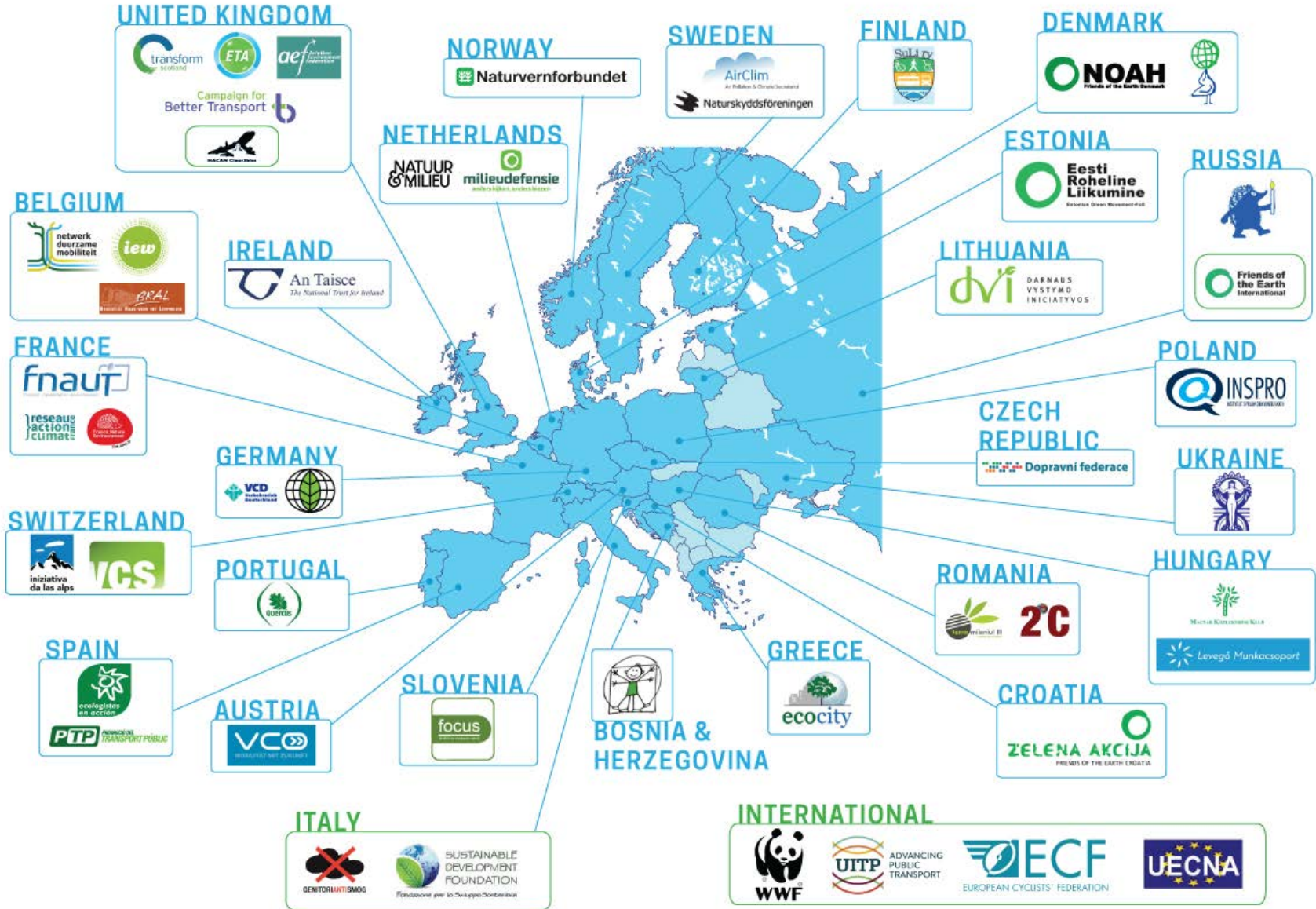


# **Fixing #Dieselgate: Solutions to Europe's failed system of emissions testing – lessons for an independent testing regime**

Can we prevent another dieselgate?  
8<sup>th</sup> June 2016, FIA Foundation, London

