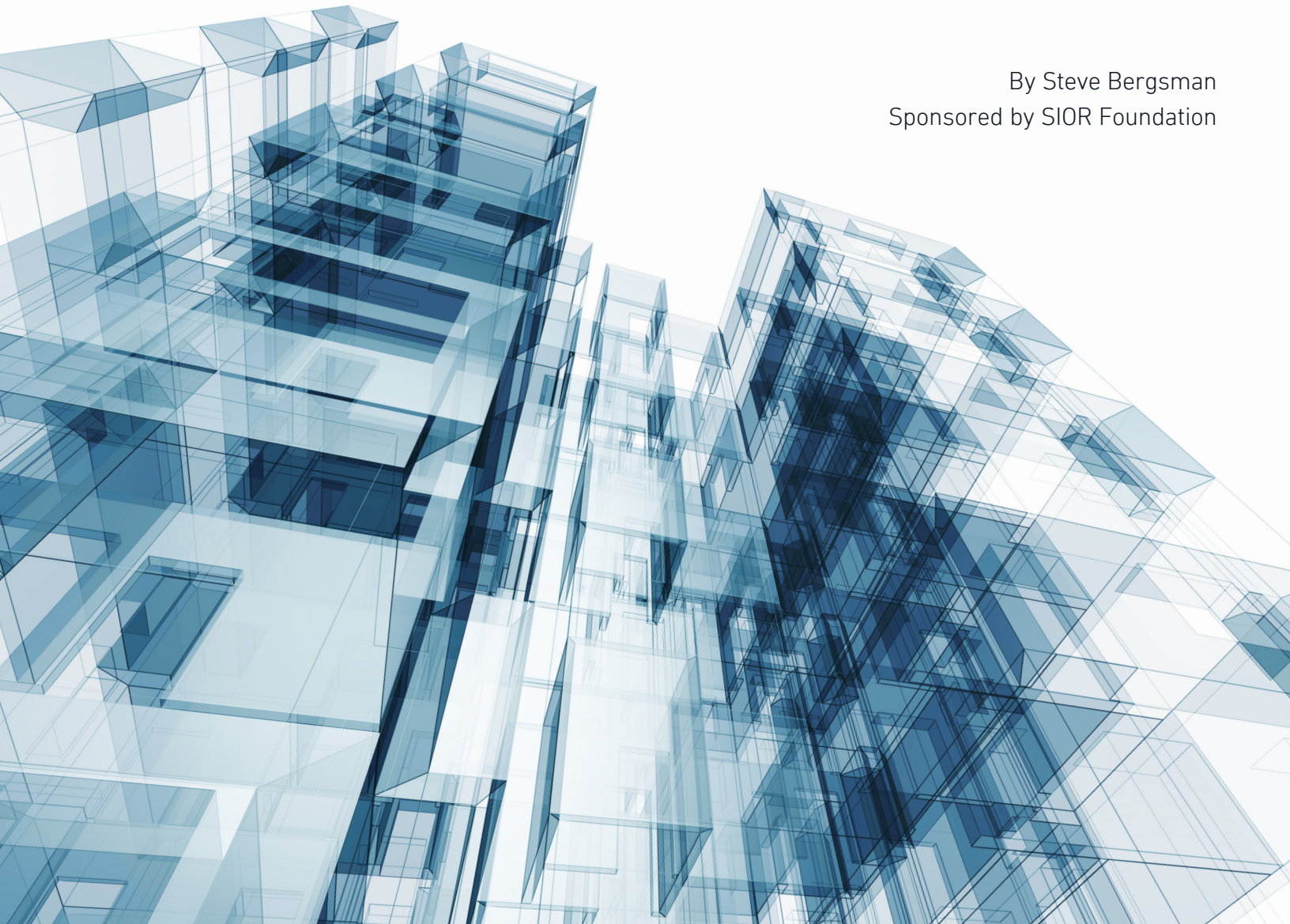


| FEATURED ARTICLE

ADVANCED MANUFACTURING

By Steve Bergsman
Sponsored by SIOR Foundation



Any broker or industrial specialist working in Northern California understands the importance of advanced manufacturing technologies to the American industrial experience. With Silicon Valley and such universities as Stanford and University of California at Berkeley nearby, there are more than enough young, learned, and high-technology-inclined workers to fill the needs of manufacturers employing advanced manufacturing techniques or creating new and improved advanced manufacturing technologies.

But what of the old industrial states; places in the Midwest with high blue collar, non-college-educated workers who felt so left out of the American Dream they turned their reliably blue states red in the past presidential election? As it turns out, the Midwest is doing surprisingly well converting to the advanced manufacturing world that is coming to dominate America's industrial sector.

