



# WeldingWorld

## Early public and private investment speeds up innovation

UK businesses can benefit from a mix of government grants and private equity. Start-ups often rely on external funding – whether that be from public or private sources, or both together – to get them on the right track for success.

Investment can help them do things they wouldn't be able to do alone, or do so at a faster pace. It can give them confidence and remove the need to find other funding resources. It may also help them to access business advice and market opportunities.

Below are case studies of businesses that received Innovate UK support and have gone on to attract private equity, speeding up the time it takes to develop and commercialise their solutions.

### Improving female health and wellbeing

Chiaro – the female healthtech business behind the Elvie connected pelvic floor exerciser – was awarded a grant by Innovate UK in its start-up phase. This allowed the company to leverage the latest developments in wearable tech that underpin Elvie. The device has proved a success, with the company making a profit within 6 months of it going on sale.

The business has since gone through a number of funding rounds. In its latest, it attracted £4.8 million of external investment, including Octopus Ventures and Allbright. This will support the development of 3 more smart products for female health and wellbeing and its global expansion into 25 countries. Chiaro's total capital now stands at £9.6 million.

### Early cancer detection

Cambridge company, Owlstone Medical has developed a breath biopsy tool that offers early diagnosis of cancer and other diseases.

Owlstone Medical has received funding from us totalling £277,000. This has allowed it to conduct a feasibility study into a diagnostic test for Crohn's disease and ulcerative colitis, and go on to develop the core technology for its breathalyser: a microchip field asymmetric ion mobility spectrometer (FAIMS) sensor.

The company has raised £19.3 million (\$23.5 million USD), including an investment by Aviva's venture capital arm. This is helping to promote Owlstone Medical in the healthcare sector, build awareness of breath biopsy and commercialise the platform.

### Quicker, more personalised treatment

Imperial College London spin-out Entia has pioneered image analysis technology to create a hand-held, portable blood test kit. It helps to test and manage treatment for blood cancers and conditions such as polycythaemia and anaemia.

The kit was developed with a £99,000 smart award and £139,000 through the Biomedical Catalyst, which allowed Entia to work up its idea and test the potential for monitoring cancer patients' response to chemotherapy. A further Biomedical Catalyst award for personalised chemotherapy treatment has seen Entia partner with The Royal Marsden Hospital, University of Oxford and Imperial College Health Partners.



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Entia has gone on to secure £1 million in private funding plus venture capital financing led by Sussex Place Ventures. It also won a place on Microsoft's London Accelerator programme.

## **Cutting the UK's lighting bill**

Suffolk-based Cambridge Nanotherm benefited from Innovate UK support, to go from start-up to full-scale manufacturing in 3 years. Through a funding competition, the company partnered with LED lighting specialist Juice Technology to prototype a novel electrochemical process that manages heat produced in electrical devices.

Through a separate investment from venture capital company Enso, plus further Innovate UK funding, Cambridge Nanotherm was able to fund and test more prototypes, get market feedback, and eventually open a successful production line. The technology they sell today reduces working temperature of LED lights by 15-20C and increases their efficiency by up to 20%.

## **Novel cold and power**

Dearman is the creator of a novel piston engine, which is powered by liquid air or liquid nitrogen.

With our support, Dearman began developing cold and power technologies that leverage the engine, such as transport refrigeration units and back-up power systems. This includes testing in an Innovate UK and Office for Low Emission Vehicles (OLEV) co-funded project consortium with HORIBA MIRA, Air Products and Loughborough University.

The company has gone on to secure private equity, most notably a £16 million investment from Park Vale Capital. This will allow Dearman to expand its operations and take its technology to market in the UK and overseas.

## **Weight-saving, low emission technology**

Impression Technologies - an Imperial College London spin-out - used research to develop a revolutionary aluminium forming process.

It received early support from Innovate UK, the Engineering and Physical Sciences Research Council and OLEV to pioneer hot form quenching (HFQ®). This can form ultra-high strength aluminium into complex pressings, offering vehicle manufacturers a cost-effective way to reduce weight. The process is already being used in premium manufacturers' vehicles, including the Aston Martin DB11.

Following a £6 million investment - £2 million from the Advanced Manufacturing Supply Chain Initiative, plus £4 million from venture capital backers - Impression Technologies was able to open a new production and technology facility.

## **Investment accelerator competition**

Attracting private investment after an early government grant can be a difficult task for start-ups - but can be hugely beneficial to their success.

Our investment accelerator pilot aims to connect UK businesses with grant funding and early venture capital investment simultaneously.



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If your organisation is based in the UK and works in either infrastructure systems or health and life sciences you could be eligible for a share of up to £8.5 million in grants and venture capital investment for early stage projects.