**Greg Archer**  
**Transport & Environment**

# T&E: 27 COUNTRIES 49 MEMBER & SUPPORT GROUPS



# THIS PRESENTATION

#dieselgate In Europe

Why the European  
system fails

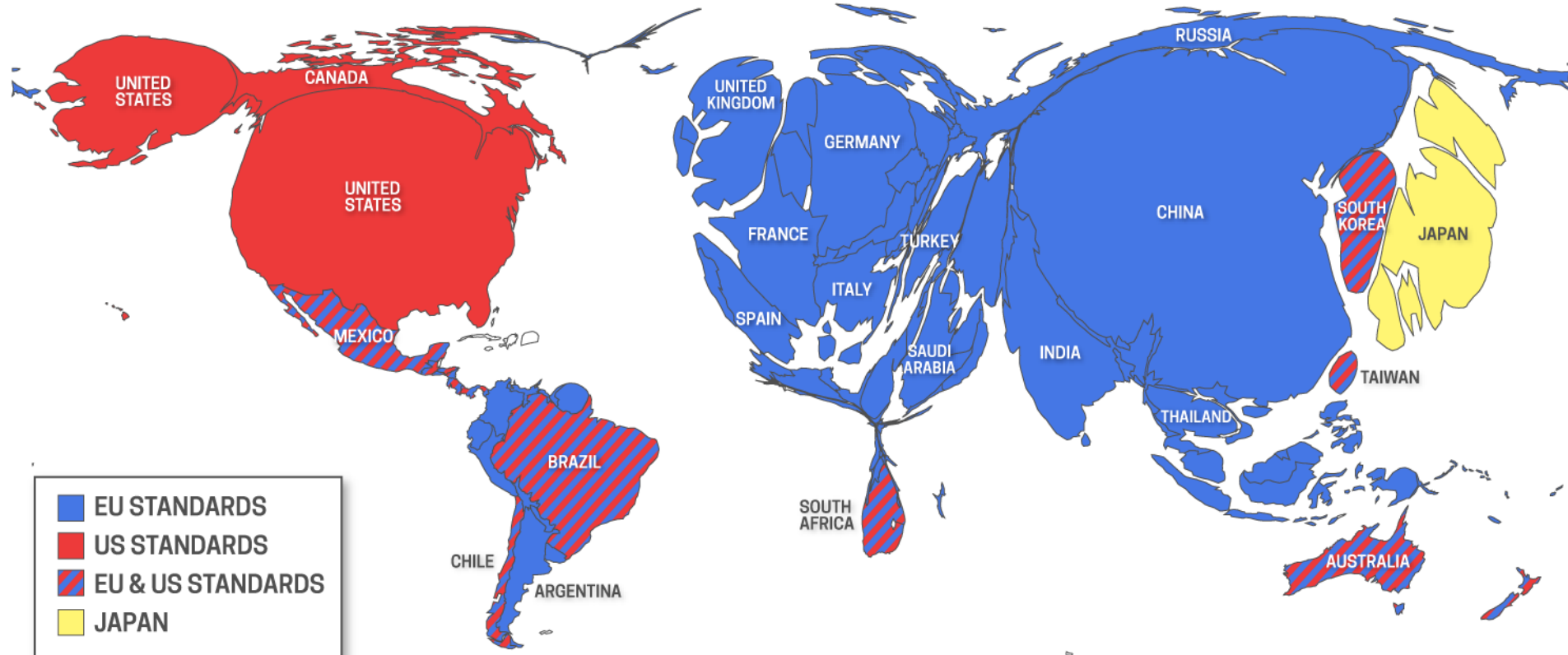
...and how to strength it

Lessons for an  
independent testing  
system

Lessons for robust  
regulation



