

SixLine Semiconductor wins 2023 Gov's Biz Plan Contest

Posted on Friday, Jun 2, 2023

The winner of this year's Wisconsin Governor's Business Plan Contest is SixLine Semiconductor, a Middleton-based startup developing components for advanced electronics.

The company's technology hinges on the use of carbon nanotubes, which are microscopic materials with applications for wireless devices as well as computing. CEO, co-founder and co-inventor Katy Jinkins said the business is "overcoming a previously unattainable goal" of incorporating these materials into next-generation devices.

"As this explosive growth of devices has occurred, so too have the performance demands," she said during the Wisconsin Entrepreneurs Conference, held this week in Milwaukee. "Current materials cannot meet these demands that are needed for this next generation of wirelessly connected devices."

She pointed to speed, data transmission bandwidth and energy efficiency as examples.

Carbon nanotubes, which are made up of single-layered sheets of carbon atoms, are 50,000 times thinner than a human hair, Jinkins explained.

"In order to exploit the properties of nanotubes, you have to first translate random nanotube soot into this highly ordered, highly aligned carbon nanotube film ... This transformation step has been a major challenge and has prevented the integration of nanotubes into commercialized electronics for over 30 years," she said.

Using "patented, scalable and industry-compatible processes," SixLine Semiconductor has now bridged that gap, she said. The technology is based on years of research backed by \$2 million of funding at UW-Madison, and is protected by multiple patents.

"We've demonstrated state-of-the-art computing and wireless device performance

that match or exceed current materials that are used ... Our technology brings a double value proposition of both higher performance and lower cost,” Jinkins said.

Tom Still, president of the Wisconsin Technology Council, says this application of carbon nanotubes is “something of a ‘Holy Grail’” in the tech field.

“SixLine Semiconductor is doing what it can to grasp the goal,” he said in a statement.

See more on the company: <https://www.sixlinesemi.com/>

See details on the other finalists in this year’s competition, which is hosted by the Tech

Council: <https://www.wisbusiness.com/2023/top-13-finalists-in-governors-business-plan-contest-make-final-presentations/>

-By Alex Moe