



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
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Publishable Executive summary

Development of the next generation of 4-stroke Diesel engine for PC-mass market goes with an evolution of the engine hardware and the associated control strategies. In order to be able to well manage the engine during transient conditions, dedicated control strategies need to be developed. In this context, 0-D modeling can be of primary importance since it allows to test the control strategies before implementing them on the real engine.

Results shown in this report highlight the performance of the developed engine model. The level of modeling is sufficient to design air system control strategies representing the upcoming IFPEN development in the REWARD WP5 framework.