# EU EMISSIONS REGULATIONS ARE THE BASIS FOR MANY TESTING SYSTEMS














Data sources: ICCT, AECC, Cummins, Daimler Transport & Environment

# EACH EUROPEAN INSTITUTION HAS DIFFERENT ROLES AND RESPONSIBILITIES

## Power in Europe

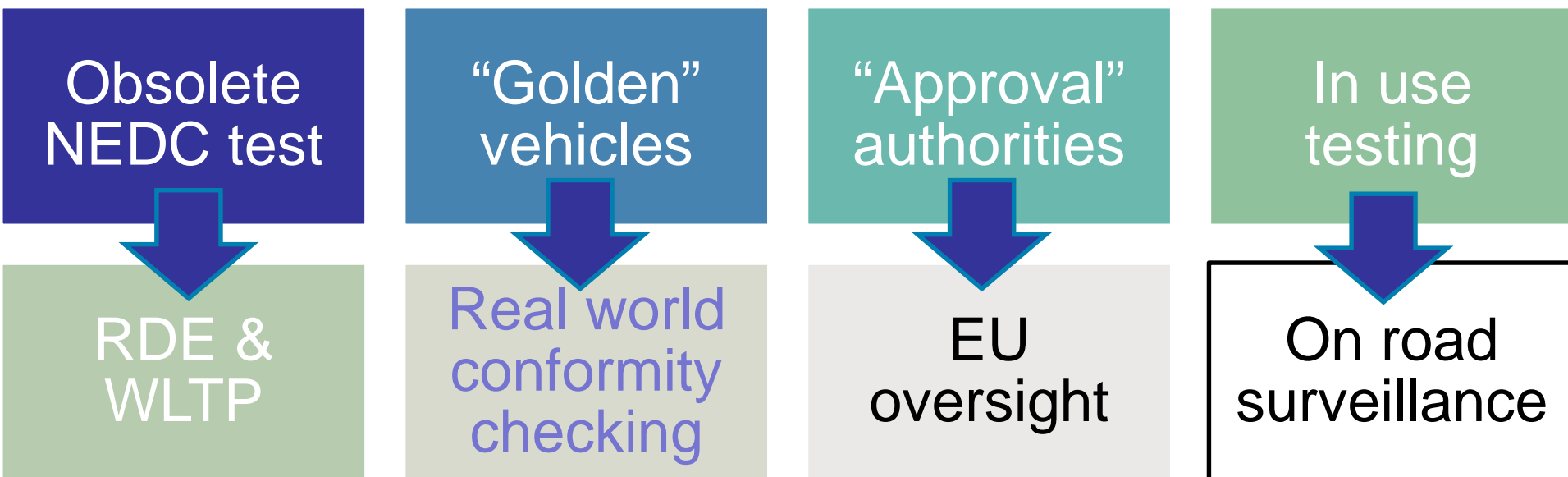
### Current vehicle standards

	Emission limits 	Test procedures 	Checks on vehicles 
<u>Parliament</u>			
<u>Commission</u>			
<u>Member states</u>			

