

1. Limiting pollutant emissions under Real Driving conditions
2. Advancing and optimising Diesel aftertreatment technologies to TRL7

## 4-stroke Diesel engines (D/E segment passenger cars)

Advanced engine concepts with very high fuel efficiencies

Reduced sub 23 nm particulates emissions

Compact combustion with optimal heat use

ATS concepts and efficient engine concepts



## 4-stroke Diesel engines (B/C and D/E passenger cars)

Advanced exhaust gas treatment concepts

Advanced friction and wear reductions

>5% improved fuel economy

Compliance with post EU6 limits under RDE



## 2-stroke Diesel engine architecture

New uniflow scavenging concept

Optimum bore/stroke, air loop, EGR

Pollutant emissions below EU6

Fuel saving 5% vs EU6 4-stroke

## OEM partners



## Suppliers and services



## Research partners



The projects have received funding from the European Union's Horizon2020 research and innovation programme under Grant Agreement no. 723976 and 636380.

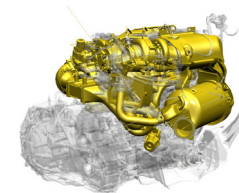
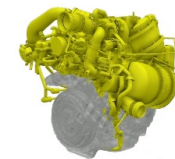


# REWARD

Real World Advanced Technologies  
for Diesel Engines

## FINAL CONFERENCE

18 April 2018 | TRA 2018 Galerie 5+6



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Diesel efficiency improvement  
with Particulates and Emission Reduction

## MIDTERM CONFERENCE

[www.project-reward.eu](http://www.project-reward.eu) | [www.dieper-project.eu](http://www.dieper-project.eu)

## The project

The goal of REWARD is to develop advanced Diesel engines that are able to respond to the demands of the future. REWARD develops Diesel powertrains and ATS technologies for the next generation of cleaner passenger cars.

*Herwig Ofner, Project Coordinator*



Due to the high fuel economy of Diesel engines REWARD plays into this enormous improvement potential to stimulate the development and use of Diesel engines in all vehicle classes.

## FINAL stakeholder conference

We would like to share the REWARD innovations, the results we have achieved in both REWARD and dieper projects, and our vision for the future of Diesel engines at the Transport Research Arena 2018.

## Registration

This is an open event (free of charge) taking place as official side event to TRA2018. Please note that you need to have a valid conference-ticket for TRA2018 on Wednesday 18 April 2018. Lunch and coffee breaks during the conference are included. You can secure your ticket here: <http://www.traconference.eu/>. In case you wish to be kept informed about the event, please also register with Mrs Ilse Claassen: [i.claassen@uniresearch.com](mailto:i.claassen@uniresearch.com) by sending your name and surname.

## The venue

Transport Research Arena 2018  
Reed Messe Wien GmbH  
Messeplatz 1 - Vienna



09.00 Registration



### Introduction

09.30 **Welcome**  
EC / INEA, AVL List GmbH

09.40 **REWARD - advanced Diesel engines**  
Herwig Ofner, Project coordinator, AVL List GmbH

10.00 **The future of Diesel engines**  
Theodor Sams, Head of Global Research and Technology Development, Engineering and Technology, Powertrain Systems, AVL List GmbH

10.15 Coffee break

### Outcomes REWARD

10.45 **4-stroke Renault Kadjar**  
Ludwig Buegler, AVL  
Philippe Mallet, Renault

11.00 **4-stroke Volvo XC60 MY2018**  
Stefan Bohatsch, Volvo

11.15 **2-stroke engine architecture by REN**  
Fano Rampanarivo, Renault

11.30 **ATS Technologies and Technologies for high efficiency (friction reduction & combustion efficiency)**  
Marco Tonetti, CRF  
Ricardo Brugnara, SCF

12.00 Lunch



### Related EU project - dieper

13.00 **dieper - new technology for limiting pollutant emissions under Real Driving conditions from Diesel engines**  
Herwig Ofner, Project coordinator, AVL List GmbH

13.45 **Panel Discussion with REWARD and dieper work package leaders**  
Moderation by Peter Prenninger, AVL List GmbH

### Results and Conclusions

14.30 **Results and Conclusions**  
Herwig Ofner, AVL List GmbH

15.00 Coffee break



### REWARD demonstrators at outside parking area/yard

15.30 **Demonstration of the Renault Kadjar & the Volvo XC60 MY2018, followed by Q&A with the engineers from Renault & Volvo:**  
Stefan Bohatsch, Håkan Persson  
Marie Stenfeldt, Markus Ekström  
Philippe Mallet

17.00 End of conference