DECEMBER 2018

NEWSLETTER

International Regulatory Developments

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The AECC team wishes you and your family a happy and successful New Year.

EUROPE

EU Court annuls NOx Conformity Factors in RDE Legislation

On 13 December 2018, the General Court of the EU ruled in favour of a legal case brought by the cities of Paris, Brussels and Madrid and annulled in part Commission Regulation (EU) 2016/646 (i.e. RDE package 2) setting NOx emission conformity factors for the on-road test for new passenger cars and light commercial vehicles.

The Court ruled that the European Commission had no power to amend the Euro 6 emission limits for the real-Driving Emissions (RDE) tests by applying correction coefficients. It further holds that even if it had to be accepted that technical constraints may justify a certain adjustment, a difference such as that stemming from the contested regulation means that it is impossible to know whether the Euro 6 standard is complied with during those tests. The Court makes clear that the lack of competence on the part of the Commission [as established by the Court] necessarily implies an infringement of the Euro 6 Regulation (EC) No 715/2007.

Only the provision setting the NOx emission limit must be annulled, not the other provisions setting out the conditions in which the RDE tests must be carried out.

To avoid legal uncertainty, however, the NOx Conformity Factors remains applicable to the past and for a reasonable period in order to enable the legislation to be amended. The European Commission now has 12 months – from the expiry of the appeal period – to amend the legislation.

More info is at https://curia.europa.eu/jcms/upload/docs/application/pdf/2018-12/cp180198en.pdf.

Trilogue Agreement on Post-2020 CO_2 Standards for Cars and Vans

On 18 December 2018, the European Commission Directorate General for Climate Action and the European Parliament announced that a deal was struck on the post-2020 CO_2 targets for cars and vans after the fifth trilogue meeting with the European Parliament and the Council's Austrian Presidency.

They provisionally agreed on new CO_2 emission standards for cars and light commercial vehicles in the EU for the period after 2020. Emissions from new cars will have to be 37.5% lower in 2030 compared to 2021 and emissions from new vans will have to be 31% lower. The 2025 intermediate targets for cars and vans is confirmed at 15% lower than 2021.

As proposed by the European Parliament, the legislation introduces an obligation for the Commission to monitor the fuel consumption meter data and report annually on how the gap between what is tested and the levels of CO_2 emitted on the road is faring.

Manufacturers whose average emissions exceed the limits will have to pay an excess emissions premium. By 2023, the European Commission will have to evaluate the possibility of allocating these amounts to a specific fund for a just transition towards zero-emission mobility, and to support skills formation of workers in the automotive sector.

Full life-cycle emissions from cars should be assessed at EU level. No later than 2023, the Commission will have to evaluate the possibility of a common methodology for the assessment and the consistent data reporting. If appropriate, legislation should follow.

The text of the Regulation will now have to be formally approved by the European Parliament and the Council. The Environment committee of the Parliament will vote on the text in January 2019. Once endorsed by both co-legislators, the Regulation will be published in the Official Journal of the EU.

The text of the agreement has not been released yet.

More info is at https://ec.europa.eu/clima/news/europe-accelerates-transition-clean-mobility-co-legislators-agree-strong-rules-modernisation_en and at www.europarl.europa.eu/news/en/press-room/20181218IPR22101/curbing-co2-emissions-from-cars-agreement-with-council.

Amendments to WLTP Test Conditions and Type-Approval CO_2 of Cars and Vans

On 21 December 2018, two Commission Regulations were published in the Official Journal that amend the test conditions of the World harmonized Light vehicle Test Procedure (WLTP) and type-approval CO_2 monitoring, one for passenger cars and the other one for light commercial vehicles.

The regulations clarify certain aspects of the WLTP test conditions that should apply for the correlations performed in view of providing WLTP and NEDC monitoring CO_2 emissions data for vehicles newly registered in 2020.

The aim is to avoid that measurements are performed in a way to artificially increase the CO_2 emissions which will form the basis for the 2025 and 2030 targets.

Both Regulations enter into force on 1 February 2019.

For cars, Regulation (EU) 2018/2043 is at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R2043&from=EN and for vans, Regulation (EU) 2018/2042 is at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R2042&from=EN.

Occupational Health Directive including Diesel Exhaust approved by Parliament

On 11 December 2018, the European Parliament approved the amendment of Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work, following the trilogue agreement settled with the Council (*see AECC Newsletter of October 2018*).

The new provisions set exposure limit values (maximum amount of substance allowed in workplace air) and skin notations (the possibility of significantly absorbing the substance through the skin) for eight additional carcinogens:

- Diesel engine exhaust emissions
- Epichlorohydrine
- Ethylene dibromide
- Ethylene dichloride
- 4,4'-Methylenedianiline
- Trichloroethylene
- Polycyclic aromatic hydrocarbons (PAHs) mixtures, particularly those containing benzo[a]pyrene, and
- Mineral oils that have been used before in internal combustion engines to lubricate and cool the moving parts within the engine.

With regard to diesel engine exhaust emissions, a limit value of 0.05 mg/m³ measured as elemental carbon is set.

It will apply four years after the entry into force of the Directive (to be confirmed when published in the Official Journal, once the Council has approved the text). In underground mining and tunnel construction sectors the limit will, however, apply seven years after the date of entry into force.

The final text was adopted with 585 votes in favour to 46 against, and 35 abstentions.

The adopted text is at www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+TA+P8-TA-2018-0488+0+DOC+PDF+V0//EN.

Parliament Briefing on Heavy-Duty CO_2 Standards Negotiations

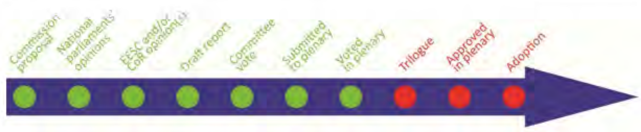
On 13 December 2018, the European Parliament Research Service published a briefing on the on-going negotiations for heavy-duty vehicles' CO_2 emissions standards.

Heavy-duty vehicles are responsible for around a quarter of CO_2 emissions from road transport in the EU. Without further action, their emissions are expected to grow due to increasing road transport volumes. Therefore, in May 2018, the European Commission proposed a regulation setting the first-ever CO_2 emission performance standards for new heavy-duty vehicles in the EU, as part of the third mobility package. It would require the average CO_2 emissions from new trucks in 2025 to be 15% lower than in 2019. For 2030, the proposal sets an indicative reduction target of at least 30% compared to 2019. Special incentives are provided for zero- and low-emission vehicles. The proposed regulation applies to four categories of large trucks, which together account for 65%-70% of CO_2 emissions from heavy-duty vehicles. The Commission proposes to review the legislation in 2022 in order to set a binding target for 2030, and to extend its application to smaller trucks, buses, coaches and trailers.

In the European Parliament, the proposal was referred to the Committee on Environment (ENVI), which adopted its report on 18 October 2018. Parliament voted on the report on 14 November 2018 and gave a mandate for trilogue negotiations, which will start on 8 January 2019 now that the Council has adopted its position (*see next*).