# WHAT #DIESELGATE REVEALS ABOUT THE EU SYSTEMS



# ISSUES WITH, AND SOLUTIONS TO, EUROPE'S FAILED SYSTEM OF TESTING



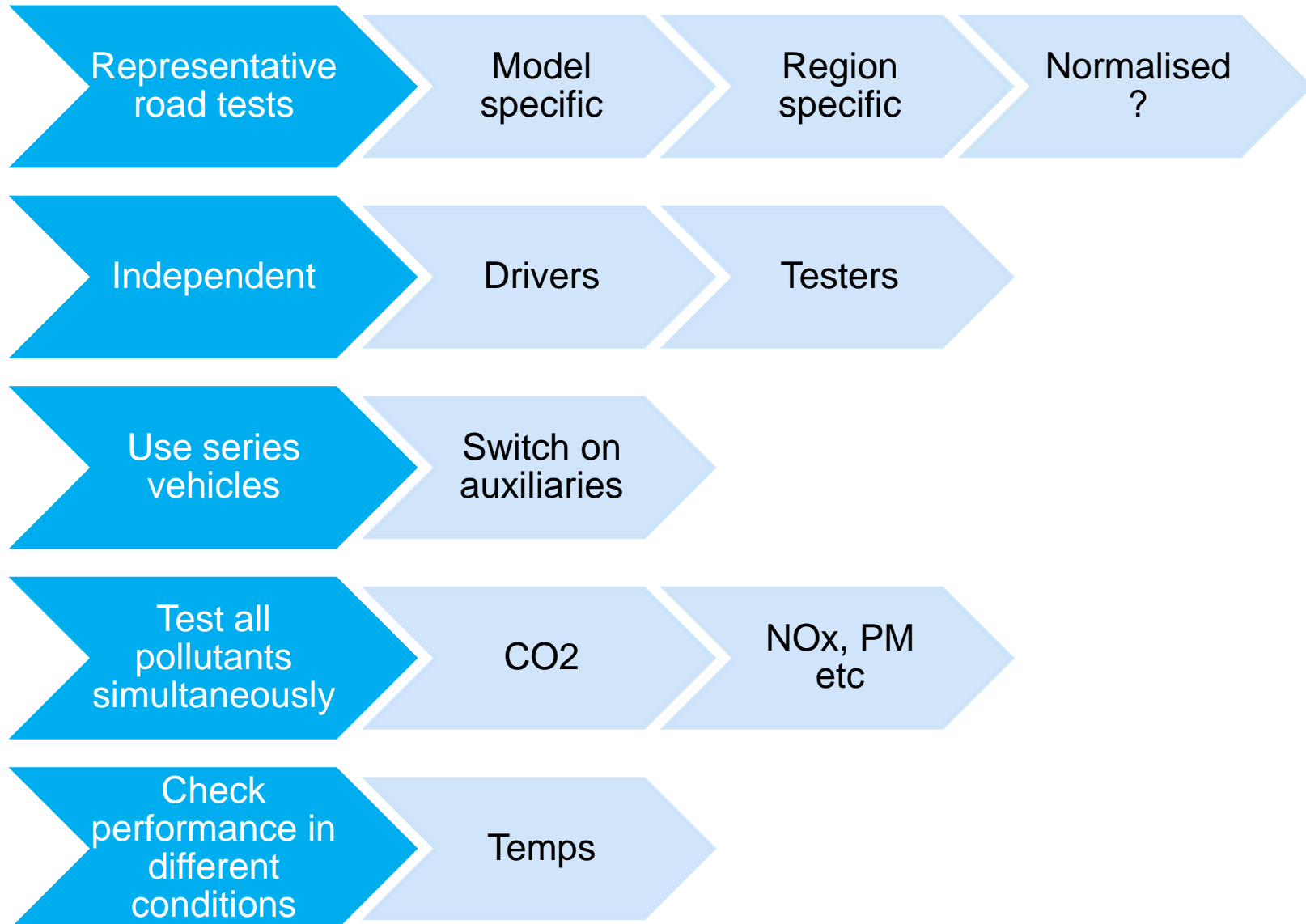
No backdoor  
weakening

Extend on road  
tests to CO2 and  
all pollutants

Strengthen Type  
Approval  
Framework  
Regulation

Levy to fund  
market  
surveillance

# LESSONS FOR ROBUST INDEPENDENT TESTING





# A NEW ROAD CO<sub>2</sub> TEST SHOWS PROMISING RESULTS

PSA PEUGEOT CITROËN



Vehicle tested	<b>PEUGEOT 308</b> 1.6l BlueHDi 120 S&S BVM6	<b>CITROËN C4 GRAND PICASSO</b> 1.6l BlueHDi 120 S&S BVM6	<b>DS 3</b> 1,6l BlueHDi 120 S&S BVM6
Consumption measurement (l/100km)			
<b>T&amp;E Customer use protocol</b>	<b>5,0</b>	<b>5,6</b>	<b>4,9</b>
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

Issues with PEMS measurements at low flows for gasoline cars require a correction

# LESSONS FOR ROBUST REGULATION

Single, financially independent, technically expert, adequately resourced regulator

Extensive, detailed prescribed, inflexible tests on series vehicles

Simple, performance based regulations

Transparency

Extensive, demanding in-service checks in a range of conditions

Onerous penalties

# KEY MESSAGES

- 1 VW #dieseldate is the tip of the iceberg
- 2 Dieseldate reveals in Europe vehicle regulations are systematically circumvented by ineffective tests and oversight
- 3 The solutions are known – better tests, improved oversight, effective market surveillance
- 4 An independent testing system is needed to complement regulatory approaches
- 5 Overly complex regulation is a recipe for failure



Greg Archer  
Vehicles Programme Manager  
[greg.archer@transportenvironment.org](mailto:greg.archer@transportenvironment.org)

