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NEWSLETTER

International Regulatory Developments

TABLE OF CONTENTS

EUROPE 2
- New Vehicle Type-Approval Framework Regulation published 2
- First EU Clean Air Outlook 2
- Parliament and Council adopt Heavy-Duty CO_2 Monitoring and Reporting Rules 3
- Provisional Agreement on Renewable Energy Directive (RED II) 3
- Commission proposes Regulation on EU Type-Approval regarding Brexit 3
- Framework Contract for assisting the Commission in the Emissions Field 4
- Austrian EU Presidency Work Programme 4
- European Auditors Report on Ex-Post Review of Legislation 4
- London expands Ultra-Low Emission Zone (ULEZ) 5
- UK Mayors calls for a Ban of New Petrol and Diesel Cars and Vans by 2030 5
- German Prosecutor orders €1 Billion Fine to Volkswagen 5
- Germany orders Recall of Euro 6 Diesel Daimler Vehicles 5
- Germany orders Recall of Euro 6 3.0l Diesel Audi A6 & A7 6
- Swedish Study on Health Impact of Air Pollution 6
- French Report on Non-Regulated Pollutants and Air Quality 6
- Spanish Decree on Direct Aid for the Purchase of Alternative Energy Vehicles 6

NORTH-AMERICA 7
- Review of US Ozone Air Quality Standard 7
- US EPA proposes Biofuel Requirements for 2019 7

ASIA PACIFIC 7
- Real-world Fuel Consumption of Light-duty Vehicles in China 7
- ICCT Summary of Indian Stage IV and V Non-Road Emission Standards 8
- India finalizes Quadricycle Emission Standards 8

UNITED NATIONS 8
- Global Methodology to measure Real-Driving Emissions 8

GENERAL 8
- GPF-equipped PSA PureTech Engine named International Engine of the Year 8
- Automobile Industry Pocket Guide 9
- TRUE Study on Real World Emissions using Remote Sensing 9
- Standardized Fuel Labels 10
- ACEA Study on Market Take-Up of Electrified Vehicles 11

RESEARCH SUMMARY 11

FORTHCOMING CONFERENCES 13

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EUROPE

New Vehicle Type-Approval Framework Regulation published

On 14 June 2018, the new motor vehicle type-approval framework Regulation (EU) 2018/858 was published in the Official Journal.

The new rules strengthen the quality of testing that allows a vehicle to be placed on the market through improved technical services; market surveillance to control the conformity of vehicles already available on the market, with the possibility for Member States and the European Commission to carry out spot-checks on vehicles in order to detect failures at an early stage; and the oversight of the type-approval process, in particular empowering the Commission to carry out periodic assessments on national type-approval authorities.

More precisely, a minimum number of cars will have to be checked by Member State competent authorities (1 in every 40 000 new motor vehicles registered in the previous year) and at least 20% of the checks will have to be emission-related, under real driving conditions.

The rules and obligations for market surveillance authorities are updated with a view to increasing their transparency. The Commission will be empowered to carry out assessments of the procedures put in place by authorities that have granted EU type-approvals within the five years preceding the assessment. Moreover, the results of these assessments will be made public.

The advisory Forum for Exchange of Information on Enforcement measures will represent a place to harmonise different interpretations and practises among the Member States, relying on cooperation and peer-evaluation.

A clear prohibition of the use of defeat devices is also included which calls for non-predictable tests with modified testing conditions which entail variations in physical conditions and testing parameters during type-approval and market surveillance activities.

The fees for type-approval activities will be levied on manufacturers who have applied for it. In addition, it will be impossible to apply for type-approval in a Member State if another one has previously denied it.

The Certificate of Conformity (CoC) - the document issued by the manufacturer which certifies that a produced vehicle conforms to the approved type of vehicle and complies with all regulatory acts at the time of its production - will follow standardised paper and electronic formats, which remains to be drafted by the Commission by means of implementing acts.

In case of irregularities, the Commission, by means of delegated acts, would be able to impose administrative fines on manufacturers.

The new type-approval framework Regulation will enter into force on 4 July 2018 and will then apply from 1 September 2020, repealing and replacing the current framework Directive 2007/46/EC.

Regulation (EU) 2018/858 is at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R0858&from=EN.

First EU Clean Air Outlook

On 7 June 2018, the European Commission adopted the first EU Clean Air Outlook, a report addressed to the European Parliament, the Council, the European Economic and Social Committee (EESC) and the Committee of the Regions (CoR). It follows from the 2013 Clean Air Programme proposal for a regular report on the air quality situation in Europe.

This report looks at the prospects for Europe's air from now to 2030, and how it is affected by implementation of the new National Emissions Ceilings (NEC) Directive, which sets stricter limits on the five main air pollutants.

The analysis looks at the joint effect of new EU measures put in place since 2014 to reduce air pollutants emissions from different sources (e.g. medium combustion plants, non-road mobile machinery or fuel-burning appliances) and at measures introduced as part of Energy Union. It shows that the commitments to reduce air pollutants emissions established for 2030 under the new NEC Directive could be achieved in a cost-effective way and with higher health benefits than initially thought, thanks to the effects of measures that tackle multiple pollutants at the same time.

As a result, the population exposed to $PM_{2.5}$ concentrations above the WHO guideline should drop from 88% in 2005 to around 13% in 2030, and in most of those locations the exceedances would be small enough to be addressed by local measures.

This is however not the case for impacts on ecosystems, which are primarily caused by agricultural activities: none of the measures put in place since 2014 to reduce pollution at source tackles ammonia emissions from agriculture, and measures taken for other pollutants do not bring significant co-benefits in this case.

Air pollution is a major health and environmental problem in the EU, and the recent European Commission Communication "A Europe that protects: Clean Air for all" reminded Member States of the need for urgent action. The Commission is stepping up cooperation with Member States to help them comply with EU clean air policy and legislation. Financial support for air pollution control measures is being provided, and Clean Air Dialogues with Member States are ongoing to share solutions towards better implementation of the air legislation. But more efforts are still needed from Member States.

The Commission noted in particular that methane emissions should be kept under review with regard to their impact on ozone concentrations in the EU and to promote methane reductions internationally. On the basis of the reported national emissions, the Commission will further assess the impact of methane emissions on achieving air

policy objectives, consider measures for reducing those emissions and, where appropriate, submit a legislative proposal, based on the evidence at EU and global level.

