

## **Integrated Graphene to Invest £8 Million in Scaling-up**

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Integrated Graphene plans to invest up to £8m in scaling up its 3D graphene foam manufacturing process to meet rising global demand from the human diagnostics and energy markets.

Founded in 2016, the Stirling-based technology company has developed a commercially viable graphene manufacturing process that is currently scaled to high volumes.

Its process claims to eliminate the challenges associated with chemical vapour deposition (CVD) graphene and graphene powder. As well as direct manufacturing, [Integrated Graphene](#) is designing manufacturing processes for companies to effectively bolt-on to existing lines, and also has a team dedicated to supporting organisations to adapt graphene technologies for their products.

The company's investment plan will focus on scaling-up the manufacturing of its graphene enhanced electrodes and super capacitors, which are currently being piloted in human diagnostics point-of-care testing and smart label asset tracking applications.

These printable electronic products include the Gii-Sens, which offers a more-effective sensor material for the human diagnostics market, and Gii-Cap, which targets 10% of \$500bn battery market, with the potential to remove 60 million batteries from being thrown away every year.

Since coming out of "stealth mode" in 2020, Integrated Graphene won several commercial contracts and increased its intellectual property portfolio.

The plan is to double its existing footprint in Stirling and treble headcount to 100 over the

next three years, hiring development and commercial staff in the [UK](#), Europe and North America.

The company will also increase capital expenditure in its pilot line to allow market expansion of Gii-Sens and Gii-Cap. For Gii-Sens, that includes wearables, animal diagnostics, companion diagnostics and environmental diagnostics. With Gii-Cap, expansion markets include drones, e-mobility, space, satellites and wearables.

The investment comes on the back of an oversubscribed Series A funding round for an undisclosed sum, led by existing investors Par Equity and Archangels.

Following graphene's discovery in 2004, it was hailed for its potential across a number of industries and applications, from quantum computing to healthcare. Most products under development continue to use a powder version of graphene, which is notoriously difficult to scale.

Integrated Graphene developed a unique process to produce a pure graphene foam (Gii) onto a range of substances at ambient room temperature.

The addressable market for graphene enabled products is potentially more than \$25bn, based on reasonable levels of penetration across all markets, and volume demand for graphene across key application markets is thought to have the potential to reach \$1trn by 2030.

Claus Marquardt, co-founder and chief executive of Integrated Graphene, said: "This investment marks a real tipping point for Integrated Graphene and the manufacturing of our unique 3D Graphene foam in its first two market-ready products.

"We are actively involved in projects with several global blue-chip companies to deliver high volumes of electrodes and super capacitors that address critical needs in accelerating point

of care human diagnostics for a wide range of killer diseases and in enabling low-cost flexible and sustainable power systems for the booming smart label and wearable tech markets.

“By investing now, we will be ready, this year, to produce millions of units per annum from a new facility in Stirling and to transfer the technology at scale to global partners in the future.”

Aidan MacMillan, senior investment manager at Par Equity, said: “Integrated Graphene has developed a game changing, frontier solution with the potential to drive enormous impact across a range of large-scale industries.

“As existing investors in the business, Par Equity, and a selection of our advisers, have worked closely with Claus and the team to build the business.”

Niki Mckenzie, joint managing director at Archangels, added: “Since we first invested in Integrated Graphene two years ago, the company has moved rapidly from start-up to scale-up and now has its sights focused on meeting increased global demand from multiple sectors.

“We are looking forward to continuing our relationship with the team, as they embark on this next critical phase of growth.”

Read the [original article](#) on Insider.