

Fixing #Dieselgate:

Solutions to Europe's failed system of car testing

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T&E: 27 COUNTRIES 49 MEMBER & SUPPORT GROUPS



THIS PRESENTATION

How we test and
approve cars

VW #dieselgate

Why dieselgate is
the tip of the
iceberg

Catching and
stopping the
cheats



HOW VW CHEATED

Test-cheating software

VW has admitted to installing software designed to dupe tests



What does the software do?

Detects when a car is undergoing official emissions testing

Turns full emissions controls for nitrogen oxides (NOx) on only during the test

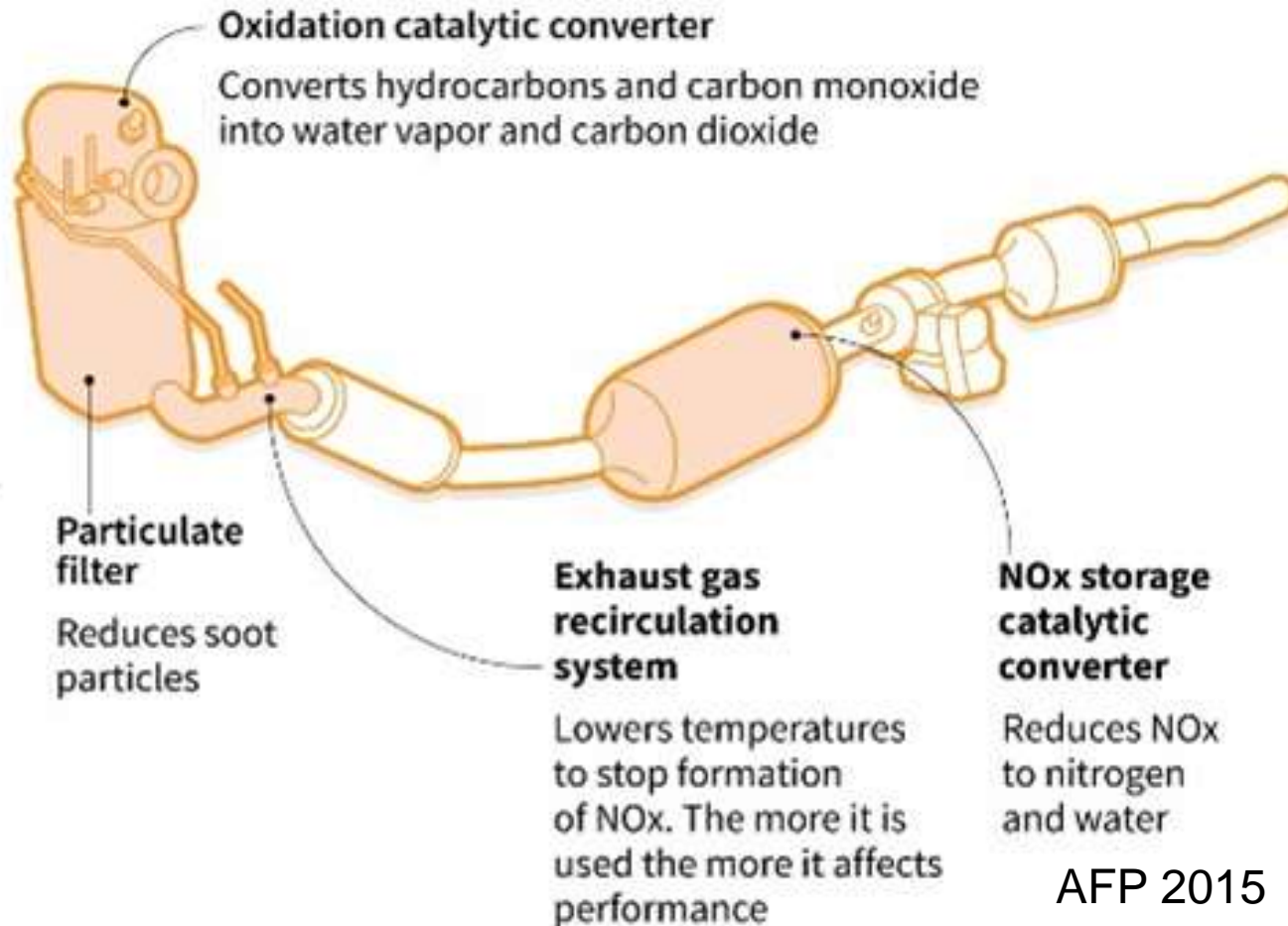


What happens at other times?