The next Clean Air Outlook will be published in 2020, and will include the Commission's analysis of the 2019 National Air Pollution Control Programmes.

The first EU Clean Air Outlook is at http://ec.europa.eu/environment/air/clean_air/outlook.htm.

Parliament and Council adopt Heavy-Duty CO_2 Monitoring and Reporting Rules

On 12 June 2018, the plenary of the European Parliament (EP) approved the interinstitutional agreement on the Commission proposal on the monitoring and reporting of CO_2 emissions and fuel consumption of heavy-duty vehicles (HDVs).

The Commission presented its proposal on 31 May 2017 as part of the Commission's First Mobility Package "Europe on the move" (*see AECC News of 2 June 2017*). The Regulation establishes rules on the monitoring and reporting of HDVs' fuel consumption and CO_2 emissions, as measured with the Commission's Regulation on the VECTO certification tool, in order to enhance market transparency and stimulate the uptake of fuel-efficient vehicles. It applies to vehicle of categories M1, M2, N1 and N2 with a reference mass that exceeds 2 610 kg and which do not fall within the scope of the Euro 6 Regulation (EC) No 715/2007, and to all vehicles of categories M3, N3, O3 and O4.

The regulation foresees the creation of a central EU register where authorities and manufacturers will provide data on CO_2 emissions and fuel consumption performance. In order to be transparent and allow for easier comparison between different vehicle models, this data will be made accessible to the public. The new rules will enable transport companies to obtain access to standardised information on fuel consumption and to compare different models of trucks, coaches and buses. The increased transparency will encourage manufacturers to develop more energy efficient HDVs.

The plenary adopted the text of the interinstitutional agreement with 612 votes in favour, 56 votes against and 11 abstentions.

On 25 June 2018, the Council of the European Union then also adopted the text of the new regulation on heavy-duty CO_2 emissions reporting and monitoring.

The Regulation will now be published in the EU Official Journal and will enter into force on 1 January 2019.

The text adopted is at www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+TA+P8-TA-2018-0246+0+DOC+PDF+V0//EN.

Provisional Agreement on Renewable Energy Directive (RED II)

On 14 June 2018, the European Parliament and the Council provisionally agreed on a share of energy from renewables of at least 32% of the EU's gross final consumption in 2030, with an upwards revision clause by 2023 during a final trilogue meeting on the recast of the Renewable Energy Directive (RED II).

The co-legislators decided to implement the "energy-efficiency first" principle, meaning prioritising, in all energy planning, policy and investment decisions, measures to make energy demand and supply more efficient.

A minimum share of at least 14% of fuel for transport purposes must come from renewable sources by 2030. In particular, first generation biofuel, based on food crops, must be capped at 2020 levels (with an extra 1%) and in no case exceed 7% of final consumption of road and rail transport while the share of advanced biofuels and biogas must be at least 1% in 2025 and at least 3.5% in 2030.

Food-crop biofuels like palm oil, which have a high "indirect land use change" (ILUC, i.e. changing how land from non-crop cultivation, such as grasslands and forests, with a negative impact on CO_2 emissions, is used), will be phased out through a certification process for low ILUC biofuels, which is to be set up.

The provisional deal now needs to be approved in a plenary session of the European Parliament and by EU ministers. Once this is achieved, Member States will have to include the new elements of the Directive into national law by 30 June 2021.

More info at www.europarl.europa.eu/news/en/press-room/20180614IPR05810/energy-new-target-of-32-from-renewables-by-2030-agreed-by-meps-and-ministers.

Commission proposes Regulation on EU Type-Approval regarding Brexit

On 4 June 2018, the European Commission adopted a proposal for a regulation complementing EU type-approval legislation with regard to the withdrawal of the UK from the EU.

The Commission proposal would establish a specific derogation from the current EU rules on type-approval, composed of the following pieces of legislation:

- Directive 2007/46/EC concerning the type-approval framework for motor vehicles and trailers (to be replaced by a Regulation which will be applicable as from 1 September 2020);
- Regulation (EU) No 168/2013 concerning the type-approval of Euro 4 &5 two- and three-wheeled vehicles and quadricycles;
- Regulation (EU) No 167/2013 concerning the type-approval of agricultural and forestry vehicles; and

- Regulation (EU) 2016/1628 concerning the type-approval of Stage V engines for use in non-road mobile machinery (NRMM).

The proposed Regulation would, in derogation to the current type-approval rules, allow a manufacturer holding a UK type-approval to apply with an EU type-approval authority for an EU approval of the same type, before the day when EU law ceases to apply in the UK.

Moreover, the EU type-approval could be granted on the basis of the same test reports which had previously been used for the UK type-approval. However, the EU type-approval authority would be allowed to request the repetition of specific tests.

The proposal has been sent to the European Parliament and Council for codecision.

The EC proposal is at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=COM:2018:397:FIN&from=EN.

Framework Contract for assisting the Commission in the Emissions Field

On 16 June 2018, the European Commission DG-GROW published a call for tenders (688/PP/2018/FC) titled 'Framework contract for studies and technical assistance in the emissions field'.

The framework contract will be about performing studies and/or providing technical assistance in any of the fields liable to be object of a legislative proposal by the Commission in the field of emissions (including pollutants, noise and CO_2) and fuel consumption for all relevant sectors (light- and heavy-duty vehicles, L-category vehicles, T-category vehicles and Non-Road Mobile Machinery).

The total framework value is €9.5 million. The contract is expected to be signed in November 2018 and the duration of the tasks shall not exceed 24 months. Work Packages (WP) identified are:

- WP1: regulated and-non regulated pollutants (incl. development of new environmental test procedures related to exhaust emissions, considering alternative emission limits …)
- WP2: Engine/powertrain and pollution control devices (incl. assessment of WtW)
- WP3: real driving/operating emissions (all vehicle categories)
- WP4: emission modelling
- WP5: On-board diagnostic and monitoring
- WP6: Greenhouse gas emissions
- WP7: Noise emissions
- WP8: Cost/benefit analysis

The call for tenders is open until 24 August 2018 and is at http://ted.europa.eu/udl?uri=TED%3ANOTICE%3A258512-2018%3ATEXT%3AEN%3AHTML.

Austrian EU Presidency Work Programme

On 19 June 2018, the Council of the EU published the work programme of the incoming Presidency of the European Union which was taken by Austria on 1 July 2018.

During the 6-month Austrian Presidency active climate protection will constitute a priority in environmental policy. Austria will endeavour to promote healthy mobility and transport systems with low greenhouse gas emissions.

