbie to that store and the walking metric jumps to around 90%. Now take that same idea and translate that into a massive distribution center; that is where Starovasnik sees a lot of wasted employee time as they walk from item to item.

Amazon has been a pioneer in solving that problem. When goods arrive to distribution centers by truck, the company uses automated robots to bring bins to humans at their workstations. Those humans open a box, take out the individual items and place them in those bins, which are stored in massive racks. The robots then take the racks away into the bowels of the warehouse.



#1: Does automation make sense now?

Then, when a customer orders an item, the robot picks up the rack containing that bin and brings it to a human to prepare for delivery.

"If we can eliminate the walking and focus the picker's time on picking, they can be a lot more efficient," he said. "All that wasted labor walking goes away."

There are other factors beyond the financial implications of paying for automation that must be considered. Most notably is the time it takes to implement.

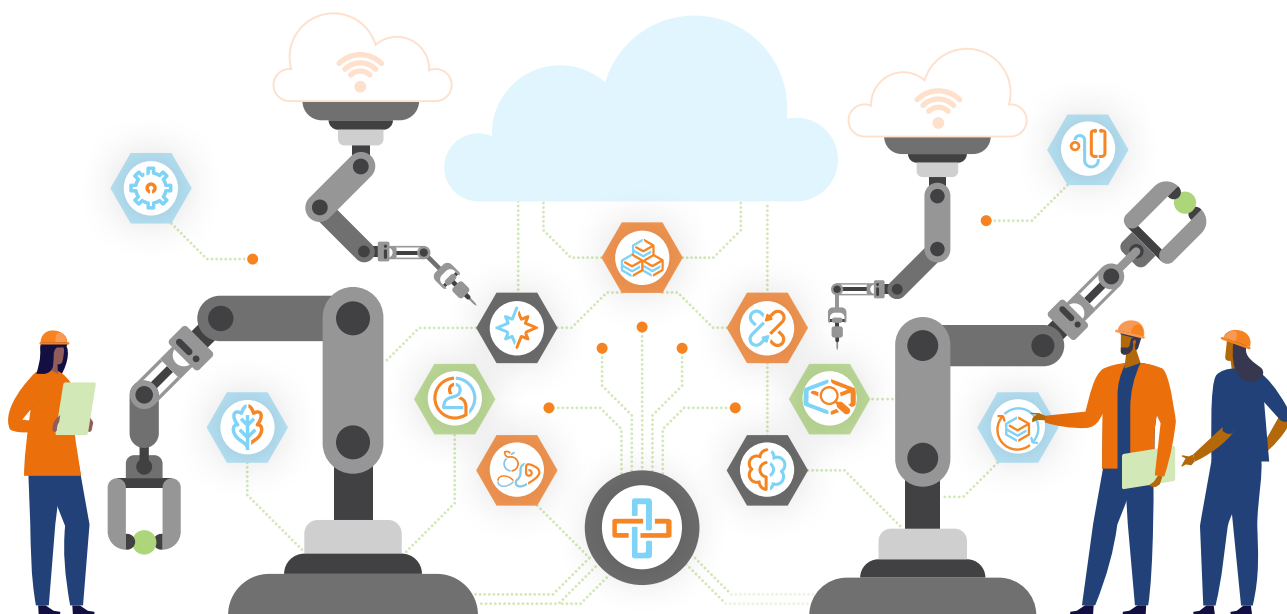
Starovasnik said building a new building to house large-scale automation takes anywhere from a minimum of 18 to 24 months. Retrofitting an existing building could cut that time in half, but then companies likely will be faced with challenges avoiding downtime while existing machinery and floor space is replaced and altered to accommodate the new tools. Many companies can't tolerate either of these issues, Starovasnik said.

Answering the question of whether to automate now is a big one. The good news is that no matter how that question is answered, the next four questions are still significant.

It's the answers to those questions that can often separate the great leaders from the good ones.

Why? Because answering the questions accurately shows a better understanding of the current situation, a greater responsibility with corporate funds and a more innovative approach to solving the current conundrum.

Remember, these questions are all meant to help address the central problem facing executives and managers in the fresh-food supply industry: How do we find the capital to offer the most attractive wages to win the competition for the shrinking pool of laborers at the heart of our operation? Whether automation is the right answer now or not, the answers to the next four questions can provide a road map for the short-, intermediate- and long-term future of your company.