Emissions controls are turned off, vehicle emits NOx above limit

Diesel engine exhaust system

Diesel engines require sophisticated controls to reduce poisonous NOx



LAB TESTS ARE REPRODUCIBLE; ROAD TESTS MORE REPRESENTATIVE AND LESS OPEN TO MANIPULATION

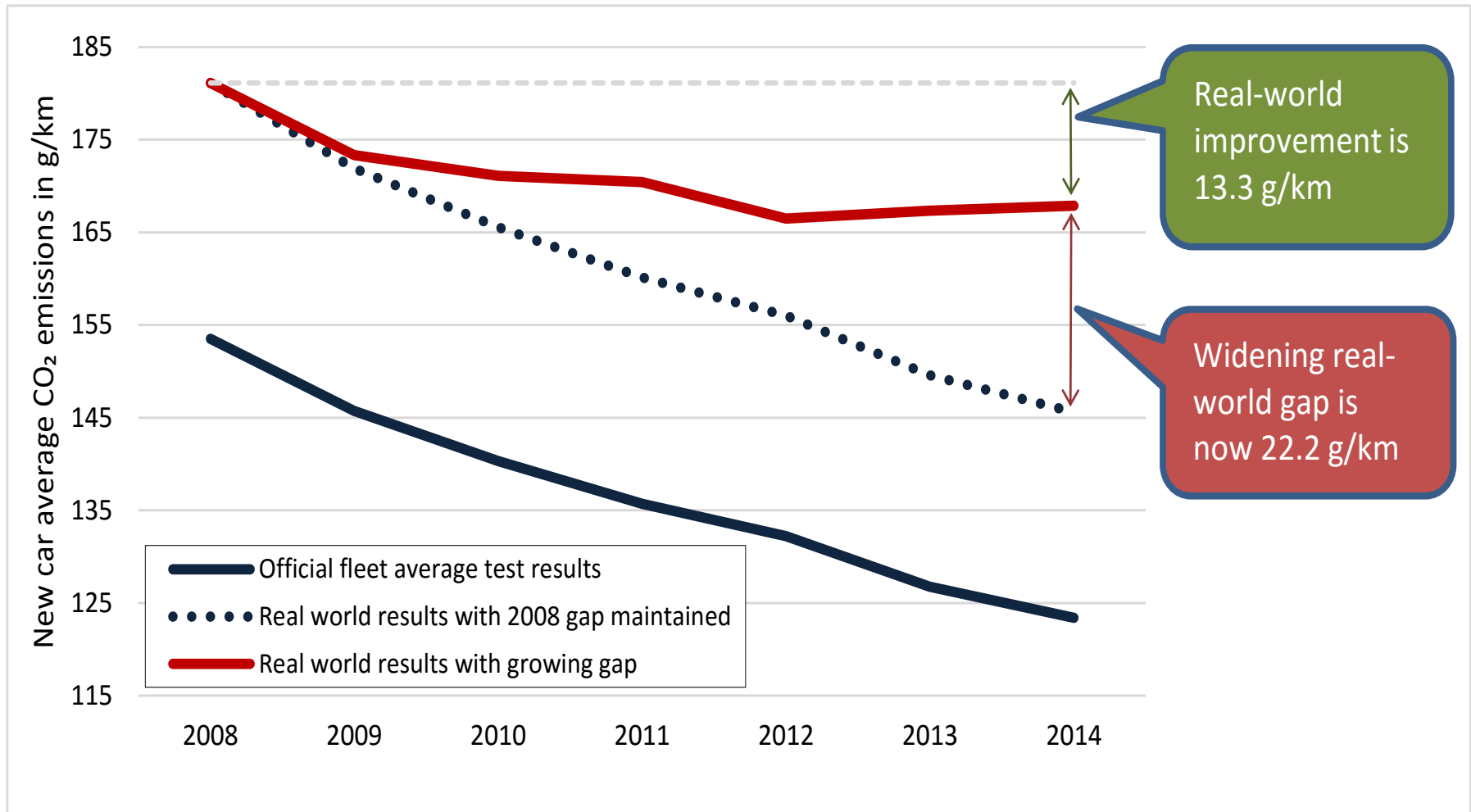
On-road –
RDE - NO_x



Laboratory –
