

Industry

Plastic Logic quits e-reader market

A UK firm spun out from the University of Cambridge that sought to be a world leader in flexible organic electronic circuits and displays has pulled out of the competitive e-reader market as it struggles to find a commercial outlet for its technology. Plastic Logic announced in May that it is to close its development facility in Mountain View, California, with the loss of around 40 jobs. An unspecified number of employees at the company's offices in the UK, Germany and Russia are also likely to be affected.

The company was founded in 2000 by physicists Henning Sirringhaus and Richard Friend to exploit the flexible-display technology they had developed at the university's Cavendish Laboratory. This allowed them to print transistors – made from an organic semiconductor – onto a flexible plastic substrate. Organic electronics technology uses carbon-based polymers instead of the copper and silicon that form the basis of traditional electronics. Conducting



Plastic Logic

polymers are lighter, more flexible and – in principle – cheaper than inorganic conductors.

Although Plastic Logic has reportedly raised more than \$500m, it has struggled to turn its technology into marketable products. In 2010 it tried to introduce its own e-reader, called the Que, which was quickly abandoned in the face of stiff competition from Apple's iPad and Amazon's Kindle. Plastic Logic instead plans to license its technology to other

Lights out

UK spin-off firm Plastic Logic has announced it is to pull out of manufacturing e-readers and will instead sell its technology to other firms.

companies and the firm is optimistic that it can establish partnerships with device manufacturers to realize the full potential of the technology.

Despite the apparent setback, Plastic Logic insists that its new strategy will let it gain greater benefit from its technology. "We're very excited about the future for Plastic Logic and the plastic electronics industry," chief executive Indro Mukerjee told *Physics World*. "As a result of the groundbreaking work we've done, the plastic-electronics industry has now reached a level of maturity where many alternative uses, such as large-area sensors, circuitry and displays on smart cards, are beginning to emerge."

Mukerjee adds that the use of their technology across many businesses will lead to the long-term viability of the plastic-electronics industry as well as more applications and developments in the future. Indeed, the UK government's Technology Strategy Board has already said that Plastic Logic will share in a £19m fund to promote collaborative research in electronics and photonics, particularly concerning ideas that have not yet got specific applications in recognized markets.

Simon Perks

Applied research

Fraunhofer moves into the UK

Germany's Fraunhofer Society has announced it is to open its first research centre in the UK. The Fraunhofer Centre for Applied Photonics will be based at the University of Strathclyde in Glasgow and will focus on "industry-relevant and industry-driven" laser research and technology. It will have a budget during the first five years of £8.8m. The society has also founded Fraunhofer UK Research Ltd, which will be based at the university and will co-ordinate any future UK-based Fraunhofer research centres.

Fraunhofer, with headquarters in Munich, is Europe's largest applied-research organization. It has more than 20000 employees in Germany who work at 80 research institutes around the country. In 1994 the society established its first overseas subsidiary, Fraunhofer USA, which now has eight institutes, and there are more than 20 other centres scattered across Europe, Asia, the Middle East and South America.



Focus on the future
The new Fraunhofer Centre for Applied Photonics will be based at the UK's University of Strathclyde.

The photonics centre in Glasgow will begin with a handful of staff members in temporary offices but in 2014 will move into the university's Technology and Innovation Centre, which is currently being built. By 2017 the centre will have about 2000 m² of space housing 50 staff members and 30 postgraduate research students.

"Photonics activity is particularly strong in the UK, and especially in Scotland," says Oliver Ambacher, director of the Fraunhofer Institute for Applied Solid State Physics in Freiburg, a partnering institute of the new Glasgow centre. Ulrich Buller, senior vice-president and executive board member of the Fraunhofer Society, says that Strathclyde's Institute of Photonics already has an excellent reputation for photonics research and commercialization. "Consequently, Fraunhofer has been eager, for some time, to create a research centre in Glasgow in conjunction with Strathclyde," he adds.

Tim Holt, who is the institute's current chief executive, has been named executive director of Fraunhofer UK Research Ltd. He told *Physics World* that the new Fraunhofer centre is expected to be operational by August with a founding director in place. Holt adds that about two-thirds of the initial start-up funding will come from Scottish partners such as Scottish Enterprise, the Scottish Funding Council, the Scottish Government and Strathclyde University, with the rest from Fraunhofer.

Ambacher says that the new Fraunhofer centre will provide the UK and international industry partners with expertise, skills and facilities in photonics technologies, with the focus being on optical sensors and sensor systems as well as optical devices and systems. Key markets will be healthcare, defence, environmental monitoring, energy, biophotonics, transport and IT. A number of firms, including Coherent Scotland, M Squared Lasers, Edinburgh Instruments, Honeywell, Thales and Selex, have already indicated that they want to collaborate with the new centre.

Ned Stafford
Hamburg