



Supply Chain Workforce of the Future 2021

Putting People First

Building the future supply
chain workforce

Foreword

For most companies today, supply chains are powering revenue growth and creating new customer experiences in ways we haven't seen before. But as they work to create truly intelligent supply networks, many are forgetting about the most important thing. Their people.

Growth requires more people—it's unavoidable, and talent markets across the globe are tight. Technology can enable the growth companies are looking for without increasing headcount to unmanageable levels. Connecting people and machines to automate tactical, transactional tasks frees up time for the new work needed in an intelligent supply network.

While most supply chain leaders know this, only 38% see their current workforce advancing in the new skills it will take to be successful.¹

So how do supply chain leaders ensure their entire workforce, from new hires to veteran employees, has what it takes to work effectively in the future supply chain?

They put people first. Before technology.

Using artificial intelligence (AI) and analytics to build new skills, retaining critical skills, and involving employees from the beginning are just some of the ways leading companies are placing people above technology as they reimagine the supply chain. These critical actions will ensure that only jobs—not people—are replaced.

Kris Timmermans

Accenture

Senior Managing Director – Strategy & Consulting

Supply Chain & Operations Global Lead

Table of contents

A new era for the supply chain ————— **04**

Impact on the workforce ————— **06**

Protecting people protects investment ————— **09**

How to put people first ————— **11**

Skill with AI and analytics ————— 13

Foster the traditional skills that matter ————— 17

Involve people from the start ————— 20

Prepare your people for tomorrow ————— **22**

We're entering a new era for businesses and their supply chains

Humans and intelligent machines are collaborating for business results that have never before been possible.

Just look at the COVID-19 pandemic. Flexible supply networks allowed companies to quickly repurpose their operations to make and distribute critical medical supplies. Many businesses used intelligent technology to expand curbside pickup and reduce in-person interactions. Others completely reimaged their talent strategies using AI for a new approach to skill matching as labor needs changed.

Our research in the field has found the growth of machine and human intelligence is giving companies historic insight across the product and operating value chain.² Technologies like AI, digital twins, the internet of things (IoT) and the cloud allow companies to predict and monitor the impact of almost every action.

The result? A new level of visibility and speed that fundamentally changes the way companies engineer, plan, source, manufacture, supply, service and reclaim/recycle goods.




Your people, powered by AI

When autonomous, AI-powered systems are more common, the supply chain will become more intelligent, agile and, in many areas, “self-driving.” This level of automation will allow the human workforce to work more effectively and focus on higher-value tasks. We’ve already seen what this looks like on the manufacturing shop floor and in the warehouse, where robots are working with humans to improve efficiency, productivity and quality.

Similarly, decision-making across the supply chain is already transforming, as companies increase their use of key technologies, such as digital twins, to push data and insights to the front lines of the supply chain.


86%

of C-level executives we recently surveyed said they’re making moderate to significant investments in AI.³



69%

of chief supply chain officers said they’re increasing their organization’s investment in intelligent digital twins in the next three years.⁴



This move to digital will have a massive impact on the supply chain and its workforce

The supply chain workforce has historically been one of the most people-intensive areas of a company, so the move to digital will affect it significantly.

