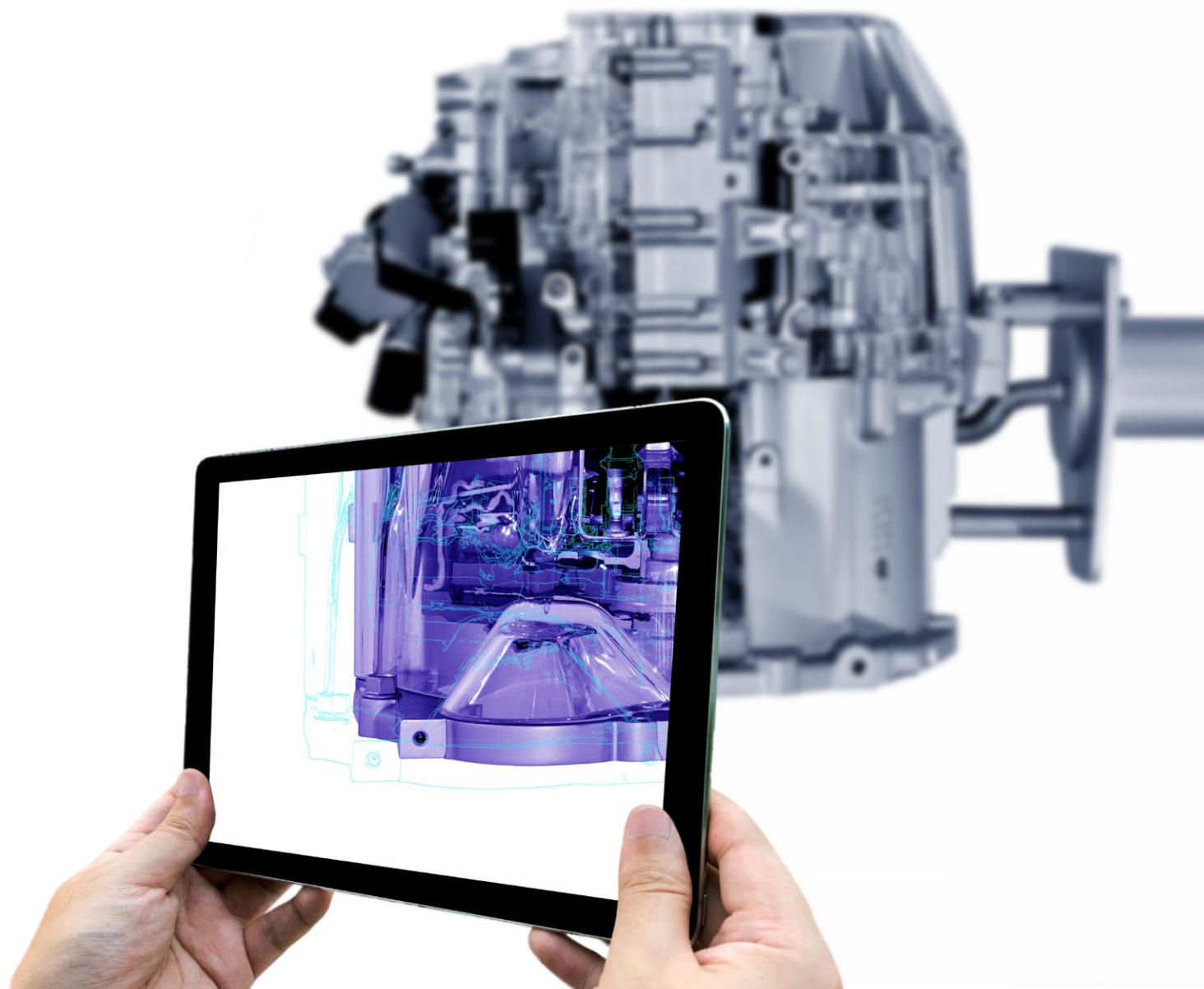


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PEOPLE POWER

**How the automotive workforce
of the future can fuel growth in
the digital world**



Digital and intelligent technologies are fundamentally reshaping the automotive industry, enabling breakthroughs such as connected vehicles, autonomous driving and mobility services. New technologies such as cloud and artificial intelligence (AI), crucial components of these breakthroughs, are disrupting customer experiences, enabling predictive maintenance and driving efficiency in the value chain.

