



Tampering with emissions

Legislation must be adapted

Hens Peeters Weem

RDW

Zürich 21 June 2018

Agenda:

- 1. Introduction to RDW
- 2. What is the problem
- 3. Current legislation and Directive 2014/45
- 4. Further possible steps
- 5. Looking further ahead





- RDW: The Netherlands Vehicle Authority in the mobility chain
- RDW is a non-departmental public body that performs its tasks on behalf of the Ministry of Infrastructure and Water Management



Assigned and legal tasks RDW



1.445 kg

@ 2005 - 2008 RDW

KENTEKENBE 00-RDW-1 (ketterim) 01-05-2007 (dorum rente toeloting) 01-05-2007 (deturn verste enchrowing) CI.I Janssen CJ.2. P.G C.I.) Skager Rak 10 9642 CZ Veendam C 34567890 **Registration of** vehicles and drivers licenses Admission exceptional transports Data provision

SATINATION CONTINUES. CONTINUES DYPERITION CONTINUES IN A DESCRIPTION

Road side inspections



What is the problem?

In the past: Engine adjustment determines emissions; After treatment only noise reduction

Current time: Engine adjustment not important for polution, aftertreatment ensures clean emissions



New

China

ction **Refine Results** OBDSTAR X300M Odometer Adjustment OBDII Special Mileage correction Tool OBDSTAN X300 M \$289.00 View Details Condition: Buy It Now At this moment emissions checks can be



Feading the EOBD of a car, a quick



done

check but

Modern Diesel vehicles have almost no smoke/PM/PN pollution when they are new, after a few years in PTI we see:

- Switching off emission systems
- Chip tuning
- Manipulation of in car software / software updates / recalls
- Removing of DPF, rewrite software
- Tampering SCR Catalyst
- Mileage fraud

A challenge in our PTI



In May 2018 directive EU/2014/45 went into force

Regarding the earlier mentioned problem:

- 1. The current test values in the directive are to broad
- 2. The current test equipment in the directive is not precise enough
- 3. We need different tests than prescribed and road site inspections
- 4. More exchange of vehicle data
- 5. The need for type approval data from OEM
- 6. EU or UNECE approach

The directive was already outdated at some points when entered into force

3. We need a different test than prescribed

A particle counter must be developed for PTI on vehicles:

- Quick measurement
- Not to expensive
- Robust
- Indoor and outdoor use
- Approve/rejection result
- Available in large numbers
- Calibration at location
- Ability to connect to EOBD
- No or low increase in administrative burden



In the Netherlands a cooperation of 4 organizations

- NMI: Is the indepenent specialist for testing, certifying and training in the field of Metrology
- TNO: is an independent research organization
- Ministry of Environment and Water Management (official sponsor of the ETH conference) Responsible for the regulation
- RDW The Netherlands Vehicle Authority in the mobility chain Responsible for the implementation and supervision of PTI in the Netherlands

Workshop NPTI in Switzerland together with specialists in the field of Nano-particles, Manufacturers of equipment, Policymakers of Germany and Belgium



Next steps:

- 1. Specifications for a Particle Counter NMI
- 2. draft will be sent braod in the EU for comment
- 3. Developing a test method TNO
- 4. Setting threshold values TNO
- 5. Changing National Regulations Min I&W
- 6. Implementation in the PTI. RDW
- 7. Exchange of best practices Min I&W and RDW
- 8. Sharing these results with interested organizations, EU Commission and Committee and countries



Planned phased introduction of DPF-test in the Netherlands

 Phase 1: DPF-test at RDW test stations 	2019
 Phase 2: DPF-test at road side inspections 	2019 -2 <mark>020</mark>
 Phase 3: Mandatory DPF-test in PTI 	2021
 Parallel: Voluntary control of DPF's by car shops 	2019 -2020

(Years are only indicative and not officially announced.)



Future

2020: evaluation of the 2014/45EU Modernise the Directive

Topics to deal with:

Connection withe the type approval In car compliance Software security / updates

Enforcement:

Connected cars On-road vehicle emissions remote sensing Roadside inspections



Thank you for your attention

