

# The Digital Vehicle for fast and sustainable Development

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Daimler Truck has created a global platform for virtual vehicle and powertrain function development. The platform includes a digital collaboration framework where models of vehicle subsystems are combined to modules that represent the physical and controls behavior of a real truck. Depending on the actual task different levels of model accuracy and runtime requirements can be selected, starting from simple 0-dimensional up to complex 3-dimensional FE computation.

Various applications of the platform are already an integral part of the development process and save time and costs as well as provide options that cannot be covered by testing. A virtual engine test bench, the co-simulation of a multi-body vehicle model with a control module and the extension of the platform to 3D applications for safety system simulations are examples for the use of the platform.