NEDC & WLTP – CO₂



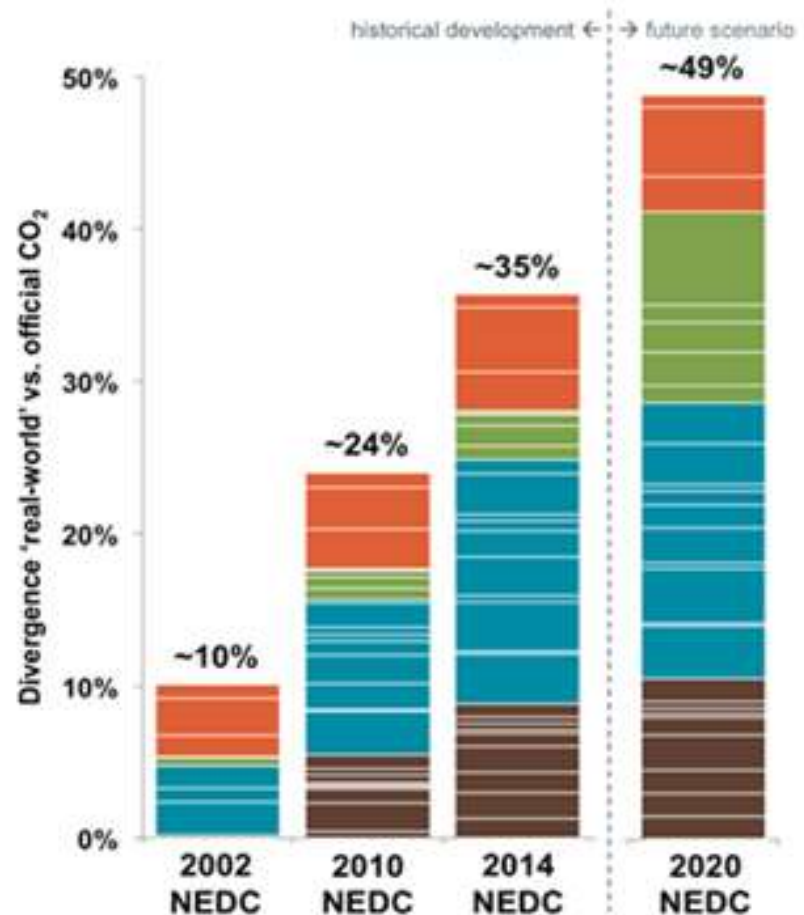
CO₂ IMPROVEMENT IS BEING DELIVERED IN THE LAB – NOT ON THE ROAD



MANIPULATING TESTS IS THE PRIMARY CAUSE OF THE WIDENING GAP

Test Manipulation:

2002	5 g/km
2010	16 g/km
2014	25 g/km
2020	30 g/km



Road load determination
Chassis dynamometer testing
Technology deployment
Other parameters

