

You can now read 10 articles each month for free on BostonGlobe.com.

The Boston Globe

Business

SHIRLEY LEUNG

Siemens offers \$660 million to help narrow skills gap



By [Shirley Leung](#) | GLOBE STAFF APRIL 16, 2014

It's not your father's factory anymore, and that's the problem facing manufacturers in the US.

Enter Siemens, the global industrial giant, which is donating nearly \$660 million in software to a dozen technical schools and colleges in Massachusetts to help train a new generation of workers. The grant, the largest of its kind given to our state, has the potential to prepare thousands of students for careers in advanced manufacturing, producing everything from Bose speakers to Boeing planes.

CONTINUE READING BELOW ▼

“We really see a big transformation in manufacturing,” said Siemens USA chief executive Eric Spiegel, who is in Worcester Wednesday, along with Governor Deval Patrick, to unveil the gift. “What we used to call blue collar, these are not blue collar. Plant workers now walk around with iPads in their hands.”

Schools getting the software include Worcester Polytechnic Institute, Fitchburg State University, MassBay Community College, Northern Essex Community College, Greater New Bedford Regional Vocational Technical High School, and Worcester Technical High School. “This grant will really assist us in making sure we are providing 21st-century learning for our students,” said Sheila Harrity, principal of Worcester Technical.

The vocational school wouldn’t have otherwise been able to afford the software. Worcester Technical applied for 60 seats, which would have cost about \$72 million.

After years of offshoring, Made in the USA is back in vogue, particularly when it comes to making high-tech products, and Massachusetts is on the cutting edge.

Manufacturing generates 13 percent of our state GDP, more than any other major sector, according to the [UMass Donahue Institute](#).

But here’s the hitch. While manufacturing is far from dead, kids think it’s a dead-end job. With low enrollment in those programs and tight budgets, our education system isn’t investing as much as it should in teaching students how to operate sophisticated, computer-controlled machinery. Of the roughly 13,600 seniors participating in the state’s high school vocational programs this academic year, only about 1,500 are enrolled in fields related to manufacturing, such as machine tools and robotics. That kind of anemic number keeps business leaders up at night. They call it the skills gap, or the training gap. What’s driving all this worry is the manufacturing sector’s aging workforce — retirements will create [100,000 job openings](#) over the next decade, says Barry Bluestone of Northeastern University. And they’re good-paying jobs, with average salaries of about \$75,000.

CONTINUE READING BELOW ▼

It’s a problem that has been on the state’s radar over the past few years, enough to spur initiatives and private sector partnerships. One of the issues is companies think we’re a great state for research and development, but not so much if you want to

actually make products. The big complaint: It's too expensive here. "The stereotype is that we're the brainy state," said Greg Bialecki, Massachusetts secretary of housing and economic development. "We have tried to fight that."

Bialecki said it's not just about creating jobs, but about staying innovative. He points to East Asian countries that started out manufacturing electronics, but now are leaders in designing electronics because they learned a lot about design in the process of making products. Prime example: South Korea.

Starting in the '90s, Siemens — a German company with a rich tradition of job training — began giving away software to schools around the world. Its "Product Lifecycle Management" technology is used by tens of thousands of companies to design and build products ranging from Dyson vacuum cleaners to NASA's Mars Curiosity Rover.

About two years ago, the company took an interest in investing in Massachusetts and started discussions with the Massachusetts Manufacturing Extension Partnership, a group that advises small and medium manufacturers. Siemens has about 2,100 employees across the state, with nearly half working in plants in Worcester and Walpole.

Our state caught Siemens's eye because schools and the private sector collaborated to develop a certificate in manufacturing technology. Siemens also liked the idea of a common curriculum that created a pathway from high school to college to the workforce.

The partnership recruited schools to apply for the software license, and Siemens selected them based on several criteria including their commitment to use the software, such as providing computer lab time and faculty support.

There has been a lot of talk about public-private partnerships lately. Siemens just set the bar very high for the rest of corporate America.

Shirley Leung is a Globe columnist. She can be reached at shirley.leung@globe.com. Follow her on Twitter [@leung](https://twitter.com/leung).

© 2014 BOSTON GLOBE MEDIA PARTNERS, LLC
