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Validation program for a Hybrid Drivetrain

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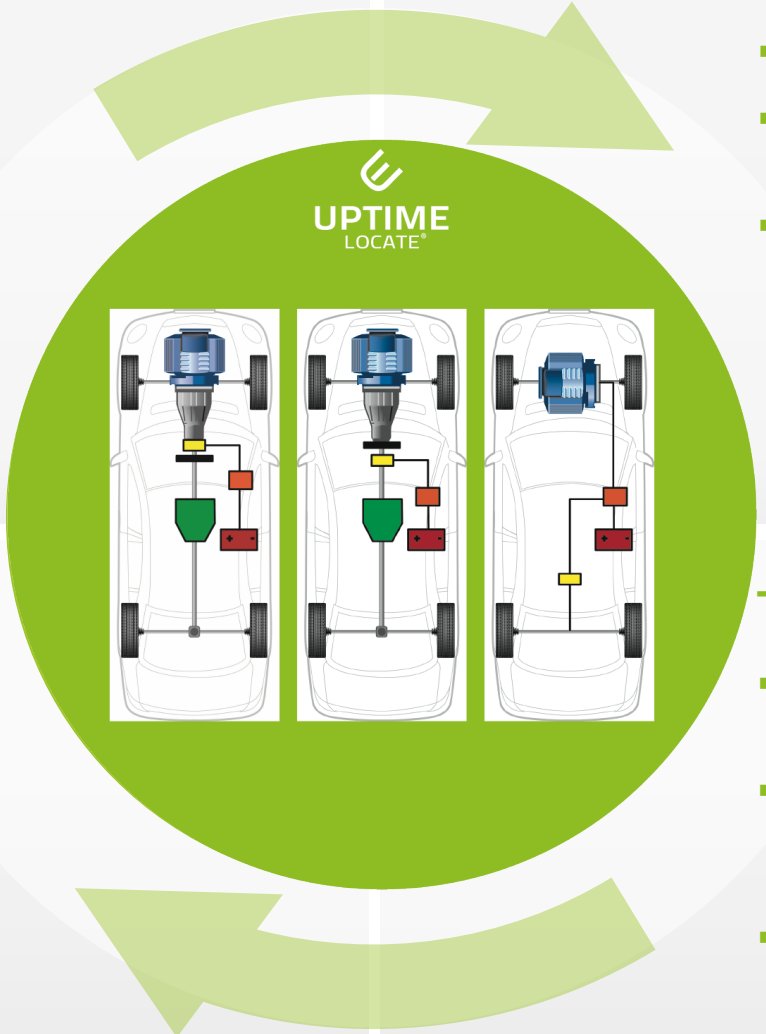
Background

- The two energy sources of hybrid drivetrains make their validation complicated
- The required power is distributed among the traction engines according to controller strategies
- Engine loads are no longer definite functions of the vehicle load



Requirement

- Develop a strategy for hybrid validation
- Take variable driving modes into account for references and for test procedures
- Consider driving and charging scenarios and maximize road to rig operation

Customer benefit

- Comprehensive risk management
- Focus on innovation-induced risks and coverage of actual vehicle usage modes
- Simulation and testing in closed loop and lifetime modeling from test monitoring

The Solution with Uptime LOCATE

- Identification of risk-driving conditions of various hybrid modes at various duty cycles
- Simulation of load spectra for drivetrain modules and vehicle load response tests for calibration of the usage spaces
- SiL and HiL screening for drivetrain characterisation and setup of durability tests