

[News story: Photocentric: company wins Queen's Award for International Trade](#)

Hanifeh Zarezadeh, 3D Development Engineer at Photocentric, examines the quality of jewellery 3D prints.

Award-winning innovation

The [Queen's Awards for Enterprise](#) recognise the contributions and outstanding achievement of UK businesses in innovation, international trade, sustainable development and promoting opportunity through social mobility.

The founder of [Photocentric](#), Paul Holt, said:

This is wonderful news for our business and we are very proud to be a winner of this prestigious award. We have always tried to innovate with new product ideas and being in a niche sector has meant that we have had to export to gain sales growth.

This year we expect to sell over £2.3 million of 3D printers and photopolymers, rising to over £8 million by 2020 – all from an invention in 2014 which was a consequence of an Innovate UK grant. More than 74% of our sales are to overseas markets.

In March this year, Photocentric also received the Manufacturing Innovation Award at the [Made in Central and East England Awards](#). Earlier, in February, the company was selected as a [CommonwealthFirst](#) Export Champion by the [Commonwealth Enterprise and Investment Council](#).

This isn't the first time the company has won a Queen's Award. In 2016 Photocentric received the award for Enterprise: Innovation.

Photocentric leads development in 3D printing

Photocentric began in 2002 with the aim of making the creation of business stamps simpler and cheaper. Since then, the company has evolved into manufacturing 3D printers and patented photopolymer packs for making stamps. It is now the largest clear stamp manufacturer outside China.

The 3D printers developed by Photocentric operate using patented technology to create a 3D object from a 2D image on a screen. They use the light emitted from an LCD screen that was originally intended for use in a mobile, tablet or TV to harden a special polymer made to react in daylight. The printers make both extremely high-resolution objects and very large format ones.

Photocentric has been able to produce the printers at lower costs than

alternative methods because the screens are made for mass-market applications. This has widened the scope of possible applications, including prototype building and small-scale manufacturing.

Kalvis Gredzens and Richard Wenborn, 3D Development Engineers at Photocentric, developing the next generation of Liquid Crystal 3D Printers.

A growth in sales and scientific staff

Holt said:

A grant from Innovate UK in 2014 helped us to develop a prototype and employ a new chemist. A few months later – and much to my amazement – the chemist created a 3D printed rook. It was a very bad one, but it was the most significant object we will ever print.

The impact on our business has been completely transformative. This year, we will invest over £1 million in R&D and we are working with some of the best universities and biggest companies in the world.

The company's strategy is based on product development and innovation, together with competitive pricing and excellent customer service.

Over the last 5 years, sales have grown from £2.5 million to £5.7 million, with exports rising from £1.7 million to over £4 million. Their US subsidiary has further sales of over \$3 million.

Photocentric has also created 35 new jobs – almost doubling its workforce to 80. The company has a distribution network covering more than 50 countries worldwide.

Protective Security Management Systems

CPNI's Protective Security Management Systems (PSeMS) guidance provides a suite of materials to help businesses create an assurance system for security. By using a self-assessment check list, organisations can assess gaps in their protective security and better understand weaknesses in their own security systems.

[Full details are available on the CPNI's website.](#)

Press release: Ploughshare Innovations relocates to a new science park at Porton Down

Ploughshare's move to the Porton Science Park will benefit the site, the region and the wider UK economy. The company, which licenses defence and security technologies and creates start-up businesses, will now be able to support and collaborate with the other exciting new science and technology companies based at the science park. Ploughshare has already created 12 start-ups and has plans for more. Now, with the new Porton Science Park, it is envisaged those new businesses will also locate themselves in the park, which will create more local jobs and retain investment in the region.

The strong links Ploughshare has with the neighbouring Defence Science and Technology Laboratory (Dstl), which is part of MOD, will provide a unique resource for the new science park tenants. Ploughshare has worked for many years with Dstl and understands the organisation, has excellent relationships with senior staff, and strong links with their world-class scientists and experts. James Kirby, CEO of Ploughshare Innovations said:

The new building is a state-of-the-art facility and we are looking forward to being at the heart of the science park, forging links with the other businesses here to help develop new technologies and grow prosperity for the region. Our move to Porton Down puts us closer to our main source of innovations, enabling us to maximise MOD's investment in science and technology research.

