Global Insights

Aerospace and Defense World of Work 2025 Outlook

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73%
OF MANUFACTURERS SAY THEY ARE STILL STRUGGLING TO FIND THE SKILLED TALENT THEY NEED.

AN AVERAGE AEROSPACE AND DEFENSE MANUFACTURER LOSES UP TO
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81%
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The global aerospace and defense industry faces rapid technological advancements and geopolitical challenges. Manufacturers are turning to AI and automation to boost efficiency, but the complexity of global supply chains demands highly skilled talent during an era of growing talent scarcity. Geopolitical tensions are driving reshoring and near-shoring, necessitating a transformative approach to workforce management that balances technical proficiency with strategic agility. **This ManpowerGroup Global Insights report explores the implications for workers and employers.**

- How are employers adapting to manage a workforce that is increasingly diverse and geographically dispersed?
- What potential impacts could geopolitical tensions have on global industrial workforces and supply chains?
- How might the integration of technological advancements impact workforce dynamics in Industrials?

A Perfect Geopolitical Storm

Global geopolitical tensions force companies to localize supply chains and logistics to mitigate risks, leading to reshoring and near-shoring initiatives. Manufacturing is coming back to markets where skilled technical talent pools are already stretched thin. Employers will have to get creative since the viability of their supply chains and overall business resilience depend on it.

- **A Race for Resilience:** As the threat of tariffs and macroeconomic instability continues to rise, 81% of CEOs say they plan to relocate supply chains closer to home or their main markets.[1]
- **Rearming Europe:** After years of peace following the Cold War, Europe is rearming amid growing global uncertainty. At the time of publication, the European Union is considering an €800 billion proposal to boost defense spending.[2]
- **Supply Chain Help Wanted:** As global supply chains become more complex, most employers worldwide (75%) say it is difficult to find the skilled supply chain talent they need.[3]

Workforce Implications:

- **Automation alone cannot overcome increasingly complex global procurement challenges. It will require highly skilled and creative supply chain management professionals.**
- **Employers will need to target untapped talent pools which have been less likely in recent years to consider careers in manufacturing (e.g., women).**
- **Localization is not a silver bullet. The growing number of new production facilities will require highly skilled talent throughout the new supply chains.**

1. Bain & Company 2. European Commission 3. ManpowerGroup 2025 Global Talent Shortage Study

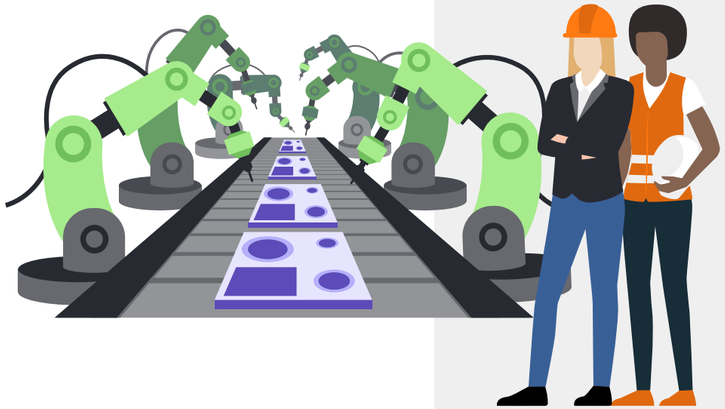
Reinvention on the Factory Floor

Industry 4.0, the fourth industrial revolution, is dramatically transforming global manufacturing by integrating advanced technologies such as the Internet of Things (IoT), artificial intelligence (AI), robotics, and big data analytics. This paradigm shift is enabling manufacturers to create smart factories where machines and systems communicate seamlessly, optimizing production processes through real-time data. However, these state-of-the-art systems will require an even more sophisticated workforce to manage them.

