LR launches a JIP in additive manufacturing

We have launched a joint industry project (JIP) inviting companies from across the world to tackle the current and future issues faced by manufacturers supplying the energy industry – the latest JIP focuses on additive manufacturing.

“It’s testament to our drive to bring together companies who understand the benefit of working together to deliver innovative and ground breaking solutions in a step towards digital manufacturing,” said Claus Myllerup, Senior Vice President of Technology for Lloyd’s Register Energy. Additive manufacturing, also known as 3D printing, is on the rise and has the potential to affect global supply chains in a significant way. Global trends indicate that the market is set to grow by 390% in the next seven years, with our recent Technology Radar survey suggesting that additive manufacturing will have a major impact in the oil and gas industry in the next 5 years.

“Together with international and national companies, we can work beyond the constraints of today’s conventional manufacturing process to find real innovative solutions in a strategic and collaborative way,” said Myllerup. “Additive manufacturing is just one of several innovations that we are looking at.”

But additive manufacturing is being held back from widespread adoption in safety critical, asset intensive industries. Challenges exist because there is currently no standardised way of proving to manufacturers and regulators that printed products are safe. There are risks associated with consistency and quality control, long term performance, data integrity, intellectual property, and in both software and hardware used in high precision manufacturing – and it is not currently a technology that often can be used for assembly.

The safe and sustainable use of powders used in the manufacturing process is also a concern from an environmental and health perspective. Claire Ruggiero, Lloyd’s Register Energy’s Vice President for Technical Inspection Services said:

“Lloyd’s Register Energy’s world-leading expertise in manufacturing inspection and experience in component inspection makes it an ideal driving force for the additive manufacturing JIP. "The issues faced by manufacturers using additive manufacturing can be overcome through collaboration and working together. Pulling together key parties from material and machine suppliers, manufacturers, end users and research organisations, we can collectively consider the risks and control measures from different perspectives ensuring that all aspects are covered. We are confident this JIP will begin to help shape and guide ‘best practice’ standards in additive manufacturing.” JIPs compliment Lloyd’s Register Energy’s vision and investment to grow the industry’s technical delivery and capability worldwide to support its future. The company recently launched its multi-million investment joint laboratory in Singapore which will deliver innovative technical solutions to address the challenges faced by the energy, marine and offshore sectors.

“Our invitation for companies involved in the energy industry to join in our JIP programmes can support and fund projects from concept to commercialisation and introduce game-changing technologies across the energy industry, at any time Lloyd’s Register Energy has dozens of JIPs underway which provide a rapid route to innovation. The best JIPs are ones in which certifier, manufacturer, designer, and operator all work together to achieve a mutual goal of developing a ‘market driven’ design, that is future proofed as far as possible,” highlighted Myllerup.