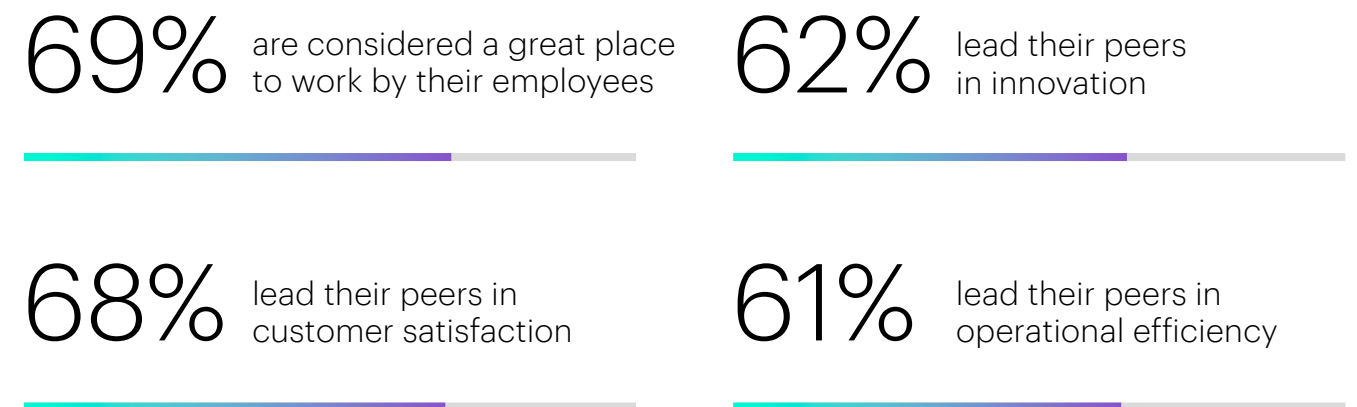
New skills and roles on the horizon

Workers will need new skills to adapt to a more digital and automated supply chain. Today, only 27% of supply chain leaders agree that their function has all the talent needed to meet current supply chain performance requirements.⁵ But some companies are already addressing this gap in innovative ways. For example, one group of leaders is building a talent pool of AI and machine learning skills to enable real-time monitoring of manufacturing operations.⁶

This “digital fluency” is becoming more important to a company’s reputation and growth. Digitally fluent businesses are winning with their customers and workers, and they’re also leaders in innovation and operational efficiency.⁷

Supply chain leaders are making their technology priorities clear. More than half of them expect to have a new technology leadership role reporting directly to the chief supply chain officer by 2025.⁸

Figure 1: Advantages of digitally fluent organizations



Big changes in current supply chain roles

Current supply chain roles will also change as human + machine collaboration grows. Traditional roles will move from executing manual tasks to monitoring, interpreting and guiding intelligent machines and data. Large portions of employees' day-to-day activities will be automated, and their jobs will require more innovation, creativity, collaboration and leadership.

How roles will change within three key domains



Procurement

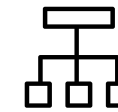
Procurement professionals won't follow yesterday's standard career path with a category or process focus. Key procurement skills will still be important, but professionals will also need to be able to interpret AI-generated insights and use digital technologies to solve business problems.

They'll need to be entrepreneurial, collaborative, analytical, business-oriented and responsible, with strong storytelling and communication skills. They'll also need to be able to scout and grow relationships with ecosystem partners.



Manufacturing

AI algorithms will provide information from across the plant, helping factory managers optimize plant operations. Someday, these algorithms may even handle optimization on their own. Digital twins will provide opportunities for testing scenarios across operations to assess and manage risk. With more information available, manufacturing workers will need to understand and use it to make the right decisions.



Planning

Today, most planning decisions are made manually by humans. In the future, we see AI algorithms making most decisions by themselves, and humans reacting to alerts or handling anything the machine can't decide. AI can integrate the data, accurately predict results and identify trends and patterns that humans can't.

Demand planning will evolve to be cross-functional, with different departments coming together to discuss algorithm output, rather than relying on siloed forecasts. This will help planners understand what's happening both upstream and downstream in the supply chain, as well as across the company. As a result, they'll be able to react more quickly and accurately.

Growth without limits

Intelligent automation will also help companies scale to meet growth targets and will make them more resilient to disruptions. People are vulnerable to risk (as seen in the number of employees who were forced to stay home due to COVID-19 infection). There also aren't enough people available to fill all the roles companies need. Intelligent machines will allow companies to grow without having to double or triple their headcount.