In line with the trio EU Presidency's programme, the Austrian Presidency will continue the work on the circular economy, with a special focus on eco-innovative initiatives. Key goals include a healthy environment, the efficient use of resources, eco-friendly and sustainable growth, and measures for a non-toxic environment.

The Joint Declaration on the EU's legislative priorities for 2018 – 2019 mentions the further reduction of CO_2 emissions of passenger cars and vans as one of the priority areas. With a view to attaining the climate goals, Austria will continue the work started by the Bulgarian Presidency and work towards completing the negotiations. This will contribute to the attainment of the EU targets for 2030, among them an at least 40% cut in greenhouse gas emissions compared with 1990. In addition, the proposal on the introduction of standards for Heavy-Goods Vehicle CO_2 emissions constitutes an implementation measure of the 2016 EU Strategy for Low-Emission Mobility, which provides for a 60% emissions reduction goal in the transport sector to be reached by 2050.

The work programme is on the website of the Austrian presidency of the Council of the EU at www.eu2018.at.

European Auditors Report on Ex-Post Review of Legislation

On 12 June 2018, the European Court of Auditors (ECA) published a report on ex-post review of legislation under the EU Better Regulation policy.

In the report, the ECA examines ex-post reviews of legislation undertaken between 2013 and 2016 by four directorates of the Commission, including DG ENVI, the directorate responsible for environmental policy.

Ex-post reviews assess the effectiveness of previous regulatory intervention and are generally seen as the final stage of the EU's legislative cycle. They are a key part of the EC's aim to improve the quality of its work through its 'Better Regulation' policy.

High-quality ex-post reviews are critical to the quality of legislation, say the auditors. However, they identify a number of weaknesses, mostly relating to the lack of common interinstitutional definitions regarding review clauses, the unclear treatment of certain kinds of review

and the lack of clarity of the Regulatory Fitness and Performance (REFIT) programme.

The ECA report is at https://www.eca.europa.eu/en/Pages/DocItem.aspx?did=46063.

London expands Ultra-Low Emission Zone (ULEZ)

On 8 June 2018, London's Mayor Sadiq Khan confirmed the expansion of the ULEZ up to the North and South circular roads from 25 October 2021 on.

The ULEZ will begin in central London from 8 April 2019 on. The expanded zone will be managed in the same way as the central one. From 26 October 2020 on, diesel buses, coaches and lorries operated across London will need to meet the Euro VI standard.

The stricter measures will lead to emission reductions across London and more than 100 000 residents no longer living in areas exceeding legal air quality limits in 2021. Expanding the ULEZ is expected to reduce road transport NOx emissions by a further 28% across London.

Along with this announcement, Khan also launched a new study on toxic engine emissions and children's lung function. The study will test how policies like the ULEZ can improve the growth of children's lungs and reduce chest symptoms, comparing London children whose schools are placed within the ULEZ zone with children in Luton whose schools are in traffic-restricted zones.

More information at www.london.gov.uk/press-releases/mayoral/ultra-low-emission-zone-to-expand.

UK Mayors calls for a Ban of New Petrol and Diesel Cars and Vans by 2030

On 18 June 2018, London's Mayor Sadiq Khan called on the UK government, together with cross-party leaders, representing in total around 20 million people from across England and Wales, to end the sale of new pure diesel and petrol cars and vans by 2030.

The leaders, including Mayors and city leaders of Bradford, Bristol, Cardiff, Greater Manchester, Leeds, Leicester, Liverpool, London, Newcastle, Oxford, Sheffield, Southampton and the West Midlands, called for:

- A modern Clean Air Act that establishes strong air quality limits standards linked to WHO recommended guidelines, enforced by a new independent statutory body, with new powers and resources to ensure strong national and local action.
- A targeted national vehicle renewal scheme to replace older polluting vehicles that supports drivers and businesses to change to low-emission vehicles and other sustainable forms of transport, taking special care that those on low incomes and also small businesses are helped to make the shift.
- An enhanced Clean Air Fund open to all towns and cities in England funded by UK Government and motor vehicle manufacturers.
- As the Government prepares to publish its Road to Zero transport strategy, a call on ministers to commit to phase out sales of new pure diesel and petrol cars and vans by 2030. This would encourage car manufacturers and other businesses to innovate, helping ensure the UK is a world leader in low emission technology. In order to ensure the roll out of the electric vehicle infrastructure needed to support this, cities should have the power to install charge points at petrol stations and private car parks that are publicly accessible.

According to the London authorities, research has shown that the phasing out of petrol and diesel vehicles would lead to a 30% reduction in pollution in 2030, improving health and potentially boosting the country's economy by making the UK a global leader in low-emission technology.

German Prosecutor orders €1 Billion Fine to Volkswagen

On 13 June 2018, the Braunschweig public prosecutor issued an administrative order against Volkswagen AG in the context of the diesel crisis. The administrative order provides for a fine of €1 billion.

According to the Braunschweig public prosecutor's investigations, 10.7 million vehicles with the diesel engines of the types EA 288 (Gen3), sold in the US and Canada, and EA 189, sold world-wide, were advertised, sold to customers, and placed on the market with an impermissible software function, so-called defeat device, in the period from mid-2007 until 2015.

Volkswagen accepted the fine and will not lodge any appeal. Volkswagen admitted its responsibility for the diesel crisis and considered this as a further major step towards the latter being overcome. As a result of the administrative order imposing the fine, the active regulatory offence proceedings conducted against Volkswagen will be finally terminated.

Germany orders Recall of Euro 6 Diesel Daimler Vehicles

On 11 June 2018, German Transport Minister Andreas Scheuer ordered an official recall of 238 000 diesel Daimler vehicles due to inadmissible defeat device.

In addition to the Mercedes Vito model, already subject to a recall covering 1 372 vehicles in Germany and a further 4 923 units worldwide, the larger action announced now includes the Euro 6 GLC 220d and C 220d models. The Vito models with engines OM622 and OM 651 are affected; for the GLC it would be the OM 651 as well, according to Daimler. Over all Europe, a total of 774 000 vehicles are concerned, their recall is now officially ordered because of "inadmissible" software that shut down or reduces the effectiveness of the emissions control system.

Daimler must develop a software fix for those Vito vehicles already subject to a recall by 15 June 2018. Further on, the carmaker announced the removal of the devices within the engine calibration that were defined as "illegal" by the German authorities.

