

## Empirical Digital Twin Development of Modern Powertrains using HORIBA Intelligent Lab Methodologies

## Case study overview

The vast range of different driving scenarios covered by Real Driving Emissions (RDE) testing makes it virtually impossible to capture all eventualities through physical testing alone.

When a major OEM wished to analyse the RDE performance of a plug-in hybrid passenger car, it commissioned HORIBA MIRA to build a digital twin of the powertrain and vehicle and put that through a fast and efficient programme of virtual testing. This allowed the RDE test data to be calculated roughly 50 times faster than physical testing.

Engineering team deployed: A core team of four engineers based at HORIBA MIRA's Propulsion Test and Development Centre in Nuneaton, UK.