Proposal for a Regulation of the European Parliament and of the Council setting CO_2 emission performance standards for new heavy-duty vehicles

Committee responsible:	Environment, Public Health and Food Safety (ENVI)	COM(2018) 284 17.5.2018
Rapporteur:	Bas Eickhout (Greens/EFA, the Netherlands)	2018/0143(COD)
Shadow rapporteurs:	Christofer Fjellner (EPP, Sweden) Damiano Zoffoli (S&D, Italy) Nils Torvalds (ALDE, Finland) Stefan Eck (GUE/NGL, Germany) Joëlle Mélin (ENF, France)	Ordinary legislative procedure (COD) (Parliament and Council on equal footing – formerly 'co-decision')
Next steps expected:	Trilogue negotiations	



The EP briefing on HD CO_2 standard is at www.europarl.europa.eu/RegData/etudes/BRIE/2018/628268/EPRS_BRI(2018)628268_EN.pdf.

Council adopts Position on Heavy-Duty CO_2 Standards

On 20 December 2018, the Council adopted its position (General Approach) on the legislative proposal to set CO_2 emissions standards for heavy-duty vehicles.

The Council maintains the overall CO_2 emissions reduction target for the EU's fleet of new heavy-duty vehicles from 2025 onwards, compared to 2019 emission levels, at 15% as proposed by the European Commission. The Council introduces a binding reduction target of 30% from 2030, unless decided otherwise following a review of this regulation in 2022.

A financial penalty in the form of an excess emissions premium is foreseen for those manufacturers which do not comply with the CO_2 emission reduction targets.

There will be an incentive system, called super-credits, whereby zero- and low-emission vehicles will be counted as more than one vehicle when calculating the specific emissions of a truck manufacturer. The super-credits will be subject to specific predefined caps in order to avoid a weakening of the environmental objectives of the regulation. In comparison with the initial Commission proposal, the Council decided to exclude buses and coaches from this incentive system.

Finally, there will be specific measures to ensure the availability of robust and representative data from manufacturers on CO_2 emissions and fuel consumption of the trucks they build.

This agreement provides the presidency with a mandate to start negotiations with the European Parliament. The first trilogue meeting is scheduled on 8 January 2019.

The Council position is at http://data.consilium.europa.eu/doc/document/ST-15828-2018-INIT/en/pdf.

Parliament Briefing on Review of Clean Vehicle Directive

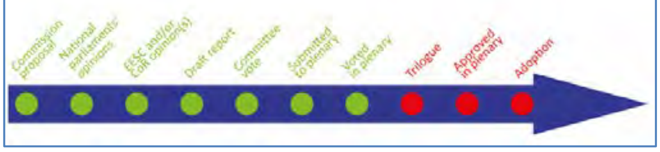
On 19 December 2018, the European Parliament Research Service published a briefing on the on-going negotiations for the review of the clean vehicle directive.

In November 2017, the European Commission proposed, as part of the clean mobility package, a revision of Directive 2009/33/EC on the promotion of clean and energy efficient road transport vehicles (the so-called Clean Vehicles Directive). The existing Clean Vehicles Directive is a public procurement instrument aiming to promote and incentivise the market for clean and energy-efficient road transport vehicles by ensuring a steady demand. The directive applies to vehicles purchased by contracting authorities. It introduced, for the first time, sustainability obligations into public procurement law for the whole EU. However, the Commission's latest evaluation revealed that the directive has yielded limited results.

Limitations to the scope of the directive result in too few vehicle procurements falling within its remit. Moreover, the choice of options for transposing the directive into national law leads to a great variety of national legal frameworks and causes fragmentation in procurement rules. Furthermore, the current monetisation methodology, with its high emphasis on fuel consumption, tends to favour diesel vehicles.

In the European Parliament, the file was referred to the Environment (ENVI) committee, which adopted its report on 10 October 2018. On 25 October 2018, the Parliament voted on the report in plenary and gave a mandate for trilogue negotiations, but the Council has not yet reached a position.

Proposal for a Directive of the European Parliament and of the Council amending Directive 2009/33/EU on the promotion of clean and energy-efficient road transport vehicles	
COM(2017) 653, 8.11.2017, 2017/0291(COD), Ordinary legislative procedure (COD) (Parliament and Council on equal footing – formerly 'co-decision')	
Committee responsible:	Environment, Public Health and Food Safety (ENVI)
Rapporteur:	Andrzej Grzyb (EPP, Poland)
Shadow rapporteurs:	Seb Dance (S&D, UK); Rupert Matthews (ECR, UK); Jan Huitema (ALDE, the Netherlands); Kateřina Konečná (GUE/NGL, Czech Republic); Keith Taylor (Greens/EFA, UK); Eleonora Evi (EFDD, Italy); Joëlle Mélin (ENF, France)
Next steps expected:	Trilogue negotiations



The EP briefing on the clean vehicle directive is at www.europarl.europa.eu/RegData/etudes/BRIE/2018/614690/EPRS_BRI(2018)614690_EN.pdf.

Commission 'Future Brief' on Health Costs of Environmental Pollution

The European Commission has published a 'Future Brief' that explores how to assign an economic value to the health impacts of pollution.

This report outlines some of the methodologies that have been used to account for health costs, both in Europe and other parts of the world. The strengths and weaknesses of each methodology are considered, and their potential applications explored. Finally, the future directions of research in this field are investigated.

Health costs related to three key categories of pollution are touched upon: air pollution, noise pollution and exposure to toxic chemicals.

A number of different approaches can be used to value health, life and illness due to environmental pollution (or the reduction thereof), with differences in approach depending on discipline and location. Each approach has strengths and weaknesses; it is essential to understand the method and assumptions behind monetisation approaches before using the valuation figures. In calculating health damages from environmental pollution, the primary current use of monetised health costs is to incorporate them into policy assessment (including via cost-benefit analyses).

Increasing the standardisation of methods of valuation between air, noise and chemical pollution will be a crucial step to consider the costs and benefits of proposed solutions to some complex, contemporary, global problems.

As the research around valuation progresses, it is also essential to keep abreast of advances elsewhere; one of the most important factors to take into consideration alongside the valuation of health is the dose-response or concentration-response relationship on which estimations of damaging impacts are based.

While life and health are clearly invaluable, and monetised health impacts are not ready to be used as some sort of universal proxy, it is also clear that monetisation can help policymakers to compare options as part of a well-rounded analysis. It brings another, useful aspect through valuation, which can permit calculation of the impacts of alternative options and comparison of ever-more-realistic scenarios. Monetisation of these types of health effects also has a practical use as a communication tool, to measure successes and to evaluate and disseminate the results of policy implementation. Monetised health impacts are indeed already helping to measure the impact of policies in the EU.

The 'Future Brief' is at http://ec.europa.eu/environment/integration/research/newsalert/pdf/health_costs_environmental_pollution_FB21_en.pdf.