A NEW ROAD CO2 TEST SHOWS PROMISING RESULTS

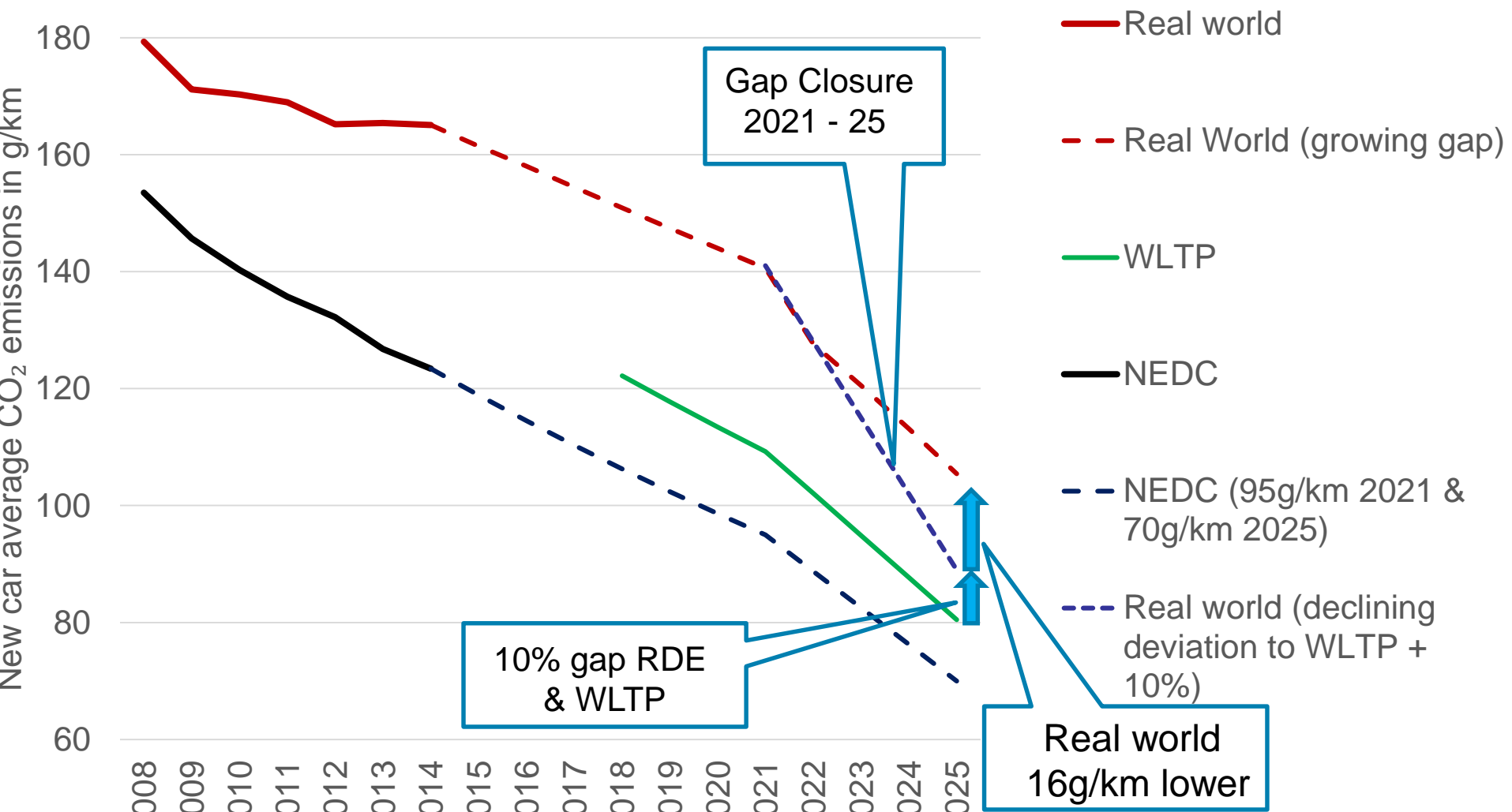
PSA PEUGEOT CITROËN



Vehicle tested	PEUGEOT 308 1.6l BlueHDi 120 S&S BVM6	CITROËN C4 GRAND PICASSO 1.6l BlueHDi 120 S&S BVM6	DS 3 1,6l BlueHDi 120 S&S BVM6
Consumption measurement (l/100km)			
T&E Customer use protocol	5,0	5,6	4,9
Customer consumption (Customers survey / Spritmonitor)	5,0 / 5,1	5,5 / 5,7	5,1 / 5,3
Homologated consumption (NEDC)	3,2	4,0	3,6