# FIXING #DIESELGATE

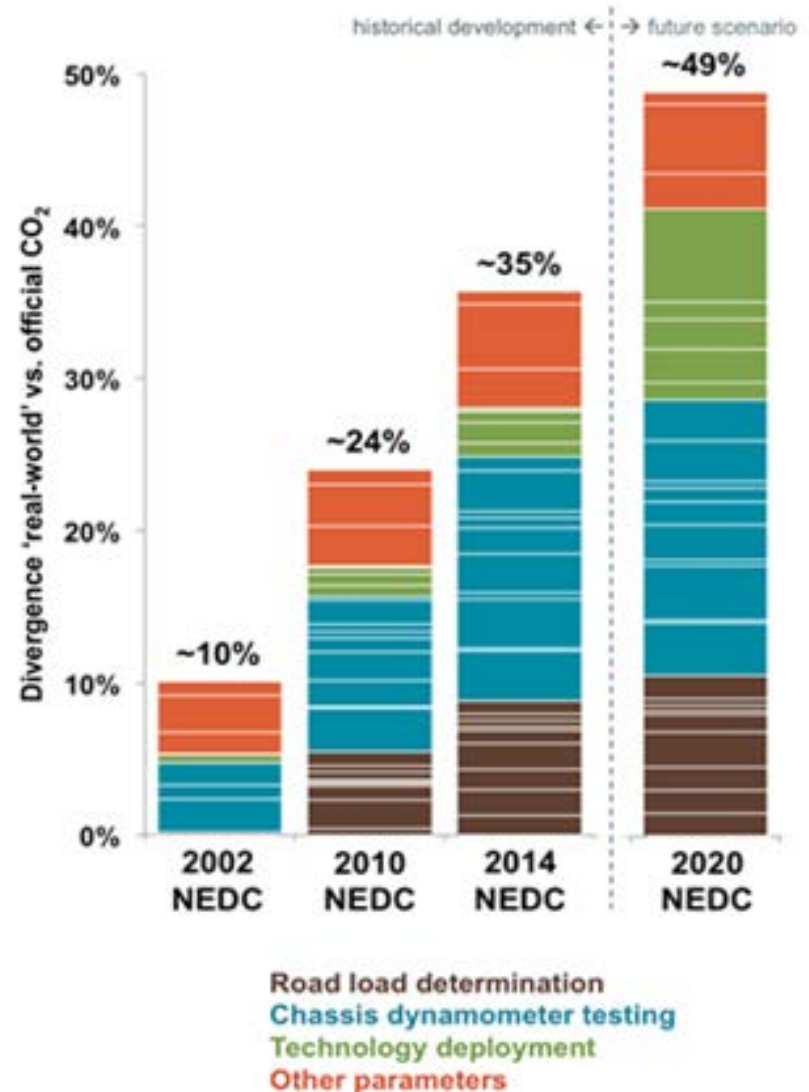
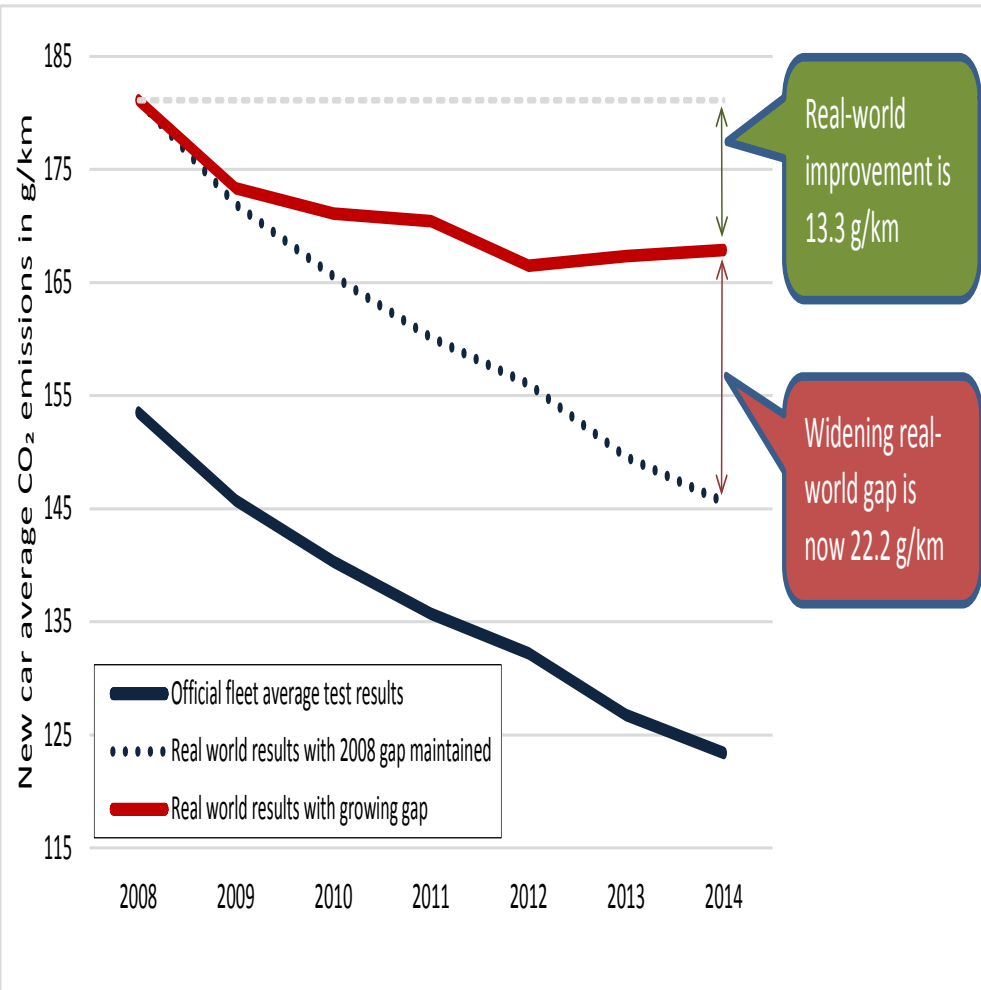


ANY QUESTIONS?

# SUPPLEMENTARY INFORMATION

A long-exposure photograph of a highway at night. The image shows multiple lanes of traffic with light trails from cars and trucks. In the background, there are city buildings and streetlights. The overall scene is illuminated by the lights of the highway and the city.