Commission Study on External Costs of Transport

On 17 December 2018, the European Commission Directorate General for Mobility and Transport (DG-MOVE) shared the preliminary results of a study on the negative effects that transport has on the environment, health, air quality and climate – the so-called external costs.

The study also looks at infrastructure costs and how these are covered by relevant taxes and charges. One of the main findings is the extent of the overall external costs of transport, estimated at around € 1 000 billion annually (almost 7% of the Gross Domestic Product of the 28 EU Member States).

The main contributors to this are environment (carbon, noise and pollution), accidents and congestion. Road is the largest contributor, accounting for three quarters of total external costs in absolute terms, and also the mode which leaves the biggest amount of external cost unpaid. For all transport modes, the total costs (external and infrastructure) are substantially higher than what the user pays.

Insights from this study will provide important input to the Commission's thinking on the further internalisation of these costs and possible policy measures to achieve this. The findings will ultimately contribute to the Commission's goal of improving efficiency within the overall transport system and further reducing CO_2 emissions, congestion and air pollution, thereby improving the quality of life of European citizens.

The study, carried out by contractors, will be finalised in May 2019 and presented at the Transport, Telecommunications and Energy Council meeting in June 2019.

More info is at https://ec.europa.eu/transport/themes/logistics/news/2018-12-17-costs-of-eu-transport_en.

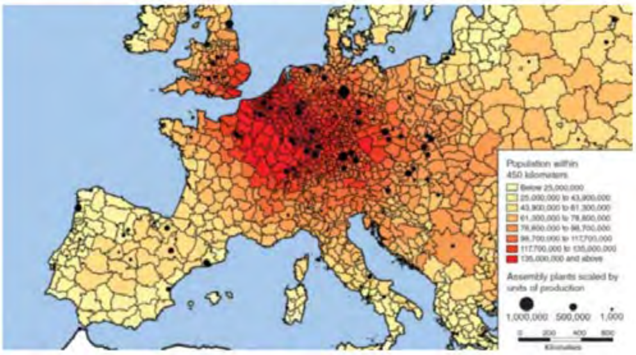
Commission Brief on Motor Vehicle Production in France and in the EU

On 7 December 2018, the European Commission's Directorate-General for Economic and Financial Affairs published an economic brief looking at the distribution of motor vehicle production in France and the EU.

The EC brief indicates that motor vehicle production in France decreased by about 40% between 2000 and 2016. In contrast, motor vehicle production in the EU as a whole only decreased by 0.1% and motor vehicle production by the two French motor vehicle groups (PSA and Renault-Nissan) increased by about 52% across the world during this period.

The difference is explained by the creation of the EU Single Market that led to a distribution of motor vehicle production in the EU concentrated in two areas: a central zone (a corridor running northwest-southeast between the Danube River and the North Sea) and a peripheral one (Spain).

Graph 5: **Auto assembly plants and level of population by NUTS-3 region in Europe in 2013**



In this context, cost competitiveness losses can trigger a reallocation of production to the corridor which is difficult to revert once settled. In France, in particular, these forces seem to have been a major factor behind a significant impact in its motor vehicle production capacity. They also help explain why production reallocation decisions are costly and difficult to revert by policy. Additionally, agglomeration can also help explain why production decisions are asymmetric: production might not return to a given location, even if competitiveness losses are redressed.

Countering agglomeration economies and moving production to the corridor is possible: avoiding cost competitiveness losses helps explain the different evolution of production in Spain compared to France.

Overall, the corridor helps explain the stability of motor vehicle production in the EU between 2000 to 2016 compared to the volatility experienced by individual Member States such as France.

The EC brief of motor vehicle production is at https://ec.europa.eu/info/sites/info/files/economy-finance/eb040_en.pdf.

Benzene Content in Fuel for 2-Stroke Engine Equipment

On 10 December 2018, the European Commissioner for Internal Market, Industry, Entrepreneurship and SMEs, Elżbieta Bieńkowska, replied to a written question from the Parliament on the benzene specification for fuel used in small equipment using a two-stroke engine.

MEP Karin Kadenbach (S&D, Germany) had asked the Commission whether the Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) stipulated that only fuels with a benzene content <0.1% could be used in engines of category NRS and NRSh, as defined in the Non-Road Mobile Machinery (NRMM) Stage V regulation (EU) 2016/1628, and whether there was, for occupational exposure concerns, an obligation to use benzene-free fuels in such engines – NRSh are hand-held SI engines having a reference power <19 kW; NRS are SI engines having a reference power <56 kW and not included in category NRSh.

The Commission replied that indeed the REACH regulation restricts placing on the market and use of benzene in mixtures in concentrations ≥0.1% by weight. That REACH restriction applies to fuels for engines of category NRS and NRSh as these are not transport-related equipment and therefore Directive 98/70/EC relating to the quality of motor fuels does not apply.

As regards occupational exposure, Directive 2004/37/EC applies in situations where workers are exposed to carcinogens or mutagens at work. Although this directive does not contain an explicit requirement stipulating the benzene content of fuels, it requires employers to reduce the use of a carcinogen by replacing it with a substance which is not, or less, dangerous. Where this is not technically possible, the employer must ensure that the carcinogen is manufactured and used in a closed system or, where this is not possible, the employer must apply specific measures on prevention and reduction of exposure. This includes not allowing workers' exposure to exceed the binding occupational exposure limit currently set at 1 ppm of benzene, measured in relation to an 8-hour time period.

More info is at www.europarl.europa.eu/doceo/document/E-8-2018-004888_EN.html.

JRC Study on BMW i3 Performance Assessment in Realistic Use Scenarios

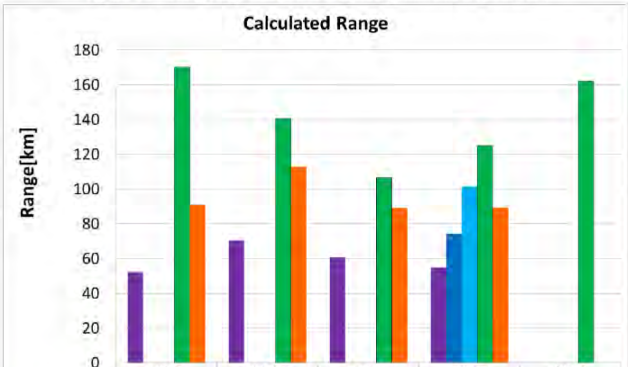
On 10 December 2018, the Joint Research Centre (JRC) of the European Commission published a study assessing the performance of the BMW i3 electric car in realistic use scenarios, in particular at various ambient temperatures.

The report addresses a joint test campaign partially carried out at the EU Interoperability Centre for Electric Vehicles and Smart Grids, in collaboration with the U.S. Department of Energy Argonne National Laboratory. The data presented provided good replicability between the dedicated transatlantic laboratories and valuable information on vehicle and vehicle-components energy use across the considered operative testing ranges.

