



# AIR ALLIANCE Rebuilding confidence in the car market

Richard Lofthouse 28 March 2019 Madrid

#### **EMISSIONS ANALYTICS**



- Headquartered in UK, with operations in Oxford, Stuttgart, Los Angeles, Detroit and Seoul
- Specialist in Portable Emissions Measurement System (PEMS) testing and data analysis
- 2000+ vehicles tested
- Largest commercially available emissions database
- Projects with universities across Europe
- Launched the EQUA Index in 2016
- Local versions across Europe and USA

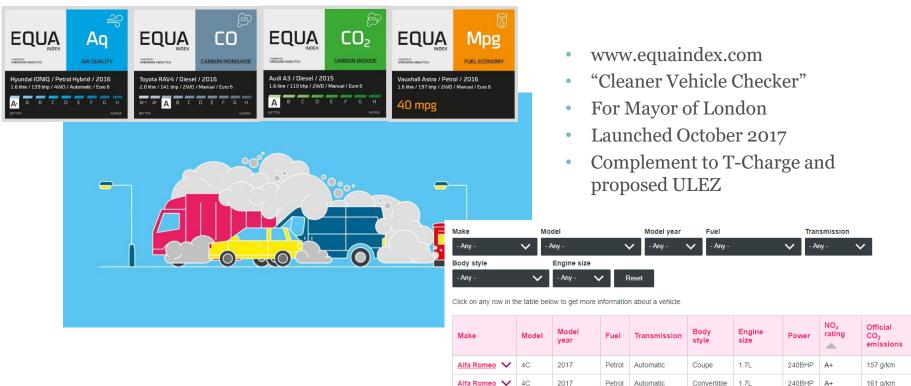


Latest 2.0 litre mild hybrid Audi A6



#### EQUA INDEX AND MAYOR OF LONDON





Alfa Romeo V 4C

2016

Coune

240BHP A+

157 g/km

#### AIR ALLIANCE



- Allow Independent Road-testing founded in 2017
- Global not-for-profit alliance
- Of scientists, regulatory experts and organisations committed to improving air quality
- Building on the legacy and expertise of Emissions Analytics, with access to its data
- Promotes on-road ratings as the cost-effective solution to air quality problems, now
- Members include Fondazione Bruno Kessler, Cenex, Energy Saving Trust
- Engages with all credible players, including cities, policy-makers, academics and industry
- Independent, accessible, transparent and accountable
- Activity scrutinised by authoritative Scientific Advisory Committee

# SCIENTIFIC ADVISORY COMMITTEE



Helen ApSimon	Professor of Air Pollution Studies, Imperial College London, UK
Dr. Adam Boies	Reader in the Energy Division of the Department of Engineering, University of Cambridge, UK
Daniel Carder	Director of Center for Alternative Fuels, Engines and Emissions at West Virginia University, USA
Dr. Claire Holman	Chair, Institute of Air Quality Management (IAQM), UK
Dr. Guido Lanzani	Head of Air Quality Unit, Regional Environmental Agency, Lombardy, Italy
Dr. Norbert Ligterink	Senior Research Scientist at TNO, an independent research organisation in the Netherlands
Dr. Xavier Querol	Institute of Environmental Assessment and Water Research, Spanish Council for Scientific Research, Spain
Martin Lutz	Head of Sector Air Quality Management, Berlin Senate Department for Environment, Transport and Climate Protection, Germany
Dr. Marc Stettler	Lecturer in Transport and the Environment in the Centre for Transport Studies, Imperial College London, UK
Dr. Martin Williams	Professor of Air Quality Research, Kings College London, UK

#### EUROPEAN CEN CWA STANDARD



- CEN CWA17379
- Published in January 2019
- Voluntary European standard procedure
- Under Comité Européen de Normalisation
- Initiated by Emissions Analytics in November 2017, chaired by Nick Molden
- Wide participation from manufacturers, ACEA, academics, consumers and cities
- Testing now underway to standard method