These big changes aren't years away—they're happening today. The transition to more digital operations across the supply chain is moving quickly, and more companies than ever are embracing new technologies.

There's just one problem: In the move to intelligent technologies, companies may be forgetting about their people.



The digital train is leaving the station... without its passengers

Most of the companies we speak to say they're moving fast to become more digital. And for many, the supply chain is the greatest focus. A recent Gartner study found that 93% of boards of directors expect that manufacturing, distribution and supply chain will be the top business priority for transformational improvement from digital technology.⁹

Supply chain leaders are seeing the change in action. 64% of the supply chain executives we recently surveyed reported the pace of digital transformation for their business is increasing. And 81% agree they're facing technological changes at historic speed and scale.¹⁰

But many companies have also moved so quickly that they haven't engaged their workforce enough as part of their programs.

Some have forgotten they need to help people through the changes new technologies bring. They often haven't trained people to properly use the technologies, and as a result, employees aren't excited about them. In other cases, companies haven't forgotten; they just don't know what to do. Or they may be afraid to tackle the people issue because it's seen as hard and uncomfortable.

These companies are spending a lot of money on powerful new technologies, only to see tepid adoption by employees. This wastes the investment and prevents them from pursuing new opportunities. It also leaves potentially millions or billions of dollars of value on the table.

For example, our recent research found that 63% of companies fail to capture the expected value from their cloud investments. And more than half of the executives surveyed said a shortage of skills was the top barrier to achieving that value.¹¹

People make or break a digital transformation

The human dimension isn't easy to address, but it's the most important part of digital transformation. Hiring, retaining and managing supply chain talent is the second-biggest internal obstacle to achieving supply chain goals and objectives,¹² but our research found that just 38% of supply chain executives feel their workforce is mostly or completely ready to leverage the technology tools provided to them.¹³

This gap should be a major concern for businesses looking to digitally transform their supply chains to intelligent supply networks—one that needs to be carefully addressed.

If companies want their digital efforts to succeed, not managing people effectively isn't an option. They need to address the people aspect head-on, in every program. Without a fully engaged and appropriately skilled supply chain workforce, digital transformations are doomed to fail.



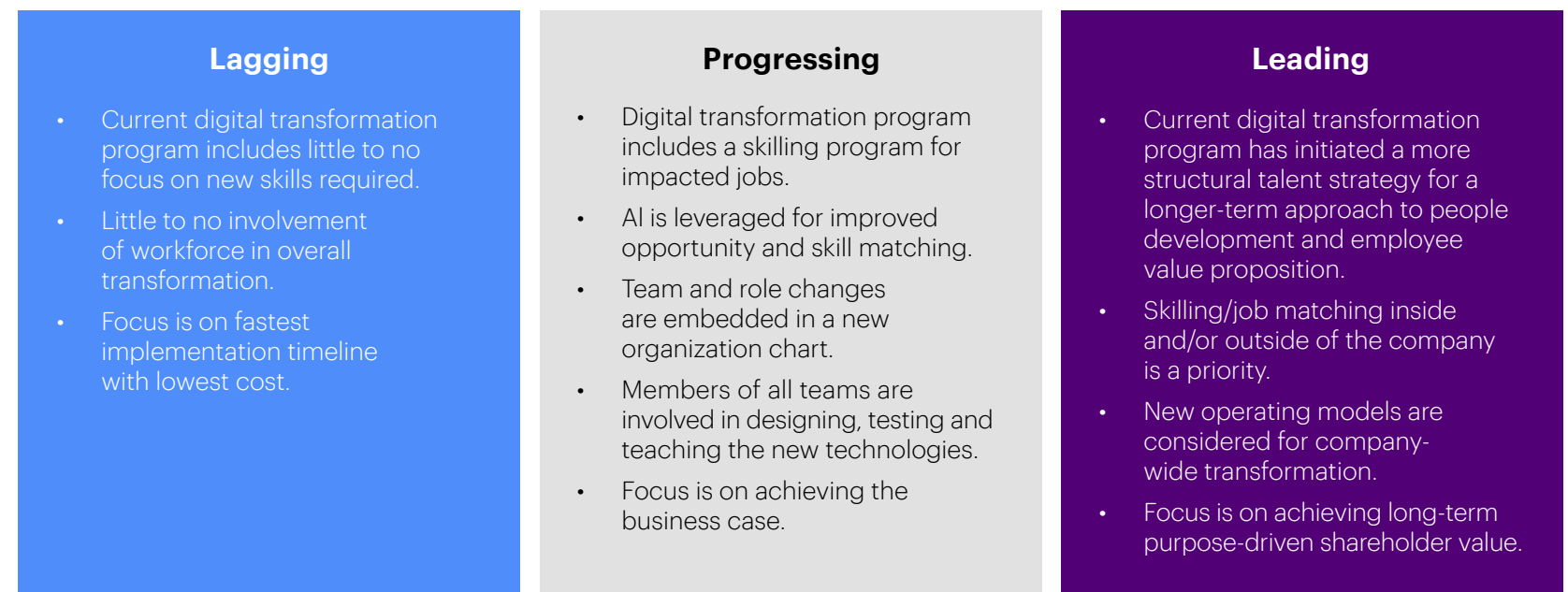
Leading companies recognize that to succeed, they need to put people first