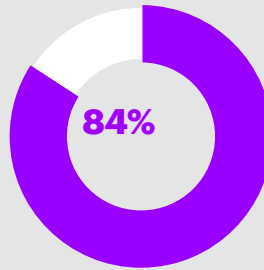
Auto executives are feeling this massive shift. Seventy-five percent of auto cross-functional executives (CXOs) believe their industry will be completely transformed by intelligent technologies according to Accenture's research.¹ These advances are affecting the industry far beyond the traditional automation in production—automating work and extending human capabilities.

Sixty percent of auto CXOs believe that AI will be used to a large extent to assist in tasks in their organizations in the next three years, and 56 percent believe human-machine collaboration is important to achieve their strategic priorities. In the wake of such technology disruption, original equipment manufacturers (OEMs) will need to transform their workforce.

Leaders recognize that reskilling and revolutionizing the workforce are essential in an age where man and machine are on the same team. To survive, auto companies must proactively move away from proof of concept and move toward broader implementation of new technology-enabled ways of working. These changes can move the needle toward profitability and future growth.



To what extent will your organization automate tasks and processes in the next three years?"



84% of auto CXOs said, "to a large extent" and "to a very large extent," ranking highest among 12 industries surveyed.

Automotive companies can equip the workforce to navigate—and even benefit from—technology disruption. Those that rethink jobs, roles and partnerships will be the strongest positioned to thrive in the future. Three steps can help companies build a digitally enabled workforce that fuels innovation and efficiency.



REDESIGN JOBS

Breaking down and reconfiguring existing jobs based on needed skills

In the automotive industry, intelligence-based automation is increasingly affecting production. Intelligent robots are assembling vehicles. Ford Motor Company began using assembly line robots to install shock absorbers in Ford Fiestas. In addition to making assembly safer, faster and higher quality, these robots could also be programmed to make coffee for their human teammates.²



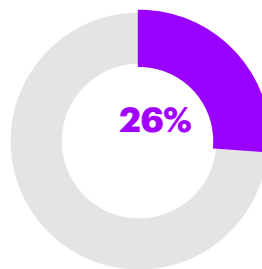
But now, rather than technology just replacing manual power, it is supplementing brainpower.”

Production automation will advance further, especially since there is a growing need for agile product development. In addition, next-level automation is enhancing front-and-back office functions. Many Japanese OEMs have mastered production automation, but now they are applying it even to after-sales services, financial services and other functions, such as customer service interactions via smartphones.

AI equips less-skilled workers to take on more complicated tasks, such as quality control. Real-time visualization using augmented reality, coupled with image correlation algorithms, can fix problems sooner.

Considering this new division of labor among man and machine, auto CXOs must rethink the roles that are needed—even redesign job descriptions to factor in the role of technology. They also must prepare their workforce to be ready to work with AI.

When asked, “Which of the following trends are influencing your workforce strategy?” Nearly half (49 percent) of auto CXOs said automation of processes. However, only 13 percent say they are redefining roles within their organization to prepare their workforce to work more effectively with AI.



Only 26% of CXOs believe the workforce is ready to work with AI.

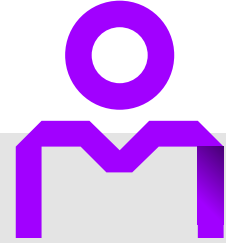
ELEVATE THE WORKFORCE

Reskilling and retraining people to do what humans can do best

Technology has the power to reshape ways of working and minimize the burden on people, allowing them to work in higher-skilled, more meaningful jobs. More than half (59 percent) of CXOs believe AI will improve workforce productivity. For instance, a worker in finance might spend 70 percent of his or her time chasing data. When that function is automated, they can spend more time doing value-add analysis.

