

From the Dayton Business Journal:

<http://www.bizjournals.com/dayton/news/2017/05/10/graphene-valley-30m-expansion-might-not-be-enough.html>

'Graphene Valley:' \$30M expansion might not be enough for this Dayton company

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May 10, 2017, 6:15am EDT

It hasn't even cut the ribbon on its third building, but a Dayton advanced materials company already has its eye on a fourth.

Global Graphene Group Inc., the holding company including [Angstrom Materials](#) and several other companies, will cut the ribbon this month on its new 25,000-square-foot laboratory building across the street from its 1240 McCook Ave. building in Dayton in an event, a new lab for the company as it spins up its graphene-based technology for a number of commercial uses.

Graphene is strong, lightweight and considered one of the best conductors of heat and electricity. However, it has been difficult to make on a large scale and carries a high price tag. Angstrom's latest expansion would majorly boost the amount of graphene it produces, from 300 metric tons a year to nearly 1,000.

[Edward Chan](#), executive vice president of Angstrom Materials, said the company is growing production with \$8.5 million in investments in the past year and a half as the company has invested in advanced pilot equipment and factory space. The new lab features areas for production and testing of graphene products, featuring a graphene floor. Chan said the company wants to see a "Graphene Valley" in the U.S. — akin to the technology focused Silicon Valley area.

"It's not exotic anymore," Chan said. "It's not clinical, it's out there now and it has many uses. It's a tool for many industries. And we are the leading supplier in applications material."

The company has 74 employees and 108,000 square feet of space between the U.S., Taiwan and China. The local investment in a brownfield land has topped \$30 million in land purchase and equipment, with the plant helping grow its product lines for energy storage, nano-composites and coatings. The project is hoped to bring 120 new employees over several years.

Graphene is sold in powder form — which can be incorporated into materials and coatings — as well as a solid form, such as in sheets. Commercially, it's used in smartphones and tablets to disperse heat generated by chips.

Founded in 2007, Global Graphene Group has been a high-tech startup to "commercialize world-changing technologies through graphene and graphene-enhanced applications." The company has assembled 280 patents based on graphene with uses including thermal management, nano-composites, rechargeable battery materials and cells, and nonflammable batteries.

The company quickly raised \$25 million from investors and has no debt and a strong cash position. Its CEO and co-founder, [Bor Jang](#), is a former dean of the Wright State University College of Engineering and Computer Science.

The company is thinking about a fourth building but hasn't decided where that will be. Chan said it must be close to an area with a strong talent pool — 20 percent of Angstrom's workforce has PhDs, and it recruits engineers and similar professions heavily. Locally, [Julie Sullivan](#) of [Dayton Development Coalition](#) and [Keith Klien](#) at city of Dayton have engaged it for incentives.

"There are many uses for graphene and we see a lot of growth potential," Chan said.



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Bor Jang, CEO of Angstrom Materials Inc.