GLOBAL MANUFACTURING WORLD OF WORK OUTLOOK

Manpower®

72%

OF MANUFACTURERS WORLDWIDE ARE STRUGGLING TO FIND THE SKILLED TALENT THEY NEED

45%

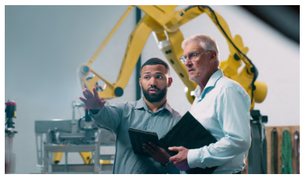
OF MANUFACTURING WORKERS WORRY AI OR AUTOMATION COULD REPLACE THEIR ROLE IN THE NEXT TWO YEARS

57%

OF MANUFACTURING SECTOR CIOS SAY KEEPING UP WITH THE RAPID PACE OF TECH INNOVATION IS THEIR GREATEST BUSINESS CHALLENGE

Contents




The global manufacturing sector is entering a period of profound transformation, shaped by a convergence of technological, economic, and demographic megatrends that are redefining how work is performed and where value is created. Rapid advances in automation, artificial intelligence, and digital technologies are accelerating the shift toward more connected, data-driven operations, while geopolitical uncertainty, supply chain reconfiguration, and a global energy crisis are forcing companies to rethink traditional production models. At the same time, the industry faces acute workforce challenges including persistent talent shortages, widening skills gaps, and the need to reskill frontline workers at scale. **This Manpower report will explore the following questions:**

- How can manufacturers simultaneously navigate historic business and workforce challenges?
- How can they reskill quickly enough to keep pace with accelerating technological change?
- What best practices can they leverage to find the skilled talent they need?

Reforging ROI with AI

AI is moving quickly from pilot programs to practical use across manufacturing, helping companies optimize production, improve quality control, predict equipment failures, strengthen supply chain visibility, and make faster decisions on the factory floor. As AI becomes more embedded in operations, its biggest workforce impact will be less about replacing people and more about reshaping work. Routine tasks will be automated, while demand grows for workers with digital, technical, and problem-solving skills.

- **Implementation Hurdles:** Less than half of CIOs in the manufacturing sector (46%) report that their AI integration efforts are in the implementation phase. This is much lower than the global average (60%) across industries and illustrates the complexity of deploying AI within complex manufacturing environments.[1]
- **AI Skills Wanted:** Manufacturers worldwide say Production (30%), Engineering (26%) and AI application development (22%) skills are the most difficult to find.[2]
- **Factory Floor Anxiety:** Nearly half (45%) of the manufacturing sector workforce worries AI or automation could replace their current role in the next two years.[3]

1. Experis 2026 CIO Research 2. ManpowerGroup 2026 Global Talent Shortage 3. ManpowerGroup 2026 Global Talent Barometer

Workforce Implications:

- **Since most manufacturers are still in the pilot stage of commercial AI adoption, it is important to take advantage of opportunities to engage frontline workers in the innovation process.**
- **Slower AI adoption should be interpreted as a reflection of the unique complexity of this sector and the highly specialized talent needed to execute business transformation at scale.**
- **As manufacturers compete with all other sectors for AI expertise, in some cases it will make more sense to work with experienced external teams to accelerate innovation.**

MANUFACTURERS WORLDWIDE ARE LESS LIKELY THAN OTHER SECTORS TO REPORT AI IS FULLY INTEGRATED INTO THEIR BUSINESS.[1]

A View from the CIO Suite

Manufacturing CIOs face mounting pressure to modernize legacy systems, manage cyber risk, and prove ROI on AI and automation investments. They must manage this as they compete with other industries to find and retain the best tech talent. But those who align technology with business goals have a major opportunity to drive smarter production, stronger resilience, and faster decision-making across the enterprise.

- **Alignment is Priority One:** More than any other sector, manufacturing CIOs (57%) say that aligning IT with business goals is the most important thing they can do to help their organization succeed.[1]
- **Keeping Up is the Challenge:** Manufacturing CIOs are also the most likely to say that keeping up with the rapid pace of technological change (53%) is the greatest obstacle to spending time on their priorities.[1]
- **Retooling Their Tech Workforce:** To keep up with the rapid pace of innovation, most CIOs (53%) say they want to embed AI skills into their existing tech roles.[1]

MANUFACTURING CIOS ARE THE MOST LIKELY TO AGREE (53%) THAT **KEEPING UP WITH THE RAPID PACE OF CHANGE IS THE TOP OBSTACLE** TO ACHIEVING THEIR BUSINESS GOALS.[1]

1. Experis 2026 CIO Research

Workforce Implications:

- **Finding the right combination of internal and external tech talent will be critical as manufacturers simultaneously confront pressure to drive AI innovation and manage business priorities such as cybersecurity.**
- **Manufacturing CIOs are wise to prioritize business alignment since the consequences of failure on a production line are much higher than other industries.**
- **The efforts of most CIOs to integrate AI skills into existing roles are laudable since it will help to engage and retain their current workforce. However, it is also important to avoid the temptation of adding too much to existing workforce workloads and seek contingent or permanent help when it makes sense.**

Trade Winds

Global trade tensions are reshaping manufacturing worldwide through increasing costs, disrupting supply chains, and dampening growth. Tariffs and retaliatory measures raise the price of imported inputs, forcing firms to cut margins, shift sourcing, or reduce production. At the same time, uncertainty around trade policy weakens investment and planning, contributing to slower industrial activity and reduced expansion, particularly in trade-dependent regions.