Five questions to help address your labor challenges

2. Do I have a broad enough perspective to improve efficiency?

Sometimes you don't know what you don't know. That's where a consultant like Dean Starovasnik comes in.

"I tell clients all the time, we're not smarter than you are. We've just been in a whole lot more buildings than you and we've never been in yours," he said. "We see things differently through fresh eyes."

The best consultants are expert listeners, and the good news is that hiring one to conduct a thorough examination of your business is pennies on the dollar compared to the cost of full-scale automation.

"The kind of assessments that are reasonably needed to do in warehouses are, at best, mid- to upper-five figures, maybe less," Starovasnik said. "That's one operator. If we can save the cost of one person, you pay for that assessment in the first year. And frankly, there's normally dozens we can find pretty quickly. There's an immediate financial benefit in terms of payback for the assessment, and that's just dealing with labor."

Beyond that labor is the chance to change the answer to the automation question itself.

Why this question matters:

- Different viewpoints, including external observations, can expose hidden inefficiencies that are draining resources.
- These inefficiencies can be a signal that there are spillover inefficiencies to be addressed downstream.

Starovasnik said his experience shows the efficiencies that can be found by someone looking at operations with fresh eyes can often reduce the need for more costly automation. This, he said, is especially true with the companies he works with that are struggling the most.

"If we get enough improvements without spending the capital associated with automation, the payback for the automation gets more difficult," he said. "You may not need the automation anymore, or at least you're better enough and the automation doesn't improve you enough anymore to pay for itself."

"We're not smarter than you are. We've just been in a whole lot more buildings than you and we've never been in yours. We see things differently through fresh eyes."

— Dean Starovasnik
Client partner for enVista

#2: Do I have a broad enough perspective?

Consultants often are able to find inefficiencies created downstream by problems inside the buildings they are reviewing. Starovasnik and other industry experts said inside inefficiencies lead to spillover problems, such as higher transportation costs, that are exponentially higher than what they eventually become once the internal problems are solved.

This isn't a call to ignore in-house knowledge, however. Good consultants, Starovasnik said, have great respect for the wisdom of those with experience inside these facilities.

"These are professionals who are running these buildings. They've been in that building for maybe 20 years. They started in picking and now they run the place because they are smart, they are capable, they are energetic," he said. "But because of that, they just haven't seen a lot of alternatives. That's where we can add some variety to their experience base to help expand what they could do in the building."

Some warehouses have a good blend of existing and newer talent. That might eliminate the need for a consultant. If that is the case, an internal operational audit that brings together a committee of experienced leaders to work with those on the floor can help with the process of finding operational inefficiencies.

How to build a better audit committee



Consider adding members from these teams:

- **Warehouse management** for big-picture views of overall warehouse operations
- **Quality assurance** to insure quality standards and safety regulations are addressed
- **Logistics and transportation** to identify supply chain inefficiencies
- **Information technology** to assess the efficiency of the warehouse management system (WMS) and report on the performance of warehouse operations
- **Safety and compliance** to identify potential hazards and adherence with regulations
- **Human resources** to address staffing levels and training
- **Finance and accounting** to review financial aspects of warehouse operations, including cost analysis and budget adherence
- **Legal** to ensure warehouse operations comply with all relevant laws and regulation
- **Cross-functional members** to ensure a holistic view of operations

Five questions to help address your labor challenges

3. Are our processes and systems fully optimized?

One of the most dangerous decisions a company can make is to automate without first conducting an honest appraisal of its information systems.

Often, these companies pay for seven-figure full-scale automation while technology such as their warehouse management systems is woefully outdated – or even non-existent.

“In some cases, they are still using Excel spreadsheets and paper,” Starovasnik said.

“Warehouse management systems are the brains of a warehouse. A brain transplant can take awhile, depending on the operation, but it’s a necessary prerequisite in order to run an automated facility.”

Companies without modern, integrated, fully functional information systems are wise to start their improvement efforts there – again, with the goal of finding savings that leave capital for higher wages. An upgraded warehouse management system is a must for any company interested in automation and comes with a number of ancillary benefits. For example, it improves inventory management to reduce loss and lower operational expenses.