- **Record-breaking Robotics:** In 2024, more robots (4.3 million+) were operating in factories worldwide than ever before. Annual installations exceeded half a million units for the third consecutive year.[1]
- **Growing 5G Connectivity:** There are already more than 25 million 5G-connected IoT (Internet of Things) devices worldwide, including many on factory floors around the world. Analysts expect the number of IoT devices will grow to more than 800 million by 2030.[2]
- **Engineering Help Wanted:** At the same time, most employers worldwide (75%) say they are struggling to find the skilled engineering talent they need.[3]

Workforce Implications:

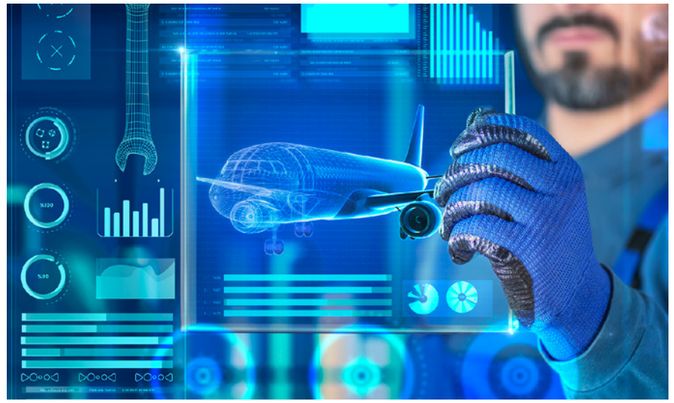
- **Increasingly sophisticated process automation will continue to make manufacturing safer and more efficient. However, when any step of the process fails, investing in the right talent to quickly identify root causes and reduce downtime is critical.**
- **Manufacturers will need to compete with many industries to find and retain skilled technical talent.**
- **They must overcome negative stereotypes of older industrial processes in their recruitment marketing to attract new sources of talent.**



MANUFACTURING IS MORE ADVANCED THAN EVER BEFORE AS **4.3 MILLION ROBOTS** JOIN WORKERS ON THE FACTORY FLOOR.[1]

1. International Federation of Robotics 2. IoT Analytics 3. ManpowerGroup 2025 Global Talent Shortage Study

Retooling for AI



Artificial intelligence (AI) is revolutionizing the manufacturing industry by improving efficiency, precision, and adaptability. AI technologies, including machine learning, computer vision, and natural language processing, optimize production processes by analyzing data and predicting issues. Key applications include predictive maintenance to prevent downtime, advanced quality control, and generative AI for content creation and prototyping. AI's role in smart factories supports real-time decision-making, enhancing productivity and sustainability.

- **From Wow to How:** In the advanced manufacturing sector, 81% of employers plan to leverage AI to enhance existing processes. To prepare for these changes, employers expect to be able to upskill 29% of workers in their current role, while they foresee a need for 15% of workers to be reskilled in the next five years.[1]
- **Overcoming Obstacles:** Employers in the manufacturing sector say high costs (33%), regulation (31%), and current workforce skills gaps (31%) are their greatest AI adoption challenges. They are the most likely (29%) to say worker technical expertise cannot be replicated by AI.[2]
- **Retooling HR with AI:** More than half (51%) of manufacturers worldwide say they are already leveraging AI to improve key HR processes such as hiring and onboarding. Many (22%) plan to leverage AI within their HR processes within the next 12 months.[2]

Workforce Implications:

- **AI is a powerful tool with the potential to significantly improve both operational and HR process efficiency.**
- **The factory floor and frontline workers are no exception, since AI proficiency must extend to every level of the organization.**
- **Manufacturers say at least 1 in 3 frontline workers must be upskilled to learn AI skills in the next few years, so these programs must be scaled.**

MANUFACTURERS ARE THE MOST LIKELY TO SAY (29%) WORKER **TECHNICAL EXPERTISE CANNOT BE REPLICATED BY AI.**[2]

1. WEF Future of Jobs 2025 2. ManpowerGroup Employment Outlook Survey, Q2 2025

The Security Imperative

In recent years, aerospace and defense manufacturing has emerged as one of the primary targets for cyber threats, with a significant share of global cyberattacks directed towards its infrastructure. These attacks not only disrupt production processes but also pose a severe risk to supply chains and intellectual property. As the industry increasingly adopts advanced technologies such as AI and IoT, it becomes even more vulnerable to sophisticated threats.

