Once upon a time there was a company called Plastic Logic. Spun-out of Cambridge University’s Cavendish Laboratory in 2000 and backed $100 million in funding, it commercialised a method of printing organic transistors. Over the next 15 years, these were used to create a variety of flexible LCDs, initially manufactured in Cambridge before a larger plant was built in Dresden, Germany, in 2006.

Like any good story there have been several dramatic plot twists, not least when the company’s own e-reader Que, designed to rival Amazon’s Kindle, bombed. In fact in 2011 it took a $700 million cash injection from the Russian Nanotechnology Corporation to keep the business afloat.

Plastic Logic survived, and last February its’ tale took an unexpected turn, when one company became two; Plastic Logic Germany was formed, based in Dresden and concerned solely with making flexible displays. The firm’s remaining Cambridge office, on the Science Park, was rechristened FlexEnable. A spin-out from a spin-out, if you like.

“The CEO and chairman made the decision in order to maximise the opportunities in both areas,” said Chuck Milligan, CEO of FlexEnable.

“Plastic Logic will continue manufacturing displays for devices like e-readers at the facility in Dresden, and the team here is now focused on developing the technology for new applications. We’ve now got completely separate management teams and separate boards of directors, and we’ve managed to get some great people on board, with the likes of Lord Alec Bners, Hermann Hauser and Henning Serringhaus joining as directors.”

Another notable name on the board is executive chairman Indro Muterjee, the former Plastic Logic CEO who led the restructuring process. Chuck
certainly has plenty of sizeable brains to pick should he need any advice. The company’s ownership is being kept quiet, but new backers have come on-board since FlexEnable formed, and they’re currently raising money which is expected to come largely from new investors.

The new man is still getting his feet under the table, having arrived in May, three months after the split. Chuck had been living in Switzerland, where he was chief executive of DM Test, a company making electrical test generators. After leading the $90 million sale of the company to AMITEK, he jumped at the chance to become FlexEnable’s top dog.

“I was looking around Europe for the next opportunity, and there was so much exciting stuff going on in the technology space, so I decided I wanted to find a great tech company,” he said.

“I stumbled across FlexEnable, and I immediately found the opportunity it presented exciting. I love working with good people, and having the chance to take a technology from the laboratory to a place where you can see it in the real world is a lot of fun.”

Chuck’s enthusiasm for his company’s technology is palpable.

“Basically we’re in the business of bringing ideas to market without building them ourselves, as we don’t have manufacturing capability,” he said. “It’s about so much more than flexible displays, although that is a big part of what we’re doing. The potential of organic transistors is huge, and the technology has become more powerful than it was when Plastic Logic started making e-readers; it can drive advanced LCD and OLED displays, and power sensors for use on a range of applications.” He gives me the example of a flexible X-ray sensor: “A

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traditional silicon-on-glass panel X-ray machine is very expensive and very heavy," he said. "They cost thousands of dollars to make and are extremely easy to break.

"Our flexible plastic solution is virtually unbreakable and simple to transport around, which means it can be quickly set up anywhere you need X-ray security. And it performs better than the traditional machines because of its shapeability, so you can get it a lot closer to items you want to scan."

Wearable technology is another area with great potential.

"Organic transistors are the best and cheapest way of bringing fabric to life," said Chuck.

"Wearables are a fast-growing market and there are already a number of interesting ideas out there, from putting displays in shoes to various health-related applications."

Other bright ideas to already emerge from FlexEnable include a digital wing mirror, a flexible display and accompanying camera that can be built into new cars, offering drivers an enhanced view of the side and rear of the vehicle that helps eliminate blind spots and increases road safety. The company’s office is a hive of activity and it’s not hard to imagine there’s a lot more to come.

Chuck said FlexEnable is looking to link up with FABs, facilities that manufacture silicon wafers of the type widely using in electronics, in the Far East. He explained that it only takes a "small upgrade" to get these sort of plants ready to manufacture plastic electronics. "We're looking to partner existing FABs and use their facilities and equipment," he said.

"We've already got one in Asia signed up to run with the idea, and we're hoping to build our supply chain up this year. It's about showing the technology to people out there and getting them excited about it.”

Chuck lives in Cambridge with his wife and has three children, one at sixth form college and two at university in London. "We've got a place down by the river and it's easy to see why so many people want to live in the city," he said, "but I'm on planes non-stop at the moment. It's an exciting time because we're going from a company with an R&D focus to one which is going to real world consumers with products.

"There are several big companies that are interested in using our technology and that's a very good place to be."

For now we'll have to wait and see what the next chapter of this story holds. 

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"Wearables are a fast-growing market and there are already a number of interesting ideas out there, from putting displays in shoes to various health-related applications."