How do companies prepare their supply chain workforce for this digital future? How do they make sure they have the skills they need for the future supply chain to operate effectively? And how do they do so while responsibly managing the people whose jobs may be affected by machines?

The key is to put people first—before technology.

As illustrated in Figure 2, companies that have digitally transformed excel in addressing the relationship between people and technology.

Figure 2: Lagging to leading maturity in addressing the relationship between people and technology



Source: Accenture analysis from client engagements across industries, 2021.

This is how they do it

Leaders put people first by starting their digital transformation program with a formal talent strategy that addresses skilling and job matching and focuses on creating value for both the business and employees.

These companies understand they can't succeed in deploying intelligent technologies if they forget about their people while doing so.

Other businesses can follow their lead by taking three key actions:

- 1 Develop** new skills at scale using AI and analytics
- 2 Foster** the traditional skills that are still valuable to the organization
- 3 Involve** people in initiatives from the start



1

Developing new skills at scale using AI and analytics

Our research in this area has found that providing learning and skilling opportunities to build digital workers' capabilities is among the top actions companies are taking to successfully transform their business.¹⁴

As part of this effort, some leading companies are using advanced digital tools to learn what it takes to build new in-demand skills, both within and between industries.

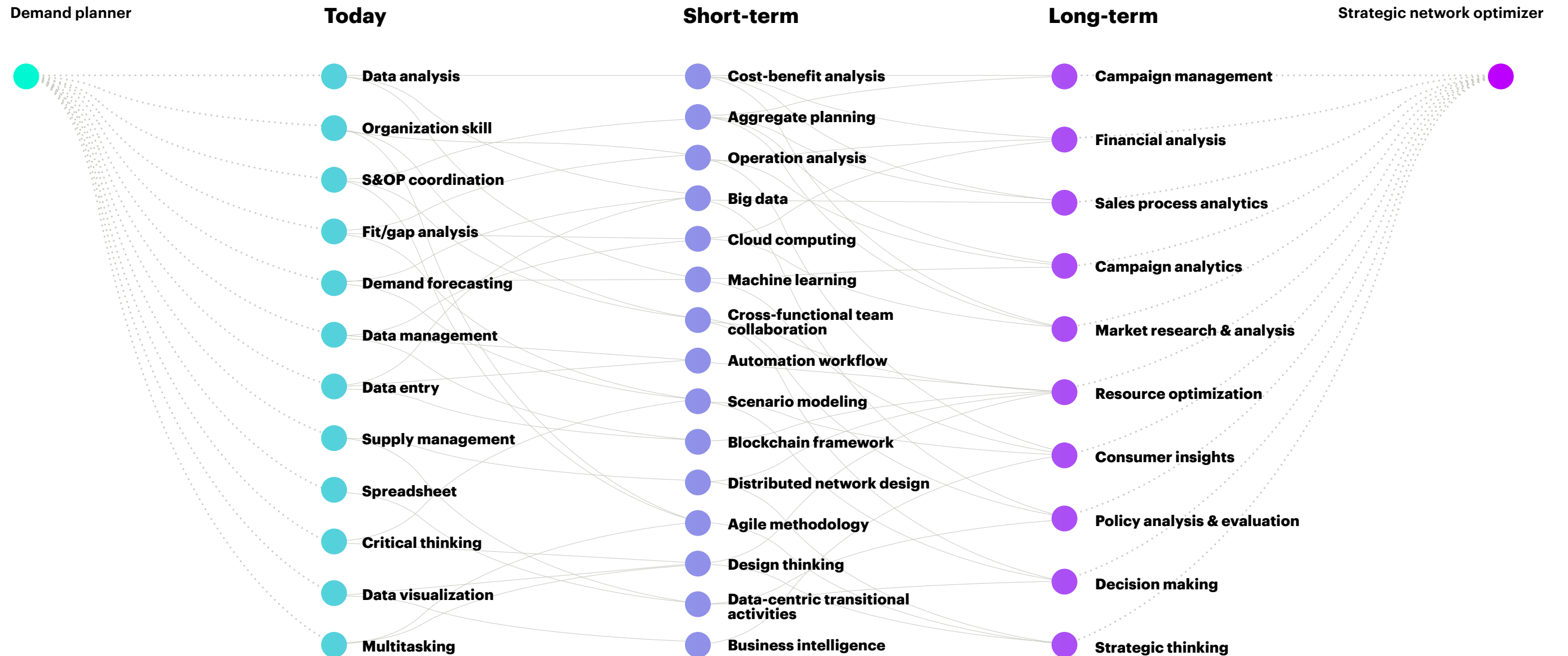
For example, new AI tools enable companies to match similar skills from old roles to new roles. They can then create a plan for effective, responsible skilling across the supply chain.

When paired with a larger talent program, these tools can help companies:

- Define future-focused work and skills that make it easy to support human work with machines
- Develop learning programs for different skills, considering people's different roles and their willingness to learn
- Create on-demand personalized learning experiences to speed up and scale training

See "Figure 3, Illustration of evolution and associated skills from today's demand planner to tomorrow's strategic network optimizer."

Figure 3: Illustration of evolution and associated skills from today's demand planner to tomorrow's strategic network optimizer.



AI uncovers more skills than you think you have

Walmart and Unilever are leading a collaborative, cross-industry pilot program to figure out better, smarter ways of preparing people for new career paths based on their interests and skills.¹⁵

The two companies, working closely with SkyHive and Accenture, used AI to break down and analyze the skill sets of select roles to find overlaps and gaps in skills.

This exercise found that roles typically have hidden skills that people don't readily identify. And in some cases, a person would only need to pick up a few additional ones to switch disciplines entirely.

For instance, the average person would say he or she has around **11** skills. But when AI maps that worker's skills, the number is closer to **34**. This means AI greatly enhances the opportunity for people to look for new roles and new career paths, either within or outside the company.

The project team also used AI to prepare people for new roles by finding the skills they would need and providing learning content to build those skills. This skill mapping revealed new ways people can move across companies. For example, a worker might move from a manufacturing role to a job in green energy, such as installing solar panels.

Enhancing talent management with analytics

A growing number of companies are using predictive talent analytics to make data-driven job placements. Accenture helped a large energy company do just that within the company's procurement function.

