

Reliance Licence Additive Manufacturing Technology

Reliance Precision Limited ('Reliance') is delighted to announce that, following investment from venture capital company Longwall Venture Partners LLP and the Angel CoFund, Wayland Additive Limited ('Wayland') will commercialise breakthrough innovations developed by Reliance.

Wayland is a start-up company currently developing metal Additive Manufacturing (AM) machines, which will include new technology generated by Reliance when they are released in 2021. In AM, complex free-form components are built up in successive layers of material under computer control, as opposed to conventional 'subtractive manufacturing' where material is cut away from a solid block (e.g. CNC machining). Initially, AM was used for rapid prototyping but manufacturers soon realised the extensive capabilities of this new fabrication process. It is now beginning to have a significant impact on the way products are developed and made, increasing opportunities for innovation in product performance, materials, the supply chain and small batch manufacture.

In 2016 Reliance recognised the significance of AM and its potential to become standard practice for the manufacture of high-performance parts such as lightweight aerospace components; an area the business has specialised in for over 60 years. Reliance was keen to understand the technology and find out whether they could adopt this type of manufacturing into their future business strategy. They soon concluded that the AM machines already available did not meet the stringent requirements they felt the technology could deliver. It was at this point that the business decided to further investigate electron beam AM technologies, drawing upon decades of knowledge of precision manufacturing and charged particle physics.

Reliance's Technical Director, Ian Laidler, had previously worked on the development of electron beam lithography tools for the semi-conductor industry. Using his skills, experience and network of contacts, the company planned for a suite of electron beam AM technologies, which could offer unparalleled productivity, capability and reliability, to be developed in-house. A dedicated project team was formed, comprising of members of the company's design team, chosen for their expertise in related disciplines, alongside hired specialists and consultants. Complementary skills and a wealth of combined experience enabled the team to rapidly begin development, using funding awarded by

Innovate UK and investment by Reliance, to engage with the University of Huddersfield, the University of Sheffield, the MTC and Autodesk to assist with research and testing. This collaborative approach to problem solving resulted in the successful development of Reliance's own AM technologies, protected by a number of patents.

Over the course of the three years Reliance learnt a significant amount about AM, its potential markets and applications. However, recognising that substantial financial investment would be required to take the technology to market, Reliance decided to seek a competent developer, backed by an investor, prepared to fund the technology.

Under the licence agreement with Wayland, Longwall Venture Partners LLP, known for investing in innovative, early stage companies in the science and engineering sectors, will provide the majority of the investment. Additional funds have also been received from the Angel CoFund ('AFC') and from a number of Angel investors.

Tim Mills, Founder Partner at the [ACF](#) commented "Manufacturing is a key strength of the West Yorkshire ecosystem, and we are thrilled to see Wayland Additive building on the region's rich history of pioneering manufacturing and engineering technologies to develop their innovative 3D printing methods. The company's highly sophisticated platform opens up new frontiers for component design and material choice and their close proximity to some of the UK's most advanced manufacturers is a huge benefit."

David Denny, Partner at [Longwall Ventures](#) said "We are delighted to be backing a strong team with technology that integrates process control with 3D printing – the critical piece that enables e-beam AM to become a statistically capable manufacturing method."

Wayland Additive Limited, is located in Huddersfield at Park Valley Mills, Lockwood. The team currently consists of twelve experienced engineers and physicists.

Wayland's Director, Will Richardson, comments "Additive manufacturing is currently one of the fastest growing, disruptive technology spaces, providing manufacturers with the ability to produce high value components that would have been impossible even ten years ago. We are excited to be developing our new product in such a high-potential market, and look forward to driving its rapid growth as we prepare to launch in the coming years."

About Reliance Precision Limited

Reliance Precision Limited ('Reliance') is an independent family-owned company based in Huddersfield, West Yorkshire.

Reliance offer tailored engineering services for the design, manufacture and test of precision components, assemblies and full instruments across a diverse range of global markets.

The business maintains a programme of investment to keep at the forefront of modern manufacturing and precision engineering.

For more information, please visit www.reliance.co.uk.

About Wayland Additive Limited

Wayland Additive Limited ('Wayland') is a new West-Yorkshire based company pushing the boundaries of electron beam 3D printing. Wayland's goal is to develop, manufacture and sell metal Additive Manufacturing (AM, otherwise known as 3D printing) machines to industrial end-users such as major players in the aerospace and medical industries.

Wayland's website www.waylandadditive.com will be launched in due course, and will provide further information about the product and technology.

About the Angel CoFund

Launched in 2011, the Angel CoFund ('ACF') is a privately managed and commercially focused institution that works alongside groups of business angels to invest in high potential SMEs across the UK, directly providing funding as well as encouraging the expansion and development of the business angel market.

To date the ACF has supported 80 companies (for example Ebury, Gousto, Crowd Vision and Hopster) providing more than £45 million in direct investment alongside more than £240m from business angels and other investors, making it one of the most active early stage investors in the country.

The ACF is a long-term investor and, in aggregate, sets aside £1 of further capital for every £1 it invests. This model gives portfolio companies and co-investors the support they need to propel strong growth.

To find out more, please visit www.angelcofund.co.uk.

About Longwall Ventures

Longwall Venture Partners LLP is a venture capital firm investing in innovative, UK based, early stage companies in the healthcare, science and engineering sectors. Based on the Harwell Campus, a leading science, innovation and technology campus, located just south of Oxford, Longwall manages three funds: the £30m Oxford Technology ECF, the £40m Longwall Ventures ECF and the £75m Longwall Ventures 3 ECF, which it is currently investing.

The Longwall portfolio comprises companies in a range of sectors including scientific instrumentation, next generation sequencing, next generation PV, cancer diagnostics and drug delivery systems, digital health, satellite robotics, IoT security, radar and organ perfusion. Longwall Venture Partners LLP is authorised and regulated by the Financial Conduct Authority.

<http://www.longwallventures.com>

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