

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)

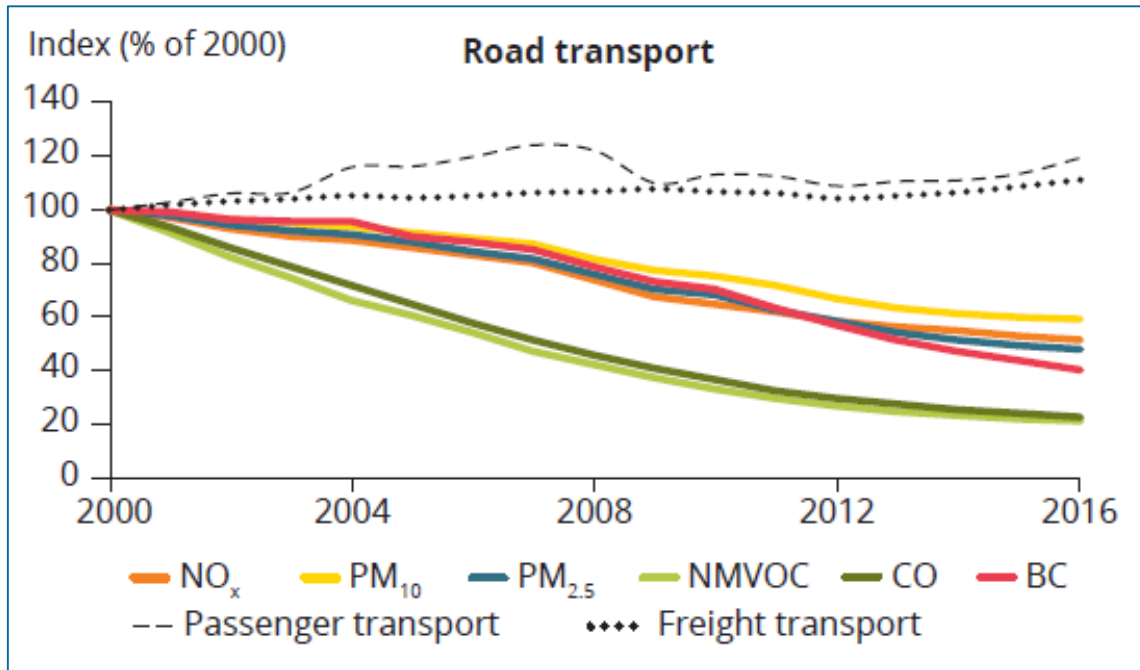
AECC members : European Emissions Control companies



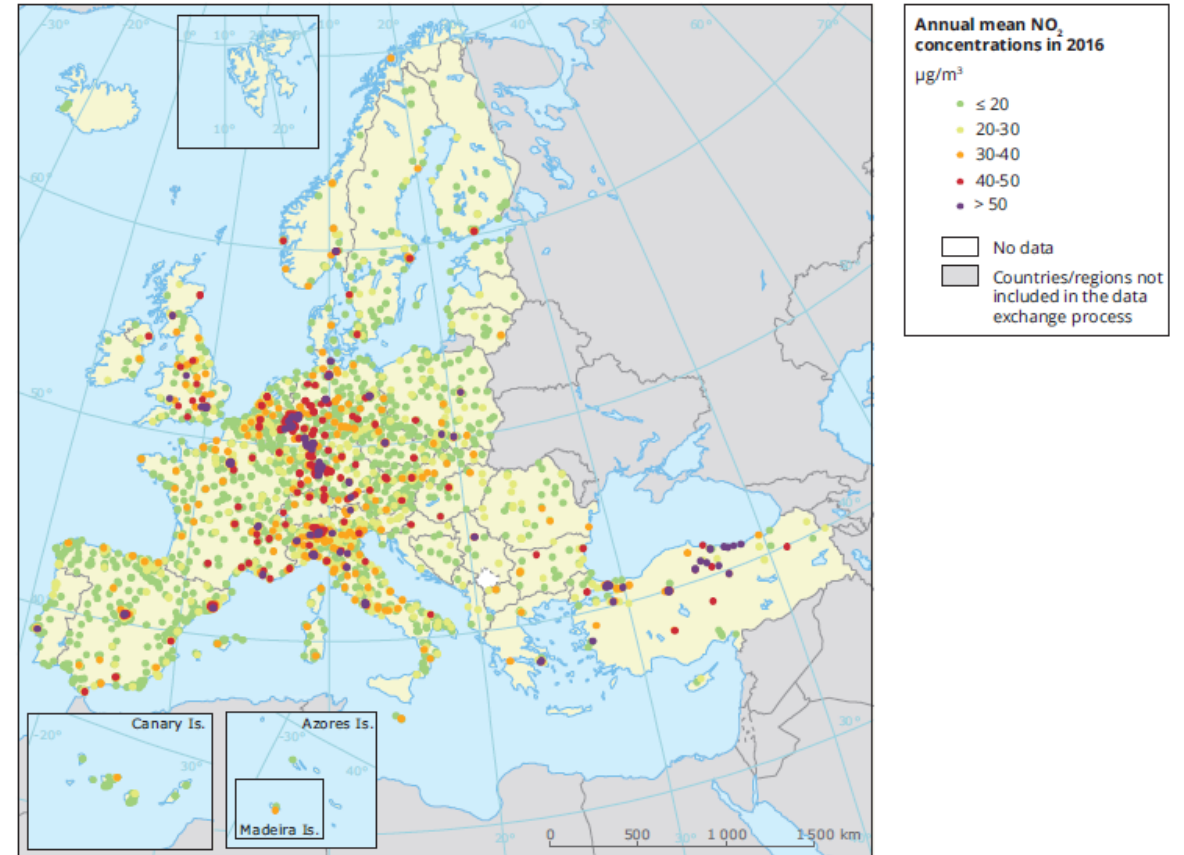
- Exhaust emissions control technologies for original equipment, retrofit and aftermarket for all new cars, commercial vehicles, motorcycles, and non-road mobile machinery