Results demonstrated that ambient temperature strongly affects vehicle energy use over the considered test cycles and a similar variation trend is observed across tested temperatures: over all driving cycles, maximum energy consumption is reached at -30°C, while minimum is achieved at 23°C. As a consequence, the driving range measured was significantly reduced at cold temperatures (between 40% and 70% of the standard testing conditions).

Also, cold temperatures emphasized the "first-cycle effect" (i.e. higher energy consumption for the first cold-start cycle) as more energy is required to condition the vehicle bringing cabin and powertrain components from ambient to operating temperature. Efficiency analysis of vehicle components demonstrated that a significant percentage of energy was used by the heating system, with a stronger impact for heating the cabin at temperatures below 0°C (up to 50% of the total energy use).

Figure 16. Driving range as a function of varying ambient temperatures.



	UDDS	HWFET	US06	WLTP	NEDC
-30C	52.3	70.4	60.7	54.9	
-7C HVAC ON				74.2	
-7C HVAC OFF				101.7	
23C	170.1	140.6	106.7	125.0	162.1
50C	91.0	112.8	89.1	89.3	

Varying ambient temperature also affected the battery performance: the available battery energy during charge-depleting operation, decreased significantly at negative temperatures (9% decrease at -30°C).

When the high-voltage battery energy is depleted and a predefined minimum state of charge is reached, the vehicle operates in the charge-sustaining mode and the internal combustion engine drives an electric generator recharging the high-voltage battery. Further analysis will investigate how varying ambient temperatures affect the vehicle fuel economy during charge sustaining operations.

Future studies will focus on plug-in hybrid electric vehicles (PHEV) with a different hybridization level, in order to compare the impact of extreme temperatures on vehicle energy consumption.

The JRC study is at https://publications.europa.eu/en/publication-detail/-/publication/335ae08d-fcf9-11e8-a96d-01aa75ed71a1/language-en/format-PDF.

EU-Japan Free Trade Agreement

On 12 December 2018, the European Parliament endorsed the EU-Japan Economic Partnership Agreement and the EU-Japan Strategic Partnership Agreement.

The trade agreement negotiated by the European Commission will create an open trading zone covering 635 million people and almost one third of the world's total Gross Domestic Product (GDP).

The Strategic Partnership Agreement is the first ever bilateral framework agreement between the EU and Japan. The EU-Japan Economic Partnership Agreement will remove the vast majority of the €1 billion of duties paid annually by EU companies exporting to Japan, as well as a number of long-standing regulatory barriers, for example on car exports. It will also open up the Japanese market of 127 million consumers to key EU agricultural products and increase EU export opportunities in many other sectors. In addition, the agreement will strengthen cooperation between Europe and Japan in a range of areas, reaffirm their shared commitment to sustainable development, and include for the first time a specific commitment to the Paris climate agreement.

The agreement will in particular commit Japan to international car standards, with the result that EU exports of cars to Japan is made significantly easier.

After the endorsement of the trade deal by the European Parliament, Council gave its final go-ahead on 21 December 2018 which allows the agreement to enter into force on 1 February 2019. For the strategic partnership agreement to enter into force, all member states have to ratify it.

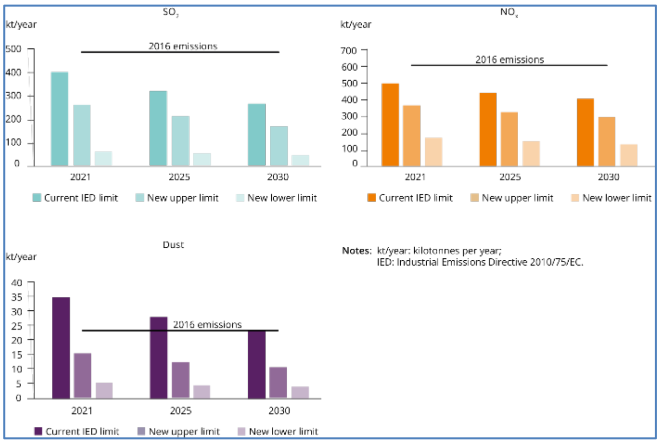
More info is at http://trade.ec.europa.eu/doclib/press/index.cfm?id=1954 and www.consilium.europa.eu/en/press/press-releases/2018/12/21/eu-japan-trade-agreement-will-enter-into-force-on-1-february-2019/ .

EEA Briefing on Greening the Power Sector

On 12 December 2018, the European Environment Agency (EEA) published a briefing titled "Greening the power sector: benefits of an ambitious implementation of Europe's environment and climate policies".

In that briefing, the EEA looks at the potential benefits of an ambitious implementation of new measures under the Industrial Emissions Directive (IED) in the EU power sector. These new measures set a range of emission limits that Member States must use for emissions permits issued to power plant operators by 2021. The upper limits represent a minimum Member States must do while the lower limits are a reference for more ambitious targets.

Power plants burning fossil fuels still generate almost half of the electricity in the EU-28. These combustion plants release more than half of the total man-made sulfur dioxide (SO_2), 15% of nitrogen oxides (NOx) and 4% of particulate matter (PM) as well as other pollutants, such as mercury.



According to the EEA analysis, implementing the upper emission limits of the new requirements would, by 2030, result in emission cuts of 66% for SO_2, 56% for PM and 51% for NOx, compared with 2016 emissions. However, in the same period, implementing the more ambitious targets would result in more substantial emission reductions of 91% for SO_2, 82% for PM and 79% for NOx.

The additional NOx emission reduction associated with achieving the more ambitious level of implementation are, for 2030 alone, comparable to the lifetime NOx emissions of 220 000 average Euro 6 diesel cars (507 mg NOx/km) on European roads (assuming a lifetime mileage of 150 000 km), the EEA said. According to analysis on the so-called Best Available Techniques, the more ambitious limits are, in the majority of cases, technically and economically achievable.

The EEA briefing is at www.eea.europa.eu/themes/industry/industrial-pollution-in-europe/benefits-of-an-ambitious-implementation.

Requirements for Environmental Zones in Denmark

On 11 December 2018, the Ministry of Environment of Denmark notified the European Commission of a proposal to amend its Environmental Protection Act with more stringent requirements for lorries and buses and the introduction of minimum requirements for commercial vehicles in the four Danish environmental zones.

According to the present requirements, diesel lorries and buses must, as a minimum, comply with Euro IV. The new bill proposes to restrict access from 1 July 2020 only to heavy vehicles registered as of 1 October 2009 and then from 1 July 2022 only to heavy vehicles registered as of 1 January 2014.

In the case of diesel commercial vehicles, progressive access restrictions are proposed: on 1 July 2020 only commercial vehicles registered after 1 January 2007 would be allowed, then on 1 July 2022 only those registered after 1 January 2012, and then from 1 July 2025 only those registered after 1 September 2016.

Vehicles that do not comply with the emission requirements may, in line with the present law, access the zone if a particulate filter is installed. This can be either a factory-fitted or retrofitted particulate filter.

