Cambridge University's Graphene Centre and Plastic Logic have signed a formal collaboration agreement, marking Plastic Logic joining the Centre to start work on a specific research programme, aimed ultimately at revolutionising the commercial exploitation of graphene in flexible plastic electronics, where the UK enjoys a world-leading position.

Plastic Logic has donated large scale deposition equipment to the Centre to support the acceleration of manufacturing scale-up of developments on graphene. The research programme will initially have three main project activities:

- To develop graphene as a transparent, highly conductive layer for plastic backplanes, used to drive unbreakable Liquid Crystal Displays (LCD) and flexible Organic Light Emitting Diode (OLED) displays; a market forecast to be worth $40bn by 2020 (IHS 2013).
- To develop novel transistor structures with graphene-like materials as the active layer, delivering a step change over the device performance currently possible on plastic, while retaining the ultimate flexibility of the devices.
- Leverage Plastic Logic's expertise in the industrialization and volume manufacture of electronics on plastic, exploiting the commercialisation of graphene for flexible electronics. This will include key high value segments in the developing new market for flexible plastic sensors, forecast to be worth $2.2bn overall in 2020 (IDTechEx 2011).

Cambridge Graphene Centre’s Director, Professor Andrea C. Ferrari, stated: "The mission of our Centre is to investigate the science and technology of graphene, carbon allotropes, layered crystals and hybrid nanomaterials. This engineering innovation centre allows our partners to meet, and effectively establish joint industrial-academic activities to promote innovative and adventurous research with an emphasis on applications. We welcome Plastic Logic as one of our strategic partners. Graphene and related materials are ideally suited for applications in flexible electronics, and this strong synergy with a world-leading Cambridge-based company can accelerate exploitation."

Indro Mukerjee, CEO Plastic Logic said: "I am delighted that Plastic Logic is working with the world class team at the Cambridge Graphene Centre on this transformational research programme for the application of graphene in our flexible plastic electronics process. This will enable higher levels of customisation and drive a step change in technology performance, opening up new commercial applications, such as the huge potential market for large area distributed sensors."

For more attend the forthcoming events:

Printed Electronics Asia, Tokyo, Japan, 9-10 July 2013.
Printed Electronics USA, Santa Clara, California 20-21 November 2013.
3D Printing 2013-2025: Technologies, Markets, Players

Current usage, future applications and market forecasts

Organic Photovoltaics (OPV) 2013-2023: Technologies, Markets, Players

Thin film, printed/vacuum processed, flexible/rigid: costs and rival analysis

EVENTS

9 - 10 Jul 2013
Tokyo, Japan

20 - 21 Nov 2013
Santa Clara, CA, USA

20 - 21 Nov 2013
Santa Clara, CA, USA

1 - 2 Apr 2014
Berlin, Germany

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