Why this question matters:

- Automation is not possible without an updated and optimized warehouse management system.
- A fully optimized system aids with scheduling and ensures employees are doing the right jobs at the right time.

Judson Armentrout brings a different perspective to the forefront when it comes to systems. Not all systems are highly technological, he said.

Armentrout spent nearly 14 years with Kroger, the Cincinnati-based retailer. The company reported revenue of \$33.957 billion for the quarter ending Oct. 31, 2023 and 12-month revenue of \$148.258 billion, up nearly 10% since 2021. For the first four-plus years of his tenure there, Armentrout was the project manager of the fresh supply chain, before earning a promotion to coordinator of case-ready fresh meats in February 2014.

“Warehouse management systems are the brains of a warehouse. A brain transplant can take awhile, depending on the operation, but it’s a necessary prerequisite in order to run an automated facility.”

— Dean Starovasnik
Client partner for enVista

#3: Are our processes and systems optimized?

He said one of the traps he saw underperforming stores fell into was how it dealt with fresh products because of the labor shortage.

“One of the things I tended to see happen in stores that weren’t necessarily the best operated was that, because they didn’t have a lot of labor, they would throw a lot of product on the floor so they didn’t have to come back for a while,” he said. “What that actually wound up doing was driving down sales.”

That’s because fresh produce and meats are by definition just that: Fresh. Those products, when put out in mass quantities because the labor is available at the moment to make it happen, start to look bad quicker than if they were put out in more appropriate quantities and then replenished regularly.

The ability to do that, Armentrout said, comes down to scheduling. “The big thing around scheduling is making sure you have people available at the right times,” he said.

Which isn’t to say that’s easy. Eric Frank has been the chief executive officer of reusable plastic packaging and pooling solutions company Tosca since December 2012. He said the general public doesn’t often realize how many people their local grocery store must employ to be considered fully staffed.

“A typical grocery store employs about 200 people,” he said. “If you think about checkers and baggers, replenishment folks at night, maintenance, and supervisors, they’ve got a big staff that constantly has to be there because they are open seven days a week, some of them 24 hours a day.”



#3: Are our processes and systems optimized?

Because of that reality and the need to schedule people for hours that extend far beyond when average consumers make their rounds to pick up their essentials, industry experts recommend finding methods to reduce the time it takes existing employees to do necessary tasks so their hours can be redistributed to more pressing matters. Armentrout oversaw such efforts while helping Kroger in its conversion to case-ready meats. This push came as Kroger dealt with the growing shortage of butchers and the need to reduce in-store meat cutting in favor of a more centralized effort that led to more uniform cuts and presentation in its stores.