We first created a talent profile dashboard for 1,200 employees based on an analysis of structured and unstructured data. We then developed algorithms to match job descriptions and talent profiles, optimizing employee assignment to roles.

Accenture also built and ran 12 AI-powered scenarios to provide job placement options so the company's leadership team could discuss job matching and optimization.

The tool currently leads about one-third of all job placement decisions within procurement. The remaining two-thirds are led by humans based on the tool's recommendations.

The new skills required aren't only technology related. Workers also need intellectual skills such as creative and critical thinking. In fact, these will be among the top in-demand skills in 2025, according to the World Economic Forum.¹⁶ In other words, the supply chain workforce won't survive the impact of digital transformation unless it becomes more strategic.

Importantly, companies will need to pair new skills with the appropriate operating model and culture. Without appropriate change management, new skills will struggle to thrive.



2

Fostering the traditional skills that are still valuable to the organization

Leaders know how important some existing skills are. They recognize that in the race to develop digital skills, they also need to invest in traditional skills and roles that still have a key place in the business.

For example, what if the algorithm that's running a specific process is suddenly disabled by a cyber-intrusion? Will anyone be there to run the process in the "old" way to keep the business up and running?

Ensuring access to this kind of historical knowledge is critical, even for companies that move to highly automated work. This is especially vital to the supply chain, where historical knowledge is widespread.

The fact is, while supply chains are becoming more digital, there's still a big need for the traditional skills that support most companies' operations. Workers like mechanical electricians, plumbers and maintenance technicians have the hands-on experience and expertise that keep things running. They're doing things that haven't been or can't be fully automated yet.



Even if parts of their jobs do get automated, there's still a lot of direct labor needed across the supply chain. These workers could, for example, translate what an algorithm says into what it means on the warehouse or shop floor.

These people are important but short in supply, as many are retiring and the pipeline of younger talent to fill those roles slows to a trickle.

Uncovering new methods to expand the talent pool

Companies are maintaining talent in those key roles in many ways. In manufacturing, for instance, some are training people who have worked on a production line and are familiar with the machines to maintain and repair those machines.

Some companies are building relationships with trade and technical schools to establish education and apprenticeship programs to recruit new talent. This is an "old" idea that's still as relevant as ever.

Others have begun cross-functional training as part of job-rotation programs. For example, in one company we know, engineers skilled in algorithms and analytics were also required to spend time on the shop floor with the mechanics to understand the real-world impacts of the analytics output.

And keeping critical skills and knowledge doesn't have to mean continuing to employ experts full-time. A business could create a consulting or contracting relationship with experts so their skills are available on demand when needed. A company also could bring experts out of retirement to conduct training classes or provide over-the-shoulder coaching to less-experienced workers.

In fact, new technologies like augmented and virtual reality can blend the old school with the new. They can allow retired experts to "remote-in" via AR/VR headsets to help guide workers through an activity or process. The same kind of technology could be used to create a "center of experts" who can be called upon for training or to answer specific questions.

Digital technology can also help businesses maintain continuity when employees are out unexpectedly or leave the company. Supply chain management systems, for example, use intelligent technology to provide clear descriptions of information flows, procedures, routines and measurements. These systems allow an employee to easily take over if there is an unexpected absence or departure. This ensures more efficient work execution and higher-quality decision-making than would have been possible previously.

Developing leaders for the future workforce

But technical skills aren't the only traditional skills companies need to keep and continue to grow. Leadership skills are still important, especially with the blending of human and digital. In many companies, managers and supervisors have been promoted from the technical side with little training in the "soft skills" that are so important to effective leadership.

In their new roles, these people no longer have to be the expert. Instead, they must know how to lead, delegate and communicate so rising experts can do their jobs well. Businesses need to ensure they have the right training in place to make new leaders successful.





3

Involving people in initiatives from the start

Leading companies involve the workforce from the beginning to create a sense of ownership for employees whose jobs will be heavily impacted. These leaders are transparent with workers about the changes a supply chain transformation will bring. They talk openly about how employees' jobs will be affected. And they keep in touch with employees throughout the transition.