- **A Mixed Outlook:** Despite many headwinds, global trade rose to a record high of $35 trillion in 2025. At the same time, global trade is changing. Trade concentration increased, with faster growth in large economies. Long-distance trade trends stabilized, while closer trade links grew slightly faster.[1]
- **China Tightens Supply Chain Grip:** China has enacted sweeping new regulations to investigate and punish foreign companies that stop using Chinese suppliers in response to political pressure at home. Analysts believe the regulations could make it harder for foreign companies to divest from joint ventures in China or shift orders to overseas suppliers.[2]
- **Hiring Headwinds:** While only 16% of manufacturers worldwide planned headcount reductions for Q3 2026, they were most likely to point to challenging economic conditions as the primary driver of these staffing changes.[3]

1. United Nations Conference on Trade & Development 2. New York Times 3. ManpowerGroup Employment Outlook Survey, Q3 2026

Workforce Implications:

- **As current economic challenges blur the future outlook, it is important to remember the skilled manufacturing workforce in most industrialized economies is still shrinking.**
- **Although the number of manufacturers anticipating headcount reductions recently increased, the vast majority of employers in this sector planned to keep headcount flat or hire more workers.**
- **Despite historic headwinds in 2025, global trade rose to a record high and deglobalization will increase the need for skilled manufacturing workers in many regions.**

ECONOMIC CHALLENGES DRIVE STAFFING REDUCTIONS FOR SOME MANUFACTURERS.

Energy Crunch

Rising energy costs are becoming a defining challenge for global manufacturers, placing sustained pressure on margins and operational stability. As energy shifts from a variable input to a strategic cost driver, companies are being forced to reassess everything from production processes to investment and location decisions. The impact is particularly acute in energy-intensive industries, where cost fluctuations can quickly erode competitiveness. At the same time, ongoing volatility in global energy markets is adding uncertainty, pushing manufacturers to prioritize efficiency, resilience, and more flexible supply chain strategies.

- **Going Electric:** Demand for electricity grew at well over twice the rate of energy demand, reaffirming that the world has entered the Age of Electricity. Growth of nearly 3% remained above the average of 2.8% over the last decade. Half of demand in the United States was directly tied to data centers.[1]

- **Underlying Resilience:** The global economy continues to expand, supported by the artificial intelligence (AI) boom, even as high energy prices, trade tensions, policy uncertainty, and structural challenges weigh on activity. Real global GDP growth is projected to slow from 3.3% in 2025 to 3.0% in 2026 before picking up to 3.1 percent in 2027.[2]

- **Short-Term Hiring Hesitation:** The economic impact of rising energy costs was quickly felt in manufacturer hiring sentiment. The global Net Employment Outlook for the manufacturing sector declined by 13% in Q3 2026 versus the previous quarter. The impact was felt very differently across countries with sharp declines in Germany, France and Japan. At the same time, the manufacturing hiring outlook rose in the U.S., UK and China.[3]

RISING ENERGY COSTS LED TO **13% GLOBAL MANUFACTURING NET EMPLOYMENT OUTLOOK DECLINES** FOR Q3 2026.[3]

Workforce Implications:

- **Contingent workforce solutions offer a scalable solution for talent gaps during uncertain economic times.**

- **Aging workforces across industrialized countries are expected to drive future manufacturing talent scarcity. Current volatility offers a window of opportunity to find specialized talent for key roles while other employers might stay on the sidelines.**

- **Control what you can control. Programs such as Manpower OnSite can help your operational business leaders more effectively manage the frontline workforce so they focus on sustaining and growing your business.**

1. IEA Global Energy Review 2026 2. Peterson Institute for International Economics
3. ManpowerGroup Employment Outlook Survey, Q3 2026

Reshoring Continues

Reshoring is significantly reshaping global manufacturing by shifting production closer to end markets, increasing resilience while altering traditional cost structures. Companies are moving away from highly centralized, offshore supply chains toward more regional or domestic production models, driven by geopolitical risk, tariffs, and persistent supply disruptions. These changes are already impacting supply chains and the manufacturing world of work.

