FORD UNLOCKS POTENTIAL OF 5G TO FUTURE-PROOF ELECTRIC VEHICLE PRODUCTION

- Ford and Vodafone Business lead consortium to develop the potential of 5G in manufacturing
- Electric vehicle (EV) manufacturing processes to be enhanced by 5G connectivity
- New mobile private network (MPN) to provide faster and more accurate control and analysis of EV manufacturing

DUNTON, ESSEX, 25 June 2020 – Ford and its consortium partners have received government backing for the introduction of 5G connectivity to speed up electric vehicle manufacturing.

A 5G mobile private network delivered by Vodafone Business, will be installed this year in the new E:PriME (Electrified Powertrain in Manufacturing Engineering) facility on Ford’s Dunton Campus. The Vodafone Business 5G solution is set to overcome many of the issues surrounding wireless connectivity in the industrial setting. It promises reduced delays, wider bandwidth, improved security and reliability, and faster deployment time.

By the time installation is complete in the autumn, E:PriME Dunton will have the fastest possible connectivity alongside the consortium’s second network at welding research specialists TWI, based in Cambridge.

Both sites’ connected equipment will offer real-time control, analysis and remote expert support, ensuring new manufacturing processes are shop floor-ready.

Ford will focus on the connectivity of the welding machines in the manufacture of electric vehicles. The batteries and electric motors within an EV require around 1,000 welds. For a single EV product, this could generate more than a half a million pieces of data every minute. Fast, reliable, high capacity data capture and analysis will be a significant requirement of these processes. Connecting the data with experts, such as TWI and manufacturers, is critical if processes are to develop at the same rate as these innovative products demand.

Chris White, Ford’s 5GEM project lead, said: “Connecting today’s shop floor requires significant time and investment. Present technology can be the limiting factor in reconfiguring and deploying next-gen manufacturing systems. 5G presents the opportunity to transform the speed of launch and flexibility of present manufacturing facilities, moving us towards tomorrow’s plants connected to remote expert support and artificial intelligence.”

Vinod Kumar, CEO of Vodafone Business, said: “5G mobile private networks act as a springboard for organisations, allowing them to rethink the way they do business. In this case, MPN technology makes the factory of the future possible. It allows machines and computing power to coordinate in real time, improving precision, efficiency and safety. We’re excited to help Ford plan for the future of its business.”

Oliver Dowden, Secretary of State for Digital, Culture, Media and Sport, said at the announcement of £65 million to nine consortia harnessing the potential of 5G:

“We’re determined to harness this revolutionary technology to boost the productivity and growth of UK industries. We want Britain to be a world leader in 5G, and since 2017 the government has invested millions in ground-breaking testbeds and trials across the country to achieve this.”

Public grant funding is subject to the conclusion of agreements between all parties.