

MISSION 2030: CLOSING TALENT GAPS IN AEROSPACE AND DEFENSE



Manpower®

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Introduction

Executive Summary

- **Global military spending surged to nearly 10% to a record \$2.7 trillion in 2024**, the steepest annual rise in four decades. Meanwhile, the commercial aerospace sector is benefiting from longer fleet utilization, fleet expansion, and demand upticks in both the passenger and cargo arenas.
- The aerospace and defense industry continues to grapple with severe talent shortages and attrition rates. Efforts to improve recruitment have yielded only modest gains, with **employers finding more success upskilling the talent they already have.**
- Meaningful action toward more effective recruitment and retention is difficult without first acknowledging the **real obstacles standing in the way of progress, including geopolitical volatility, contract backlogs and vacancy-stalled projects, cybersecurity concerns, the aging workforce and the demographic cliff, constantly shifting digital skillsets, and competition from Big Tech.**
- **Despite existing recruitment and retention challenges, the future of aerospace and defense employment is a bright one.** Manpower recommends that leaders take immediate action to combat the manufacturing stigma, develop external partnerships, source specialized talent flexibly, leverage predictive analytics, upskill with certification programs and microcredentials, fill vacancies quickly to prevent team burnout, and redesign jobs to integrate AI and promote innovation.

*"The greatest victory is that which requires no battle."
– Sun Tzu, The Art of War*



Foreword: A Global Call to Arms



As we head into the second quarter of 2026, **the aerospace and defense sector remains in a period of major expansion, driven by increasing military defense budgets among the most powerful governments in the world.**

Ongoing geopolitical conflicts in Europe and the Middle East, and massive development in Asia Pacific, are leading many countries to accelerate modernization efforts to protect themselves from uncertain threats.

These efforts include cutting-edge technology implementations across the land, the sea, and the space frontier. **At the forefront of so-called “defense tech” is artificial intelligence (AI)**, the fingerprint of which is apparent in collaborative combat aircraft, unmanned drone systems, hypersonic weapons, and sophisticated communications, cybersecurity, and predictive maintenance and warfare decision systems.

All in all, **global military spending surged to nearly 10% to a record \$2.7 trillion in 2024, the steepest annual rise in four decades**, according to a report by the Stockholm International Peace Research Institute (SIPRI).¹ The world’s top 100 defense companies earned \$679 billion in 2024, the highest level ever recorded by SIPRI. Europe’s increase in defense spending is outpacing other regions, jumping 17% in a single year.

Alongside booming military spending is a major rebound in the commercial aerospace sphere. Still responding to manufacturing delays from the COVID-19 pandemic – Boeing and Airbus alone have reported backlogs of 14,000 aircraft – the commercial aerospace sector is benefiting from longer fleet utilization, fleet expansion, and demand upticks in both the passenger and cargo arenas. **A 2025 UHY market analysis² found that global revenue passenger kilometers (RPKs) have reached 99% of 2019 levels, with global operating profits for commercial carriers exceeding \$75 billion.** Meanwhile, the commercial space industry has taken off, with companies like Blue Origin and SpaceX leading the field and bringing the costs of orbital travel down significantly.

In this report, Manpower will **examine the current state of employment in the global aerospace and defense industry, focusing specifically on technical candidate recruitment and retention, challenges to the industry’s longstanding approach to talent, and the strategies leaders must deploy today to ensure a healthy pipeline of technical talent through the second quarter of the 21st century.**

¹ [Stockholm International Peace Research Institute \(SIPRI\)](#) ² [UHY Aerospace Industry Market Analysis](#)

The Aerospace and Defense World of Work



Aerospace and Defense Talent Acquisition Trends

Aerospace and defense employers in both North America and Europe face mounting employment challenges. According to the Aerospace Industries Association, in the U.S., the sector saw its workforce expand to 2.23 million employees in 2024, adding 100,000 workers throughout the year.³ The European defense industry saw a substantial increase in employment in 2024, with the total number of jobs reaching 633,000. This is a 20% increase compared to 2021.⁴ But despite this growth, the industry continues to grapple with severe talent shortages and attrition rates, which remain stubbornly higher than those in other U.S. industries.