As the commercialisation arm for Dstl, Ploughshare has a unique set of skills and experience in identifying new markets for novel defence and security-related technologies. The team includes professional commercialisation managers who are experienced in creating investible business plans and have already helped a number of organisations to improve their market position and gain commercial advantage. With their defence and security-related intellectual property portfolio, strong links with scientists at Dstl and across MOD, and their relationships with investment communities, Ploughshare brings a wealth of experience that is much valued by new start-up businesses.

Porton Science Park provides a science incubator and grow-on space for science and technology businesses for the region. Situated alongside the established research institutions of Dstl and Public Health England (PHE), it is in the ideal location to play a critical role in the strategy of Wiltshire Council and Swindon and Wiltshire Local Enterprise Partnership to become a world-class cluster of expertise in the life science and defence technology sectors.

News story: Latest battlefield forensics could save lives on the front line

Experts at the Defence Science and Technology Laboratory (Dstl) and their US colleagues have developed a system to identify weapons used by the enemy based on after-attack analysis.

Knowing exactly what has been used in an attack can mean changes are made to kit and equipment, to protect against the latest threats and save the lives of soldiers on the front line.

The system involves simple analysis and forensics gathering at the scene – something which is essential to do quickly in a battlefield environment, with more detailed reconstruction and analysis later on, to build a picture of what happened. Everything, from measuring the craters left by explosives to studying the blast patterns of bullets, can be used to accurately identify the weapons used, even down to the country of origin, with each weapon leaving behind a distinct ‘signature’.

The package, funded by Dstl and created in partnership with the US Army National Ground Intelligence Centre (NGIC), is made up of sophisticated algorithms, libraries of collected data and results from live testing, and can provide accurate results quickly – sometimes within an hour of an incident.

Louis Tutin, project manager from the blast and IED team at Dstl, said:

It’s like a fingerprint, we can accurately identify the exact methods used by the enemy, and so can counter it with improved protection for our troops. Before this project, we relied on experience and opinion, now we can back this up with science. You can’t protect against bombs and bullets if you don’t know what the enemy’s using.

The UK has been working on gathering intelligence from attack scenes since the Northern Ireland deployments and since then in Iraq and Afghanistan. This formal bilateral work with the US brings together best practice from organisations like the Metropolitan Police, the CIA and the FBI to inform the high-speed techniques required to gather evidence from a hostile environment.

Col Charles Crowder, from NGIC, said:

Gathering evidence from a crime scene is a painstaking process,

which takes time. We don't have that luxury; we must collect any data we can within two to ten minutes. With our UK partners at Dstl, we can deploy specialist Combat Incident Response teams within 72 hours, who can then study vehicles and the data collected on the ground for detailed analysis.

The system is already in use at Dstl, providing a real-time resource for troops on the ground, and is set to be formally adopted by the MOD in the coming months.

Find out more about [Future Threat Programme](#)

News story: Geovation reveals next wave of GeoTech and PropTech businesses

Some of the winners, from Mothive and Pocket Pals.

Seven exciting start-ups will join the Geovation Programme and receive the strategic backing of Ordnance Survey (OS) and HM Land Registry (HMLR). The Programme, which acts as an accelerator course to new GeoTech and PropTech businesses, will see each of the start-ups receive up to £20,000 in grant funding and a range of resources and services to help them develop their business.

Alex Wrottesley, Head of Geovation, says:

Entries for the Programme were again of a very high standard. This is an exceptional group joining us. The Programme is designed to give them the best possible support to help propel them to the next level. We offer a founder-friendly environment, great mentors, high-quality workshop content and, almost uniquely, a dedicated software development team in-house, who work hand in hand with our companies to build and release their first products. This is something very few accelerators can offer and it means the businesses joining us can move faster and further than they otherwise would have been able to. We can't wait to get started with these new teams.

The GeoTech businesses accepted onto the Programme

[Mothive](#) is an automated agronomy service to help farm managers maximise efficiency, reduce waste and improve the predictability and control of crops.

[Pocket Pals](#) is a mobile animation game to encourage young people and families to engage with and visit the real wildlife local to them.