EU Air Quality has improved over the years

But further efforts are needed

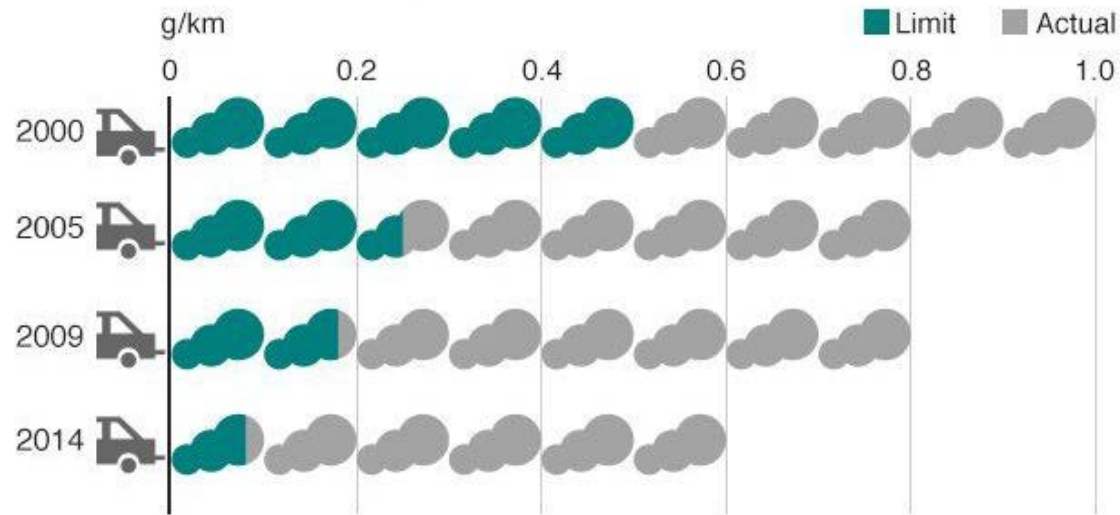


Source: European Environment Agency (EEA)

