

Nano Science, Technology and Industry Scoreboard

## Funds to Develop Breakthrough Graphene Manufacturing Process

2020-11-17 Integrated Graphene Ltd, the Scottish-based tech company, has fired the starting pistol on scaled production of its unique breakthrough 3D graphene foam, Gii, following the completion of a £3.1 million round of investment in the business, led by Edinburgh-based business angel syndicate, Archangels, with co-investment from Par Equity, Techstart Ventures and ESM Investments.

Graphene is said to be 100 times stronger than steel, very light, extremely flexible and a highly efficient conductor of electricity. Consequently, graphene's properties have the potential to improve a wide range of applications.

From its Stirling base, Integrated Graphene has developed an innovative manufacturing process that enables the company to produce high performing, pure, 3D graphene (3DG) foam directly onto any surface, at room temperature and in seconds.

It believes that this will meet the key requirements of a worldwide graphene market, estimated to be worth US\$1.6 billion by 2025, growing to as much as US\$6 billion by 2030. Integrated Graphene's process is anticipated to create high quality, cost effective and production scale 3DG foam, Gii, which has not been achieved by anyone else to date.

Graphene is expected to have applications in human diagnostics, power storage, electronics, solar power (photovoltaics) and water filtration amongst others. However, existing manufacturing methods make it extremely expensive to produce in large quantities and quality consistency has been an issue.

3DG foam is deemed to be the most desired and application-diverse form of graphene, due to its porous, large, electrochemically active surface area that enables a step change in performance in a wide range of applications.

The £3.1 million investment in Integrated Graphene was led by Archangels and included

funding from Par Equity, Techstart Ventures and ESM Investments. A number of Integrated Graphene's original seed investors also participated.

The cash will be used by Integrated Graphene to fund equipment to demonstrate product performance at the next scale-up level and to significantly expand resource for commercialisation of its 3DG foam, Gii.

Read the <u>original article</u> on Printed Electronics World.