- **Shifting Supply Chains:** In 2025 alone, tariff escalations between major economies reshuffled over $400 billion in trade flows to date (and growing), while disruptions of key trade routes have driven container shipping costs up 40% year on year.[1]
- **Lawmakers Take Action:** A proposed Industrial Accelerator Act in Europe aims to increase demand for low-carbon, European-made technologies and products through a slate of measures. The proposal includes thresholds such as a 70% EU-content requirement for electric vehicles, 25% for aluminum and 25% for cement.[2]
- **Chips Take Center Stage:** Globally, semiconductor companies plan to invest about $1 trillion through 2030 to build new fabrication plants, and the global annual revenue of the industry is expected to reach more than $1 trillion by 2030. Beyond satisfying market demand, these investments will also help regions increase supply resilience across the semiconductor value chain.[3]

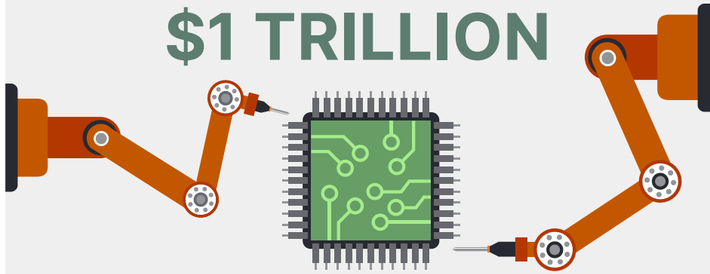
1. World Economic Forum 2. Euronews 3. McKinsey

Workforce Implications:

- **Regionalization of supply chains is expected to continue in the coming years. In many cases, specialized manufacturing talent may not exist within a local market, so manufacturers must plan to build the skilled workforce they need.**
- **Geopolitical tensions also increase the importance of cybersecurity, digital sovereignty and in some cases local security clearances when manufacturers consider their future strategic workforce planning.**
- **Working with a trusted contingent workforce partner can help employers manage growing business and regulatory complexity across countries.**

LOCALIZATION OF SEMICONDUCTOR PRODUCTION WILL DRIVE

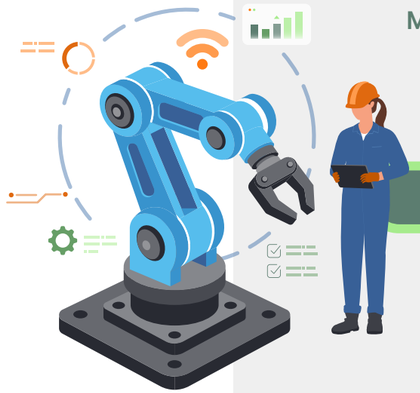
$1 TRILLION



IN NEW INVESTMENT WORLDWIDE BY 2030.[3]

Automation Tech + Talent

Industrial automation is rapidly reshaping the workforce needs of manufacturers, shifting demand away from routine, manual labor toward higher-skilled, tech-enabled roles. As robotics, AI, and advanced analytics take over repetitive tasks, manufacturers increasingly require workers who can program, maintain, and optimize automated systems rather than simply operate machinery. This transition is elevating the importance of digital literacy, system thinking, and cross-functional problem-solving, while also accelerating the need for continuous reskilling as technologies evolve.



MOST MANUFACTURERS ACROSS INDUSTRIES WORLDWIDE

93%

AGREE ROBOTICS AND SMART MANUFACTURING WILL RESHAPE THEIR WORKFORCE.[2]

- **Rapid Robotics Growth:** In the global automation race, Western European countries reached a record 267 robots per 10,000 employees in the manufacturing industry 2024 – ahead of North America with 204 units and Asia with 131 units. The Republic of Korea has the world's highest robot density with 1,220 robots per 10,000 employees.[1]

- **Reshaping the Workforce:** Most manufacturers (93%) agree smart manufacturing tech will reshape their workforce. They anticipate this will require repurposing existing workers (50%), hiring for different roles (42%) and outsourcing (31%).[2]

- **Workers Ready to Adapt:** Most manufacturing sector workers (66%) say they feel confident using the latest technology available. Most (79%) are also confident they will have opportunities to learn new skills to advance their career goals.[3]

Workforce Implications:

- **Korean factory floors where 1 in 10 workers is a robot offer a glimpse of the future. Training workers with the skills they need to work safely alongside these systems will be more important than ever before.**

- **Strategic workforce planning will only become increasingly important as manufacturers repurpose, redesign and redeploy roles to adapt to increasingly sophisticated smart manufacturing processes.**

- **Most workers are eager to use the latest technology available and confident they can use it to advance their career goals at their current employer.**

1. International Federation of Robotics 2. Rockwell Automation 3. ManpowerGroup 2026 Global Talent Barometer

Skilled Talent Shortages

Global manufacturing faces a growing shortage of skilled talent as demand for advanced technical and digital skills outpaces supply. An aging workforce and changing career preferences are shrinking the talent pool, leaving employers struggling to fill critical roles. As a result, talent scarcity has become a structural constraint, pushing manufacturers to adopt innovative approaches to find and retain the best skilled talent.