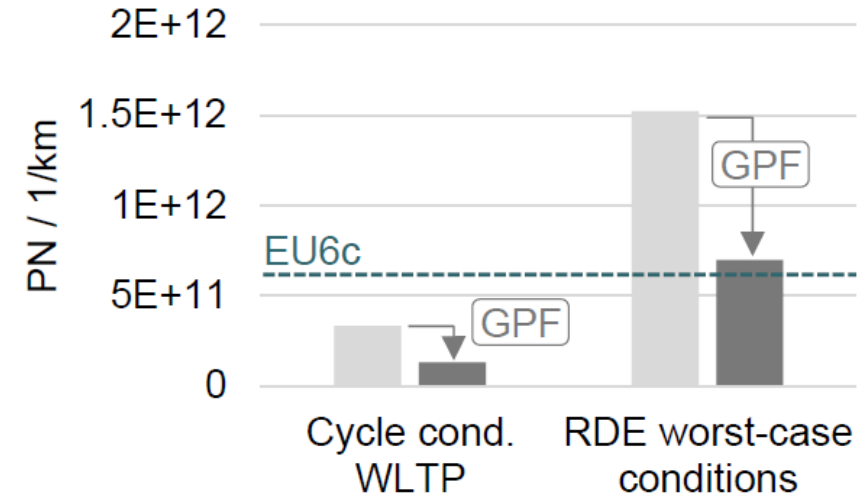


EU RDE legislation introduced as of 1/9/2017

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



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



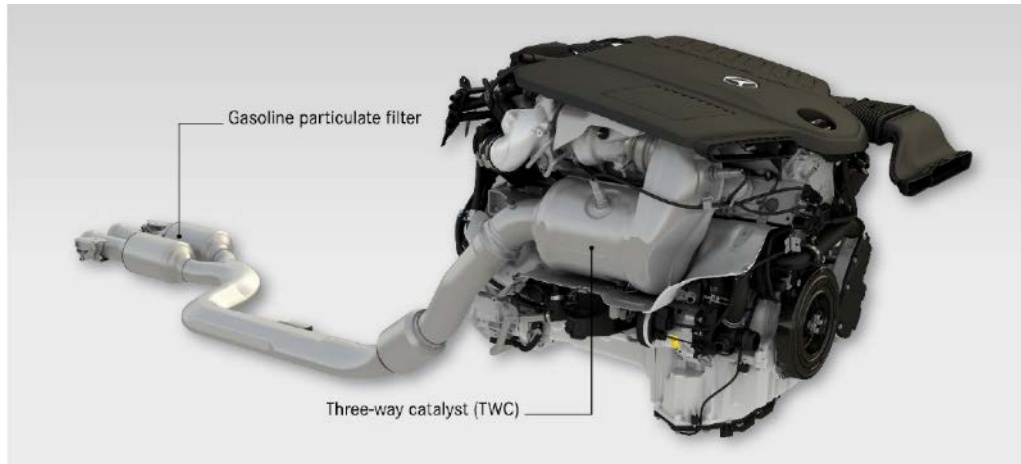
Source: Gasoline Particulate Filters Market and Technology Trends and their Impact on Calibration, FEV, SIA powertrain 2017



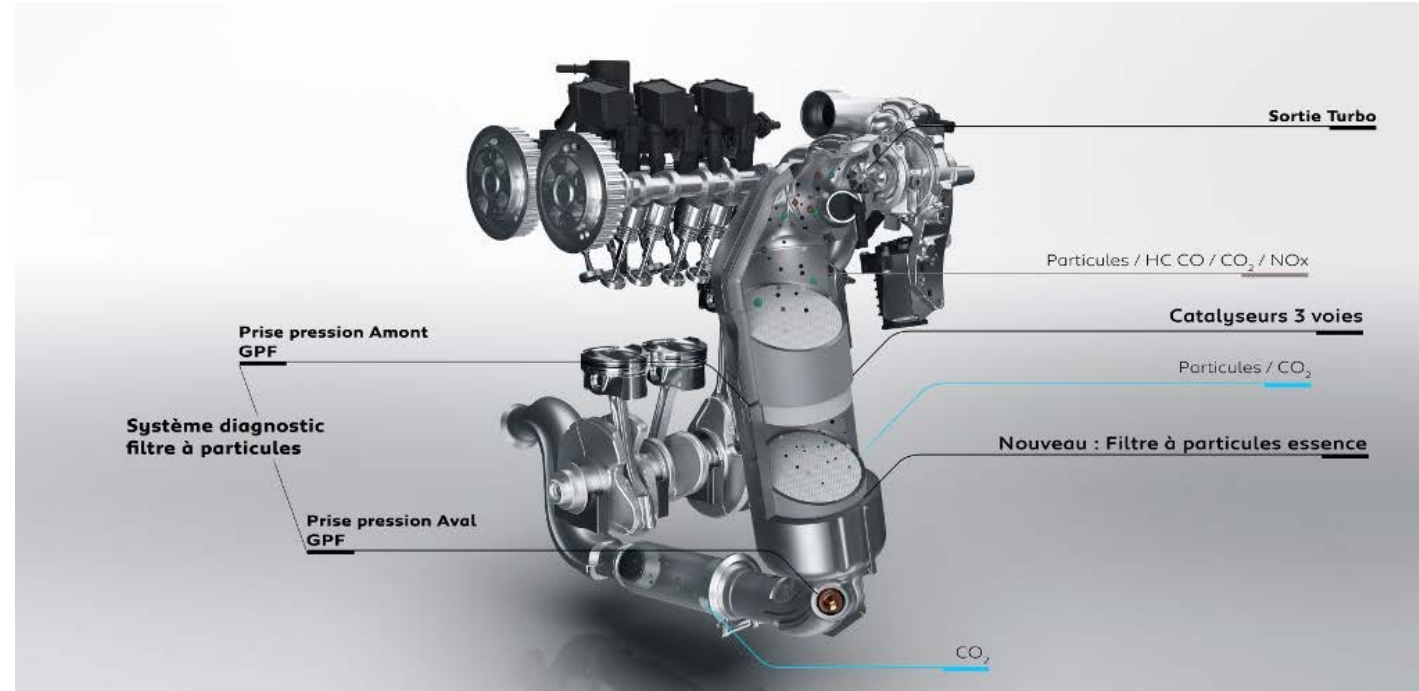
Car fitted with a Portable Emission Measurement System (PEMS) to measure tailpipe real-driving emissions on the road