Efforts to improve recruitment have yielded only modest gains, with many employers switching to an upskilling approach, improving their existing workforce with future-ready skills. An aging workforce, coupled with younger employees' propensity to seek new opportunities, further complicates the talent landscape and drives the need for novel approaches to workforce management and productivity enhancement.

Retention and Workforce Aging Challenges



More than four in ten (42%) workers in the manufacturing sector say they want to find a new job in the next six months.⁵



The A&D attrition rate of 15% in the U.S. is 2x higher than the overall industry average.³



More than half (55%) of manufacturers believe workforce aging and retirements will have a significant impact on their hiring strategy.⁶

³ [Aerospace Industries Association \(AIA\)](#) ⁴ [Council of the European Union](#) ⁵ [ManpowerGroup Global Talent Barometer, January 2026](#) ⁶ [ManpowerGroup Employment Outlook Survey, Q3 2025](#)

Across Europe, the aerospace and defense industry has demonstrated resilience and continued growth in the face of geopolitical instability and supply chain bottlenecks. In 2024, the sector employed 1.1 million people directly — an increase of nearly seven percent from the previous year — and supported nearly 4.2 million jobs when accounting for direct, indirect, and induced employment.⁷

However, the European aerospace and defense industry also faces constraints, including labor shortages and high energy costs. As a result, companies have limited ability to scale production and meet rising demand, emphasizing the urgent need for investment in workforce development and innovation.

Both North America and Europe are witnessing a shift in the skills required for future success. Employers responding to the ManpowerGroup 2026 Global Talent Shortage Survey⁷ said that communication, teamwork, adaptability, and critical thinking are among the top skills needed for new hires, while technical roles such as engineering and skilled trades remain in high demand but are difficult to fill. Nearly nine in ten U.S. aerospace and defense employers increased compensation in the past year to attract talent, yet competition from high-tech sectors continues to siphon away skilled workers.³

Looking ahead, aerospace and defense employers must address the dual challenges of an aging workforce and the evolving demands of a rapidly changing geopolitical environment. In Europe, strategic autonomy and industrial resilience hinge on building a robust talent pipeline and fostering cross-border cooperation. This will be increasingly difficult as most employers (72%) already say they are struggling to find the skilled talent they need.⁸

The challenge is unlikely to go away as the overall population in these regions continues to age and governments curb immigration. Fortunately, employers in both North America and the European regions realize that investment in training, upskilling, and employee engagement will be crucial for navigating future uncertainties and maintaining their competitive edge.

Top Skills Global Manufacturers Want⁷



Technical Skills

1. *Frontline Production Skills*
2. *Engineering*
3. *AI Development*
4. *AI Literacy*
5. *Traditional IT & Tech Skills*



Soft Skills



1. *Communication, Collaboration & Teamwork*
2. *Adaptability & Willingness to Learn*
3. *Professionalism & Work Ethic*
4. *Critical Thinking & Problem Solving*
5. *Time Management*



⁷ [Aerospace, Security and Defense Industries Association of Europe](#) ⁸ [ManpowerGroup 2026 Global Talent Shortage Survey](#) ⁹ [PwC](#)

“Digital transformation is a major driver of change in the aerospace and defense sectors. The adoption of digital twins — virtual replicas of physical assets — enables real-time monitoring and optimization of aircraft and defense systems. Furthermore, the use of blockchain technology enhances security and transparency in supply chains. However, this shift to digital platforms necessitates new skillsets among A&D workers.”

– Marceline Beijer, Global Vertical Leader – Aerospace and Defense, ManpowerGroup



Stalled Engines: Challenges to the Status Quo

True change in mature industries is sometimes difficult to come by, and meaningful action toward more effective recruitment and retention is difficult without first acknowledging the real obstacles standing in the way of progress.



Supply chain volatility

Demand growth across the industry occurs alongside pervasive shortages of materials and skilled labor. Combined, these factors put ongoing pressure on the aerospace and defense supply chain. When supply chains are fragile, and organizations cannot rely on consistent capacity, they risk the delivery credibility essential to their customers. Aerospace and defense companies are doing their best to increase redundancies, build relationships with new suppliers, and invest in digital and AI-based technologies, but external factors beyond their control – like unpredictable tariffs – may mean that supply chains remain unstable for the near future.