- **Help Wanted:** Most manufacturers worldwide (72%) say they are struggling to find the skilled talent they need.[1]
- **Steady Demand:** Although hiring has cooled due to economic headwinds, many manufacturers said they plan to hire (42%) or keep headcount flat (40%) in Q3 2026. Only 16% said they planned staffing reductions.[2]
- **Training Gaps:** Despite years of headlines talking about the importance of upskilling and reskilling, more than half of manufacturing workers (60%) say they have received no skills training in the past six months.[3]

Workforce Implications:

- **In an era of uncertainty and tight budgets, modest investments in upskilling and reskilling such as the Manpower MyPath™ program are good opportunities for manufacturers to do more with less.**
- **Effective strategic workforce planning across both interim and permanent roles will be increasingly important as AI-driven automation transforms many manufacturing processes.**
- **Building skilled talent pools across countries will be increasingly important as economic and geopolitical conditions continue to change.**

1. ManpowerGroup 2026 Global Talent Shortage 2. ManpowerGroup Employment Outlook Survey, Q3 2026
3. ManpowerGroup 2026 Global Talent Barometer

Building the Future of Manufacturing Work for 77 Years

Global Workforce Solutions

Manpower is a global leader in contingent staffing and permanent recruitment, providing strategic and operational flexibility to organizations and connecting people to meaningful work while helping them develop skills to stay employable. With our data driven insight into people's motivation, skills adjacencies, and performance potential, we provide learning programs, on the job training and market-based certifications for rapid reskilling and upskilling at scale.

Contingent and Permanent Talent Sourcing - Finding the skilled manufacturing talent you need is not easy. Our workforce experts across 70 countries and 2,100 branch offices can help. We help more than 400,000 clients put nearly 500,000 people to work every day through our proven contingent and permanent staffing solutions.

OnSite Management - Site leaders around the world are struggling with higher turnover, increased costs, and persistent skilled talent scarcity. Manpower OnSite solutions can help by taking over the day-to-day workforce management at your key sites so you can focus on growing your business.

Recruitment Marketing Support - Reaching the right candidates is a growing challenge. Our experienced recruitment marketing team can help you reach the best candidates faster with full-service global support to develop, execute and measure your campaigns.

Strategic Workforce Planning - The global economy and ways of working are changing at an increasingly accelerated pace. Our strategic workforce planning experts leverage big data and proven processes to help you build future-proof integrated workforce strategies while reducing your long-term total workforce costs.

Upskilling & Reskilling at Scale - Proven upskilling and reskilling programs such as Manpower MyPath® can help you build your skilled future workforce. The MyPath® program has helped more than 15,000 clients in 12 countries upskill, reskill, and retain more than 310,000 workers.

Global Workforce Solutions for Manufacturing

Contingent and Permanent Talent Resourcing

OnSite Management

Recruitment Marketing Support

Strategic Workforce Planning

Upskilling & Reskilling at Scale

Manpower® Experis® ManpowerGroup Talent Solutions ManpowerGroup® | ManpowerGroup®

About Us — Manpower® is a global leader in contingent staffing and permanent resourcing, providing companies with strategic and operational flexibility and creating talent at scale. Our talent agents and specialized recruiters leverage data-driven insights to assess, guide and place people into meaningful, sustainable employment, and our PowerSuite® tech platform enables assessment and matching to predict performance potential. Our Manpower MyPath® skilling program provides rapid skills development at scale with on-the-job training, market-based certifications, and coaching for roles in growth sectors. In this constantly shifting world, our flexible workforce solutions provide companies with the business agility needed to succeed. Manpower is part of the ManpowerGroup® (NYSE: MAN) family of brands, which also includes Experis and Talent Solutions. For more information about Manpower, visit manpower.com or follow us on LinkedIn.

This report contains statements, including statements regarding global economic and geopolitical uncertainty, trends in labor demand and the future strengthening of such demand, financial outlook, the outlook for our business in regions in which we operate as well as key countries within those regions, and the Company's strategic initiatives and technology investments, including transformation programs and the positioning of future growth for our brands that are forward-looking in nature and, accordingly, are subject to risks and uncertainties regarding the Company's expected future results. The Company's actual results may differ materially from those described or contemplated in the forward-looking statements due to numerous factors. These factors include those found in the Company's reports filed with the SEC, including the information under the heading "Risk Factors" in its Annual Report on Form 10-K for the year ended December 31, 2025, which information is incorporated herein by reference.