In looking at the subject of advanced manufacturing, *SIOR Report* checked in with an SIOR member in the epicenter of advanced manufacturing the Bay Area of Northern California as well as with SIOR veterans in Ohio and Wisconsin, two states that bought into Donald Trump's message of "Make America Great" again.

Ohio and Wisconsin were once synonymous with traditional manufacturing, which loosely defined means converting raw materials into finished products using manual or mechanized techniques. It's a little harder to come up with a working definition of advanced manufacturing. Scouring the Internet, we can find this definition: "Advanced manufacturing centers improve the performance of U.S. industry through the innovative application of technologies, processes,

and methods to product design and production."

That's about as accessible a definition as you can find. Otherwise you might end up with something like this: "The advanced manufacturing entity makes extensive use of computer, high precision, and information technologies integrated with a high performance workforce in a production system capable of furnishing a heterogeneous mix of products - with the efficiency of mass products and the flexibility of custom manufacturing."

In the Bay Area, Steve Kapp, SIOR, the executive managing director for Newmark Cornish & Carey of Hayward, Calif., reports local plants are using advanced manufacturing in industries such as artificial intelligence (AI), sensors, automated cars, virtual reality-3-D printing, drones, and robotics.

"All these sub-industries are active and strong in this market and are expected to boom in a classic hockey-stick trajectory over the next 10 years," he says.

Advanced manufacturing is not just defined by these industries of the future, but by its applications to old industries as well, and this transformation has been going on for a couple of decades now. In truth, the transformation has been so smooth, so invisible, and so successful, that most Americans haven't seen it happening, except in regard to one serious negative, the abandonment of the traditional blue-collar worker.

"A common theme in the election of 2016 was that America was getting its clocks cleaned in manufacturing. The fact of the matter is U.S. manufacturing contributes about \$2.2 trillion to the national GDP (gross domestic product).

If you took that number alone, U.S. manufacturing would be the eighth biggest economy in the world. We still out-produce China in total manufacturing GDP."

Those remarks were not from Californian, Steve Kapp, but from Jeff Hoffman, SIOR, CCIM, a principal with Cushman & Wakefield/Boerke in Milwaukee.

What has significantly changed, says Hoffman, is the amount of jobs related to manufacturing. "At its peak in 1979, we had nearly 20 million jobs in manufacturing. Currently, there are 12.3 million. Nevertheless, the United States is producing the same, if not more goods, with less people."

That has been because of automation and advanced manufacturing. Companies create much more with less workers. America doesn't need to become great again, it's already great, if not greater, in regard to manufacturing - and that's not just from the view of someone who works in Northern California.

Hoffman in Wisconsin and an SIOR compatriot in Columbus, Ohio, Todd Spencer, SIOR, CCIM, a principal with Lee & Associates Commercial Real Estate Services, say advanced manufacturing is transforming their regions as well, resulting in a greater expansion of the manufacturing sector.

In the late 1970s, Honda of America built a 4 million-square-foot production facility in the exurbs of Columbus. Since then, the US33 corridor heading northwest of Columbus through Dublin to Marysville has developed into, what the locals call, the Automotive Cluster.

"Central Ohio is a bit different than northeast and northwest Ohio as far as

manufacturing goes,” reports Spencer. “We’ve got 1,700 manufacturers here that employ about 86,000 workers in the region. It is one of the lowest private-sector unionization rates in the country at 3.1 percent. Entities calling Central Ohio home include: Battelle, one of the largest R&D companies in the world; other large manufacturers like Scott’s Miracle Gro, Corning, Whirlpool; Ohio State University; and the 4,500-acre Transportation Research Center. In addition, also under construction is: Sofidel, building a 1.4 million tissue manufacturing plant; BrewDog, out of Scotland, constructing its first North American craft brewing plant; and Rogue Fitness, a maker of strength equipment, erecting a 650,000-square-foot corporate center and manufacturing facility.

Although these sound like old-line manufacturing companies, most will be using an advanced manufacturing process, which Spencer says includes “any manufacturer that is using a high level of technology and expertise applied through the entire value chain and process. This is not your typical, older, mass-production workforce; it’s going to be people with specialized skills working in conjunction with very advanced automated technologies.”

Recently, Spencer’s company, Lee & Associates, teamed up with the city of Marysville to acquire 206 acres that will become home to 33 Innovation Park, a center for R&D and advanced manufacturing. “We think the users will be mostly automotive manufacturers and suppliers, but we are open to other types of innovative users,” says Spencer.

Asked if Central Ohio has the talent pool for so many new advanced manufacturing jobs, Spencer notes, in addition to recent graduates from Ohio State University, Central Ohio boasts dozens of vocational and technical schools, colleges and universities, grants, and workforce development programs.