Contract backlogs and vacancy-stalled projects

At first, it seems like a good problem to have. Airline customers are modernizing fleets faster than aerospace companies can build planes. But when backlogs are high, customers grow ever unhappier with the gap between demand and supply. Longstanding vacancies in aerospace companies exacerbate this problem because every role is interconnected, and the right security clearances are scarce. While the aerospace and defense industry is benefiting from regulatory reform that impacts the way companies compete and contract for projects, the procurement and onboarding processes still cannot keep up with product demand.



Cybersecurity concerns

The number of cyberattacks in aviation continues to rise as the cybersecurity talent shortage continues. When digital vulnerabilities remain unaddressed, the whole system is at risk. And in the case of this industry, the system directly impacts classified data integral to the safety of our nations. Additionally, an organization lacking the right security certifications and oversight can lead to poor audit results and further damage to already-strained customer relationships.



The aging workforce and the demographic cliff

According to PwC⁹, 25% of U.S. aerospace employees are over the age of 55, and the U.S. Bureau of Labor Statistics¹⁰ has reported that America needs 3,800 new aerospace engineers every year through 2031. Deloitte's 2026 Aerospace and Defense Industry Outlook¹¹ also found that attrition rates of 15% far surpass the average, and nearly half of hourly hires leave their roles within the first four months. The forthcoming demographic cliff is an added problem. Generation Z (born 1997-2012) is already a small cohort globally, and when we consider the hard-to-access referral pipeline that currently allows young aerospace graduates to enter the industry, escalating talent shortages seem almost inevitable.



Constantly shifting digital skillsets

As is the case in many sectors, post-secondary aerospace education lags behind the shifting needs of the industry. Aerospace and defense graduates may be some of the smartest young people in the world, but they may lack preparedness for leveraging and integrating new AI-based technologies, and risk-averse middle managers are often not in a position to assist. Furthermore, aerospace and defense companies are often behind in building the internal training infrastructures necessary to upskill engineers in real time.

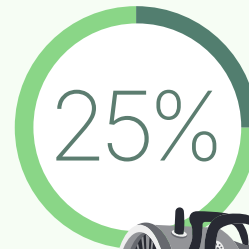


Competition from Big Tech

The Aerospace Industries Association³ has reported that while 70,000 engineers graduate university annually in the U.S., only around 60% are qualified to work in the aerospace sector. These young people are hot commodities, and unfortunately, Big Tech firms like Alphabet, Amazon, Microsoft, and Tesla usually pay much higher entry-level salaries and offer better benefits than other aerospace and defense companies.

¹⁰ U.S. Bureau of Labor and Statistics ¹¹ Deloitte

An Industry in Need of Skilled Reinforcements



of aerospace engineers are over the age of 55.¹²



The aerospace and defense industry has higher-than-average attrition rates of



and nearly half of hourly hires leave their roles within the first four months.¹⁰

In the UK,

10,000

vacancies remain across aerospace, defense, and space sectors.¹¹



As Big Tech continues to dominate, so will its ability to successfully recruit the most talented new engineers. Recruitment losses to Big Tech are especially evident in places like the UK, where over 10,000 vacancies remain unfilled across aerospace, defense, and space sectors.¹²

The opportunity for companies that can address these gaps is substantial. In fact, recent McKinsey research estimates closing the gap between talent supply and demand could be worth more than \$300 million in potential cost avoidance and bottom-line impact for the average-sized A&D company.¹³



Spotlight: Naval Group

Naval Group, a global leader in naval defense systems, required a reliable flow of highly skilled, security cleared talent to support major industrial programs across its sites in Brittany and Normandy. High demand for scarce technical profiles and strict compliance requirements intensified recruitment challenges.

To address these challenges, **Manpower deployed a focused, multi site sourcing model** including a strengthened Brest–Lorient “Naval Hub,” dedicated weekly sourcing slots per agency, and proactive workforce forecasting based on site level requirements for 2025–2026. Personalized candidate pathways and specialized screening ensured alignment with Naval Group’s technical and security expectations.