[Trik](#) is a 3D mapping and reporting system to deliver drone-collected data into higher quality, digital, structural inspections available on a mobile tablet.

The PropTech businesses accepted on the Programme

[Skyscape](#) uses artificial intelligence to analyse rooftops and identify opportunities to maximise utilisation and address urban challenges. Its rooftop data analytics platform enables asset managers to efficiently identify opportunities for utilising rooftop space, where value of existing and future stock can be increased.

[ThirdFort](#) is a security enhancement tool to help property solicitors more efficiently process property transactions.

[Fruumi](#) is a friendly and efficient end-to-end shared accommodation platform that empowers landlords to let out their property at lower risk and cost.

[Hipla](#) is a platform to help buyers evidence their own buyer position, and for owners and estate agents to quality buyers, giving better transparency earlier in the process, whilst enabling opportunities for selling additional services and attracting sellers.

About the programme

Since opening in the summer of 2016, the Geovation Hub has become home to more than 900 GeoTech and PropTech start-ups. Its Programme provides access to data, to experienced software developers, and gives businesses geospatial expertise from OS and land and property insight from HMLR, as well as business mentorship and coaching to help prepare for presenting to investors. The Programme to date has supported 65 technology start-ups, which has seen £17M raised in investment funding.

Orla Shields is the founder of [GetRentr](#), a PropTech company using artificial intelligence to track all UK property licensing regulations and consultations in real-time to ensure property portfolios are compliant. After a successful application, Orla's company was selected to join the Geovation Programme. In the six months that have followed, Orla and GetRentr have raised over £500,000 in funding and are currently working with letting agents and landlords via a partnership with the National Landlord Association. GetRentr is also about to launch a partnership with [ARLA](#), the largest association of lettings agents in the UK.

Orla says of Geovation:

Geovation has been life changing. The grant money has helped us do things we couldn't have done while we were waiting to secure our investment. Free office space in Clerkenwell is a major benefit for any business – early stage or not. It's great environment, with numerous other inspiring start-ups in a similar field. Geovation's network and connections with major people in this industry and in the government is priceless to us. The team is very pro-active, and their support and experience is really helpful and always available. One of the best benefits has been the ability to use OS/HMLR data. This gives us the option to reach out to more people who are looking to invest and be strategic with their portfolios. It has also helped us predict where regulations will be implemented. Overall, the culture at Geovation is one of collaboration and support.

Jillian Kowalchuk, whose safety app, Safe & The City, launched in March this year and already has thousands of users, was another accepted onto the Geovation Programme 6 months ago. Jillian says:

Geovation is filled with world-class minds and inspiring businesses. I have received a lot of help, including one-to-one support from the Programme Manager and the Head of the programme, development and UX support, workshops, coaching and learning materials to inform best practices, connections to other start-ups, organisations and corporates to raise our profile and access to OS contacts and PR support. It is an amazing community to learn from on a daily basis.

For further information, examples of businesses, interviews, and images, contact Keegan Wilson at Ordnance Survey:

Notes to editors

About Geovation

[Geovation](#) is an Ordnance Survey Initiative in association with HM Land Registry, which is dedicated to supporting open innovation and collaboration using location and property data. Location is at the heart of many of the most successful digital products and services. Land and property is the foundation of our national economy.

About Ordnance Survey

[Ordnance Survey](#) is Great Britain's mapping service for government, business and citizens. Their geospatial data serves the national interest by enabling a safe, healthy and prosperous society.

About HM Land Registry

1. HM Land Registry is a government department created in 1862. It operates as an executive agency and a trading fund and its running costs are covered by the fees paid by the users of its services. Its ambition is to become the world's leading land registry for speed, simplicity and an open approach to data.
2. HM Land Registry safeguards land and property ownership worth in excess of £4 trillion, including around £1 trillion of mortgages. The Land Register contains more than 25 million titles, which show evidence of ownership, for some 85% of the land mass in England and Wales.
3. For further information about HM Land Registry visit [our website](#).
4. Follow us on Twitter [@HMLandRegistry](#), our [blog](#), [LinkedIn](#) and [Facebook](#).