

PROJECT

DiePeR

Diesel efficiency improvement with Particulates and emission Reduction

Funding: European (Horizon 2020)

Duration: Oct 2016 - Sep 2019

Status: Complete

Total project cost: €8,645,405

EU contribution: €7,211,030



Call for proposal: H2020-GV-2016-INEA

[CORDIS RCN : 207006](#)

Background & policy context:

Growing road traffic in Europe results in detrimental effects on the environment and public health to a level that is becoming unsustainable, this in spite of increasingly stringent emission standards. In particular, CO₂ and noxious emissions are not sufficiently reduced in real driving, while higher injection pressures have led to a shift towards the emission of smaller nanoparticles that are undetected by current certification procedures.

Objectives:

The challenge of the DiePeR project is to apply advanced technologies for combustion and exhaust after treatment to existing non-hybrid Diesel engines and to optimize the improved characteristics of a new generation of engines with regard to emissions, fuel consumption and driveability. Specific technologies will be advanced to TRL 6 or TRL 7 and integrated in two demonstration vehicles: One passenger car of the mid/ premium segment and one light commercial vehicle. A full calibration and assessment of the vehicles and underlying technologies will take place to proof: Real driving emissions substantially below Euro 6/ NEDC limits, less than half of emitted particles (number) including particles < 23nm and a more than 5% improved fuel efficiency based on best-in-class MY2015 vehicles. The project also addresses design features, control and basic research such as modelling of particles formation and the deterioration of engine components (fuel injection system, exhaust after treatment system) and its effect on emissions, in order to assess the robustness of the vehicles over useful lifetime.

Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

Avl List Gmbh

Address:

Hans-List-Platz
8020 Graz
Austria

Organisation Website:

<http://www.avl.com>

EU Contribution: €1,566,969

Partner Organisations:

Rheinsche Bahngesellschaft Aktiengesellschaft

Address:

LIERENFELDER STRASSE 42
40231 DUSSELDORF
Germany

Organisation Website:

<http://www.ricardo.com>

EU Contribution: €762,875

Renault Represented By Gie Reginov

Address:

Quai Alphonse Le Gallo 13/15
92100 BOULOGNE-BILLAN COURT
France

Organisation Website:

<http://www.renault.com>

EU Contribution: €1,186,123

Robert Bosch GmbH

Address:

Robert-Bosch Platz
70839 Gerlingen-Schillerhoehe
Germany

Organisation Website:

<http://www.bosch.com>

EU Contribution: €320,000

Centro Ricerche Fiat - Societa Consortile Per Azioni

Address:

Strada Torino, 50
10043 ORBASSANO (TO)
Italy

Organisation Website:

<http://www.crf.it>

EU Contribution: €90,700

Iveco S.p.a.

Address:

Via Puglia 35
10156 Torino
Italy

Organisation Website:

<http://www.iveco.com>

EU Contribution: €215,750

Siemens Industry Software Sas

Address:

Avenue Morane Saulnier 13 Espace Velizy Immeuble Le Chavez
92320 Chatillon
France

Organisation Website:

<http://www.ugsplm.com>

EU Contribution: €102,750

Ecole Centrale De Nantes**Address:**

Rue De La Noe 1
44321 Nantes
France

Organisation Website:

<http://www.ec-nantes.fr>

EU Contribution: €270,550

Kompetenzzentrum - Das Virtuelle Fahrzeug Forschungsgesellschaft M.b.h.**Address:**

Inffeldgasse 21a / 1. Stock
8010 GRAZ
Austria

Organisation Website:

<http://www.v2c2.at>

EU Contribution: €115,075

Uniresearch**Address:**

DELFTTECHPARK 37 J
2628 XJ DELFT
Netherlands

Organisation Website:

<http://www.uniresearch.nl>

EU Contribution: €266,250

Consiglio Nazionale Delle Ricerche**Address:**

Piazzale Aldo Moro
185 Roma
Italy

Organisation Website:

<http://www.cnr.it>

EU Contribution: €250,000

Continental Automotive France Sas**Address:**

Avenue Paul Ourliac
31036 Toulouse
France

Organisation Website:
<http://www.siemensvdo.com>

EU Contribution: €507,063

Universitat Politecnica De Valencia

Address:
Camino De Vera S/n
46022 Valencia
Spain

Organisation Website:
<http://www.upv.es>

EU Contribution: €256,500

Ifp Energies Nouvelles

Address:
1et 4 avenue de Bois-Préau
92500 RUEIL MALMAISON
France

Organisation Website:
<http://www.ifp.fr>

EU Contribution: €963,151

Fpt Motorenforschung Ag

Address:
SCHLOSSGASSE 2
9320 ARBON
Switzerland

EU Contribution: €0

Johnson Matthey Plc

Address:
40-42 Hatton Garden
London
EC1N 8EE
United Kingdom

Organisation Website:
<http://www.matthey.com/>

EU Contribution: €337,275

Technologies:

Road vehicle propulsion
Fuel efficient engine with aftertreatment systems
Development phase: Demonstration/prototyping/Pilot Production

STRIA Roadmaps: Vehicle design and manufacturing

Transport mode: Road transport

Transport sectors: Passenger transport, Freight transport
Decarbonisation, Societal/Economic issues, Environmental/Emissions

Transport policies: aspects

Geo-spatial type: Other