Key Outcomes

- ✓ **Strong Workforce Delivery:**
530 temporary workers placed across Naval Group sites
- ✓ **Diversity Progress:**
25% women on assignment
- ✓ **Skills Development:**
133 training initiatives supporting critical technical roles
- ✓ **Top Partner Performance:**
80% quality rating
- ✓ **Specialized Expertise:**
Proven capability in sourcing rare profiles such as welding, boiler making, engineering, and embedded systems

Strategic Impact

Manpower’s deep understanding of the defense industry, rigorous compliance processes, and ability to source rare technical profiles positioned Naval Group to confidently navigate its industrial challenges. Through strengthened talent pipelines, reinforced regional sourcing capabilities, and a proactive forecasting approach, the partnership continues to secure the workforce necessary for France’s flagship naval programs.

¹² [Owen Daniels](#) ¹³ [McKinsey](#)

Mission 2030



Course Corrections for A&D Leaders

Despite existing recruitment and retention challenges, the future of aerospace and defense employment is a bright one. Manpower recommends that leaders take the following actions to ensure they have the right talent in place:



Combat the manufacturing stigma

Although aerospace and defense careers are literally “rocket science,” the manufacturing sector still suffers from an image problem. Students and their parents tend to think of low-level, get-your-hands-dirty factory jobs and may hesitate to plan and train for these careers. Capture Gen Z’s attention by publicizing your cooler projects – think atmospheric travel and cybersecurity – where younger talent hangs out online. Since aerospace and defense tend to have opaque job descriptions, make sure you have a vehicle to clearly explain what the work entails on a daily basis.



Develop external partnerships

While a handful of the larger aerospace and defense companies and some government agencies have instant name recognition among candidates, many organizations do not, and this makes it difficult to recruit at scale. Instead of trying to build a large network of engineering talent on your own, consider teaming up with existing initiatives such as the U.S. Space Force University Partnership Program (UPP) and the Defense Civilian Training Corps (DCTC). Similar programs in Europe include the European Space University for Earth and Humanity (UNIVERSEH), EU Space Academy, and TUM Security and Defense Alliance (led by the Technical University of Munich). Efforts like these provide a bridge for talented engineering students from highly regarded degree programs to pipeline into companies by way of internships, research, and direct employment.



Source specialized talent flexibly

Recruitment and onboarding speed is a current weakness of the aerospace and defense sector. Full-time employees will remain essential, but smart leaders will expand their horizons by staffing projects with a combination of FTEs, contractors with niche expertise, consultants, and retired industry veterans. At a time when organizational priorities can shift from day to day, and no two projects are exactly alike, being able to call upon the right specialists at the right time can make all the difference. This is particularly challenging when employers must also clear security clearance hurdles.



Leverage predictive analytics to keep up with the market

Amidst all the hype around generative and agentic AI, predictive analytics remains quietly in the background. However, don't underestimate the power of these tools in helping you forecast labor shortages and stay one step ahead of competitors in sourcing talent. Workforce analytics takes a wide range of data inputs into account – from general labor market statistics and skills adjacencies to internal attrition rates and security clearance processing times – and provides insights about where and how to focus recruiting and training efforts.



Upskill with certification programs and microcredentials

Aerospace and defense leaders understand that hiring candidates who possess both

current and future-ready skills is a heavy lift. Instead of recruiting solely from the outside, build an internal infrastructure for existing employees to skill up using custom badging and certification programs. These advanced training options, which are typically shorter and less disruptive than a full degree program, achieve several benefits at once: they allow your workforce to keep pace with evolving technology requirements, they aid in employee engagement and retention, and they provide an objective measurement of skill mastery.

Best of all, you don't have to develop microcredentials as a solo endeavor. Manufacturing, information technology, and engineering third-party organizations are increasingly offering these in partnership with universities, and contract partners can be a good source for them as well. For example, Manpower regularly partners with clients to create training programs for specialized skills such as welding.



Fill role vacancies quickly to prevent team burnout

As we've discussed, long-term vacancies can have a damaging effect on both contracted projects and the well-being of your current technical staff. When a key employee leaves the organization – especially one with a rare security clearance – the time to hire a replacement is often so long that remaining team members are overworked, overburdened, and more likely to resign themselves. Prioritize filling vacancies more quickly by updating and approving job descriptions and associated compensation in advance and encouraging lower-level managers to be creative in using flexible talent to plug gaps.



