Media Release

Partnership Oerlikon and LENA Space

Oerlikon and LENA Space Collaborating on Advanced Manufacturing for Space Launch Technology

Frankfurt, Germany, Formnext, November 14–17, 2017

Oerlikon, a global technology and engineering Group, and LENA Space, a disruptive rocket propulsion start-up based in the UK, have agreed to a partnership to develop optimized additively manufactured components for propulsion systems. These systems are used in small launch vehicles to launch payloads in low earth orbit.

This partnership combines LENA's experience and vision for fast-to-market, high-performance, low-cost launch propulsion technology with Oerlikon's end-to-end value proposition in additive manufacturing to drive wider adoption of additive manufacturing in the space industry.

All parts, components and systems used in space need to meet highly stringent requirements in terms of weight, power, structural design, etc. and they need to optimally function in demanding space conditions. Additive manufacturing can help deliver new and cutting-edge technologies and solutions to satisfy such demands. This collaboration serves to bring innovative approaches to addressing such manufacturing challenges for space. LENA Space designs and develops turbines, impellers, pumps, combustion chambers, regenerative cooling systems and more. Collaborating with Oerlikon's Additive Manufacturing business unit opens up opportunities to unlock new designs with next generation materials to produce highly functional parts with breakthrough performance. Such knowledge sharing can also foster wider partnerships globally and support the growth and innovation in the space industry.

Dan Johns, Global Head of R&D-Additive Manufacturing at Oerlikon, said: "We look forward to partnering with LENA Space to develop truly innovative products using our additive manufacturing capability. In particular, we will bring into the collaboration our differentiating capabilities in four areas: design for additive engineering, rapid alloy development (RAD), additive process knowledge to create high quality, repeatable components and our advanced coatings. Through our expertise, we aim to expand the operational envelope."

Natasha Allden, Chief Commercial Officer at LENA Space commented: "Working with Oerlikon is a unique opportunity to explore the new field of Additive Manufacturing in space technology. At LENA, we continually challenge and innovate technology and processes. Additive Manufacturing allows us to make step changes in producing complicated designs not possible with traditional machining, improving the performance whilst reducing the mass of our products. We look forward to our partnership with Oerlikon and shaping the future of space propulsion technology."

Oerlikon and LENA Space will be exhibiting at the Formnext in Frankfurt from the 14-17 November. Both companies look forward to welcoming you at booth 3.1-E30 and showing you our technologies and solutions.

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Image: Mr. Florian Mauerer, Head of BU Additive Manufacturing, Oerlikon Group, presenting the 3D printed impeller for the LENA Space pump solution in small launch vehicles at the MTC event in October 2017.

To find out more visit: www.oerlikon.com/am and www.lenaspace.com

About Oerlikon

Oerlikon (SIX: OERL) is a leading global technology Group, with a clear strategy to become a global powerhouse in surface solutions, advanced materials and materials processing. Backed by the key ability to intelligently engineer and process surface solutions and advanced materials, the Group is committed to invest in value-bringing technologies that provide customers with lighter, more durable, more efficient and environmentally sustainable products. A Swiss company with over 100 years of tradition, Oerlikon has a global footprint of over 13 500 employees at more than 180 locations in 37 countries and sales of CHF 2.3 billion in 2016. The company invested CHF 94 million in R&D in 2016 and has over 1 000 specialists developing innovative and customer-oriented products and services.

About LENA Space

LENA Space addresses today's challenge of bringing connectivity, communication and information to a global audience by delivering fast to market space launch technology that accelerates access to space. Supporting UK aspirations for sector growth and commercialisation of space. LENA Space delivers fast to market, low-cost technologies for space-launch systems to the global marketplace.
LENA Space is currently focusing on the end-to-end propulsions system for launch vehicles. LENA Space was founded in 2016 by Edward Fletcher (CEO), Lee Giles (CTO) and Natasha Allden (CCO).

LENA Space secured a National Space Technology Programme 3 grant in partnership with Lockheed Martin to deliver turbine and pump technology in 2017.

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