Further information (in German) is at www.bmvi.de/SharedDocs/DE/Artikel/K/bundesminister-daimler-11-06-18.html.

Germany orders Recall of Euro 6 3.0l Diesel Audi A6 & A7

On 6 June 2018, the German Federal Transport Authority (KBA) announced that it had ordered Audi to recall A6 and A7 models with a Euro 6, 3.0-litre diesel engine due to the presence of defeat device.

Around 60 000 Audi cars are to be recalled globally, including around 33 000 in Germany.

The OEM was ordered to remove the NOx emissions control defeat device after the release of the update measures by the KBA.

KBA specified that the EU type-approval of these models was granted by the authority of Luxembourg.

Swedish Study on Health Impact of Air Pollution

On 18 June 2018, the Swedish Environmental Research Institute (IVL) published a new report on the quantification of population exposure to NO_2, $PM_{2.5}$ and PM_{10} and estimated health impacts.

IVL and the Department of Public Health and Clinical Medicine at Umeå University have, on behalf of the Swedish EPA, performed a health impact assessment (HIA) for the year 2015. The population exposure to annual mean concentrations of NO_2, PM_{10} and $PM_{2.5}$ in ambient air has been quantified, and the health and associated economic consequences have been calculated based on these results.

Although Sweden has one of Europe's lowest levels of air pollution, about 7600 people die prematurely each year due to exposure mainly to NO_2 and particulate matter. Each death corresponds to a loss of just over eleven years of life. The total health effects are estimated to cost society equivalent to SEK 56 billion (€5.46 billion) each year.

The study shows that Sweden's population is exposed to air pollution to about the same extent as in previous surveys, although pollutants often decline. The unchanged exposure is likely to be linked to ongoing urbanization and densification trends, where a growing urban population is exposed to the more polluted air in the central parts of the cities.

Acknowledging the uncertainty, particles from local wood burning were estimated to cause more than 900 deaths per year, but here the exposure estimate is very uncertain. For road dust 215 deaths per year were calculated based on the exposure-response function from a Swedish study. The impact on mortality from locally emitted vehicle exhaust including particles is best indicated by exposure-response functions for within city gradients in NO_2, which also could include effects of NO_2 itself. Approximately 2850 deaths per year were estimated from vehicle exhaust, but using alternative risk functions it would result in 15-30% reduced estimates.

The study is at www.ivl.se/download/18.2aa26978160972788071cafe/1529073450199/C317%20Quantification%20of%20population%20exposure%202015.pdf.

French Report on Non-Regulated Pollutants and Air Quality

On 28 June 2018, the National Agency on Health Safety in Food, Environment and Work (Anses) in France published a new report on pollutants not yet regulated but impacting air quality and human health.

This expert work led to a list of 13 priority pollutants. Among these 13 pollutants, Anses stressed the importance of monitoring 1,3-butadiene, a pollutant emitted in particular by industrial activities dealing with plastics and rubber, but also at the exhaust of automobile engines and smoke from cigarette. Anses also recommends the need to supplement and sustain data acquisition for ultrafine particles and black carbon.

The Anses report is at www.anses.fr/fr/system/files/AIR2015SA0216Ra.pdf.

Spanish Decree on Direct Aid for the Purchase of Alternative Energy Vehicles

On 18 June 2018, Spain notified the European Commission (EC) of a draft Royal Decree regulating the direct granting of aid for the purchase of alternative energy vehicles in 2018 (AEV Plan 2018).

This plan involves encouraging the purchase in Spain of vehicles powered by alternative energy sources instead of conventional fuels, thereby promoting sustainability within the transport sector, reducing CO_2 and other pollutant emissions, mitigating climate change and improving air quality, as well as diversifying energy sources in the transport sector and reducing dependency on oil.

The subsidies granted for a purchase in Spain refer to passenger cars, vans, trucks, buses, coaches, lorries and motorcycles powered by alternative energy sources: electricity, hydrogen, Liquid Petroleum Gas (LPG),

Compressed Natural Gas (CNG) and Liquefied Natural Gas (LNG).

More information is at http://ec.europa.eu/growth/tools-databases/tris/en/search/?trisaction=search.detail&year=2018&num=273.

NORTH-AMERICA

Review of US Ozone Air Quality Standard

On 26 June 2018, the US Environmental Protection Agency (EPA) announced that it is preparing an Integrated Review Plan (IRP) and an Integrated Science Assessment (ISA) as part of the review of the National Ambient Air Quality Standards (NAAQS) for ozone.

The Clean Air Act mandates that EPA review its NAAQS for ozone, particulate matter, sulfur oxides, nitrogen oxides, carbon monoxide, and lead every five years. The current ozone standard of 70 parts per billion (ppb) was finalized in October 2015. Therefore, the EPA must complete the new ozone review by October 2020.

The IRP will summarize the plan for the review, including the initial identification of policy-relevant issues and questions to frame the review. The ISA will build on the scientific assessment conducted for the last ozone review, focusing on assessing newly available information since the last assessment.

More info is at www.federalregister.gov/documents/2018/06/26/2018-13716/review-of-the-national-ambient-air-quality-standards-for-ozone-call-for-scientific-and.

US EPA proposes Biofuel Requirements for 2019

On 26 June 2018, the US Environmental Protection Agency (EPA) issued proposed volume requirements under the Renewable Fuel Standard (RFS) programme for cellulosic biofuel, advanced biofuel, and total renewable fuel for 2019. The US EPA also proposed biomass-based diesel volume standards for 2020.

Proposed and Final Renewable Fuel Volume Requirements for 2018–2020

	2018	2019	2020
Cellulosic biofuel (million gallons)	288	381	N/A
Biomass-based diesel (billion gallons)	2.1	N/A*	2.43
Advanced biofuel (billion gallons)	4.29	4.88	N/A
Renewable fuel (billion gallons)	19.29	19.88	N/A
Implied conventional biofuel (billion gallons)	15	15	N/A

*The biomass-based diesel standard for 2019 was set at 2.1 billion gallons in 2018 and cannot be changed.

Under the proposal, the overall RFS biofuel mandate would be 19.88 billion gallons in 2019, a 3.1% increase over the 2018 levels. The biomass-based diesel standard (biodiesel and renewable diesel) for 2020 would be increased by 330 million gallons or 16% as compared to the 2019 standard.

More info is at www.epa.gov/renewable-fuel-standard-program/proposed-volume-standards-2019-and-biomass-based-diesel-volume-2020.