- **Growing Cyber Attacks:** In 2024, manufacturers were the most likely to be targeted and accounted for the greatest share of cyberattacks worldwide (25%). Employee vigilance is key as phishing attacks were identified as the top initial infection vector for 39% of attacks.[1]

- **Growing Sabotage Threats:** Aerospace and defense manufacturers also face a growing threat of sabotage. The number of attacks in Europe nearly tripled between 2023 and 2024, after quadrupling between 2022 and 2023.[2]

- **Priority #1 for IT:** In a recent global survey of Chief Information Officers (CIOs) and tech leaders, nearly half (44%) say confronting cybersecurity threats is their greatest challenge.[3]

1. IBM X-Force Threat Intelligence Index 2024 2. Center for Strategic and International Studies 3. Experis CIO 2025 Outlook

Workforce Implications:

- **Finding and retaining the right cybersecurity talent and expertise will remain a top business priority for the aerospace and defense sector.**

- **Proper background checks and screening during the hiring process will become increasingly important to mitigate growing security threats.**

- **With many industries facing growing security threats, aerospace and defense will need to compete with other sectors to find and retain the best talent.**

Aerospace and Defense Demand Takes Off

In recent years, the global aerospace & defense industry has witnessed significant growth, driven by heightened geopolitical tensions and increased demand for air travel. Governments around the world are ramping up their defense budgets to modernize their military capabilities and address emerging threats. At the same time, global aerospace manufacturers are struggling to keep up with growing demand for civilian air travel. Both require a highly skilled and specialized workforce.

- **Fortifying Defenses:** In response to rising threat perceptions, global defense spending rose to $2.46 trillion in 2024. Countries in Asia, the Middle East and North Africa, and Europe saw major budget increases.[1]
- **Taking Flight:** Global passenger air travel demand and full-year international traffic grew by 13.6% year-over-year, surpassing 2019 levels.[2] An estimated 9.5 billion passengers traveled on both domestic and international flights in 2024.[3]
- **Talent Inefficiency Quickly Adds Up:** Current talent and skills gaps cost a median aerospace and defense manufacturer up to $330 million per year in lost productivity.[4]

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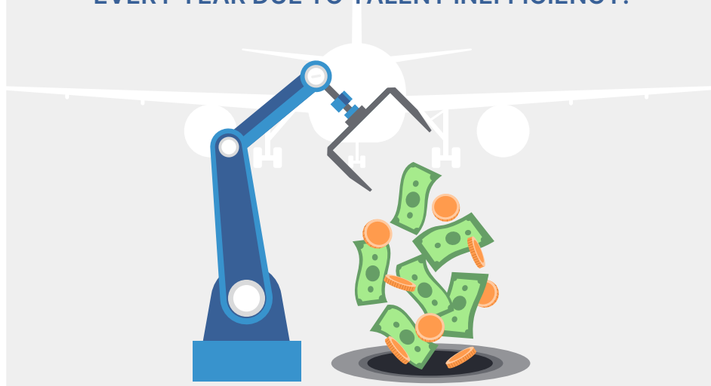


Workforce Implications:

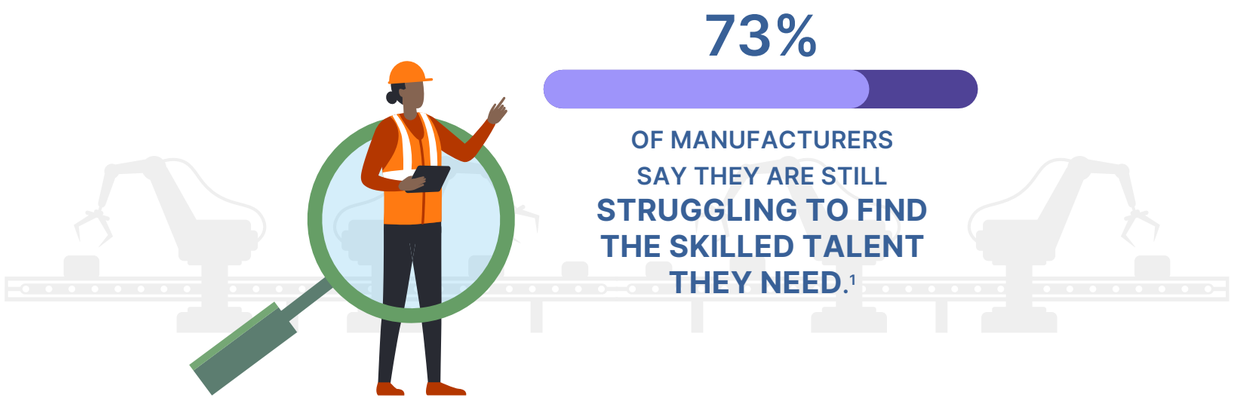
- **The consequences of poor talent acquisition and retention in this sector are higher than any other.**
- **As the experienced workforce in this sector continues to retire, it will become increasingly important to train and retain the next generation of skilled talent.**
- **Expanding talent pools to increase consideration among groups which may not typically be open to career opportunities in this sector.**

1. IISS (International Institute for Strategic Studies) 2. IATA (International Air Transport Association) 3. ACI (Airports Council International) 4. McKinsey

Scaling Up Production

The demands of an uncertain future are converging for industrial employers. Innovation is accelerating as the necessity for more sustainable processes is not going away. Global supply chains and the overall geopolitical landscape are more uncertain today than any time in recent history. At the same time, many of the most experienced employees are retiring as the workforce ages in the most industrialized economies.

- **Skilled Talent Scarcity Persists:** Despite economic uncertainty, most industrial sector employers around the world (73%) say they are struggling to find the skilled talent they need.[1]
- **Makers Wanted:** Employers in the industrials sector say engineering (30%), manufacturing (26%), and tech skills (21%) are the most difficult to find.[1]
- **Mind the Skills Gaps:** Employers (63%) say skills gaps are the greatest obstacle to business transformation in the next five years.[2]



Workforce Implications:

- **The time to refocus on long-term strategic workforce planning is now with the accelerated pace of change expected to continue through 2030.**
- **A renewed focus on training and career path development is an investment in cost savings. Gartner estimates the average cost of turnover per employee is $18,591.[3]**
- **The need to boost retention is real as more than one-third of workers (36%) in the industrial sector say they want to voluntarily leave their current role in the next six months.[4]**

1. ManpowerGroup 2025 Global Talent Shortage Study 2. WEF Future of Jobs Report 2025 3. Gartner 4. ManpowerGroup 2024 Global Talent Barometer

Top Workforce Opportunities in Aerospace and Defense

The New Normal is Not Normal: Manufacturers must continue to use an agile approach to futureproof their business.

Automation and AI Innovation Continue: Increased automation and AI will continue to revolutionize the factory floor, but manufacturers agree their facilities will still require a highly skilled workforce.

Secure the Future: As security threats grow, strategic workforce planning to find and retain the best cybersecurity talent will be increasingly important.

The Best Offense is Good Defense: As nations around the world increase investments in defense and aerospace, the need for skilled workers is urgent.

Control What You Can Control: Manufacturers cannot control global geopolitics or the economy, but they can build a better future of work. This is their greatest actionable opportunity to drive innovation, control costs and boost productivity.

Global Workforce Solutions for Aerospace and Defense

Workforce Consulting & Analytics

Workforce Management

Talent Resourcing

Career Management

Career Transition

Top Talent Attraction

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Forward Looking Statements — 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, 2024, which information is incorporated herein by reference.