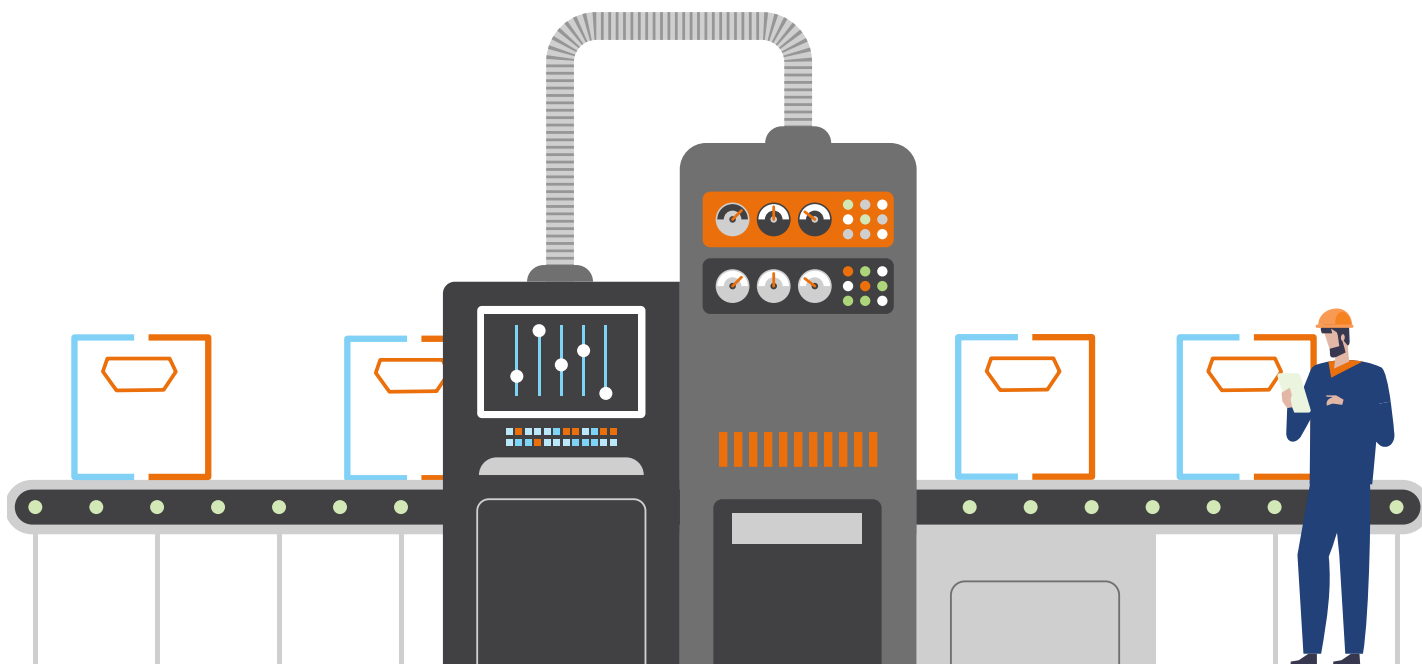
“There’s only so much work that a person in a store can do, but with case-ready, you can do well beyond what is capable at a retail level,”

“There’s only so much work that a person in a store can do, but with case-ready, you can do well beyond what is capable at a retail level.”

— Judson Armentrout
Founder of Building Block Solutions
Former supply chain leader for Kroger

Armentrout said. “You can run aggressive promotions over a period of time that you could never be able to fill all the demand if you were cutting everything in the store.”

Case-ready products also shorten the amount of time it takes for available in-store labor to stock and resupply shelves with fresh produce or meat. That leads directly to the next question.



Five questions to help address your labor challenges

4. Is there 'low-hanging fruit' that can be plucked to save money?

The corrugated cardboard used to transport a majority of the fresh-food supply in America was invented way back in 1856 and patented to use for shipping in 1871.¹² It is such an accepted part of the supply chain that many don't even stop to ask if it is the best tool for moving fresh foods from Point A to Point Z. Sure, it was in 1871. But what about the 21st century? Is it still the best option?

The short answer is "No," and the slightly longer answer is, "Definitely not in the midst of a labor crunch."

As environmental awareness grew in the 1970s, the grocery industry began to recognize the downsides of corrugated cardboard, including its high production costs, recycling challenges, contribution to the waste stream, and limitations in preventing food damage. Those concerns led to a new container used to transport food: the reusable plastic container (RPC).

RPCs exploded in popularity in 1991, when Germany made supply chain sustainability history by requiring businesses to separate and recycle up to 90% of traditional packaging materials to

Why this question matters:

- Corrugated boxes are an outdated, inefficient way to ship fresh food, leading to increased shrink, greater labor demands, and higher rates of worker injuries.
- Reusable plastic containers (RPCs) offer a variety of financial and sustainable benefits.

keep them out of landfills. Since then, RPCs have become a growing part of the fresh-food supply chain domestically and internationally, safely transporting goods with greater efficiency and sustainability than the corrugated boxes of the past 100 years.

High-quality RPCs are made of food-grade polypropylene, a type of plastic that is impermeable, washable and able to withstand the penetration of bacteria or fungus. When paired with the right washing and food-safety practices, these containers can be used and washed hundreds of times without risk of food-contamination incidents.

"The advantage with RPCs is ... you're able to deliver a better product to the shelf consistently than what you wind up with going through in boxes."

— Judson Armentrout
Founder of Building Block Solutions
Former supply chain leader for Kroger

#4: Is there 'low-hanging' fruit to save us money?

Armentrout said evaluating containers is among the first areas a company should scrutinize when trying to find easy savings.