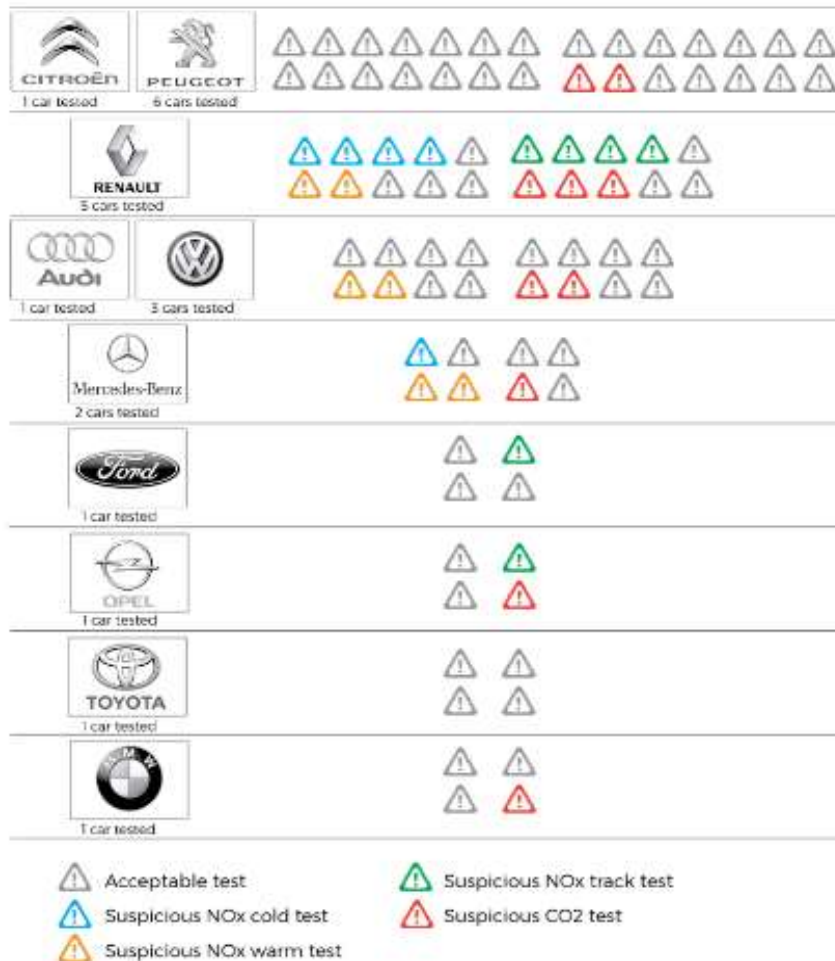
10% NOT TO EXCEED LIMIT BASED ON A REAL WORLD TEST WOULD LOWER EMISSIONS ON THE ROAD

Projections of new car fleet average CO₂ emissions to 2025



ONLY 1 IN 10 DIESEL CARS MEET LEGAL LIMITS ON THE ROAD – FRENCH TESTS SHOW WIDESPREAD ABUSES

Results for the first 22 cars tested



MAC Daimler case

500k diesel cars in US

8 mln VW diesels in Europe

Porsche diesels

Opel vehicles (tests by DUH)

Renault Espace (DUH)

Fiat, Mercedes, Ford

VW CO₂ tests: no explanation

Weak national investigations



“voluntary recalls”