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

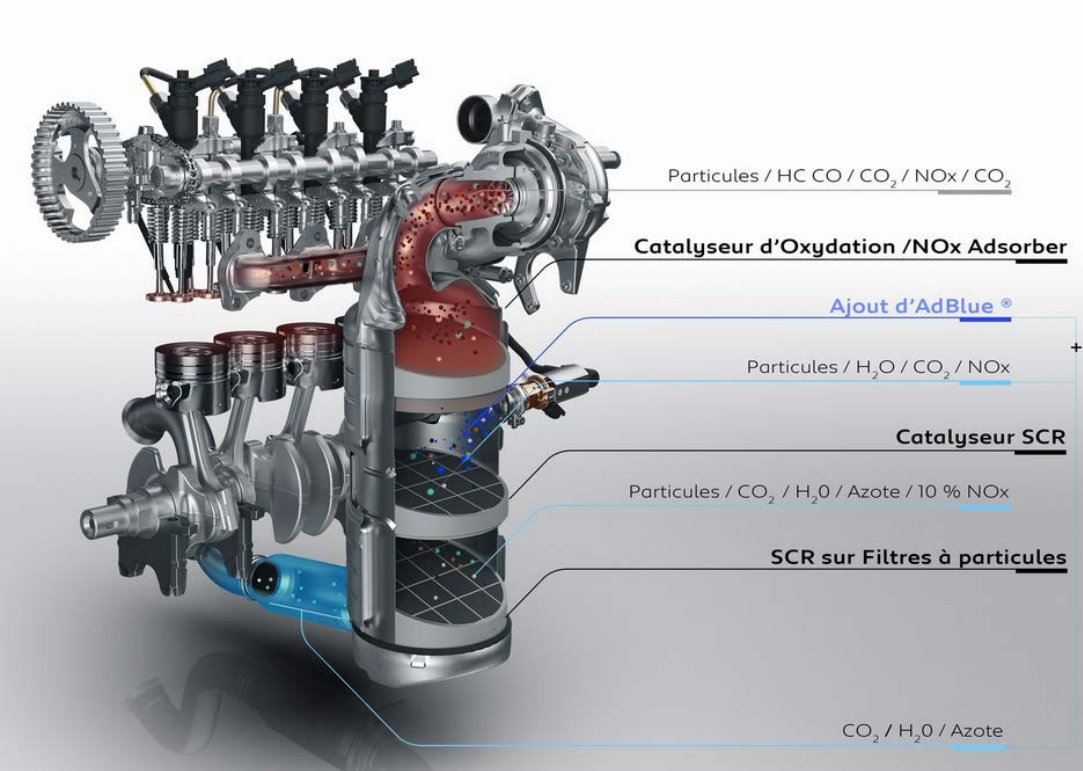


Source: Peugeot – 308 press release 2017

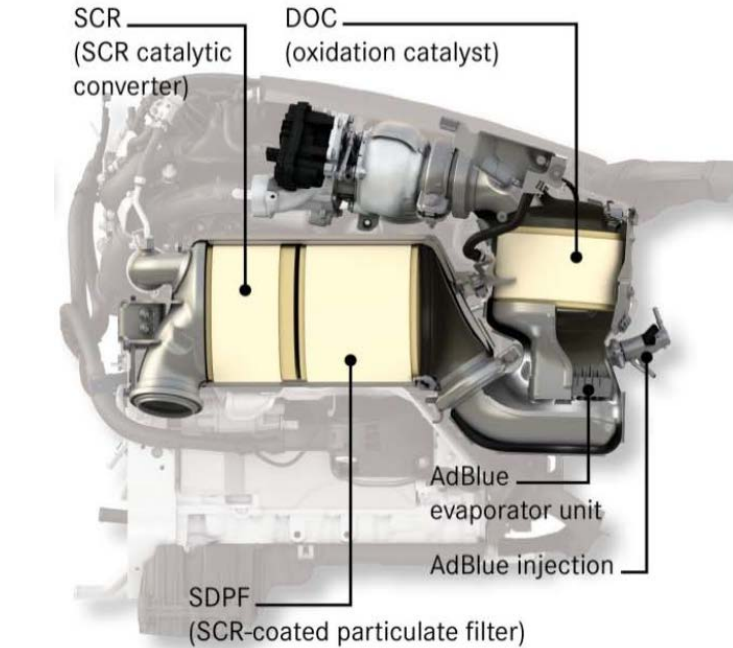
RDE: Real-Driving Emissions
GPF: Gasoline Particulate Filter
TWC: Three-Way Catalyst

