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# Growing world of robotics

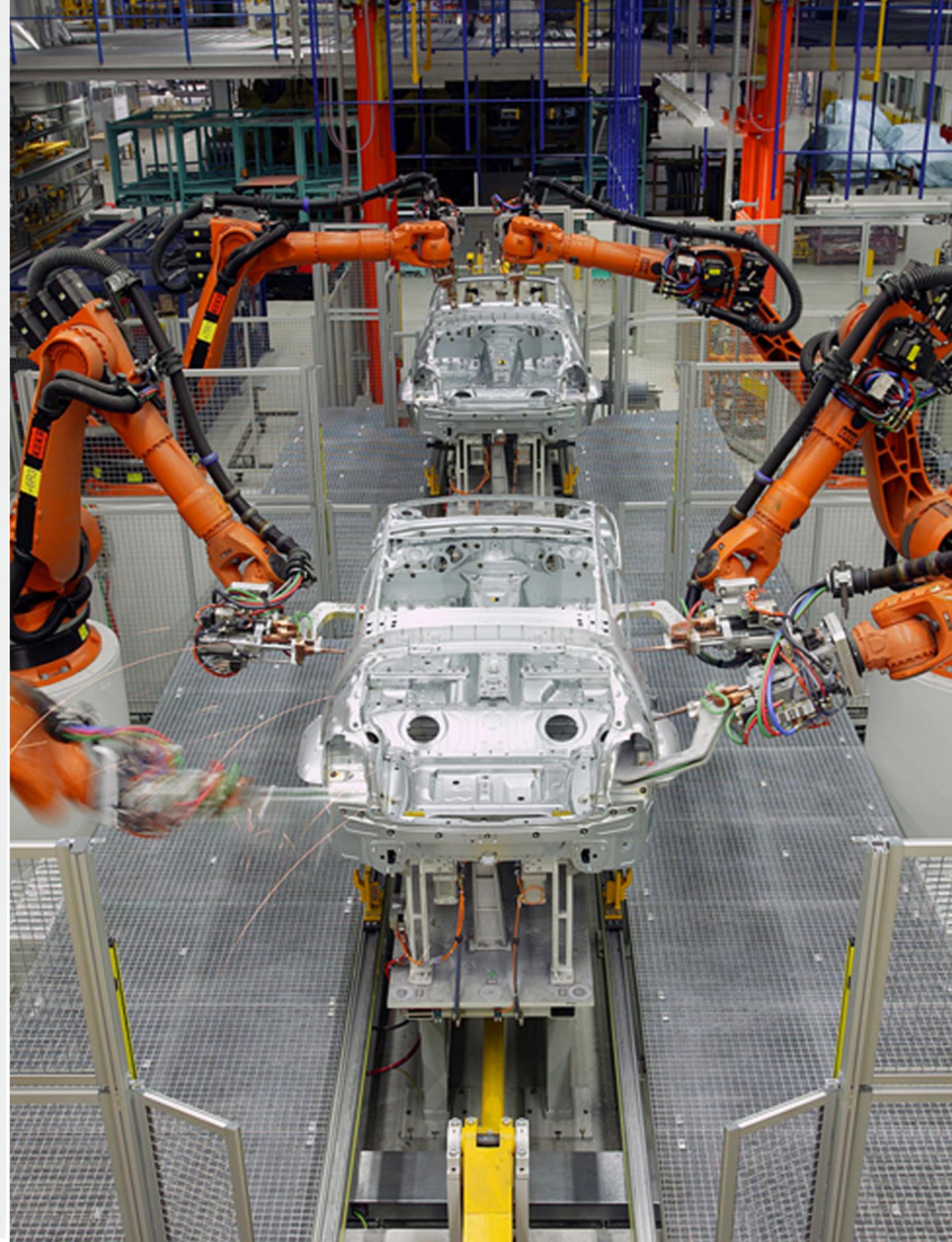
by Molly McCormack Moody,  
editorial assistant

According to [The Robotic Industries Association](#) (RIA), the North American robotics market saw a 10 percent increase in new orders and shipments of robots in 2016. Valued at \$1.9 billion, the North American market broke its all-time record with more than 34,600 robots distributed in 2016.

Even with worries of jobs lost to automation on some minds, the robotics world continues to expand. So, what's driving this year-over-year growth within the industry? According to Jeff Burnstein, president of RIA, it stems from a need to scale and grow for global competition.

"Overall, what's driving the increased purchasing is the need to become a stronger global competitor, gain a competitive advantage, produce better quality products and get those products to market faster," he says.

Automotive and tier suppliers have been leading in receiving robotic shipments and remain the biggest customers, but in recent years non-automotive industries such as food and consumer goods, life sciences, plastics, rubber and metals have doubled their investments in automation. "Metals" indicates basic metals, such as iron, steel, aluminum, copper and chrome; non-automotive metal product manufacturing, which also excludes machinery and equipment; and industrial machinery manufacturing. >



“Robots are becoming more flexible, more capable and easier to install,” says Alex Shikany, director of market analysis for RIA, speaking about the increased adoption of robots across a variety of industries.

With increased market growth, the robotics industry is continuing to evolve to create robots that are more flexible, smaller and easier to integrate into day-to-day operations. These flexible models are therefore inspiring adoption in smaller facilities.

“Small and medium-sized companies are especially interested in collaborative robots, the ones that can work side-by-side with people,” Burnstein says of the recent adoption of robotics for these types of businesses. “There will be continued adoption of industrial, mobile robotics outside of the factory, such as in warehousing and distribution facilities at companies like Amazon, Target and Walmart.”

The robotics industry isn’t about finding one solution for one specific industry; it’s about creating innovative

solutions for a variety of end users and purposes. RIA champions this progress through its Joseph F. Engelberger Robotics Awards.

Engelberger award recipients, such as Dr. Gill Pratt, CEO of the Toyota Research Institute, and Dr. Daniela Rus, professor of electrical engineering and computer science and director of the Computer Science and Artificial Intelligence Laboratory at MIT, have done extensive research and testing to create robots that not only assist industry, but also help carmakers create self-driving vehicles that aim to reduce traffic fatalities as well as assist specific population segments, such as the elderly, with the ability to be increasingly mobile. Pratt won the 2017 Engelberger Robotics Awards for Leadership, while Rus won the Engelberger Robotics Awards for Education.

With the continued adoption of robotics and automation across industry segments, there is still a definite thread of concern within the populace that robots will take away job opportunities. “The real threat to jobs is the inability to remain competitive,” Burnstein says. “In countries

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where we’ve seen widespread robot adoption, including Germany, Japan and China, there has been an increase in both jobs and the economy.”

According to a Harvard Business Review study of robotics use across 14 industries in 17 countries, the use of robots within manufacturing raised the total GDP and labor productivity by 10 and 16 percent, respectively, in the countries studied.

According to Shikany, RIA has worked with several companies that did express that they and their employees were initially concerned when a robot was brought into the business. As they began to understand more about the robot’s purpose and abilities, employers and employees came to see that robots are tools that make their jobs easier, allowing their companies to grow and create new career opportunities. ■