While some jobs may not require as many humans, new jobs will be created that require humans. These jobs aren't necessarily in production. There may be orchestrators, data scientists and AI officers. Having people work in new technology-enabled roles will help OEMs to meet challenges of quality and cost-keeping pace with new power trends and production technologies.

Leaders must prepare for the workforce's adoption of intelligent technologies—but few are getting it right. When asked, "Considering the recent advances in intelligent technologies, how does your organization plan to change the proportion of investment in training and reskilling programs in the next 3 years?" Only 2 percent of CXOs plan to increase investment in reskilling programs significantly – whereas 98 percent are not planning significant investments.



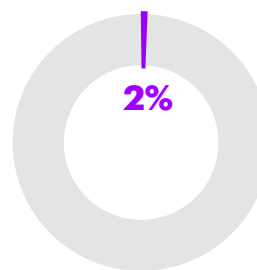
Employees are on board with new IT, but employers need to do more to support human-machine collaboration.

EMPLOYEES

- 66% of auto employees believe intelligent technologies will make their jobs simpler
- 66% of employees say intelligent technologies encourage creativity and innovation

EMPLOYERS

- 12% are conducting advanced workforce planning, taking into account future skills needs
- Just 10% are undergoing an organizational realignment and change management program



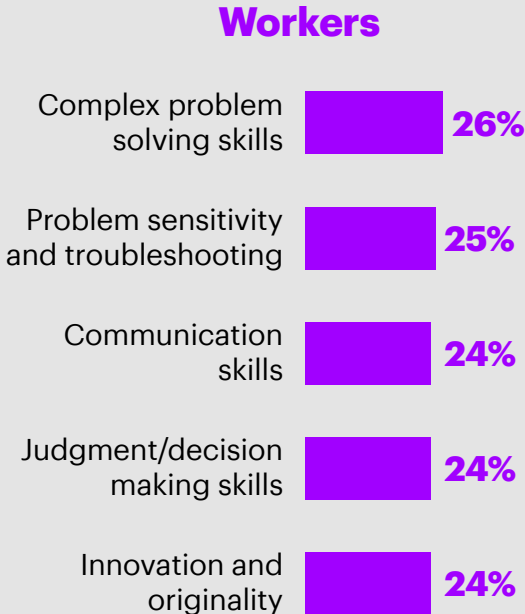
Despite the need to prepare the workforce for intelligent technologies, only 2 percent of CXOs plan to significantly increase investment in reskilling programs.

Some auto leaders are mastering the new mix of man and machine. Mercedes is exploring advanced production practices at its Factory 56, where digital tools support human tasks. For instance, humans use AI, analytics and other intelligent technologies for product assembly, quality assurance and more. Components and vehicles are digitally tracked with the help of RFID. Customers buying the vehicles can even gain a view into the production process.³

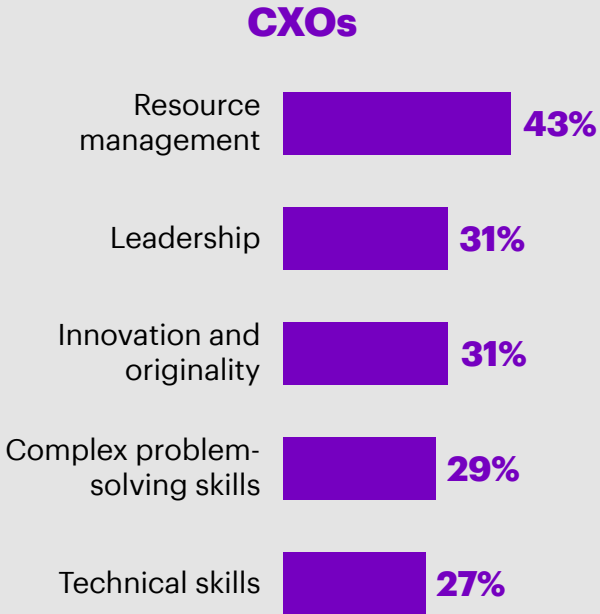


Workers and leaders aren't aligned on the skills needed to be relevant in the future.

