Modern, Real-Driving Emissions (RDE)-compliant cars: Key to improving urban air quality

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Association for Emissions Control by Catalyst (AECC AISBL)

AECC members: European Emissions Control companies

Exhaust emissions control technologies for original equipment, retrofit and aftermarket for all new cars, commercial vehicles, motorcycles, and non-road mobile machinery.
EU Air Quality has improved over the years
But further efforts are needed

Source: European Environment Agency (EEA)
EU RDE legislation introduced as of 1/9/2017

Aims to close the emissions gap between lab and real-world

Source: average on-road diesel NOx emissions, the ICCT

Car fitted with a Portable Emission Measurement System (PEMS) to measure tailpipe real-driving emissions on the road

Source: Gasoline Particulate Filters Market and Technology Trends and their Impact on Calibration, FEV, SIA powertrain 2017
Light-duty gasoline emissions control technology evolution
Introduction of particulate filters on cars with direct injection to meet the RDE requirements

Source: Daimler – Vienna Motorensymposium 2017

Source: Peugeot – 308 press release 2017

RDE: Real-Driving Emissions
GPF: Gasoline Particulate Filter
TWC: Three-Way Catalyst
Light-duty diesel emissions control technology evolution
Towards combination of technologies in a compact design for RDE compliance

Source: Daimler – Aachen Colloquium 2015

Source: Peugeot – 308 press release 2017

Source: BMW – Aachen Colloquium 2015

DPF: Diesel Particulate Filter
DOC: Diesel Oxidation Catalyst
SCR: Selective Catalytic Reduction
SDPF: SCR on DPF
LNT: Lean NOx Trap
RDE-compliant cars (Euro 6d-temp) are now available

- List at [www.adac.de/infotestrat/umwelt-und-innovation/abgas/modelle_mit_euro_6d_temp/default.aspx](http://www.adac.de/infotestrat/umwelt-und-innovation/abgas/modelle_mit_euro_6d_temp/default.aspx)
- 1243 models available on the market (status on 12 November 2018)
Emissions of Euro 6d-temp vehicles well within standards
Urban RDE emissions within Not-To-Exceed limits

Petrol cars

Diesel cars

Source: PEMS results and maximum declared values from ACEA RDE database consulted on 18 October 2018
Independent ADAC Ecotest demonstrates real-world gap is closing

Euro 6d-temp vehicles meet the Euro 6 NOx limit in real-driving conditions
Diesel Information Hub: a fact-based source on modern diesel

https://dieselinformation.aecc.eu
Conclusions

- A new era for vehicle emissions control started in September 2017 with introduction of RDE and WLTP (Euro 6d).

- This legislative ambition and technological progress drove the introduction of combustion engine vehicles that are cleaner than ever before. Euro 6d-temp vehicles are now entering the market.

- Today, the Euro 6d-temp (and Euro 6d in 2020) certification level limiting real-world driving emissions allows to identify modern, cleaner vehicles based on their performance.

- Such modern, combustion engine-powered vehicles will play a key role in improving air quality in cities.
THANK YOU!

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