Light-duty diesel emissions control technology evolution

Towards combination of technologies in a compact design for RDE compliance

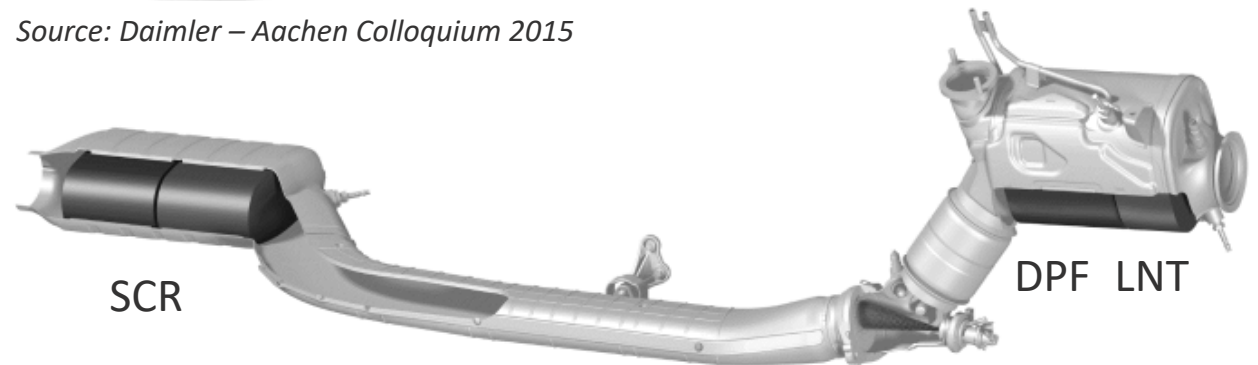


Source: Peugeot – 308 press release 2017



Source: Daimler – Aachen Colloquium 2015

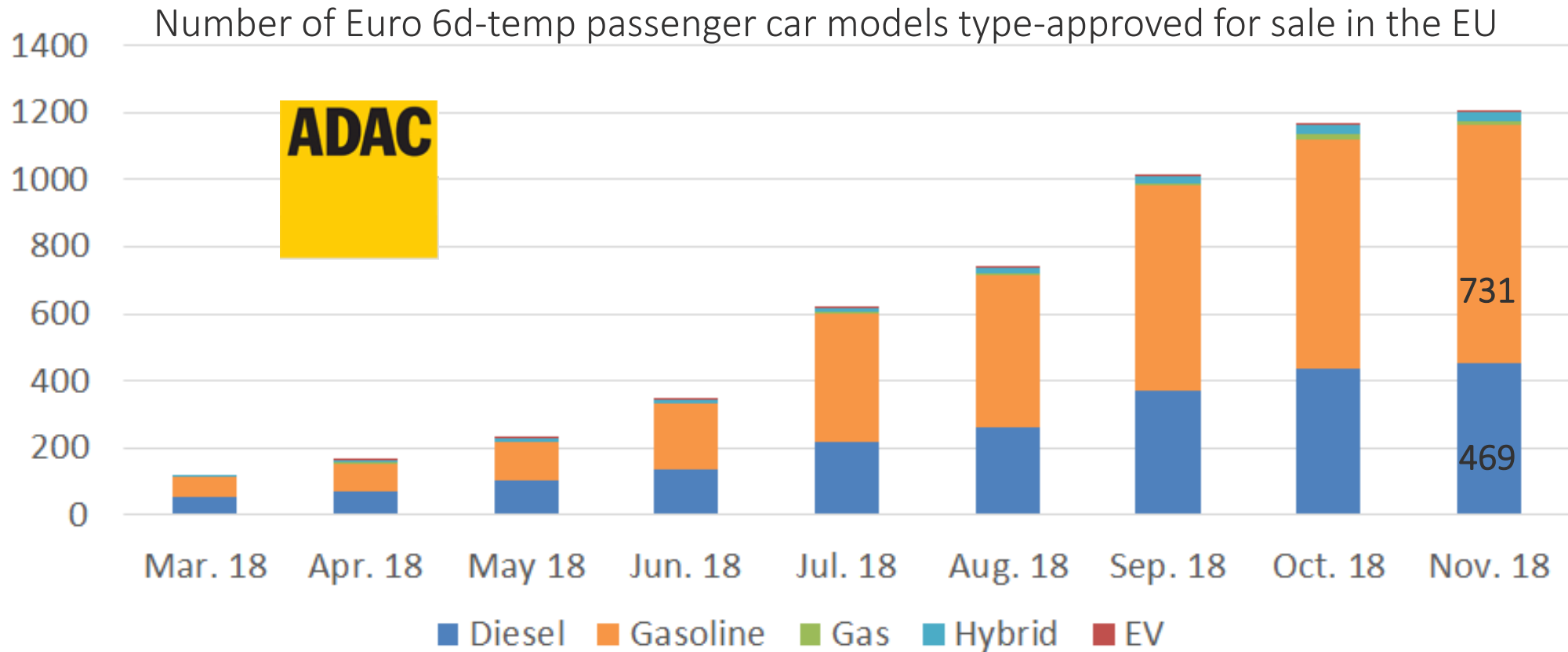
DPF: Diesel Particulate Filter
 DOC: Diesel Oxidation Catalyst
