

 Global Insights

# Automotive World of Work 2024 Outlook

**76%** of automotive employers are struggling to find skilled talent.

**73%** of automotive employers are currently recruiting or planning to recruit for green jobs.

By 2030, **40%** of new vehicle sales will be fully electric or hybrid.



# Contents

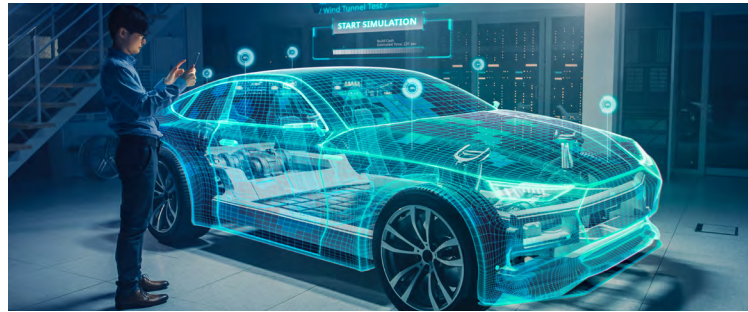
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The automotive industry is undergoing a radical transformation, as new technologies, consumer preferences and environmental concerns reshape the mobility landscape. Electric vehicles (EVs), autonomous driving, connected cars and shared mobility are driving the demand for new skills and competencies in the automotive workforce. New players are entering the industry further driving demand for skilled talent.

The automotive industry also needs leaders who can adapt to the fast-changing environment, embrace diversity and innovation, and manage complex stakeholder relationships. This ManpowerGroup Global Insights report analyzes the top five trends impacting the automotive industry and its workforce today.

- What are the key trends driving business transformation in the automotive industry?
- How are employers and employees managing the accelerating pace of change?
- How will the transformation of the automotive industry impact the future of work?



# The Reinvention of the Automobile

It is not an overstatement to say the automotive industry is in the midst of one of the most dynamic periods of change since the introduction of the assembly line. As vehicles become more sustainable, safe and connected, the entire automotive value chain must adapt.. The stakes are high as automakers invest unprecedented amounts of capital into the future of vehicle technology. In the coming years, there will be winners and losers.

- **Safety First:** The use of vehicle safety technologies, such as Electronic Stability Control (ESC), Adaptive Cruise Control, Lane Keep Assist and Brake Assist are growing, and we are just beginning to see the impact. For example, the European Commission estimates these technologies in Europe could reduce traffic congestion by 15% and prevent 5,000 vehicle accident deaths each year.<sup>1</sup>
- **Make the Connection:** Today's vehicles have more than 100 sensors, which create a constant stream of data. Industry analysts estimate every connected car generates 1-2 terabytes of raw data every day. This is equivalent to 500,000 photos or a 13-million-page document! How this growing big data is used will shape the future of mobility.<sup>2</sup>
- **Secure the Future:** Increasingly connected vehicles will make cybersecurity critically important. In a recent automaker survey, 100% of respondents expected vehicle cyberattacks to increase dramatically and 89% believe a high level of cybersecurity maturity is a significant competitive advantage.<sup>3</sup>

1. [European Commission](#) 2. [McKinsey](#) 3. [PwC](#)

## Workforce Implications:

- Safer and more connected vehicles are great news for consumers, but these complex systems are also more difficult to repair. Finding and training the skilled talent needed to repair these vehicles will be a key challenge for the industry.
- As cybersecurity becomes increasingly important, the automotive industry will need to compete with tech and nearly every other industry to find skilled cybersecurity talent.
- Specific skill sets, such as data analytics and machine learning, will become increasingly valuable as automakers seek to leverage the growing volume of Big Data created by connected vehicles.



**EVERY DAY, A  
CONNECTED CAR  
CREATES AN AVERAGE  
OF 1-2 TERABYTES  
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# Going “Glocal”

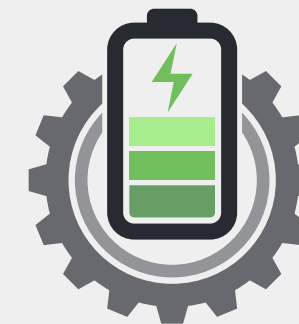
For decades, complex global sourcing and just-in-time production have been standard operating procedure for the automotive industry. However, recent events such as the COVID-19 pandemic and the war in Ukraine have exposed just how vulnerable these supply chains are to disruption. Consequently, manufacturers are working to increase the resilience of their supply chains and increase production closer to their customers.