Redesign jobs to integrate AI and promote business transformation

Aerospace and defense organizations are sometimes attached to legacy systems and workflows that no longer serve the current environment. Consider starting with a blank slate and examine every role in your organization task by task, determining where and how it's most logical to integrate AI-based technologies. Once your AI tools are in a position to manage more routine work, your technical talent can focus on overseeing their output and devoting more time to innovation and problem-solving. Tenured engineers are a precious and highly informed resource, so leverage their assistance during the job redesign process and encourage them to experiment with different models of human and AI collaboration.



Case Study: MyPath, Where AI and Human Skills Combine

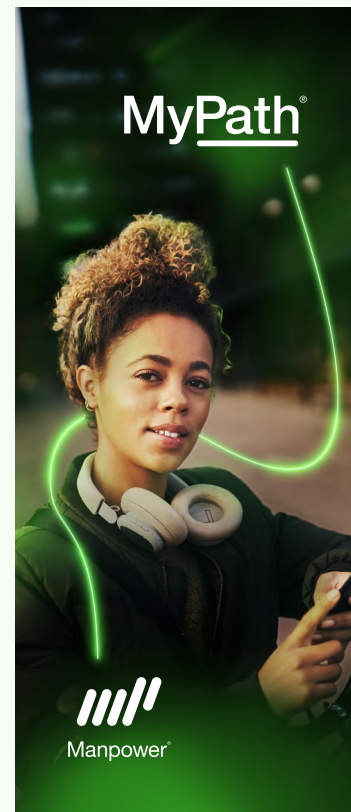
To help employers secure a future ready workforce, Manpower created MyPath, an associate advocacy and development program designed for high potential, in demand talent. Each month, **more than 82,000 MyPath Associates are on assignment worldwide**, and over one third complete training in in demand skills every quarter, ensuring continuous advancement for both workers and employers.

MyPath strengthens employability on two fronts: AI readiness and human centric soft skills. In the U.S., the program now includes practical AI coursework alongside comprehensive soft skills development—supported by CAISY, an AI powered coaching tool built to simulate real workplace conversations and deliver real time feedback. CAISY is embedded within Manpower Acceleration Programs (MAPs), enabling Associates to build confidence, communication capability, and adaptability.

Beyond core curriculum, **MyPath delivers customized client-specific upskilling.** A recent partnership with Zoox, a leader in autonomous vehicles, enabled tailored training for more than 500 consultants. MyPath is also expanding into emerging and green technology domains, including Additive Manufacturing, aligning advanced skills development with the growing green economy.

By combining advanced AI training with strengthened human skills, MyPath delivers a workforce that is day one ready, adaptable, and prepared for the Human Digital future. The program empowers Associates to accelerate employability and supports clients with a consistent pipeline of skilled, future fit talent.

To learn more about MyPath, visit [manpower.com](https://www.manpower.com)



Key Outcomes

- ✓ Global Scale
- ✓ Continuous Upskilling
- ✓ AI-Ready Workforce
- ✓ Client-Specific Solutions
- ✓ Future-Focused Skills

Recruiting the Right Talent



Manpower Global Capabilities

Aerospace and defense industry tech leaders are under more pressure than ever before to bolster core operations, foster innovation, and achieve scalable digital transformation. **Manpower and the MyPath® program offer a proven track record in driving measurable results for clients across industries.**



Contingent and Permanent Talent Sourcing:

Finding the skilled talent you need in today's tight labor markets is not easy. Our workforce experts across more than 70 countries and 2,000 branch offices can help. We help more than 400,000 clients put more than 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:

With global talent scarcity expected to persist, 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:

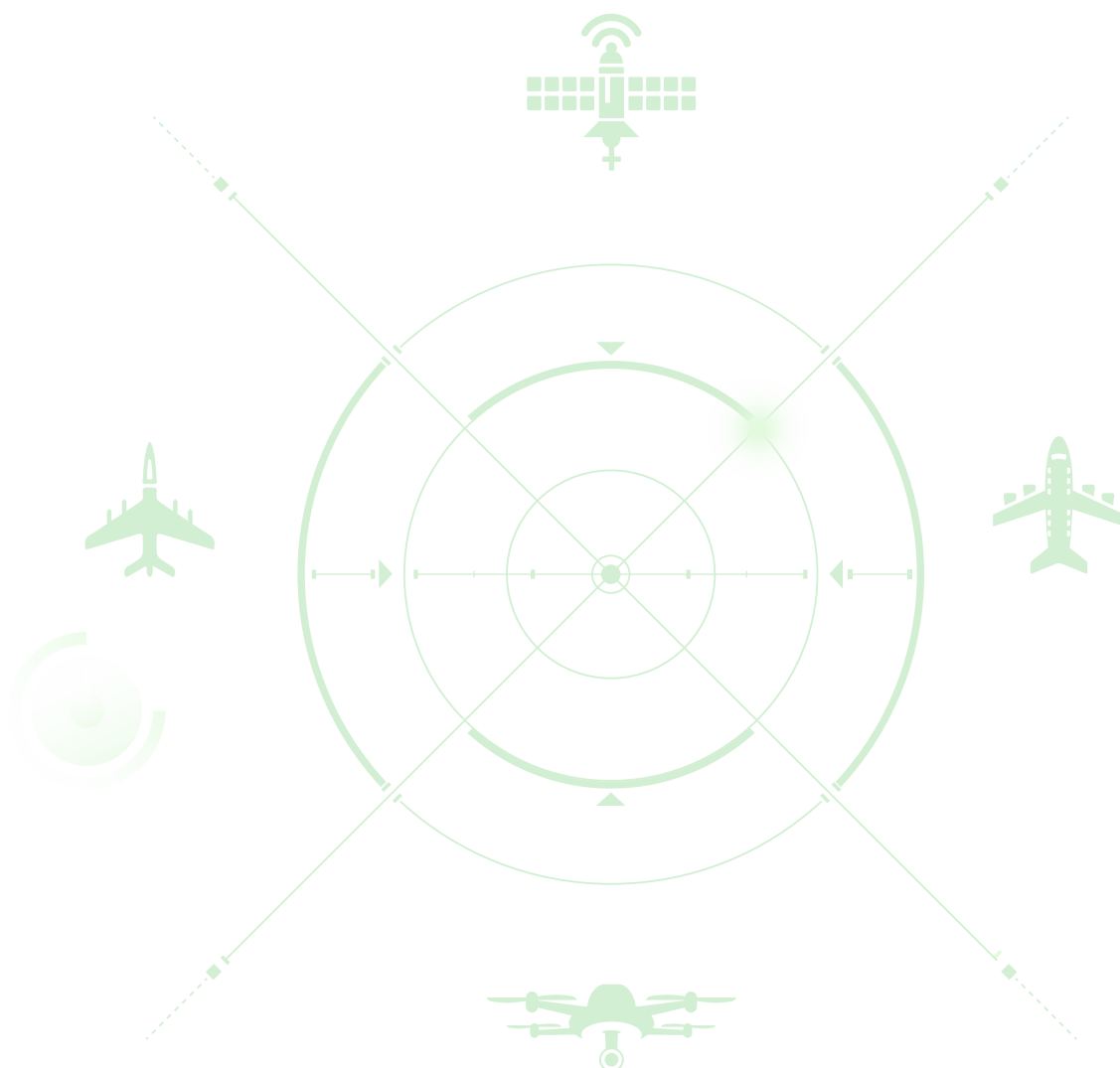
The global economy and ways of working are changing at an increasingly accelerated pace. Our strategic workforce planning experts leverage big data and proven processes to help you build future-proof integrated workforce strategies while reducing your long-term total workforce costs.



Upskilling & Reskilling at Scale:

To win in a future of talent scarcity and increasingly sophisticated technology, employers must build the skilled workforce they need. Proven upskilling and reskilling programs such as Manpower MyPath® can help you build your skilled future workforce. The MyPath® program has helped more than 13,000 clients in 15 countries upskill, reskill, and retain more than 300,000 workers.

To learn more, visit [manpower.com](https://www.manpower.com)



About Manpower

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.

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