



REWARD

REal World Advanced Technologies for Diesel Engines

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Project partners:

- 1 - AVL - AVL List GmbH - AT
- 2 - REN - Renault SAS - FR
- 3 - VCC - Volvo Car Corporation - SE
- 4 - CRF - CRF SCpA - IT
- 5 - CNRIM - Istituto Motori – Consiglio Nazionale delle Ricerche (CNR) - IT
- 6 - JM - Johnson Matthey Plc - UK
- 7 - RIC - Ricardo Plc - UK
- 8 - SCF - Schaeffler AG - DE
- 9 - LMM - Le Moteur Moderne - FR
- 10 - DELPHI - Delphi Automotive Systems Luxembourg S.A. - LU
- 11 - UNR - Uniresearch BV - NL
- 12 - IFPEN - IFP Energies Nouvelles - FR
- 13 - VIF - Virtual Vehicle Research Center - AT
- 14 - CTH - Chalmers Tekniska Högskola - SE
- 15 - CTU - Czech Technical University - CZ
- 16 - UPVLC - Universitat Politècnica de Valencia – Motores Termicos - ES

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Publishable Executive summary

This report describes the work carried out in **Task 6.5 Calibration and Multi Cylinder Verification**.

A demonstrator engine has been built and tested in test bench at AVL. A part load calibration and two heat up modes have been carried out by AVL and further improved and implemented in the controls concept by VCC. Full load has been evaluated by VCC and a maximum power of 211 kW at an engine speed of 4250 1/min and a maximum torque of 550 Nm at an engine speed range of 2000 – 3750 1/min has been achieved. The project target of 100 kW/l could hereby be confirmed.

The aftertreatment system developed in Task 6.5 has been adapted to the engine, but due to time restrictions, only a rough adaption of the ETAS controls could be implemented. Basic strategies for regeneration of the Lean NOx Trap and the particulate filter have been carried out.