“One of the things that define advanced manufacturing is that need for a different skill-set and higher level of expertise,” says Spencer. “Typically those jobs pay more.”

Which brings up an important point: brokers looking to attract advanced manufacturing companies really need to have a “strong knowledge of the existing labor pool, access to markets, infrastructure, tax environment, and potential incentives to make the transaction attractive,” says Spencer.

What is occurring in the new manufacturing world is that employees that are being hired must have, at a minimum, a two-year technical college degree, with engineers holding a four-year degree, if not masters or advanced degree.

“The plight of the advanced manufacturer really boils down to a race for the brightest and best talent,” says Hoffman. “Just by providing top salary or a competitive salary isn’t necessarily enough to land that top talent. When you hear about the ‘skills gap,’ it means manufacturers can’t find enough candidates with the correct skill-sets to staff positions.” Which is also why Wisconsin has, what Hoffman calls, “one of the most robust, technical college systems in nation.”

“The concept of advanced manufacturing has shifted,” Hoffman explains. “Historical manufacturing was mass production in a cavernous factory, where employees cranked out thousands of similar parts. The real growth in our area has come from companies that have developed niches. They do specific parts, in low quantities but high value. It’s a different mindset that is a lot more in collaboration with the workforce.”

Besides worker considerations, advanced manufacturing requires different sites and venues.

Although Columbus is well known for being a distribution center, where buildings are 500,000 to 2 million square

feet, companies creating or utilizing advanced manufacturing techniques usually require about 50,000 to 350,000 square feet.

The new employers in Southeastern Wisconsin are building new plants, usually taking between 20,000 to 150,000 square feet, although some have gone higher. Hoffman worked with a robotics company that took 40,000 square feet. Even more interesting is a deal that Hoffman concluded for a new-age, pet food company that is doing a 165,000-square-foot build-to-suit.

“The plight of the advanced manufacturer really boils down to a race for the brightest and best talent.”

“The owner created a category and has a patent on the process,” says Hoffman. “She grew her company in a decade, starting in her kitchen then going to 10,000 to 50,000 to 165,000 square feet. The owner wanted an extremely clean looking building with top-of-the-line offices in an area closer with modern business park amenities.”

Although, Hoffman stresses the labor piece is still the most important selling point for an advanced manufacturer, it’s also important for companies to find a broker that understands infrastructure, fiber-optics and cable, and market incentives.

As successful as Central Ohio and Southeastern Wisconsin have been in attracting advanced manufacturing companies, new companies still have to be sold on being in the Midwest. That’s not the case for Northern California.

"We are fortunate. If there is any place in the world that doesn't have to 'woo' businesses it is this area, because we have the highest concentration of skilled labor in our market here," says Kapp. "There is no greater concentration of highly-educated, skilled labor than in the San Francisco Bay area. We are ground zero for it. And it is a diverse workforce with people from China, India, really all over the world, having relocated here. That exchange of ideas is an important factor."

Beyond the workforce, the second consideration in regard to Northern California is the supply chain for advanced manufacturing. "That's another reason we are seeing companies come here, despite some of the most expensive commercial real estate costs in the nation and the most expensive labor costs. The benefits of a highly trained workforce and being so close to the supply chain of your company trumps all that."

It is not as if Northern California isn't involved in old world industries like car manufacturing. The East Bay area is home to Tesla's manufacturing facilities. Kapp just did a deal for 150,000 square feet to a company that is going to make the dashboard sub-assemblies for the Tesla plant.

He also did a lease for a company that makes virtual-reality goggles, which

expanded from 7,000 to 15,000 square feet.

"Leases for advanced manufacturing companies typically aren't that large, usually 50,000 to 150,000 square feet," says Kapp, "but it is in a higher value type product."

Looking at the wider world of advanced manufacturing, Kapp says, it doesn't all have to be in Northern California.

"Each locality has an opportunity to compete in advanced manufacturing, but you have to find out the advantages of your specific area as it pertains to each industry," says Kapp. "A water-intensive company is not going to look for a site in California, but if you have abundant water in your area, then you need to find the segment of the industry interested in that asset."

Finally, for those who think America is no longer a manufacturing powerhouse, Hoffman stresses, "manufacturing in the United States is still doing well in regard to the macro-economy. There is opportunity in the manufacturing field, but it's typically going to go to someone with a highly skilled set of knowledge." ▾

SPONSORED BY
 **SIOR** FOUNDATION

Promoting and sponsoring initiatives that educate, enhance, and expand the commercial real estate community. The SIOR Foundation is a 501 (c)(3) not-for-profit organization. All contributions are tax deductible to the extent of the law.

CONTRIBUTING
SIORS



Jeff Hoffman,
SIOR, CCIM



Steve Kapp, SIOR



Todd Spencer,
SIOR, CCIM