# CO2 IMPROVEMENT IS LARGELY BEING DELIVERED IN THE LAB - NOT ON THE ROAD



# TYPE APPROVAL FRAMEWORK REGULATION – GOOD IN PLACES LACKING IN OTHERS

Some EU oversight:

Independent technical services

More market surveillance

Manufacturers to disclose software utilised

New Forum for TAA's + peer reviews

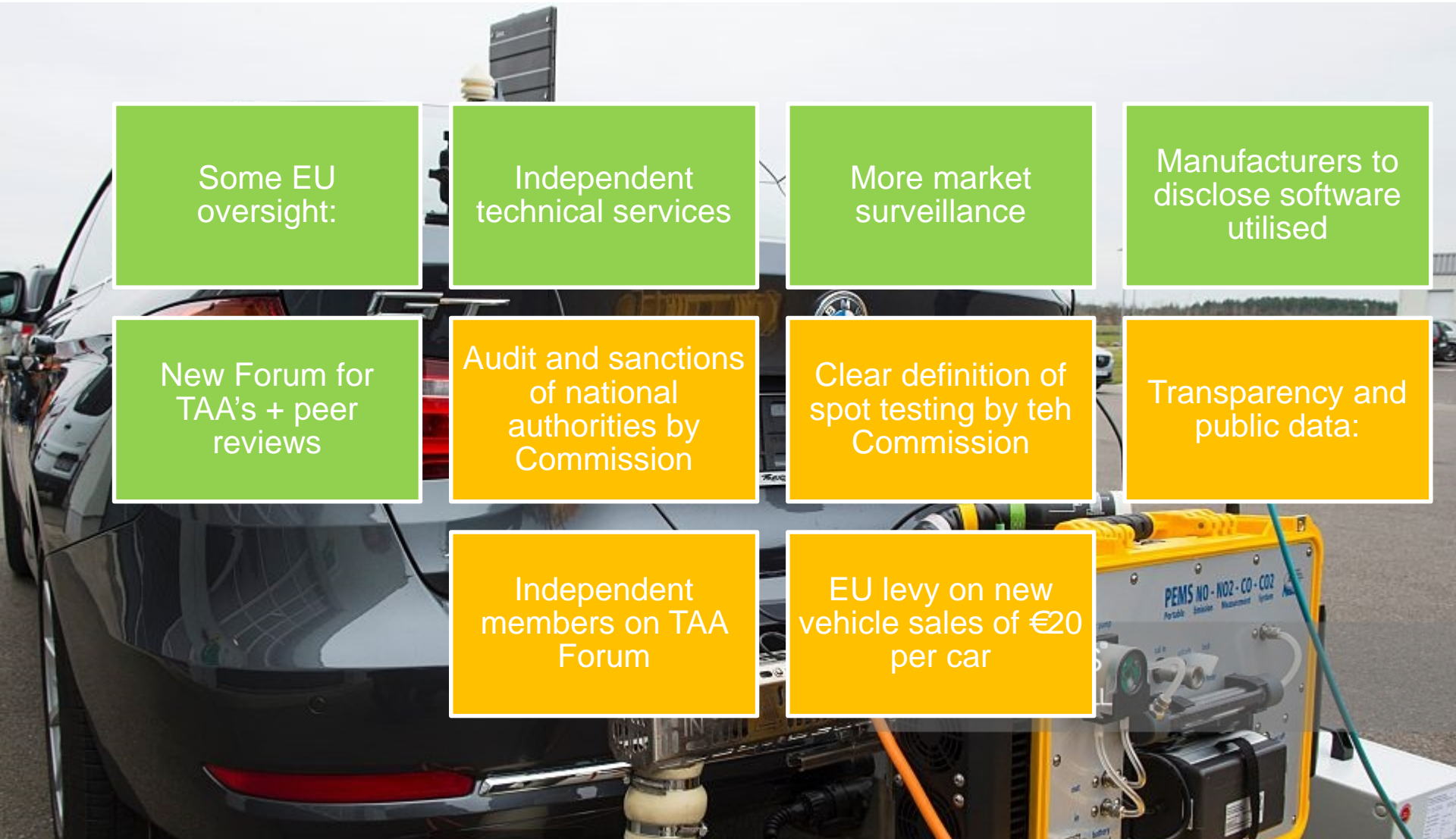
Audit and sanctions of national authorities by Commission