IN EUROPE CARMAKERS CLAIM DEFEAT DEVICES ARE LEGITIMATE TO PROTECT THE ENGINE

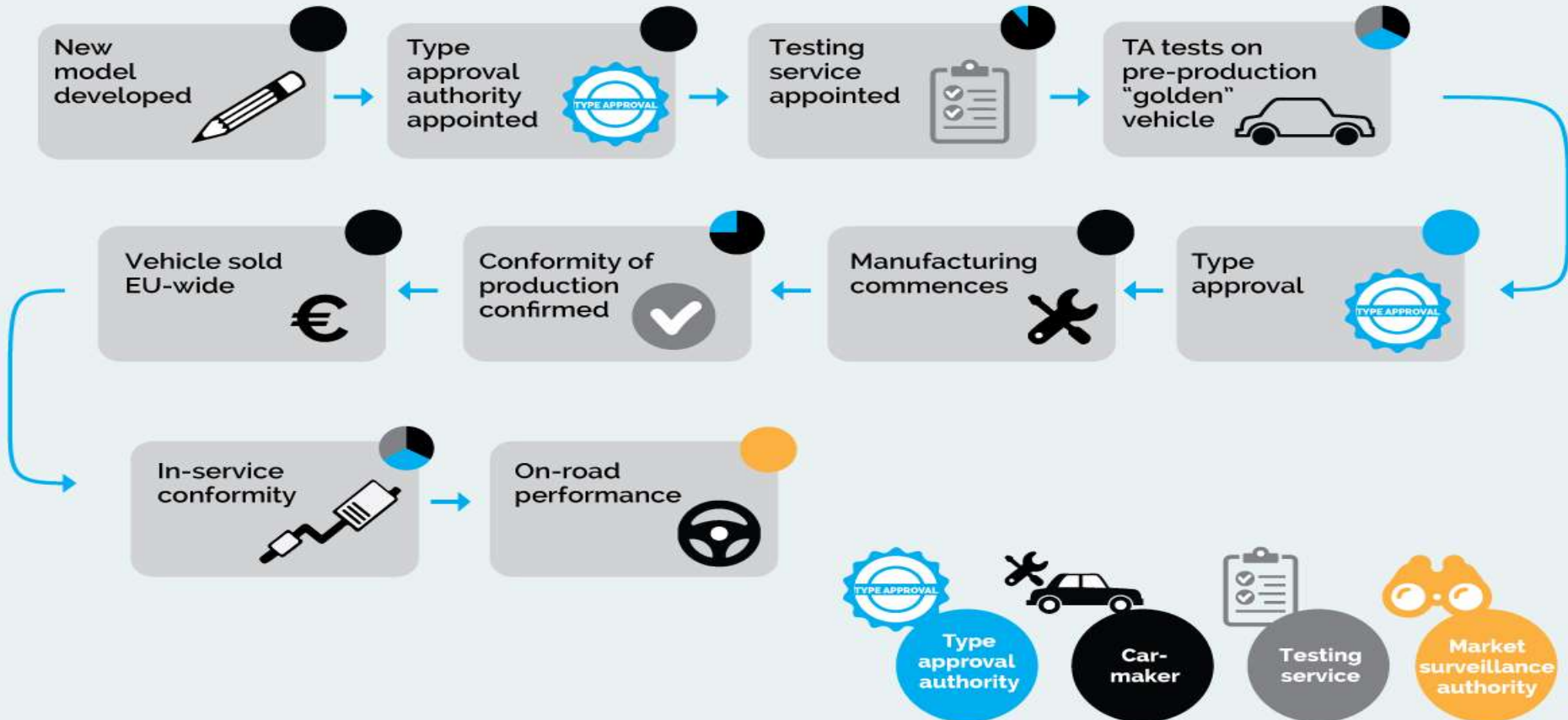


**CAN YOU
IMAGINE THE
BRAKES
SWITCHING
OFF?**



WHY AREN'T CARS APPROVED RIGOROUSLY ?