More info is at http://ec.europa.eu/growth/tools-databases/tris/en/index.cfm/search/?trisaction=search.detail&year=2018&num=607&mLang=EN.

Germany defines Hardware Retrofit Requirements for Diesel Cars

On 28 December 2018, the Transport Ministry of Germany released the text of technical regulation for hardware retrofit of diesel passenger cars.

The Federal Government has developed a suitable test and approval procedure for the hardware retrofit systems for diesel cars, which is the basis for the issuing of a general operating permit (ABE) by the Federal Motor Transport Authority (KBA) and will be installed as soon as possible in the 2019 Road Traffic Licensing Regulations (StVZO). The granting of an ABE by the KBA will already be possible in anticipation of the amendment to the StVZO on the basis of the 30-page document setting the test and approval requirements.

The retrofit regulation will be published in the Federal Gazette of Germany in January 2019.

The text of the retrofit regulation (in German) is at www.bmvi.de/SharedDocs/DE/Anlage/Presse/107-scheuer-technische-vorgaben-hardware-nachruestung.pdf?__blob=publicationFile.

NORTH-AMERICA

California transitioning to All-Electric Public Bus Fleet by 2040

On 14 December 2018, the California Air Resources Board (CARB) approved the Innovative Clean Transit regulation that sets a state-wide goal for public transit agencies to gradually transition to 100% zero-emission bus fleets by 2040.

Deployment of zero-emission buses is expected to accelerate rapidly in the coming years – from 153 buses today to 1000 by 2020, based on the number of buses on order or that are otherwise planned for purchase by transit agencies. Altogether, public transit agencies operate about 12 000 buses state-wide.

To successfully transition to an all zero-emission bus fleet by 2040, each transit agency will submit a rollout plan under the regulation demonstrating how it plans to purchase clean buses, build out necessary infrastructure and train the required workforce. The rollout plans are due in 2020 for large transit agencies and in 2023 for small agencies.

Agencies will then follow a phased schedule from 2023 until 2029, by which date 100% of annual new bus purchases will be zero-emission. To encourage early action, the zero-emission purchase requirement would not start until 2025 if a minimum number of zero-emission bus purchases are made by the end of 2021.

More info is at ww2.arb.ca.gov/news/california-transitioning-all-electric-public-bus-fleet-2040.

ASIA PACIFIC

Singapore begins accepting Emissions Data from WLTP

On 21 December 2018, Singapore's National Environment Agency (NEA) announced that it will begin accepting results from the Worldwide harmonized Light vehicles Test Procedure (WLTP) for the approval of new vehicles as well as the reporting of emissions under Singapore's Vehicular Emissions Scheme from 1 January 2019.

Under the new test procedures, passenger cars and light-duty vehicles are tested at higher speeds, longer distances and a greater range of driving situations, as compared to previous tests. Emissions measurements are expected to be about 20% higher under WLTP, as compared to previous standards. The move to accept the WLTP is in line with similar measures in the EU and Japan, said the NEA.

It will continue to accept the older New European Driving Cycle (NEDC) and Japanese Driving Cycle. "The NEA will consider making a complete switchover to the WLTP only when the EU and Japan have completely switched over to WLTP for all models of vehicles," said an NEA spokesman, adding this is likely to happen in about three years. He added the NEA will continue to monitor international developments and work with the local motor industry towards a complete switchover to the new test procedures in the longer term.

UNITED NATIONS

COP24 Katowice Climate Package

On 15 December 2018, after two weeks of negotiations, the United Nations global climate COP24 in Poland ended with the adoption of the Katowice Climate Package implementing the Paris Agreement, aimed at keeping global warming well below 2°C compared to pre-industrial levels.

One of the key components of the 'Katowice package' is a detailed transparency framework, meant to promote trust among nations regarding the fact that they are all doing their part in addressing climate change. It sets out how countries will provide information about their national action plans, including the reduction of greenhouse gas (GHG) emissions, as well as mitigation and adaptation measures.

An agreement was reached on how to uniformly count GHG emissions and if poorer countries feel they cannot meet the standards set, they can explain why and present a plan to build up their capacity in that regard.

On thorny question of financing from developed countries in support of climate action in developing countries, the document sets a way to decide on new, more ambitious targets from 2025 onwards, from the current commitment to mobilize $100 billion (€88 billion) per year as of 2020.

Another notable achievement of these negotiations is that nations agreed on how to collectively assess the effectiveness of climate action in 2023, and how to monitor and report progress on the development and transfer of technology.

More info is at https://unfccc.int/news/new-era-of-global-climate-action-to-begin-under-paris-climate-change-agreement-0.

GENERAL

ICCT Report on The Real Urban Emissions (TRUE) Initiative in London

On 17 December 2018, the International Council on Clean Transportation (ICCT) published a report on The Real Urban Emissions (TRUE) initiative in London, UK.

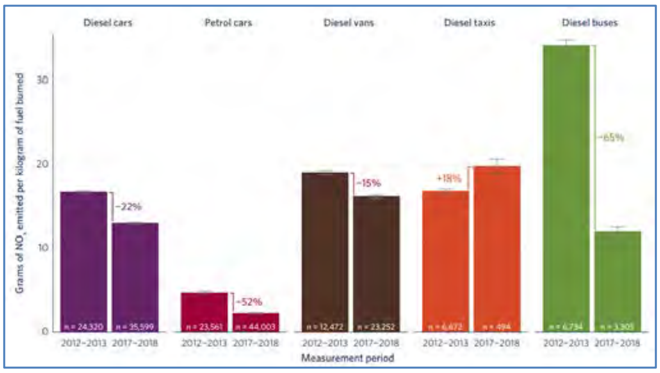
From November 2017 through February 2018, TRUE conducted a project using remote-sensing technology to measure in-use exhaust emissions from vehicles at several sites in Greater London. More than 100 000 samples were collected at nine locations from passenger cars, light commercial vehicles, taxis, buses, trucks, and motorcycles.

Highlights from the data include that NOx emissions from petrol cars have declined, and on average for Euro 5 and Euro 6 vehicles are within 1.35 times the regulatory limits. Average NOx emissions from Euro 5 and 6 diesel cars, however, are approximately 6 times higher than the standards.

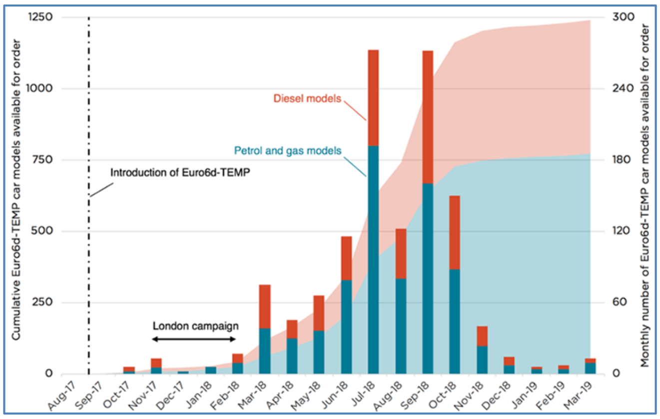
Particulate matter (PM) emissions from passenger cars are low for new diesel and petrol cars. Diesel cars, Euro 5 and newer, come equipped with particulate filters and demonstrate significantly lower PM emissions than older vehicles without filters.