"The advantage with RPCs is you're able to get more on a truck going from the supplier to the distribution center, so you're reducing your transportation spend and reducing emissions," he said. "You're also able to keep the product from getting compressed by other products, so you're able to deliver a better product to the shelf consistently than what you wind up with going through in boxes."

More importantly, when the labor situation is factored in, RPCs come in standard sizes that promote efficiency and also prepare a company for large-scale automation. Starovasnik, Armentrout and others said they understand the skepticism they initially receive when they talk about addressing labor issues by switching containers.

But by the time they have outlined the benefits – including those that go beyond hiring and retaining workers – the case for the switch to RPCs makes itself. That case and how it helps ease the labor crunch can be seen below.

The case for RPCs: Easing the labor crunch



Better storage: Exact sizing maximizes storage within each RPC. Standardized footprints and greater strength allow these stackable containers to reach new heights, maximizing cube utilization and reducing trips.



Reduced packaging labor: Traditional packaging often involves significant manual labor for assembling and disassembling boxes, pallets, or crates. RPCs, being durable and stackable, eliminate the need for constant repackaging.



Faster loading and unloading: The standardized design of RPCs makes them easy to stack and handle. This results in faster loading and unloading processes, reducing the time and labor required for these tasks.



Reduced talk time: The baler is the water cooler of the warehouse, – the place a lot of people congregate and not a lot of work happens. With RPCs, bailer use is eliminated and worker efficiency rises.



Increased safety: RPCs have ergonomic handles to prevent back strains that take valuable workers offline. RPCs also stack much more safely, which reduces or eliminates collapses that cause injuries.



Improved automation and handling efficiency: RPCs are designed for durability and standardized dimensions, making them suitable for automation processes. Automated systems, such as conveyor belts and robotic arms, can handle these containers efficiently without extensive human intervention.

#4: Is there 'low-hanging' fruit to save us money?

It is that last item in the chart on the previous page where RPCs and automation join hands.

"Variety creates problems for automation, and the way you solve that problem in the distribution world is with some sort of standardized container into which all these different odd things can be placed," Starovasnik said. "RPCs, being of consistent shape, don't have a lot of variation. That's usually a good starting point to avoid complex, high-end automation. RPCs give us the ability to use some more economical tools."

Those tools include a staple of the manufacturing line – conveyor belts. Henry Ford is credited with using them effectively to revolutionize the world of mass production when he put them on his vehicle assembly lines in 1913. Today, coupled with robotics that allow for automated picking and pallet making, conveyor belts are often the starting point for automation efforts – but they aren't effective without standardization.

Building pallets or loading carts manually is a tough job that leads to a disproportionate number of worker's compensation claims and contributes to general job dissatisfaction, Starovasnik said. Stacking corrugated boxes of varying sizes can be a maddening and dangerous puzzle. Grocery distribution center pallets are an amalgamation of a variety of different products, with boxes weighing anywhere from 20 to 50 pounds, he said. When boxes crush in transit, the entire pallet can collapse and spill products when the truck door is opened.

An investment in RPCs standardizes container sizes, costs less than full-scale automation and, because these containers are uniform in size and lock together, it makes pallet building easier and makes those pallets less dangerous. That leads to back-end savings with

"Variety creates problems for automation, and the way you solve that problem in the distribution world is with some sort of standardized container into which all these different odd things can be placed."

– Dean Starovasnik
Client partner for enVista

more on-the-job time for labor and less loss through damaged products caused by toppling boxes.

"One of the advantages with RPCs is you don't wind up with any of that crushing," Armentrout said. "So you save time at the store, eliminating those damaged pallets coming in that have to then be rebuilt and all the product damage and everything that's associated with it."

That "everything that's associated with it" is shrink, and it is often extremely costly. Tosca CEO Eric Frank said his company's RPCs are shown to dramatically decrease shrink.

"Most of the time, we can cut shrink by up to 50%," he said. "That means less trucks, less shipments, less food waste and helping not just financially but from a cultural standpoint with the greater good."

Again, the emphasis isn't on reducing headcount through this switch. Most companies involved with the fresh food supply in America are in no position to do this. Rather, it's to increase efficiency so the existing labor pool can do different tasks – and receive a higher salary to keep them from wandering away to other companies, whether inside the industry or not.

