*September 2018 – for immediate release Further information: Chris Pockett, +44 1453 524133*

**Renishaw and other MTConnect members participate in The Grand Challenge at IMTS 2018**

The world of manufacturing is embracing the fourth industrial revolution; a revolution driven by connected networks of intelligent devices providing data to improve and optimise production processes. In the CNC machining industry, part measurement data is extremely valuable. The information provided by this data can be used to verify that feature dimensions are correct, and to provide manufacturers with the knowledge required to optimise machining processes based on measured results. By analysing the data, valuable insight into machine shop production efficiency can be obtained, giving manufacturing engineers the wisdom needed to improve the yield and quality of machined parts.

With years of experience in our own machine shop, Renishaw understands the power of using measurement data to control machining processes with robust automation. Renishaw is now using this knowledge to contribute to the MTConnect standard – a technology that supports Industry 4.0 applications, as demonstrated by The Grand Challenge at IMTS 2018.

**Renishaw support for MTConnect standard**

Equipment interoperability is required to exchange data between connected devices in Industry 4.0 applications. Renishaw is working with the MTConnect Institute (an ANSI Standards Developer) as part of its Standards Committee, helping to add support for workpiece quality data to the MTConnect open communications standard for future applications.

Renishaw machine tool probing systems will output data according to the upcoming version of the MTConnect standard (v1.5.0); the first version of the standard to support part measurement results.

**Measurement data used in The Grand Challenge**

At IMTS 2018, Renishaw will show how metrology data can be extracted from its machine tool probes and used in The Grand Challenge – a digital twin machining application. Coordinated by STEP Tools, Inc, Renishaw will work alongside Boeing, DMG MORI, Hyundai and Mitutoyo to demonstrate how digital twin machining can be accomplished.

The Grand Challenge will show how data can be exchanged between CAD/CAM software, CNC machines, and measurement devices. This will allow CAD users to see that tolerances are being met; CAM users to see that processes are being executed; work to be shared between machines; automated verification that feature dimensions are produced to specification; and closed-loop optimisation of the machining process based on measured results.

For more information, please visit us at IMTS 2018 in Chicago, USA (September 10th – 15th, East Hall, stand 135509) and browse to [www.renishaw.com/imts](http://www.renishaw.com/imts).

**-ENDS-**