London's famous black taxi diesel models produce, on average, higher NOx emissions than diesel passenger cars covered by the same emissions standard. NOx emissions from Euro 5 taxis are higher than those from taxis certified to previous Euro standards and are approximately 3 times those of other Euro 5 diesel cars.

Average NOx emissions from buses in London have declined significantly over the past 5 years. NOx emissions (grams per kilogram of fuel burned) from buses sampled were 65% lower than those from buses sampled in similar studies conducted in 2012 and 2013. A similar comparison for other vehicle types shows that over the same time period average emissions from the diesel passenger car and light commercial vehicle fleet have decreased by 22% and 15%, respectively, while average NOx emissions from the taxi fleet have not improved.



Overall, the updated ratings do not fundamentally change the conclusions of the first TRUE rating (*see AECC Newsletter of June 2018*). At the time the first TRUE data was collected no RDE-compliant Euro 6d-temp vehicles were on the road. Only few were available in the London data, whose collection was complete in February 2018.



The ICCT report on TRUE in London and fact sheets are at www.theicct.org/publications/true-london-dec2018 and an update briefing is at www.theicct.org/blog/staff/true-rating-update-dec2018.

ITF Policy Brief on How to make Urban Mobility Clean and Green

On 4 December 2018, the International Transport Forum (ITF) at the Organisation for Economic Co-operation and Development (OECD) published a policy brief on "How to make urban mobility clean and green?"

Demand for urban passenger transport could grow 60-70% by 2050. Population growth, economic development and continued urbanisation will lead to strongly increasing demand for urban transport. This growth will more than cancel out any CO_2 emissions reductions made possible by new low- and zero-carbon technologies. Projections see total motorised mobility in cities almost double (+94%) between 2015 and 2050. This growth will cause a 26% increase in CO_2 emissions from urban mobility by 2050.

According to the ITF, the most effective way to decarbonise urban passenger transport comes with shared vehicles, powered by clean electricity, integrated with existing public transport.

Urban car use relies nearly 100% on burning fossil fuels. The electrification of motorised vehicles is a promising option for decarbonising urban mobility. Yet the number of electric cars in cities remains marginal. To have any impact on urban CO_2 emissions in a way that helps to reach mitigation targets, their use must be scaled up very rapidly. Policy makers can accelerate their adoption with a wide range of incentives. However, they must avoid policies that simply displace emissions – electric mobility powered by fossil energy does not help the climate.

Better capacity use is the key to mitigating CO_2 emissions in urban areas. Cars operate 50 minutes per day, with around 1.4 passengers on average. If greater ride-sharing succeeds in doubling car occupancy, today's level of mobility could be provided with less than 10% of the current number of cars. This would cut CO_2 emissions by one third without the need for any new technology.

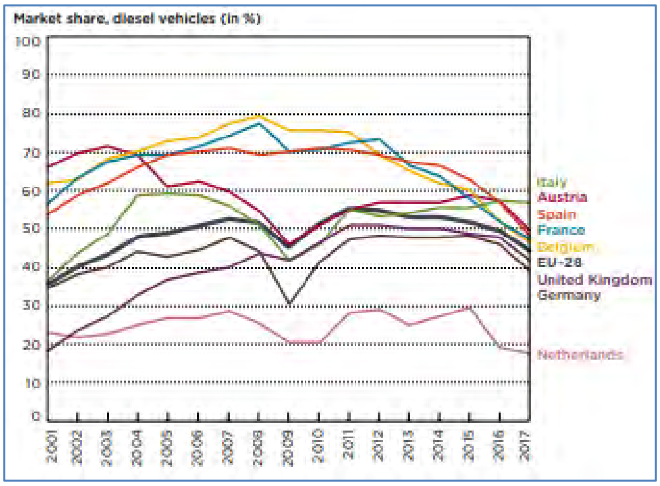
The ITF policy brief is at www.itf-oecd.org/sites/default/files/docs/cop24-urban-mobility.pdf.

ICCT Pocketbook on European Vehicle Market Statistics

On 5 December 2018, the International Council on Clean Transportation (ICCT) released the 2018/2019 update of its European Vehicle Market Statistics Pocketbook covering passenger car and light commercial vehicles in the EU.

Highlights of the pocketbook include that in 2017, new car registrations in the EU increased to 15.2 million, the highest level since 2007. The SUV market segment showed the strongest growth in sales. About 4.3 million new cars in 2017 were SUVs, which is more than 6 times as many as 15 years before. Sales of small diesel, small gasoline, and medium-sized diesel vehicles – all with comparatively low CO_2 emission values – lost more than 9 percentage points from 2015 to 2017.

The vast majority of Europe's new cars remain powered by gasoline or diesel motors. The market share of hybrid-electric vehicles in the EU was 2.7 % of all new car sales in 2017. The share of diesel cars dropped notably in 2017; from 49% in 2016 to 44% in 2017. This is significantly less than in 2011-2012, when 55% of new cars were powered by diesel.



In 2017, plug-in hybrid and battery electric vehicles made up about 1.4% of vehicle registrations in the EU, a slight increase compared to the previous year.

Average CO_2 emissions from new passenger cars, as measured via the type-approval test procedure, increased to 119 g/km in 2017, which is 1 g/km higher than in the previous year. On average, a new car in 2017 emitted about 42% more CO_2 under everyday driving conditions than advertised by vehicle manufacturers, up from a gap of 9% in 2001.

The ICCT pocketbook 2018/2019 is at http://eupocketbook.org.

2021 Forecast of Car Manufacturers' Performance against EU CO_2 Target

On 10 December 2018, innovation and transformation consultancy PA Consulting published its annual forecast of car manufacturers' performance against mandatory EU CO_2 emissions targets.

The targeted average across the whole industry is 95 g/km of CO_2 but the individual requirement varies depending on the weight and size of vehicles built and how many of them the manufacturer sells each year in Europe. The report suggests that eight out of 13 car manufacturers will miss their 2021 targets and face significant fines: Volkswagen, Ford, Fiat, PSA, BMW, Daimler, Mazda and Hyundai-Kia.

VW could be fined up to €1.4 billion. PSA faces the biggest impact from fines based on EBIT (€600 million, representing 20% of its 2017 profit).

Toyota remains the best performing manufacturer in the ranking, Renault-Nissan-Mitsubishi lists second and Volvo third (down from second last year).

Daimler and BMW are making progress towards their targets and Jaguar Land Rover still has the highest CO_2 emissions, but is on track to meet its specific target.