ASIA PACIFIC

Real-world Fuel Consumption of Light-duty Vehicles in China

On 21 June 2018, the International Council on Clean Transportation (ICCT) published a report on the evaluation of real-world fuel consumption of light-duty vehicles (LDVs) in China.

The study starts with an updated summary of consumer experience data that are representative of fleet trends. Then, new analyses are conducted using detailed vehicle fuel consumption data collected from two testing measures: real-world testing with portable emission measurement systems (PEMS) and chassis dynamometer tests in the laboratory.

The objective of this research is to explore policy approaches that can improve real-world fuel consumption performance, especially for compliance with the 2015-2020 standards and the development of longer-term, 2025-2030 standards.

Based on consumer-reported and official fuel consumption records, the average divergence between real-world and type-approval consumption widened by around 21 percentage points between model year (MY) 2007 and MY 2017, reaching 34% in MY 2017. The annual increase in the gap has also accelerated from one percentage point from 2013 to 2014 to five percentage points from 2016 to 2017.

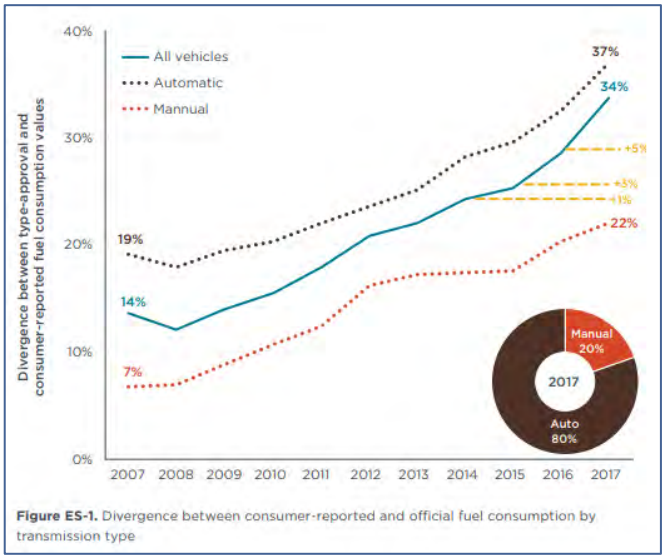


Figure ES-1. Divergence between consumer-reported and official fuel consumption by transmission type

In order to close the growing gap clearly the ICCT recommends the following regulatory changes:

- Enhance the "China cycle" with test procedures that are equal to or more stringent than WLTP test procedures.
- Adjust the values on fuel consumption labels to reflect average real-world values.
- Extend Real-Driving Emissions testing to fuel consumption standards, especially for in-use conformity testing, and define a compliance factor.
- Require application of On Board Diagnostics package three (OBD3) to monitor fuel consumption and establish official procedures to collect and publish fuel consumption information from in-use OBD3 systems.

The ICCT report on China real-world fuel consumption is at www.theicct.org/sites/default/files/publications/China_Real-World_LDV_20180621.pdf.

ICCT Summary of Indian Stage IV and V Non-Road Emission Standards

On 4 June 2018, the International Council on Clean Transportation (ICCT) published a summary of Bharat Stage IV and V non-road emission standards in India.

The report summarizes the final rule for non-road Bharat Stage (CEV/Trem) IV and V emission standards released on 5 March 2018 by India's Ministry of Road Transport and Highways. This is the first time India has adopted one set of consistent standards regulating both agricultural and construction equipment. The BS (CEV/Trem) IV and V standards are in general alignment with the European Stage IV and V standards for diesel engines used in non-road mobile machinery.

The BS (CEV/Trem) IV standards set requirements for diesel engines between 37 and 560 kW, starting on 1 October 2020. The BS (CEV/Trem) V standards start from 1 April 2024 and cover a wider range of engines, including those smaller than 8 kW and those larger than 560 kW, and introduce PN limits for those engines with rated power between 19 and 560 kW.

India has now become the first region outside of the EU to adopt Stage V-equivalent emission standards, moving ahead of countries such as the US, Japan and China in its control of emissions from new diesel-powered non-road equipment.

The ICCT summary on Bharat Stage IV and V is at www.theicct.org/sites/default/files/publications/India_Stage_IV_V%20Policy_Update%20_21080604.pdf.

India finalizes Quadricycle Emission Standards

On 29 May 2018, the Indian Ministry of Road Transport and Highways published draft test procedures associated with the Bharat Stage IV emission limits for new quadricycles.

The new category of quadricycles, i.e. small four wheeled personal vehicles (or commercial vehicles) will have to pass a list of emissions, crash and other norms which will be laid down by the government and the Automotive Research Association of India (ARAI).

India's BS IV emission standards for quadricycles are equivalent to the current Euro 4 heavy quadricycle emission standards (i.e. category L7). The first vehicle to be launched under this new category will be the Bajaj Qute.

The draft Indian BS IV standard for quadricycles is at www.morth.nic.in/showfile.asp?lid=3239.

UNITED NATIONS

Global Methodology to measure Real-Driving Emissions

On 21 June 2018, members of UNECE's World Forum for Harmonization of Vehicle Regulations (WP.29) decided to develop a harmonized procedure to perform real-driving emission testing on open roads.

The European Union, Japan and Korea are leading the development of the regulatory text that would lead to the establishment of a United Nations Global Technical Regulation (GTR) on real-driving emissions (RDE) testing, which is expected to be adopted by 2020. The USA, Canada, India and China have also showed support to the initiative and are expected to participate in the development of the regulatory provisions, in a process which is transparent, data-driven and open to inputs from all parties involved.

More info at www.unece.org/info/media/presscurrent-press-h/transport/2018/unece-works-on-global-methodology-to-measure-on-road-car-emissions/doc.html.

GENERAL

GPF-equipped PSA PureTech Engine named International Engine of the Year

On 5 June 2018, the PSA Turbo PureTech 3-cylinder petrol engine (110 hp and 130 hp) was named International Engine of the Year in the 1.0 to 1.4-litre category, for the 4th year in a row.

The new generation PureTech engine offers improved performance, fuel consumption and efficiency, with specific benefits including:

- a 4% improvement in fuel consumption on average compared with the previous generation;
- a 75% reduction in particulate emissions through the use of a gasoline particulate filter (GPF), meeting the Real Driving Emissions (RDE) conformity factor of 1.5 set by EU regulations for 2020, three years in advance;
- improved engine response time thanks to an optimised turbocharger (20% faster increase in torque from 1500 rpm);
- a more compact structure, to adapt to the new Common Modular Platform (CMP) dedicated to small city cars, core sedans and compact SUVs.