 SCR: Selective Catalytic Reduction
 SDPF: SCR on DPF
 LNT: Lean NO_x Trap



Source: BMW – Aachen Colloquium 2015

RDE-compliant cars (Euro 6d-temp) are now available

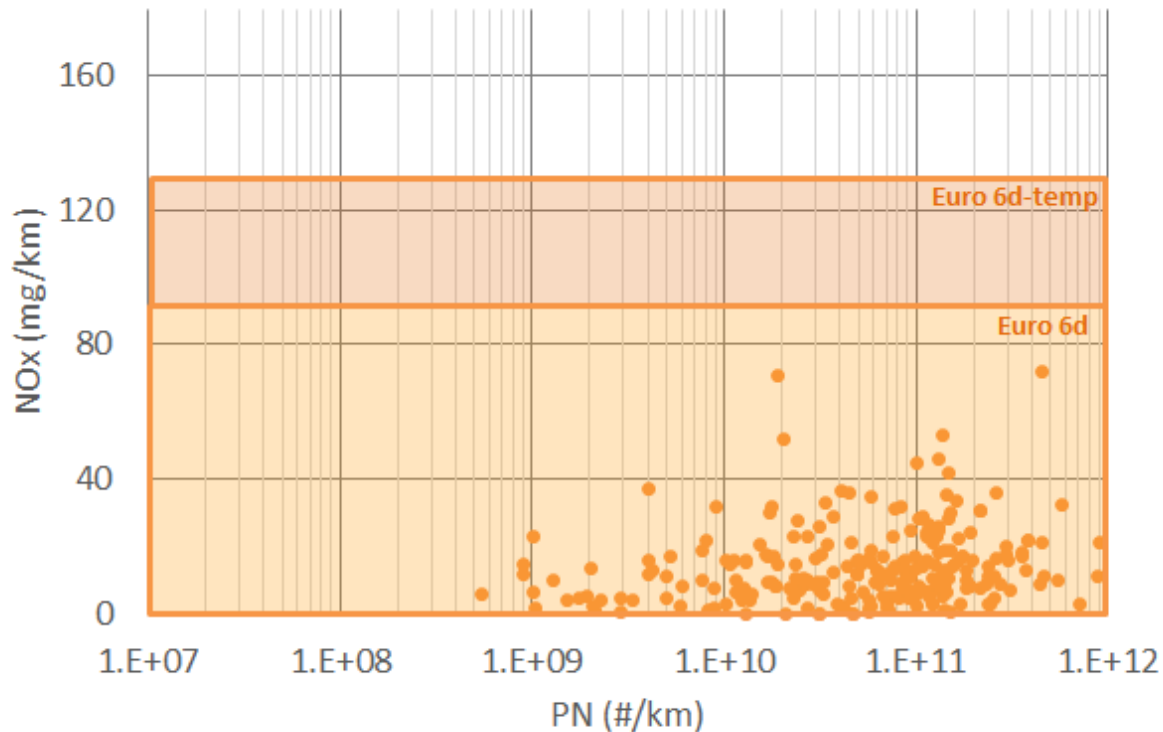
- List at www.adac.de/infotestrat/umwelt-und-innovation/abgas/modelle_mit_euro_6d_temp/default.aspx
- 1243 models available on the market (status on 12 November 2018)