From a regional perspective, Norway still leads the way seeing a significant reduction of CO_2 emissions from cars. All other European countries lag behind, with CO_2 levels staying broadly the same or even increasing since 2015. Germany is one of the worst performing countries, only ahead of Switzerland.

The PA Consulting report is at www2.paconsulting.com/driving-into-a-low-emissions-future.html.

Concawe Report on interpreting Air Pollutant Exposure and Lung Cancer

On 17 December 2018, Concawe published a review of issues affecting the interpretation of the epidemiological literature on air pollution and lung cancer.

The report examines key issues that need to be considered when evaluating the attributes and implications of studies examining the association between ambient air pollution and lung cancer. Following a brief general discussion of the types of epidemiology studies that can be used to investigate the association between an environmental or occupational exposure and a particular health outcome, the report goes on to examine specific topics that need to be considered when evaluating the strength and weakness of any relationships that are purported to exist. Areas of focus include exposure estimation, confounding, quantitative risk assessment, heterogeneity, and plausibility. Each of these topics is explored in detail and information is provided showing how reported relative risk estimates may have been impacted by the failure to fully evaluate or consider specific methodological, procedural, or interpretive characteristics of the study.

As such, the aim of the report is to highlight some generally overlooked areas of inquiry that need to be addressed in order to frame and draw conclusions from the results of a chronic health effects investigation focusing on lung cancer and particulate matter exposures.

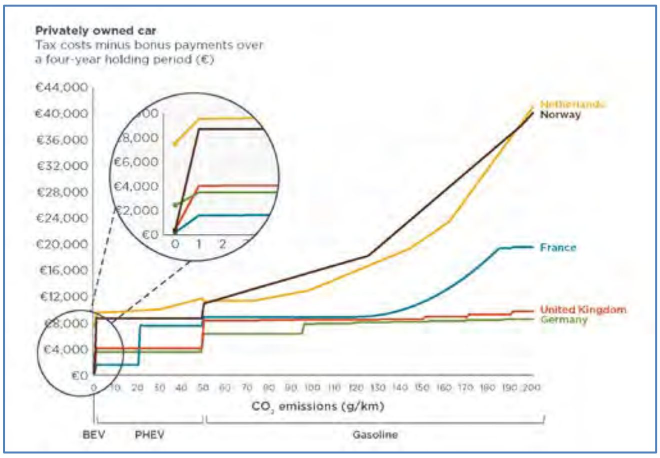
The Concawe report is at www.concawe.eu/wp-content/uploads/Rpt_18-15.pdf.

ICCT Report on Vehicle Taxation as a Driver for Lower CO_2 Emissions

On 16 December 2018, the International Council on Clean Transportation (ICCT) published a report on "Using vehicle taxation policy to lower transport emissions: An overview for passenger cars in Europe".

The report provides an overview of vehicle taxation policy across Europe. The aim is to inform how governments might induce consumers to opt for low-emission vehicles and reduce CO_2 emissions of national vehicle fleets. It starts with a general summary of taxation policy for passenger cars in Europe, followed by a detailed review of five selected European markets including France, Germany, the Netherlands, Norway, and the UK. It assesses the impact of taxation policy in these markets on total consumer vehicle costs for selected models. Based on these findings, the ICCT compares the vehicle taxation policies in these five markets and identifies which policies offer the highest cost-benefit for consumers choosing a low-emission vehicle.

Markets such as Germany and the UK offer consumers comparatively fewer tax benefits for low- compared with high-emission vehicles in the 0-200 g/km of CO_2 emission range assessed for this report. The tax payment curve is relatively balanced in these two markets, with minimal cost increases for owners of cars emitting more than 50 g CO_2/km in the case of the UK or more than 95 g CO_2/km for Germany. The arc of the tax payment curve is more dynamic in France. It starts as a step-wise function, similar to the curves in Germany and the UK but it then exponentially increases if a car emits more than 119 g CO_2/km, with tax payments capped at 191 g CO_2/km. The Netherlands and Norway show the greatest variations in tax-payment curves. In the Netherlands, the four-year tax payment is piecewise linear in the 1-49 g CO_2/km range and also above 50 g CO_2/km. Between 50 g CO_2/km and 78 g CO_2/km, taxes for a gasoline car are lower than for a plug-in hybrid electric vehicle (PHEV) emitting 49 g CO_2/km. In Norway, the tax payment curve also is a step-wise function up to 50 g CO_2/km. Between 70 g CO_2/km and 200 g CO_2/km it is piecewise-linear, with the most significant slope change at 126 g CO_2/km. The four-year tax advantage of a zero-emission vehicle over a car emitting 200 g CO_2/km is the lowest in Germany at about €6000 and the highest in Norway at almost €40 000.

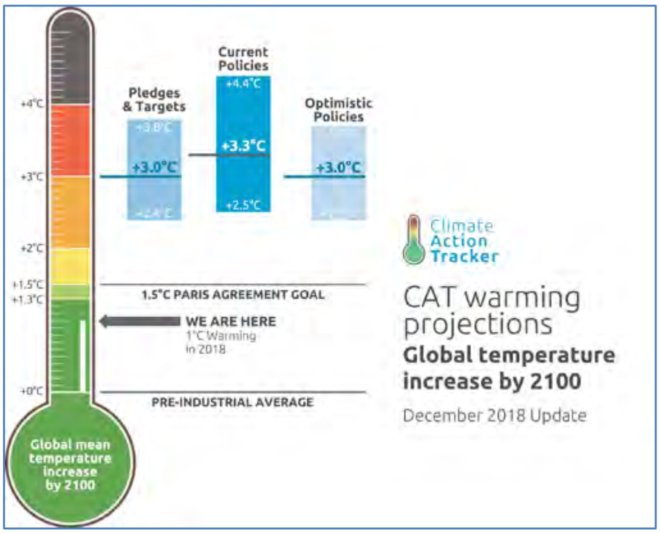


The ICCT then makes the following recommendations on how governments might encourage the purchase of low-emission passenger cars via taxation policy: create significant tax advantages for low-emission vehicles at the point of purchase; ensure continued tax benefits for low-emission vehicles during their use; account for the emissions of a vehicle as part of the company-car tax system; and balance and regularly re-adjust the tax system to be self-sustaining.

The ICCT report is at
www.theicct.org/sites/default/files/publications/EU_vehicle_taxation_Report_20181214_0.pdf.

Climate Action Tracker

On 11 December 2018, the Climate Action Tracker's annual update was released at the COP24 in Katowice, Poland.



The Climate Action Tracker (CAT), a consortium of three research organisations, estimates the total warming of the aggregate effect of Paris Agreement commitments and of real-world policy. It shows that if all governments achieved their Paris Agreement commitments, the world will likely warm by 3.3°C in 2100, twice the 1.5°C limit agreed.

For this year's update, the CAT has examined how emissions projections have shifted since Paris, and has detected real movement on the ground, with Argentina, Canada, Chile, Costa Rica, Ethiopia, the EU, India and Morocco taking significant steps in the right direction, and with other countries also taking action. If extended and scaled, these combined efforts could begin to bend the global emissions curve.