- **Going Local:** Nearly two-thirds of manufacturers (64%) say they are currently regionalizing their supply chains. For those that currently depend on supply chain inputs from another region (49%), most (89%) say they seek to reduce this dependency over time.<sup>1</sup>
- **Driving Automatic:** The widespread use of automation began in the automotive industry, and it remains the top global sector for automation. Today, global automotive production is supported by more than 1 million robots and this figure will continue to grow.<sup>2</sup>
- **Batteries Included:** The European Union is scaling up battery production to meet growing regional demand. For example, ManpowerGroup is partnering with the InnoEnergy Skills Institute to help upskill up to 800,000 workers in the regional battery supply chain by 2025.<sup>3</sup>

## Workforce Implications:

- Talent scarcity due to workforce aging will increase in the world’s largest automotive markets (Asia-Pacific, North America, Europe). Finding and retaining the right skilled manufacturing and engineering talent will become increasingly important.
- Process automation reduces overall headcount needs, but automakers must find more highly skilled talent to maintain this equipment or risk costly downtime.
- Localization and duplication of supply chains will require specialized talent which may not currently exist in a region (e.g., lithium mining and battery production). This will increase the importance of efforts to recruit, retain and train a skilled workforce.



UP TO 800,000 WORKERS WILL BE NEEDED BY 2025 TO SUPPORT GROWING DEMAND FOR BATTERY PRODUCTION IN EUROPE.<sup>2</sup>

1. [McKinsey](#) 2. [ManpowerGroup & InnoEnergy](#) 3. [International Federation of Robotics](#)





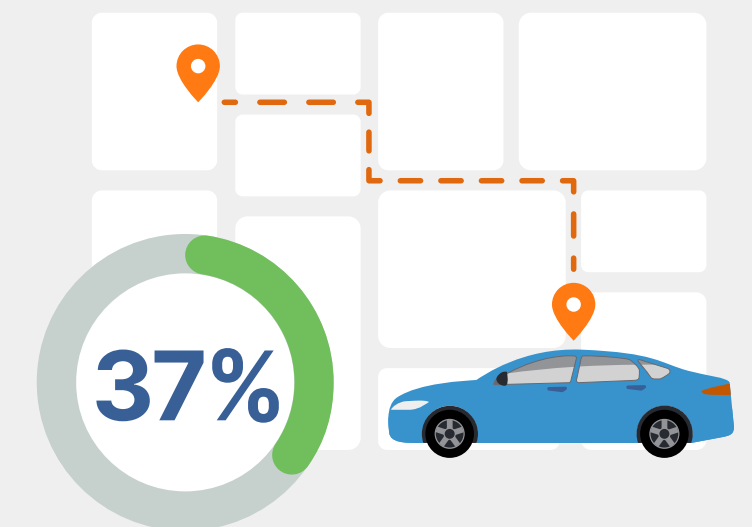
# Overhauling the Vehicle Ownership Experience

Vehicle ownership is undergoing a radical transformation. With the rise of autonomous, electric and shared mobility, consumers are rethinking their relationship with cars. Some may opt for subscription-based or pay-per-use models, while others may prefer to own a vehicle that can generate income by providing rides or services. The future of vehicle ownership will be more flexible, diverse and personalized than ever before.

- **Digital First:** When buying a car, consumers want a digital-first experience which combines the research tools and transparency they have come to expect from other purchases. Today, most consumers (90%) research online channels before buying a vehicle. At the same time, in-person visits to dealerships have declined from an average of eight to no more than two visits before a purchase decision.<sup>1</sup>
- **Growing MaaS:** As the sophistication of vehicle technology continues to increase, so does the cost of vehicle ownership. Coupled with rising urbanization, this creates a growing opportunity for Mobility as a Service (MaaS). Where there were only 10 megacities in 1990 (i.e., metropolises with 10 million people or more), there will be 43 by 2030. Today, a little more than half of the world's population lives in one of these megacities — rising to 7 out of 10 people by 2050.<sup>2</sup>
- **Growing Autonomy:** Autonomous (self-driving) vehicle technology and adoption is growing and has the potential to dramatically change vehicle ownership. A future of working instead of driving during a long commute is closer than many might think. Industry experts forecast 37% of new passenger vehicles sold in 2035 will have advanced levels of autonomous driving technology.<sup>3</sup>

## Workforce Implications:

- The competition for skilled digital customer experience (CX) talent with other industries will continue.
- Autonomous vehicle innovation will require recruiting and retaining the most skilled engineering talent available to maintain competitive differentiation.
- The growth of shared vehicle ownership will increase the importance of fleet maintenance talent to minimize vehicle downtime and maintain customer satisfaction.



OF VEHICLES SOLD IN 2035 WILL INCLUDE  
ADVANCED SELF-DRIVING TECHNOLOGY.<sup>3</sup>

1. [Accenture](#) 2. [Oliver Wyman](#) 3. [McKinsey](#)

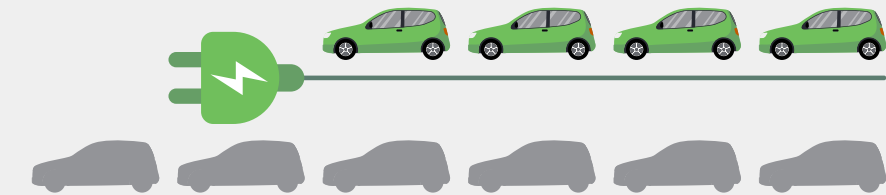
# Shifting Gears to Electric

Around the world, both automakers and consumers are driving a dramatic shift from 100 years of an internal combustion engine-focused automotive industry. We are only beginning to see the implications for workers and consumers, as the fundamentals of vehicles, their infrastructure and the automotive production process radically change. The stakes are high with this transition occurring during a time of increasing geopolitical uncertainty, a cooling economy and growing talent scarcity.