The top 5 skills for workers to remain relevant in their work in the next 3 years, according to...



Q29 | Base: Workers Total Sample Automotive | N=1052



Q38 | Base: CXOs Total Sample Automotive | N=100

COLLABORATE ACROSS BOUNDARIES

Leveraging digital ecosystems to innovate, scale and respond to fluctuating market needs

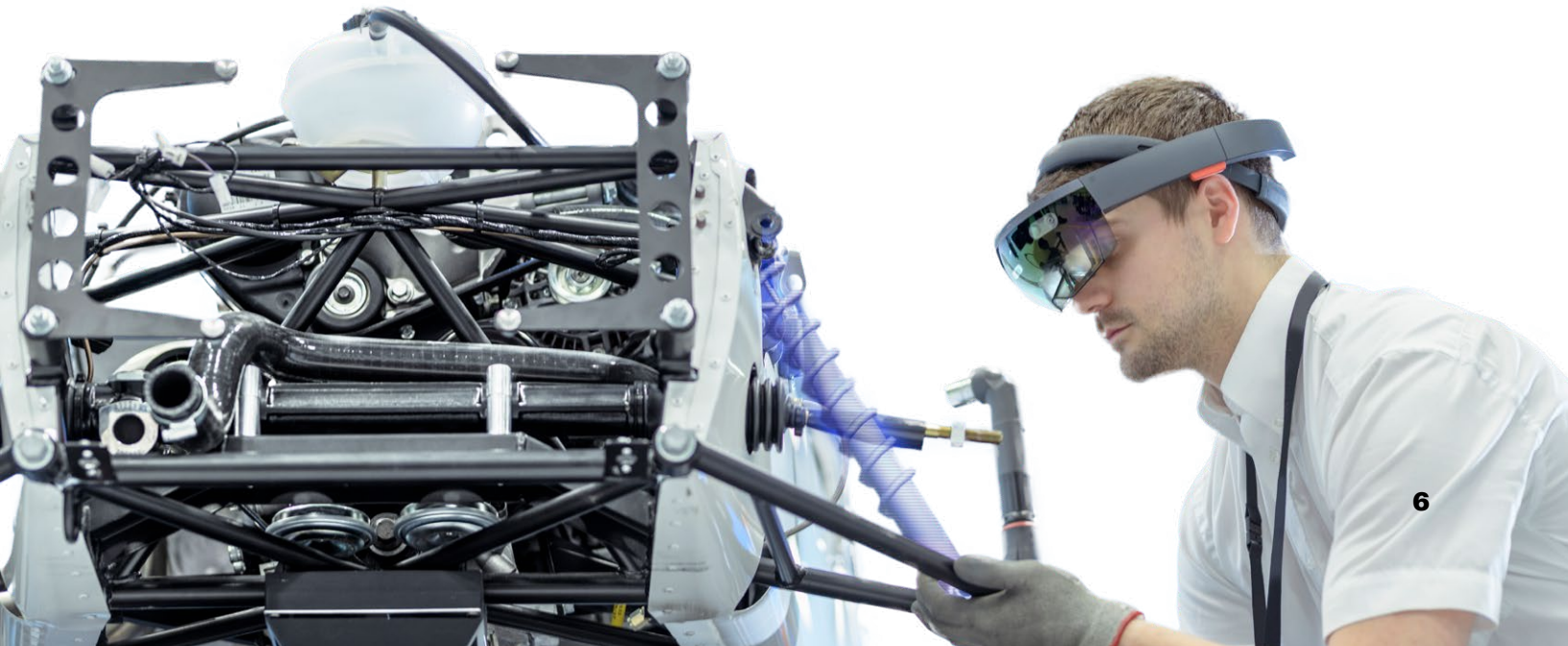
Business boundaries are blurring in automotive. The industry is no longer a traditional value chain. It is a value network in which incumbent OEMs and suppliers will share the market with technology firms, telecoms and new entrants. Rather than creating a collection of sophisticated capabilities in-house and risking longer development cycles, automotive businesses will engage the ecosystem—startups, universities and digital transformation companies—to deliver leading-edge capabilities. Already, four out of ten automotive businesses report working with double or more partners today than they were two years ago.⁴