Clear definition of spot testing by teh Commission

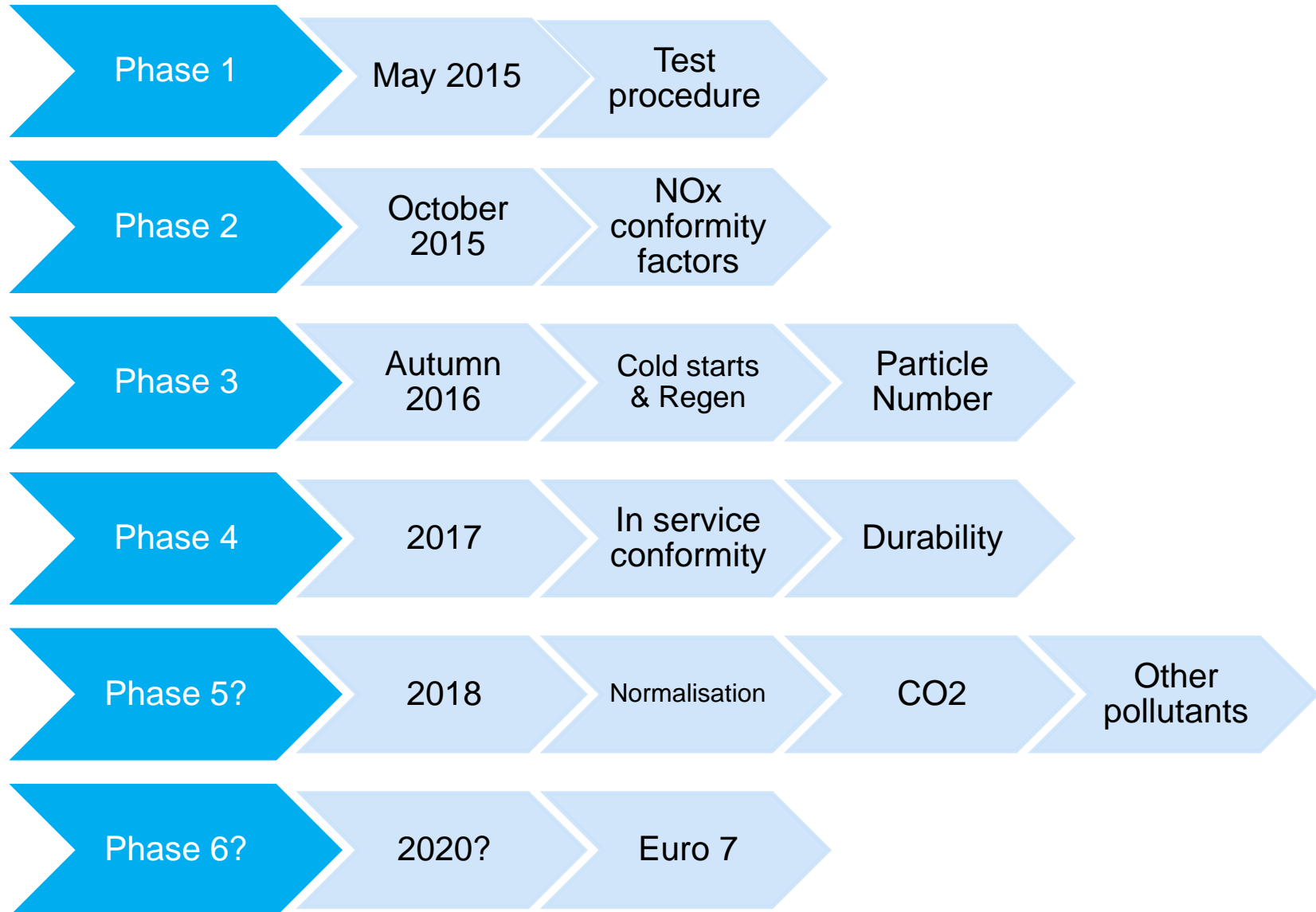
Transparency and public data:

Independent members on TAA Forum

EU levy on new vehicle sales of €20 per car



# REAL WORLD DRIVING TESTS WILL CONTINUE TO DEVELOP





# WLTP: PROGRESS - BUT A PARTIAL SOLUTION

From 2017/18

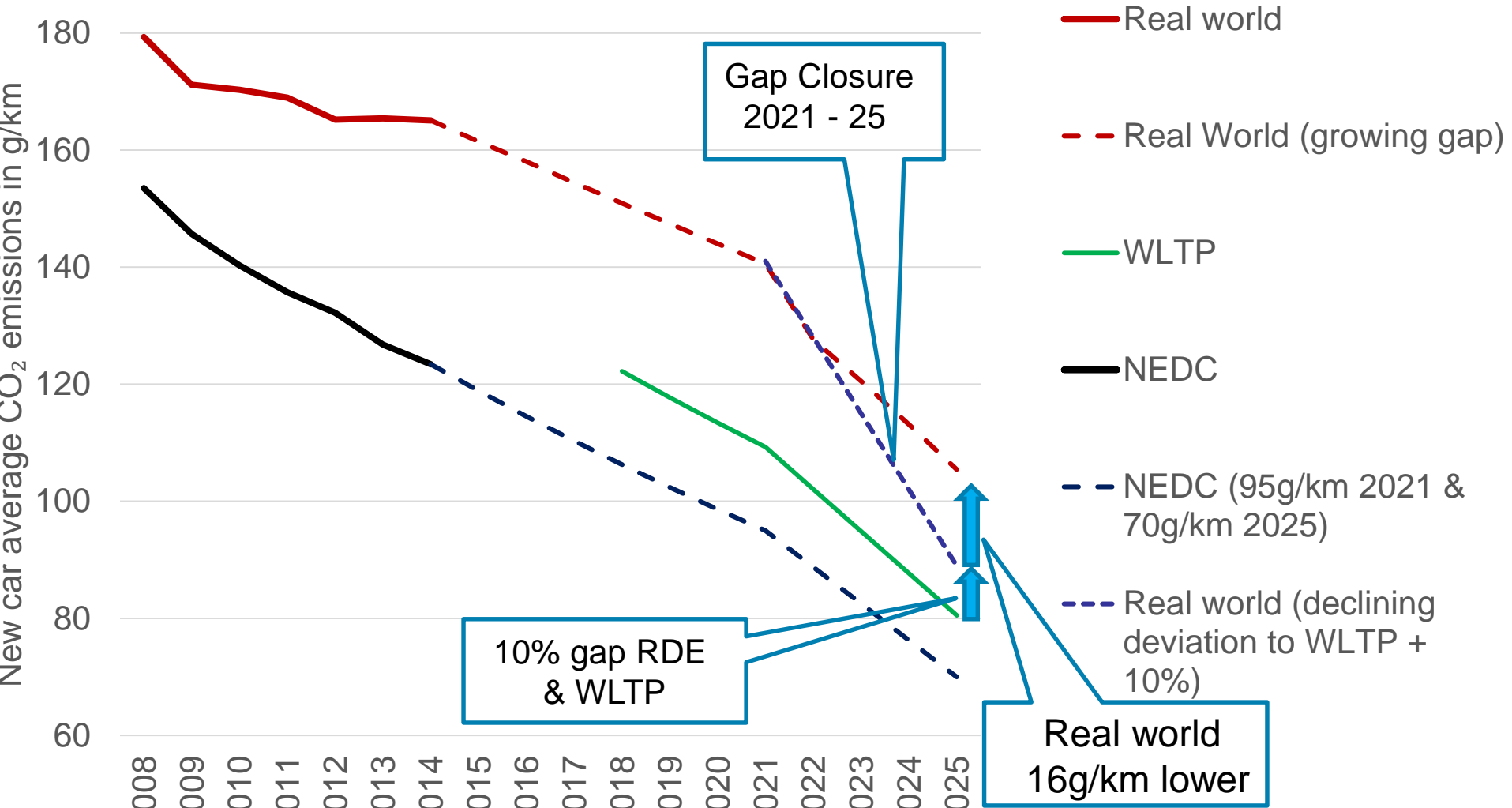
Generous  
(unfair)  
correlation

Basis for post  
2020 targets

Implementation  
a shambles

# WLTP IS A PARTIAL SOLUTION - A REAL WORLD CO<sub>2</sub> TEST IS NEEDED TO LOWER EMISSIONS ON THE ROAD

## Projections of new car fleet average CO<sub>2</sub> emissions to 2025



# THE EU TESTING SYSTEM LACKS INDEPENDENCE

## Who approved the Dirty 30?



UK



GERMANY



FRANCE



NETHERLANDS



LUXEMBOURG



SPAIN



ITALY



# TURNING DOWN THE AFTER-TREATMENT BELOW 17°C WOULD NOT HAPPEN IN THE US

## When carmakers begin turning down pollution control

Average temperature in Europe:



Below 17°C



Opel (Vauxhall)

Below 17°C



Renault-Nissan

Below 10°C



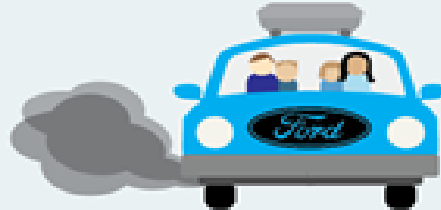
Daimler

Below 5°C



Peugeot

High speeds  
& full car



Ford

High speeds  
& full car



Fiat

# LESSONS FOR ROBUST REGULATION

## WHAT WORKS

1. Single, financially independent, technically expert, adequately resourced regulator
2. Extensive, detailed prescribed, inflexible tests on series vehicles
3. Simple, performance based regulations
4. Transparency
5. Extensive, demanding in-service checks in a range of conditions
6. Onerous penalties

## WHAT DOESN'T

1. 28 competing National Type Approval Authorities without oversight
2. Flexible tests on golden vehicles
3. 800 pages of WLTP rules
4. Secrecy
5. Discretionary, unfinanced market surveillance
6. Discretionary penalties