



## PN measurement for Diesel

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## How it started

2013: First reports of diesel particulate filter tampering were reported:

Request from the Ministry to investigate.

Results by TNO

Conclusion: something is wrong

More research by TNO



# NPTI Working Group

Who:

- Switzerland (VERT)
- Belgium
- Germany
- UK
- The Netherlands
- TNO / BAST
- NMI/PTB
- Equipment manufacturers
- Environmental organization



# The challenge

Possibility to check PN in a PTI environment

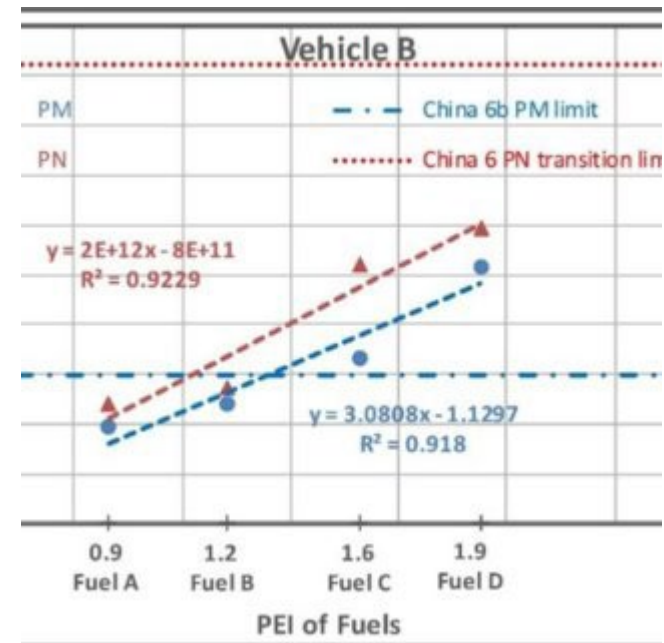
Suitable equipment for a reasonable price

A short test method

Intended for EU-wide use

Setting limit values

Correlation between type approval and PTI TNO / JRC



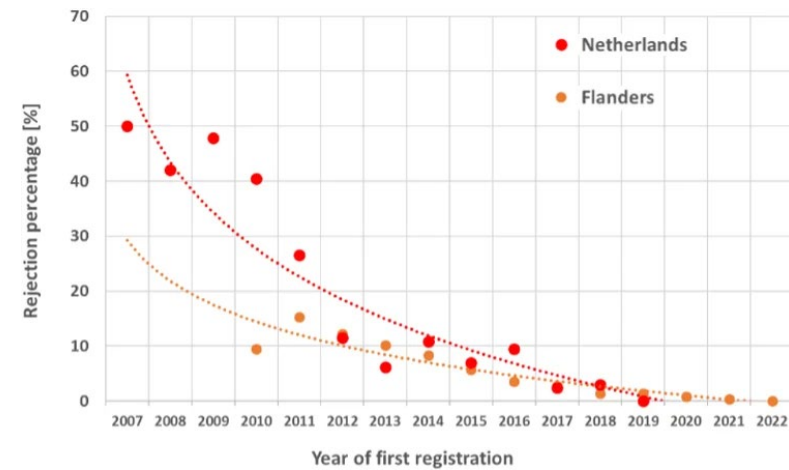
# Situation 2023

Introduction of PTI test in:

2022 Belgium

2023 Switzerland, Germany and The Netherlands

First results: Between 6 and 9% of tested vehicles something wrong.





## IWG on PTI

Started the discussion in 2019:

Proposal for adaptation of the RE.6 in 2022

On agenda GRPE in January 2023





## Amendment of the R.6 specifies:

The specifications of the equipment in outline

The test method

Preconditioning or engine

Measure procedure

Limit values

Fast pass/fail procedure

(the minimum metrological requirements)

(at idle)

(temperature; EGR position; regeneration)

( According PTI priciples)

(test result pass / fail values)

(Quick result)



Developments in the meanwhile:

The JRC and the EU Commission have produced a very extensive draft proposal for a recommendation for the EU Member States.

It describes in detail:

- Equipment specifications

- Method of testing

- Thresholds







**Your comments / reaction please:**

Thank you