Who takes care of what? Whole vehicle type approval process



TRANSFORMING TESTING

Obsolete
NEDC test



RDE &
WLTP

No backdoor
weakening

“Golden”
vehicles



Real world
conformity
checking

Extend on road
tests

“Approval”
authorities



EU
oversight &
sales levy

Strengthen
Framework
Directive

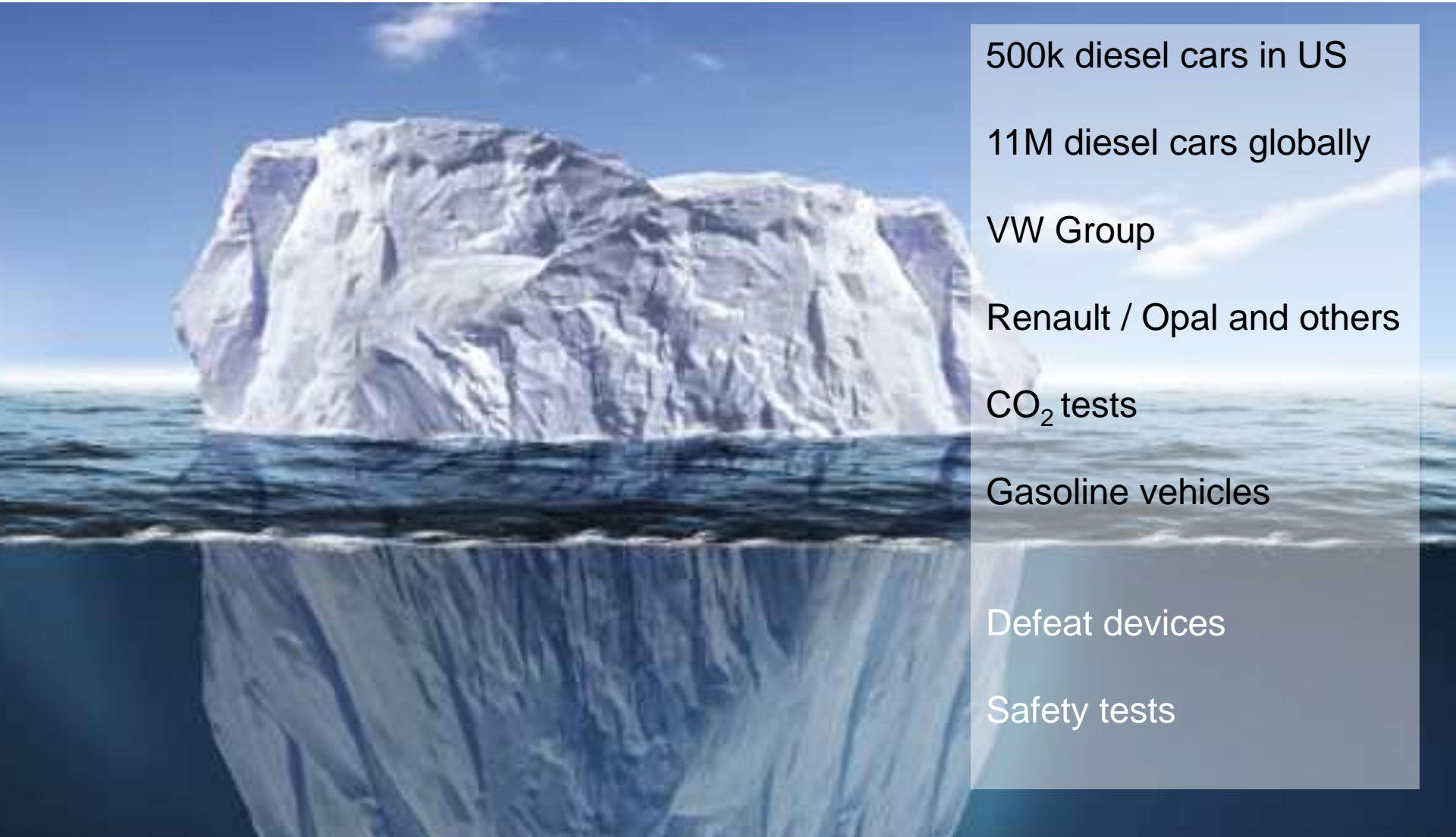
In use
testing



On road
surveillance

Tackle in use
vehicles

#DIESELGATE – THE ICEBERG EMERGES



500k diesel cars in US

11M diesel cars globally

VW Group

Renault / Opal and others

CO₂ tests

Gasoline vehicles

Defeat devices

Safety tests

KEY MESSAGES

- 1** Environmental regulations on vehicles are circumvented by ineffective tests and oversight
- 2** VW #dieselgate is the tip of the iceberg
- 3** Current failures undermine the credibility of EU regulations and single market
- 4** The solutions are known – political will to fix the system is lacking



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FIXING #DIESELGATE



ANY QUESTIONS?