MANUFACTURING

'TSMC EFFECT' TAKES HOLD

Arizona Commerce Authority, GPEC officials see huge growth ahead for Phoenix metro as advanced manufacturing project pipeline reaches record levels

By Hailey Mensik – Reporter, Phoenix Business Journal
Apr 18, 2025

Listen to this article
8 min

Story Highlights

- Arizona Commerce Authority reports 482 active business expansion projects
- TSMC's $165 billion facility sparks surge in advanced manufacturing interest
- Arizona positioned as key state for domestic semiconductor production

Taiwan Semiconductor Manufacturing Co.'s $165 billion facility in Phoenix may be the buzziest advanced manufacturing project in the Valley, but it's far from the only one getting attention.

The Arizona Commerce Authority said it currently has 482 active projects in its pipeline of businesses looking to expand or relocate to the state, including 336 in manufacturing, CEO Sandra Watson said. The majority of those are in advanced manufacturing, with 54 semiconductor projects in the pipeline and 88 more in the battery-making sector.

The surge of interest in Arizona comes amid a push for domestic manufacturing as a potential trade war looms and the Trump administration's tariff strategy roils the markets. Semiconductor manufacturing, testing and packaging is largely done in Asia, but the pandemic and supply chain vulnerabilities highlighted a crucial need for more domestic chipmaking. Some experts and Valley leaders say Arizona is uniquely positioned to be home for many advanced manufacturers looking to scale their operations in the U.S., with the potential to significantly boost local economies of smaller cities on the outskirts of metro Phoenix.

“You're hearing a lot of economists say that it'll take a decade to onshore. Well, that might be accurate in some markets, but in … particularly high-growth states like Arizona, Texas and the Carolinas, Georgia, these states will be at the front of the line,” said John Boyd, principal at Florida-based site selection firm The Boyd Company.

John Boyd, principal of The Boyd Co.
BREANNE WILLIAMS

Semiconductor capability is critical for Tempe-based contract manufacturer Benchmark Electronics (NYSE: BHE), but it’s also looking at diversifying its market share in adjacent verticals, including medical device and aerospace and defense manufacturing.

“When I look at our Phoenix site and electronic standpoint, we have aerospace and defense capability there that we do,” David Valkanoff, Benchmark's executive vice president and chief operating officer said. “How can we continue to grow there? But also from an industrial standpoint, and especially with a lot of the tariffs in the new administration in place, it's bringing things now to us that we wouldn't have thought six months ago, even where some of our customers are saying, ‘Hey, we want to come to Phoenix. We want to expand. How can we get there?’”

According to the ACA, 159 of the projects in its pipeline are from international companies. Last year Arizona’s international trade reached record levels, with exports by Arizona companies rising to $32.2 billion in 2024, an 11.6% jump from 2023, Governor Katie Hobbs announced during an International State of the State Address in March.

Read more: Why semiconductor suppliers, tech manufacturers see long growth runway in Arizona

Arizona was one of the top six states for semiconductor manufacturing exports in 2023, exporting $4.1 billion, according to data from the Bureau of Labor Statistics.
Total U.S. construction spending on manufacturing projects has soared in recent years, per recent Business Journal reporting. It hovered around $80 billion on a monthly basis in the years leading up to the pandemic. Since 2022, that sum has grown to $238 billion, where it has largely plateaued in recent months.

'TSMC effect' in the Valley

The “TSMC effect” is now largely at play across the Valley, where semiconductor suppliers and other companies involved in ancillary operations to help support massive projects like TSMC’s are looking to move in nearby. Intel Corp.'s own expansion of its semiconductor factory in Chandler also figures in attracting new players to the region.

“This is the most active super cycle of advanced technology projects that I've seen, and this is my 17th year here at GPEC,” said Chris Camacho, CEO of the Greater Phoenix Economic Council, which often coordinates business attraction efforts with the ACA. “It's really about the semi supply chain now.”

GPEC currently has about 260 active deals, Camacho said. About 80% are industrial, and about half of those are for advanced technology projects, he said.

Since 2022, the organization has helped 18 advanced manufacturing companies expand into the Arizona market, representing 3,113 jobs in their first phases. Six of those companies were semiconductor-related.

One of those projects is Tempe-based Amkor Technology Inc’s. semiconductor advanced packaging and testing facility that is proposed to be built in Peoria. Amkor’s facility is expected to be the largest outsourced packaging plant in the U.S. and will package and test millions of chips for TSMC. It’s also expected to create 2,000 new jobs.

That plant “again, is a nice, attractive opportunity for other manufacturers,” the ACA's Watson said.

“One of the things about the chip industry is that it really solidifies Phoenix's special relationship with high growth and powerful, influential markets in Asia, like Taiwan, South Korea and other chip industry centers of excellence,” Boyd said. “That sort of global connectivity is significant."

Workforce training investments

GPEC has 73 advanced manufacturing and heavy manufacturing companies in its active project pipeline. Eleven are in the semiconductor industry, while the same amount are for battery production.

“Adjacent to kind of core semiconductor projects you have advanced battery facilities, and these are both for electric vehicles and also for energy storage, which is massively growing industry as well,” Camacho said.

LG Energy’s $5.5 billion battery manufacturing complex being built in Queen Creek is one example of a massive project in that industry that landed in the Valley, and from a foreign company. The first phase of the plant will produce batteries to supply Rivian Automotive Inc.’s electric truck manufacturing plant in Illinois for its R2 model vehicles. The second phase of the project is expected to be a battery manufacturing facility for energy storage systems.

LG Energy is building a manufacturing plant in Queen Creek.
TOWN OF QUEEN CREEK DOCUMENTS

Beyond the “TSMC effect," a number of other factors are currently driving advanced manufacturers to the Valley, like investments in workforce training. In 2023, Arizona State University was awarded a $39.8 million federal grant to create a regional network for microelectronics education, research and development in the Southwest.

“Winning markets tend to have that type of university, a proactive university on economic development to train the workforce of the future, and meet the needs of the existing workforce,” Boyd said.

Total U.S. manufacturing employment stands at about 12.7 million — down slightly after reaching 12.9 million in 2023 following the depths of the Covid-19 pandemic, but still higher than at any time since the Great Recession pummeled manufacturing employment. Investments in site readiness are another draw for Arizona in the competitive world of site selection, along with pro-business policies, especially those regarding energy use, Boyd added. Even amid tariff and trade war concerns, “executives tend to take a longer-term view of the impact of tariffs, and look, there's going to be enormous new reshoring and onshoring opportunities, and Arizona will be amongst the most favorable states to attract a lot of that onshoring investment because of investments in site readiness and workforce training,” Boyd said.

Amy Edelen of Phoenix Business Journal contributed reporting to this article.