In some cases, traditional competitors are working side by side. The American Center for Mobility—a nonprofit collaborative of business, government and academic leaders—received \$5 million in support each from Toyota Motor and Ford Motor Co. for help with constructing the Willow Run testing facility for autonomous and

connected vehicles at a former factory site in Michigan. The Center also plans to work with partners to help develop a world-class technology park nearby.⁵

As vehicles become increasingly smarter and more connected, OEMs may find that they need a deeper bench of technology talent, or creative thinkers who are eager to develop the next industry innovation. The ecosystem offers tremendous opportunities to build fluid teams and use diverse workforce sources and talent pools to fulfill tasks and close skill or capability gaps.

OEMs can share talent with others in the ecosystem and also rely on others for help with upskilling or reskilling existing talent. However, Accenture research shows that only 19 percent of CXOs are preparing their workforce to work more effectively with AI by partnering with other players in the ecosystem to offer more comprehensive training programs.



POWERING THE FUTURE

Automotive companies are now looking differently at the collaboration power of man and machine. Today, a new hybrid workforce with “cobots” (collaborative robots) will fuel future growth. In the past, it was about using robots to replace human hands. Accenture estimates that if automotive companies invest in AI and in human-machine collaboration at the same rate of top-performing businesses, they could boost revenues by 28 percent between 2018 and 2022.⁶

As automotive companies adjust to the impacts of intelligent digital technologies, these steps can help guide the journey.

Determine the balance.

As widespread use of automation and AI spurs a new era in the industrial evolution, auto leaders will have to understand how to redesign jobs and tasks so that technology augments human skills. For example, incentive management is a key function, and analysis relies on several disparate sources of data. Some leaders are using AI and RPA (robotic process automation) to perform the mundane data collection and analytical tasks, freeing managers to focus on the value-added tasks to enhance the customer experience.

Start, then scale.

Initial ROI from workforce investments can be small, leading to reluctance to start big. Auto leaders should look beyond short-term implications and think of workforce investments as a “self-funded flywheel approach.” Test automating a handful of processes and use the savings

to fund the next set of initiatives that are riskier, but have more potential value. Not every test will be successful. Management must learn to be comfortable with the setbacks, and build a culture centered on agility and learning.

Make security a priority.

With robots performing tasks, AI processing data and technology being embedded just about everywhere, it’s not a matter of if a company will be hacked—it’s most likely when. The level of exposure increases as businesses become more connected. As such, cyber resilience should be extended to all key areas of the business. New measures must be put in place to monitor and control data within a company and across the ecosystem of partners. It is not easy, given tight IT budgets. However, security intelligence systems, advanced identity and access governance, and automation and orchestration can help realize greater returns for security investments.



Technology is transforming the automotive industry so rapidly, it makes for a bumpy road. But while the concept of human and machine collaboration is new, there are positive opportunities to use technology to support the workforce—and together, grow the business.

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ABOUT THE RESEARCH

Accenture Research surveyed over 1,600 workers and more than 100 CXOs from large automotive companies in 11 countries. The research also included qualitative interviews.

ABOUT ACCENTURE

Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions – underpinned by the world’s largest delivery network – Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With approximately 442,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Visit us at www.accenture.com.

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