- **Charging Ahead:** As vehicle electrification continues to grow, so will the need for public charging infrastructure. Today, there are more than 2.7 million public charging points worldwide and annual growth of vehicle charging stations has returned to pre-pandemic annual growth rate of 50%.<sup>1</sup>
- **Accelerating EV Sales:** By 2030, EVs will account for 40% of global sales. This is roughly five times the number of electric vehicles (EVs) sold in 2022, translating to 40 million EVs and another 20 million hybrid electric vehicles.<sup>2</sup>
- **Waving the Green Flag:** Green business transformation will continue to gain momentum in the coming years, particularly for the automotive industry. Consequently, 73% of employers in the automotive industry say they are currently or actively planning to recruit for green jobs and skills.<sup>3</sup>



BY 2030, **40% OF VEHICLE SALES WILL BE ELECTRIC.**<sup>2</sup>



## Workforce Implications:

- This shift will cause disruption. Some jobs tied to the production of internal combustion engine vehicles will be eliminated, which is already creating increasing tensions with labor groups (e.g., recent UAW strikes in the U.S.). Implementing effective labor relations strategies and ensuring that workers are brought along in this transition will be critically important in the future.
- Installing and maintaining millions of charging stations will require a skilled technical workforce. Contingent workforce solutions will play an important role in this endeavor.
- The importance of green jobs and skills will grow as automakers seek to electrify vehicles and reduce the carbon footprint of their operations.

1. [International Energy Agency](#) 2. [Morningstar](#) 3. [ManpowerGroup Employment Outlook Survey, Q3 2023](#)

# The Need for Hiring Speed

The combination of an aging workforce, declining birth rates, unfavorable perceptions about manufacturing work and competition from other industries will make finding and retaining a skilled workforce a persistent challenge for the automotive industry. However, as manufacturers of some of the most complex products on earth, this industry is no stranger to global challenges and innovative approaches to overcome them.

- **Women Wanted:** The automotive industry suffers from an image problem. Many workers still perceive it as the mass production assembly line of the past. In reality, today's factory floor is cleaner and safer than ever before, and there are opportunities for women throughout the industry. Even though women make up half the workforce, they only represent 27% of the automotive workforce.<sup>1</sup>
- **Skilled Workers Needed:** 76% of automotive employers are struggling to find the skilled talent they need. They say Operations & Logistics (29%), IT & Data (25%), Engineering (22%) and Manufacturing & Production (19%) are the most difficult skills to find.<sup>2</sup>



- **Fueling Flexibility:** To overcome talent scarcity, automotive employers worldwide are still offering their employees flexibility for when (31%) and where (31%) they work. They are also considering increasing pay (30%), finding new sources of talent (26%) and offering hiring bonuses (25%).<sup>2</sup>

## Workforce Implications:

- Employers in this sector must develop more unique employer value propositions (EVPs) and recruitment marketing to dispel misconceptions and out-compete other industries.
- Diversity, Equity, Inclusion and Belonging (DEIB) best practices must remain a top priority to grow the pipeline of available talent.
- Strategic Workforce Planning and continuous improvement of Employer Value Proposition (EVP) will be an increasingly important business priority.



ARE STRUGGLING TO FIND THE SKILLED TALENT THEY NEED.<sup>2</sup>

1. [Crain's Detroit Business](#) 2. [ManpowerGroup 2024 Talent Shortage Study](#)



# Actionable Takeaways



**Invest in Gen Z:** With workforce aging expected to impact the world's most important automotive markets, it is increasingly important for the industry to invest in recruiting, retaining and training the Gen Z workforce.



**Tool Up Your Tech Talent:** The importance of increasingly sophisticated process automation, application development and AI tools will continue to grow throughout the automotive industry. The industry will need to get creative, as all industries try to recruit a small pool of skilled tech talent. Scaling efforts to build the workforce you need to upskill and reskill the automotive tech workforce will be essential.



**Leverage the Entire Workforce:** Despite years of progress, only 27% of workers in the automotive industry are women. Developing a plan to recruit more women can help automakers maximize their available pool of skilled talent for all roles.



**Increase Consideration of Skilled Trades:** For many years, a four-year college degree has been promoted as the gold standard. More recently there has been an increased focus on getting more students interested in skilled trades. The automotive industry should fully leverage the momentum to attract more workers to skilled trades, such as vehicle service.



**Lean Workforce Planning:** A vehicle is a complex sum of many parts that incorporate years of planning by global teams of engineers. Automotive industry leaders should think of their strategic workforce planning process the same way. More efficient design and execution is key to achieving superior HR outcomes.



# Global Workforce Solutions for Automotive



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