*August 2020 – for immediate release Further information: Chris Pockett, +44 1453 524133*

**Renishaw joins project to automate additive manufacturing post-processing**

Global engineering technologies company [Renishaw](https://www.renishaw.com/en/metal-3d-printing--32084?utm_source=Stone+Junction&utm_medium=Press+release&utm_campaign=REN490) is collaborating with UK start-up business Additive Automations, as part of a project to automate metal additive manufacturing (AM) post-processing, which involves using collaborative robots (cobots) to perform support structure removal. The project could reduce the average cost per part by 25 per cent, furthering AM’s potential as a cost-effective option for large volume production lines.

Additive Automations is a Sheffield-based start up that creates robotic systems to automate additive manufacturing. After obtaining funding from UK and Canadian bodies, its founder and CEO, Robert Bush, collaborated with both Renishaw and the University of Sheffield Advanced Manufacturing Research Centre (AMRC). Since August 2019, Renishaw has been assisting Additive Automations’ progress by providing its industry leading AM expertise.

Renishaw provided four examples of AM builds, so the start-up could demonstrate its support structure removal system. The four AM parts were designed for medical, oil and gas, automotive and mechanical engineering applications. Testing its robotic system on parts already being used in industrial applications will help Additive Automations demonstrate the potential of its product.

The project, named Separation of Additive-Layer Supports by Automation (SALSA), aims to use robotics and deep learning to digitalise some of the few remaining manual processes left in AM. Cobots were chosen for their high payload-to-size ratio and integrated force sensors, which collect data to determine the geometry of AM parts. Software then analyses the data, using digital twin technology. The output is then used to determine where the support structures are so that they can be removed using an end-effector tool.

“Automating support removal and finishing in AM completely changes the economics when scaling up AM, and for the first time makes it feasible for manufacturers around the world to adopt this technology in rapid production,” explained Robert Bush. “The digitalisation of AM also comes with an increase in quality, traceability and repeatability. Given that on average almost two thirds of post-processing costs are from finishing and support structure removal, we believe automation can reduce costs by an average of 25 per cent per part.”

“Improvements in post-processing could bring AM to the forefront of new applications in medical and aerospace applications,” explained Bryan Austin, Director of AM Sales at Renishaw. “An automated manufacturing process could make AM adoption more appealing to manufacturers operating large volume production lines.”

Renishaw is a leading global manufacturer of metal additive manufacturing systems, and is at the forefront of AM development. The company has worked to innovate additive manufacturing technology and develop new applications in sectors as varied as aerospace, motorsports and dental care.

For further information on the latest advancements in additive manufacturing, visit [http://renishaw.com/additive](https://www.renishaw.com/en/metal-3d-printing--32084?utm_source=Stone+Junction&utm_medium=Press+release&utm_campaign=REN490)

Ends 439 words

**-ENDS-**

**Notes to editors**

UK-based Renishaw is a world leading engineering technologies company, supplying products used for applications as diverse as jet engine and wind turbine manufacture, through to dentistry and brain surgery. It has over 4,000 employees located in the 36 countries where it has wholly owned subsidiary operations.

For the year ended June 2019 Renishaw recorded sales of £574 million of which 94% was due to exports. The company’s largest markets are the USA, China, Japan and Germany.

Throughout its history Renishaw has made a significant commitment to research and development, with historically between 13 and 18% of annual sales invested in R&D and engineering. The majority of this R&D and manufacturing of the company’s products is carried out in the UK.

The Company’s success has been recognised with numerous international awards, including eighteen Queen’s Awards recognising achievements in technology, export and innovation.

Further information at [www.renishaw.com](https://renishawplc-my.sharepoint.com/personal/lp138190_renishaw_com/Documents/www.renishaw.com)