

Northern Gritstone lands first deal with 'brain biomimicry' start-up Opteran

The university spin-out venture chaired by Lord O'Neill, the former Treasury minister, has struck its inaugural deal with a £3.3m investment into Opteran, a start-up which has re-engineered insect brain patterns to forge advances for autonomous machines.

Sky News can reveal that Northern Gritstone will announce this week that it is backing Opteran, a pin-out from the University of Sheffield, as part of a \$12m funding round.

The raise, which is being led by Berlin-based fund Join Capital, marks a significant milestone for both Opteran and Northern Gritstone, which wants to secure up to £500m to back early-stage companies in northern England.

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Opteran is aiming to set a new standard for autonomous machines by mimicking the brain functions of insects – in effect, it says, by utilising 600m years of evolutionary development on a silicon chip, enabling machines to navigate complex visual and navigational challenges.

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The system, called Opteran Natural Intelligence, is expected to have a vast range of applications across industries, and the company intends to use the new funding to scale internationally, including with the opening of an office in the US.

"By mimicking Nature's genius to enable machines to move like natural creatures we are redefining the global market for machine autonomy," said David Rajan, Opteran's chief executive.

"We expect Opteran Natural Intelligence to become the standard solution for autonomy anywhere on the ground or in the air, on any machine, large or ultra-small, because it combines such sophisticated natural brain capabilities in a lightweight, efficient package."

Mr Rajan said he had the ambition of turning Opteran into the "Facebook, Google or Intel of the autonomous machines industry", and credited the University of Sheffield with having avoided stifling the company by imposing an unworkable

commercial model on it.

Next year, it plans to add natural brain decision-making for machines to its offering, while the company said it was also working to deliver hyperspectral vision, natural brain image recognition and dynamic learning based on inputs from the surrounding environment.

Duncan Johnson, Northern Gritstone chief executive, said: "Opteran Technologies is exactly the kind of company that Northern Gritstone was created to support.

"Originating from the University of Sheffield, and having developed ground-breaking, unique technology, Opteran is a prime example of the outstanding science-led spin outs we're seeing in the north of England.

"Autonomous vehicles and robotics are significant growth areas, and we believe Opteran's platform has the potential to transform this space, across a wide range of applications."

Other investors in the funding round included IQ Capital, Seraphim, Episode 1 and Schauenburg Ventures.

Opteran raised \$3m in funding in 2020, and is likely to require further capital in future to continue expanding.

Sebastian von Ribbentrop, founding partner at lead investor Join Capital, said Opteran had "built the AI technology required to transform autonomous systems beyond today's limited use in restricted scenarios to enable more widespread adoption."

"We don't often see companies with a vision and product of this magnitude, and it is clear to us that Opteran Natural Intelligence will be the differentiator for every sector implementing autonomous systems in machines.

"We're thrilled to have this type of global disruptor in our portfolio."

For Northern Gritstone, the Opteran deal will be the first of dozens likely to be struck in the coming years as it looks to aid the commercial growth of some of the brightest start-ups emerging from universities in Yorkshire, Lancashire, Cheshire and the north-east.

The vehicle has secured backing from the likes of local authority pension funds in Yorkshire and Greater Manchester, as well as M&G Investments, Lansdowne Partners and Andrew Law, the CEO of hedge fund Caxton Associates, as part of an initial £215m fundraising.

It intends to become one of the UK's most prolific investors into academic spin-outs and intellectual property-rich businesses.

"By investing in Northern Gritstone, asset managers are directly buying into the brightest prospects for Britain's future economy," Lord O'Neill said recently.

Northern Gritstone's aim is to harness one of the world's leading combined pools of researchers, academic staff and postgraduate students – with Leeds, Manchester and Sheffield universities having been home to 38 Nobel Prize-winners.

Sources say it is evaluating a pipeline of as many as 200 potential investment targets.

Its founding universities are said to produce close to 10pc of all patents and one-fifth of all intellectual property licences filed by higher education institutions in the UK.

Comparable university spin-out ventures, such as Oxford Science Enterprises, have grown into major players with 'unicorn' valuations of at least \$1bn.

The new investment company, which is being advised by bankers at Lazard, has chosen a politically favourable environment in which to launch, with substantial government attention and

resources focused on the levelling-up agenda outlined by Boris Johnson as part of his 2019 general election campaign.