



SolarCube

Jeff Croisetiere met Brad Bartilson at the Annual Crab Pot Pitch event in 2018, shortly after Bartilson had been hired as director of TechPort. The two discussed Croisetiere's work as operating manager of SolarCube and the company's desire to advance in printable solar technology.

"I got to thinking, it could be a good fit for us," Croisetiere says of TechPort. "We wanted to transition our company to be more forward thinking."

In the past year, SolarCube has done just that. They've assembled a team that works out of the TechPort offices on Airport Road and currently are in the research and development phase of this new area of solar technology. And with the backing of TechPort to help boost their application, they recently received two grants to help SolarCube move solar from silicon-based to perovskite to create a printing process that is highly repeatable.

"Silicon is expensive and must be produced under extreme heat," Croisetiere explains. "The goal of perovskite is to produce large sheets at room temperature. There's a lot of research worldwide in this area, but no one has come out with a viable go-to-market product yet."

The plan is to produce a thin, lightweight roll that can adhere to solar panels that are currently in place, basically doubling the production without taking up any more space.

"We can increase output by 30 percent," Croisetiere says. "A 100-watt solar farm can turn into a 130-watt farm with no further infrastructure."

In addition, the technology could be used in many other applications including increasing the runtime of unmanned vehicles such as drones.

“It has huge potential,” says Croisetiere, who hopes to have the development of a pilot production within the next year or two. “Once the technology is perfected, the applications are limitless.”

Bartilson agrees.

Brad Bartilson quote here:

“There are tremendous possibilities for the future of SolarCube. We are excited to have them as part of our TechPort team,” Bartilson says. “Their energy, enthusiasm and innovation will not only help this company go far, but will help our TechPort cohort.”

SolarCube presented during an April 2019 TechPort LunchBox talk and discussed the intricacies of pivoting their business plan. It was a topic of great interest to many in attendance.

One of the main reasons Solar Cube decided to join TechPort was to secure funding and eventually find a partner to help develop it and take it to market. The \$100,000 Maryland Industrial Partnership Grant will go towards research, specifically time and labor of those working with SolarCube consultant, Dr. Troy Townsend of St. Mary’s College, the lead researcher. With three related patents in his name from work with the Naval Research Lab, Townsend will further his initial research to transfer a spray deposited process to a printing method.

Additionally, SolarCube has received a \$7,500 grant from TEDCO’s Rural Business Innovation Initiative (RBI2).

Croisetiere has high praise for TechPort’s shared tools and workspaces. He sees it as a huge bonus in the shared relationship.

“You’re not going to find a better fit in Southern Maryland to help drive your company or technology,” Croisetiere says, adding that with the area exploding with growth in technology and the county working to diversify the economy, “it seems like TechPort will be in the center of all that.”