

## **The Advanced Downsizing Demonstrator — Development Status and Fuel Economy Potential —**

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### **Abstract**

Maximizing the fuel economy and, thereby minimizing the CO<sub>2</sub> emissions are the most important objectives for the future development of engines and vehicles. MAHLE is currently developing its own gasoline engine to demonstrate the capability of an advanced downsizing concept. The 3 cylinder engine with a displacement of 1.2 litre is achieving target values for torque and power-output. This enables a 50 % downsized engine, offering a potential 30 % reduction of fuel consumption and CO<sub>2</sub> emissions on the NEDC. Results are presented for the 1.2 litre engine and predictions made for a 2 cylinder sub 0.8 litre and small vehicle combination.