For example, one company we worked with successfully replaced the manual processes and tools in its supply chain planning function using feedback from the planning workforce. At the project's start, the project team asked subject matter experts from each planning role to share their challenges, and then used that feedback to inform the platform's functionality.

All affected employees learned about the upcoming changes through requirements gathering, pre-release communications, trainings and pilots. Leads from each planning role were also trained on the planning tool and process so they could support their teams when training began.

The company also conducted a robust training program to help employees with the transition to the new planning platform. Trainings included live sessions, along with system demonstrations and reference documents. And videos highlighting how the technology supports the company's broader supply chain goals and vision helped generate employee enthusiasm for the new technology.

This training program is a shining example of a key best practice for companies undergoing a major supply chain transformation—cultivating a culture of continuous, inclusive and diverse learning.

Encouraging employees to interact with the new technology before it's launched can also create a more positive change experience for workers. Some businesses give their people opportunities to provide input into the implementation of new tools and empower them to design new ways of working.

Others challenge employees to “break” AI tools by showing they're smarter than the machine. For many people this is a motivating way to get involved in a project and also provide valuable feedback to the business.

Another way of getting people involved is to give employees a personal stake in the change. Instead of relying on a handful of C-suite executives, companies that use this strategy let employees drive projects. They give them autonomy and encourage them to innovate with a fail-fast/learn-fast environment.

In short, it's important to be transparent with people about how the move to digital will affect them. Employees will feel included and supported if they have multiple opportunities to ask questions and even help create future solutions. Combining the historical knowledge of experienced employees with the expertise of digital workers can not only create a better solution for the business, but also generate buy-in from the workers who have input.

It's time to start preparing your people for tomorrow

Technology innovations have been transforming industries and companies for decades. But the latest wave of intelligent machines will fundamentally reshape what kind of supply chain work gets done, how and by whom.

Figuring out the ideal collaboration between humans and machines to get the best out of each is fast becoming the competitive imperative.

Consider this: Before the pandemic, Accenture research found that digital leaders—the top 10% of companies in any industry that were using technology most effectively—were outperforming the rest by a factor of two. Now, the gap has widened. The top 10% are outperforming others by five times.¹⁷

Leaders recognize the importance of the human element and how technologies affect their supply chain workforce.

For example, we believe all supply chain roles eventually could be automated to some extent. But some can be nearly or fully automated. Leaders understand this and are starting to determine which roles (and, thus, people) will be affected most by automation and how. And they're beginning to create a responsible path forward for each.

These companies also make sure their people are front and center in all initiatives. They help people develop the skills they need to excel in this new world—whether that's in the same or a new role in the company, or in an entirely different company or industry.

The human + machine era is upon us. Companies that can most effectively use human ingenuity and intelligent machines together will be best positioned to achieve the competitive agility they need to win in the years ahead.

Authors



Inge Oosterhuis

Managing Director – Strategy & Consulting
Talent & Organization

Inge Oosterhuis is a managing director in Accenture's talent and organization practice, focused on supply chain and the European Resources industries. Throughout her 20-plus year career, Inge has developed expertise in the field of workforce transformations, change management, talent and HR.



Kristine Renker

Managing Director – Strategy & Consulting
Supply Chain & Operations

Kristine Renker is the growth and strategy lead for Accenture's global supply chain practice. With more than 20 years of consulting experience, she focuses on strategy, with an emphasis on how companies can leverage technologies to build value across their supply chain.

Contributors

Jose Bleda

Ramon Colomina

Steve Davenport

Katie Frohlinger

Sridevi Gajendran

Mohammed Hajibashi

Jeff Hong

Russ Rasmus

Heather Reinhardt

Project team

Stephen Meyer

Alexis Perez

Meagan Sweigart

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