But there are some governments delaying global progress: Australia, Brazil, Indonesia, Russia, the UAE and the US, and many of these countries are beginning to see the reality of climate change impacts.

The Climate Action Tracker's update is at
https://climateactiontracker.org/publications/warming-projections-global-update-dec-2018.

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FORTHCOMING CONFERENCES

RACE 2050: A Vision for the European Automotive Industry

22 January 2019, Brussels, Belgium

www.acea.be/news/article/race-2050-a-vision-for-the-european-automotive-industry

In the new 'Race 2050' report for ACEA, McKinsey & Company set out a future vision for the industry that is built on the 'European way' forward. This involves leveraging Europe's diversity of mobility realities and strengths in innovation, talent and skills to make the region the global gateway to the future of automotive.

Integer Emissions Summit & ARLA 32 Forum Brazil

12-13 February 2019, Sao Paulo, Brazil

www.integer-research.com/conferences/ies-brazil-2019/

10th VERT Forum

14 March 2019, Dübendorf, Switzerland

Info will be at www.vert-dpf.eu/j3/index.php/start-page/events

This 10th Forum is organized again in cooperation with EMPA and the VERT association and will focus on SCRT retrofit solutions for HDV and LDV. Best practices of emission reduction methodology are shared as they are available from VERT member companies.

10th CLEPA Aftermarket Conference

27-28 March 2019, Brussels, Belgium

https://clepa.eu/events/10th-clepa-aftermarket-conference/

The conference will discuss the future challenges in an increasing digitalized automotive aftermarket

Future Diesel Engine Summit China 2019

27-28 March 2019, Shanghai, China

www.fiveoit.com/desc/#/desc/home

SAE World Congress Experience (WCX)

9-11 April 2019, Detroit, USA

www.sae.org/attend/wcx

Integer Emissions Summit & AdBlue® Forum China

7-9 May 2019, Shanghai, China

www.integer-research.com/conferences/ies-china-2019/

International VDI Conference: Electrified Off-Highway Machines

14-15 May 2019, Düsseldorf, Germany

www.vdi-wissensforum.de/en/event/electrified-off-highway-machines/

The conference will focus on developments on electrified powertrains and battery technology specifically used in off-highway machines, and their implications on safety, standardization, maintenance and life cycle cost.

Ultrafine Particles – Air Quality and Climate

15-16 May 2019, Brussels, Belgium

www.ufp.efca.net

International Symposium of the European Federation of Clean Air and Environmental Protection Associations (EFCA).

Deadline for abstract: 14 January 2019

EU Green Week High-Level Summit

15-17 May 2019, Brussels, Belgium

https://ec.europa.eu/info/events/eu-green-week-2019_en

The 2019 EU Green Week will be focusing on the implementation of EU environmental legislation, highlighting the benefit of EU environmental policies and showing their benefits for citizens.

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.

40th International Vienna Motor Symposium

16-17 May 2019, Vienna, Austria

https://wiener-motorensymposium.at

AECC, IPA and IAV will present a joint paper on "Integrated Diesel System Achieving Ultra-Low Urban NOx Emissions on the Road"

International Conference on Calibration Methods and Automotive Data Analytics

21-22 May 2019, Berlin, Germany

www.iav.com/termine/tagungen/international-calibration-conference

10th AVL International Commercial Powertrain Conference

22-23 May 2019, Graz, Austria

www.avl.com/icpc

The conference will tackle the challenges that the commercial vehicle industry is facing globally. How will emission legislation, trend for electrification and digitalization affect the powertrains of the future?

31st International AVL Conference "Engine & Environment"

6-7 June 2019, Graz, Austria

www.avl.com/engine-environment

The conference will on three thematic blocks: production, storage, transport/distribution of energy carriers; energy storage media in the vehicle; and the main focus will be laid on the consequences for the powertrain portfolio.

Integer Emissions Summit & AdBlue® Forum Asia Pacific

5-6 June 2019, Tokyo, Japan

www.integer-research.com/conferences/ies-apac-2019

SIA Paris 2019 Power Train & Electronics

12-13 June 2018, Port-Marly, France

www.sia.fr/evenements/136-sia-power-train-electronics-2019

To support the automotive industry in the transition towards ever more environmentally friendly mobility, a new automotive event in France named SIA power train & Electronics broadens the scope of the Powertrain Conference to include electric traction technologies, along with internal combustion engines (ICE), low carbon fuels, and transmissions.

ETH Conference on Combustion Generated Nanoparticles

18-20 June 2019, Zurich, Switzerland

www.nanoparticles.ch

The conference serves as an interdisciplinary platform for expert discussions on all aspects of nanoparticles, freshly emitted from various sources, aged in ambient air, technical mitigation aspects, impact of particles on health, environment and climate and particle legislation.

Deadline for abstract: April 2019

Integer Emissions Summit & AdBlue® Forum Europe

25-27 June 2019, Munich, Germany

www.integer-research.com/conferences/ies-europe-2019

India & ASEAN Diesel Powertrain Summit

26-27 June 2019, Singapore

www.fiveoit.com/iadp/

India & ASEAN Diesel Powertrain Summit 2019 is dedicated to providing the next 5-10 years of policy direction and supporting technological innovations as well as exploiting the market opportunities in India and ASEAN countries.

SAE Powertrains, Fuels and Lubricants

26-29 August 2019, Kyoto, Japan

www.pfl2019.jp

3rd Annual Real Driving Emissions Forum

24-25 September 2019, Berlin, Germany

www.rde-realdrivingemissions.com

The Forum will showcase the forefront practices and approaches towards RDE and Energy Consumption reduction, compliance with recent update of the legislation on RDE, main automotive technology trends based on cost-and-energy-efficient solutions.

28th Aachen Colloquium Automobile and Engine Technology

7-9 October 2019, Aachen, Germany

www.aachener-kolloquium.de

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

Deadline for abstract: 15 February 2019

European Transport Conference

9-11 October 2019, Dublin, Ireland

www.aetransport.org

The conference attracts transport practitioners and researchers from all over Europe where they can find in-depth presentations on policy issues, best practice and research findings across the broad spectrum of transport.

13th Conference on Gaseous Fuel Powered Vehicles

22-23 October 2019, Stuttgart, Germany

https://fkfs-veranstaltungen.de/3/conference-on-gaseous-fuel-powered-vehicles

EU Clean Air Forum

28-29 November 2019, Bratislava, Slovakia

https://ec.europa.eu/info/events/eu-clean-air-forum-2019-nov-28_en

The European Commission is organizing the 2nd Clean Air Forum in close collaboration with the Ministry of Environment of the Slovak Republic. It will focus on three themes: air quality and energy; air quality and agriculture; and clean air funding mechanisms.

SAE World Congress Experience (WCX)

21-23 April 2020, Detroit, USA

Info will be at www.sae.org/attend/wcx