Five questions to help address your labor challenges

5. Do I have buy-in from the right people?

There's a reason an industry exists around managing change. A search of books on Amazon with the word "Change" results in more than 70,000 titles.

"Change is the only constant" is a phrase attributed to the Greek philosopher Heraclitus, but the same words are often on the minds of those in the fresh-food supply chain. To implement change, be it automation or from corrugated boxes to reusable plastic containers, it is vital to ensure buy-in from key personnel throughout the operation.

Earning this buy-in involves next-level communication. Many a great solution that could have saved money, time, jobs and even companies themselves died on the warehouse floor because those in charge didn't bring in the right people at the right time.

"Generally, it's about involving the supervisory leadership, floor leads and ops managers in the different areas, engaging them and developing what that final solution looks like," Starovasnik said. "Having those supervisory leaders buy in by participating in the development means that the overall system, once implemented, is more likely to succeed."

This is true throughout the supply chain, be it

Why this question matters:

- One of the biggest challenges in making changes is overcoming workers' resistance to anything new.
- Ensuring buy-in from a variety of internal audiences is the key to effective and successful change management.

wholesalers, distribution centers or retail. It is critical to explain to workers that new initiatives are not designed to take away their hours. The goal is to re-purpose their hours and make them more efficient — and valuable. For example, by implementing case-ready meats like Armentrout discussed, backroom production people who used to cut meat can become front-of-house salespeople.

"Your knowledge and expertise is better used educating and selling the customer on products than it is standing at a saw for eight hours cutting product," he said. "Once (employees) get in on it, they love it. It's that initial fear of change."

"Your knowledge and expertise is better used educating and selling the customer on products than it is standing at a saw for eight hours cutting product."

— Judson Armentrout
Founder of Building Block Solutions
Former supply chain leader for Kroger

Your next steps

Finding and retaining good labor is more challenging than ever before.

The gig economy, through companies like DoorDash and Uber, is creating more competition for the fresh-food supply labor force as employees can make similar wages with more scheduling flexibility. Seasonal openings with attractive bonuses at companies like FedEx, UPS and Amazon only add to the challenge.

By answering the five questions previously discussed, fresh-food supply executives and managers can set their businesses up for success — both now and in the future — by saving money that can then be reallocated to employee wages.

Whatever the answer is to the automation question, the right responses to the next four pave the way for automation at whatever scale — and time — makes sense.

More importantly, successfully addressing system inefficiencies and grabbing that low-hanging fruit can sometimes either delay or eliminate the push to automate (at least for now).

Your next step is to ask the five questions and determine the answers for your company. From there, bring key personnel in to answer the same five questions.

As a collective, **the truths uncovered through this exercise can help dictate the short-term, medium-term, and long-term future of your company by addressing the most immediate challenge the industry faces today: the labor shortage.** Perhaps more importantly, the answers to these questions can provide a road map for future success — whether or not automation is part of the plan.





Tosca reusables eliminate waste at every turn to maximize performance, support sustainability, and save you money.

Pooled upstream reusable assets provide:

- **Automation-readiness:** Standard sizes, durable containers
- **Quality assurance:** Contaminant-free and hygienic assets, traceable with IoT; less purge
- **Operational efficiency:** No debris or line jams; zero capital outlay
- **Sustainability:** Eliminate packaging waste, food waste; reduce CO2 emissions

Pooled downstream reusable assets provide:

- **Labor savings:** No wasted time at the bailer or box failure clean up
- **Product protection:** Reusables protect products in transit, reducing shrink
- **Transportation savings:** More product on the trucks from higher stack
- **Sustainability:** Eliminate packaging waste, food waste; reduce CO2 emission

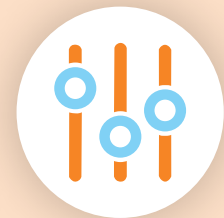
Why Partner with Tosca?



Collaborative relationship that brings a wealth of expertise to solve your supply chain challenges



Broadest portfolio of pooled reusable plastic packaging designed to meet your specific needs



Innovative products, services and technology solutions to future-proof your supply chain

Learn more about Tosca's solutions at tosca ltd.com

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