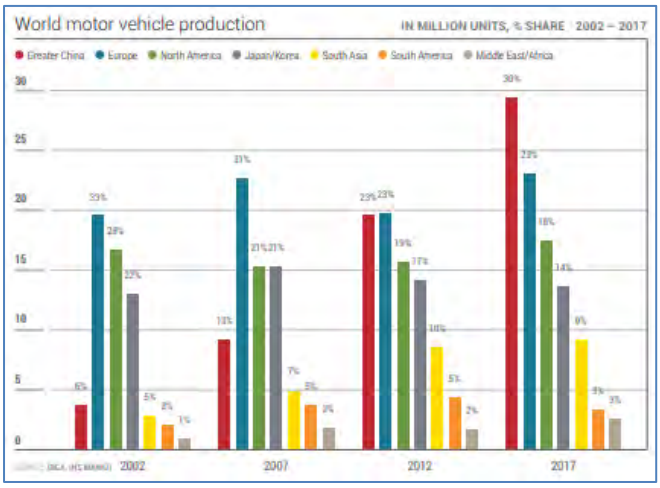
Launched in 2017 on the new Peugeot 308, the new generation is now being deployed on PSA vehicles across some hundred applications in more than 70 countries. The engines comply with Euro 6d-temp and China 6b standards.

More info is at https://media.groupe-psa.com/en/groupe-psa%E2%80%99s-turbo-puretech-petrol-engine-named-international-engine-year?linkId=52605520.

Automobile Industry Pocket Guide

On 8 June 2018, the European Automobile Manufacturers' Association (ACEA) published the Automobile Industry Pocket Guide 2018-2019.

The 2018-2019 edition contains the latest figures on employment and trade, innovation, the environmental performance of the European automotive sector, as well as vehicle production, registration, use and taxation.



The ACEA Pocket Guide is at www.acea.be/uploads/publications/ACEA_Pocket_Guide_2018-2019.pdf.

TRUE Study on Real World Emissions using Remote Sensing

On 5 June 2018, the International Council on Clean Transportation (ICCT) published two reports on the "Determination of real-world emissions from passenger vehicles using remote sensing data" and on "Explanation of the TRUE real-world passenger vehicle emissions rating system".

According to the ICCT, remote sensing of emissions has a number of important characteristics that make it particularly useful for real-world emissions surveillance. The paper builds upon the CONOX remote sensing data collection and analyses already conducted for various individual remote sensing campaigns in France, Spain, Sweden, Switzerland, and the UK between 2011 and 2017.

The paper also introduces new methodology to improve the analysis of remote sensing information. Fuel-specific emissions rates, or emissions in grams per kilogram of fuel burned, are translated into distance-specific emissions rates, or emissions in grams per kilometre. This allows direct comparison of remote sensing measurements across vehicles with different fuel consumption. It also enables comparison of findings with emissions standards, chassis dynamometer testing, and portable emissions measurement systems (PEMS) testing.

The study introduces a "vehicle family" definition and analyses average remote sensing measurements by vehicle family. This method increases fleetwide coverage by grouping similar vehicles while continuing to separate vehicles by factors that can have a significant impact on emissions.

Analyses of remote sensing data support previous findings about the high real-world NOx emissions of diesel vehicles, according to the ICCT, with almost no reduction in NOx from Euro 2 to Euro 5.

By manufacturer group, Euro 6 petrol vehicle NOx emissions for even the worst manufacturers were within 1.5 times the type-approval limit. For diesel vehicles, even the best manufacturer group had early-Euro 6 NOx emissions of more than twice the type-approval limit, and all other manufacturer groups were at least four times the type-approval limit. Four manufacturer groups had average emissions of more than 12 times the type-approval limit.

Almost no Euro 3 through Euro 6 diesel vehicle family had average remote sensing measurements below their respective type-approval standards. Euro 5 diesel families performed particularly poorly: all families had NOx emissions at least twice that of the limit, and the worst families had emissions 18 times the limit. Despite an average vehicle age of 16.4 years at the time of the remote sensing measurements, Euro 2 vehicles actually performed better, with 25% of the families still emitting less NOx than the Euro 2 limit.

The report nevertheless notes that NOx emissions from diesel cars progressively reduced between 2014 and 2017, even though none of the measured vehicles were RDE-compliant yet. "It is possible that this development was caused by manufacturers progressively adopting more robust emissions control systems to meet the Euro 6d-temp limit that has been in force since September 2017", the ICCT said.

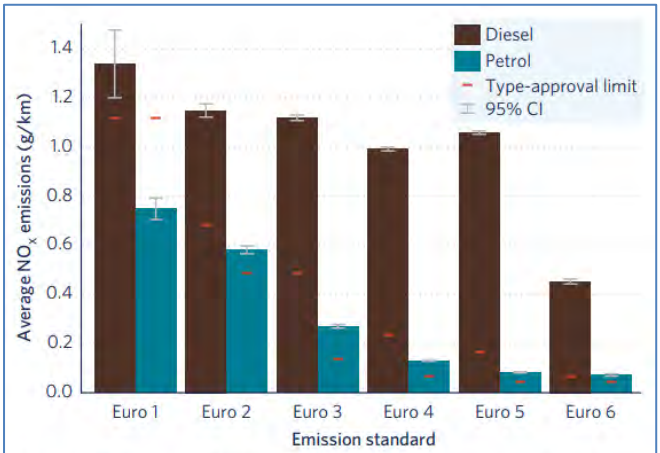


Figure 10: Overview of NO_x emissions (g/km) of the on-road fleet, from Euro 1 to Euro 6, for petrol and diesel passenger vehicles.[33]

Even though diesel NOx limits were more than three times higher than petrol NOx limits for Euro 3 through Euro 5, petrol vehicles performed much better, as 23% of Euro 3 petrol vehicle families had average emissions below their respective standard, ranging up to 63% for Euro 6 petrol vehicle families.

The FIA Foundation, the ICCT, Global NCAP, Transport and Environment (T&E), and C40 Cities have established The Real Urban Emissions Initiative (TRUE) which seeks to supply cities with data regarding the real-world emissions of vehicle fleets and equip them with technical information that can be used for strategic decision-making. The TRUE rating is a three-color categorization system designed to concisely inform the public of the relative magnitude of emissions from Euro 3 through Euro 6 vehicle models under a wide range of operating conditions and driving behaviours. TRUE ratings use green, yellow, and red target symbols to indicate Good (green), Moderate (yellow), or Poor (red) emissions performance.

