



# 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 Politecnica de Valencia – Motores Termicos – ES

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## Publishable Executive summary

One of the goals of Work Package 2 (Advanced aftertreatment technologies development) is to realize a demonstrator vehicle to confirm the capability of the defined aftertreatment system to achieve the Reward emissions target.

In this perspective the 1.6l 4 cylinder FCA diesel engine has been updated with the new technologies developed within the WP3: an improved EGR system (cooled Low Pressure and High Pressure) and a completely new combustion system together with a new Fuel Injection System with increased maximum fuel pressure.

As a demo vehicle a Jeep Renegade 1,6L 120Hp MT6 FWD has been selected.

The new aftertreatment system defined in Task 2.3 and described in Deliverable 2.7, including a U-Shape close coupled converter containing a SCR, cooled close coupled urea injector and AdBlue tank and dosing have been successfully installed on the same demo vehicle.

The present report lists the new engine and ATS technologies implemented, and describes how the new engine and ATS have been mounted on the vehicle, now ready for testing.