#### CEN/WS 90

Date: 2018-12

TC WI

CEN/TC

Secretariat: UNI

General guideline on real drive test methodology for compiling comparable emission data

Einführendes Element — Haupt-Element — Ergänzendes Element

Élément introductif — Élément central — Élément complémentaire

### TEST METHOD



- Focused on urban NO<sub>x</sub> from pre-RDE diesel vehicles
- Complement to RDE
- Multiple 10km urban trips
- Average speed 20-40kph
- Min/max acceleration and deceleration
- Maximum gradient and altitude
- Ambient temperature 10-20°C
- Need for at least 5 trips, from 3 tests and 2 cars

#### **AIR'S MISSION**



- AIR guarantees the testing and results are independent and trusted
- Ratings will be made freely available
- "EuroNCAP for NO<sub>x</sub> emissions"
- Currency for buyers
- Marketing tool for OEMs to use, to help dispel confusion
- Standard for use in city access policy
- Evidence for government to develop policies

#### AIR INDEX

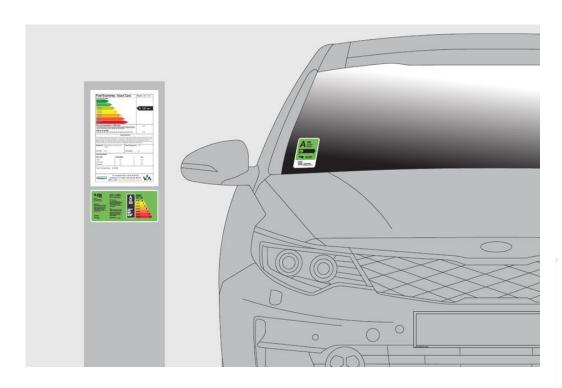


- Rates cars and vans a simple scale from A (best) to E (worst)
- Same test on every vehicle, according to CWA17379
- Discriminates between high and low emitters, irrespective of Euro class
- Provides independent validation of retrofit effectiveness



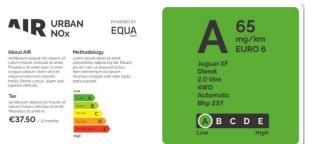
## LABELLING







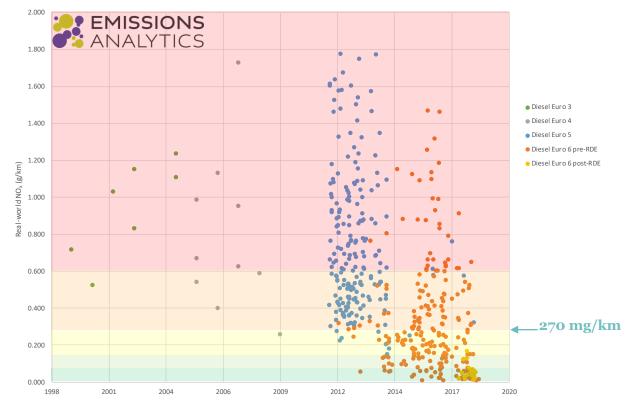




### REAL-WORLD PERFORMANCE

AIR | 11





- On the combined EQUA
  Index real-world urban cycle
   good proxy AIR Index and
  similar dynamicity to RDE
- 270mg/km real-world limit proposed by German government for 14 cities
- Only 1 pre-Euro 5 diesel, 6 pre-Euro 6 diesels meets this limit
- 48% of Euro 6 fail to meet
- All RDE vehicles are A or B rated on AIR Index

### LAUNCHING AIR



- AIR Index launched February 28, 2019 across Europe
- CWA formally welcomed
- Press releases in multiple languages
- Ratings provided to media and fleets
- Engagement with cities and policy-makers
- WEB: allowAIR.org
- TWITTER: @allowair





#### Nick Molden

Chief Executive Officer, Emissions Analytics Ltd

Director, AIR Alliance

#### nick@emissionsanalytics.com

+44 (0) 20 7193 0489

+44 (0) 7765 105902

#### Dr Richard Lofthouse

Senior Researcher, Emissions Analytics Ltd

+44 (0) 7790 902982