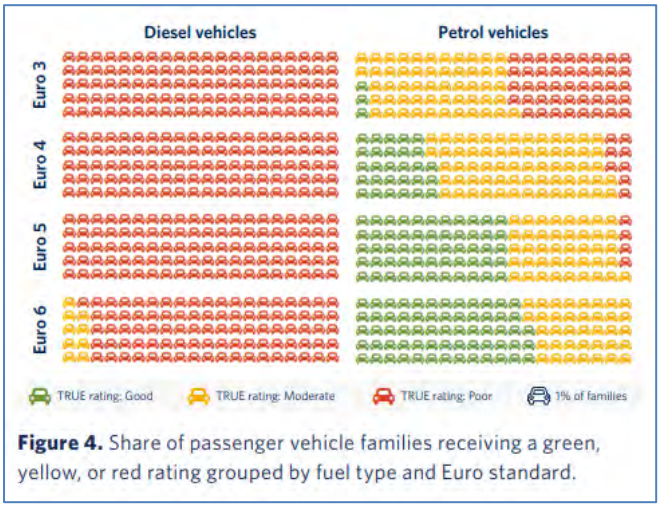


Figure 4. Share of passenger vehicle families receiving a green, yellow, or red rating grouped by fuel type and Euro standard.

The ICCT reports are at www.theicct.org/sites/default/files/publications/TRUE_Remote_sensing_data_20180604.pdf and www.theicct.org/sites/default/files/publications/TRUE_explanation_technical_20180604.pdf.

On 6 June 2018, the European Automobile Manufacturers' Association (ACEA) published a statement arguing that contrary to misleading claims in a new report, the latest Euro 6d diesel cars emit low pollutant emissions on the road under the new Real Driving Emissions (RDE) test, which came into application in September 2017.

"The claims from the new 'TRUE' study are misleading for consumers," stated Erik Jonnaert, Secretary General of ACEA. "EU policy makers will be equally disappointed that there is no acknowledgement that the latest Euro 6 diesel cars complying with the new RDE legislation are very clean."

The claims made in this study are based on remote sensing results collected between 2011 and 2017. They therefore do not evaluate the on-road performance of the latest diesel vehicles approved to the Euro 6d standard since September 2017. As all cars tested as part of this 'TRUE' initiative were pre-Euro 6d vehicles, the fact that they do not meet emissions requirements that only became mandatory after they were put on the market is not surprising.

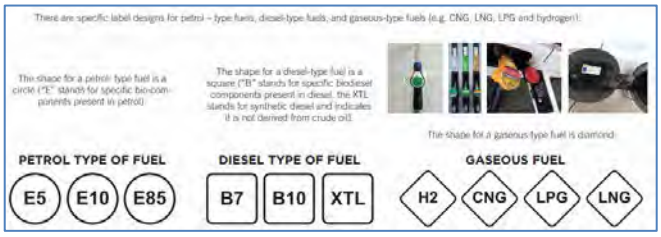
ACEA added that research by FuelsEurope and the Association for Emissions Control by Catalyst (AECC) also shows that the latest generation of diesel vehicles will continue to play a major role in helping reach future CO_2 targets. Likewise, these vehicles will also have a positive impact on improving air quality, along with other local measures, in areas where exceedance of NO_2 remains a concern.

The ACEA statement is at www.acea.be/press-releases/article/latest-diesel-cars-emit-low-on-road-pollutant-emissions-contrary-to-recent.

Standardized Fuel Labels

On 21 June 2018, the European Automobile Manufacturers' Association (ACEA) announced that a coalition of vehicle manufacturers, fuel refiners and fuel suppliers published informative brochures on fuel labels.

EU Directive 2014/94/EU on the deployment of alternative fuels infrastructure requires EU Member States to improve the information given to consumers who are faced with a choice of fuels for their vehicle. To that end, a CEN standard has drawn up common symbols, or 'fuel identifiers', that will be placed on new vehicles and fuel pumps. These identifiers must be in place by October 2018, and will start to be increasingly visible in the run up to this date.



When customers arrive at a filling station and open the fuel-filler cap on their vehicle, a common fuel identifier will be visible on both the vehicle and the pump, providing guidance on the fuel that is compatible for use with their vehicle.

The brochures explain the purpose of the identifiers and fuel labels, their design and in which vehicles they will appear. The brochures are available at www.fuel-identifiers.eu.

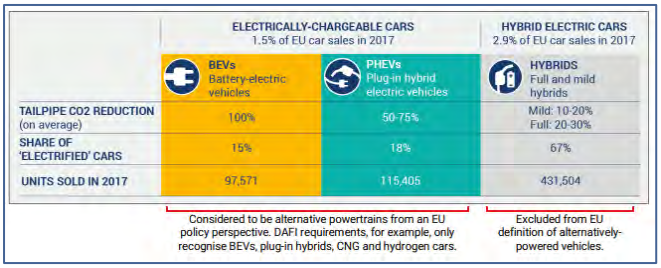
ACEA Study on Market Take-Up of Electrified Vehicles

On 28 June 2018, the European Automobile Manufacturers' Association (ACEA) published a new study on the main barriers that are currently hampering the uptake of electrically-chargeable cars in the EU.

Today, electrically-chargeable vehicles (ECVs) account for 1.5% of total passenger car sales in the EU. In absolute numbers, sales of ECVs grew in recent years, but only in line with the overall growth of car sales. Their market share, however, has remained more or less stable; growing by just 0.9 percentage points between 2014 and 2017. At the current pace, the market share would be 3.9% by 2025 and 5.4% by 2030.

The three main barriers identified are affordability, infrastructure availability, and lack of investment.

The data not only show a clear split in electric car sales between Central-Eastern and Western Europe, but also a pronounced North-South divide (e.g. Greece 0.2%, Italy 0.2% and Spain 0.6%). By contrast, an electrically-chargeable vehicle market share of above 1.8% only occurs in countries with a GDP of more than €35 000.



The ACEA study is at www.acea.be/uploads/publications/Study_ECV_barriers.pdf.