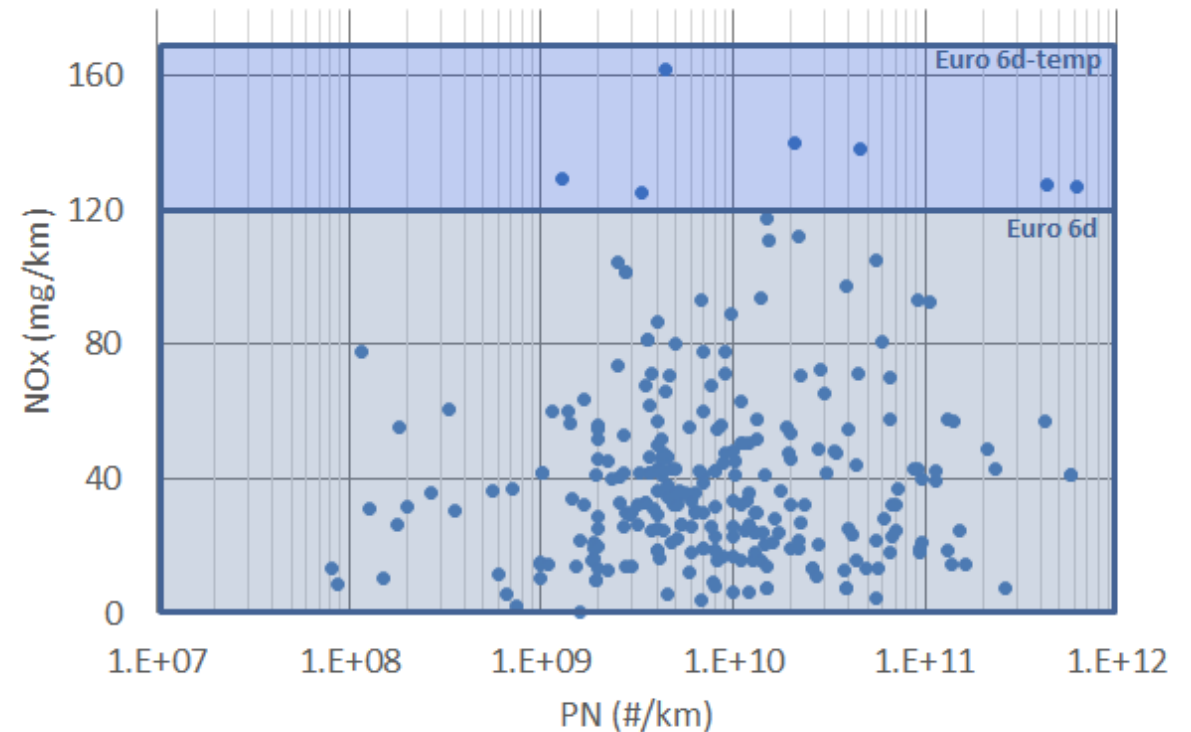
Emissions of Euro 6d-temp vehicles well within standards