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FORTHCOMING CONFERENCES

Powertrain Modelling and Control Conference 2018

10-11 September 2018, Leicester, UK

www.pmc-conf.com

Topics of interest include electric drivetrains; hybrid powertrains; system identification; powertrain optimization; emission legislation; powertrain / engine testing; fuel cell; noise, vibration and harshness; combustion engine modelling; performance /drivability; ECU development; drive cycles; mapping and calibration; Hardware-in-Loop (HIL) testing; driveline and transmission; and tribology and friction

The Low Carbon Vehicle Event 2018

12-13 September 2018, Millbrook, UK

www.cenex.co.uk/cenex-lcv/

AECC will give a presentation on diesel engines on the pathway to low impact on local air quality.

SAE International Powertrains, Fuels & Lubricants Meeting

17-19 September 2018, Heidelberg, Germany

www.pfl18.org

Topics of interest include general powertrain development; engine combustion; exhaust, aftertreatment & emissions; fuels and lubricants; new engines, components, actuators & sensors; hybrid & electric powertrains; and transmission and driveline technology.

Automotive Sensors for Aftertreatment

25-27 September 2018, Berlin, Germany

https://automotive-sensors-for-aftertreatment.iqpc.de

37th FISITA World Automotive Congress: Disruptive Technologies for Affordable and Sustainable Mobility

2-5 October 2018, Chennai, India

www.fisita-congress.com

The congress topics include powertrain & emissions, fuels & lubricants, noise & vibration, vehicle dynamics, active and passive safety, electric & hybrid vehicles, autonomous & connected vehicles, manufacturing & materials, vehicle concepts, and sustainability.

2018 Aachen Colloquium Automobile and Engine Technology

8-10 October 2018, Aachen, Germany

www.aachener-kolloquium.de

The congress provides a wide range of technical presentations addressing current challenges of the vehicle and engine industry.

6th International Conference Real-Driving Emissions

15-17 October 2018, Berlin, Germany

https://real-driving-emissions.iqpc.de

SAE Heavy Duty Diesel Emissions Control Symposium

16-17 October 2018, Gothenburg, Sweden

https://hddec18.org

At the bi-annual symposium, the very latest trends in global emissions control legislation and the implications of these regulations on engine and after treatment technology will be discussed.

Integer Emissions Summit & AdBlue® Forum India 2018

17-18 October 2018, New Delhi, India

www.integer-research.com/conferences/ies-india-2018/

Routes to Clean Air 2018

29-30 October 2018, Birmingham, UK
http://iaqm.co.uk/event/routes-to-clean-air-2018
The Institute of Air Quality Management (IAQM) presents Routes to Clean Air 2018, a two-day conference where air quality, public health and transport professionals share their experiences of improving traffic emissions.

11th International Congress on Catalysis and Automotive Pollution Control CAPoC11

29-31 October 2018, Brussels, Belgium

http://capoc.ulb.ac.be

The International Congress on Catalysis and Automotive Pollution Control will discuss applications and requirements of catalysis in automotive emission control such as catalyst and sorption technologies; particulate emission control for both diesel and gasoline engines; aftertreatment for gaseous HC, H_2 and renewable or reformulated fuel mixtures; emission control for natural-gas and dual-fuel engines; emission control for hybrid vehicles; off-cycles emissions and unregulated pollutants (e.g. greenhouse gases); materials for catalysts, washcoat and fuel-borne catalysts; modelling of aftertreatment systems and catalyst characterization; integrated emission control systems, on-board diagnostics; sustainable fuel technologies; and innovative technologies (new materials, recovery of precious metals).

WHO 1st Global Conference on Air Pollution and Health

30 October - 1 November 2018, Geneva, Switzerland

www.who.int/airpollution/events/conference/en

The conference will bring together global, national and local partners to share knowledge and mobilize action for cleaner air and better health globally. The conference will update the evidence on the health impacts of air pollution; methods of monitoring pollution and health exposures; and tools for assessing and implementing effective interventions. It will support strong health sector leadership for change, in partnership with other sectors. Cities and countries will be invited to join the BreatheLife campaign and commit to reducing air pollution by 2030 in line with WHO Air Quality Guidelines.

Ricardo Motorcycle Conference 5.0

5 November 2018, Milan, Italy

https://motorcycle.ricardo.com/motorcycle-conference

A niche annual event that brings together leading global motorcycle industry experts to discuss new technologies and future drivers within the motorcycle and urban mobility arenas.

Integer Emissions Summit USA 2018

6-7 November 2018, Indianapolis, USA

www.integer-research.com/conferences/ies-usa-2018/

16th FAD-Conference "Challenge – Exhaust Aftertreatment for Diesel Engines"

7-8 November 2018, Dresden, Germany

www.fad-diesel.de/Conference_2018

2nd International FEV Conference Zero CO_2 Mobility

13-14 November 2018, Aachen, Germany

www.fev.com/events/fev-conferences/fev-conference-zero-co2-mobility/introduction.html

The conference will offer a platform for strategic discussion on the potential and performance of various forms of energy storage – from battery technologies to eco- and e-fuels.

10th Better Air Quality Conference

14-16 November 2018, Kuching, Malaysia

http://baq2018.org

The 10th Better Air Quality (BAQ) is themed, Regional Action, Global Impact. It is organized by Clean Air Asia, the Clean Air Forum Society of Malaysia (MyCAS), Malaysia's Ministry of Natural Resources and Environment, and the Natural Resources and Environment Board of Sarawak.

2018 Polis Conference on "Transport innovation for sustainable cities and regions"

22-23 November 2018, Manchester, UK

www.polisnetwork.eu/2018conference

AECC will give a presentation on Modern, Real-Driving Emissions (RDE)-compliant cars: Key to improving urban air quality

8th China International Diesel Engine Summit 2018

4-6 December 2018, Beijing, China

www.borscon.com/2018de8/cn/index.html

The summit will cover what is happening in the diesel engine industry in China, with focus on the policies and regulations for efficiency, emission, and fuel consumption which are of the industry's top concern currently, as well as latest technologies, future trends and burgeons of innovative business models.

23rd International Transport and Air Pollution (TAP) Conference

15-17 May 2019, Thessaloniki, Greece

www.tapconference.org

The theme of TAP2019 is 2020-2030: Transport in critical transition. Indeed, this decade will determine whether transport systems will succeed in moving ahead, fulfilling their sustainability targets.

Deadline for abstract: 31 October 2018

40th International Vienna Motor Symposium

16-17 May 2019, Vienna, Austria

https://wiener-motorensymposium.at