Urban RDE emissions within Not-To-Exceed limits

Petrol cars



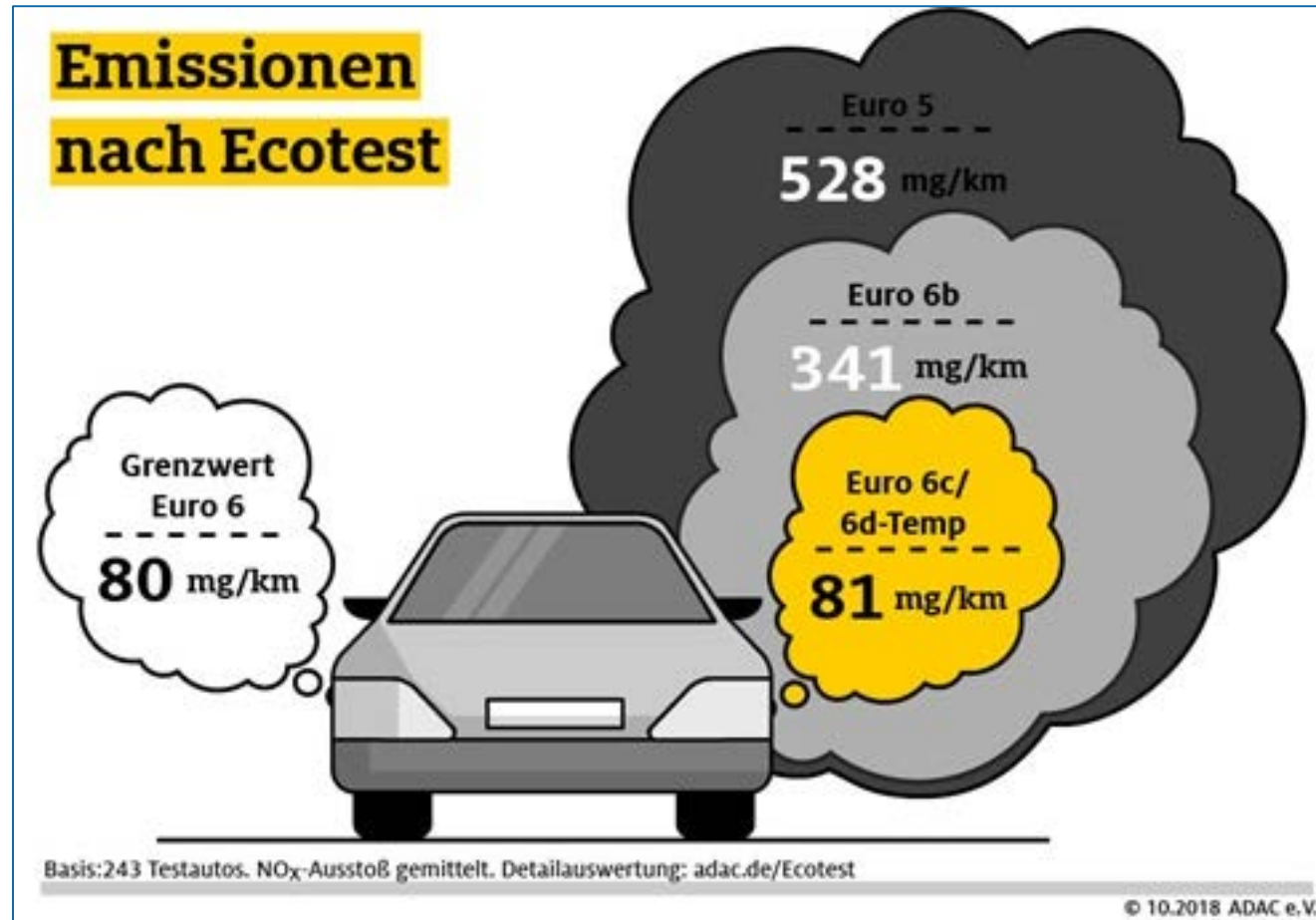
Diesel cars



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 NO_x limit in real-driving conditions



Diesel Information Hub: a fact-based source on modern diesel

<https://dieselinformation.aecc.eu>

The screenshot shows the Diesel Information Hub website. At the top, it says "DIESELINFORMATIONHUB". Below that, the main heading is "FIND OUT MORE ABOUT MODERN DIESEL CARS" with a subtext "Select a question or use the search option". There is a search bar labeled "SEARCH". Below the search bar are three buttons: "WHAT IS THE FUTURE OF DIESEL?", "WHAT IS DIESEL'S IMPACT ON THE ENVIRONMENT?", and "SHOULD I BUY A DIESEL?". Below these buttons are two more buttons with images: "Are diesel engines going to be banned?" (with an aerial view of a city) and "Where in Europe can I drive my diesel car?" (with a view of a city street).

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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 AECC (Association for Emissions Control by Catalyst)

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